



th
8 AFENET
Scientific Conference

BOOK OF ABSTRACTS

“Strengthening Public Health Systems in Africa Towards Enhanced Global Health Security.
The Role of Field Epidemiology and Laboratory Training Programs.”



TABLE OF CONTENTS

| ITEM | PAGE NUMBER |
|--|-------------|
| ACRONYMS | 3 |
| AGENDA AT A GLANCE | 4 |
| CONFERENCE OVER VIEW | 5 |
| PRE CONFERENCE WORKSHOPS | 7 |
| DETAILED CONFERENCE PROGRAM | 8 - 52 |
| KEYNOTE SPEAKERS | 53 - 82 |
| ABSTRACTS ORAL PRESENTATIONS | 83 - 202 |
| ABSTRACTS POSTER PRESENTATIONS | 203 - 390 |
| LIST OF REVIEWERS FOR THE 8TH AFENET SCIENTIFIC CONFERENCE | 391 - 392 |
| LIST OF 8TH AFENET SCIENTIFIC CONFERENCE PLANNING COMMITTEES | 393 - 396 |
| MEMBER STATES | 397 |
| SPONSORS LOGOS | 398 |



ACRONYMS

| | |
|-------------------|---|
| ACoDD | AFENET Corps of Disease Detectives |
| AFENET | African Field Epidemiology Network |
| AFRICA-CDC | Africa Centers for Disease Control and Prevention |
| CDC | U.S. Centers for Disease Control and Prevention |
| FELTP | Field Epidemiology and Laboratory Training Program |
| FETP | Field Epidemiology Training Program |
| GOARN | Global Outbreak Alert and Response Network |
| INS | Instituto Nacional de Saúde (National Institute of Health) |
| HHS | Department of Health and Human Services |
| MPH | Master of Public Health |
| NIH | National Institutes of Health |
| NSTOP | National Stop Transmission of Polio |
| PAMJ | Pan African Medical Journal |
| TEPHINET | Training Programs in Epidemiology and Public Health Interventions |
| USAID | United States Agency for International Development |
| WHO | World Health Organization |

| | | |
|-----------------|-----------------------------------|---------------|
| Sunday | Pre-conference Workshops | 9:00 - 17:00 |
| | Registrations | 12:00 - 18:00 |
| MONDAY | Opening Ceremony | 08:00 - 10:00 |
| | Plenary Session 1 | 10:30 - 11:40 |
| | Concurrent Oral Session 1 | 11:45 - 13:00 |
| | Concurrent Poster Session 1 | 14:00 - 15:30 |
| | Concurrent Oral Session 2 | 15:35 - 17:15 |
| TUESDAY | Concurrent Oral Session 3 | 08:00 - 09:10 |
| | Concurrent Poster Session 2 | 09:15 - 10:00 |
| | Plenary Session 2 | 10:30 - 12:00 |
| | Concurrent Oral Session 4 | 12:05 - 13:00 |
| | Plenary Session 3 | 14:00 - 15:00 |
| | Concurrent Oral Session 5 | 15:15 - 17:00 |
| | Cultural Night | 19:00 - 23:00 |
| WED | Concurrent Oral Session 6 | 08:00 - 09:15 |
| | Concurrent Poster Session 3 | 09:20 - 10:45 |
| | Plenary Session 4 | 11:15 - 12:40 |
| | Educational Tours | 12:40 - 17:00 |
| THURSDAY | Concurrent Poster Session 4 | 08:00 - 09:00 |
| | Concurrent Oral Session 7 | 09:05 - 10:10 |
| | Plenary Session 5 | 10:40 - 13:00 |
| | Concurrent Poster Session 5 | 15:10 - 16:40 |
| | Concurrent Poster Session 6 | 16:50 - 18:20 |
| FRIDAY | International Night | 19:00 - 22:00 |
| | Concurrent Poster Session 7 | 08:00 - 09:00 |
| | Plenary Session 7 | 09:00 - 10:00 |
| | Plenary Session 8 | 10.30 - 12:10 |

8th AFENET Scientific Conference 5 - 10, November 2023

| Day | Time | Topic /Activity |
|------------------------------------|--------------------------------------|---|
| Sun. 5th Nov. 2023 | 9:00 - 17:00 | Pre-conference Workshops |
| | 12:00 - 18:00 | Registrations continuing on day one of conference |
| Monday 6th November 2023 | 08:00 - 10:00 | Opening Ceremony |
| | 10:30 - 11:40 | Plenary Session 1: Public Health System Strengthening Initiative |
| | 10:30 - 10:55 | Building a Fit-for-Purpose Public Health Workforce to Counter the Next Public Health Threat by Dr Raji Tajudeen |
| | 10:55 - 11:20 | The New Global Field Epidemiology Partnership and Its Strategy by Dr Carl Reddy |
| | 11:20 - 11:40 | Sustaining the gains of Field Epidemiology for Enhanced Global Health Security by Dr Kip Baggett |
| | 11:45 - 13:00 | Concurrent Oral Session 1 |
| | 14:00 - 15:30 | Concurrent Poster Session 1 |
| | 15:35 - 17:15 | Concurrent Oral Session 2 |
| Tuesday 7th November 2023 | 08:00 - 09:10 | Concurrent Oral Session 3 |
| | 09:15 - 10:00 | Concurrent Poster Session 2 |
| | 10:30 - 12:00 | Plenary Session 2: Public Health Emergency Preparedness, Surveillance Outbreak Investigation and Response |
| | 10:30 - 10:55 | Modernizing Global Health Security to Prevent, Detect, and Respond to PHE by Prof Scott JN McNabb |
| | 10:55 - 11:20 | WHO-Preparedness and Resilience for Emerging Threat initiative (PRET) by Dr Gina Samaan |
| | 11:20 - 11:40 | Reflecting on surveillance frameworks and tools to address future epidemics by Dr Peter Nsubuga |
| | 11:40 - 12:00 | Accelerating progress to meet the 7-1-7 target for outbreak detection and control in Africa by Tyler Porth |
| | 12:05 - 13:00 | Concurrent Oral Session 4 |
| | 14:00 - 15:00 | Plenary Session 3: Vector Borne and Neglected Tropical Disease |
| | 14:00 - 14:20 | Dealing with Malaria Challenges in Africa: Prospects for Elimination by Prof Fred Newton Binka |
| | 14:20 - 14:40 | Overview of Research Studies Conducted on Mpox in Democratic Republic of Congo by Prof. Placide Mbala |
| | 14:40 - 15:00 | Emerging Infectious Diseases in East and Southern Africa by Prof M. Kariuki Njenga |
| | 15:15 - 17:00 | Concurrent Oral Session 5 |
| | 19:00 - 23:00 | Cultural Night |
| | Wednesday 8th November 2023 | 08:00 - 09:15 |
| 09:20 - 10:45 | | Concurrent Poster Session 3 |
| 11:15 - 12:40 | | Plenary 4: Global Health Security |
| 11:15 - 11:35 | | Strengthening IPC in African Health Systems towards Global Health Security by Prof Adebola Olayinka |
| 11:35 - 11:55 | | Global Health Security Agenda in the Post-Covid-19 Era by Dr Kerton R. Victory |
| 11:55 - 12:15 | | Global Health Security Agenda, Kenya Perspective by Dr Penina Munyua |
| 12:40 - 17:00 | | Educational Tours and Field Site Visits |

8th AFENET Scientific Conference 5 - 10, November 2023

| Day | Time | Topic /Activity |
|----------------------------|---------------|--|
| Thursday 9th November 2023 | 08:00 - 09:00 | Concurrent Poster Session 4 |
| | 09:05 - 10:10 | Concurrent Oral Session 7 |
| | 10:40 - 13:00 | Plenary Session 5: Global Health Security, Non Communicable Diseases, Injuries and Mental Health by Dr Benjamin Park |
| | 10:40 - 11:05 | Mobilizing monetary and nonmonetary resources to strengthen health systems in Africa within the challenges of health security by Dr Ebere Okereke |
| | 11:05 - 11:30 | Attaining the Triple Billion-The Role of Healthcare Financing towards Universal Health Coverage by Mr Raphael Sekpeb |
| | 11:30 - 11:50 | Universal Healthcare Coverage Programme in Kenya by Dr Bernard Langat |
| | 11:50 - 12:10 | ACDC Strategy for tackling Mental Health Challenges in Africa by Dr Abdulaziz Mohammed |
| | 12:10 -13:00 | Panel Discussion: Contribution of Women to Public Health in Africa by Dr Ebere Okereke, Dr Gladys Kalema-Zikusoka, Dr Rebecca Kinde, Dr Endie Waziri, Dr Cynthia B. Sema, Dr Sheba Gitta, Tsitsi P. Juru |
| | 14:00 - 15:00 | Plenary 6: One Health and Laboratory Strengthening Initiatives |
| | 14:00 - 14:20 | Building a One-Health Workforce for Enhanced Global Health Security by Prof William Bazeyo |
| | 14:20 - 14:40 | Linking Field Epidemiology to Laboratory Biosafety and Biosecurity-Going Beyond the Cause of Outbreaks to the Intention by Prof Elizeus Rutebemberwa |
| | 14:40 - 15:00 | Global Fund Pandemic Preparedness Initiatives by Dr David Lowrance |
| | 15:10 - 16:40 | Concurrent Poster Session 5 |
| | 16:50 - 18:20 | Concurrent Poster Session 6 |
| | 19:00 - 22:00 | International Night |
| Friday 10th November 2023 | 08:00 - 09:00 | Concurrent Poster Session 7 |
| | 09:00 - 10:00 | Plenary Session 7: Communicable Disease Epidemiology and Antimicrobial Resistance |
| | 9:00 - 9:20 | Antimicrobial Resistance Surveillance in Africa by Prof Revathi Gunturu |
| | 9:20 - 9:40 | Confronting the HIV/AIDS Pandemic: Progress and Prospects by Prof Nicholas Meda |
| | 9:40 - 10:00 | Global Health Emergency Corps by Valerie Nkamgang Bemo |
| | 10.30 - 12:10 | Plenary Session 8: Strengthening Public Health Initiatives in Africa |
| | 10:30 - 10:50 | Vaccine and Diagnostics Manufacturing in Africa: Progress, Opportunities, Challenges and Way Forward by Ms Akhona Tshangela |
| | 10:50 - 11:10 | Digitalization in Healthcare Service by Mr Steven Wanyee Macharia |
| | 11:10 - 12:10 | Late Breakers |
| | 14:00 - 15:30 | JIEPH 5th Annivesary, Presentation of Awards and Closing Ceremony |



Pre Conference Workshops

| Day | Time | Pre Conference Workshop Topic | Hotel / Room | Lead Facilitator | AFENET Contact Person (Technical) |
|--------------------------|---------------|---|-------------------------|-----------------------------|---------------------------------------|
| Sunday 5th November 2023 | 9:00 - 17:00 | Mortality Surveillance | Pridelnn / Shimba | Emily Barigye Atuheire: | Dr Yaya Balayira |
| | 9:00 - 14:00 | GPS Sample: a new rapid offline Android sampling tool | Pridelnn / Madunguni | Joel Oluwasegun | Dr John Kamulegaya |
| | 9:00 - 17:00 | Tephinet Accreditation/Quality Improvement, REDPET, AFENET star rating system | Pridelnn / Press Room 2 | Lorie Burnet | Dr Harbert Kazoora |
| | 9:00 - 17:00 | Disaster Epidemiology and Toxic outbreaks investigation | Flamingo / TBD | Tesfaye Bayleyegn | Dr Godfrey Kayita/ Dr Tatek Bogale |
| | 9:00 - 17:00 | The Art and Science of Peer Review: Capacity Building for Peer Reviewers by JIEPH | Pridelnn / Rastenawi | Dr Sheba Gitta | Allan Mwesiga |
| | 9:00 - 14:00 | Advanced FETP Case Study: An Epidemiological Study to Examine Stroke Hospitalizations During the COVID-19 Pandemic – Planning and Conducting Analysis. Part A- Study Design | Pridelnn / Kaya | Ellen Yard / Tolcha Kebebew | Kennedy Matovu |
| | 9:00 - 17:00 | Enhancing one health approach in EPR through EOCs | Pridelnn / Mwangea | Kaitilin Sandhaus | Robinson Amanyiraho |
| | 9:00 - 14:00 | Early Action Reviews: Planning and Implementation of the 7-1-7 Target for Timely Detection, Notification and Response to Outbreaks | Pridelnn / Boni | Tyler A. Porth | Dr Ben Masiira |
| | 9:00 - 17:00 | Strengthening the One Health Approach in Field Epidemiology Training Programmes | Pridelnn / Dodori | Stacie Dunkle | Maurice Owiny Omondi |
| | 13:00 - 17:00 | West Africa Health Organization Consultative Workshop on Drafting of the Regional Field Epidemiology Workforce Development Strategic Plan | Pridelnn / Press Room 1 | Marianne Laurant Comlan | Donne Ameme |



8th **AFENET**
Scientific Conference

Moderator and Evaluator Schedule

| | Time | Session | Room | Moderator | Evaluators | IT POC | Room Manager |
|--------------------------|---------------|----------------------------------|-----------------|--|-----------------------------------|----------------|------------------------|
| Monday 6th November 2023 | 8:00 - 10:00 | Opening Ceremony | Main Auditorium | Dr Josephine Githaiga | | Emmanuel Omus | Dr Ditu Kazambu |
| | 10:30 - 11:40 | Plenary Session I | Main Auditorium | Dr Suzanne Kiwanuka | | Emmanuel Omus | Dr Patrick Nguku |
| | 11:45 - 13:00 | Concurrent Oral Session I | Room 1 | Dr Julie Haris | Gildo Okure / Joseph Frimpong | Fridah Kathuku | Dr Godfrey Kayita |
| | | | Room 2 | Dr Alex Ario Riolexus | Alain Magazani / Joseph Babalola | Munir Makumbi | Dr Notion Gombe |
| | | | Room 3 | Dr Gina Samaan | Doreen Gonahasa / Joseph Otshudi | Godwin Akpan | Dr Gebru Negash |
| | | | Room 4 | Dr Samuel Assegid | Karimou Sani / Dr Shakir Balogun | James Orevba | Dr Tatek Bogale |
| | 1400 - 15:30 | Concurrent Oral Poster Session I | Room 1 | Prof Mamadou Sawadogo / Dr Joyce Wamicwe | Yaya Balayira / Ndeta Caren | Fridah Kathuku | Dr Donne Ameme |
| | | | Room 2 | Prof Nicholas Meda | Celestine Ameh / Davis Ashaba | Munir Makumbi | Dr Benon Kwesiga |
| | | | Room 3 | Dr Raphael Mbailao | Tsitsi Juru / Dr Ben Masiira | Godwin Akpan | Dr Nicholas Ayebazibwe |
| | | | Room 4 | Dr Amadou Jallow | Hanine Keita / Gerald Shambira | James Orevba | Dr Vincent Mutabazi |
| | 15:35 - 17:15 | Concurrent Oral Session 2 | Room 1 | Prof. Fodé Amara Traoré | Rebecca Kinde / Dr Gebru Negash | Fridah Kathuku | Dr Endie Waziri |
| | | | Room 2 | Dr Ralph Jetoh | Mbouna Ndiaye / Karimou Sani | Munir Makumbi | Dr Seogo Hamadou |
| | | | Room 3 | Emmy Ndevaetela | Patrick Mavungu / Pierre Wilnique | Godwin Akpan | Dr Aishat Usman |
| | | | Room 4 | Dr Houssein Youssouf Darar | Djibo Issifou / John Kaulegeya | James Orevba | Jolie Kayembe |
| Tuesday 7th Nov. 2023 | 8:00 - 9:10 | Concurrent Oral Session 3 | Room 1 | Dr Matthew Kagoli | Irene Kyamwine / Pierre Wilnique | Fridah Kathuku | Dr Alain Magazani |
| | | | Room 2 | Dr John Rumunu | Doreen Gonahasa / Joseph Otshudi | Munir Makumbi | Dr Notion Gombe |
| | | | Room 3 | Raphael Mbailao | Tatek Bogale / Gerald Shambira | Godwin Akpan | Eunice Omondi |
| | | | Room 4 | Mr Samuel Kolane | Gildo Okure / Joseph Frimpong | James Orevba | Ken Kayembe |

Moderator and Evaluator Schedule

| | Time | Session | Room | Moderator | Evaluators | IT POC | Room Manager |
|---------------------------|--------------------|----------------------------------|-----------------|----------------------------|---------------------------------------|--|---------------------|
| Tuesday 7th November 2023 | 9:15 - 10:00 | Concurrent Oral Poster Session 2 | Room 1 | Dr Husien Abukari Muhiadin | Hetani Mdose / Gerald Shambira | Fridah Kathuku | Bouyagui Traore |
| | | | Room 2 | Issaka Tiembre | Uzoma Ogbonna / Hanine Keita | Munir Makumbi | Dr Donne Ameme |
| | | | Room 3 | Ellen Yard | Celestine Ameh / Ernest Konadu Asiedu | Godwin Akpan | Gildo Okure |
| | | | Room 4 | Dr Yacouba Sangare | Irene Kyamwine / Ben Masiira | James Orevba | Dr Vincent Mutabazi |
| | 10:30 - 12:00 | Plenary Session 2 | Main Auditorium | Dr Jean Medard Kankou | | Michael Nkanika | Dr Donne Amene |
| | 12:05 - 13:00 | Concurrent Oral Session 4 | Room 1 | Dr. Mohammed A. Vandii | Dr John Kamulegaya / Godfrey Kayita | Fridah Kathuku | Dr Sheba Gitta |
| | | | Room 2 | Emily Barigye Atuheire | Nestor Noudeke / Amir Juya | Munir Makumbi | Dr Patrick Nguku |
| | | | Room 3 | Marianne Laurant Comlan | Gildo Okure / Joseph Frimpong | Godwin Akpan | Dr Abade Ahmed |
| | | | Room 4 | Prof. Francis Antoh | Hanine Keita / George Akowuah | James Orevba | Dr Patrick Dely |
| | 14:00 - 15:00 | Plenary Session 3 | Main Auditorium | Dr Kerton R. Victory | | Michael Nkanika | Dr Donne Amene |
| | 15:15 - 17:00 | Concurrent Oral Session 5 | Room 1 | Emmy Ndevaetela | Dr Gebru Negash / George Akowuah | Fridah Kathuku | Dr Shakir Balogun |
| | | | Room 2 | Dr Cecilia Mbae | Ernest Konadu Asiedu / Nestor Ndakala | Munir Makumbi | Jolie Kayembe |
| | Wed. 8th Nov. 2023 | | | Room 3 | Dr Chima Ohuabunwo | Banda Jezreel Dabwitso / Peter Adewuyi | Godwin Akpan |
| | | | Room 4 | Dr Virgil Kuassi Lokossou | Dr Seogo Hamadou / Hetani Mdose | James Orevba | Munekayi Pandingani |
| 8:00 - 9:15 | | Concurrent Oral Session 6 | Room 1 | Dr Alain Magazani | Magdalene Odikro / Joseph Babalola | Fridah Kathuku | Dr Salomon Corvil |
| | | | Room 2 | Gerald Shambira | Tsitsi Juru / Ally Husseni | Munir Makumbi | Gildo Okure |
| | | | Room 3 | Dr Husien Abukari Muhiadin | Daniel Kadobera / Lydia Nakiire | Godwin Akpan | Misombo Kalabela |

Moderator and Evaluator Schedule

| | Time | Session | Room | Moderator | Evaluators | IT POC | Room Manager |
|----------------------------|----------------------------------|----------------------------------|------------------|---|---|-----------------|---------------------|
| Wednesday 8th Nov. 2023 | | | Room 4 | Dr Blaise Guezo- mevo | Fred Odhiambo / Dr Abade Ahmed | James Orevba | Dr Seogo Hamadou |
| | 9:20 - 10:45 | Concurrent Oral Poster Session 3 | Room 1 | Dr Barnabe Gningue | Davis Ashaba / Joseph Magoola | Fridah Kathuku | Dr Shakir Balogun |
| | | | Room 2 | Issaka Tiembre | Mamadou Sarifou Ba / Pierre Wilnique | Munir Makumbi | Dr Notion Gombe |
| | | | Room 3 | Mr Samuel Assegid | Maria Nunga / Banda Jezreel Dabwitso | Godwin Akpan | Dr Ken Kayembe |
| | | | Room 4 | Dr Hamet Ba | Dr Peter Adewuyi / Khuliso Ravhuhali Goodman | James Orevba | Dr Tatek Bogale |
| | | Plenary Session 4: | Main Auditorium | Dr Carl Reddy | | Michael Nkanika | Dr Abade Ahmed |
| Thursday 9th November 2023 | 8:00 - 9:00 | Concurrent Oral Poster Session 4 | Room 1 | Dr Alex Ario Riolexus | Moreen Kamateeka / Celestine Ameh | Fridah Kathuku | Christine Kihembo |
| | | | Room 2 | Dr Jean Medard Kankou | Ernest Kateule / Mamadou Sarifou Ba | Munir Makumbi | Dr Herbert Kazoora |
| | | | Room 3 | Dr Hanitriniala Sahondranirina Pâquerette | Cephas Sialubanje / Ndetta Caren | Godwin Akpan | Dr Peter Adewuyi |
| | | | Room 4 | Dr Cynthia Baltazaar | Khuliso Ravhuhali Goodman / Tsitsi Juru | James Orevba | Chukwuma Umeokonkwo |
| | 9:05 - 10:10 | Concurrent Oral Session 7 | Room 1 | Dr John Rumunu | Banda Jezreel Dabwitso / Ernest Konadu Asiedu | Fridah Kathuku | Dieudonne Mwamba |
| | | | Room 2 | Dr Cecilia Mbae | James Zulu / Magdalene Odikro | Munir Makumbi | Dr Godfrey Kayita |
| | | | Room 3 | Dr Raphael Mbailao | Dr Sherry Johnson / Dr Dora Dadzie | Godwin Akpan | Dr Gebru Negash |
| | | | Room 4 | Dr Olivia Namusisi | Doreen Gonahasa / Mbouna Ndiaye | James Orevba | Dr Joseph Otshudi |
| | 10:40 - 13:00 | Plenary Session 5 | Main Auditorium | Dr Kip Baggett | | Emmanuel Omus | Dr Alain Magazani |
| | 14:00 - 15:00 | Plenary Session 6 | Main Auditorium | Dr Cynthia Baltazaar | | | Dr Herbert Kazoora |
| 15:10 - 16:40 | Concurrent Oral Poster Session 5 | Room 1 | Dr Seogo Hamadou | Irene Kyamwine / Ben Masira | Fridah Kathuku | Dr Abade Ahmed | |

Moderator and Evaluator Schedule

| | Time | Session | Room | Moderator | Evaluators | IT POC | Room Manager |
|----------------------------|---------------|--|-----------------|---|--|-----------------|------------------------|
| Thursday 9th November 2023 | | | Room 2 | Dr. Mohammed A. Vandi | Adama Ndir / Patrick Mavungu | Munir Makumbi | Dr Olivia Namusisi |
| | | | Room 3 | Ellen Yard | Erika Rossetto / Patrick Dely | Godwin Akpan | Dr Nicholas Ayebazibwe |
| | | | Room 4 | Dr Amadou Jallow | Uzoma Ogbonna / Dr Vincent Mutabazi | James Orevba | Dr Ken Kayembe |
| | 15:45 - 17:15 | Concurrent Oral Poster Session 6 | Room 1 | Prof. Patrick Kere Maelo | Nestor Noudeke / Ally Husseni | Fridah Kathuku | Dr Kevin Mugenyi |
| | | | Room 2 | Dr Nyambe Sinyange | Khuliso Ravhuhali Goodman / Dr Peter Adewuyi | Munir Makumbi | Dr Alain Magazani |
| | | | Room 3 | Dr Suzanne Kiwanuka | Hetani Mdose / Joseph Magoola | Godwin Akpan | Gauthier Mubenga |
| | | | Room 4 | Dr Sheba Gitta | Ernest Kateule / Rebeca Kinde | James Orevba | Dr Tatek Bogale |
| Friday 10th November 2023 | 8:00 - 9:00 | Concurrent Oral Poster Session 7 | Room 1 | Dr Donne Ameme | Daniel Kadobera / Lydia Nakiire | Fridah Kathuku | Dr Endie Waziri |
| | | | Room 2 | Dr Tatek Bogale | Maria Nunga / Mamadou Sarifou Ba | Munir Makumbi | Jolie Kayembe |
| | | | Room 3 | Julie Haris | Dr Moreen Kamateeka / Dr Donne Ameme | Godwin Akpan | Dr Abade Ahmed |
| | | | Room 4 | Dr Notion Gombe | Khuliso Ravhuhali Goodman / Dr Gebru Negash | James Orevba | Dr Godfrey Kayita |
| | 9:00 - 10:00 | Plenary Session 7 | Main Auditorium | Dr Lazarus Kuonza | | Michael Nkanika | Dr Tatek Bogale |
| | 10:30 - 12:00 | Plenary Session 8 | Main Auditorium | Dr Dieudonné Mwamba Kazadi | | Michael Nkanika | Dr Seogo Hamadou |
| | 12:10 - 13:10 | Late Breaker Presentations | Main Auditorium | Dr Nyambe Sinyange | | Michael Nkanika | Dr Herbert Kazoorra |
| | 14:00 - 15:30 | JIEPH 5th Anniversary, Award Presentation & Closing Ceremony | Main Auditorium | Dr Ditu Kazambu / Dr Fredrick Odhiambo / Dr Sheba Gitta | | Michael Nkanika | Dr Patrick Nguku |

8th AFENET Scientific Conference, Mombasa, Kenya 5th - 10th November 2023

Detailed Program

| Day | Time | Topic /Activity | Presenter | |
|--|---------------|---|----------------------|--|
| 5th | 9:00 - 17:00 | Pre-Conference Workshops | | |
| Monday 6th November 2023 | 8:30 - 10:00 | Opening Ceremony | | |
| | 10:00 - 10:30 | Tea Break | | |
| | 10:30 - 11:40 | Plenary Session I: Public Health Strengthening Initiatives | | |
| | | Moderator: Dr Suzanne Kiwanuka | | |
| | | Venue: Main Auditorium | | |
| | 10:30 - 10:55 | Building a Fit-for-Purpose Public Health Workforce to Counter the Next Public Health Threat | Dr Raji Tajudeen | |
| | 10:55 - 11:20 | The New Global Field Epidemiology Partnership and Its Strategy | Dr Carl Reddy | |
| | 11:20 - 11:40 | Sustaining the gains of Field Epidemiology for Enhanced Global Health Security | Dr Kip Baggett | |
| | 11:40 - 11:45 | Switch period | | |
| | 11:45 - 13:00 | Concurrent Oral Session I : Room I | | |
| Sub-theme: Public Health Emergency Preparedness, Surveillance Outbreak Investigations and Response | | | | |
| Moderator: Dr Julie Haris | | Evaluators: Gildo Okure / Joseph Frimpong | | |
| | Time | Topic | Presenter | |
| Monday 6th November 2023 | 11:45 - 11:55 | OP412: Cholera Outbreak following a Wedding Party in Kiambu, Central Kenya | Sarafina Sikwata | |
| | 11:55 - 12:05 | OP468: Cholera Outbreak in Special Institutions Machakos County, Kenya,2022 | Serah Nchoko | |
| | 12:05 - 12:15 | OP659: Outbreak of Foodborne Illness associated with Pentobarbital contaminated Horse Meat- Havana Informal Settlement, Windhoek, Namibia, April 2020 | Monika Amunyela | |
| | 12:15 - 12:25 | OP696: Prevalence and trends of Typhoid fever in East Mamprusi District, 2022 | Adam Anas | |
| | 12:25 - 12:35 | OP557: A prolonged outbreak of enteric fever associated with illegal miners in the City of Matlosana, South Africa, November 2020 – September 2022 | Phuti Given Sekwadi | |
| | 12:35 - 12:45 | OP230: Epidemiological investigation of food poisoning outbreak, Kenema District, Sierra Leone, 2022 | Alhaji Mamoud Conteh | |
| | 12:45 - 13:00 | Questions and Answers | All | |
| | 11:45 - 13:00 | Concurrent Oral Session I : Room 2 | | |
| Sub-theme: Public Health Emergency Preparedness, Surveillance Outbreak Investigations and Response | | | | |
| Moderator: Dr Alex Ario Riolexus | | Evaluators: Alain Magazani / Joseph Babalola | | |

8th AFENET Scientific Conference, Mombasa, Kenya 5th - 10th November 2023

| Day | Time | Topic /Activity | Presenter |
|---|---------------|---|--|
| Monday 6th November 2023 | 11:45 - 11:55 | OP162: Ebola Virus Disease Spread by Super-spreaders in Uganda, 2022 | Allan Komakech |
| | 11:55 - 12:05 | OP303: Rift Valley Fever outbreak in Sembabule District, December 2021 | Freda Loy Aceng |
| | 12:05 - 12:15 | OP391: Épidémie de fièvre de Lassa importée à la clinique privée de Gbessia dans la région de Conakry, août 2022 | Lamah Vokpo |
| | 12:15 - 12:25 | OP469: Investigation approfondie autour d'un cas confirmé de Fièvre Jaune dans le District Sanitaire de Gazaoua, région de Maradi, Niger, 2023 | Issiakou Aboubakar Gandou |
| | 12:25 - 12:35 | OP5: Investigation d'une fièvre hémorragique de Crimée Congo chez les animaux dans la région de Saint-Louis, Sénégal, en 2022. | Evariste Jean-Christophe Togut Bassene |
| | 12:35 - 12:45 | OP813: Investigation des cas de dengue dans le district de Dikhil, Djibouti, Novembre 2021 | Abdallah Houssein Ismael |
| | 12:45 - 13:00 | Questions and Answers | All |
| | 11:45 - 13:00 | Concurrent Oral Session I : Room 3 | |
| Sub-theme: Public Health Emergency Preparedness, Surveillance Outbreak Investigations and Response | | | |
| Moderator: Dr. Julio Leite | | Evaluators: Doreen Gonahasa / Joseph Otshudi | |
| | Time | Topic | Presenter |
| Monday 6th November 2023 | 11:45 - 11:55 | OP524: Measles case investigation in Lumezi district in Eastern Zambia, January 2023 | Daliso Ngulube |
| | 11:55 - 12:05 | OP674: Descriptive epidemiology and response to diphtheria outbreak in Nigeria, 2022 – 2023 | Bola Biliaminu Lawal |
| | 12:05 - 12:15 | OP578: Investigation d'une épidémie de rougeole dans la région de Tillabéri, Niger du 30 janvier au 12 mai 2022 | Abdoulaye Goubakoye |
| | 12:15 - 12:25 | OP398: Profil épidémiologique de la rougeole dans le département de la Donga, Bénin, 2017 à 2021 | Sanni Salifou-Issaka |
| | 12:25 - 12:35 | OP358: Investigation des Cas de Rougeole à l'Hôpital Balbala Cheiko, Djibouti, Juin 2022 | Ahmed Rouffa Aballah |
| | 12:35 - 12:45 | OP353: Measles Outbreak Investigation among Anti-Vaccination Religious Communities in Sinazongwe and Pemba Districts, Southern Province- Zambia, 2022 | Tebello Kolobe |
| | 12:45 - 13:00 | Questions and Answers | All |
| | 11:45 - 13:00 | Concurrent Oral Session I : Room 4 | |
| Sub-theme: Public Health Emergency Preparedness, Surveillance Outbreak Investigations and Response | | | |
| Moderator: Mr Samuel Assegid | | Evaluators: Karimou Sani / Dr Shakir Balogun | |

8th AFENET Scientific Conference, Mombasa, Kenya 5th - 10th November 2023

| Day | Time | Topic /Activity | Presenter |
|--------------------------|---------------|---|--------------------------------|
| Monday 6th November 2023 | 11:45 - 11:55 | OP361: Les prédicteurs de décès lié à la covid-19, à 30 jours d'hospitalisation dans la ville de Goma entre Mars 2020 – Septembre 2021 | Cosma Kajabika Luberamihero |
| | 11:55 - 12:05 | OP377: Predictors of Severe Covid-19 among Hospitalized Patients in Zambia, 2020-2021 | Oliver Mweso |
| | 12:05 - 12:15 | OP415: Characteristics and outcomes of COVID-19 patients hospitalized at a central hospital in Harare, 2020-2022 | Linda Nyasha Kanzara |
| | 12:15 - 12:25 | OP738: SARS-CoV-2 post-mortem testing of out-of-hospital natural deaths - Mangaung metropolitan area, Free State Province, South Africa - August 2020 to August 2022 | Brian Brummer |
| | 12:25 - 12:35 | OP843: Factors associated with Mortality among Patients with Severe Covid-19 in Nairobi Metropolis, Kenya | Charles Mulwa Muendo |
| | 12:35 - 12:45 | OP852: Evaluation du système de surveillance de la maladie à Corona virus (Covid-19) dans la région de N'zérékoré, République de Guinée, novembre 2021 | Sira Helene Guilavogui |
| | 12:45 - 13:00 | Questions and Answers | All |
| | 13:00 - 14:00 | Lunch Break | |
| | 14:00 - 15:30 | Concurrent Poster Session I : Room I Sub-theme: Public Health Emergency Preparedness, Surveillance Outbreak Investigations and Response Moderator: Prof Mamadou SAWADOGO / Dr Joyce Wamicwe | |
| Monday 6th November 2023 | Time | Topic | Presenter |
| | 14:00 - 14:05 | PP64: Risk factors of mortality due to Covid -19 in the Tigray region of Ethiopia: A cross-sectional study | Kissanet Tesfay Weldearegay |
| | 14:05 - 14:10 | PPI43: Prevalence and predictors of self-medication for COVID-19 among slum dwellers in Jinja City, Uganda | Prossy Nakito |
| | 14:10 - 14:15 | PPI54: COVID-19 outbreak among refugees at Nyakabande Transit Centre, Kisoro District, Uganda, June–July 2022 | Peter Chris Kawungezi |
| | 14:15 - 14:20 | PP240: Déterminants de l'acceptabilité de la vaccination contre la COVID-19, régions du Centre-Sud, Sud-Ouest, Centre-Ouest et Centre au Burkina Faso, juin 2022 | Aristide Compaoré |
| | 14:20 - 14:25 | PP276: Health care workers knowledge, perceptions and attitudes towards Coronavirus Disease 19 prevention and control during the pandemic in Tigray, Ethiopia | Gebretsadik Berhe |
| | 14:25 - 14:30 | PP319: Evaluation of Covid-19 Surveillance System in Ogun State, Nigeria: April 2020 – May 2021 | Adesoji Olatunde Odukoya |
| | 14:30 - 14:45 | Questions and Answers | All |
| | 14:45 - 14.50 | PP335: Prevalence of SARS-CoV-2 Infection in the Influenza-Like Illness and Severe Acute Respiratory Infection Sentinel Surveillance System— Zambia, 2021-2022 | Grace Funsani |

8th AFENET Scientific Conference, Mombasa, Kenya 5th - 10th November 2023

| Day | Time | Topic /Activity | Presenter |
|--------------------------|--|--|--------------------------------|
| Monday 6th November 2023 | 14:50 - 14:55 | PP380: Facteurs associés à la gravité de la covid-19 chez les malades hospitalisés dans la ville de Goma, Mars 2020 et septembre 2021 | Cosma Kajabika Luberamihero |
| | 14:55 - 15:00 | PP430: Investigation des cas de Covid -19 dans le district de Nongrémassom dans la région du Centre, Burkina Faso 2023 | Clarisse Balima |
| | 15:00 - 15:05 | PP518: SARS-CoV-2 positivity test and associated factors in Karongi district, Rwanda:A cross-sectional study | Jean Paul Niyomugabo |
| | 15:05 - 15:10 | PP801: Descriptive Epidemiology of COVID-19 - Ayawaso West Municipal, Greater Accra, 2022 | Jennifer Nai-Dowetin |
| | 15:10 - 15:15 | PP637: Epidemiology of Covid-19 deaths reported at Rundu Intermediate hospital, Kavango East region, Namibia, March 2021- March 2023 | Annety Kabuba Likando |
| | 15:15 - 15:30 | Questions and Answers | All |
| | 14:00 - 15:30 | Concurrent Poster Session I : Room 2 Sub-theme: Public Health Emergency Preparedness, Surveillance Outbreak Investigations and Response Moderator: Prof Nicholas Meda | |
| | Time | Topic | Presenter |
| Monday 6th November 2023 | 14:00 - 14:05 | PP13:Analyse des données de surveillance de la fièvre de la vallée du Rift chez les humains en Mauritanie de 2011 à 2021 | Cheikh Zeini Abd El Jelil |
| | 14:05 - 14:10 | PP235: Early evaluation of the alert system used during response to the Sudan Ebola Virus Outbreak, Mubende District, Uganda—2022 | Denis Okethwangu |
| | 14:10 - 14:15 | PP383: High fatality of Lassa fever outbreak, Bo District, Sierra Leone, February 2023 | Hassan Swarray |
| | 14:15 - 14:20 | PP410: Maladie à virus de Marburg : séroprévalence, facteurs associés, connaissances, attitudes et pratiques de la population de trois sous-districts de Guéckédou, mai 2022 | Thierno Bassirou Baldé |
| | 14:20 - 14:25 | PP471: Dengue Fever Outbreak-Howl-wadag district, Mogadishu city, Somalia October, 2022. | Bisma Abdullahi Maalin |
| | 14:25 - 14:30 | PP876: Improving Timeliness and Completeness of Reporting of weekly surveillance data, Mbarara District, Uganda, Weeks 22 to 34, 2022 | Sylvia Ayebare |
| | 14:30 - 14:45 | Questions and Answers | |
| | 14:45 - 14.50 | PP503: Epidemiological Investigation of a Dengue Fever Outbreak in Hodan District, Benadir Region, Somalia | Saido Abdirahman Gedi |
| 14:50 - 14:55 | PP577:Assessment of Preparedness for Ebola Virus Disease outbreak at Points of Entry and Isolation Sites in western Kenya Counties, 2022 | Stephen Okumu Opiyo | |

8th AFENET Scientific Conference, Mombasa, Kenya 5th - 10th November 2023

| Day | Time | Topic /Activity | Presenter |
|--|---------------|---|------------------------------|
| Monday 6th November 2023 | 14:55 - 15:00 | PP649: Investigation Autour D'un Cas Confirme De Fievre Jaune Dans Le District Sanitaire De Mbaiki, Prefecture De La Lobaye, Republique Centrafricaine, Decembre 2022 | Ghislain Alain Tiburce Grewa |
| | 15:00 - 15:05 | PP807: Le Profil Epidémiologique de Fièvre de la Vallée du Rift (FVR) chez les animaux, en Mauritanie, Août 2022 | Mohamed Saleck Amar |
| | 15:05 - 15:10 | PP840: Descriptive Characterization of Yellow Fever Cases in Upper East Region, Ghana, 2022 | Simon Effah Adjei |
| | 15:10 - 15:15 | PP723: Evaluation du Système de Surveillance de la Fièvre Jaune dans la région de Niamey, Niger 2022 | Moussa Ahamadou |
| | 15:15 - 15:30 | Questions and Answers | All |
| | 14:00 - 15:30 | Concurrent Poster Session I : Room 3 | |
| Sub-theme: Public Health Emergency Preparedness, Surveillance, Outbreak Investigations and Response | | | |
| Moderator: Dr Raphael Mbailao | | Evaluators: Tsitsi Juru / Dr Ben Masiira | |
| | Time | Topic | Presenter |
| Monday 6th November 2023 | 14:00 - 14:05 | PP23: Factors associated with the persistence of meningitis cases in Burkina Faso from 2012 to 2021 | Guillaume Touwendyam Yanogo |
| | 14:05 - 14:10 | PP62: Evaluation du système de surveillance de la méningite dans la région de Niamey, Niger 2021 | Hadjara Aboubacar |
| | 14:10 - 14:15 | PP202: Meningitis Epidemiology and Pattern in Yemen Conflict Country | Adnan Mohammed Al-Hindi |
| | 14:15 - 14:20 | PP279: Evaluation du système de surveillance de la méningite dans le département de l'Alibori, Bénin, 2017 à 2021 | Zoubérou Bio Béri |
| | 14:20 - 14:25 | PP288: Factors associated with acute bacterial meningitis before and after the introduction of conjugate vaccine A in 2017 in Mali – Bamako, 2021 | Toumani Sidibe |
| | 14:25 - 14:30 | PP341: Investigation of a meningitis outbreak in the Bouza Health District, Niger 2022 | Moussa Ahamadou |
| | 14:30 - 14:45 | Questions and Answers | All |
| | 14:45 - 14:50 | PP366: Evaluation du système de surveillance de la méningite dans la zone de sante de Selembao, 2022 | Blandine Kisangani |
| | 14:50 - 14:55 | PP463: Investigation d'une flambée de Méningite dans un centre de santé intégré du district sanitaire de Magaria, région de Zinder, Niger, 2023 | Aboubacar Manzo Mariama |
| | 14:55 - 15:00 | PP819: Profil épidémiologique de la méningite dans le département de l'Alibori, Bénin du 1er janvier 2017 au 31 décembre 2021 | Zoubérou Bio Béri |
| | 15:00 - 15:05 | PP803: Investigation of Measles Deaths, Dandum Sanitary Area, Gabu Region-Guinea Bissau, 2022 | Carlota Martinho Sá |
| | 15:05 - 15:10 | PP733: Measles in Ogun State; a five-year review of case based surveillance data, 2016-2020 | Saheed Olalekan Akinbowale |

8th AFENET Scientific Conference, Mombasa, Kenya 5th - 10th November 2023

| Day | Time | Topic /Activity | Presenter | |
|--------------------------|---------------|---|---------------------------------------|--|
| Monday 6th November 2023 | 15:10 - 15:15 | PP645: Investigation of Measles Outbreak - Chief Albert Luthuli (CAL) sub-district, Mpumalanga Province, South Africa, March 2023 | Sizwe Nkosinathi Khumalo | |
| | 15:15 - 15:30 | Questions and Answers | All | |
| | 14:00 - 15:30 | Concurrent Poster Session I : Room 4 | | |
| | | Sub-theme: Public Health Emergency Preparedness, Surveillance, Outbreak Investigations and Response Moderator: Dr Amadou Jallow | | Evaluators: Hanine Keita / Gerald Shambira |
| | Time | Topic | Presenter | |
| Monday 6th November 2023 | 14:00 - 14:05 | PP236: Descriptive Epidemiology of Mpox Outbreak in Delta State, Nigeria December 2022 | Anthonia Chukwuemeka | |
| | 14:05 - 14:10 | PP344: Monkeypox outbreak investigation in Gbarpolu County, Liberia, March 18, 2023: A preliminary report | Thomas Zubah. Kowel | |
| | 14:10 - 14:15 | PP379: Investigation d'une épidémie de Monkeypox dans la zone de santé de Popokabaka, Kwango, République Démocratique du Congo, 2022 | Alphonse Nkololo Tshonaka | |
| | 14:15 - 14:20 | PP455: Investigation d'une épidémie de Mpox dans l'aire de santé Iofuko, zone de santé de Befale, Tshuapa, République Démocratique du Congo, 2022 | Jacques Lomanga | |
| | 14:20 - 14:25 | PP491: Investigation autour d'un cas suspect de variole de singe (Monkeypox), localité d'Iboke-v2, district sanitaire de Tabou, région de San Pedro, Côte d'Ivoire, 30 Juillet 2022 | Kalifa Coulibaly | |
| | 14:25 - 14:30 | PP658: Investigation d'un cluster de cas suspects de Variole de singe dans la maison carcérale de Mbaïki, dans la sous-préfecture de Mbaïki, préfecture de la Lobaye, République Centrafricaine, octobre 2022 | Paulette Rose Josephat Mbay Yamotende | |
| | 14:30 - 14:45 | Questions and Answers | All | |
| | 14:45 - 14:50 | PP781: Descriptive Epidemiology of Monkeypox in Imo State: Outbreak Investigation and Response-2022, Southeastern Nigeria | Hyacinth Chukwuebuka Egbuna | |
| | 14:50 - 14:55 | PP579: Assessment of timeliness and completeness of reporting, Serowe, Botswana, January 2023 | Dziidzo Doreen Leshiba | |
| | 14:55 - 15:00 | PP399: Investigation d'un phénomène inconnu dans le village Nkonko, zone de santé de Lukafu, province du Haut Katanga, République Démocratique du Congo, août 2022 | David Ntumba | |
| | 15:00 - 15:05 | PP371: Investigation des cas de Gale au Service de Santé de la Gendarmerie Nationale, Djibouti, Janvier 2022 | Abdo Arita Macisso | |
| | 15:05 - 15:10 | PP317: Investigation of a cluster of illness and deaths, Dutlwe Village, Kweneng East, Botswana, November, 2022 | Gofaone Mogorosi | |
| | 15:10 - 15:15 | PP241: Adapting sub-national public health emergency management: the Mbale regional emergency operations center experience in eastern Uganda | Herbert Kiirya Isabirye | |

8th AFENET Scientific Conference, Mombasa, Kenya 5th - 10th November 2023

| Day | Time | Topic /Activity | Presenter | |
|---|---------------|--|--|--|
| Monday 6th November 2023 | 15:15 - 15:30 | Questions and Answers | All | |
| | 15:30 - 15:35 | Switch period | | |
| | 15:35 - 17:15 | Concurrent Oral Session 2 : Room 1 | | |
| | | Sub-theme: Maternal Reproductive and Child Health & HIV/AIDS, Tuberculosis and other Opportunistic Infections | | |
| | | Moderator: Prof. Fodé Amara Traoré | Evaluators: Rebeca Kinde / Dr Gebru Negash | |
| | Time | Topic | Presenter | |
| Monday 6th November 2023 | 15:35 - 15:45 | OP167: Determinants of Abortion Intention in Marriage among Women in Ibadan Metropolis, South-West, Nigeria | Aanuoluwapo Adeyimika Afolabi | |
| | 15:45 - 15:55 | OP139:Trends and spatial distribution of perinatal deaths in Uganda: a descriptive analysis of surveillance data, 2017–2021 | Brian Agaba | |
| | 15:55 - 16:05 | OP501: Prevalence and Associated Factors of Immediate Postpartum Family Planning Utilization in Nyabihu District, 2021 | Emmerance Igihozo Hirwa | |
| | 16:05 - 16:15 | OP547: Factors associated with seeking skilled birth attendance services among women aged 15 – 49 years in North-Horr sub-County, Marsabit County, Kenya | Qabale Anna Duba | |
| | 16:15 - 16:25 | Questions and Answers | | |
| | 16:25 - 16:35 | OP452: Assessment of Neonatal Sepsis among Preterm Infants in Nyamata hospital, Bugesera district -Rwanda, 2023 | Didier Ndabana | |
| | 16:35 - 16:45 | OP662: Predictors of Institutional Delivery Service Utilization among Women in Northern Ghana, 2022 | Abdul Gafaru Mohammed | |
| | 16:45 - 16:55 | OP836: Post abortion contraception choices among women, Korle-Bu Teaching Hospital, Ghana, 2015-2019 | Paul Henry Dsane-Aidoo | |
| | 16:55 - 17:05 | OP133: Facteurs associés à la persistance du paludisme chez la femme enceinte, district sanitaire de Garango, Burkina Faso, août 2022 | Wendkouni Serge Alain Tougma | |
| | 17:05 - 17:15 | Questions and Answers | All | |
| | 15:35 - 17:15 | Concurrent Oral Session 2 : Room 2 | | |
| Sub-theme: Maternal Reproductive and Child Health & HIV/AIDS, Tuberculosis and other Opportunistic Infections | | | | |
| | | Moderator: Dr Ralph Jetoh | Evaluators: Mbouna Ndiaye / Karimou Sani | |
| | Time | Topic | Presenter | |
| | 15:35 - 15:45 | OP184: Surveillance Data Analysis of Tuberculosis in Oromia zone, Amhara region, Ethiopia 2017-2021 | Melaku Girma Halie | |
| | 15:45 - 15:55 | OP308: Linking Drug Resistance Tuberculosis Surveillance Data to Public Health Action: Kenya Experience | James Marcomic | |

8th AFENET Scientific Conference, Mombasa, Kenya 5th - 10th November 2023

| Day | Time | Topic /Activity | Presenter |
|--|---------------|---|-------------------------|
| Monday 6th November 2023 | 15:55 - 16:05 | OP619: Descriptive Analysis of Severe Immunodeficiency in Persons living with HIV/AIDS, Lesotho, October 2021 – September 2022 | Thato Seotsa |
| | 16:05 - 16:15 | OP375: Tuberculosis and COVID-19 Co-infection at the Two University Teaching Hospitals in Lusaka, Zambia, 2020-2022 | Madalitso Nkhata |
| | 16:15 - 16:25 | Questions and Answers | All |
| | 16:25 - 16:35 | OP401: HIV yield from assisted partner notification (APN) in Uganda: 2020-2022 | Peter Chris Kawungezi |
| | 16:35 - 16:45 | OP482: Determinants of multi-drug resistant Tuberculosis treatment outcomes among HIV co-infected patients in Tanzania from 2017-2019 | Twilumba Edson Lihweuli |
| | 16:45 - 16:55 | OP489: Determinants of viral load non-suppression among HIV-positive children and adolescents attending care and treatment clinics in Tabora region, Tanzania from January 2018 to April 2022 | Ruth Daniel Mchomvu |
| | 16:55 - 17:05 | OP537: Factors Associated with HIV Pre-exposure prophylaxis Uptake Among Female Sex Workers in Karongi Peri –Urban Area: A Cross-Sectional Study. | Gabriel Twagirimana |
| | 17:05 - 17:15 | Questions and Answers | All |
| | 15:35 - 17:15 | Concurrent Oral Session 2 : Room 3 | |
| Sub-theme: Maternal Reproductive and Child Health & HIV/AIDS, Tuberculosis and other Opportunistic Infections | | | |
| Moderator: Emmy Ndevaetela | | Evaluators: Patrick Mavungu / Pierre Wilnique | |
| | Time | Topic | Presenter |
| Monday 6th November 2023 | 15:35 - 15:45 | OP866: Geographic Distribution and Economic Factors Associated with Rapid Test for Recent HIV Infection (RTRI)-Recent HIV infections in Uganda, 2019-2021 | Immaculate Atuhaire |
| | 15:45 - 15:55 | OP864: Facilitators and barriers to tuberculosis case notification among private health facilities in Kampala Capital city, Uganda | Veronica Kembabazi |
| | 15:55 - 16:05 | OP832: Factors Associated with the Use of Directly Observed Treatment among Tuberculosis Patients in Mombasa County, Kenya.2020 | Emily Chinyavu Kurera |
| | 16:05 - 16:15 | OP802: C-Reactive Protein Levels in Patients Initiating Dolutegravir Based Antiretroviral Regimen in Ghana | Vincent Ganu |
| | 16:15 - 16:25 | Questions and Answers | All |
| | 16:25 - 16:35 | OP785: An Analysis of Childhood Tuberculosis Notifications and Treatment Outcomes Incident Rates Ratios in Zambia, 2016-2021 | Jonathan Mpundu Chama |
| | 16:35 - 16:45 | OP624: Factors associated with mortality among TB/HIV co-infected patients with drug susceptibility in Rwanda: A cross-sectional study | Kizito Nshimiyimana |

8th AFENET Scientific Conference, Mombasa, Kenya 5th - 10th November 2023

| Day | Time | Topic /Activity | Presenter |
|---|---------------|--|---|
| Monday 6th November 2023 | 16:45 - 16:55 | OP600: Rifampicin Resistance and Determinants in TB Patients Attending Clinic in Abeokuta, Ogun State | Folake Olubunmi Ajayi |
| | 16:55 - 17:05 | OP574: Prevalence of malaria infection and factors associated among HIV infected adult patients attending HIV care and treatment clinic at Kitete region referral hospital in Tabora region, Tanzania from March to May 2022 | Hamad Jonas Nnimbo |
| | 17:05 - 17:15 | Questions and Answers | All |
| | 15:35 - 17:15 | Concurrent Oral Session 2 : Room 4 | |
| Sub-theme: Maternal Reproductive and Child Health & HIV/AIDS, Tuberculosis and other Opportunitics Infections | | | |
| | | Moderator: Dr Houssein Youssouf Darar | Evaluators: Djibo Issifou / John Kamulegeya |
| | Time | Topic | Presenter |
| Monday 6th November 2023 | 15:35 - 15:45 | OP472: High seroprevalence and factors associated with Hepatitis B virus infection: A snapshot from HIV-1 infected pregnant women population in Mtwara region, Tanzania | Vulstan James Shedura |
| | 15:45 - 15:55 | OP745: Enablers of age-appropriate vitamin A supplementation uptake among children aged 6-59 months in the Nadowli-Kaleo District, Upper West Region, Ghana - 2022 | Sorengmen Amos Zieme |
| | 15:55 - 16:05 | OP439: Factors affecting the uptake of routine second dose measles containing vaccine among young children, Oromia Regional State, Ethiopia, 2021 | Abyot Bekele Woyessa |
| | 16:05 - 16:15 | OP286: Factors associated with incomplete vaccination of children aged 15 to 23 months in the health district of Tominian in Mali in 2020 | Ousmane Boua Togola |
| | 16:15 - 16:25 | Questions and Answers | All |
| | 16:25 - 16:35 | OP172: Predictors of Abortion in Marital Union among Ghanaian Women of Reproductive Age: A Secondary Data Analysis | Aanuoluwapo Adeyimika Afolabi |
| | 16:35 - 16:45 | OP65: Understanding the factors contributing to zero-dose children in pastoralist areas: Evidence from Gavi project in Afar and Somali regions of Ethiopia | Melaku Tsehay Ayalneh |
| | 16:45 - 16:55 | OP604: Investigation of increased congenital syphilis cases at a District Hospital, Mpumalanga Province, June 2022 to June 2023 | Alicia Kruger |
| | 16:55 - 17:05 | OP879: Incidence of Preeclampsia among Pregnant Women attending Mbale Regional Referral Hospital, Uganda, January–December, 2022 | Irene Kyamwine |
| | 17:05 - 17:15 | Questions and Answers | All |

8th AFENET Scientific Conference, Mombasa, Kenya 5th - 10th November 2023

| Day | Time | Topic /Activity | Presenter |
|---------------------------|--|---|--|
| Tue. 7th 2023 | 08:00 - 09:10 | Concurrent Oral Session 3 : Room 1 | |
| | | Sub-theme: Vaccine Preventable Diseases and Public Health Strengthening Initiatives | |
| | | Moderator: Dr Matthew Kagoli | Evaluators: Irene Kyamwine / Pierre Wilnique |
| | Time | Topic | Presenter |
| Tuesday 7th November 2023 | 8:00 - 8:10 | OP402: Impact de la pandémie de Covid-19 sur la vaccination contre la rougeole dans le district de la Kozah du Togo de 2019 à 2022 | Idrissa Dousti |
| | 8:10 - 8:20 | OP313: Déterminants de l'épidémie de rougeole dans la ville province de Kinshasa en 2022 | Fabrice Sewolo Matondo |
| | 8:20 - 8:30 | OP506: Investigation approfondie des cas de tétanos materno-néonatale dans la zone de sante de Kongolo, de janvier à décembre 2022 | Michel Luhembwe |
| | 8:30 - 8:40 | OP431: Facteurs associés à la flambée de Coqueluche dans le district de Kokolou, sous-préfecture de Linsan Saran, Préfecture de Lélouma, Janvier 2023 : Etude de cohorte rétrospective | Bakary Oularé |
| | 8:40 - 8:50 | OP268: Measles Outbreak Investigation, Greater Francistown District, Northern Botswana-2023 | Utlwanang Modise |
| | 8:50 - 9:10 | Questions and Answers | All |
| | 08:00 - 09:10 | Concurrent Oral Session 3 : Room 2 | |
| | Sub-theme: Vaccine Preventable Diseases and Public Health Strengthening Initiatives | | |
| | Moderator: Dr John Rumunu | Evaluators: Doreen Gona-hasa / Joseph Otshudi | |
| | Time | Topic | Presenter |
| Tuesday 7th November 2023 | 8:00 - 8:10 | OP708: An Outbreak of cVDPV2 in Dagahaley Refugee Camp, Dadaab Sub-County, Garissa County, Kenya, November 2021 | Freshia Wanjiku Waithaka |
| | 8:10 - 8:20 | OP386: Epidemiological analysis of the national acute flaccid paralysis surveillance data, Sierra Leone, 2018 to 2022. A descriptive secondary data analysis | Andrew Kekurah Kemoh |
| | 8:20 - 8:30 | OP365: Investigation d'une épidémie de poliomyélite dans les aires de santé de Metho Kibombo, Bilundu et Kasuku, zone de santé de Kibombo, Maniema, République Démocratique du Congo, mai 2022. | Mireille Elongo Zamuda |
| | 8:30 - 8:40 | OP318: Profil épidémiologique de la paralysie flasque aiguë, District Sanitaire de Boffa, République de Guinée, 2017-2021 | Saidouba Touré |
| | 8:40 - 8:50 | OP82: Acute Flaccid Paralysis Surveillance Data Analysis, Sana'a city, Yemen 2012-2021 | Lamya Abdo Al Aroomi |
| | 8:50 - 9:10 | Questions and Answers | All |

8th AFENET Scientific Conference, Mombasa, Kenya 5th - 10th November 2023

| Day | Time | Topic /Activity | Presenter |
|--|---------------|--|--|
| | 08:00 - 09:10 | Concurrent Oral Session 3 : Room 3 | |
| | | Sub-theme: Vaccine Preventable Diseases and Public Health Strengthening Initiatives | |
| | | Moderator: Raphael Mbailao | Evaluators: Tatek Bogale / Gerald Shambira |
| | Time | Topic | Presenter |
| Tuesday 7th November 2023 | 8:00 - 8:10 | OP719: COVID-19 risk perception, prevention practices and vaccine uptake among hair stylists in Abeokuta metropolis, Ogun state, Nigeria | Saheed Olalekan Akinbowale |
| | 8:10 - 8:20 | OP718: Covid-19 vaccination coverage survey in population 18 years and older, Bissau, Guiné-Bissau, January 2023 | Gizelo Araújo Mendonça |
| | 8:20 - 8:30 | OPI06: Factors associated with willingness to receive COVID-19 vaccine among adults in rural Western Uganda between January and April 2022 | John Turyagumanawe |
| | 8:30 - 8:40 | OP839: Determinants of COVID-19 Vaccine Uptake among Students aged 15-30 years in Jasikan Municipality of Ghana, 2022 | Hudatu Ahmed |
| | 8:40 - 8:50 | OP739: Exploration of Causes Contributing to Low Covid-19 Vaccine Coverage at Mwanza District Hospital from March 2021 – December 2022 | Dikirani Chadza |
| | 8:50 - 9:10 | Questions and Answers | All |
| | 08:00 - 09:10 | Concurrent Oral Session 3 : Room 4 | |
| Sub-theme: Vaccine Preventable Diseases and Public Health Strengthening Initiatives | | | |
| Moderator: Mr Samuel Kolane | | Evaluators: Gildo Okure / Joseph Frimpong | |
| | Time | Topic | Presenter |
| Tuesday 7th November 2023 | 8:00 - 8:10 | OP688: Monitoring Progress towards achieving UHC in Machakos County, Kenya | Ian Were |
| | 8:10 - 8:20 | OP520: Epidemiological characteristics of a nationwide measles outbreak in a complex humanitarian setting, South Sudan, 2022 | Abraham Ajok |
| | 8:20 - 8:30 | OP429: Comparative analysis of measles in border and non-border districts of Sierra Leone, 2018-2021: Retrospective secondary data analysis | Mohamed Salieu Bah |
| | 8:30 - 8:40 | OPI00: Strengthening community ownership of Lassa Fever preventive practices in Nigeria using participatory communication | Olayinka Stephen Ilesanmi |
| | 8:40 - 8:50 | OP765: Attitude and practices of informal health care providers towards febrile patients presenting at drug shops in Ebonyi State, Nigeria, 2021 | Azuka Stephen Adeke |
| | 8:50 - 9:10 | Questions and Answers | All |
| | 9:10 - 9:15 | Switch period | |

8th AFENET Scientific Conference, Mombasa, Kenya 5th - 10th November 2023

| Day | Time | Topic /Activity | Presenter |
|--|--------------|---|--|
| | 9:15 - 10:00 | Concurrent Poster Session 2 : Room 1 | |
| | | Sub-theme: Vaccine Preventable Diseases and Public Health Strengthening Initiatives | |
| | | Moderator: Dr Husien Abukari Muhiadin | Evaluators: Hetani Mdose / Gerald Shambira |
| | Time | Topic | Presenter |
| Tuesday 7th November 2023 | 9:15 - 9:20 | PP7: COVID-19 Vaccines Acceptance Among Marketeers and Their Customers at Main Masala Market Of Ndola District in Zambia, January 2023 | Francis Mwenya |
| | 9:20 - 9:25 | PP737: Factors Associated with the Uptake of COVID-19 Vaccines in the Adult Population, Asante Akim South, North and Central Municipality, Ashanti Region, Ghana, 2023 | Abdul Gafaru Mohammed |
| | 9:25 - 9:30 | PP747: Determinants of COVID-19 vaccine acceptance among eligible residents of Ilorin metropolis: a community-based cluster survey | Abiodun Ebenezer Kolapo |
| | 9:30 - 9:35 | PP748: A qualitative analysis of factors associated with vaccine hesitancy among selected college of health sciences and technology students in the Southwestern part of Nigeria, December 2022 | Olumuyiwa Peter Oluyide |
| | 9:35 - 9:40 | PP873: COVID-19 Vaccine Uptake and Coverage in Uganda, March 2021- June 2022 | Patrick King |
| | 9:40 - 9:45 | PP834: A post-outbreak assessment: Predictors of full measles vaccination among children aged 24 to 59 months, Atebubu-Amantin District, Ghana, 2020 | Eunice Baiden Laryea |
| | 9:45 - 10:00 | Questions and Answers | All |
| | 9:15 - 10:00 | Concurrent Poster Session 2 : Room 2 | |
| Sub-theme: Vaccine Preventable Diseases and Public Health Strengthening Initiatives | | | |
| Moderator: Issaka Tiembre | | Evaluators: Uzoma Ogbonna / Hanine Keita | |
| | Time | Topic | Presenter |
| Tuesday 7th November 2023 | 9:15 - 9:20 | PP67: Measles outbreaks in regions neighboring armed conflict zones; Experiences from the West region of Cameroon, 2018-2022 | Gael Kouamen |
| | 9:20 - 9:25 | PP80: Measles outbreak investigation in Raya-Kobo District, North Wollo Zone, Amhara Region, Ethiopia, 2022: An unmatched case-control study | Birhanu Enyew Zeleke |
| | 9:25 - 9:30 | PPI66: Measles Outbreak Investigation in Ebnat district, Amhara Region, Ethiopia, March-April, 2021: An unmatched case-control study | Mekonnen Yimer Sisay |
| | 9:30 - 9:35 | PP334: Measles Outbreak Investigation in Raso District of Afder zone, Somali Region, Ethiopia, 2022 | Ebsa File Terefa |
| | 9:35 - 9:40 | PP409: Measles Outbreak in Harper and Pleebo Districts, Maryland County, Liberia, 2022 | Dedesco Doebia Gweh |

8th AFENET Scientific Conference, Mombasa, Kenya 5th - 10th November 2023

| Day | Time | Topic /Activity | Presenter | |
|---|--------------|--|---|--|
| Tuesday 7th November 2023 | 9:40 - 9:45 | PP436: Measles resurgence: An outbreak investigation in Chimanimani district, Manicaland province, Zimbabwe, 2022 | Ernest Tsarukanayi Mauwa | |
| | 9:45 - 10:00 | Questions and Answers | All | |
| | 9:15 - 10:00 | Concurrent Poster Session 2 : Room 3 | | |
| | | Sub-theme: Vaccine Preventable Diseases and Public Health Strengthening Initiatives | | |
| | | Moderator: Ellen Yard | Evaluators: Celestine Ameh / Ernest Konadu Asiedu | |
| | Time | Topic | Presenter | |
| Tuesday 7th November 2023 | 9:15 - 9:20 | PP84: Diphtheria Trend at Three High Risk Governorates in Yemen, 2017-2021 | Fatema Ahmed Haidar | |
| | 9:20 - 9:25 | PP85: Pertussis Remerging in Saadah governorate, Yemen | Dahm Aziz Saadan | |
| | 9:25 - 9:30 | PP147: Pertussis Outbreak Investigation in Beyeda Woreda, North Gondar Zone, Amhara Region, Ethiopia: Case-Control Study March, 2022 | Alemayehu Abebe Kifle | |
| | 9:30 - 9:35 | PP720: Clusters of mumps cases in schools in Omaruru District, Erongo Region Namibia, February 2023 | Carenn Inotila Megameno Shekudja | |
| | 9:35 - 9:40 | PP711: Analysis of a surge of Mumps Suspected cases in Okahao District, Omusati region, Namibia, January - February 2023: A case for Mumps vaccination | Meameno Twafindana Nghinamwaami | |
| | 9:40 - 9:45 | PP121: Data Quality and Associated Factors in Health Facilities Providing Routine Immunization Service in Angwaa Zone, Gambella Region, Ethiopia | Destaw Assefa Gobezie | |
| | 9:45 - 10:00 | Questions and Answers | All | |
| | 9:15 - 10:00 | Concurrent Poster Session 2 : Room 4 | | |
| Sub-theme: Vaccine Preventable Diseases and Public Health Strengthening Initiatives | | | | |
| | | Moderator: Dr Yacouba Sangare | Evaluators: Irene Kyamwine / Ben Masiira | |
| | Time | Topic | Presenter | |
| Tuesday 7th November 2023 | 9:15 - 9:20 | PP63: National Measles Surveillance Data Analysis from 2016-2019, Ethiopia | Mesfin Asmamaw Weldemeskel | |
| | 9:20 - 9:25 | PP219: Evaluation of Measles Surveillance System in Kenya, 2022 | Francis Muoka Ndonge | |
| | 9:25 - 9:30 | PP465: Evaluation of Measles surveillance system in Kibilizi District Hospital catchment area, 2017-September 2022 | Alice Musabyeyezu | |
| | 9:30 - 9:35 | PP587: Knowledge regarding measles vaccination among caregivers in Montserrado County, Liberia, 2022 | Bode Ireti Shobayo | |
| | 9:35 - 9:40 | PP761: Epidemiology of Measles Cases and preliminary review of Surveillance and Response activities, October – December 2022 | Rixongile Malomane | |

8th AFENET Scientific Conference, Mombasa, Kenya 5th - 10th November 2023

| Day | Time | Topic /Activity | Presenter | |
|---|---------------|--|--------------------------|--|
| Tuesday 7th November 2023 | 9:40 - 9:45 | PP354: Impact of COVID-19 on Measles Immunization and Incidence in Zambia, 2017-2022; An Interrupted Time Series Analysis | Tebello Kolobe | |
| | 9:45 - 10:00 | Questions and Answers | All | |
| | 10:00 - 10:30 | Tea Break | | |
| | 10:30 - 12:00 | Plenary Session 2: Public Health Emergency Preparedness, Surveillance Outbreak Investigation and Response | | |
| | | Moderators: Dr Jean Medard Kankou | | |
| | | Venue: Main Auditorium | | |
| | 10:30 - 10:55 | Modernizing Global Health Security to Prevent, Detect, and Respond to Public Health Emergency | Prof Scott Jn McNabb | |
| | 10:55 - 11:20 | WHO-Preparedness and Resilience for Emerging Threat initiative (PRET) | Dr Gina Samaan | |
| | 11:20 - 11:40 | Reflecting on surveillance frameworks and tools to address future epidemics | Dr Peter Nsubuga | |
| | 11:40 - 12:00 | Accelerating progress to meet the 7-1-7 target for outbreak detection and control in Africa | Tyler Porth | |
| | 12:00 - 12:05 | Switch period | | |
| | 12:05 - 13:00 | Concurrent Oral Session 4 : Room 1 | | |
| | | Sub-theme: Non Communicable Diseases, Injuries, Mental Health & Vector Borne and Neglected Tropical Diseases | | |
| Moderator: Dr. Mohammed A.Vandi | | Evaluators: John Kennedy Matovu / Godfrey Kayita | | |
| | Time | Topic | Presenter | |
| Tuesday 7th November 2023 | 12:05 - 12:15 | OP29: Analysis of data from Niger's National Cancer Registry from 2010 to 2018 | Moussa Ahamadou | |
| | 12:15 - 12:25 | OPI90: Factors associated with hypertension among Persons Living with HIV in Mombasa County, Kenya | Faith Nthoki Mudachi | |
| | 12:25 - 12:35 | OP488: Prevalence of cardiovascular emergencies and associated factors: case of the emergency department of the National Hospital of Niamey- Niger, February to March 2020 | Fatoumata Mounkaila Issa | |
| | 12:35 - 12:45 | OP504: Prevalence and Risk Factors of Hypertension among Adults in Tanga Region in January, 2023: A Cross-Sectional Community Based Survey | Sephord Saul Ntibabara | |
| | 12:45 - 13:00 | Questions and Answers | All | |
| | 12:05 - 13:00 | Concurrent Oral Session 4 : Room 2 | | |
| Sub-theme: Non Communicable Diseases, Injuries, Mental Health & Vector Borne and Neglected Tropical Diseases | | | | |
| Moderator: Dr Lazarus Kuonza | | Evaluators: Nestor Noudeke / Amir Juya | | |

8th AFENET Scientific Conference, Mombasa, Kenya 5th - 10th November 2023

| Day | Time | Topic /Activity | Presenter |
|---------------------------|---------------|---|---------------------------|
| Tuesday 7th November 2023 | 12:05 - 12:15 | OPI52: Malaria Outbreak investigation and Report-wa-ma cluster of Mana sibu Woreda, Ethiopia, October 2020 | Sahilu Tesfaye Weyessa |
| | 12:15 - 12:25 | OP227: Adherence to Malaria Treatment Guidelines in Health Facilities in Kenya, 2022 | Fredrick Ouma |
| | 12:25 - 12:35 | OP244: Evaluation of Malaria Surveillance System in Mozambique, 2017–2021 | Mário Avelino Malunga |
| | 12:35 - 12:45 | OP598: Malaria outbreak investigation in Katima Mulilo District, Zambezi region, 14 – 25 March 2022 | Maria Nuusiku Angala |
| | 12:45 - 13:00 | Questions and Answers | All |
| | 12:05 - 13:00 | Concurrent Oral Session 4 : Room 3 Sub-theme: Non Communicable Diseases, Injuries, Mental Health & Vector Borne and Neglected Tropical Diseases Moderator: Marianne Laurant Comlan | |
| | Time | Topic | Presenter |
| Tuesday 7th November 2023 | 12:05 - 12:15 | OP554: Health insurance financing and patient retention in care at diabetics and hypertension clinics in Dar es Salaam and Pwani regions, Tanzania | Harrieth Mathias Manisha |
| | 12:15 - 12:25 | OP668: Factors associated with complications among Diabetes Mellitus cases in Kitui County Referral Hospital Diabetic Clinic, Kenya from June 2018-September 2018 | Diana Rose Wangari Mwaura |
| | 12:25 - 12:35 | OP691: Determinants of sub-optimal glycaemic control among patients enrolled in a medicine dispensing programme in Kwazulu-Natal: A longitudinal study, 2018-2021 | Leigh Johnston |
| | 12:35 - 12:45 | OP779: Who is taking Methadone in Mombasa, Kenya, 2015–2022 | Nassoro Juma Mwanyalu |
| | 12:45 - 13:00 | Questions and Answers | All |
| | 12:05 - 13:00 | Concurrent Oral Session 4 : Room 4 Sub-theme: Non Communicable Diseases, Injuries, Mental Health & Vector Borne and Neglected Tropical Diseases Moderator: Prof. Francis Antoh | |
| | Time | Topic | Presenter |
| | 12:05 - 12:15 | OPI60: COVID-19-related stigma among survivors in Soroti District, Uganda, March 2020 to December 2021 | Alice Asio |
| | 12:15 - 12:25 | OP888: Post COVID-19 condition among individuals hospitalised during Wave 1 and Wave 2 at Mulago National Referral Hospital and Entebbe Regional Referral Hospital, Uganda, 2020-2021 | Allan Komakech |

8th AFENET Scientific Conference, Mombasa, Kenya 5th - 10th November 2023

| Day | Time | Topic /Activity | Presenter |
|--|---------------|---|------------------------------|
| Tuesday 7th November 2023 | 12:25 - 12:35 | OP73: Evaluation of a Sentinel Hypertension Surveillance System in Mojo, East Shewa Zone, Oromia, Ethiopia, 2022: A Concurrently Embedded Mixed Cross-Sectional Study | Abiyie Demelash Gashe |
| | 12:35 - 12:45 | OP321: Magnitude, Trends, and Seasonal Variations of Road Traffic Accidents in Ogun State, Nigeria: A Three-Year Review | Adesoji Olatunde Odukoya |
| | 12:45 - 13:00 | Questions and Answers | All |
| | 13:00 - 14:00 | Lunch Break | |
| | 14:00 - 15:00 | Plenary Session 3: Vector Borne and Neglected Tropical Disease | |
| | | Moderators: Dr Kerton R. Victory | |
| | | Venue: Main Auditorium | |
| | 14:00 - 14:20 | Dealing with Malaria Challenges in Africa: Prospects for Elimination | Prof Fred Newton Binka |
| | 14:20 - 14:40 | Overview of Research Studies Conducted on Mpox in Democratic Republic of Congo | Prof. Placide Mbala |
| | 14:40 - 15:00 | Emerging Infectious Diseases in East and Southern Africa | Prof Kennedy Njenga |
| | 15:00 - 15:15 | Switch period | |
| | 15:15 - 17:00 | Concurrent Oral Session 5 : Room 1 | |
| Sub-theme: Public Health Emergency Preparedness, Surveillance Outbreak Investigations and Response & Antimicrobial Resistance | | | |
| Moderator: Emmy Ndevaetela | | Evaluators: Dr Geburu Negash / George Akowuah | |
| | Time | Topic | Presenter |
| Tuesday 7th November 2023 | 15:15 - 15:25 | OP31: Investigation des cas suspects de choléra dans le district sanitaire de Madarounfa, région de Maradi, Niger, 2022 | Harissou Aboubacar Aboubacar |
| | 15:25 - 15:35 | OP331: Cholera Outbreak Investigation Conducted in Mwanabombwe District, Luapula Province, Zambia – January 2023 | Ante Mutati |
| | 13:35 - 15:45 | OP556: Foodborne outbreak investigation at a wedding event – Batken, Kyrgyzstan, June 2022 | Timur Dautov |
| | 15:45 - 15:55 | Questions and Answers | All |
| | 15:55 - 16:05 | OP562: Salmonella enteritidis outbreak at a café - Turkestan Region, Kazakhstan, October 2022 | Saya Gavezova |
| | 16:05 - 16:15 | OP616: Cholera Outbreak Resulting from Lack of Handwashing in Pitoa-Cameroon, July 2022 | Haman Djabbo Abdoul Wahhab |
| | 16:15 - 16:25 | OP621: Outbreak investigation of Salmonella typhi, Simbi sector, Southern province, Rwanda: A descriptive study, November 2021 | Isabelle Teta Batanage |
| | 16:25 - 16:35 | Questions and Answers | All |

8th AFENET Scientific Conference, Mombasa, Kenya 5th - 10th November 2023

| Day | Time | Topic /Activity | Presenter |
|--|---------------|--|---|
| | 15:15 - 17:00 | Concurrent Oral Session 5 : Room 2 | |
| | | Sub-theme: Public Health Strengthening Initiative and Communicable Disease Epidemiology | |
| | | Moderator: Dr Cecilia Mbae | Evaluators: Ernest Konadu Asiedu / Nestor Ndakala |
| | Time | Topic | Presenter |
| Tuesday 7th November 2023 | 15:15 - 15:25 | OP19: Prevalence of Hepatitis B virus and its predictors among volunteer blood donors in Jimma, Ethiopia, 2018: A cross-sectional study | Tesfaye Solomon Kenati |
| | 15:25 - 15:35 | OP404: Profil épidémiologique des hépatites virales B et C chez les primo-donneurs de sang au Centre National de Transfusion Sanguine de Lomé de 2020-2022 | Kokou Ayamekpe |
| | 13:35 - 15:45 | OP611: Prevalence of Hepatitis B Virus - Mpumalanga Province, South Africa, January 2020 - September 2022 | Sifiso Lucky Sithole |
| | 15:45 - 15:55 | Questions and Answers | All |
| | 15:55 - 16:05 | OP746: The Risk Perception of Mpox Disease Transmission Among Men Who Have Sex with Men in Rivers State, Nigeria | Hastings Chinedu Onu |
| | 16:05 - 16:15 | OP655: Determination of recency of newly diagnosed HIV cases at Malindi Sub-County Hospital, Kenya, 2021-2023 | Hellen Mulalya Masila |
| | 16:15 - 16:25 | OP98: Willingness to Take Pre-Exposure Prophylaxis (PrEP) among High-Risk Young Men aged 10-24 years in Masese Fishing Community, Jinja District, Uganda | Winnie Agwang |
| | 16:25 - 16:35 | Questions and Answers | All |
| | 15:15 - 17:00 | Concurrent Oral Session 5 : Room 3 | |
| Sub-theme: Public Health Emergency Preparedness, Surveillance Outbreak Investigations and Response & Antimicrobial Resistance | | | |
| Moderator: Dr Chima Ohuabunwo | | Evaluators: Banda Jezreel Dabwitso / Peter Adewuyi | |
| | Time | Topic | Presenter |
| Tuesday 7th November 2023 | 15:15 - 15:25 | OP153: The Role of contact tracing in the timely identification of Cases in the 2022 Ebola Outbreak in Uganda | Mercy Wendy Wanyana |
| | 15:25 - 15:35 | OP252: Investigation de cas de Fièvre de la Vallée du Rift au Sénégal, novembre 2021 | Ramatoulaye Diop |
| | 13:35 - 15:45 | OP473: Investigation autour d'un cas confirmé de dengue au district sanitaire de Madaoua, région de Tahoua, Niger, 2023 | Hassane Aouadé |
| | 15:45 - 15:55 | Questions and Answers | All |
| | 15:55 - 16:05 | OP538: Profil épidémiologique de la fièvre hémorragique de Lassa dans le département du Borgou de janvier 2016 à décembre 2021 au Bénin | François Dadidje |

8th AFENET Scientific Conference, Mombasa, Kenya 5th - 10th November 2023

| Day | Time | Topic /Activity | Presenter |
|---|---------------|--|--|
| Tuesday 7th November 2023 | 16:05 - 16:15 | OP635: Epidemiological analysis of Lassa fever in Sierra Leone: A Secondary Data Analysis, 2018 to 2022 | Samuel Sama Turay |
| | 16:15 - 16:25 | OP860: Time to care-seeking and factors influencing appropriate EVD care among Ebola case patients in Uganda, September to November 2022 | Rebecca Akunzirwe |
| | 16:25 - 16:35 | Questions and Answers | All |
| | 15:15 - 17:00 | Concurrent Oral Session 5 : Room 4 | |
| Sub-theme: Public Health Emergency Preparedness, Surveillance Outbreak Investigations and Response & Antimicrobial Resistance Moderator: Dr Virgil Kuassi Lokossou | | Evaluators: Dr Seogo Hamadou / Hetani Mdose | |
| | Time | Topic | Presenter |
| Tuesday 7th November 2023 | 15:15 - 15:25 | OP156: Increasing trends of antibiotic resistance, Uganda: an analysis of National antimicrobial resistance surveillance data, 2018-2021 | Saudah Namubiru Kizito |
| | 15:25 - 15:35 | OP744: Epidemiology of Multidrug-Resistant Enterobacteriaceae among Patients with Wound Infections in Ibadan, Nigeria | Olawale Sunday Animasaun |
| | 13:35 - 15:45 | OP763: Molecular Characterization and Resistance Pattern of Carbapenemase-Producing Klebsiella pneumoniae from Clinical Specimens at Federal Medical Centre, Keffi-Nasarawa State, Nigeria 2023 | Benson Igoche Omaiye |
| | 15:45 - 15:55 | Questions and Answers | All |
| | 15:55 - 16:05 | OP550: Retrospective cohort study of factors associated with non-initiation of antiretroviral therapy among adults newly diagnosed with HIV in Andijan, Uzbekistan, 2018-2021 | Shokhrush Usmanov |
| | 16:05 - 16:15 | OP589: Etiology, antimicrobial susceptibility patterns and factors associated with bacteriuria among HIV-infected women attending prevention of mother to child transmission clinic at Bukoba Municipality, Tanzania, 2022 | Eustadius Kamugisha Felician |
| | 16:15 - 16:25 | OP54: Predictors of positivity yield among HIV index contacts in Harare and Matabeleland South provinces, Zimbabwe, 2022 | Hamufare Dumisani Mugauri |
| | 16:25 - 16:35 | Questions and Answers | All |
| | 19:00 - 23:00 | Cultural Night | |
| Wednesday 8th November 2023 | 08:00 - 09:15 | Concurrent Oral Session 6 : Room 1 | |
| | | Sub-theme: Maternal Reproductive and Child Health, Vector Borne and Neglected Tropical Diseases, & Vaccine Preventable Diseases | |
| | | Moderator: Dr Alain Magazani | Evaluators: Magdalene Odikro / Joseph Babalola |

8th AFENET Scientific Conference, Mombasa, Kenya 5th - 10th November 2023

| Day | Time | Topic /Activity | Presenter |
|-----------------------------|--|---|--------------------------|
| Wednesday 8th November 2023 | 8:00 - 8:10 | OP868: Sexual and Gender-Based Violence among Adolescent Girls and Young Women during the Main COVID-19 Period, Eastern Uganda | Patience Mwine |
| | 8:10 - 8:20 | OP859: Factors associated with Black Water Fever among children with severe malaria in Kakumiro District, Western Uganda, February- August 2022 | Helen Nelly Naiga |
| | 8:20 - 8.:30 | OP702: Realizing sexual and reproductive health and rights of adolescent girls and young women through comprehensive SRHR approaches in Eastern Uganda, Buyende District: a quantitative study | Martha Zalwango |
| | 8:30 - 8:40 | OP456: Investigation d'une épidémie de Diphtérie dans le District Sanitaire de Tesker, région de Zinder, Niger, 2022 | Issiakou Aoubakar Gandou |
| | 8:40 - 8:50 | OP370: Evaluation du système de surveillance des décès néonataux dans le département de l'Ouémé, Bénin, de juillet 2021 à juin 2022 | Augusta Akouènon Adanve |
| | 8:50 - 9:00 | OP357: Facteurs associés à l'échec du traitement préventif intermittent du paludisme à la sulfadoxine -pyriméthamine chez les gestantes dans la maternité du centre hospitalier de Kingasani, Kinshasa, République Démocratique du Congo, janvier à novembre 2022 | Elie Kazadi Tshilumba |
| | 9:00 - 9:15 | Questions and Answers | All |
| 08:00 - 09:15 | Concurrent Oral Session 6 : Room 2 | | |
| | Sub-theme: Maternal Reproductive and Child Health, Vector Borne and Neglected Tropical Diseases, & Vaccine Preventable Diseases | | |
| | Moderator: Gerald Shambira | Evaluators: Tsitsi Juru / Ally Husseni | |
| Wednesday 8th November 2023 | Time | Topic | Presenter |
| | 8:00 - 8:10 | OP805: Malaria surveillance data analysis in the Kintampo North Municipality, Bono East Region, Ghana, 2023 | Isaac Baffoe-Nyarko |
| | 8:10 - 8:20 | OP661: Evaluation of the Entomological Surveillance System of Vector Density, Province of Nampula/ Mozambique, 2017 to 2021 | Raúl Duarte Namburete |
| | 8:20 - 8.:30 | OP633: Malaria Knowledge Among Women of Reproductive Age – Tete Province, Mozambique, 2019-2020 | Gerson Afai |
| | 8:30 - 8:40 | OP486: Référence des cas de paludisme grave et facteurs associés à la létalité chez les enfants de moins de 5 ans dans les hôpitaux publics de l'Alibori au Bénin du 01er avril au 31 octobre 2022 | Zoubérou Bio Béri |
| | 8:40 - 8:50 | OP304: Référence des cas graves de paludisme et facteurs associés à la létalité chez les enfants de moins de cinq ans, département du Borgou, 1er avril au 31 octobre 2022 | François Dadidje |
| | 8:50 - 9:00 | OP553: Investigation of an upsurge of bacterial meningitis cases in Northern Bahr-El-Ghazal State, South Sudan, January-July 2022 | Thomas Dugan Guot |
| 9:00 - 9:15 | Questions and Answers | All | |

8th AFENET Scientific Conference, Mombasa, Kenya 5th - 10th November 2023

| Day | Time | Topic /Activity | Presenter | |
|--------------------------------|---------------|---|---|--|
| Wednesday 8th November 2023 | 08:00 - 09:15 | Concurrent Oral Session 6 : Room 3 | | |
| | | Sub-theme: Maternal Reproductive and Child Health, Vector Borne and Neglected Tropical Diseases, & Vaccine Preventable Diseases | | |
| | | Moderator: Dr Husien Abukari Muhiadin | Evaluators: Daniel Kadobera / Lydia Nakiire | |
| | Time | Topic | Presenter | |
| Wednesday 8th November 2023 | 8:00 - 8:10 | OP845: Epidemiological analysis of acute flaccid paralysis surveillance data following three polio outbreaks – Western Region, Ghana, 2022 | Dennis Jubin | |
| | 8:10 - 8:20 | OP424: Investigation de l'Epidemie de Rougeole dans le District Sanitaire du Golfe, Togo, Février 2022 | Kokouvi Gamadé Dégué | |
| | 8:20 - 8:30 | OP267: Evaluation du système de surveillance de la rougeole, Dubréka, Août 2021 | Soumah Naby Mariama | |
| | 8:30 - 8:40 | OP39: Investigation de cas de Paralysies Flasques Aigues non poliomyélitique au niveau des sites d'orpaillages traditionnels du district sanitaire de Kédougou en juin 2021 (Sénégal) | Fodé Danfakha | |
| | 8:40 - 8:50 | OP545: Effect of corona virus disease 2019 pandemic on turnaround time for laboratory testing of measles samples, South Sudan, 2020-2021 | Manuela Alphonse | |
| | 8:50 - 9:00 | OP265: Profil épidémiologique des cas de Paralysie Flasque Aiguë (PFA) dans le département du Zou, Bénin de 2017-2021. | Tognissè Edgar Raoul Assogbakpè | |
| | 9:00 - 9:15 | Questions and Answers | All | |
| | 08:00 - 09:15 | Concurrent Oral Session 6 : Room 4 | | |
| | | Sub-theme: Maternal Reproductive and Child Health, Vector Borne and Neglected Tropical Diseases, & Vaccine Preventable Diseases | | |
| | | Moderator: Dr Blaise GUEZO- MEVO | Evaluators: Fred Odhiambo / Dr Abade Ahmed | |
| | Time | Topic | Presenter | |
| Wednesday 8th November 2023 | 8:00 - 8:10 | OP771: Cholera outbreak investigation, Gauteng Province, South Africa, February – March 2023: Re-emerging Public Health problem | Nchucheko Makhubele | |
| | 8:10 - 8:20 | OP835: Schistosomiasis surveillance system evaluation in Awutu Senya East Municipality, Central Region, Ghana | Seth Baffoe | |
| | 8:20 - 8:30 | OP762: Evaluation of Schistosomiasis (Bilharzia) Surveillance System at Ehlanzeni district, Mpumalanga province, 2020-2022 | Ntombizodwa Madalane | |

8th AFENET Scientific Conference, Mombasa, Kenya 5th - 10th November 2023

| Day | Time | Topic /Activity | Presenter |
|--|---------------|---|-------------------------------|
| Wednesday 8th November 2023 | 8:30 - 8:40 | OP323: Investigation d'une épidémie de shigellose dans l'aire de santé Prison, zone de santé Mweneditu, Lomami, République Démocratique du Congo, Octobre 2022 | Erick Tshibanda Mulangu |
| | 8:40 - 8:50 | OP676: Schistosomiasis Outbreak Investigation in Essuekyir, Ghana, January 2023 | Grace Adjoa Ocansey |
| | 8:50 - 9:00 | OP374: Profil épidémiologique des données de décès néonataux de 2018 à 2021 dans le département de l'Ouémé au Bénin | Augusta Akouènon Adanve |
| | 9:00 - 9:15 | Questions and Answers | All |
| | 9:15 - 9:20 | Switch period | |
| | 9:20 - 10:45 | Concurrent Poster Session 3 : Room I | |
| Sub-theme: Vector Borne Disease and Neglected Tropical Diseases | | | |
| Moderator: Dr Barnabe Gningue | | Evaluators: Davis Ashaba / Joseph Magoola | |
| Wednesday 8th November 2023 | Time | Topic | Presenter |
| | 9:20 - 9:25 | PP125: Distribution of Anopheles stephensi and Malaria prevention practice among travellers in areas of high human population movement along Ethio-Djibouti border: mixed research design, 2022 | Fentahun Agegnehu Worku |
| | 9:25 - 9:30 | PP229: Descriptive Analysis of Malaria Cases, Okavango District, Botswana-2023 | Priscilla Malibo |
| | 9:30 - 9:35 | PP269: Malaria outbreak investigation, Selebi-Phikwe district, Botswana, February 2023 | Gabobofane Maphakwane |
| | 9:35 - 9:40 | PP325: Evaluation of distribution of Insecticide Treated Nets for Malaria prevention in Chikwawa District, Malawi, 2021/2022 | Wamaka Blessings Msopole |
| | 9:40 - 9:45 | PP417: Effectiveness of indoor residual spray on malaria control; a review of the malaria cases among children under five years in Rachuonyo North Sub County, Homa Bay County, Kenya | Gabriel Kotewas |
| | 9:45 - 10:00 | Questions and Answers | All |
| | 10:00 - 10:05 | PP521: Investigation d'une flambée de lésions cutanéomuqueuses suspectes de leishmaniose dans la sous-préfecture de Grimari en RCA, janvier 2023 | Auguste Odilon Kpahina |
| | 10:05 - 10:10 | PP593: Schistosomiasis outbreak among leaners at Omindamba Combined school, Outapi district, Omusati region, Namibia, August 2022 | Gebhard Panduleni Ndyaleka |
| | 10:10 - 10:15 | PP784: The Impact of Neglected Tropical Diseases Expenditure on Onchocerciasis Treatment Outcomes in Nigeria, 2000-2021 | Bernsah Damian Lawong |
| | 10:15 - 10:20 | PP620: Pilot Serological and Molecular Survey for Dengue and other Arboviruses' Infection in Acute Febrile Patients in Yenagoa Bayelsa State, Nigeria | Dayo Olufemi Akanbi |

8th AFENET Scientific Conference, Mombasa, Kenya 5th - 10th November 2023

| Day | Time | Topic /Activity | Presenter |
|--|---------------|---|-----------------------------------|
| Wednesday 8th November 2023 | 10:20 - 10:25 | PP400: Performance de la lutte contre le paludisme chez les enfants de moins de 5 ans dans le district sanitaire de Tchaoudjo au Togo de 2019 à 2021 | Kossivi Ahe |
| | 10:25 - 10:30 | PP594: A confirmed human dracunculiasis case in Lafon County, Eastern Equatoria State, South Sudan, August 2022 | William Jenaro Okere |
| | 10:30 - 10:45 | Questions and Answers | All |
| | 9:20 - 10:45 | Concurrent Poster Session 3 : Room 2 | |
| Sub-theme: Vector Borne Disease and Neglected Tropical Diseases | | | |
| Moderator: ISSAKA TIEMBRE | | Evaluators: Mamadou Sarifou Ba / Pierre Wilnique | |
| Wednesday 8th November 2023 | Time | Topic | Presenter |
| | 9:20 - 9:25 | PP483: Référence des cas de paludisme grave et facteurs associés à la létalité chez les enfants de moins de 5 ans dans les hôpitaux de zone de Tanguiéta et de Kouandé du 01er avril au 31 octobre 2022 | Gally Akoakpo Djaboutou |
| | 9:25 - 9:30 | PP828: Caractéristique épidémiologique des décès maternels de janvier 2018 à juin 2022 dans le département du Couffo, Bénin | Nestor Sossoukpè |
| | 9:30 - 9:35 | PP880: Descriptive Analysis of Malaria cases, Masaka Region, Uganda, January - December 2022 | Gertrude Abbo |
| | 9:35 - 9:40 | PP467: Malaria Data analysis in Kibilizi subdistrict, Southern province, Rwanda, 2022 | Alice Musabyeyezu |
| | 9:40 - 9:45 | PPI28: Coverage and Factors associated with Utilization of Pyrethroid-Piperonyl Butoxide treated nets in a Malaria Endemic Region, Western Kenya | Stephen Aricha |
| | 9:45 - 10:00 | Questions and Answers | All |
| | 10:00 - 10:05 | PP660: Profil épidémiologique du paludisme à Betafo, région Vakinankaratra, Madagascar, 2022 | Lina Zafindraibe Herisoanjanahary |
| | 10:05 - 10:10 | PP580: Référence des cas de paludisme grave et facteurs associés à la létalité chez les enfants de 0 à 59 mois dans les hôpitaux publics de l'Ouémé au Bénin en 2022 | Augusta Akouènon Adanve |
| | 10:10 - 10:15 | PP741: Trends in Malaria reports from the Malaria Parasite Sentinel Surveillance in Nigeria, January 2017- May 2018 | Wudi Natasha Tanko |
| | 10:15 - 10:20 | PP740: Surveillance data analysis of under-5-year malaria cases amidst malaria Control interventions in the Tamale Metropolis, 2017 – 2021 | Shahadu Shembla |
| | 10:20 - 10:25 | PP690: Surveillance Data Analysis of Uncomplicated Malaria in Pregnancy in Ablekuma North Private Health Facilities, Ghana 2017- 2021 | Thelma Teley Aphour |
| | 10:25 - 10:30 | PP396: Increasing stockouts of critical malaria commodities in public health facilities in Uganda, 2017-2022 | Jane Frances Zalwango |
| | 10:30 - 10:45 | Questions and Answers | All |

8th AFENET Scientific Conference, Mombasa, Kenya 5th - 10th November 2023

| Day | Time | Topic /Activity | Presenter |
|-----------------------------|--|--|--|
| Wed. 8th Nov. 2023 | 9:20 - 10:45 | Concurrent Poster Session 3 : Room 3 | |
| | | Sub-theme: Vector Borne Disease and Neglected Tropical Diseases | |
| | | Moderator: Mr Samuel Assegid | Evaluators: Maria Nunga / Banda Jezreel Dabwitso |
| Wednesday 8th November 2023 | Time | Topic | Presenter |
| | 9:20 - 9:25 | PP322: The Role of Eating Out and Physical Contact with a Patient in Cholera Transmission in Salima District, Malawi October 2022 | Wamaka Msopole |
| | 9:25 - 9:30 | PP457: Investigating Cholera Outbreak in Nyamasheke District, Rwanda from 20th February to 09th March, 2023 | Solange Nyinawabeza |
| | 9:30 - 9:35 | PP528: Cholera outbreak among internally displaced people in Bentiu Camp, Unity State, South Sudan, March-October 2022 | Agnes Jokudu Nathaniel |
| | 9:35 - 9:40 | PP749: Cholera in the era of Covid-19-Pandemic: A Positive Trend in Volta Region 2017-2022, Ghana | Wisdom Kwame Klenyue |
| | 9:40 - 9:45 | PP787: Cholera outbreak investigation in Malakal County, Upper Nile State, South Sudan, February-March 2023 | Joeseh Hickson Lasu |
| | 9:45 - 10:00 | Questions and Answers | All |
| | 10:00 - 10:05 | PP239: Profil épidémiologique et facteurs associés aux diarrhées à Rotavirus, centre hospitalier régional de Gaoua, Burkina Faso, de 2013 à 2022 | Wendkouni Serge Alain Tougma |
| | 10:05 - 10:10 | PP666: Evaluation of the Diarrheal Disease Surveillance System, Nampula-Mozambique, 2019-2020 | Beatriz Felicidade Nhantumbo |
| | 10:10 - 10:15 | PP272: Laboratory Surveillance of Diarrhoeal Etiologic Agents, Lobatse, November 2022 | Chika Marilyn Olorato |
| | 10:15 - 10:20 | PP817: Profil épidémiologique du choléra dans le département de l'Atlantique de 2017-2021, Bénin | Balikissou Méyissehoue Gnonlonfin |
| | 10:20 - 10:25 | PP549: Food Poisoning Outbreak Investigation at Ecole Agricole et Veterinaire (EAV) Kabutare High School, Huye District of Rwanda - June 2022 | Albert Busumbigabo |
| | 10:25 - 10:30 | PP766: Foodborne disease outbreak investigation at a community hall in Soweto, Gauteng Province, South Africa, October 2022 | Naledi Mapitja |
| | 10:30 - 10:45 | Questions and Answers | All |
| | 9:20 - 10:45 | Concurrent Poster Session 3 : Room 4 | |
| | | Sub-theme: Vector Borne Disease and Neglected Tropical Diseases | |
| Moderator: Dr Hamet Ba | | Evaluators: Dr Peter Adewuyi / Khuliso Ravhuhali Goodman | |
| 9:20 - 9:25 | PPI 17: Assessing compliance to Tuberculosis/HIV standards of care through clinical audits at referral hospitals in Uganda | Veronica Kembabazi | |

8th AFENET Scientific Conference, Mombasa, Kenya 5th - 10th November 2023

| Day | Time | Topic /Activity | Presenter |
|-----------------------------|--|---|----------------------|
| Wednesday 8th November 2023 | 9:25 - 9:30 | PP310: Epidemiological Profile and Treatment outcome of tuberculosis cases at Moyamba District, Sierra Leone, 2023:A retrospective study | Joseph. Sam |
| | 9:30 - 9:35 | PP315:Analysis of Tuberculosis Laboratory Data, Southeast district, Botswana, September 2022 | Ketshepaone Herry |
| | 9:35 - 9:40 | PP445: Positivity rate of Pulmonary Tuberculosis among people Living with Human Immunodeficiency Virus attending Kibungo Referral Hospital, Ngoma District-Rwanda 2020-2021 | Shaban Havugimana |
| | 9:40 - 9:45 | PP499: Profil épidémiologique de la tuberculose multi-résistante à Kinshasa de janvier 2016 à décembre 2021 | Yannick Ebengo |
| | 9:45 - 10:00 | Questions and Answers | |
| | 10:00 - 10:05 | PP865:Adoption of eHealth for community monitoring of HIV/TB services and its predictors among NGO staff in Kampala Uganda | Isabella Wanadi Kisa |
| | 10:05 - 10:10 | PP512: Mortality trend and associated factors among HIV clients on antiretroviral therapy in Tanzania from 2018-2020 | Albert Paschal |
| | 10:10 - 10:15 | PP778: Characterization of adult HIV cases in Maragua Sub County Hospital, Murang'a County, Kenya in 2021-A cross sectional retrospective study. | David Gitau |
| | 10:15 - 10:20 | PP679: onitoring and improving turn-around time of HIV molecular testing in Angola | Ana Sofia Pinheiro |
| | 10:20 - 10:25 | PP605: Survival and predictors of mortality among multidrug resistant Tuberculosis patients after decentralization of services in Tanzania from 2017-2019 | George Mrema |
| | 10:25 - 10:30 | PP585: Evaluation of Multidrug Resistance Tuberculosis Surveillance System: Sierra Leone, 2020 – 2022 | Samuel Sao Bailor |
| | 10:30 - 10:45 | Questions and Answers | All |
| | 10:45 - 11:15 | Tea Break | |
| | 11:15 - 12:40 | Plenary Session 4: Global Health Security | |
| | | Moderators: Dr Carl Reddy | |
| | | Venue: Main Auditorium | |
| 11:15 - 11:35 | Strengthening IPC in African Health Systems towards Global Health Security | Prof Adebola Olayinka | |
| 11:35 - 11:55 | Global Health Security Agenda in the Post-Covid-19 Era | Dr Michael Mahar | |
| 11:55 - 12:15 | Global Health Security Agenda, Kenya Perspective | Dr Penina Munyua | |
| 12:40 -17:00 | Educational Tours and Field Site Visits | | |
| 08:00 - 09:00 | Concurrent Poster Session 4 : Room I | | |
| | Sub-theme: Maternal Reproductive and Child Health | | |
| | Moderator: Dr Alex Ario Riolexus | Evaluators: Moreen Kamateeka / Celestine Ameh | |

8th AFENET Scientific Conference, Mombasa, Kenya 5th - 10th November 2023

| Day | Time | Topic /Activity | Presenter |
|--|---------------|--|----------------------------|
| Thursday 9th November 2023 | 8:00 - 8:05 | PP289: Sierra Leone Reducing Maternal Mortality in the last five years, 2016 – 2021: A secondary data analysis on MDSR System | Zainab Juhehbab |
| | 8:05 - 8:10 | PP387: Facteurs associés à la létalité du paludisme grave chez les enfants de moins de 5 ans dans les hôpitaux publics du Bénin du 01 avril au 31 octobre 2022 | Nestor Sossoukpè |
| | 8:10 - 8:15 | PP582: Maternal Mortality Surveillance System Evaluation, The Gambia, 2022 | Abdoulie Sonko |
| | 8:15 - 8:20 | PP651: Review of Teenage Pregnancy in Erongo Region, Namibia 2013 – 2018: A Descriptive Study | Ndeshihafela Sakaria |
| | 8:20 - 8:30 | Questions and Answers | All |
| | 8:30 - 8:35 | PP522: Neonatal mortality and associated factors at the Western Province Hospital in Rwanda; A facility based cross-sectional study, 2019-2021 | Christophe Nkundabaza |
| | 8:35 - 8:40 | PP531: Causes and trends of stillbirth deliveries, Aberdeen Women's Centre, Freetown, Sierra Leone, 2017-2020: A case study of a health facility | Lilian Kumba Admire-Taylor |
| | 8:40 - 8:45 | PP575: Risk Factors associated with delivering Low Birth Weight Infants at Oshakati Intermediate Hospital, Oshana region, Namibia – September to November 2020 | Roswitha Mukanga Ndjengwa |
| | 8:45 - 8:50 | PPI 35: Facteurs associés aux mortinaissances dans le district sanitaire de Pô, région du Centre-Sud, Burkina Faso, juillet 2022 | Boureima Kouraogo |
| | 8:50 - 9:00 | Questions and Answers | All |
| | 08:00 - 09:00 | Concurrent Poster Session 4 : Room 2 | |
| Sub-theme: Maternal Reproductive and Child Health | | | |
| Moderator: Dr Jean Medard Kankou | | Evaluators: Ernest Kateule / Mamadou Sarifou Ba | |
| | Time | Topic | Presenter |
| Thursday 9th Nov. 2023 | 8:00 - 8:05 | PP656: Evaluation of comprehensive post-abortion services surveillance system at Dodoma region, Tanzania from January to March 2023 | Jonhas Masatu Malija |
| | 8:05 - 8:10 | PP796: Understanding newborn care practiced by mothers in Mukono district Uganda, 2022 | Annet Mary Namusisi |
| | 8:10 - 8:15 | PP704: Why mothers die during maternal delivery and pregnancy-related complications? Secondary data analysis of maternal death data from Falaba District, Sierra Leone, 2018 to 2022 | Jusu Musa |
| | 8:15 - 8:20 | PP808: Profil épidémiologique des décès maternels à la Maternité de référence Dar-El Hanan, Djibouti, 2012-2018 | Sahra Moussa Bouh |
| | 8:20 - 8:30 | Questions and Answers | All |

8th AFENET Scientific Conference, Mombasa, Kenya 5th - 10th November 2023

| Day | Time | Topic /Activity | Presenter |
|----------------------------|-----------------------|---|---------------------------|
| Thursday 9th November 2023 | 8:30 - 8:35 | PP707: Delivery Outcome among Women who delivered in Regional Hospitals, January 2021 To December 2022 Sierra Leone | Musu Rachael Cole |
| | 8:35 - 8:40 | PP101: Seroprevalence of Toxoplasmosis and Rubella in Pregnant Women from Antenatal Clinic in Ibadan (Nigeria) And Bamako (Mali) | Mazo Koné |
| | 8:40 - 8:45 | PP218: Evaluation of the adherence of healthcare workers to Prenatal care standards in the context of free care program in Burkina Faso | Satouro Arsene Some |
| | 8:45 - 8:50 | PP800: Factors Associated with Depression Symptoms among pregnant Adolescent Girls and Young Women at Kawempe National Referral Hospital, Uganda | Henry Kiiza |
| | 8:50 - 9:00 | Questions and Answers | All |
| | 08:00 - 09:00 | Concurrent Poster Session 4 : Room 3 Sub-theme: HIV/AIDS, Tuberculosis and Other Infectious Diseases Moderator: Dr Hanitrinala Sahondranirina Pâquerette | |
| | Time | Topic | Presenter |
| Thursday 9th November 2023 | 8:00 - 8:05 | PP164: Increasing HIV Incidence in Southwest Ethiopia: Evidence from Case-Based Surveillance Data 2019-2022 | Nigatu Admasu Desta |
| | 8:05 - 8:10 | PP245: Increased vulnerability to HIV infection among key populations during the COVID-19 emergency, Mozambique 2022, Formative-Assessment | Hélder Filipe Fumo |
| | 8:10 - 8:15 | PP418: Achieving the 95-95-95 fast track targets: HIV care and treatment cascade, Zimbabwe, 2021: a secondary data analysis | Ernest Tsarukanayi Mauwa |
| | 8:15 - 8:20 | PP435: Evaluation of HIV Surveillance System within the Prevention of Mother to Child Transmission Program, Western Area Urban District, Sierra Leone, 2022 | Saidu Heisenberg Mansaray |
| | 8:20 - 8:30 | Questions and Answers | All |
| | 8:30 - 8:35 | PP437: Predictors of time to viral load suppression in young people in Gwanda District, Zimbabwe 2021 | Mutizwa Thomas Mupedziswa |
| | 8:35 - 8:40 | PP450: Assessment of Nutritional Status among Children Living with HIV in Kibuye Referral Hospital Catchment Area, Karongi district - Rwanda, January-November 2022 | Jean Pierre Bucyanayandi |
| | 8:40 - 8:45 | PP533: Prevalence and predictors of detectable viral-load among HIV clients on Ant-retroviral therapy in Kagera region Tanzania | Albert Paschal |
| | 8:45 - 8:50 | PP884: Trends in HIV Differentiated Service Delivery Model utilization among children and adolescents in Uganda, 2020-2022 | Rebecca Akunzirwe |
| 8:50 - 9:00 | Questions and Answers | All | |

8th AFENET Scientific Conference, Mombasa, Kenya 5th - 10th November 2023

| Day | Time | Topic /Activity | Presenter | |
|----------------------------|---|--|---|--|
| Thursday 9th Nov. 2023 | 08:00 - 09:00 | Concurrent Poster Session 4 : Room 4 | | |
| | | Sub-theme: Non Communicable Diseases Injuries and Mental Health | | |
| | | Moderator: Dr Cynthia Baltazaar | Evaluators: Khuliso Ravhuhali Goodman / Tsitsi Juru | |
| | Time | Topic | Presenter | |
| Thursday 9th November 2023 | 8:00 - 8:05 | PP149: Five years of hypertension descriptive data analysis at Merawi primary hospital, West Gojjam Zone, Amhara Regional State, Ethiopia, 2018 –2022 | Henok Abere Ali | |
| | 8:05 - 8:10 | PP243: Prevalence of Substance use disorder and associated risk factors among mental health patients at the Edward Snoh Grant’s Mental Health Hospital, Liberia, 2021 | Emmanuel Dwalu | |
| | 8:10 - 8:15 | PP420: Épidémiologie et Facteurs d’Exposition des Cardiopathies Congénitales au Service de Pédiatrie du Centre Hospitalier Universitaire Campus de Lomé de 2017 à 2022 | Yamdi Kanou | |
| | 8:15 - 8:20 | PP434: Clinico-epidemiological characteristics of Road Traffic injuries presenting at the Trauma Centre of Connaught Teaching Hospital, Sierra Leone, 2020-2022 | Isata Theresa Kamara | |
| | 8:20 - 8:30 | Questions and Answers | All | |
| | 8:30 - 8:35 | PP613: “Prevalence and predictors of hypertension among screened population in Rwanda: A cross-sectional study, 2021 to 2022” | Isabelle Teta Batanage | |
| | 8:35 - 8:40 | PP641: Evaluation of Dodoma cervical cancer population based surveillance system at Dodoma Tanzania, January to December 2022. | Godbless Henry Mfuru | |
| | 8:40 - 8:45 | PP769: Quality of Management for Adult Hypertensives Attending Rural and Urban Primary Health Centers in Oyo State, Nigeria, July 2021: A Comparative Study | Olugbenga Adeola Odukanmi | |
| | 8:45 - 8:50 | PP789: Prevalence and Factors Associated With Non-Adherence to Diabetes Treatment among Adult Patients in Care at Jinja Regional Referral Hospital | Enock Kukiriza | |
| | 8:50 - 9:00 | Questions and Answers | All | |
| | 9:00 - 9:05 | Switch period | | |
| | 09:05 - 10:10 | Concurrent Oral Session 7 : Room 1 | | |
| | | Sub-theme: Public Health Emergency Preparedness, Surveillance Outbreak Investigation and Response | | |
| Moderator: Dr John Rumunu | | Evaluators: Banda Jezreel Dabwitso / Ernest Konadu Asiedu | | |
| 9:05 - 9:15 | | OPI34: Investigation d’un cas rare de rage bovine dans une ferme à Loumbila, Burkina Faso, mai 2022 | Aristide Compaoré | |
| 9:15 - 9:25 | OP393: Investigation d’une flambée de conjonctivite à l’école de Garsale-Daba, Région de Dikhil/ Djibouti, janvier 2022 | Abdi Houssein Egueh | | |

8th AFENET Scientific Conference, Mombasa, Kenya 5th - 10th November 2023

| Day | Time | Topic /Activity | Presenter |
|---|---------------|---|--------------------------|
| Thursday 9th November 2023 | 9:25 - 9:35 | OP454: Evaluation of food poisoning surveillance system in Kirehe District of Eastern Province in Rwanda, October 2022 | Philbert Rugirangoga |
| | 9:35 - 9:45 | OP484: Investigation autour d'un phénomène anormal à Kpo-kahankro, district Bouaké Sud, Gbêkê, Côte d'Ivoire, décembre 2022-janvier 2023 | Jean Louty Diomande |
| | 9:45 - 9:55 | OP752: Paederus dermatitis (Nairobi fly) outbreak investigation in momona IDP Mekelle, Tigray, Ethiopia-October 2021 | Amanuel Solomon |
| | 9:55 - 10:10 | Questions and Answers | All |
| | 09:05 - 10:10 | Concurrent Oral Session 7 : Room 2 | |
| Sub-theme: Public Health Emergency Preparedness, Surveillance Outbreak Investigation and Response | | | |
| Moderator: Dr Cecilia Mbae | | Evaluators: James Zulu / Magdalene Odikro | |
| | Time | Topic | Presenter |
| Thursday 9th November 2023 | 9:05 - 9:15 | OP287: Investigation of Contagious Bovine Peripneumonia cases in a beef herd in Bougouni, Mali, December 2020 | Ousmane Boua Togola |
| | 9:15 - 9:25 | OP293: Investigation des cas suspects de Peste de Petits Ruminants (ovine et caprine) dans le District de Bankilaré, Région de Tillabéri, Niger, janvier 2022 | Hamissou Inoussa Hassane |
| | 9:25 - 9:35 | OP470: Perception of Rapid SMS users in Promoting Community Health in Huye district, 2021 | Kizito Habakurama |
| | 9:35 - 9:45 | OP517: Investigation des cas de Brucellose dans la région d'Obock, Djibouti, Novembre 2021 | Oudoum Kamil Aboubaker |
| | 9:45 - 9:55 | OP882: Gastrointestinal anthrax outbreak investigation in Ibanda District, Southwestern Uganda, August, 2022 | Patrick King |
| | 9:55 - 10:10 | Questions and Answers | All |
| | 09:05 - 10:10 | Concurrent Oral Session 7 : Room 3 | |
| Sub-theme: Public Health Emergency Preparedness, Surveillance Outbreak Investigation and Response, Non Communicable Diseases, Injuries and Mental Health | | | |
| Moderator: Dr Raphael Mbailao | | Evaluators: Dr Sherry Johnson / Dr Dora Dadzie | |
| | Time | Topic | Presenter |
| | 9:05 - 9:15 | OP99: Pesticide exposure and associated acute health effects among smallholder farmers in Mbale District, Eastern Uganda, August 2020 | Elizabeth Muhumuza |
| | 9:15 - 9:25 | OPI42: Spatio-temporal trends of air quality, Kampala City, Uganda, 2020-2022 | Mackline Ninsiima |
| | 9:25 - 9:35 | OP215: Etude des facteurs associés à la vaccination contre le Human Papillomavirus chez les filles de 9 à 13 ans scolarisées dans le district sanitaire de Médina Yoro Foulah (Sénégal) en 2022 | Matar Ndiaye |

8th AFENET Scientific Conference, Mombasa, Kenya 5th - 10th November 2023

| Day | Time | Topic /Activity | Presenter | |
|---|---|---|---|--|
| Thursday 9th November 2023 | 9:35 - 9:45 | OP757: Determination of Dioxin Level in Cattle Hide Processed Using Different Fuel Sources for Human Consumption in Sokoto Central Abattoir, Sokoto, Nigeria | Zakariyau Umar | |
| | 9:45 - 9:55 | OP206: Strengthening Capacity at Points of Entry: An Evaluation of the Harmonized Curriculum for the ECOWAS Region | Aishat Bukola Usman | |
| | 9:55 - 10:10 | Questions and Answers | All | |
| | 09:05 - 10:10 | Concurrent Oral Session 7 : Room 4 | | |
| Sub-theme: Public Health Emergency Preparedness, Surveillance Outbreak Investigation and Response, Non Communicable Diseases, Injuries and Mental Health & Vaccine Preventable Diseases | | | | |
| | | Moderator: Dr Olivia Namusisi | Evaluators: Doreen Gonahasa / Mbouna Ndiaye | |
| | Time | Topic | Presenter | |
| Thursday 9th November 2023 | 9:05 - 9:15 | OP225: A Journey Towards a Responsive HIV Viral Load Monitoring System in Kenya, 2023 | Grace Rabut | |
| | 9:15 - 9:25 | OP339: Aspects épidémiologiques et thérapeutiques de la Tuberculose Multi Résistante chez l'enfant à Kinshasa, République Démocratique du Congo, 2017-2022 | Nicole Muzutie Anshambi | |
| | 9:25 - 9:35 | OP597: Investigation d'une épidémie de rougeole dans le camps de réfugiés de la wilaya de Hodh charghi, Mauritanie, 2023 | Lam Mariata | |
| | 9:35 - 9:45 | OP581: Uptake and associated factors of Cervical Cancer Screening Services among Women attending Reproductive and Child Health Clinic in Dodoma Municipal Council, Tanzania from 1st March to 30th April 2022 | Omary Nassoro | |
| | 9:45 - 9:55 | OP913: Characterizing general population participation in COVID-19 response measures: Liberia population-based SARS-CoV-2 seroprevalence study 2023 preliminary findings | Faith Kamara Whesseh | |
| | 9:55 - 10:10 | Questions and Answers | All | |
| | 10:10 - 10:40 | Tea Break | | |
| | 10:40 - 13:00 | Plenary Session 5: Global Health Security, Non Communicable Diseases, Injuries and Mental Health | | |
| | | Moderators: Dr Kip Baggett | | |
| | | Venue: Main Auditorium | | |
| | 10:40 - 11:05 | Mobilizing monetary and nonmonetary resources to strengthen health systems in Africa within the challenges of health security | Dr Ebere Okereke | |
| | 11:05 - 11:30 | Attaining the Triple Billion-The Role of Healthcare Financing towards Universal Health Coverage | Mr Raphael Sekpeb | |
| 11:30 - 11:50 | Universal Healthcare Coverage Programme in Kenya | Dr Bernard Langat | | |
| 11:50 - 12:10 | Africa CDC Strategy for tackling Mental Health Challenges in Africa | Dr Abdulaziz Mohammed | | |

8th AFENET Scientific Conference, Mombasa, Kenya 5th - 10th November 2023

| Day | Time | Topic /Activity | Presenter |
|---|---------------|--|---------------------------|
| Thursday 9th November 2023 | 12:10 - 13:00 | Panel Discussion: Contribution of Women to Public Health in Africa | Panelists |
| | 13:00 - 14:00 | Lunch Break | |
| | 14:00 - 15:00 | Plenary Session 6: One Health and Laboratory Strengthening Initiatives | |
| | | Moderators: Dr Cynthia Baltazaar | |
| | | Venue: Main Auditorium | |
| | 14:00 - 14:20 | Building a One-Health Workforce for Enhanced Global Health Security | Prof William Bazeyo |
| | 14:20 - 14:40 | Linking Field Epidemiology to Laboratory Biosafety and Biosecurity-Going Beyond the Cause of Outbreaks to the Intention | Prof Elizeus Rutebemberwa |
| | 14:40 - 15:00 | Global Fund Pandemic Preparedness Initiatives | Dr David Lowrance |
| | 15:00 - 15:10 | Switch period | |
| | 15:10 - 16:40 | Concurrent Poster Session 5 : Room I | |
| Sub-theme: One Health and Climate Change, HIV/TB and Other Opportunistic Infections | | | |
| Moderator: Dr Seogo Hamadou | | Evaluators: Irene Kyamwine / Ben Masira | |
| | Time | Topic | Presenter |
| Thursday 9th November 2023 | 15:10 - 15:15 | PP853: Evaluation du système de surveillance des morsures et de la rage, Direction Préfectorale de l'Elevage de Pita, 2019-2021 | Mamadou Aliou 2 Bah |
| | 15:15 - 15:20 | PP261: "Anthrax is not a mysterious disease": Revelation from an outbreak investigation in Shinyalu, Kakamega County, Kenya, 2021 | Florence Wanjiru Mugo |
| | 15:20 - 15:25 | PP477: Retrospective Rabies Exposure Cases analysis -Kicukiro District, Rwanda, 2018-2022 | Honorine Mutuyimana |
| | 15:25 - 15:30 | PP497: Analyse des données de surveillance du feu de brousse survenu dans le village de Dakaré, Région de Maradi, Niger, 2021 | Aboubacar Amadou |
| | 15:30 - 15:40 | Questions and Answers | All |
| | 15:40 - 15:45 | PP246: Evaluation du système de surveillance de la rage dans la préfecture de Faranah, Septembre 2021 | Abou Sylla |
| | 15:45 - 15:50 | PP677: Analyse des données de surveillance des urgences sanitaires d'origine environnementale notifiées au Centre Ivoirien antipollution, Côte d'Ivoire, 2018-2022 | Tana Pélagie Adon |
| | 15:50 - 15:55 | PP539: Cutaneous human anthrax outbreak investigation in Gogrial West County, Warrap State, South Sudan, April-December 2022 | John Akol Akol |
| | 15:55 - 16:00 | PP642: Profil Epidémiologique des animaux mordeurs, mis en observation pour suspicion de Rage, Régions de Nouakchott, 2022 | Abdi. Sidi |
| | 16:00 - 16:10 | Questions and Answers | All |

8th AFENET Scientific Conference, Mombasa, Kenya 5th - 10th November 2023

| Day | Time | Topic /Activity | Presenter |
|----------------------------|---------------|--|------------------------------|
| Thursday 9th November 2023 | 16:10 - 16:15 | PP433: Investigation d'un cas de rage canine à Kiffa, Région d'Assaba, Mauritanie, Avril 2022 | El Yedaly Mohameden Hamed |
| | 16:15 - 16:20 | PP38: Connaissances, attitudes et pratiques des communautés et des prestataires de la santé humaine dans le district sanitaire de Kédougou sur la prévention de la rage en 2022 (Sénégal). | Fodé Danfakha |
| | 16:20 - 16:25 | PP300: Investigation of a confirmed case of human rabies in the health area of Béléko, Fana, Mali, April 2022 | Youssouf Diawara |
| | 16:25 - 16:30 | PP107: High Mortality from Clinical Rabies in Tigray during the Prolonged War and Deadly Siege: Call for Action | Afewerki Tesfahunegn Nigusse |
| | 16:30 - 16:40 | Questions and Answers | All |
| | 15:10 - 16:40 | Concurrent Poster Session 5 : Room 2 Sub-theme: HIV/TB and Other Opportunistic Infections, Antimicrobial Resistance and Infection Prevention and Control Moderator: Dr. Mohammed A.Vandi | |
| | Time | Topic | Presenter |
| Thursday 9th November 2023 | 15:10 - 15:15 | PP197: Improving Pre-Exposure Prophylaxis Screening and Initiation among Adolescent Girls and Young Women in Selected Health Facilities, Western Uganda; January-June 2022 | Patience Mwine |
| | 15:15 - 15:20 | PP305: Has the COVID-19 pandemic affected tuberculosis control in Sierra Leone? -A retrospective secondary data analysis, 2019 – 2022 | Josephine Amie Koroma |
| | 15:20 - 15:25 | PP408: Factors associated with self-discontinuation of Pre-Exposure Prophylaxis among Adolescent Girls and Young Women in Mazowe District, Zimbabwe, 2021 | Godwin Choga |
| | 15:25 - 15:30 | PP340: Facteurs Associes a la Suppression de la Charge Virale Chez les Personnes Vivant Avec le Vih Sous un Regime a Base De Dolutegravir Dans la Ville De Kolwezi, Lualaba, Republique Democratique du Congo, Juin 2019 a Juin 2021 | Christian Kadianda |
| | 15:30 - 15:40 | Questions and Answers | All |
| | 15:40 - 15:45 | PP460: Sero-prevalence of transfusion-transmissible infections among blood donors in Port Loko District Government Hospital, Sierra Leone: 2020-2021 | Mbaimba Saidu Kamara |
| | 15:45 - 15:50 | PP700: Achieving Viral Load Suppression Coverage in Rural Eastern Uganda, Kamuli District: an experimental study | Tendo Rosette Nalugwa |
| | 15:50 - 15:55 | PP378: Prevalence and Factors Associated with SARS-CoV-2 Among Persons Living with HIV in Six Districts-Zambia, July 2020: A secondary analysis of three concurrent SARS-CoV-2 Prevalence Surveys | Stephen Longa Chanda |

8th AFENET Scientific Conference, Mombasa, Kenya 5th - 10th November 2023

| Day | Time | Topic /Activity | Presenter |
|--|---------------|--|----------------------------------|
| Thursday 9th November 2023 | 15:55 - 16:00 | PP886: Assessing late presentation for HIV care among men living with HIV enrolled on Antiretroviral Therapy in Eastern Uganda, 2020 | Sherifah Nabikande |
| | 16:00 - 16:10 | Questions and Answers | All |
| | 16:10 - 16:15 | PP699: Analyse des mesures de surveillance épidémiologique du VIH/SIDA en Guinée-Bissau, de 2014 à 2021 | Mendes Dias Bawolencá Mariana |
| | 16:15 - 16:20 | PP599: Evaluation of early infant diagnosis surveillance system in Otjozondjupa region, Namibia 2017- 2021 | Maria Nuusiku Angala |
| | 16:20 - 16:25 | PP684: External Quality Assurance of HIV rapid testing in PEPFAR supported sites in Angola | Euzália Botelho Tomé |
| | 16:25 - 16:30 | PP693: Needle-stick and sharps-related injuries among healthcare workers at Kingharman Road Hospital, Sierra Leone, 2023 | Edward Ellie |
| | 16:30 - 16:40 | Questions and Answers | All |
| | 15:10 - 16:40 | Concurrent Poster Session 5 : Room 3 | |
| Sub-theme: HIV/TB and Other Opportunistic Infections, Antimicrobial Resistance and Infection Prevention and Control | | | |
| Moderator: Ellen Yard | | Evaluators: Erika Rossetto / Patrick Dely | |
| | Time | Topic | Presenter |
| Thursday 9th November 2023 | 15:10 - 15:15 | PP86: Antimicrobial Resistance of Bacterial Isolates, Sana'a city, Yemen 2018-2019 | Raja Mohammed Al-Haimi |
| | 15:15 - 15:20 | PP441: Assessing awareness, attitude, and practices of veterinarians towards antimicrobial resistance in Bugesera District of Rwanda-January to February 2023. | Sarah Mwera |
| | 15:20 - 15:25 | PP701: An investigation of an outbreak of multidrug-resistant <i>Acinetobacter baumannii</i> infections in a neonatal intensive care unit at a regional hospital in KwaZulu-Natal, August 2022 | Andani Ronel Marumo |
| | 15:25 - 15:30 | PP685: Assessing infection prevention and control governance structures and financing options in Rachuonyo North sub county health facilities, Homa Bay County, Kenya | Gabriel Kotewas |
| | 15:30 - 15:40 | Questions and Answers | All |
| | 15:40 - 15:45 | PP278: Evaluation du système de surveillance des décès maternels de juillet 2021 à juin 2022 dans le département du Couffo, Bénin | Nestor Sossoukpè |
| | 15:45 - 15:50 | PP311: Evaluation du système de surveillance de la rougeole dans la zone de santé de N'djili, Kinshasa, République Démocratique du Congo, 2021 à 2022 | Fabrice Sewolo Matondo |
| | 15:50 - 15:55 | PP329: Evaluation of an Electronic Case-based Disease Surveillance System in Karene District, Sierra Leone, 2022 | Eldred Moore |
| | 15:55 - 16:00 | PP551: Evaluation of Rotavirus Surveillance System at Kilifi County Hospital-Kenya, 2017-2021 | Ednah Salat |

8th AFENET Scientific Conference, Mombasa, Kenya 5th - 10th November 2023

| Day | Time | Topic /Activity | Presenter |
|--|---------------|--|--------------------------|
| Thursday 9th November 2023 | 16:00 - 16:10 | Questions and Answers | All |
| | 16:10 - 16:15 | PP256: Leveraging the Acute Flaccid Paralysis Surveillance System to Enhance COVID-19 Surveillance in Uganda, 2020 | Wilbrod Mwanje |
| | 16:15 - 16:20 | PP330: Evaluation of the Acute flaccid paralysis surveillance system in Southern Province, Zambia, 2020-2022 | Nangoma Agness Haambote |
| | 16:20 - 16:25 | PP333: Evaluation of the Acute Flaccid Paralysis (AFP) Surveillance System in Eastern Province, Zambia, 2020-2022 | Chriswell Nkoloma |
| | 16:25 - 16:30 | PP544: Profil épidémiologique de la paralysie flasque aiguë, département des Collines, Bénin, 1er janvier 2016- 04 juillet 2022. | Richard Sèfounon |
| | 16:30 - 16:40 | Questions and Answers | All |
| | 15:10 - 16:40 | Concurrent Poster Session 5 : Room 4 | |
| Sub-theme: One Health and Climate Change, HIV/TB and Other Opportunistic Infections, and Infection Prevention and Control | | | |
| Moderator: Dr Amadou Jallow | | Evaluators: Uzoma Ogbonna / Dr Vincent Mutabazi | |
| | Time | Topic | Presenter |
| Thursday 9th November 2023 | 15:10 - 15:15 | PP128: Coverage and Factors associated with Utilization of Pyrethroid-Piperonyl Butoxide treated nets in a Malaria Endemic Region, Western Kenya | Stephen Aricha |
| | 15:15 - 15:20 | PP479: Référence du paludisme grave et les facteurs associés à la létalité chez les enfants de moins de 5 ans dans les hôpitaux publics du Littoral au Bénin en 2022 | Arnaud Wilfried Padonou |
| | 15:20 - 15:25 | PP403: Investigation of malaria upsurge in Indoor Residual Spraying (IRS) in four districts in Eastern Uganda, 2016-2021 | Alice Asio |
| | 15:25 - 15:30 | PP490: Référence des cas de paludisme grave et facteurs associés à la létalité chez les enfants de moins de 5 ans à l'hôpital de zone de Natitingou du 01 avril au 31 octobre 2022 | Edgard Sotiré N'tchagaba |
| | 15:30 - 15:40 | Questions and Answers | All |
| | 15:40 - 15:45 | PP730: Use of community dialogue in malaria control social behavior change intervention among women of Mambai community unit, Vihiga County, Kenya | Mercy Lodendwa |
| | 15:45 - 15:50 | PP494: Référence des cas graves de paludisme et facteurs associés à la létalité chez les enfants de moins de cinq ans, département des Collines, Bénin, 1er avril au 31 octobre 2022 | Richard Sèfounon |
| | 15:50 - 15:55 | PP140: Trends and Distribution of Severe Malaria Cases, Uganda, 2017-2021: A Descriptive Analysis of the Health Management Information System Data | Marie Gorreti Zalwango |

8th AFENET Scientific Conference, Mombasa, Kenya 5th - 10th November 2023

| Day | Time | Topic /Activity | Presenter |
|----------------------------|--|---|------------------------------|
| Thursday 9th November 2023 | 15:55 - 16:00 | PP529: Référence des cas de paludisme grave et facteurs associés à la létalité chez les enfants de moins de cinq ans dans les hôpitaux du Mono, du 01 avril au 31 Octobre 2022 | Edouard Hountohotègbè |
| | 16:00 - 16:10 | Questions and Answers | All |
| | 16:10 - 16:15 | PP75: Analyse des données de surveillance épidémiologique de la Fièvre Jaune, Burkina Faso 2017 à 2021 | Ferima Nikiema |
| | 16:15 - 16:20 | PP475: Spatial clustering, hotspot analysis and temporal distribution of the 2022 Ebola Virus Disease outbreak in Uganda | George Paasi |
| | 16:20 - 16:25 | PP552: Outbreak of Crimean-Congo hemorrhagic fever in Kyzylorda region, Kazakhstan, March-July 2022 | Malika Gabdullina |
| | 16:25 - 16:30 | PP625: Establishing a Mortality Surveillance System to Boost an End to End Process of Case Identification during Sudan Virus Disease Outbreak in Masaka City, Uganda, November 10th to 25th 2022. | Maureen Katusiime |
| | 16:30 - 16:40 | Questions and Answers | All |
| | 16:40 - 16:50 | Switch period | |
| | 16:50 - 18:15 | Concurrent Poster Session 6 : Room I Sub-theme: Public Health Emergency Preparedness, Surveillance Outbreak Investigations and Response Moderator: Prof. Patrick Kere Maelo | |
| Thursday 9th November 2023 | Time | Topic | Presenter |
| | 16:50 - 16:55 | PP46: Investigation of Covid-19 outbreak among police barracks of a state guest house, New Delhi, India, 2020 | Prasoon Sheoran |
| | 16:55 - 17:00 | PP70: Severe Acute Malnutrition Outbreak Investigation at Dubti District of Awsiresu Zone, Afar Region, North Eastern Ethiopia, 2022 | Aman Yesuf Endris |
| | 17:00 - 17:05 | PP756: Outbreak of Influenza (H3N2) in two senior high schools in the Eastern Region, Ghana, 2022 | Doris Aboagyewaa Edu-Quansah |
| | 17:05 - 17:10 | PPI55: Scabies outbreak investigation in Hoima District, Western Uganda, February-June 2022 | Rebecca Akunzirwe |
| | 17:10 - 17:20 | Questions and Answers | All |
| | 17:20 - 17:25 | PPI86: Respiratory Syncytial Virus outbreak Investigation at Abobo District of Agnuwaak Zone, Gambella Region, Ethiopia, 2021: Unmatched Case-Control Study | Bortola Abdisa Ayana |
| | 17:25 - 17:30 | PP362: Suspected Newcastle Disease Outbreak Investigation in Bukirasaki commune, Burundi, 2023 | Felix Nimbona |
| | 17:30 - 17:35 | PP682: Suspected Waterborne Illness Outbreak in Chief Albert Luthuli sub-district, Mpumalanga Province, South Africa, December 2022 – February 2023 | Lethukuthula Zondi |
| 17:35 - 17:40 | PP348: An investigation of a suspected foodborne outbreak at a birthday party in Gwembe district - Southern Zambia, January 2023 | Mapoloko Theresia Moholoholo | |

8th AFENET Scientific Conference, Mombasa, Kenya 5th - 10th November 2023

| Day | Time | Topic /Activity | Presenter |
|--|---------------|--|------------------------------|
| Thursday 9th November 2023 | 17:40 - 17:50 | Questions and Answers | All |
| | 17:50 - 17:55 | PP689: Investigation d'une flambée de Toxi-Infection Alimentaire Collective à Aniansué, District sanitaire d'Abengourou, Côte d'Ivoire, février 2023 | Pacôme Adoni |
| | 17:55 - 18:00 | PP810: Investigation de cas de Rougeole à la Polyclinique Arhiba au Quartier 4, Djibouti, Octobre 2022 | Ibiri Mohamed Hassan |
| | 18:00 - 18:05 | PPI98: Investigation des cas d'envenimation par morsures des serpents dans le district sanitaire de Bessao, Tchad, 2022 | Albert Fogoza |
| | 18:05 - 18:15 | Questions and Answers | All |
| | 16:50 - 18:15 | Concurrent Poster Session 6 : Room 2 | |
| Sub-theme: Public Health Emergency Preparedness, Surveillance Outbreak Investigations and Response | | | |
| Moderator: Dr Nyambe Sinyange | | Evaluators: Khuliso Ravuhali Goodman / Dr Peter Adewuyi | |
| | Time | Topic | Presenter |
| Thursday 9th November 2023 | 16:50 - 16:55 | PP474: Evaluation of Food Poisoning Surveillance System at Rwamagana Provincial Hospital, Rwamagana District, Rwanda, 2017- 2021 | Theobald Gasigwa |
| | 16:55 - 17:00 | PP855: Evaluation of malaria outbreak detection methods, Uganda, 2022 | Marie Gorreti Zalwango |
| | 17:00 - 17:05 | PP833: Analysis of the Integrated Influenza-Like Illness/ Severe Acute Respiratory Infection and Covid-19 Surveillance Data in Ghana, 2022 | Martha Kotey |
| | 17:05 - 17:10 | PP476: Evaluation système de surveillance de la rougeole dans le Béré, Côte d'Ivoire, novembre 2022 | Brou Affoua Annicette Sophia |
| | 17:10 - 17:20 | Questions and Answers | All |
| | 17:20 - 17:25 | PP664: Rotavirus Surveillance System Evaluation in Children Under Five, Dar Es Salaam July 2020 – July 2021 | Mariam Mbwana Ramadhani |
| | 17:25 - 17:30 | PP847: Evaluation of anaemia in pregnancy surveillance system, Central Region, Ghana - 2022 | Emma Delali Forley |
| | 17:30 - 17:35 | PP675: Evaluation du système de surveillance de la rougeole/rubéole dans les régions sanitaires d'Abidjan 1,2 et Grands ponts en Côte d'Ivoire de Janvier à novembre 2022 | Boris Kévin Okié |
| | 17:35 - 17:40 | PP868: Assessing the Impact of Africa Field Epidemiology Network Training on Intermediate data analysis and weekly surveillance bulletin, Sierra Leone, 2023: Mixed method study | Sorie Bundu Conteh |
| | 17:40 - 17:50 | Questions and Answers | All |
| | 17:50 - 17:55 | Pp109: Investigation Sur Les Cas Suspects De La Grippe Dans Les Centres De Sante Des Districts Sanitaires De Talangai Et Mougali A Brazzaville, Republique Du Congo En 2022 | Fresnovie Géladore Mbele |

8th AFENET Scientific Conference, Mombasa, Kenya 5th - 10th November 2023

| Day | Time | Topic /Activity | Presenter |
|--|---------------|---|---|
| Thursday 9th November 2023 | 17:55 - 18:00 | PP136: Investigation d'une flambée de Fièvre Aphteuse à Nambé, commune de Koubri, Burkina Faso, Octobre 2022 | Relwendé Urbain Ouedraogo |
| | 18:00 - 18:05 | PP200: Investigation sur la mortinatalité à l'hôpital de district de Ngouri/lac Tchad, 2022 | Marius Madjisse |
| | 18:05 - 18:15 | Questions and Answers | All |
| | 16:50 - 18:15 | Concurrent Poster Session 6 : Room 3 | |
| Sub-theme: Public Health Emergency Preparedness, Surveillance Outbreak Investigations and Response | | | |
| | | Moderator: Dr Suzanne Kiwanuka | Evaluators: Hetani Mdose / Joseph Magoola |
| | Time | Topic | Presenter |
| Thursday 9th November 2023 | 16:50 - 16:55 | PP359: Profil épidémiologique de la rougeole dans le département du Mono, Bénin, de janvier 2016 à juin 2022 | Edouard Hountohotègbè |
| | 16:55 - 17:00 | PP405: Profil épidémiologique des paralysies flasques aiguës et des poliomyélites dérivées du vaccin au cours de l'épidémie dans la Zone de Santé de Nyunzu en 2022 | Mounier Bulaba |
| | 17:00 - 17:05 | PP812: Profil sanitaire des élèves des écoles primaires de régions sanitaires, Djibouti, Décembre 2021- Mai 2022 | Ahmed Said Salem |
| | 17:05 - 17:10 | PP850: Profil épidémiologique de la COVID-19, district sanitaire de Boké, 29 Mars 2020 au 31 Décembre 2021 | Lanciné Keita |
| | 17:10 - 17:20 | Questions and Answers | All |
| | 17:20 - 17:25 | PP814: Investigation de cas de COVID-19, Région Sanitaire de Tadjourah, Djibouti, Janvier 2022 | Adake Mohamed Adake |
| | 17:25 - 17:30 | PP851: Investigation de cluster de Covid-19 à l'hôpital préfectoral de Fria, Guinée, Janvier 2022 | Abdourahmane Balde I |
| | 17:30 - 17:35 | PP346: Investigation des cas de rougeole au CS Croix Rouge, zone de santé de Lubilanj, province du Kasai Oriental, République Démocratique du Congo, Septembre 2022 | Philippe Kasonga Kazadi |
| | 17:35 - 17:40 | PP695: Investigation D'un Cas de Paralysie Flasque Aigue Confirme CVDPV2 Dans le District Sanitaire de Bangui 2, Republique Centrafricaine, Decembre 2022 | Aubin Ngbéadégo-Soukoudou pou |
| | 17:40 - 17:50 | Questions and Answers | All |
| | 17:50 - 17:55 | PP270: Facteurs associés à la flambée de rougeole, sous-préfecture de Ninguélandé, district Pita, Guinée, décembre 2021 : étude de cohorte rétrospective | Thierno Bassirou Baldé |
| | 17:55 - 18:00 | PP714: Facteurs associés à la survenue des épidémies de rougeole dans le district sanitaire de Keur Massar (Sénégal) en 2022 | Amady Ba |
| | 18:00 - 18:05 | PP8: Associated factors of immunization status among nomadic children under five in two districts in the Volta Region, Ghana, March 2023 | Amatus Nambagyira |
| | 18:05 - 18:15 | Questions and Answers | All |

8th AFENET Scientific Conference, Mombasa, Kenya 5th - 10th November 2023

| Day | Time | Topic /Activity | Presenter |
|----------------------------|---------------|---|--|
| | 16:50 - 18:15 | Concurrent Poster Session 6 : Room 4 | |
| | | Sub-theme: Public Health Emergency Preparedness, Surveillance Outbreak Investigations and Response | |
| | | Moderator: Dr Sheba Gitta | Evaluators: Ernest Ka-teule / Rebeca Kinde |
| | Time | Topic | Presenter |
| Thursday 9th November 2023 | 16:50 - 16:55 | PP411: Demographic and Clinical Characteristics of COVID-19 Deaths in Kadoma City, Zimbabwe, September 2020-August 2021:A Secondary Data Analysis | Derek Masokovere |
| | 16:55 - 17:00 | PP681: Quality assessment of SARS-CoV-2 testing in key Angola laboratories by an external quality assurance program in 2021-2022 | Ana Sofia Pinheiro |
| | 17:00 - 17:05 | PP710:Association between SARS-CoV-2 gene specific Ct values and clinical outcomes | Mpho Lerato Sikhosana |
| | 17:05 - 17:10 | PP872:A comparison of hospitalised and non-hospitalised patients in 3 waves of Covid-19, from March 2020 to March 2022 in Uganda | Petranilla Nakamya |
| | 17:10 - 17:20 | Questions and Answers | All |
| | 17:20 - 17:25 | PP24:Analysis of Community-Led Total Sanitation Surveillance Data in Central Region, Ghana 2022 | Okyere Derrick |
| | 17:25 - 17:30 | PP91: Health Problems among Children Enrolled for Integrated Management of Childhood Illnesses,Yemen 2020 | Abdullah Hassan Al-Gufli |
| | 17:30 - 17:35 | PPI16: A Discrete Choice Experiment to Predict Factors Associated with Enrollment to a National Health Insurance Scheme in Kampala District, Uganda | Deborah Aujo |
| | 17:35 - 17:40 | PPI29:The effect of a pilot universal health coverage program on hospital workload:A comparative study of Embu and Nyeri Counties in Kenya | John Njuguna |
| | 17:40 - 17:50 | Questions and Answers | All |
| | 17:50 - 17:55 | PP390: Investigation de cas de leishmaniose viscérale, à l'Hôpital Cheicko, Djibouti, Janvier 2022 | Mohamed Abdi Ali |
| | 17:55 - 18:00 | PP576: Retrospective Analysis of the Incidence of Leptospirosis in the Five Regional Hospitals in Mauritius from 2017 – 2022 | Nilesh Gopaul |
| | 18:00 - 18:05 | PP806: Spatial Distribution and Risk Factors associated with Buruli Ulcer Disease in Four Endemic Districts of Ghana, 2022 | Mawuli Gohoho |
| | 18:05 - 18:15 | Questions and Answers | All |
| | 19:00 - 22:00 | International Night | |

8th AFENET Scientific Conference, Mombasa, Kenya 5th - 10th November 2023

| Day | Time | Topic /Activity | Presenter |
|---------------------------|---------------|--|--|
| | 08:00 - 09:00 | Concurrent Poster Session 7 : Room 1 | |
| | | Sub-theme: Public Health Emergency Preparedness, Surveillance Outbreak Investigations and Response | |
| | | Moderator: Dr Donne Ameme | Evaluators: Daniel Kadobera / Lydia Nakiire |
| | Time | Topic | Presenter |
| Friday 10th November 2023 | 8:00 - 8:05 | PP210: Facteurs associés aux lésions précancéreuses du col de l'utérus chez les femmes dépistées dans la région de Diourbel en 2022 | Moussa Ndiaye |
| | 8:05 - 8:10 | PP291: Assessment of Undernutrition in Children aged 6 to 59 months enrolled at Doldol Subcounty Hospital Nutrition Clinic, Laikipia County, 2019 - 2023 | David Mwangi Kariuki |
| | 8:10 - 8:15 | PP294: Facteurs associés au décès des nouveau-nés de faible poids de naissance au centre hospitalier universitaire de Tengandogo, Burkina Faso, 2013-2017 | Yewayan Berenger Kabore |
| | 8:15 - 8:20 | PP654: Descriptive Analysis of Neonatal Tetanus Surveillance System in Central Region of Ghana, 2022 | Selassie Kennedy Kofitse |
| | 8:20 - 8:30 | Question and Answer | All |
| | 8:30 - 8:35 | PP764: Prevalence and risk factors of Hepatitis B Virus Infection among women attending Antenatal Clinic in tertiary health facilities; Adamawa State, Nigeria August 2022-February 2023 | Adamu Ali Bukar |
| | 8:35 - 8:40 | PP627: Factors associated with Malaria in regions implementing case-based surveillance in Tanzania from August 2021 to May 2022 | Hillary Raphael Sebukoto |
| | 8:40 - 8:45 | PP413: Recent HIV infections among newly diagnosed HIV positive clients, Harare City, Zimbabwe, January 2021 - June 2022: A Secondary Data Analysis | Theresa Hamutyinei-Dhliwayo |
| | 8:45 - 8:50 | | |
| | 8:50 - 9:00 | Question and Answer | All |
| | 08:00 - 09:00 | Concurrent Poster Session 7 : Room 2 | |
| | | Sub-theme: Public Health Emergency Preparedness, Surveillance Outbreak Investigations and Response | |
| | | Moderator: Dr Tatek Bogale | Evaluators: Maria Nunga / Mamadou Sarifou Ba |
| | Time | Topic | Presenter |
| | 8:00 - 8:05 | PP234: L'analyse des causes profondes de la flambée de rougeole dans la préfecture de Mandiana, Octobre 2022 | Moussa Doumbouya |
| | 8:05 - 8:10 | PP242: Investigation of cases of serpiginous dermatitis in a paramilitary training institution: Mozambique, November-December 2022 | Angélica Tomás Sotomane |
| | 8:10 - 8:15 | PP667: Investigation d'un épisode d'intoxication alimentaire collective, district Miandrivazo, Région Menabe, Madagascar 2023 | Mahafaly Zafitiana Harijaona |

8th AFENET Scientific Conference, Mombasa, Kenya 5th - 10th November 2023

| Day | Time | Topic /Activity | Presenter |
|---------------------------|---------------|--|------------------------------------|
| Friday 10th November 2023 | 8:30 - 8:35 | PP841:Toxi-infection alimentaire collective à Bondoukou, Côte d'Ivoire, Janvier 2023 | Abissey Charles Abolou |
| | 8:35 - 8:40 | PP870: Improving HIV oral pre-exposure prophylaxis (PrEP) initiation among high-risk pregnant and breastfeeding women using continuous quality improvement approach at Katakwi General Hospital, Eastern Uganda, May-October, 2022 | Sarah Elayeete |
| | 8:40 - 8:45 | PP514: Reporting System Evaluation for HIV Counseling and Testing, National AIDS Control Program Sana'a city, Yemen 2022 | Fathi Ahmed Abdullah |
| | 8:45 - 8:50 | | |
| | 8:50 - 9:00 | Question and Answer | All |
| | 08:00 - 09:00 | Concurrent Poster Session 7 : Room 3 Sub-theme: Public Health Emergency Preparedness, Surveillance Outbreak Investigations and Response Moderator: Julie Haris | |
| | Time | Topic | Presenter |
| Friday 10th November 2023 | 8:00 - 8:05 | PP138: Rapid health assessment in the refugee host communities in Kisoro District, South Western Uganda, June-July 2022 | Brenda Nakafeero Simbwa |
| | 8:05 - 8:10 | PP838: Hand hygiene practices among staff and students of School of Public Health, University of Ghana, Accra, 2022 | Doris Aboagyewaa Edu-Quansah |
| | 8:10 - 8:15 | PP173: Evaluation of anti-Salmonella activity and acute toxicity of Azadirachta indica (A. Juss) seed oil | Marie Paule Yede |
| | 8:15 - 8:20 | PP586: Occurrence of Extended Spectrum Beta-Lactamase-Producing Enterobacteriaceae Isolated from Clinical Samples at Edward Francis Small Teaching Hospital, 2022:A Hospital Based Study. | Ebrima Barrow |
| | 8:20 - 8:30 | Question and Answer | All |
| | 8:30 - 8:35 | PP277:"The right equipment, sundries ... alone gives me a reason to go and work" Health workforce incentives and dis-incentives during the COVID-19 pandemic: Experiences from four African countries | Suzanne Namusoke Kiwanuka |
| | 8:35 - 8:40 | PP25: Progress on Field Epidemiology and Laboratory Training Programme (FELTP) in ECOWAS region: lessons learnt from COVID-19 pandemic response | Marianne Comlan |
| | 8:40 - 8:45 | PP4: Implementation of Event-Based Surveillance Systems in West Africa: Challenges | Lionel Solété Sogbossi |
| | 8:45 - 8:50 | PP673: Contribution of Community Health Workers to the Poliomyelitis Surveillance in Insecurity Settings in four Sub-Saharan African countries: Cameroon, Chad, Democratic Republic of Congo and Niger, August 2020 – July 2022 | Agballa Mébiny-Essoh Tchalla Abalo |
| | 8:50 - 9:00 | Question and Answer | All |

8th AFENET Scientific Conference, Mombasa, Kenya 5th - 10th November 2023

| Day | Time | Topic /Activity | Presenter | |
|---------------------------|--|--|--|----------------------|
| | 08:00 - 09:00 | Concurrent Poster Session 7 : Room 4 | | |
| | | Sub-theme: Public Health Emergency Preparedness, Surveillance Outbreak Investigations and Response | | |
| | | Moderator: Dr Notion Gombe | Evaluators: Khuliso Ravhuhali Goodman / Dr Gebru Negash | |
| Friday 10th November 2023 | | Time | Presenter | |
| | 8:00 - 8:05 | PP421: Profil épidémiologique des cas de tentative de suicide et les facteurs associés aux décès au Centre Hospitalier Régional de Dapaong, Togo de 2018 -2022 | Komlan Aziamadji | |
| | 8:05 - 8:10 | PP788: Effect of high impact videos/targeted communication on blood donation awareness and practices | Angela Nakanwagi Kisakye | |
| | 8:10 - 8:15 | PP590: Incidence of Snakebite, North Bank West Region, The Gambia, 2017 – 2021 | Modou Kebba Omar Njie | |
| | 8:15 - 8:20 | PP175: Determinants of Podoconiosis among residents in Machakel District, East Gojjam Zone, Amhara, Ethiopia 2022 | Teshome Tefera Lingerhe | |
| | 8:20 - 8:30 | Question and Answer | All | |
| | 8:30 - 8:35 | PP423: Investigation de Mortalités Massives de Volailles dans le Village de Solimbia, Commune de Kaboli en Fevrier 2022 | Yanissou Djobo | |
| | 8:35 - 8:40 | PP632: Etats des lieux du Programme de Formation en Epidémiologie et Laboratoire de Terrain du Burkina et Perspectives, Afrique de l'Ouest, 2010-2022 | Pauline Kiswendsida Yanogo | |
| | 8:40 - 8:45 | | | |
| | 8:45 - 8:50 | | | |
| | 8:50 - 9:00 | Question and Answer | All | |
| | Friday 10th November 2023 | 09:00 - 10:00 | Plenary Session 7: Communicable Disease Epidemiology and Antimicrobial Resistance | |
| | | | Moderators: Dr Lazarus Kuonza | |
| | | | Venue: Main Auditorium | |
| | | 9:00 - 9:20 | Antimicrobial Resistance Surveillance in Africa | Prof Revathi Gunturu |
| 9:20 - 9:40 | | Confronting the HIV/AIDS Pandemic: Progress and Prospects | Prof Nicholas Meda | |
| 9:40 - 10:00 | | Global Health Emergency Corps | Dr Valerie Nkamgang Bemo | |
| 10:00 - 10:30 | | Tea Break | | |
| 10:30 - 12:10 | | Plenary Session 8: Strengthening Public Health Initiatives in Africa | | |
| | | Moderators: Dr Dieudonné Mwamba Kazadi | | |
| | | Venue: Main Auditorium | | |
| 10:30 - 10:50 | Vaccine and Diagnostics Manufacturing in Africa: Progress, Opportunities, Challenges and Way Forward | Ms Akhona Tshangela | | |
| 10:50 - 11:10 | Digitalization in Healthcare Service | Mr Steven Wanyee Macharia | | |

8th AFENET Scientific Conference, Mombasa, Kenya 5th - 10th November 2023

| Day | Time | Topic /Activity | Presenter |
|---------------------------|------------------|--|---|
| | 11:10 - 12:10 | Late Breaker Presentations | |
| | | Sub-theme: Cross Cutting | |
| | | Moderator: Dr Nyambe Sinyange | |
| | | Venue: Main Auditorium | |
| | Time | Topic | Presenter |
| Friday 10th November 2023 | 11:10 - 11:20 | OP902: Qualitative insights on barriers to receiving a second dose of measles-containing vaccine (MCV2), Oromia Region of Ethiopia | Kalkidan Solomon Deribe |
| | 11:20 - 11:30 | OP928: Investigation d'un cas de Paralyse Flasque Aiguë, district Ikongo, Madagascar, août 2023 | Andrindraibe Nantenaina Désiré Hanitriniaina |
| | 11:30 - 11:40 | OP915: Evaluating the effectiveness of a mentorship programme in improving infection prevention and control standards at the primary healthcare level in Nigeria | Aisha Sani Faruk |
| | 11:40 - 11:50 | OP909: Implementing a hospital-based sentinel site surveillance for adverse events of special interest following COVID-19 vaccination, Uganda (HBSS_UG) | Stephen Pande Legesi |
| | 11:50 - 12:00 | OP904: Investigation of a protracted malaria outbreak in Upper Muzarabani, Centenary District, Zimbabwe, 2023 | Nathan Chiboyiwa |
| | 12:00 - 12:10 | Questions and Answers | |
| | 13:00 - 14:00 | Lunch Break | |
| | 14:00 - 15:30 | JIEPH 5th Annivesary, Presentation of Awards and Closing Ceremony | Dr Ditu Kazambu / Dr Fredrick Odhiambo / Dr Sheba Gitta |



OUR SPEAKERS



PROF NEWTON BINKA

AFFILIATION: University of Allied Health
Sciences, Ghana

TOPIC: Dealing with Malaria Challenges in Africa-Prospects for Elimination

Fred Binka is a Professor of Clinical Epidemiology at the School of Public Health, University of Health and Allied Sciences, Ho. Previously, he was the Coordinator of the WHO Emergency Response to Artemisinin Resistance in the Greater Mekong sub-region of Asia. He was the Foundation Vice-Chancellor of the University of Health and Allied Sciences, established by the Government of Ghana in March 2012. He also served as Dean of the School of Public Health at the University of Ghana.

He worked with the Ministry of Health in Ghana for over 20 years, during which period he established the internationally acclaimed Navrongo Health Research Centre, where he conducted several large-scale intervention studies including the Insecticide treated Bednets study in Ghana. He also established the InDEPTH-Network, made up of 54 field sites in 24 developing countries in Africa and Asia. Professor Binka has served on more than a dozen WHO expert committees and panels, was Chair of the GAVI Independent Review committee for 4 years and member of the Malaria advisory Committee (MPAC).

Prof Binka is a Trustee of several International NGO's working on Health especially malaria, such as Innovative Vector Control Consortium (IVCC) and Malaria Consortium based in the United Kingdom. He is a member of the Board of the International Vaccine Institute (IVI), Seoul, Korea and a member of the past Council of the Ghana Health Service, Ministry of Health Ghana. Prof Binka is one of the founding members of AFENET.

He was the first Recipient of Rudolf Geigy Award 2001 from the R. Geigy Foundation; the Ronald Ross Medal, 2010 from the London School of Hygiene and Tropical Medicine for his work on malaria; and Honorary Fellowship of the American Society of Tropical Medicine and Hygiene in 2015



PROF WILLIAM BAZEYO

AFFILIATION: Africa One Health University
Network (AFROHUN)

TOPIC: Building a One-Health Workforce for Enhanced Global Health Security

Prof. William Bazeyo is a retired Professor of Occupational Medicine, holding a Bachelor of Medicine and Bachelor of Surgery degree (MB ChB) Makerere University, a Master of Medicine (Occupational Medicine) from National University of Singapore, a Doctor of Philosophy (PhD)-Atlantic International University and a Honorary Doctor of Science Degree from Tufts University in recognition of his service to humanity in Public Health in Africa. He also has certificate in Authentic Leadership Development from Harvard Business School. Prof Bazeyo served at Makerere University for more than 25 years in various roles including: Lecturer, Head of Department Disease Control and environmental Health, School of Public Health, Deputy Dean School of Public Health, Dean School of Public Health, Deputy Vice Chancellor (Finance and Administration), Head Grants and Management Support Unit, among others.

Currently Prof Bazeyo is the Chief Executive Officer of the Africa One Health University Network (AFROHUN), Chief of Party and Lab Director Resilient Africa Network (RAN) and Director Africa Centre for Tobacco Control (CTCA). At AFROHUN, he leads a network that brings together nineteen (19) universities in ten countries in East, Central and West Africa including Cameroon, Côte d'Ivoire, Democratic Republic of Congo, Ethiopia, Kenya, Liberia, Rwanda, Senegal, Tanzania and Uganda working together to develop a workforce without disciplinary barriers and through its' regional platform, the AFROHUN Academy also offers innovative training and research services to the whole of Africa.,

Prof Bazeyo also serves on several national committees: Chairman of the Business Process Outsourcing and Innovation Council, Ministry of ICT and National Guidance, Member Board of Trustees MTN Uganda Foundation, Chair Board of Uganda Cancer Institute, Government representative Busitema University Council, Chair Uganda National Research Innovation Fund at the Ministry of Science and Technology Office of the President.

Prof. Bazeyo has also won a number of awards; he was awarded a life time achievement award by Heroes in Health Awards (HIHA) for leading effectively and efficiently responding to community health emergencies, a Gold Medal-Highest Civilian Honor of Uganda by HE the President of Uganda in 2018, Africa's Continental Winner in the Education and Training awarded by CEO Global's Titans in 2018, Country & Regional Award in the Education and Training BY CEO Global Pan African in 2018 to mention but a few.

Prof Bazeyo is one of the founding members of AFENET and as a physician, public health specialist, and researcher, he has published over 100 papers in several areas including Occupational Health, Health Care Financing, Leadership and One Health.



DR. GLADYS KALEMA-ZIKUSOKA

**Founder & CEO Conservation Through Public Health
Fostering Conservation and Community Health Synergy**

Dr. Gladys Kalema-Zikusoka is Founder and CEO of an award winning NGO and non-profit founded in 2003, called Conservation Through Public Health (CTPH) that set up one of the first One Health field programs in the world to protect endangered gorillas and other wildlife.

After graduating from the Royal Veterinary College, University of London, in 1996, she established Uganda Wildlife Authority (UWA)'s first veterinary department. In 2000, she did a Zoological Medicine Residency and Master in Specialized Veterinary Medicine at North Carolina Zoological Park and North Carolina State University, where masters research on disease issues at the human/wildlife/livestock interface led her to found CTPH in 2003. In 2015, she founded Gorilla Conservation Coffee to support farmers living around habitats where gorillas are found. The most recent award for CTPH is the 2020 Saint Andrews Prize for the Environment.

Dr. Gladys is a National Geographic Explorer, an Ashoka Fellow and Mulago Foundation Henry Arnhold Fellow, and has been featured on CNN African Voices, Chinese Global Television Network Faces of Africa and recently on the National Geographic Women of Impact documentary. She has won the 2008 San Diego Zoo Conservation-in-Action Award, 2009 Whitley Gold Award; 2011 WINGS Women of Discovery and Exploration Humanity Award, 2017 President of Uganda's Golden Jubilee Award for her contribution to the nation as a conservationist and veterinarian on Women's Day, 2018 Sierra Club EarthCare Award, 2019 Finalist for the Tusk Award for Conservation in Africa, 2020 Uganda Veterinary Association World Veterinary Day Award focussed on One Health approaches and the 2020 Aldo Leopold Award for Mammologists.

She is on the leadership council of Women for the Environment in Africa and Vice President of the African Primatological Society and has sat on a number of Boards including Uganda Wildlife Authority, Uganda Wildlife Education Centre, Wildlife Clubs of Uganda, Bwindi and Mgahinga Conservation Trust, Buganda Heritage and Tourism Board and The Gorilla Organization.



DR. REBECCA KINDE

**Resident Advisor, Togo Field Epidemiology Training
Program (FETP)
Strengthening Health Systems for a Resilient Togo**

Est titulaire d'un doctorat en Médecine, d'un master en Science de la Santé Publique option Contrôle des Maladies et d'un master en Epidémiologie de terrain.

Originaire du Togo en Afrique de l'Ouest, elle a occupé des fonctions dans le système de santé de son pays du niveau périphérique au niveau national depuis 2008. Elle a rejoint AFENET depuis 2016 comme Coordonnateur terrain du Programme de formation en Epidémiologie de Terrain du Togo. Depuis Mai 2019 jusqu'à ce jour, elle occupe le poste Conseillère résidente dudit programme

Elle est mariée mère de 3 enfants



PROF ELIZEUS RUTEBEMBERWA

AFFLIATION: Global-Partnership-Initiated-Biosecurity-Academia for Controlling Health Threats (GIBACHT)

TOPIC: Linking Field Epidemiology to Laboratory Biosafety and Biosecurity-Going Beyond the Cause of Outbreaks to the Intention

Elizeus Rutebemberwa, is a Professor of Health Systems Management in the Department of Health Policy, Planning and Management, School of Public Health Makerere University. He holds degrees MBChB and MPH from Makerere University, and PhD from Karolinska Institutet and Makerere University. He has been a field coordinator for the Masters of Public Health, visiting lecturer to the Kenya and Nigeria Field Epidemiology and Laboratory Training among others.

Before joining university service, he worked as a medical officer and hospital director in one of the rural districts in Uganda. He was involved in implementing the decentralization policy and was one of the first Health Sub-District Directors when the policy had just been implemented. At the School of Public Health, he has worked as a consultant for WHO, EU, USAID, CDC, Ministry of Health and other national and international organizations. He has coordinated district based research for many years and has been involved in action research on how information from research is translated into policy and practice. Prof Rutebemberwa has represented AFENET on the Global Partnership Initiated Biosecurity Academia for Controlling Health Threats (GIBACHT), a biosafety and biosecurity capacity building project led by the Bernhard Nocht Institute of Tropical Medicine, Hamburg, Germany.



PROF PLACIDE MBALA

AFFILIATION: National Institute of Biomedical Research/ DRC in collaboration with KSPHL/UCL

TOPIC: Monkey Pox Research in Africa

Placide Mbala-Kingebeni is an Associate Professor at the University of Kinshasa, School of Medicine. He is also the Head of the Epidemiology and Global Health Division and Director of the Clinical Research Center at the National Institute of Biomedical Research (INRB in French) in the Democratic Republic of the Congo (DRC). Dr. Mbala has extensive experience in medical biology, with specific training and expertise in microbiology, virology, and outbreak investigations. His research focuses on viral zoonoses with risk factors for human contamination.

As PI and co-investigator for several university and US-funded grants, Dr. Mbala laid the groundwork for his research projects in very remote areas of the DRC where most outbreaks occur. He contributed to several study projects, such as the clinical characterization of human mpox infection in the DRC, molecular identification, and characterization of novel simian T cell lymphotropic viruses in DRC nonhuman primate bush meat, investigations, and characterization of zoonotic pathogens such as Ebola, monkeypox, etc.

He was actively involved in the investigation of the COVID-19 pandemic and all Ebola outbreaks occurring in the DRC since 2014, working on the coordination of laboratory activities (PCR, sequencing, serology, haematology, and biochemistry) for diagnostic and follow-up of patients. Most of Dr. Mbala's research has been shared in the form of oral presentations, abstracts, and posters at several international meetings in the United States, Europe and the DRC. His works are also available in several high-impact international peer-reviewed journals.



DR RAJI TAJUDEEN

AFFILIATION: Africa CDC

TOPIC: Building a Fit-for-Purpose Public Health Workforce to Counter the Next Public Health Threat

Dr Raji Tajudeen is the Head of the Division of Public Health Institutes and Research at the Africa CDC. Dr Raji Tajudeen is a Medical Doctor with a Master of Public Health from University of the Western Cape/ Universiteit van Wes-Kaapland. He is a Fellow of the West African College of Physician as well as the Chatham House Royal Institute of International Affairs, UK.

He has over 20 years of experience in Child Health and Public Health of which 16 years is at senior level. He has worked in different settings in the developing world including Nigeria, Saudi Arabia, Liberia, Guinea, Sierra Leone and Ethiopia.

At Africa CDC, Dr Tajudeen has coordinated the establishment and strengthening of National Public Health Institutes across the 55 African Union Member States and has overseen the establishment of the five Africa CDC Regional Collaborating Centers. He coordinates the Africa CDC Institute for Workforce Development and oversees the continental public health research agenda. He heads the healthcare preparedness and countermeasures section of the Africa CDC COVID-19 response. He co-chairs the case management technical working group of the Africa Taskforce on COVID-19.



DR. EBERE OKEREKE

AFFLIATION: Africa Public Health Foundation

TOPIC: Mobilizing monetary and nonmonetary resources to strengthen health systems in Africa within the challenges of health security – as a keynote

Dr. Ebere Okereke, is the CEO at the Africa Public Health Foundation which exists to forge partnerships and mobilize resources to support critical public health initiatives across the continent, in support of the Africa Centres for Disease Control and Prevention (Africa CDC). Established in September 2019, APHF is mobilizing flexible funds to accelerate Africa CDC-led COVID-19 response and the initiatives that will follow, to strengthen public health systems. For more information, please visit <http://www.aphf.africa>.

Dr. Ebere Okereke is a public health physician with 28 years' experience of practice in many countries, and expertise in epidemiology, health protection, communicable disease control, infection prevention & control, and zoonoses.

Ebere is currently leading the development & implementation of the PHE programme to strengthen capacity in low & middle income countries to comply with the International Health Regulations. Previously as a Global Health strategist, she worked to build the partnership between PHE & International Rescue Committee (IRC) in Kenya.

As an epidemiologist in emerging infections and zoonoses in the PHE National Infection Service, she led on epidemiology & policy development for Rabies and other non-foodborne zoonoses. In that role, she developed an enhanced surveillance system for Leptospirosis.

Ebere is an expert in TB control. She chaired the PHE centres TB group in the UK from 2012 - 2015, contributing to the development of TB control strategy in England,; developed guidance, training & quality improvement processes. She was lead author for the UK Health Protection Agency's first handbook on TB cluster investigation. Ebere chaired the Advisory Committee for TB Alert, a TB charity, from 2011-15.

As a Consultant in Communicable Disease Control & Environmental Health, Ebere led outbreak control teams managing various infectious disease outbreaks & chemical and environmental incidents

Ebere is an experienced trainer. She co-authored an e-learning module on TB for the Royal College of General Practitioners. Ebere is an honorary senior lecturer at Leeds School of Medicine.



DR. ENDIE WAZIRI

**National Coordinator at the African Field Epidemiology
Network (AFENET), Nigeria
Catalyzing Epidemic Preparedness through African
Collaboration**

Dr. Ndadilnasiya Endie Waziri is the National Coordinator of the National Stop Transmission of Polio Program (NSTOP) at the African Field Epidemiology Network (AFENET) office in Nigeria where she provides both technical and administrative oversight of the program with over 300 staff. NSTOP plays a major role in partnership with the National Primary Health Care Development Agency (NPHCDA) in polio eradication initiatives and improving routine immunization services, especially in settlements previously neglected with healthcare services, improving immunization data quality and use through the development of a routine immunization specific module on the DHIS2 platform, and strengthening surveillance and outbreak response for vaccine-preventable diseases. NSTOP mission is to provide Nigeria with high-quality and culturally competent technical field support staff in high-risk areas to implement the polio eradication emergency plan (NPEEP) and PEI accountability framework and build local capacity to improve maternal and child health indices.

Dr. Waziri holds both a Master of Public Health (MPH) in Field Epidemiology and a Master of Science (MSC) in Veterinary Public Health and Preventive Medicine. She is a graduate of the first cohort of the Nigeria Field Epidemiology and Laboratory Training Program (NFELTP), a program geared towards building in-country healthcare capacity and strengthening health systems. She also teaches, mentors, and supervises current residents of NFELTP.

During the Ebola virus disease outbreak in Nigeria, Dr. Waziri led the contact tracing unit of the outbreak response which was the backbone of Nigeria's success in controlling the outbreak within a short period. Her strong leadership and effective operations of contact tracing during the Ebola virus disease outbreak response led to the reduction of tertiary cases to the barest minimum and the NFELTP winning the award for the best FETP in outbreak response by US CDC in Atlanta in April 2015.

Dr. Waziri is a member of the Gavi CSO Constituency Steering Committee for Immunization and Stronger Health Systems.



DR. CYNTHIA SEMA

**Program Director - Mozambique Field Epidemiology
Training Program (FETP)
Navigating Health Challenges and Innovations in
Mozambique**

Dr. Cynthia Semá Baltazar is Program Director for the Mozambique Field Epidemiology and Laboratory Training Program (FELTP) since 2011. Cynthia has a Ph.D. in Health Science from Ghent University, Belgium, and was the head of the Surveillance Department at the National Institute of Health in Mozambique from 2010 - 2020, and the Head of the Serology Laboratory from 2006 - 2010. The Mozambique National Institute of Health is subordinated to the Ministry of Health and is dedicated to the generation of technical and scientific information in the area of Health in Mozambique.

Cynthia co-led the technical working group for the development of the National Action Plan for Health Security in Mozambique, following the recommendation of Joint External Evaluation (JEE) in 2016. Cynthia was the chair of the Scientific Committee during the 7th Conference of the African Field Epidemiology Network (AFENET) in 2018. She was a member of the Governance Board of AFENET, the Chairperson of the Quality Assurance and Monitoring & Evaluation Committee, and also the Policy, Advocacy & Resources Mobilization Committee.

She has researched diverse topics, from infectious disease prevention and control, particularly cholera epidemiology in Mozambique and HIV among High-Risk Groups. Cynthia co-authored several scientific publications on various key public health topics.



DR ABDULAZIZ MOHAMMED

AFFILIATION: Africa CDC

TOPIC: Africa CDC Strategy for Tackling Mental Health Challenges in Africa

Dr Abdulaziz Mohammed is the Head of Disease Control and Prevention of the Africa Centers for Disease Control and Prevention in Addis Ababa, Ethiopia. He holds MBBS and MPH-FE degrees.

Dr Mohammed is a foundation fellow of the Africa CDC/African Union fellowship for leadership in public health in Africa and a fellow of the West African College of Physician (psychiatry). He is a graduate of the Nigerian Field Epidemiology Program and a Commonwealth fellow.

Before joining Africa CDC, He was a Chief Consultant Psychiatrist in Nigeria and worked in integrating mental health into primary healthcare and psychosocial support for Internally Displaced Persons (IDPs) in Kaduna, Nigeria.

He has public health experience working in West and Central Africa including being the coordinator for Africa CDC's first health system strengthening project.



DR GINE SAMAAAN

AFFLIATION: Pandemic Preparedness Global Platforms, Epidemic & Pandemic Preparedness and Prevention Department, WHO

TOPIC: WHO-Preparedness and Resilience for Emerging Threat initiative (PRET)

Dr. Gina Samaan is the Head, Pandemic Preparedness Global Platforms, Epidemic & Pandemic Preparedness and Prevention Department at the World Health Organization. Dr. Gina is an infectious disease epidemiologist with a career focus on pandemic risk management. At WHO, she leads a global initiative to strengthen preparedness and resilience for future pandemic through a disease ‘mode of transmission’ lens. She also leads the global coordination on the Global Genomic Surveillance Strategy for Pathogens with Pandemic and Epidemic Potential. During the COVID-19 pandemic, Samaan established a response unit focusing on country support, technical monitoring and liaison with the United Nations (UN) country teams through the UN Development Coordination Office.

Samaan has been working for WHO for over 10 years at the country, regional and headquarters levels. In recent years, Samaan managed the WHO Pandemic Influenza Preparedness (PIP) Framework Partnership Contribution for strengthening country capacities. Samaan previously worked and consulted for agencies including US-CDC, USAID, DFAT Australia, IOM, RTI International and the Australian Department of Health to design or implement disease control initiatives. Her research interests include the management of acute respiratory infections and mass gatherings.



PROF SCOTT JN MCNABB

AFFLIATION: Emory University

TOPIC: Modernizing Global Health Security to Prevent, Detect, and Respond to PHE

Prior to joining the U.S. CDC Epidemic Intelligence Service (EIS) and serving the 2-year residency in New Orleans, LA, Dr. McNabb worked for the Oklahoma State Health Department. Most of his professional efforts focus on serving those in underdeveloped, underserved global settings. Promoted to Distinguished Consultant in 2005 and nominated for the 2005 CDC Charles C. Shepard Award, he completed the 2004 Senior Executive Services (SES) candidate development program and is certified by the Office of Personnel Management. From 2006 – 2008, he directed the Division of Integrated Surveillance Systems and Services, National Center for Public Health Informatics, CDC. Before retirement from CDC, he was Associate Director for Science; Public Health Informatics and Technology Program Office; Office for Surveillance, Epidemiology, and Laboratory Services.

Now Research Professor at Emory University, Rollins School of Public Health, he directed the King Abdullah Fellowship Program (<http://kingabdullahfellowship.com>) and was Principle Investigator of the exciting, new Africa CDC Institute for Workforce Development (<https://africacdc.institute>). Jointly appointed in the Hubert Department of Global Health and the Department of Epidemiology at Emory, he serves as Adjunct Professor, Department of Epidemiology and Biostatistics, College of Public Health and Health Informatics, King Saud Bin Abdulaziz University for Health Sciences, Riyadh, Kingdom of Saudi Arabia and the University of Georgia, School of Public Health.

Teaching GH/EPI 515 Transforming Public Health Surveillance at Emory, he directs the Research Skills Development Course (www.researchskillsdevelopment.com) and the Case Study Design and Development Course (www.casestudy.com). He teaches Transforming Public Health Surveillance at the University of Georgia, School of Public Health and Columbia University Epidemiology and Population Health Summer Institute (<https://www.mailman.columbia.edu/research/episummercolumbia>). He also teaches Scientific Communication for Leaders at Columbia University Epidemiology and Population Health Summer Institute (<https://www.mailman.columbia.edu/research/episummercolumbia>) and has mentored > 100 students through their MPH or PhD, plus 14 fellows through the CDC Public Health Prevention Specialists program. He serves on the Editorial Board, Epidemiology and Global Health and in private practice at Public Health Practice, LLC (<http://www.publichealthpractice.com>).



DR SHEBA GITTA

**Managing Editor - Journal of Interventional Epidemiology
and Public Health (JIEPH)**

Sheba is a global health professional who leverages her expertise in field epidemiology to work in various health and social fields.

She is passionate about scientific writing and has a vision of increasing the quantity and quality of publications by authors in sub-Saharan Africa. She is the Managing Editor for the AFENET's Journal of Interventional Epidemiology and Public Health (JIEPH). A role she has played since JIEPH's inception. She gained her journal management skills at the Pan African Medical Journal (PAMJ) where she served as one of the Managing Editors and took the lead in setting up a PAMJ office at AFENET. From 2009 to 2016, she spearheaded scientific writing initiatives at AFENET in her capacity as head and later director of Science and Public Affairs. These included organizing and facilitating scientific writing workshops, publication of AFENET newsletter and weekly new briefs. She led the publication of AFENET's and PAMJ's first special supplement publication, titled: "Field Epidemiology in Africa" during the commemoration of AFENET's 5th anniversary. <https://www.panafrican-med-journal.com/content/series/10/1>

She served as AFENET Deputy Executive Director (ED) from 2013-2016, and acting ED from 2013 to 2014. Currently she is the Uganda Country Director for Tropical Health and Education Trust (THET). She coordinates health partnerships between UK and Uganda institutions working to support health systems strengthening in Uganda. Her current portfolio focuses on antimicrobial stewardship, cancer, health worker capacity building drawing on the UK expertise especially from the UK NHS, mental health and other non-communicable diseases. Prior to joining THET, she was Director of Research and Knowledge Development at the AfriChild Centre, Makerere University. She coordinated the piloting of a multi-disciplinary child focused research training programme for lecturers from 7 Ugandan universities (Makerere, Kyambogo, Uganda Martyrs University Nkozi, Uganda Christian University Mukono, Gulu, Muni and Nsamizi) and a training programme of child-protection policy makers and practitioners on utilization of research evidence to improve child wellbeing. She co-organized the first International Family Conference in Africa that was held at Uganda Christian University, Mukono-Uganda. She served as a member of the Uganda national OVC Strategic Information Working Group. She is also an honorary lecturer in the department of epidemiology and statistics at Makerere University School of Public Health where she was an assistant lecturer from 2004 to 2009.



DR. PETER NSUBUGA

AFFLIATION: Global Public Health Solutions
Inc, Atlanta Georgia

TOPIC: Modernizing Global Health Security to Prevent, Detect, and Respond to PHE

Dr Peter Nsubuga is a Medical Epidemiologist with Global Public Health Solutions, a public health consulting firm in Atlanta, GA, USA. He is also a founding member of Public Health Solutions Africa, a think tank focusing on African public health issues. Dr Nsubuga is also one of AFENET's founders.

Dr Nsubuga has >25 years of public health experience in developing and developed countries. Dr Nsubuga began his public health work in TB and HIV research, then moved into public health systems development and creating the workforce to operate those public health systems. Dr Nsubuga spent several years at the US Centers for Disease Control as a Medical Epidemiologist supporting the creation of public health workforce training programs and surveillance programs, especially in Africa. Dr Nsubuga has consulted with WHO at headquarters, regional, and country levels, USAID, and several foundations and private sector public health companies on strengthening public health systems and vaccine-preventable diseases. Dr Nsubuga has led several national and multi-country evaluation teams on various public health issues and has authored and co-authored >150 peer-reviewed publications, including book chapters. Dr Nsubuga has assisted countries in identifying, documenting, and publishing best practices in public health programs in several peer-reviewed manuscripts.

PubMed articles by Dr Nsubuga are [Nsubuga P - Search Results - PubMed \(nih.gov\)](#)



MS. AKHONA TSHANGELA

AFFILIATION: Africa CDC

TOPIC: Vaccine and Diagnostic Manufacturing in Africa: Progress, Opportunities, Challenges and Way Forward

Akhona Tshangela is a trained field epidemiologist with more than 10 years of experience in public health in working in the laboratory, public health programs implementation, surveillance and public health data management. She is currently the Program Coordinator for the Partnerships for African Vaccine Manufacturing, previously the Chief of Staff to the former Africa CDC director. She joined the Africa CDC in 2016 as one of the first staff members and has played a critical role in launching Africa CDC and developing its first programs and finds capacity building projects the most rewarding.

During the COVID-19 response she was one of the co-chairs for the Science, regulations and standards technical working group; under the Africa Task Force on Coronavirus (AFTCOR), a joint partnership between Africa CDC, WHO AFRO and Member States, supporting Member States with making science based policy decisions. She also leads the knowledge management platforms, innovations and research for the COVID-19 response and was part of the Steering Committee for the COVID-19 Clinical Research Coalition. Her current PhD focus is looking at determinants of implementing medical interventions in Africa during pandemics, consequences for epidemic preparedness; which will look at various factors such as inequities.



PROFESSOR ADEBOLA OLAYINKA

AFFILIATION: WHO Nigeria

TOPIC: Infection Prevention and Control(IPC) (topic to be described more)

Prof Adebola Olayinka is a Professor of Medical Microbiology and Infection Prevention and Control (IPC) expert with more than 20 years of technical and leadership experience in infection control and infectious disease preparedness and response.

Prof Adebola is her experience in working with institutions, international development organizations and the governments of Nigeria and other countries in the African region to design, set up and implement IPC programs, policies and guidelines for health facilities, as well as training curricula for health workers. She has also supported national coordination and implementation of both preparedness and response efforts to emerging and reemerging pathogens such as COVID-19, Lassa fever, Marburg, yellow fever, Ebola, mpox, cholera and cerebrospinal meningitis

She is currently the Research Officer, Infection Prevention & Control Focal Point at ethe World Health Organization, Nigeria, however Prof Adebola has made active contributions to other organizations such as the Nigeria Centre for Disease Control and the Center for Infection Control and Patient Safety. She is also the Vice Chair of the Nigeria Society of Infection Control and both a board member and education committee lead of the Infection Control African Network.



TYLER PORTH

AFFILIATION: Resolve To Solve Lives

TOPIC: The 7 | 7 framework and the WHO Early After Action Review Guidance

Tyler Porth is the Principal Technical Advisor for the 7-1-7 Alliance Secretariat at Resolve to Save Lives. A graduate of Johns Hopkins University with a Master's in International Health – Global Disease Epidemiology and Control, Tyler's dedication to the global health landscape is evident through his 13-year career. His expertise in global health strategy, partnership and data & analytics has been instrumental over the course of his career while serving as Data & Analytics Specialist for Health and Public Health Emergencies at UNICEF Headquarters, Project Manager at ACT-A/COVAX Secretariat a UNICEF's Center for Health Emergency Strategy and Partnerships, UN Data Strategy Advisor at the United Nations Executive Office of the Secretary-General, and more. In his presentation on "Accelerating Progress to Meet the 7-1-7 Target for Outbreak Detection and Control in Africa", Tyler will introduce the 7-1-7 target and Early Action Review guidance and how they fit into the global health security framework as well as highlighting the implementation successes in Africa and how countries can get support to accelerate progress in the region.



DR. HENRY KIP BAGGETT

AFFILIATION: US CDC

TOPIC: Sustaining the gains of Field Epidemiology for Enhanced Global Health Security

Dr. Kip Baggett serves as Chief of the U.S. CDC's Workforce and Institute Development Branch, which includes the agency's support for Field Epidemiology Training Programs (FETP) and National Public Health Institute (NPHI) development. From 2014-2016, he served as the Field Epidemiology Training Program Resident Advisor in Zambia, where he helped the Ministry of Health to launch the current program. Before moving to Zambia in 2014, Dr. Baggett served as the director of CDC's Global Disease Detection (GDD) Regional Center in Thailand and initiated engagement on the Global Health Security Agenda.

A Captain in the Commissioned Corps of the U.S. Public Health Service, Dr. Baggett completed his medical degree at the University of North Carolina and Pediatrics training at Johns Hopkins Children's Hospital in Baltimore, and he is board certified in pediatrics and general preventive medicine. He received an MPH in epidemiology from the University of Washington in Seattle and completed CDC's Preventive Medicine Residency.



PROF NICOLAS MEDA

AFFILIATION: University of Ouagadougou

TOPIC: Confronting the HIV/AIDS Pandemic: Progress and Prospects

Dr Nicolas Meda is a Professor of Public Health at the Faculty of Health Sciences, Department of Public Health, University of Ouagadougou Burkina Faso. He is also Executive Director of the Centre of Innovation for Development where he works to with various stakeholders to identify innovative gender socioeconomic transformative solutions to development challenges that particularly affect girls and women. He is Director for the Burkina Faso Field Epidemiology Training Program.

Prof Meda has more than 30 years of Public health experience working in higher education, international consultancies, senior management and health research. He has done extensive research in epidemic-prone diseases, maternal child health, nutrition and HIV/AIDS. His works in HIV/AIDS were instrumental in launching the first Prevention of Mother to Child HIV transmission (PMTCT) programmes in Sub-Saharan Africa.

Prof Meda has held several high-level national positions including coordinator of French National Agency for AIDS Research (ANRS), Director-General of the national Health Research Centre- MURAZ, Minister of Health, Special Advisor to President on Human Capital Development, Burkina Faso. He sits on steering committees for various national and international public health programs. Prof Meda is a former member of UNAIDS/WHO Monitoring & Evaluation Reference Group, and has undertaken more than 35 consultancies for WHO, UNAIDS, Gates & Buffett Foundations and other international NGOs in various African countries. He has published more than 300 papers in international journals, is a reviewer and editorial board members for several scientific journals.



PROF KARIUKI NJENGA

AFFILIATION: Washington State University

TOPIC: Emerging Infectious Diseases in East and Southern Africa

Dr Kariuki Njenga is Professor of Infectious Diseases at Washington State University (WSU), with adjunct appointments as Chief Research Officer at Kenya Medical Research Institute (KEMRI) and Research Professor at University of Nairobi, Kenya. He is based full-time in Kenya. Dr Njenga holds a Bachelor of Veterinary Medicine and Master of Science degrees from the University of Nairobi, Kenya, and a PhD from the Pennsylvania State University, USA. Dr Njenga obtained 5 years of post-doctoral training at the Mayo Clinic, Rochester, Minnesota, and faculty experience at the University of Minnesota. His background training is in virology and immunology, but he has gained experience conducting field studies on emerging infectious diseases (EIDs) over the past 18 years, resulting in publication of >200 manuscripts.

His recent studies are focused on understanding the maintenance and transmission of Rift valley fever virus (RVFV) and Middle East respiratory syndrome coronavirus (MERS-CoV). Over his career, Dr Njenga has successfully managed \$200 million in research funding, primarily from US/CDC, NIH, and DOD's Defense Threat Reduction Agency (DTRA). Currently, he is the PI/Co-PI of several grants from CDC, NIH, and USAID, plus a D43 training grant that mentors a cohort of 9 PhD students on zoonotic and emerging infectious diseases.



DR VALERIE NKAMGANG BEMO

AFFLIATION: Bill & Melinda Gates Foundation

TOPIC: Global Health Emergency Corps

Dr. Valerie Nkamgang Bemo is the Deputy Director Global Development Office of the President at the Bill & Melinda Gates Foundation (BMGF), where she manages the foundation's investments that support communities affected by natural disasters and complex emergencies. Dr. Nkamgang Bemo pioneered and executed the Emergency Strategy to respond to major world disasters, including the Haiti Earthquake in 2010, the Ebola Breakout in 2014, and the Nepal Earthquake in 2015. Additionally, Dr. Nkamgang Bemo designed and implemented a critical strategy for Agriculture Development in West Africa, with a focus on Nigeria. She holds over 20 years of direct experience in the field worldwide and is passionate about building local capacity within communities and national institutions, fostering innovative solutions and sustainable growth that results in lasting change.

Before joining the BMGF, Dr. Nkamgang Bemo held various roles at the International Rescue Committee, most recently serving as Senior Technical Advisor for health in the Democratic Republic of Congo and West Africa. She also worked with various International NGOs and had extensive experience in Emergency Relief, as well as Clinical and Public Health across many countries including Indonesia (Aceh), Spain, Cote d'Ivoire, Sierra Leone, Mauritania, Kenya and Chad.

Dr. Nkamgang earned her medical degree at the University of Cote d'Ivoire, an epidemiology diploma at the University of Paris and her master's degree in public health from Madrid Autonome University.



DR CARL REDDY

AFFILIATION: Strategic and Technical Initiatives
(TEPHINET)

TOPIC: The New Global Field Epidemiology Partnership and Its Strategy

Dr Carl Reddy, MB. ChB, FCPHM, M.Sc. (Epi) has been the Director of the Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET) program since 2019.

Dr. Reddy served as the Director of the South African Field Epidemiology Training Program (SAFETP) housed within the National Institute of Communicable Diseases where he oversaw the implementation of Frontline FETP in 2016, establishment of the field epidemiology track at the University of the Witwatersrand and helped the program to attain TEPHINET accreditation in 2018.

He was elected for a three-year term as the chairman of the TEPHINET Advisory Board in June 2016. He served as a member of the AFENET (African Field Epidemiology Network) Board of Directors, a member of the AFENET Human Resources Subcommittee, and a member of the AFENET Finance and Audit Subcommittee. Prior to that, he held technical officer positions with the Global Fund Team at UNAIDS, the Africa Unit of the Global Fund, and the Tropical Diseases Research Program of the World Health Organization in Geneva. He was also a senior scientist in the Unit for Clinical and Biomedical Tuberculosis Research of the Medical Research Council of South Africa.

Dr. Reddy completed his medical degree at the Nelson R. Mandela School of Medicine in Durban, South Africa. He also completed a Diploma in Anesthetics and the Fellowship of the College of Public Health Medicine, the South African public health speciality for medical graduates. He won a scholarship from the Mexican government to complete a master of science degree in epidemiology at the National Institute of Public Health in Cuernavaca.



DR. DANIEL LANGAT

AFFLIATION: MOH, Kenya

TOPIC: niversal Health Coverage

Dr. Bernard Kipkoech Langat is a public health and M&E expert with extensive experience in programme management, Health and Community System Strengthening and communicable disease control. He is currently serving as the acting Head, Directorate of Digital Health Policy and Research, MoH, Kenya. He has a more than 20 year experience in Programme management, Health and Community System Strengthening, TB, HIV and Malaria control programming; former Programme Director, Disease Control Prevention and Management, and Lead, Coalition for Health Research and Development, Amref Health Africa in Kenya; former Team Leader for KPMG managed Global Fund LFA programme in Sudan and Eritrea, and Global Sanitation Fund, Country Programme Monitoring (CPM) Services in Ethiopia. Bernard served in the health sector in different capacities: Senior Programme Officer at Global fund Programme Unit of the National Treasury; sectional head in charge of planning, policy and M&E/Research at National TB control programme. He has been District Medical Officer of Health, Regional TB and Leprosy Coordinator and national TB control program officer at Kenya National TB and Leprosy Control Program.

Dr Langat has vast experience in working and networking with Governments and multiple donors including The Global Fund, USAID, BMGF and JICA, working with NGO/CSO and the private sector.



PROF REVATHI GUNTURU

AFFILIATION: Universal Health Coverage

TOPIC: Anti Microbial Resistance Surveillance in Africa

Prof Revathi Gunturu is an Associate Professor Microbiology/Consultant Microbiologist and the section head of Microbiology at Aga Khan University in Nairobi. She joined the Aga Khan University in 2006 and established the PGME programs in pathology, played a crucial role in building the section of diagnostic microbiology and establishing the teaching programs in clinical microbiology. She is also currently Faculty and External Examiner, Jomo-Kenyatta University of Agriculture and Technology and a visiting collaborating scientist at Kenya Medical Research Institute (KEMRI), Nairobi with active collaborations.

Prof Gunturu has over 25 years of professional experience in teaching undergraduate and post graduate medical students and in clinical diagnostic work in various institutions in Kenya and India. She currently chairs IPNET Kenya, a multidisciplinary society promoting education and advocacy for infection prevention and control in the region. She is on a number of National Advisory committees such as National committee on Infection prevention and control, National Antimicrobial Stewardship committee and the National technical working group for AMR surveillance of the Ministry of Health, Republic of Kenya. She is a member of several national and international professional bodies such as International Society of Chemotherapy, Kenya Association of Clinical Pathologists, Association of Pathologists of East, Central and South Africa among others.

She received her Masters Degree in Clinical Microbiology in 1984 from Osmania University, India and she was faculty member of Clinical Microbiology at the Maulana Azad Medical College and University College of Medical Sciences of Delhi University in New Delhi, India for 10 years before moving to Kenya.

Prof Gunturu has supervised numerous post graduate dissertation projects throughout her career and published more than 90 papers in peer reviewed journals and her academic career is decorated with several reputed awards and funding.



MR. STEVEN WANYEE MACHARIA

AFFILIATION: MOH Kenya

TOPIC: Digitalisation of Health

Steven Wanyee Macharia, is a digital health specialist with over 25 years experience at the “frontlines” of implementing digital health technology solutions predominantly in Low to Medium Income Countries (LMICs) to support research for health and healthcare service delivery. He has led key initiatives and implementations by providing technical leadership in conceptualizing and architecting, developing and deploying, supporting and maintaining, enabling meaningfully and sustainable use of digital health solutions mainly powered by digital (public) and global goods across more than 15 countries in Africa. These include; Person, Community and Clinic level health data systems such as Electronic Health Records, Personal Health Records, mHealth applications; Public health management data systems such as Health Management Information Systems, health surveillance such as Pharmacovigilance monitoring and reporting systems; Research for health systems including clinical trials registries; Health Information Exchange platform using approaches such as the OpenHIE model. Additionally, he has extensively supported multiple countries particularly in Africa through their Ministries of Health to develop strategies, policies, standards and guidelines for digital health. Globally, he continues to work, partner and collaborate with leading multi-agency, bi and multilateral donor and development organizations including WHO, World Bank, USAID, CDC, GIZ, DFiD among others.

He serves on several global informatics initiatives including the Digital Health and Interoperability Working Group of the Health Data Collaboratives mechanism; Working Groups led by WHO’s Department of Digital Health and Innovation. He is the President of the Pan African Health Informatics in Africa (HELINA); Founder Secretary General of the Kenya Health Informatics Association (KeHIA); Board Member of the OpenMRS Inc. Board of Directors, and Member of the OpenHIE Architecture Advisory Board; Member of the Health Advisory Board of Safaricom. Steven is a holder of a Masters degree in software engineering from the University of Liverpool, UK, health information administration and health informatics from the University of Washington, Seattle, USA. He is currently a PhD Student in Health Science and Systems with an application focus in Health Informatics and Digital Health at the University of Nairobi and is the lead coordinator for research, innovation and development of digital health technologies at the Center for Health Informatics and Digital Health (SCI-DH).



DR VICTORY R. KERTON

AFFILIATION: US CDC

TOPIC: Global Health Security Agenda in the Post-Covid-19 Era

Dr. Kerton R. Victory is the Regional Global Health Security Advisor for West Africa in CDC's Division of Global Health Protection (DGHP) and Commander (CDR) in the Commissioned Corps of the US Public Health Service.

CDR Victory has contributed immensely to Global Health Security work in West and Central Africa including providing technical support for Ebola and Cholera preparedness activities, Cholera, Crimean-Congo hemorrhagic fever and Marburg virus disease outbreaks and strengthening the region public health systems to respond to future infectious disease threats.

Prior to his post in Nigeria, CDR Victory served as a Senior Supervisory Emergency Public Health Epidemiologist on CDC's Global Rapid Response Team, supporting local health officials during some of the most difficult public health emergencies since 2019 including the 2018 Democratic Republic of the Congo Ebola outbreak and COVID-19 pandemic. CDR Victory began his career with CDC in 2014 as an Epidemic Intelligence Service Officer. He received his MSc in Nutritional Sciences and PhD in Environmental Health Sciences from the University of Arizona. In his spare time, he enjoys travelling to different countries, hiking, and experiencing different cultures from around the world.



DR PENINA MUNYUA

AFFILIATION: CDC Country Office, Kenya

TOPIC: CDC's efforts towards GHC strengthening in Kenya

Peninah is an infectious disease epidemiologist and senior public health specialist at US CDC's Global Health Center, Division of Global Health Protection in Kenya. She has over 15 years of experience in public health research on infectious diseases in population based and facility-based platforms. She has extensive experience on public health systems strengthening and establishment of infectious diseases surveillance systems, setting up platforms for implementation of One Health in Kenya and the region, capacity building for outbreak response capacity, and development of disease preparedness and control strategies. She has contributed and participated in translation of research findings to strengthen public health systems.



MR RAPHAEL SEKPEB

AFFLIATION: National Health Insurance Authority, Ghana

TOPIC: Attaining the Triple Billion-The Role of Healthcare Financing towards Universal Health Coverage.

Raphael Yelfoglo Segkpeb has over 12 years of experience working with the National Health Insurance Authority in Ghana. He has played various roles as Director of Operations Northern Belt, Director Research, Policy and Monitoring & Evaluation and Director, HR and Administration.

He holds an EMBA from the University of Ghana Business School, LLB (Law) from Mountcrest University College and a first degree (Social Sciences) from the Kwame University of Science and Technology, Kumasi. He has had extensive Executive Education from the Harvard School of Public Health and Harvard Kennedy School of Government, Boston; Galilee International Management Institute, Israel; Ghana Institute of Management and Public Administration and the University of California, Los Angeles.

He chaired the Planning Committee for the maiden regional Conference on Financing UHC and Health Security under the theme “Overcoming Financial Barriers and providing Financial Risk Protection” from the 12th to 13th October 2023 in Accra, Ghana in collaboration with the Ministry of Health and WHO. This was a hugely successful conference that drew over 250 participants from 25 countries across Africa with the objectives to:

Provide a platform to support sharing lessons learned from experience, disseminate good practices and contribute to capacity and institutional development, relative to health financing.

Discuss health insurance and its role in advancing UHC and Health Security



DR. BEN PARK

AFFILIATION: WHO Nigeria

TOPIC: Global Fund Pandemic Preparedness Initiatives

Dr. Benjamin Park, MD, is the Global Fund's Senior Specialist on Infection Prevention and Control and Antimicrobial Resistance, on the Pandemic Preparedness and Response Team. At the Global Fund, he provides technical assistance to countries to request, program, and implement programs using Global Fund financing for PPR and health systems. Prior to this, he was the Chief of international infection control and healthcare safety at the US CDC. He has over 20 years of experience at the CDC as an epidemiologist in both domestic and global programs.

Abstract ID : OP5 **Investigation d'une épidémie de fièvre hémorragique de Crimée Congo chez les animaux dans la région de Saint-Louis, Sénégal, en 2022.**

Evariste Jean-Christophe Togut Bassene^{1,*}, MBouna Ndiaye³, Moustapha Sarr¹, Yoro Sall², Mamadou Sarifou Ba³, Ibrahima Omar BA⁴. ¹Ministère de l'élevage et des productions animales, Dakar, Sénégal. ²Ministère de la santé et de l'action sociale, Dakar, Sénégal. ³Field Epidemiology Training Program, Dakar, Senegal. ⁴Organisation Mondiale de la Santé, Dakar, Sénégal.

***Auteur correspondant:** Evariste Jean-Christophe Togut BASSENE, Ministère de l'élevage et des productions animales, Dakar, Sénégal, Saint-Louis, Sénégal, Email : ebassene@gmail.com.

Contexte: En 2022, une épidémie de Fièvre hémorragique de Crimée Congo (FHCC) a été détectée dans les troupeaux de la région de Saint Louis, occasionnant des pertes en vie humaine. L'épidémiologie de cette affection est cependant mal connue en Afrique. Ce travail a été réalisé pour comprendre les facteurs explicatifs de cette maladie afin de contrôler l'épidémie.

Méthodes: Il s'agit d'une étude cas témoin menée sur les animaux des unités pastorales de Saint-Louis du 01 mai au 30 octobre 2022. Un cas a été défini comme tout animal suspect testé positif par RT-PCR pendant la période d'étude à Saint-Louis. Un échantillonnage aléatoire simple a été utilisé avec un ratio de 1 cas pour 2 témoins.

Un interview avec les propriétaires des animaux et des revues documentaires (carnets sanitaires) ont été réalisés et les données analysées avec Epi Info 7.2.5.0. Nous avons calculé des odds ratio (OR) avec un seuil de signification statistique fixé à 5%.

Résultats: Au total 34 animaux diagnostiqués positifs et 68 témoins ont été dénombrés dans notre étude. Les facteurs significatifs ont été le sexe femelle [OR=11,8, IC :3,75-37,12], l'espèce bovine [OR = 5,57, IC :1,94-16], l'absence de la pratique de déparasitage

des animaux [OR=6,17, IC :2,24-17,04], le suivi sanitaire effectif des troupeaux [OR=0,12, IC :0,03-0,44], le jetage des peaux dans la nature [OR =3,74, IC : 1,44-9,72], le nettoyage des enclos pastoraux [OR=0,20, IC :0,04-0,93], la conduite d'élevage dans la zone du Walo située à proximité du fleuve Sénégal [OR=0,17, IC : 0,03-0,95].

Conclusions: Les principaux facteurs associés étaient sanitaires et éco-épidémiologiques. Nous avons réalisé le déparasitage et des séances de sensibilisation auprès des éleveurs et propriétaires d'animaux pour le suivi sanitaire du bétail. Nous avons recommandé le nettoyage régulier des enclos, le traitement des peaux et le déparasitage systématique des bovins.

Mots-clés: Fièvre Hémorragique de Crimée Congo, Saint-Louis.

Abstract ID: OPI9 **Prevalence of Hepatitis B virus and its predictors among volunteer blood donors in Jimma, Ethiopia, 2018: A cross-sectional study**

Debele Mekonnen Ararso¹, Tesfaye Solomon Kenati^{2,*}, Mamo Nigatu Gebre³. ¹Jimma Blood Bank Center, Jimma, Ethiopia. ²Ethiopian Public Health Institute, Addis Ababa, Ethiopia. ³Epidemiology Department, Jimma University, Jimma, Ethiopia

***Corresponding author:** esfaye Solomon Kenati, Ethiopian Public Health Institute, Addis Ababa, Ethiopia; Email: abdiikoo50@gmail.com

Introduction: Previous studies of blood donors in Ethiopia have focused on all types of donors without exposure screening before blood donation. This study aimed to determine the prevalence of the Hepatitis B virus and its predictors among volunteer blood donors in Jimma, Ethiopia.

Methods: A Previous studies of blood donors in Ethiopia have focused on all types of donors without exposure screening before blood donation. This study aimed to determine the prevalence of the Hepatitis B virus and its predictors among volunteer blood donors in Jimma, Ethiopia.

Results: Of 548 participants, 60.96% in the 18–24 age group participated. The age of the respondents ranged from 18 to 51 years, with a mean age of 24.84 years and a standard deviation (SD) of ± 5.85 years. The overall prevalence of Hepatitis B virus infection was 2.92%.

The test positivity rate among males was 12/268 (4.48%) while the rate among females was 4/280 (1.43%). More than 80% of those who tested positive were under the age of 35 years. Being male [AOR=3.28, 95% CI: 1.01–10.68], age 18–24 [AOR=0.17, 95% CI: 0.36–0.78], frequency of donation [AOR= 0.25, 95% CI: 0.08–0.76], and exposure to unsafe injection [AOR= 6.98, 95% CI: 1.66–29.29] were significant factors.

Conclusions: The overall prevalence of Hepatitis B surface antigen was intermediate with positivity higher in males. Furthermore, age, donation frequency, and exposure to unsafe therapeutic drug injection were independent predictors.

Therefore, the blood bank should raise awareness to repeat young volunteer donors and focus on identified low-risk groups.

Keywords: Hepatitis B, Predictors, Volunteer blood donors, Ethiopia

Abstract ID: OP29

Analysis of data from Niger's National Cancer Registry from 2010 to 2018

Moussa Ahamadou^{1&}, Alkassoum Salifou Ibrahim², Djibril Barry¹, Yoda Hermann¹, Tassiou Ibrahim³, Pauline Yanogo¹, Nicolas Meda¹

¹Burkina Field Epidemiology and Laboratory Training Program (BFELTP), University Joseph KI ZERBO, Ouagadougou, Burkina Faso

²Faculty of Medicine, University Abdou Moumouni, Niamey, Niger

³Ministry of Health, Niamey, Niger

&Corresponding author: Moussa Ahamadou, Burkina Field Epidemiology and Laboratory Training Program (BFELTP), University Joseph KI ZERBO, Ouagadougou, Burkina Faso, Email: dmousame@gmail.com

Introduction: In 2020, the International Agency for Research on Cancer estimated that new cancer cases worldwide would reach 19.3 million. More than half occurring in developing countries.

In Niger, an analysis of the national cancer registry found that the number of cancers increased from 186 cases in 1992 to 646 cases in 2009. An update of this data is important to support national strategies.

The objective of our study was to analyze recent data to describe cases in time, place and person as well as their survival at 5 years.

Methods: We conducted a descriptive study based on data from the Niger's national cancer registry for the period from 1 January 2010 to 31 December 2018. The analysis was done by Epi info 7.2.5.0® and Excel®2016. We calculated and described frequencies and our Results were presented in the form of tables and graphs.

Results: 5,889 cases of cancer were reported in Niger from 2010 to 2018. The cases have tripled in 9 years from 543 (in 2010) to 1,565 (in 2018).

Women were the most affected (61.32%), the 20-65 age group is the most affected (78.42%) with a median age of 48 (25) years. The majority of cases (47.19%) were from Niamey region followed by Tillabery (12.02%).

In women, breast and uterine cancers were the most common at 34.87% and 18.77% respectively. In men, the most common cancers were liver/biliary tract cancers, and colorectal cancers with 66.129.02% and 14.75% respectively.

Mortality of cancers was 6.77% and 93.98% of deaths occurred within the first year of diagnosis.

Conclusions: The analysis of Niger's national cancer registry over the period 2010-2018 shows an increase in their incidence. We recommend strengthening the technical platform and the timely screening program.

Keywords: Analysis, Cancer registry, Niger, 2022

Abstract ID : OP31

Investigation d'une épidémie de choléra dans le district sanitaire de Madarounfa, région de Maradi, Niger, 2022.

Harissou Aboubacar Aboubacar^{1,2,&}, Karimou Sani³, Djibril Barry¹, Yoda Herman¹, Pauline Yanogo^{1,4}, Nicolas Meda^{1,4}

¹Burkina Field Epidemiology and Laboratory Training Program, University Joseph Ki Zerbo, Ouagadougou, Burkina Faso

²Ministère en charge de l'Environnement, Niamey, Niger.

³Ministère en charge de la Santé, Niamey, Niger

⁴Faculté de Médecine, Université Joseph Ki Zerbo, Ouagadougou, Burkina Faso

&Auteur correspondant: Aboubacar Harissou Amani, Environnementaliste au Ministère en charge de l'Environnement du Niger. E-Mail : aboubacarharissou83@gmail.com
Tél : +227 20370421/+227 20724169/+227 92928353

Introduction: Au Niger, le choléra constitue un problème de santé publique. Dans la 35^{ème} semaine épidémiologique de 2022, le district sanitaire de Madarounfa, région de Maradi a notifié 3 cas suspects de choléra. Nous avons investigué les cas pour confirmer l'épidémie et mettre en place des mesures de prévention et de contrôle.

Méthodes: Il s'est agi d'une étude transversale descriptive des cas de choléra dans le district sanitaire de Madarounfa du 29 août au 15 septembre 2022. Une recherche active des cas a été conduite dans la communauté. Un questionnaire a été administré aux malades. Les selles des cas, l'eau de forage et Lac ont été analysées aux laboratoires. Les informations sur les cas sont protégées. Les données sont analysées en Temps Lieu et Personne avec Excel et Epi info et calculé des fréquences et moyenne. Les résultats ont été présentés dans les tableaux, graphiques.

Résultats: 30 cas ont été enregistrés, 22 échantillons de selles (73,33%) ont été prélevés pour analyse au laboratoire. Sur 22 prélevés, 18 sont positifs soit 81,81 % avec la présence du *Vibrio cholerae* O1 OGAWA. La présence de *Escherichia coli* dans l'eau analysée. L'eau des forages a été la source de boisson de 16,66% des patients 48 heures avant l'épidémie. Il

cas étaient déjà vaccinés et 0 décès. Le sexe ratio (F/H) = 1,7. L'âge médian était de 12 ans avec des extrémités allant de 4 mois à 65 ans. 56,66% étaient âgés de 5 à 14 ans. Six villages/quartiers ont enregistré des cas. Les enfants mineurs, représentent 56,66% des patients, suivis des ménagères (36,66%). Le CSI de Madarounfa a notifié 70%, et 6,66% des cas proviennent du Nigéria.

Conclusions: L'investigation a confirmé la circulation du *Vibrio cholerae* O1 OGAWA et *Escherichia coli* dans le district de Madarounfa. Cependant, l'hygiène et l'assainissement de l'eau ainsi que le renforcement du système de surveillance surtout transfrontalier sont essentiels pour endiguer les épidémies de choléra à Madarounfa.

Mots clés: Epidémie, cholera, Investigation, Madarounfa, Niger, 2022

Abstract ID : OP39

Investigation de cas de Paralysies Flasques Aigues non poliomyélitique au niveau des sites d'orpillages traditionnels du district sanitaire de Kédougou en juin 2021 (Sénégal)

Fodé Danfakha^{1,&}, Mbouna Ndiaye², Mamadou Sarifou BA², Boly Diop³, Mayacine Diongue⁴

¹Région Médicale de Kédougou – District Sanitaire, Kédougou, Sénégal

²Programme de formation en épidémiologie de terrain, Dakar, Sénégal

³Ministère de la santé et de l'action sociale, Dakar, Sénégal

⁴Faculté de médecine, Université cheikh Anta Diop, Dakar, Sénégal

&Auteur correspondant: Fodé Danfakha, Région Médicale de Kédougou – District Sanitaire, Kédougou, Sénégal, e-mail : deffode47@gmail.com

Introduction: Lodé Danfakha, Région Médicale de Kédougou – District Sanitaire, Kédougou, Sénégal, e-mail : deffode47@gmail.com

Méthodes: Une étude transversale descriptive avec trois volets: humain, animal et environnemental a été menée par une équipe multidisciplinaire en juin 2021

sur une population travaillant sur les sites traditionnels du district de Kédougou. Une recherche active de cas PFA a été réalisée et les données ont été collectées à l'aide de fiches d'investigation. Des échantillons humains (selles, sang, urines et cheveux), animaux (sang) et d'eau de boisson ont été prélevés. La recherche de germes pathogènes a été faite et les concentrations de mercure, de plomb et de cadmium ont été mesurées dans les prélèvements. Les données ont été analysées avec Epi info et synthétisées sous forme de mesure de tendance centrale et de proportion.

Résultats: Au total, 29 cas de PFA ont été investigués. Parmi eux, 37% venait du village de Bantaco, 41% des villages environnants. Le sexe féminin était plus touché (62%). L'âge médian était de 27 ans avec une plage de 1 et 63 ans. Les examens virologiques n'ont pas mis en évidence la présence de virus poliomyélitique. Aucune arbovirose n'a été détectée chez les humains et sur les 16 prélèvements réalisés sur les montons. Les concentrations de mercure sur les prélèvements d'eau étaient 571 fois supérieure à la dose maximale admise et 50 fois supérieure au seuil fixé par l'OMS (0,02 mg/l) sur les prélèvements réalisés chez les humains.

Conclusions: L'intoxication aux polluants environnementaux utilisés dans l'extraction de l'or est la cause probable des cas de PFA. Nous recommandons une réglementation urgente de l'utilisation du mercure et une sensibilisation des orpailleurs.

Mots clés: intoxication, paralysie, orpillage, mercure, Kédougou

Abstract ID: OP54 Predictors of positivity yield among HIV index contacts in Harare and Matabeleland South provinces, Zimbabwe, 2022

Hamufare Dumisani Mugaari^{1,2,&}, Owen Mugurungi², Joconiah Chirenda¹, Kudakwashe Takarinda³, Mufuta Tshimanga¹

¹The University of Zimbabwe, Family Medicine, Global and Public Health Unit, Department of Primary Healthcare Sciences, Harare, Zimbabwe

²Ministry of Health and Child Care, AIDS and TB Unit, Harare, Zimbabwe

³Organisation for Public Health Interventions and Development (OPHID), Harare, Zimbabwe

***Corresponding author:** Hamufare Dumisani Mugaari, Faculty of Medicine and Health Sciences, Department of Primary Healthcare Sciences, Family Medicine, Global and Public Health Unit, New Health Sciences Building, Parirenyatwa Complex, Mazowe Road, Harare, Zimbabwe, Email: dumiwaboka@gmail.com (HDM)

Introduction: Zimbabwe has been missing the targets to close the HIV testing gap, identify the remaining people living with HIV and achieve epidemic control. This is despite implementing index testing, a proven high-yield HIV testing innovation. We evaluated the index testing implementation modalities to identify and recommend effective contact elicitation, tracking and testing modalities to enhance positivity yield.

Methods: We conducted a cross-sectional study on 50 multistage sampled health facilities. Dependent variables were clients, (≥ 15 years) diagnosed with HIV in 2021, independent variables were contact tracking and instrument of variable measure was cascade analysis to identify tracing modalities against yield. Data were summarized as proportions, odds ratios, and adjusted odds ratios at a 5% significance level.

Results: Of 6,308 index cases identified, females constituted 53.9% ($n=3,401$). Index testing was offered to 66.4% ($n=4,190$), accepted by 93.1% ($n=3,899$) and the elicitation rate was 1:1.3 ($n=5,080$).

A positivity yield of 27.5% ($n=1,736$) was achieved from 78.6% ($n=3,991$) contacts. Mixed Methods tracking yielded 46.7% ($n=349$) positivity from a testing rate of 99.5% ($n=748$) in urban areas, with 41.4% ($n=1,243$) preferring health worker referrals. 202 contacts were not tested though elicited. In rural areas, client referrals accounted for 53.1%, ($n=1,103$) yet 122 of these were not tested.

The highest positivity was obtained from health worker referrals at 65.6% ($n=196$). Being male (aOR:3.09, 95%CI: 2.74, 3.49), first-time tester (aOR:1.65, 95%CI: 1.43, 1.91), anonymous tracking (aOR:8.46, 95%CI:3.37, 22.75) and testing contacts within 7 days of elicitation (aOR:2.78, 95% CI:2.44, 3.18) were high predictors of positivity yield.

Conclusions: The identified high positivity yield among men, first-time testers and contacts tested within 7 days of elicitation may inform index testing focussing on improved performance. Implementation

fidelity and differentiated contact referrals were recommended to mitigate attritions at each stage of the cascade to yield optimal Results on index contact tracing and testing

Keywords: Targeted testing, HIV testing services, Index contact tracing and testing, Index testing cascade

Abstract ID: OP65

Understanding the factors contributing to zero-dose children in pastoralist areas: Evidence from GAVI project in Afar and Somali regions of Ethiopia

Melaku Tsehay Ayalneh^{1,&},

¹CORE Group Partners project, Addis Ababa, Ethiopia

&Corresponding author: Melaku Tsehay Ayalneh, CORE Group Partners project, Addis Ababa, Ethiopia, Email: melakut.cgpp@gmail.com

Introduction: Ethiopia ranks fifth in the world in terms of the proportion of zero-dose and under-immunized children according to GAVI's 2019 data. This study seeks to understand the factors related to zero-dose status in children in pastoralist areas of Afar and Somali regions of Ethiopia.

Methods: Utilizing both qualitative and quantitative data collected, a mixed-Methods study design was employed. A total of 240 primary caregivers participated in a vaccination coverage survey. Additionally, 12 in-depth interviews were conducted with 12 primary caretakers. Quantitative data were analyzed using SPSS version 25 software, and a thematic analysis approach was used to analyze qualitative data.

Results: Nearly forty percent (39.6%): 95% CI [32.0 - 45.5] of children met the definition for zero dose, and more than half (56.2%) of the children were under-immunized. Only 19.2%: 95% CI [13.5 - 23.3] of children aged 12-23 months received all basic vaccinations in Afar and Somali region. The following factors were all significantly associated with a 12–23-month-old children being zero doses: older age of the father, travel time above 15 minutes to the nearest health facility, household not visited by a health extension worker,

and a caretaker's poor knowledge about immunization. Variations in the level of knowledge and attitude among different segments of the community were noted. While some of the communities have a deep understanding of the immunization program, many believe there are no benefits to immunizing children according to the qualitative findings.

Conclusions: Choices around childhood vaccination are influenced by a variety of sociocultural drivers. Understanding the factors contributing to a zero-dose status is critical to reaching the most vulnerable children with lifesaving vaccines. This study provides key information about barriers to vaccination in pastoralist communities of Ethiopia, which can be used to design interventions to reach unvaccinated children..

Keywords: Immunization, knowledge, Under immunized, Zero-dose children

Abstract ID: OP73

Evaluation of a Sentinel Hypertension Surveillance System in Mojo, East Shewa Zone, Oromia, Ethiopia, 2022: A Concurrently Embedded Mixed Cross-Sectional Study

Abiyie Demelash Gashe^{1,&}, Aman Yesuf Endris²

¹Ethiopian Field Epidemiology and Laboratory Training Programme EFELTP, St. Paul's Hospital Millennium Medical College, Addis Ababa, Ethiopia

²St. Paul's Hospital Millennium Medical College, Department of Epidemiology, Addis Ababa, Ethiopia

&Corresponding author: Abiyie Demelash, St. Paul's Hospital Millennium Medical College Addis Ababa, Ethiopia, Email: abiyiedemelash@gmail.com

Introduction: Despite the implementation of an Integrated Disease Surveillance Response (IDSR) System by the Government of Ethiopia for nearly three decades, Non-Communicable Diseases (NCDs), especially hypertension, were recently emphasized.

As a Results, Ethiopia has been piloting a hypertension sentinel surveillance system at a few sites since 2019.

We aimed to evaluate whether the existing sentinel hypertension surveillance system in two sites in Mojo City Oromia Ethiopia was operating efficiently and effectively.

Methods: We followed the Centers for Disease Control and Prevention (CDC) framework for NCD surveillance system evaluation to conduct a concurrently embedded mixed cross-sectional study at two hypertension sentinel sites in Mojo City, Oromia, Ethiopia, August 15– 31, 2021.

We used checklist and a semi-structured questionnaire to collect data from key informant interviews, observations, and record reviews. Qualitative data were manually analyzed based on thematic analysis while quantitative data were analyzed with SPSS 25.0.

Results: A total of 14 key informants were included and interviewed; response rate was 100%. All stakeholders were open to the surveillance forms and procedures, communication channels and information flows. The completeness and timeliness of monthly reports were 98.0% and 100%, respectively.

The sensitivity of hypertension surveillance system was 100% while positive predictive value was 92.6% and its representativeness was 67%.

Health facilities did not conduct routine data analysis. 50% of respondents attributed this to an unstable system including shortage of trained staff, program dependency on partners, and absence of regular supportive supervision and feedback.

Conclusions: The existing surveillance system was simple, flexible to changing accommodations, and acceptable for surveillance stakeholders. It was found to be sensitive and predictive but unstable. Our findings demonstrate a need for routine data analysis and interpretation, and regular supportive supervision and feedback.

Efforts should also target community awareness activities to improve the surveillance representativeness, and staff training and capacity building.

Keywords: Sentinel Surveillance, Hypertension, Public Health Surveillance, Non-communicable Diseases, Ethiopia

Abstract ID: OP82 Acute Flaccid Paralysis Surveillance Data Analysis, Sana'a city, Yemen 2012-2021

Lama Abdo Al Aroomi¹&, Mutahar Ahmed AL Qassimi², Faten Hamid Ezzadeen², Labiba Saeed Anam¹

¹Yemen Field Epidemiology Training Program, Ministry of Public Health and Population, Sana'a, Yemen

²AFP Surveillance Program, Ministry of Public Health and Population, Sana'a, Yemen

***Corresponding author:** Lama Abdo Al Aroomi, Yemen Field Epidemiology Training Program Ministry of Public Health and Population, Sana'a, Yemen, Email Address: drlamealaroomi@gmail.com

Introduction: Yemen was certified polio-free by WHO in 2006. Outbreaks of circulating Vaccine-derived Polioviruses (cVDPV) pose a threat to the eventual eradication of all polioviruses. In 2021 and 2022, two outbreaks of circulating Vaccine-derived Poliovirus type 1 (cVDV1) and circulating Vaccine-derived Poliovirus type 2 (cVDPV2) occurred during the conflict in Yemen. The objectives of the study were to describe trends in incidence of AFP cases and characteristics of AFP cases in Sanaa city over the last ten years from 2012 to 2021.

Methods: Retrospective descriptive analysis was conducted. The data obtained from the AFP surveillance program at the ministry of public health, include all AFP cases reported between January 2012 and December 2021.

Results: During a ten-year period, 593 cases of AFP were reported in Sana'a city, none of these cases was confirmed as poliomyelitis. 60% were younger than five years of age, and 56% were males. The annual incidence of non-polio AFP ranged from 2.6/100,000 to 4.9/100,000 (Mean: 3.5 /100,000) which met WHO target. Regarding sample adequacy, all districts met WHO target (>80%) except AL Tahrir district (77%). The most predominant clinical feature was fever (79%). Nearly one third of cases ended with residual paralysis (26%). The most common cause of paralysis (27%) was Guillain-Barre syndrome.

Conclusions: The AFP surveillance system was found to be efficient and progressively improved over the past 10 years in Sana'a city.

However, strengthening the two main indicator of AFP surveillance especially in Al Tahrir district and future analysis of AFP surveillance indicators at national level are highly recommended.

Key words: Acute Flaccid Paralysis (AFP), Surveillance analysis, Yemen FETP

Abstract ID: OP98

Willingness to take Pre-Exposure Prophylaxis (PrEP) among high-risk young Men aged 10-24 years in Masese fishing community, Jinja District, Uganda

Winnie Agwang^{1&}, Andrew Kuguminkiriza Tsubira¹, Joanita Nangendo², Sherifah Nabikande², Tom Okello², Joan Tusabe¹, Fred Semitala^{3,4}, Simon Kasasa¹, Joseph Matovu^{1,5}

¹Department of Health Policy Planning and Management, School of Public Health, College of Health Sciences, Makerere University, Kampala, Uganda, ²Clinical Epidemiology Unit, College of Health Sciences, Makerere University, Kampala, Uganda, ³Department of Internal Medicine, College of Health Sciences, Makerere University, Kampala, Uganda

⁴Makerere University Joint AIDS program, Kampala, Uganda, ⁵Faculty of Health Sciences, Busitema University, Mbale, Uganda

&Corresponding author: Winnie Agwang, Department of Health Policy Planning and Management School of Public Health, College of Health Sciences, Makerere University, Kampala, Uganda, Email: winnieotuba@gmail.com/winniegwng74@gmail.com

Introduction: Globally, Pre-Exposure Prophylaxis (PrEP) is a HIV prevention strategy for high-risk populations including fishing communities. However, some communities have not embraced PrEP. We assessed willingness to take PrEP among high-risk young men and their understanding of PrEP in a fishing community in Uganda.

Methods: We conducted a cross-sectional study between October and November 2020 using quantitative and qualitative data collection Methods among young men aged 10-24 years in Masese fishing

community, Eastern Uganda.

We surveyed 479 young men, who had two or more sexual partners with inconsistent or no condom use. Participants who reported they would take PrEP when provided were categorized as willing.

We also conducted four focus group discussions (n=32) among a purposive sample of young men to explore understanding of PrEP. We conducted multivariable modified Poisson regression for the quantitative and thematic analysis for qualitative data.

Results: Overall, 86.4% (n=414/479) of the participants were willing to take PrEP. Willingness to take PrEP was significantly lower among single/never married participants compared to the married (adjusted Prevalence Ratio (aPR)=0.92;95%CI:0.87,0.98).

Willingness to take PrEP was higher among participants who self-perceived to be high-risk for HIV (aPR=1.11;95%CI:1.03,1.20); perceived less PrEP side-effects (aPR=1.56;95%CI:1.55,2.24) and would obtain PrEP within their community (aPR=1.40;95%CI:1.25,1.57).

From the discussions, participants described PrEP as a drug used to prevent HIV, but some could not differentiate PrEP from Post-Exposure Prophylaxis and did not know when it is taken. Some participants feared that PrEP would lead to loss of libido while some feared it would increase sexual activity and expose them to other venereal diseases.

Conclusions: There was high willingness to take PrEP among young men in fishing communities. Strategies to improve PrEP interventions may be more effective if they target single men and include provision of PrEP within such communities. Health education will also improve understanding of PrEP and promote risk awareness.

Keywords: Willingness, PrEP, Adolescent Boys and Young men, Fishing community

Abstract ID: OP99

Pesticide exposure and associated acute health effects among smallholder farmers in Mbale District, Eastern Uganda, August 2020

Elizabeth Muhumuza^{1&}, Charles Ssemugabo¹, Andrew Tsubira¹, David Guwattudde¹

¹Makerere University-School of Public Health, Kampala, Uganda.

&Corresponding author: Elizabeth Muhumuza, Makerere University, School of Public Health, Kampala, Uganda, Email: lizhumuza@gmail.com

Introduction: Pesticide use in agriculture is on the rise in Uganda. Many farmers improperly use pesticides, which puts them at risk of adverse health effects. We assessed pesticide exposure levels and acute health effects among smallholder farmers in Mbale district, Uganda.

Methods: We conducted a cross-sectional study throughout August 2020 among 576 randomly selected farmers. Data were collected using an interviewer administered structured questionnaire. We estimated pesticide exposure scores based on six self-reported determinants: use of personal protective equipment, application, mixing, duration of spraying, bathing and changing clothes after applying pesticides. Farmers with a monthly cumulative pesticide exposure score greater than 22.5 were categorized as high. We conducted descriptive analysis to generate frequencies and also used multivariable modified Poisson regression model to determine factors associated with high pesticide exposure using prevalence ratios (PR) as the measure of association.

Results: 409 (71%) of 576 farmers were using pesticides and 403/576 (70%) were males. Overall, 176/409 (43.0%) of the farmers experienced high exposure to pesticides. 331 of 409 (80.9%) farmers experienced at least one acute health effect with skin irritation (60.5%), headache (31%), nausea (24.7%) and dizziness (27.4%) being the most reported. The proportion of farmers that experienced high pesticide exposure levels was two times higher among males (adj.PR) 2.19; 95%CI: 1.49, 3.20) than females.

Farmers that used cocktails (adj.PR:1.47; 95%CI:1.03,2.10) were more likely to experience high levels of pesticide exposure. Wearing rubber boots while handling pesticides prevented high pesticide exposure levels (adj.PR:0.49; 95%CI: 0.34,0.71).

Conclusions: Exposure to pesticides was high among male farmers and those that used cocktails. Wearing rubber boots prevented high pesticide exposure levels. There is urgent need for strategies to promote safe pesticide handling practices among farmers in order to reduce exposure and associated health effects.

Keywords: Pesticides, exposure, smallholder farmers, acute health effects, Uganda

Abstract ID: OPI00

Strengthening community ownership of Lassa Fever preventive practices in Nigeria using participatory communication

Olayinka Stephen Ilesanmi^{1,2,&} Michael Chiemeli Asuzu^{1,3}, Aanuoluwapo Adeyimika Afolabi¹, Eme Theodora Owoaje¹

¹Department of Community Medicine, College of Medicine, University of Ibadan, Ibadan, Nigeria

²Africa Centre for Disease Prevention and Control, Addis Ababa, Ethiopia.

³Department of Community Medicine, University of Medical Sciences, Ondo-city, Nigeria

&Corresponding author: Olayinka Stephen Ilesanmi, Department of Community Medicine, College of Medicine, University of Ibadan, Ibadan, Nigeria, Email: ileolasteve@yahoo.co.uk

Introduction: Nigeria has consistently reported a 19% Lassa fever (LF) case fatality ratio between 2019 and 2022. Community-based preventive measures such as deratting are effective in preventing LF, however lack of community ownership (CO) undermines the effects of these actions.

We investigated how participatory communication (PC) influences CO of LF preventive practices in Owo, a LF endemic local government area (LGA) in Ondo State, Nigeria

Methods: This was a randomized community trial using a mixed-Methods approach. Simple random sampling technique was used to enroll 230 household heads from one community in two non-contiguous wards (intervention and control) out of 11 wards in Owo LGA.

A pretested paper-based semi-structured interviewer administered questionnaire was used before and after PC intervention. A key informant interview guide was used to interview health workers and community members.

Households involved in at least one of resource mobilization, needs assessment, management/organization, or leadership relating to LF prevention three months before and after the intervention were categorized to have CO of LF preventive practices. We used logistic regression to examine the effect of PC on CO of LF preventive practices.

Results: Participants' mean age was 39.8 ± 15.3 years, and 289(57.8%) were females. At end line, PC increased by 41.5% in intervention community compared to 18.9% in control ($p=0.003$).

At end line, CO of LF preventive practices was found in 107 (51.0%) respondents compared to 0(0.0%) without it (Chi-square=25.78, $p<0.001$). At end line, residents in both communities with PC had twice higher odds of CO of LF preventive practices (AOR=2.07, 95%CI=1.32–3.23, $p<0.001$).

A respondent said, "Community vanguards should be appointed to ensure compliance with environmental sanitation to prevent LF. When there are defaulters, sanctions should be introduced."

Conclusions: CO of LF preventive measures improved through PC. CO is of dire importance to strengthen public health in LF endemic communities in Nigeria.

Keywords: Community ownership, Outbreak, participatory communication

Abstract ID: OPI06

Factors associated with willingness to receive COVID-19 vaccine among adults in rural Western Uganda between January and April 2022.

John Turyagumanawe^{1*,2}, Andrew K. Tusubira², Winnifred Kansime², Juliet N Babirye²

¹Hoima Regional Referral Hospital, Ministry of Health, Hoima Uganda.

²Makerere University School of Public Health, Kampala Uganda.

***Corresponding author:** John Turyagumanawe, Hoima Regional Referral Hospital, Ministry of Health, Hoima Uganda, Email: drjohnturya@gmail.com

Introduction: The development and use of COVID-19 vaccines has been a global target to effectively control the pandemic. Since March 2021, Uganda has been publicizing and implementing COVID-19 vaccination. However, little is known about the willingness to receive the vaccine, particularly in rural areas. We assessed willingness to receive COVID-19 vaccination and its associated factors among residents of a rural district in Uganda.

Methods: We conducted a concurrent mixed-Methods study between January and April 2022 with a household survey and key informant interviews conducted among residents in Hoima district, Uganda.

We used multi-stage sampling for the survey among 379 adult participants. A participant was categorized as willing to receive COVID-19 vaccination if they self-reported that they were willing to do so.

We also interviewed eight purposively selected key informants who were healthcare workers actively involved in vaccination services. We conducted multivariable-modified Poisson regression analysis to generate prevalence ratios (PR). A thematic approach was used for qualitative data analysis.

Results: All (379) participants had heard about COVID-19 vaccination and the most common sources of information were radios (58.8%), friends (28.8%), and health workers (12.5%). Overall, 79%(301/379) of

the participants were willing to receive the vaccination. Willingness to receive COVID-19 vaccination was significantly higher among participants with tertiary level of education (adj.PR=1.2;95%CI:1.1,1.4); those who received counselling about COVID-19 vaccination from healthcare workers (adj.PR=1.3; 95%CI:1.2,1.6); and those who resided within five kilometers from a vaccination site (adj.PR=1.2;95%CI:1.1,1.6). Perceived fear of loss of libido, fertility and religious beliefs were major barriers to willingness.

Conclusions: Willingness to receive COVID-19 vaccination was high in this rural setting but safety concerns were a main barrier. Strategies to improve COVID-19 vaccination programs should focus on health education messages through local radio stations to counter fears and misconceptions.

Keywords: COVID-19, willingness, vaccination, Rural Uganda.

Abstract ID : OPI33

Facteurs associés à la persistance du paludisme chez la femme enceinte, district sanitaire de Garango, Burkina Faso, août 2022.

Wendkouni Serge Alain Tougma^{1,4,&}, Boureima Kouraogo⁴, Aristide Compaoré⁵, Bérenger Kaboré^{2,3}, Denis Yelbéogo^{2,3}, Hamadou Seogo³, Bernard Sawadogo³.

¹Centre des opérations de réponse aux urgences sanitaires, Ouagadougou, Burkina Faso ;

²Programme de formation en épidémiologie de terrain, Ministère de la santé, Ouagadougou, Burkina Faso ;

³Réseau Africains des Epidémiologistes de Terrain (AFENET), Ouagadougou, Burkina Faso ;

⁴Ministère de la santé et de l'hygiène publique, Ouagadougou, Burkina Faso;

⁵Ministère de l'agriculture, des ressources animales et halieutiques, Ouagadougou, Burkina Faso

&Auteur correspondant: TOUGMA W. Serge Alain, Ministère de la santé et de l'hygiène publique, Burkina Faso , 00226 78278348/74136510, sergetougma@yhoo.fr

Introduction: Le paludisme persiste chez la femme enceinte au Burkina Faso avec une incidence de

573 cas pour 1000 femmes enceintes notifiée en 2021 malgré le traitement préventif intermittent du paludisme (TPI) et la distribution universelle de moustiquaire imprégnée à longue durée d'action (MILDA). L'objectif de cette étude était de déterminer les facteurs associés au paludisme chez la femme enceinte dans le district sanitaire de Garango.

Méthode: Nous avons réalisé une étude cas-témoins appariée avec un ratio de 1 cas pour 2 témoins du 9 au 18 août 2022. Un cas était toute femme enceinte durant la période d'étude ayant eu un diagnostic de paludisme confirmé et le témoin, toute femme enceinte n'ayant pas fait de paludisme au cours de sa grossesse.

Nous avons réalisé un échantillonnage aléatoire à deux degrés pour sélectionner 10 formations sanitaires et à partir des registres nous avons sélectionnées les cas et témoins. Les données collectées avec un questionnaire semi-structuré ont été analysées avec Epi info 7.2.

Nous avons effectué une régression logistique univariée et calculer l'odds ratio (OR) avec un intervalle de confiance à 95 % pour identifier les facteurs associés au paludisme chez la femme enceinte.

Résultats: Nous avons interviewé 118 cas et 236 témoins. L'âge médian était de 22 ans (15-43 ans) pour les cas et de 25 ans (16-43 ans) pour les témoins.

Les facteurs associés au paludisme chez les femmes enceinte étaient la non prise de TPI au sulfadoxine-pyriméthamine (SP) (OR=2,27,[1,30-3,95], le non-respect du délais de prise de la SP(OR=2,12,[1,34-3,37]) et le fait de ne pas dormir sous MILDA(OR=2.98,[1.32-6.71])

Conclusions: La mauvaise observance de la prise de SP et la non utilisation des MILDA sont associés à la survenue du paludisme chez la femme enceinte.

Une sensibilisation de cette population sur ces facteurs lors des consultations prénatales réduirait l'incidence du paludisme à Garango.

Mots-clés: Facteurs associés, femmes enceintes, paludisme, Garango, Burkina Faso.

Abstract ID : OPI34

Investigation d'un cas rare de rage bovine dans une ferme à Loumbila, Burkina Faso, mai 2022

Aristide Compaoré^{1,6,&}, Wendlassida Brice Armel Ouédraogo², Martial Touwendsida Nana^{1,6}, Bruno Laldia Ouoba^{3,6}, Bérenger Kaboré^{4,5}, Denis Yelbéogo^{4,5}

¹Direction de la Santé Animale, Ouagadougou, Burkina Faso; ²International Livestock Research Institute, Ouagadougou, Burkina Faso;

³Laboratoire Nationale d'Élevage, Ouagadougou, Burkina Faso; ⁴African Field Epidemiology Network, Ouagadougou, Burkina Faso,

⁵Programme de formation en épidémiologie de terrain, Ministère de la santé, Burkina Faso, ⁶Ministère de l'agriculture, des ressources animales et halieutiques, Ouagadougou, Burkina Faso

&Auteur correspondant: Aristide Compaoré, Direction de la Santé Animale, Ouagadougou, Burkina Faso, 09 BP 907, Email : vet-aris@hotmail.com

Introduction: La rage est une zoonose prioritaire pour la surveillance épidémiologique au Burkina Faso. De 2015 à 2019, 891 cas de rage ont été enregistrés par les services vétérinaires avec une prédominance chez les chiens et chats.

Le service de surveillance a été informé par le responsable d'une ferme mixte à Loumbila, le 16 mai 2022, de la présence d'un animal agressif avec hypersialorrhée dans leur ferme. Nous avons investigué pour rechercher la cause et mettre en place des mesures de riposte.

Méthodes: Nous avons mené une investigation dans la ferme, à Loumbila, du 17 au 24 mai 2022. Tout animal présentant une hypersalivation, une agressivité et une inappétence a été considéré comme cas suspect de rage. Un questionnaire semi-structuré nous a permis de recueillir les informations cliniques, démographiques sur l'animal auprès de l'éleveur et par observation de l'animal. Nous avons prélevé la tête du bovin répondant à la définition de cas pour examen au laboratoire par immunofluorescence directe en vue de la confirmation. Une recherche des cas a été également faite aux alentours de la ferme.

Résultat: Sur 303 animaux, aucun animal n'était à jour de la vaccination antirabique. Le seul cas suspect identifié était une vache Gudali de 14 ans mordue par un chien errant au pâturage. Les symptômes observés étaient l'hydrophobie, l'inappétence et la paralysie. L'échantillon prélevé s'est révélé positif à la rage.

Nous avons mis en observation les autres animaux puis recommandé leur vaccination. Les éleveurs et leur famille ont été sensibilisés.

Aucun cas supplémentaire n'a été détecté chez les animaux de la ferme et lors de la sortie dans la localité.

Conclusions: L'investigation a confirmé l'épidémie de rage. Ces résultats interpellent au renforcement des mesures contre la rage par la surveillance des animaux de fermes lors des sorties de pâturage.

Mots clés: Rage, bovine, Loumbila, Burkina Faso

Abstract ID: OPI39

Trends and spatial distribution of perinatal deaths in Uganda: a descriptive analysis of surveillance data, 2017–2021

Brian Agaba^{1&}, Richard Migisha¹, Hellen Nelly Naiga¹, Zainah Kabami¹, Saudah Namubiru Kizito¹, Brenda Simbwa¹, Robert Zavuga¹, Robert Mutumba², Bruno Ssemwanga², Carol Nanziri¹, Lilian Bulage¹, Benon Kwesiga¹, Daniel Kadobera¹, Julie Harris³, Alex Riolexus Ario¹

¹Uganda Public Health Fellowship Program, Uganda National Institute of Public Health, Kampala, Uganda

²Reproductive Health Division, Ministry of Health, Kampala, Uganda

³Division of Global Health Protection, Center for Global Health, US Centers for Disease Control and Prevention, Kampala, Uganda

&Corresponding author: Brian Agaba, Uganda Public Health Fellowship Program, Uganda National Institute of Public Health, Kampala, Uganda, Email: agababrian@uniph.go.ug

Introduction: Over the last two decades, there have been multiple interventions aimed at reducing the burden of perinatal deaths in Uganda. Despite this, the country has not reached the World Health

Organization's (WHO) Every Newborn Action Plan (ENAP) target of <12 stillbirths per 1,000 births and <12 newborn deaths per 1,000 live births.

We described temporal and spatial trends of perinatal deaths from 2017 through 2021 to evaluate progress towards targets.

Methods: We extracted data on macerated stillbirths (MSB), fresh stillbirths (FSB), early newborn deaths (END), live births, and total births from the District Health Information System, 2017–2021. FSB was defined as intrauterine death of a fetus at ≥ 28 weeks of gestation or $\geq 1,000$ grams.

MSB was intrauterine death of a fetus before labor onset in which the fetus showed degenerative changes. END was death of a baby (≥ 28 weeks of gestation/ $\geq 1,000$ g) at 0–7 days of life. MSB, FSB, and END were summed to obtain total perinatal deaths; rates were calculated per 1,000 total births. We analyzed trends using logistic regression and described spatial distribution by district.

Results: Among 139,948 perinatal deaths, the annual average perinatal death rate was 23/1,000 total births, reducing by an average of 8% per year from 28/1,000 in 2017 to 19/1,000 in 2021 (OR=0.92, 95%CI=0.91–0.92). Stillbirths declined by an annual average of 6% (OR=0.94, 95%CI=0.94–0.95).

Early newborn deaths declined at an annual average of 9% (OR=0.91, 95%CI=0.90–0.9). Districts with regional referral hospitals reported the highest perinatal death rates.

Conclusions: Perinatal deaths declined from 2017 through 2021 but remained above the WHO/ENAP target. Targeted perinatal death reduction interventions such as improving the health referral system, improving supply of essential medicines and equipment, continuous quality improvement initiatives, and deployment of health personnel to districts with regional referral hospitals may reduce the perinatal death burden.

Keywords: Perinatal deaths, Trends, Spatial distribution, Uganda

Abstract ID: OPI42

Spatio-temporal trends of air quality, Kampala City, Uganda, 2020–2022

Mackline Ninsiima^{1*}, Alex Ndyabakira^{1,2}, Sarah Zalwango², Richard Migisha¹, Daniel Kadobera¹, Claire Biribawa³, Lilian Bulage¹, Alex Riolexus Ario¹, Julie Rebeca Harris³, Daniel Okello Ayen²

¹Uganda Public Health Fellowship Program, Uganda National Institute of Public Health, Kampala, Uganda

²Kampala Capital City Authority, Kampala, Uganda

³Division of Global Health Protection, Global Health Center, US Centers for Disease Control and Prevention, Kampala, Uganda

***Corresponding author:** Mackline Ninsiima, Uganda Public Health Fellowship Program, Uganda National Institute of Public Health, Kampala, Uganda, Email: nmackline@musph.ac.ug, nmackline@kcca.go.ug

Introduction: Fine particulate matter (PM_{2.5}) is among the air pollutants that pose health risks to humans, with levels $>15 \mu\text{g}/\text{m}^3$ being associated with serious health effects. We assessed the spatio-temporal trends of air quality based on PM_{2.5} concentrations in Kampala City from January 2020–June 2022.

Methods: We abstracted PM_{2.5} concentrations generated by twenty-four Clarity© Node Solar-Powered monitors from January 1, 2020, to June 30, 2022, from the Clarity© dashboard. We computed 24-hour average PM_{2.5} concentrations by combining data from all monitors at division and city levels. Seasonal Mann–Kendall statistical test was applied to assess significance of observed trends. Average PM_{2.5} concentrations per hour were compared by hour of the day.

Results: Overall, the 24-hour average PM_{2.5} concentration from January 1, 2020, to June 30, 2022, was $59 \mu\text{g}/\text{m}^3$ (range: 18–182 $\mu\text{g}/\text{m}^3$). PM_{2.5} concentrations exceeded $15 \mu\text{g}/\text{m}^3$ in all city divisions. A statistically significant decline in PM_{2.5} occurred throughout the assessment period from January 2020 to June 2022 ($r = -0.27$, $p < 0.001$). PM_{2.5} increased from April to June each year [2020 ($55 \mu\text{g}/\text{m}^3$, $r=0.56$, $p=0.006$), 2021 ($45 \mu\text{g}/\text{m}^3$, $r=0.26$, $p=0.030$), and 2022 ($37 \mu\text{g}/\text{m}^3$, $r=0.37$, $p=0.030$)] and declined from July to September in 2021 ($57 \mu\text{g}/\text{m}^3$, $r=-0.43$, $p=0.008$)

and January to March in 2022 (60 $\mu\text{g}/\text{m}^3$, $r=-0.41$, $p=0.011$). PM_{2.5} concentration peaked from 10am–midday (74–73 $\mu\text{g}/\text{m}^3$) and 8pm–9pm (73–77 $\mu\text{g}/\text{m}^3$). PM_{2.5} concentrations exceeded targeted safe levels on all days in Kampala City during 2020–2022.

Conclusions: Unhealthy PM_{2.5} levels were observed even during times of less traffic and economic activity in Kampala City. In 2022, Kampala Capital City Authority developed the Kampala City Clean Air Action Plan with interventions to be undertaken by multiple partners aimed at improving air quality.

Keywords: Particulate Matter (PM), Fine Particulate Matter (PM_{2.5}), Spatio-temporal

Abstract ID: OPI52

Malaria Outbreak investigation and Report-Wama cluster of Mana Sibule Woreda, Ethiopia, October 2020

Sahilu Tesfaye Weyessa^{1,*}, Aman Yesuf Endries¹
¹Saint Paul's Hospital Millennium Medical College, Department of Public health, Addis ababa, Ethiopia

***Corresponding author:** Sahilu Tesfaye Weyessa, Saint Paul's Hospital Millennium Medical College, Department of Public health, Addis Ababa, Ethiopia, Email: Sahilu.tesfaye@yahoo.com

Introduction: Malaria is a common and life-threatening disease in many tropical and subtropical areas. Although Ethiopia has made significant progress towards malaria prevention and control, the outbreak is still recurring. We investigated to describe the magnitude of malaria outbreak, identify the etiologic agents and associated factors in Wama cluster.

Methods: We employed a cross-sectional study design to describe the suspected malaria cases (n=605) obtained from the line list by place, person and time. An unmatched 1:1 facility-based case-control study was conducted to identify factors associated with malaria from week 41-43 of 2020. 117 cases and 117 controls were selected; cases were selected based on national case-definition. Socio-demographic and clinical manifestations data were collected using a structured questionnaire. Descriptive analysis like frequency and percentage were analyzed. Bivariate and multivariable

logistic regression was used to identify associated factors. P-value <0.05 at 95% confidence interval was considered statistically significant.

Results: Among 605 suspected malaria cases with a mean age of 17 (SD=±15) years, the overall attack rate was 16.85/1000 population with the highest attack rate between 5-14 years age (29.4 per 1000) and 389 (64.3%) were confirmed by laboratory tests. The predominant plasmodium species was *P. falciparum* (343/389, 88.2%). Staying outside overnight (AOR=5.09, 95% CI: 2.24-11.5, $p<0.0001$), people reside around uncovered water storage (AOR=3.17, 95% CI: 1.36-7.4, $p<0.008$), community around stagnant water (AOR=4.48, 95% CI: 2.0-9.9, $p<0.001$) and presence of rivers closest to the residents (<1km) (AOR= 4.3, 95% CI: (1.5-12.0, $p<0.005$)) were statistically associated with malaria.

Conclusions: The attack rate was high among females and peoples between 5-14 years age. *P. falciparum* was the predominant plasmodium species. People who stayed outside their home overnight, the presence of stagnant water and presence of a river within 1km radius were associated risk factors for malaria outbreak.

We recommend distributing insecticide-treated nets to vulnerable individuals.

Keywords: Malaria outbreak, case-control, contracting factors, Ethiopia,

Abstract ID: OPI53

The role of contact tracing in the timely identification of cases in the 2022 Ebola outbreak in Uganda

Mercy Wendy Wanyana^{1,*}, Rebecca Akunzirwe¹, Patrick King¹, Immaculate Atuhaire², Bernard Lubwama³, Richard Migisha¹, Daniel Kadobera¹, Benon Kwesiga¹, Lilian Bulage¹, Alex Riolexus Ario³, Julie Rebecca Harris²

¹Uganda Public Health Fellowship Program, Uganda National Institute of Public Health, Kampala, Uganda.

² Division of Global Health Protection, US Centers for Disease Control and Prevention, Kampala, Uganda

³Ministry of Health, Kampala, Uganda

&Correspondence: Wanyana Mercy Wendy, Uganda Public Health Fellowship Program, Uganda National Institute of Public Health, Kampala, Uganda. Email: mwanyana@uniph.go.ug

Introduction: Contact tracing (CT) can support Ebola Virus Disease (EVD) outbreak control, but its effectiveness varies. After declaring an EVD outbreak on September 20, 2022, the Uganda Ministry of Health rapidly initiated CT. We assessed the performance of CT for EVD in Uganda from September 20, 2022-January 11, 2023.

Methods: We collated anonymized data from the national SVD line list and contacts database on CT performance indicators: contacts per case, time to CT initiation, monitoring and follow-up completion rates, and proportion of confirmed cases that were previously known contacts at the time of their illness. We used the Mann-Whitney U test to compare median days from the onset of symptoms to isolation and confirmation among cases who were previously known contacts and those who were not before their onset of symptoms. We assessed the effect of being a previously known contact on the number of people infected using a Poisson regression model.

Results: A total of 3,844 contacts were identified and listed with an average of 21.8 contacts per case. The average time to CT initiation for each case was 1 day (Mean=1, SD=0.45) with 97% of contacts completing 21-day monitoring and follow-up after their last exposure. Overall, 33% of confirmed cases were previously known contacts before their identification as cases. Cases previously known contacts had fewer median days from onset to isolation (4 versus 6; $p<0.007$) and confirmation (4 versus 7; $p<0.0001$). Cases that were previously known contacts had an 84% (IRR=0.16, 95%CI 0.08-0.32) less risk of infecting another person compared to those who were not previously known contacts prior to their illness.

Conclusions: CT was characterised by sub-optimal contact listing with high monitoring and follow-up completion rates. CT reduced the time cases spent in the community before isolation and the number of persons infected in Uganda.

Keywords: Contact tracing, Case Identification, Ebola Virus Disease

Abstract ID: OPI56

Increasing trends of antibiotic resistance, Uganda: an analysis of National antimicrobial resistance surveillance data, 2018-2021

Saudah Namubiru Kizito^{1,&}, Richard Migisha¹, Paul Edward Okello¹, Brenda Simbwa¹, Zainah Kabami¹, Brian Agaba¹, Jane Frances Zalwango¹, Helen Nelly Naiga¹, Rebecca Akunzirwe¹, Rita Namusosa², Ibrahim Mugerwa², Winnie Atuhaire², Grace Najjuka², Daniel Kadobera¹, Alex Ario¹, Susan Nabadda²

¹Uganda Public Health Fellowship Program, National Institute of Public Health, Kampala, Uganda

²National Health Laboratory and Diagnostic Services Department, Ministry of Health, Kampala, Uganda

&Corresponding author: Saudah Namubiru Kizito, Uganda Public Health Fellowship Program, National Institute of Public Health, Kampala, Uganda, Email: skizito@musph.ac.ug, Tel: +256704518351

Introduction: Continuous monitoring of antimicrobial resistance (AMR) from human samples is critical inform empirical therapy as well as monitor trends. Uganda's AMR surveillance occurs in tertiary hospitals and some laboratories in academic institutions. After identification (ID) of the organisms and antimicrobial susceptibility testing (AST), isolates are sent to the National Microbiology Reference Laboratory (NMRL) for re-testing to generate national AMR surveillance data and for global reporting. We evaluated trends and spatial distribution of resistance to common antibiotics used in Uganda.

Methods: We analyzed data of pathogenic bacteria isolated from a sterile site and calculated the proportions of isolates that were resistant to common antibacterial classes and evaluated changes in resistance over time.

Results: Out of 537 isolates with 15 pathogenic bacteria, 478 (89%) were from blood, 34 (6.3%) from pleural fluid, 21 (4%) from cerebrospinal fluid, and 4 (0.7%) from peritoneal fluid. The most common pathogen was *Staphylococcus aureus* (20.1%), followed by *Salmonella* species (18.8%). The overall change in resistance over the four years was 63–

84% for sulphonamides, for cephalosporins 8.3–90%, fluoroquinolones macrolides 46–71%, phenolols 48–71%, penicillins 42–97%, β -lactamase inhibitors 20–92%, and aminoglycosides 17–53%. It was lower for carbapenems 5.3–26%, and glycopeptides 0–20%. Annual resistance rates to ciprofloxacin increased significantly from 2018–2021 for Gram-positive organisms (26–45% $p=0.02$) while for Gram-negative organisms, there were increases in resistance to tetracycline (29–78% $p<0.001$), ciprofloxacin (17–43%, $p=0.004$), ceftriaxone (8–72%, $p=0.003$), imipenem (6–26%, $p=0.004$), and meropenem (7–18, $p=0.03$).

Conclusions: There is a significant increase in the trends of drug resistance to antibiotics such as ciprofloxacin ceftriaxone, carbapenems, and tetracycline (among the Gram-negative organisms) in Uganda. Continuous monitoring of AMR trends at the national level can inform policies and improve the efforts to reduce AMR in the country.

Keywords: Antimicrobial resistance, Surveillance, Uganda, susceptibility testing

Abstract ID: OPI60 COVID-19-related stigma among survivors in Soroti District, Uganda, March 2020 to December 2021

Alice Asio^{1,*}, Veronica Masanja¹, Daniel Kadobera¹, Benon Kwesiga¹, Alex Ario^{1,2}

¹Uganda Public Health Fellowship Program, Kampala, Uganda

²Uganda National Institute of Public Health, Kampala, Uganda

***Corresponding author:** Alice Asio, Uganda Public Health Fellowship Program, Kampala, Uganda, +256788006553, aasio@musph.ac.ug

Introduction: Much remains unknown about COVID-associated stigma and psychosocial effects among survivors. We estimated the proportion of COVID-19 survivors in Soroti District who experienced stigma (negative attitudes or discrimination due to their COVID-19), assessed factors associated with stigma, and described the psychosocial effects of COVID-19-related stigma among survivors.

Methods: A case was anyone with confirmed COVID-19 infection in Soroti District from March 2020–December 2021. We reviewed records from Soroti Regional Referral Hospital to identify hospitalized and outpatient cases. We interviewed consenting case-patients in their homes using three tools.

We used a semi-structured questionnaire to assess demographics, clinical condition, case management, and family support during illness.

We used a validated psychometric tool to categorize cases as experiencing severe, mild/moderate, or no stigma while ill. We used the Depression, Anxiety, and Stress (DASS-21) tool to assess depression, anxiety, and stress while ill. Modified Poisson regression was used to identify factors associated with experiencing stigma.

Results: Among 314 cases, 166 (53%) were female. Among 301 (96%) cases who responded to stigma questions, 112 (37%) felt severe stigma, 84 (28%) mild/moderate stigma, and 105 (35%) no stigma.

Among cases reporting stigma, 221 (71%) reported feeling hurt by others' reactions on learning they had COVID-19, and 177 (57%) felt that people they knew would not want them around their children.

In total, 176 (90%) received emotional and/or financial support from household members. Being in home-based care (PR=1.27, 95%CI: 1.02–1.56) versus hospitalized was associated with stigma. Among 303 participants reporting psychosocial effects, 264 (87%) experienced extremely severe depression, 64 (21%) extremely severe anxiety, and 167 (55%) extremely severe stress.

Conclusions: COVID-19 patients in Soroti District experienced stigma and psychosocial effects during their COVID-19 illness. Patient counselling and community sensitization by a district psychosocial team could reduce the burden of psychosocial effects in future outbreaks.

Keywords: COVID-19, Stigma, psychosocial factors

Abstract ID: OPI62

Ebola Virus Disease Spread by Super-spreaders in Uganda, 2022

Allan Komakech^{1&}, Sherry Rita Ahirirwe¹, Richard Migisha¹, Daniel Kadobera¹, Benon Kwesiga¹, Alex Riolerus Ario¹, Julie Rebecca Harris²

¹Uganda National Institute of Public Health, Kampala, Uganda

²U.S Centers for Disease Control and Prevention, Kampala, Uganda

&Corresponding author: Allan Komakech, Uganda National Institute of Public Health, Kampala, Uganda, Email: akomackech@musph.ac.ug

Introduction: Infectious disease super-spreaders (SSPs) contribute to the infection of many more persons than expected. We describe two Ebola Virus Disease (EVD) SSPs and how they contributed to the 2022 EVD outbreak in Uganda.

Methods: We conducted case investigations for two patients with PCR-confirmed Sudan ebolavirus infection who resided in a single parish (Parish P) in Kassanda District, Uganda. We reviewed narratives of the two SSPs collected by case investigation teams through interviews with relatives and friends of the SSPs to understand their history and interactions with contacts.

Results: Two SSPs led to 52 confirmed EVD infections, comprising nearly 1/3 of all outbreak cases. Both cases were infected by a single ill healthcare worker at health facilities attended by the SSPs.

Case c081, a 33-year-old male, had illness onset on October 6, 2022, and was subsequently treated as an outpatient at three health facilities in two districts, leading to the spread of EVD in one of the districts. Case c081 died on October 13 and infected 18 persons [17 confirmed, 1 probable; 3 (17%) died], including 8 family members, 3 neighbours, and 7 others; 2 were healthcare workers working at three different health facilities. Persons were infected through direct exposure (14) and fomite exposure (4).

Case c083 had onset on October 3 and infected 34 persons [all confirmed; 14 (41%) died]; including 23 friends who socialised with or visited him during his

illness or prayed over him just before his death, 5 family members, 5 persons at health facilities, and one neighbour. Neither SSP went to an Ebola treatment unit (ETU) at any time.

Conclusions: Interaction with community members, cross-district travel, religious practices, and social interactions led to EVD super-spreading.

EVD epidemic response should focus on identifying and isolating suspected cases as early as possible to prevent opportunities for super-spreading.

Keywords: Ebola, epidemiological investigations, super-spreaders, Uganda

Abstract ID: OPI67

Determinants of Abortion Intention in Marriage among Women in Ibadan Metropolis, South-West, Nigeria

Aanuoluwapo Adeyimika Afolabi^{1,2&}, Ayo Stephen Adebawale^{3,4}, Tosin Olajide Oni⁵, Akanni Ibukun Akinyemi⁶

¹Technical and Strategic Research Directorate, Marie Stopes Reproductive Choices Nigeria, Abuja Support Office, Nigeria.

²Department of Community Medicine, Faculty of Public Health, College of Medicine, University of Ibadan, Ibadan, Oyo State, Nigeria

³Department of Epidemiology and Medical Statistics, Faculty of Public Health, College of Medicine, University of Ibadan, Ibadan, Oyo State, Nigeria

⁴Population Health and Research Entity, Northwest University, Mafikeng, South Africa.

⁵Department of Demography and Social Statistics, Obafemi Awolowo University, Ile-Ife, Osun State, Nigeria

⁶Department of Centre for Research, Evaluation Resources and Development (CRERD), Ile-Ife, Osun State, Nigeria

&Corresponding author: Aanuoluwapo Adeyimika Afolabi, Department of Community Medicine, Faculty of Public Health, College of Medicine, University of Ibadan, Ibadan, Oyo State, Nigeria, Email: afoannade@gmail.com, Tel:+2348146764516

Introduction: A high birth rate has consistently been reported in Nigeria and some of these are either unintended or mistimed. Unfortunately, abortion which is the only form of pregnancy termination is yet to be legalized in Nigeria. Therefore, this study assessed prior and future Abortion Intention in Marriage (AIM) among women in Ibadan metropolis, South-West, Nigeria.

Methods: This community-based cross-sectional study focused on married women (n=739) aged 15-49 years selected using a 3-stage random sampling technique from three out of the 11 Local Government Areas in Ibadan.

The outcome variables were prior, future, and overall AIM. An electronic-based interviewer-administered questionnaire consisting of sociodemographic characteristics, obstetric history, media access, autonomy, and AIM was used for data collection. Data were analyzed using descriptive statistics and a logistic regression model ($\alpha 0.05$).

Results: The mean age of the women was 35.8 ± 7.4 years. The prevalence of marital abortion was 2.4%. Overall, 15.8% women had the intention to abort in their current marriage, 16.9% intended to abort in the future, while overall intention was recorded among 26.7% women. The determinants of prior AIM were media access, wealth status, and woman's autonomy, and for future AIM, monthly income, and family type.

The predictors of overall AIM were family type, monthly income, media access, and husband's education. Compared to high autonomy, the likelihood of prior AIM was higher among women with medium (aOR=3.58, 95%CI=1.97-6.54) and low autonomy (aOR=2.60, 95%CI=1.58-4.29). Polygamy (aOR=2.15, 95%CI=1.44-3.21), and income \geq ₦30,000.00 (aOR=2.61, 95%CI=1.74-3.90) predisposed women to future AIM.

Conclusions: AIM remains prevalent among women in Ibadan. However, the severity varies across socioeconomic groups family types, media access, and income. Future AIM can be avoided if appropriate mechanisms such as women empowerment programs and contraceptive education are implemented to improve decision making regarding family planning to prevent unwanted pregnancies in metropolitan areas in Southwest Nigeria.

Keywords: Abortion in marriage, Autonomy, Marital abortion intention, Unwanted pregnancy, Ibadan

Abstract ID: OPI72

Predictors of Abortion in Marital Union among Ghanaian Women of Reproductive Age: A Secondary Data Analysis

Aanuoluwapo Adeyimika Afolabi^{1,2&}, Ayo Stephen Adebowale^{3,4}

¹Technical and Strategic Research Directorate, Marie Stopes Reproductive Choices Nigeria, Abuja Support Office, Nigeria.

²Department of Community Medicine, Faculty of Public Health, College of Medicine, University of Ibadan, Ibadan, Oyo State, Nigeria

³Department of Epidemiology and Medical Statistics, Faculty of Public Health, College of Medicine, University of Ibadan, Ibadan, Oyo State, Nigeria

⁴Population Health and Research Entity, Northwest University, Mafikeng, South Africa.

&Corresponding author: Aanuoluwapo Adeyimika Afolabi, Department of Community Medicine, Faculty of Public Health, College of Medicine, University of Ibadan, Ibadan, Oyo State, Nigeria, Email: afoannade@gmail.com, Tel:+2348146764516

Introduction: Pregnancy termination is frequently used to report the occurrence of abortion and miscarriages. Abortion in marriage remains a public health issue of important concern in Ghana because pregnancy termination is yet to be legalized. This study aimed to describe the predictors of abortion in marital union among Ghanaian women of reproductive age.

Methods: This cross-sectional study utilized 2014 Ghana demographic and health survey's data. Ghana was divided into urban (n=216) and rural (n=211) settings using information available from the Ghanaian population commission. A stratified two-stage cluster sampling technique was used to select married women (n=1,828).

The dependent variable was "abortion" in marriage, and was measured with the question: "Have you ever had a pregnancy termination in your marriage?" Independent variables included sociodemographic characteristics. Intermediate variables included the desired number

of children, number of children ever born, desire for more children, knowledge of contraceptive measures, and unmet need for family planning. Data were analyzed using descriptive statistics and logistic regression model ($\alpha=0.05$).

Results: The mean(\pm SD) age of the women was 33(\pm 7.68) years Overall, 483 (30.4%) of women had experienced abortion in marriage. Women aged \geq 35 years had nearly two times higher odds of abortion (AOR=1.658, 95%CI=1.155-2.379, $p=0.006$) than those aged 15-24 years.

The odds of abortion was twice higher among women in the richest wealth quintile (AOR=2.294, 95%CI=1.329-3.959, $p=0.003$) compared with those in the poorest wealth quintile. The odds of abortion was higher among women whose period of first sex was not in union (AOR=1.467, 95%CI=1.145-1.880, $p=0.002$) compared to those whose period of first sex was in union.

Conclusions: Abortion in marriage remains prevalent in Ghana. Although, variation existed among the subgroup of the population.

Therefore, abortion reduction strategies such as early childbearing (not child marriage) and improved contraceptive education will address the high abortion prevalence among Ghanaian women.

Keywords: Abortion, Family planning, Pregnancy termination, Population dynamics, Women of reproductive age

Abstract ID: OPI84 Surveillance Data Analysis of Tuberculosis in Oromia zone, Amhara region, Ethiopia 2017- 2021

Melaku Girma Halie^{1,&}, Zelalem Mehari², Abebe Gelaw², Biniam Kebede³

¹Ethiopian Field Epidemiology and Laboratory Training Program, Bahir Dar University, Bahir Dar, Ethiopia;

²Department of Epidemiology and Biostatistics, School of Public Health, College of Medicine and Health Sciences, Bahir Dar University, Bahir Dar, Ethiopia

³Amhara Public Health Institute, Bahir Dar, Ethiopia

***Corresponding author:** Melaku Girma Halie, Ethiopian Field Epidemiology and Laboratory Training Program, Bahir Dar University, Bahir Dar, Ethiopia; Email: melakugirma2005@gmail.com

Introduction: TB is one of the top 10 causes of death globally and the leading cause, ranking above HIV/AIDS. Ethiopia is among the 30 high TB and TB/HIV burden countries globally with an estimated TB incidence rate of 140/100,000 populations. We analyzed TB data to describe trend of TB Case Detection and treatment outcomes from 2017 to 2021 in Oromia zone, Amhara region

Objective: The purpose of this study is to describe Trends of Tuberculosis Case Detection Rate and treatment outcomes from 2017 to 2021 in Oromia zone, Amhara Region.

Methods: Cross-sectional study design was conducted from June 20 to July 02, 2022 to analyze five years Tuberculosis data. The sample size was new all forms of TB cases reported during 2017-2021. Data were collected from Oromia zone health department HMIS report and compiled and analyzed using Microsoft excel.

Results: A total of 3,519 incident TB (all forms) cases were detected from 2017-2021 consisting of new PTB+ 994(28%), new PTB- 1241 (35%), new EPTB 1,127(32%) and 157(4%) bacteriologically confirmed relapse cases. Average annual incidence rate was 122 per 100,000 population. Tuberculosis incidence rate was decreased by 13% from 2017 to 2021. Majority 3,171 (90%) and 2,067(59%) TB cases were age $>$ 15 years and males respectively. Case detection rate, cure rate and treatment success rate were 69%, 90% and 95% respectively. The average five years HIV positivity rate among TB patients was 3.7% (2%-8%).

Conclusions and recommendation: TB- and EPTB were higher from all forms of new TB cases detected. Cure rate and treatment success rate were achieved as per the global target for 2020. Lower case detection rate was attained in the study period as compared with national performance. We recommend targeting on case detection, PTB-, EPTB, adults and males in TB control.

Key words: Tuberculosis, Oromia Zone, Amhara Region, 2022

Abstract ID: OPI90

Factors associated with hypertension among Persons Living with HIV in Mombasa County, Kenya

Faith Nthoki Mudachi^{1,2,&}, Samson Ndege³, Ahmed Abade¹, Maurice Owiny¹, Eric Osoro⁴

¹Field Epidemiology and Laboratory Training Program, Nairobi, Kenya,

² County Government of Kiambu, Kenya

³ Moi University, Kesses, Kenya

⁴ Washington State University, Nairobi, Kenya

&Corresponding author: Faith Nthoki Mudachi, IField Epidemiology and Laboratory Training Program, Nairobi, Kenya, Email: fmudachi@gmail.com

Introduction: The incidence of non-communicable diseases (NCDs) among persons living with HIV (PLHIV) has been on the increase. The prevalence of hypertension among PLHIV is 24% globally and 18.9% in Kenya in 2021. Factors favorable for hypertension among PLHIV in Kenya are generally unknown. We sought to identify the factors associated with hypertension among PLHIV in Mombasa, Kenya.

Methods: We conducted a cross-sectional study in the Comprehensive Care Clinics in Mombasa County from December 2021 – February 2022. We collected data using a questionnaire. Hypertensive participants were patients with a documented history of two or more blood pressure readings of $\geq 140/90$ mmHg within one year. Frequencies and proportions were calculated for categorical variables and measures of central tendency and dispersion for continuous variables. We calculated Prevalence Ratio (P.R), and Adjusted Prevalence Ratio (A.P.R) to identify factors associated with hypertension.

Results: We enrolled 235 participants; Their mean age was 42.8 (± 10.7) years, (167/235 (71%)) were female and, the age group 35–44 years was 35%. The prevalence of hypertension among PLHIV in Mombasa County was 25%. Factors associated with hypertension were age ≥ 45 years (P.R: 2.07, 95%CI: 1.14–3.77), Body-Mass-Index (BMI) 25–29.9 (P.R: 3.05, 95%CI: 1.52–6.11), BMI ≥ 30 (P.R: 4.8, 95%CI: 2.1–10.87), tenofovir based regimens (P.R: 0.28, 95%CI: 0.12–0.63), and opportunistic infections (P.R: 0.14, 95%CI: 0.02–

1.09). On multivariable analysis, factors independently associated with hypertension were BMI 25–29.9 (A.P.R: 2.41, 95%CI: 1.30–4.42), BMI ≥ 30 (A.P.R: 3.37 95%CI: 1.69–6.73) and use of a tenofovir-based regimen (A.P.R: 0.32, 95%CI: 0.17–0.60).

Conclusions: The prevalence of hypertension among PLHIV in Mombasa was higher than at national level. BMI greater than 25 was a risk factor while tenofovir-based regimens were protective. Management of hypertension in PLHIV with high BMI should be on a tenofovir-based regimen.

Keywords: Hypertension, HIV, Prevalence, Body-Mass-Index, Kenya

Abstract ID: OP206

Strengthening Capacity at Points of Entry: An Evaluation of the Harmonized Curriculum for the ECOWAS Region

Aishat Bukola Usman^{1,&}, Virgil Kuassi Lokossou¹, Chukwuma David Umeokonkwo³, Muhammad Shakir Balogun⁴, Issiaka Sombie², Melchior Athanase Joel Codjovi AISSI²

¹ECOWAS Regional Center for Surveillance and Disease Control, West African Health Organization Abuja, Nigeria.

²West African Health Organization, Bobo-Dioulasso, Burkina Faso

³African Field Epidemiology Network, Kampala, Uganda

⁴African Field Epidemiology Network, Abuja, Nigeria

&Corresponding author: Aishat Bukola Usman, IECOWAS Regional Center for Surveillance and Disease Control, West African Health Organization Abuja, Nigeria, Email: ausman@support.wahooas.org Tel: (+234) 8035449691

Introduction: The West African Health Organization in collaboration with partners harmonized the curriculum for points of entry (PoE) and conducted training of trainers in 2021 for the ECOWAS region. The six-module curriculum provides training materials for PoE personnel across the region. Each Member State (MS) developed a country-specific cascade plan.

We assessed the status of the cascade training and the use of the curriculum in MS.

Methods: An assessment checklist was developed and sent electronically to representatives of MS. The checklist obtained information on the level of cascade in each country, modules participants found relevant to their work and which modules are they likely to cascade to their colleagues. It also elicited some of the factors for not cascading the curriculum.

Results: As of July 2023, only 7 MS (46.7%) have cascaded the curriculum within their countries. For the countries that have cascaded the training, the average number of persons trained was 25-50 for five days using selected modules as relevant to the country's needs.

Three hundred and thirty PoE personnel have been trained across the region. Of this, 30 (10%) constitutes PoE non-health staff. Almost all the participants (93.3%) found Module 1 on IHR and emergency management relevant to their work. Nearly all (96.7%) said they will cascade module 2 on Means of surveillance at PoEs to other colleagues at PoEs in their respective countries.

Seventy per cent of the participants found modules 1 and 3 (IHR and emergency management and conducting public health risk assessments) very informative. Of the 8 MS that have not cascaded the training, 6 (75%) mentioned lack of funding as a reason for not cascading the training while 2 (25%) reported lack of technical support.

Conclusions: The cascading of the harmonized curriculum contributes to strengthening the skills required by Member States to detect public health emergencies and respond effectively at points of entry in the ECOWAS. We recommend continuous cascading of the curriculum across the region.

Keywords: Curriculum, Points of Entry, Strengthening Capacity, ECOWAS

Abstract ID : OP215

Etude des facteurs associés à la vaccination contre le Human Papillomavirus chez les filles de 9 à 13 ans scolarisées dans le district sanitaire de Médina Yoro Foulah, Sénégal, 2022

Matar Ndiaye^{1,*}, Ibou. Gueye¹, Mbouna. Ndiaye², Mamadou. Sarifou. BA²

¹Ministère de la Santé et de l'Action Sociale du Sénégal, Dakar, Senegal

²Programme de formation en Epidémiologie de terrain Sénégal, Dakar Senegal

***Auteur correspondant:** Matar Ndiaye, Ministère de la Santé et de l'Action Sociale du Sénégal, Dakar, Sénégal, Email: matarndiaye269@gmail.com

Introduction: Malgré les différentes stratégies visant à impliquer le secteur de l'éducation, la couverture vaccinale est restée faible dans le district de Medina Yoro Foulah avec une couverture de 31% en HPV2 en 2021. Nous avons étudié les facteurs associés à la vaccination contre le Human Papillomavirus (HPV) des filles de 9 à 13 ans scolarisées dans le district de Médina Yoro Foulah.

Méthodes: Nous avons réalisé une étude transversale analytique. La population d'étude était les mères/gardiennes des filles âgées de 9 à 13 ans scolarisées et les enseignants. Nous avons réalisé un échantillonnage en grappes à deux degrés pour le choix des mères/gardiennes. Les enseignants étaient ceux des élèves choisies. L'outil de collecte était un questionnaire structuré sous format papier administré par des enquêteurs par entretien individuel direct. Les données étaient analysées par Epi-info version 7.2.5.0. L'analyse descriptive était en fréquence et proportion et pour celle analytique une comparaison de proportion entre la variable dépendante (vaccination HPV optimale selon l'âge) et autres variables. Le test de chi² avec estimation de la force de l'association par l'odds ratio (OR) et son intervalle de confiance à 95% été utilisé.

Résultats: Au total 228 mères/gardiennes et 29 enseignants ont été enquêtés. Les 124/228 (54,39%) des mères/gardiennes avait plus de 35 ans et 225/228 (98,68%) étaient mariées.

Le sexe ratio des enseignants était de 4,8. La vaccination HPV était significativement associée à la connaissance du cancer du col OR=2,26 [1,24-4,13], la connaissance de la vaccination OR=5,66 [3,11-10,28] et à l'accueil dans les sites OR=5,37 [1,38-10,85]

Conclusions: Le renforcement des connaissances des parents par la sensibilisation basée sur des messages authentiques et une amélioration de la qualité des soins permettront une meilleure acceptabilité vaccinale.

Mots clés: facteurs associés, filles scolarisées, HPV, Médina Yoro Foulah,

Abstract ID: OP225

A Journey Towards a Responsive HIV Viral Load Monitoring System in Kenya, 2023

Grace Rabut^{1&}, Elvis Kirui², Nancy Bowen³, Maria Thuita¹, Fredrick Odhiambo¹, Roseline Warutere⁴, Caren Ndeti¹, Ahmed Abade¹, Maurice Owiny¹

¹Field Epidemiology and Laboratory Training Program (FELTP), Nairobi, Kenya, ²National Public Health Laboratory, Nairobi, Kenya, ³National HIV Reference Laboratory, ⁴National AIDs and STI Control Program, Nairobi, Kenya

&Correspondent author: Grace Rabut, FELTP, Nairobi, Kenya, rabutgrace@gmail.com

Introduction: Globally, about 39 million people are living with HIV(PLHIV). Kenya has an estimated 1.3 million PLHIV, with a national viral suppression of 88%. HIV viral load test is essential for monitoring PLHIV on antiretroviral therapy. The Kenya viral load monitoring system was set up in 2012. We sort to evaluate the viral load monitoring system as a surveillance system, as this has not been done before

Methods: We used the CDC's Updated Guidelines for evaluating public health surveillance systems to evaluate the viral load monitoring system. We reviewed records abstracted using a standard checklist from the viral load database from January 2018 to December 2022 from the 10 HIV reference laboratories in Kenya. Sociodemographic and clinical variables were retrieved. Data were entered, cleaned, and summarized using proportion and means.

Results: A total of 5,414,008 records were retrieved for all viral loads done between January 2018 to December 2022. Females represented 69% (3,712,487 /5,414,008) of samples evaluated, with a viral suppression rate of 92%, and males had a viral suppression of 90%. Records with missing age, sex and date entries were 0.3% (14,075/5,414,008), 0.2% (12,078/5,414,008) and 0.6% (29,976/5,414,008), respectively.

The overall average turnaround time (TAT) was 22 days against recommended ten days. The system monitored 89% (5,414,008/6,276,819) of the expected viral loads. A decline of 1,459 tests per month (CI -3807, 888) was recorded after Covid 19 was reported in Kenya. The system had an inverse relationship with the added function of HIV recency testing.

Conclusions: The system missed its objective of timeliness by more than half. The viral load system had data quality gaps for age, sex, and date. The system is not flexible to accommodate HIV recency testing and was also not representative.

We recommend support to improve timeliness, flexibility, and data entry restrictions to reduce data quality gaps.

Keywords: Kenya, Retrospective studies, HIV, Viral Load, Surveillance, Evaluation

Abstract ID: OP227

Adherence to Malaria Treatment Guidelines in Health Facilities in Kenya, 2022

Fredrick Ouma^{1&}, Beatrice Kemunto Machini², James Kiarie², Ahmed Mohamed Abade¹, Fredrick Odhiambo¹, Elvis Omondi Oyugi²

¹Kenya Field Epidemiology and Laboratory Training Program, Nairobi, Kenya

²Division of National Malaria Program, Nairobi, Kenya

&Corresponding author: Fredrick Ouma, ¹Kenya Field Epidemiology and Laboratory Training Program, Nairobi, Kenya, Email: fredouma12@gmail.com, +254724976545

Introduction: Africa bears over 93% of the global malaria burden. WHO introduced the test-treat-track policy to promote universal access to diagnosis and treatment. All suspected malaria cases in Kenya should be managed according to the guidelines. We assessed adherence to guidelines in Kenyan health facilities in 2022.

Methods: We retrospectively reviewed data on suspected malaria cases collected from a routine cross-sectional health facility survey in Kenya, covering 172 facilities nationally.

To assess outpatient and inpatient malaria case-management practices we collected data from the patient cards and admission files respectively, including biodata (age, weight, temperature), laboratory test (requested, done, Results), diagnosis (correct or incorrect diagnosis made), and treatment (correct or incorrect treatment given). We omitted personal identifying information and analyzed the data by frequencies and measures of central tendencies.

Results: Among 1,068 febrile patients, adherence to outpatient malaria guidelines was 57% (5% CI 53.94-59.87), assessed using a composite “test and treat” indicator. About 61% of febrile patients were tested, 87% of malaria test-positive patients were treated with Artemether Lumefantrine (AL), and 98% of test-negative patients were not treated for malaria. At facilities with malaria diagnostics and medicines, the composite performance was 60%.

High-risk areas tested 7% more commonly for malaria. From 1,631 admissions with suspected malaria, adherence was at 57% (55.54-59.34), with 86% of febrile patients tested on admission, 95% of test-positive severe malaria cases treated with injectable Artesunate, and 6% of test-positive uncomplicated malaria cases treated with AL. Adherence was higher for children (60%) than for adults (53%). In low-risk areas, antimalarial treatments were less commonly prescribed for test-negative patients.

Conclusions: Adherence to malaria treatment guidelines was low nationally. Ministry of Health and counties should strengthen testing for all outpatients with febrile illness in low-risk areas, compliance with test-negative Results in high-risk areas, and appropriate use of parenteral Artesunate.

Keywords: Malaria, Kenya, Guideline adherence

Abstract ID: OP230

Epidemiological investigation of food poisoning outbreak, Kenema District, Sierra Leone, 2022

Alhaji Mamoud Conteh¹, Amara Alhaji Sheriff¹, Binta Bah¹, Osman Barrie², Ibrahim Gassama¹, Musa Allouciou Sesay¹, Mohamed Sallieu Bah¹, Umaru Kapre Dumbuya¹, Alieu Tommy¹, Alpha Umar Bai-Sesay¹, Koi Sylvester Alpha³, Donald Samuel Grant³, Joseph Sam Kanu⁴, James Sylvester Squire⁴, Mohamed Koroma³, Edward Elie¹, Richard Moore Conteh¹, Lucy Mbatilo Matina Coker¹, Adel Hussein Elduma¹, Gebrekrstos Negash Gebru^{1&}
¹Sierra Leone Field Epidemiology Training Program, Freetown, Sierra Leone, ²Metabiota, Freetown, Sierra Leone, ³District Health Management Team, Kenema, Sierra Leone, ⁴National Surveillance Program, Ministry of Health and Sanitation, Freetown, Sierra Leone

***Corresponding author:** Gebrekrstos Negash Gebru, Sierra Leone Field Epidemiology Training Program, Freetown, Sierra Leone, Email: ggebru@afenet.net

Introduction: Food safety remains a public health challenge in resource-limited countries including Sierra Leone. On July 27, 2022, the National Surveillance Program received notification about a cluster of suspected food poisoning cases from a birthday event within Kenema District. We investigated to verify the diagnosis, determine the outbreak’s magnitude and possible source.

Methods: We employed an unmatched case-control study (1:1 ratio). A case was any person residing in Kenema City, presenting with generalized body weakness, vomiting, or nausea from July 25 to 31, 2022. A control was any person residing in Kenema City at the specified time without symptoms of food poisoning.

We interviewed respondents, reviewed clinical records to collect demographics, clinical, exposure, and epidemiological data. Food and environmental samples were collected for bacteriological and toxicological testing.

We calculated attack rates and adjusted Odds Ratio (aOR) with 95% confidence interval (CI) to assess food poisoning-associated factors.

Results: From July 27 to 28, 2022, we recorded 105 cases including death of a 14-month-old baby. Of the cases, 69% (72/105) were females and 58% (61/105) school pupils. Median age was 12 years (range: 1 to 65 years). Sixty-one percent (64/105) developed generalized body weakness, 51% vomiting, and 43% nausea. Ninety-seven cases and 97 controls were enrolled in the study. Cake had the highest attack rate (AR = 3.1), then ginger beer (AR = 2.9). The odds of eating cake were four times higher among cases than controls (odds ratio 4; 95% CI: 1.89, 8.58). At multivariate level, eating cake was significantly associated with food poisoning (aOR = 7.3; 95% CI 3.68, 14.33). However, environmental and food samples were not tested due to incapacity.

Conclusions: This investigation suggests the cake is a likely source of the food poisoning outbreak. Food laboratory analysis would help to identify the causative agent. We sensitized affected communities on food safety and recommended building laboratory capacity for food analysis.

Keywords: Food poisoning, outbreak investigation, Kenema, Sierra Leone

Abstract ID: OP244 Evaluation of Malaria Surveillance System in Mozambique, 2017–2021

Mário Avelino Malunga^{1,&}; Baltazar Neves Candrinho², Guidion Judas Mathe²; Kulssum Faque Mussa²; Judite Monteiro Braga³; Cynthia Semá Baltazar³; Érika Valeska Rossetto⁴

¹Field Epidemiology Training Program, National Institute of Health, Maputo Province, Mozambique; ²Department of the National Malaria Control Program, National Directorate of Public Health, Ministry of Health, Maputo City, Mozambique; ³Information and Inquiry Department, National Institute of Health, Maputo Province, Mozambique; ⁴MassGenics assigned to Centers of Disease Control and Prevention, Maputo City, Mozambique.

&Corresponding author: Mário Malunga, Field Epidemiology Training Program, National Institute of Health, Maputo City, Mozambique; Email: marioavelino1@hotmail.com; Contact: +258 876089605 or +258 846821288

Introduction: Malaria is a priority public health disease in Mozambique. Although it is preventable and curable, about 10.8 million cases have been reported annually. In 2016, the Ministry of Health of Mozambique strengthened its surveillance system through the National Health Information System (SIS-MA). Since then, the system has become the primary surveillance system for malaria. This evaluation aimed to evaluate Mozambique's malaria surveillance system for the first time and identify its strengths and areas for improvement.

Methods: We conducted a cross-sectional descriptive study using the updated CDC guidelines to assess qualitative (simplicity, acceptability, and flexibility) and quantitative (timeliness and completeness of data) attributes.

Questionnaires were administered to 36 professionals, including provincial malaria collaborators (clinical and non-clinical), information managers, and district focal points). Malaria surveillance data from 2017–2021 were extracted from SIS-MA. Microsoft Excel 2016 was used to generate means, frequencies, and proportions.

Results: All interviewees 100% (36/36) knew the malaria case definition, reported the ease of use of the management tools and correctly described the information flow at three levels (district-provincial-national). According to 89% (32/36) of the respondents, the introduction of the new variable "fever" was successfully done and did not interfere with the system's operation.

The timeliness and completeness of data over the five years were 92% and 97.8% respectively. The collection, processing, analysis and submission of the monthly summary within the established period (21–25) may have contributed to not reaching the 100% target.

Conclusions: The SIS-MA proved to be simple, flexible, acceptable and data completeness was excellent. We recommend routine data quality assurance activities to maintain good timeliness and completion of data, and verify accuracy, which was not evaluated in this surveillance evaluation. We also recommend evaluations every 3–5 years to ensure continuous improvement of the system.

Keywords: Malaria Surveillance, Attribute of the surveillance system, Mozambique

Abstract ID : OP252

Investigation de cas de Fièvre de la Vallée du Rift au Sénégal, novembre 2021

Ramatoulaye Diop^{1,*}, Mamadou Sarifou BA², Bouna NDIAYE², Boly DIOP¹, Yoro SALL¹, Pape Ibrahima SANE¹, Abdoulaye DIA¹, Abdoulaye KA¹, Mbacké SYLLA¹, Mamoudou NDIAYE¹

¹Ministère de la Santé et de l'Action Sociale, Dakar, Sénégal

²Programme de Formation en Epidémiologie de Terrain (FETP), Dakar, Sénégal

***Auteur correspondant:** Ramatoulaye DIOP, Ministère de la Santé et de l'Action Sociale, Dakar, Sénégal Email : rahmatoul@yahoo.fr

Contexte: Depuis quelques années, le Sénégal enregistre des cas de Fièvre de la Vallée du Rift. Suite à la transmission de résultats de 2 cas confirmés de Fièvre de la Vallée du Rift, une équipe d'investigation est déployée dans les districts sanitaires de Gossas et Dioffior du 19 au 25 novembre 2021 pour évaluer la situation épidémiologique.

Méthodes: Nous avons réalisé une enquête transversale descriptive en utilisant la fiche d'investigation des cas de fièvre hémorragique virale. Une recherche active et exhaustive de cas suspects a été menée dans les structures sanitaires et dans la communauté en utilisant la définition de cas Fièvre de la Vallée du Rift. Un prélèvement sanguin a été réalisé chez les cas suspects enquêtés. Simultanément, une enquête environnementale et animale a été réalisée. Les données collectées ont été analysées avec EPIINFO7. Le risque de propagation a été évalué en utilisant la matrice d'évaluation des risques de l'OMS.

Résultats: Au total, 196 personnes ont été enquêtées. La moyenne d'âge était de 25,7 +/- 17,5 ans. Le sexe ratio était à 1,06. L'habitat était essentiellement de type groupé (74%). Les expositions les plus fréquemment enregistrées étaient la profession éleveur d'animaux, non utilisation de MILDA, le statut vaccinal contre la fièvre jaune inconnue et la présence d'animaux suspects avec respectivement 54%, 41%, 33% et 32%. Le contact avec du sang lors d'une mise bas a été retrouvé chez un cas confirmé. Aucun autre cas positif n'a été diagnostiqué sur 185 prélèvements humains.

Un taux de positivité des IgG a été retrouvé chez 33% (n=42) des ruminants. *Aedes Aegypti* était le seul vecteur retrouvé lors de cette investigation. Le risque de propagation a été classé comme faible.

Conclusions: Le principal facteur d'exposition était la manipulation de sang d'animaux. Une probable transmission vectorielle pourrait également être évoquée. Nous recommandons de renforcer la surveillance et la sensibilisation dans ces districts.

Mots-clés: Investigation, Fièvre de la Vallée du Rift, Sénégal

Abstract ID : OP265

Profil épidémiologique des cas de Paralysie Flasque Aiguë (PFA) dans le département du Zou, Bénin de 2017-2021

Tognissè Edgar Raoul Assogbakpè^{1,*}, Modeste Houéménou², Nestor Noudèkè³, Mathilde Adjoavi Houssou³

¹Direction Départementale de la santé, Abomey, Bénin,

²Direction Départementale de la santé, Nikki, Bénin,

³African Field Epidemiology Network, Cotonou, Bénin

***Auteur correspondant:** Tognissè Edgar Raoul Assogbakpè, Direction Départementale de la santé, Abomey, Bénin, Email : raoulassogbakpe@gmail.com

Introduction: La poliomyélite est une maladie contagieuse, invalidante touchant les enfants de 0 à 15 ans. Elle est de portée internationale avec 350000 enfants atteints dans plus de 125 pays endémiques en 1998. L'Afrique reste touchée par le Poliovirus Circulant Vaccinale (PVDVc2) avec 322 cas sur 353 en 2019 dans 13 pays africains et 961 cas dans 22 pays dont 18 africains en 2020. Le Bénin enregistre aussi des cas de PFA. Cette étude décrit le profil épidémiologique des cas PFA de 2017 à 2021 dans le département du Zou.

Méthode: Il s'agit d'une étude transversale descriptive des cas de PFA, notifiés et enregistrés de 2017 à 2021 dans la base de la Surveillance Intégrée des Maladies et Riposte du département du Zou. Les données y étaient extraites puis apurées.

Les analyses étaient faites avec Epi info 2.7 pour le calcul des proportions et intervalles de confiance, QGIS pour la cartographie

Résultats: Au total 108 cas de PFA étaient enregistrés. Les 09 communes du département du Zou avaient notifié ces cas avec 02 foyers épidémiques au PVDVc2. Il y avait plus de cas notifiés chaque année au deuxième et au troisième trimestres. Le sexe ratio H/F était de 1,25. La tranche d'âge la plus touchée était de 1- 4 ans avec 81 cas soit 75% IC95% [65.75-82.83]. Les cas provenaient plus du milieu rural soit 93 cas soit 86% IC95% [78.13-92.01]. Le taux de PFA non polio \geq 03 cas /100000 enfants. Deux échantillons de selles étaient prélevés sur 96% IC95% [90.79-98.98] des cas en 48 heures dans les 14 jours suivants le début de la paralysie.

Conclusions: L'étude montre une tendance saisonnière des cas de PFA. Des actions de sensibilisation et d'intensification de la surveillance au cours ces périodes s'imposent.

Mots-clés: Paralysie Flasque Aiguë, Poliovirus, Etude transversale, Bénin

Abstract ID : OP267

Evaluation du système de surveillance de la rougeole, Dubréka, Août 2021

Soumah Naby Mariama¹, Claude Ngon Mandro³, Jolie Kasongo Kayembe^{3, &}, Nouonan Gbamou², Salomon Corvil³, Fodé Amara Traoré².

¹Ministère de l'Agriculture et l'Elevage, Faranah, Guinée,

²Ministère de la santé et de l'hygiène publique, Conakry, Guinée, ³Le réseau africain d'épidémiologie de terrain (AFENET), Conakry, Guinée.

&Auteur correspondant: Kasongo Kayembe Jolie, Le réseau africain d'épidémiologie de terrain (AFENET), Conakry, Guinée, jkayembe@afenet.net

Introduction: L

Introduction : La Guinée compte éliminer la rougeole d'ici 2023 alors que Dubréka a connu quatre flambées de 2017-2021. La surveillance de rougeole se fait au cas par cas depuis 2005 dont les objectifs sont de détecter, confirmer les flambées et riposter efficacement.

Pas d'évaluation antérieure, l'OMS recommande des évaluations régulières dans le cadre de l'élimination. D'où cette étude pour déterminer si le système a atteint ses objectifs.

Méthode: Le Guide d'évaluation de CDC Atlanta de 2001 était utilisé. Un questionnaire était administré aux acteurs impliqués dans la surveillance pour évaluer la simplicité, acceptabilité.

Les données étaient analysées pour évaluer la qualité des données, la promptitude, l'acceptabilité, la sensibilité, la représentativité, la VPP et l'utilité. Les proportions étaient calculées à l'aide d'Epi info.7.2

Résultats: Simplicité : des 27 enquêtés, 70% trouvaient la définition des cas et le remplissage de la fiche simple, 67% trouvaient le circuit de notification simple. Qualité des données DHIS2 : complétude : 77% ; validité : 99,7%.

Promptitude : des 1072 cas, 72% étaient investigués dans 48 heures après détection, 51% d'échantillons de rougeole reçus au laboratoire dans 3 jours après le prélèvement et 0% des résultats de laboratoire n'étaient signalés à la direction préfectorale de la santé dans 4 jours après la réception des échantillons. 0% des flambées détectées et ripostées à temps. Acceptabilité : 57,1 % des cas suspects étaient prélevés, 32% d'échantillons étaient arrivés au labo en bonne qualité.

Représentativité : système non représentatif en lieu. Sensibilité : taux de cas non-rougeole était 2,2/ 100000. Valeur prédictive positive était de 40%. Utilité : Quatre flambées détectées et ripostées.

Conclusions: Le système était complexe avec complétude des données dans DHIS2 médiocre, non prompt, non acceptable, sensible avec une bonne VPP, non représentatif en lieu et utile.

Le briefing des agents sur la surveillance permis au système d'améliorer la compréhension de la définition de cas.

Mots-clés: Evaluation, système, surveillance de la rougeole, Dubréka

Abstract ID: OP268

Measles Outbreak Investigation, Greater Francistown District, Northern Botswana-2023

Arthur Utlwanang Modise^{1,&}, Tshepang Ntsose¹, Gotsileene Monamodi¹, Nesredin Jami Oumer², Uzoma Ogbonna²

¹Greater Francistown District Health Management Team, Greater Francistown, Botswana

²African Field Epidemiology Network, Field Epidemiology Training Program, Gaborone, Botswana.

&Corresponding author: Arthur Utlwanang Modise, Greater Francistown District Health Management Team, Greater Francistown, Botswana. Email: modiseu@gmail.com

Introduction: Measles, a highly contagious disease is targeted for elimination in Botswana. On January 7th, 2023, the Greater Francistown district health management team was informed of a suspected measles outbreak at Chadibe village. We investigated to confirm the diagnosis, describe the epidemiological characteristics of case-patients, and institute control measures.

Methods: A suspect case was defined as any resident of Chadibe with generalized maculo-papular rash and fever with cough, coryza or conjunctivitis from January 1, 2023, to February 20, 2023. A confirmed case was a suspect-case that tested positive for measles IgM antibody on enzyme linked immunosorbent assay. We interviewed caregivers, patients and reviewed medical records. We collected case-patient's demographic, clinical, and exposure history. Blood samples were obtained from all suspected cases and analyzed at national health laboratory, Gaborone. We conducted active case search and an assessment of measles vaccination coverage in the affected community. We calculated summary statistics, frequencies, and proportions.

Results: We identified 24 suspect cases, ten (six females) tested positive to Measles IgM (CFR: 0%). Attack rate was 0.6%, median age of cases was 60 months (range: 12 months – 25 years). All confirmed cases practiced the Bazezurru religion that does not subscribe to Western medicine including vaccines. No confirmed case had received a dose of the measles

vaccine. Four (40%) reported contact with persons with similar symptoms. Two (20%) reported travel to a neighboring country with a measles outbreak. The measles vaccination coverage was 86% in the district, 90% in Chadibe village, and 42% among the Bazezurru tribe.

Conclusions: This investigation confirmed a measles outbreak among the Bazezurru who had suboptimal immunization coverage in Chadibe village, Botswana. We engaged with schools and religious leaders in the community to increase measles vaccine awareness. Routine immunization intensification was conducted amongst the sub-population with low coverage.

Keywords: Measles, outbreak, Greater Francistown District, Botswana

Abstract ID: OP286

Factors associated with incomplete vaccination of children aged 15 to 23 months in the health district of Tominian in Mali in 2020

Ousmane Boua Togola^{1,2,&}, Oumar Sangho³, Yacouba Koné¹, Djibril Barry², Pauline Kiswensida Yanogo², Yaya Ballayira⁴, Hanine Kéïta⁵, Bouyagui Traoré⁵, Souleymane Coulibaly⁶, Ousmane Abdoul Aziz Dicko⁷, Fadima Radhia Diallo², Nicolas Meda²

¹Direction General of Health and Public Hygiene (DGS-HP), Bamako, Mali

²Burkina Field Epidemiology Laboratory Training Program / University Joseph Ki Zerbo, Ouagadougou, Burkina Faso

³Department of Teaching and Research of Biological and Medical Sciences, FAPH/USTTB, Bamako, Mali

⁴African Field Epidemiology Network (AFENET), Kampala, Uganda

⁵African Field Epidemiology Network (AFENET), Bamako, Mali

⁶National Institute of Public Health, Bamako, Mali

⁷Health Reference Center, Tominian, Mali

&Corresponding author: D Ousmane Boua TOGOLA, Disease Control Sub-Directorate of DGS-HP, Bamako, Mali, BP: 223, Telephone: (00223) 76 36 61 27, Email: ousmane bouatogola@gmail.com

Introduction: Vaccination helps immunize children against deadly and debilitating diseases. According to the World Health Organization, most incompletely vaccinated children are in Africa. In Mali, 55% of children aged 12-23 months were fully vaccinated and 14% had not received any vaccine in 2018. This study aimed to determine the factors associated with incomplete vaccination of 15–23-month-old children in Tominian in a context of insecurity in 2020.

Methods: We conducted an analytical cross-sectional study on 508 mothers of children aged 15-23 months. Stratified three-stage sampling identified health areas, villages and mothers of children. We tested the association between vaccination and its likely determinants using multiple logistic regression at a significance level of 0.05 and 95% confidence interval (CI95%) using Epi-info 7.2.2 and Medcalc.

Results: The mean age of mothers and children was 27±6 years and 19±3 months, respectively. The coverage of fully vaccinated children was 34.45%. The long waiting period for mothers favoured incomplete vaccination of children after adjustment for insecurity in bivariate logistic regression with an ORa[CI95%]=24.43[2.80-213.15] and a p=0.0038.

Unawareness of the importance of vaccination (ORa[CI95%]=9.34[2.15-40.58], p=0.0029), knowledge of fewer than five target diseases of the expanded program on immunization (ORa[CI95%]=3.80[1.42-10.17], p=0.0078), mothers with no income (ORa[CI95%]=2.96[1.68-5.21], p=0.0002), long waiting time (ORa[CI95%]=2.38[1.52-3.72], p=0.0002), home delivery (ORa[CI95%]=2.26[1.46-3.50], p=0.0002) and failure of vaccinators to conduct educational talks (ORa[CI95%]=1.79[1.15-2.78], p=0.0092) were statistically associated with incomplete vaccination of children.

Conclusions: Our study reports low vaccination coverage associated with a high drop-out rate between the 1st and 2nd doses of measles vaccine in Tominian. We recommend the implementation of catch-up vaccination activities, awareness-raising and support for the creation of income-generating activities for mothers in order to contribute to the improvement of children's vaccination status.

Keywords: Incomplete vaccination, Children, Associated factors, Tominian, Mali.

Abstract ID: OP287

Investigation of Contagious Bovine Peripneumonia cases in a beef herd in Bougouni, Mali, December 2020.

Ousmane Boua Togola^{1,2*}, Pauline Kiswensida Yanogo², Djibril Barry², Bakaye Tolo³, Oumar Sangho⁴, Yacouba Koné¹, Fassou Kourouma², Bouyagui Traoré⁵, Yaya Ballayira⁶, Djenebou Diakité², Hamidou Yalcouye⁷, Seydou Dara⁷, Soumaila Samaké^{1,2}, Fadima Radhia Diallo², Nicolas Meda²

¹Direction General of Health and Public Hygiene (DGS-HP), Bamako, Mali

²Burkina Field Epidemiology Laboratory Training Program / University Joseph Ki Zerbo, Ouagadougou, Burkina Faso

³Veterinary Sector, Bougouni, Mali

⁴Department of Teaching and Research of Biological and Medical Sciences, FAPH/USTTB, Bamako, Mali

⁵African Field Epidemiology Network (AFENET), Bamako, Mali

⁶African Field Epidemiology Network (AFENET), Kampala, Uganda

⁷National Directorate of Veterinary Service (DNSV), Bamako, Mali

***Corresponding author:** Dr Ousmane Boua TOGOLA, Disease Control Sub-Directorate of DGS-HP, Bamako, Mali, BP: 223, Telephone: (00223) 76 36 61 27

Email: ousmaneouatogola@gmail.com

Introduction: Contagious bovine pleuropneumonia (CBPP) is associated with a mortality rate of up to 50% and causes significant economic losses in Africa. Mali's economy is essentially agrosylvopastoral and remains confronted with CBPP, a transboundary bovine disease that is rampant throughout the country. A mission conducted in Bougouni on December 2, 2020, by a multidisciplinary team made it possible to investigate outbreaks of CBPP in order to describe the cases in time, place, and animal in order to establish control and prevention measures.

Methods: We conducted a descriptive cross-sectional study of a suspected CBPP outbreak and its contacts.

The case definition was any steer with a respiratory infection and/or contact with the suspected dead CBPP

steer in Bougouni from November 2 to January 20, 2021. Proportions, ratios, measures of central tendency and dispersions were calculated using Epi-info 7.2.

Results: A total of 58 CBPP cases, 8 of which were epidemiologically linked, were recorded in three outbreaks. The mean age of confirmed cases was 4.05 ± 2.42 ranging from 1 to 11 years. The sex ratio was 1.32 in favor of females. The locality of Keleya was the most affected with 89.65% (52/58) of cases. We found a vaccination coverage of 24.35% and a case fatality of 32.76%. Dyspnea (82.76%), hyperthermia (79.31%) and dry cough (74.14%) were the most reported signs in confirmed CBPP cases. Asymptomatic cattle were vaccinated at the end of the follow-up.

Conclusions: This investigation allowed us to confirm three outbreaks of CBPP in Bougouni in a context of low vaccination coverage. The majority of cases were under five years of age and came from Keleya. We recommend vaccination of livestock and increased collaboration with farmers.

Keywords: Outbreak Investigation, CBPP, Beef, Bougouni, Mali.

Abstract ID : OP293

Investigation des cas suspects de Peste de Petits Ruminants (ovine et caprine) dans le District de Bankilaré, Région de Tillabéri, Niger, janvier 2022.

Hamissou Inoussa Hassane^{1,*}, Sidi Harouna I, Djibo Issifou^{1,2}

¹Niger Field Epidemiology Training Program (Frontline), Bankilaré, Niger

²African Field Epidemiology Network (AFENET), Niamey, Niger

***Auteur correspondant:** Hamissou Inoussa Hassane, Ministère de l'élevage, Direction Départementale de l'élevage de Bankilaré, Niger, E-Mail : inoussahassanhamissou@yahoo.fr

Introduction: la Peste des Petits Ruminants (PPR) est une maladie virale contagieuse avec 70 à 80% de létalité. En 2020, le district de Bankilaré signala 77 cas, 45 décès (létalité=58,44%).

En novembre 2021, une ONG a distribué un lot de bêtes composé d'un bouc, 3 chèvres et des vaccins pour soutenir les familles vulnérables de Bankilaré. Ces chèvres étaient de race Sahel et Red Sokoto, provenant des régions de Niamey et Dosso.

Une épidémie de PPR était suspectée dans le district car 9 éleveurs bénéficiaires des lots et un non bénéficiaire ont signalé des symptômes de PPR dans leurs troupeaux avec décès. Pour confirmer/infirmier cette suspicion, déterminer l'étiologie, mettre les mesures de contrôle/prévention, une équipe FETP-Frontline a enquêté.

Méthodes: Nous avons conduit une étude descriptive transversale. Les propriétaires de bétail étaient interrogés. Des écouvillons nasaux et oculaires ont été prélevés.

Un troupeau suspect était tout troupeau de petits ruminants avec au moins un animal présentant un écoulement nasal/oculaire et une diarrhée sévère. Un troupeau confirmé était tout troupeau avec au moins un cas testé positif à PPR par RT-PCR. Epi-Info 7.2.5.0 a été utilisé pour l'analyse statistique.

Résultats: Parmi 434 chèvres évaluées, 57% étaient red sokoto, 304(70%) appartenaient aux lots donnés. Tous les Cinq échantillons étaient positifs.

Le Cas index identifié le 23/11/2021 appartenait à un lot. Parmi les 304 chèvres, 143(47%) étaient symptomatiques avec 41,2% de létalité et 80% avaient un âge de moins d'un an. Parmi les 130 chèvres sans exposition aux lots, 25(19,2%) étaient symptomatiques avec 72% de létalité.

Conclusions: Cette investigation a permis de confirmer l'épidémie de PPR. Nous avons isolé et traité les cas suspects, mis en quarantaine les troupeaux.

Nous recommandons la mise en place de mesures d'inspection appropriées sur les marchés, la vaccination et la mise en quarantaine des animaux nouvellement achetés.

Mot clés: Peste, Petits Ruminants, Bankilaré, Niger

Abstract ID: OP303

Rift Valley Fever outbreak in Sembabule District, December 2021

Freda Loy Aceng^{1&}, Joshua Kayiwa^{1,2}, Peter Elyanu³, Joseph Ojwang⁴, Luke Nyakarahuka⁵, Stephen Balinandi⁵, Jayne Byakika-Tusiime⁶, Alfred Wejuli¹, Julie Rebecca Harris⁴, John Opolot¹

¹Department of Integrated Epidemiology, Surveillance and Public Health Emergencies, Ministry of Health, Kampala, Uganda

²Uganda Public Health Emergency Operations Centre, Ministry of Health, Kampala, Uganda

³Baylor College of Medicine – Children’s Foundation, Kampala, Uganda

⁴Division of Global Health Protection, US Centers for Disease Control and Prevention, Kampala, Uganda

⁵Uganda Virus Research Institute, Entebbe, Uganda

⁶World Health Organization, Kampala, Uganda

&Correspondence: Freda Loy Aceng, Ministry of Health, Kampala, Uganda; Email: faceng@musph.ac.ug

Introduction: Rift Valley Fever (RVF) is a viral zoonosis that causes severe haemorrhagic fevers in humans and high mortality rates and abortions in livestock. On 10 December 2020, the Uganda Ministry of Health was notified of the death of a 25-year-old male who tested positive for RVF by reverse-transcription polymerase chain reaction (RT-PCR) at the Uganda Virus Research Institute. We investigated to determine the scope of the outbreak, identify exposure factors, and institute control measures.

Methods: A suspected case was acute onset of fever (<37.5°C) and ≥2 of: headache, muscle or joint pain, unexpected bleeding, and any gastroenteritis symptom in a resident of Sembabule district from 1 November to 31 December 2020. A suspected animal case was livestock with any history of abortion. A confirmed case was a suspected case with laboratory confirmation by RT-PCR and/or enzyme-linked immunosorbent assay. We took blood samples from animals and herdsmen who worked with the index case for RVF testing and conducted interviews. We reviewed medical records and conducted active community search to identify additional suspects.

Results: The index case drank unboiled milk from a cow during the week before his symptom onset. None of the 7 herdsmen who worked with him nor his brother’s wife had symptoms; however, a blood sample from one herdsman was positive for anti-RVF-specific IgG and IgM. Neither the index case nor the additional confirmed case-patients slaughtered or butchered any sick/dead animals nor handled abortus; however, some herdsmen did report high-risk exposures to animal body fluids and drinking unboiled milk. Among 55 animal samples collected, 29 (53%) were positive for anti-RVF-IgG.

Conclusions: Two human RVF cases occurred in Sembabule District during December 2020, likely caused by close interaction between infected cattle and humans. We recommend a district wide animal serosurvey, animal vaccination and community education on infection prevention practices.

Keywords: Rift Valley Fever, Outbreak, Sembabule, Uganda, Zoonoses, One Health

Abstract ID : OP304

Référence des cas graves de paludisme et facteurs associés à la létalité chez les enfants de moins de cinq ans, département du Borgou, 1er avril au 31 octobre 2022

François Dadidje^{1,&}, Victor Allanonto², Matilde Houssou³, Nestor Dénoukpo Noudeke⁴, Yao Akpo²

¹Ministère de l’Agriculture, de l’Élevage et de Pêche BP: 708 Parakou, BENIN

²Direction de l’Élevage Cotonou Bénin,

³AFENET Cotonou Bénin;

⁴Université d’Agriculture Kétou Bénin;

&Auteur correspondant: François DADIDJE, Ministère de l’Agriculture, de l’Élevage et de Pêche BP: 708 Parakou, Bénin, Emails: dadidje@yahoo.fr

Introduction: Le paludisme est une affection parasitaire fébrile. Au Bénin, le paludisme grave demeure l’une des premières causes de décès chez les enfants de moins de cinq ans. Nous avons étudié l’impact de la référence et les facteurs associés à la létalité des

cas graves de paludisme chez les enfants de moins de 5 ans dans le département du Borgou, du 1er avril au 31 octobre 2022.

Méthode: Une étude transversale analytique a été réalisée, utilisant un échantillonnage aléatoire à l'aide du logiciel OpenEpi. Les données ont été collectées sur Kobocollect depuis les dossiers médicaux consultés dans 3 hôpitaux publics et analysées avec Epi Info 7.2. Les fréquences et les odds ratios bruts ont été calculés.

Résultats: Parmi les 381 cas inclus dans notre étude, 25,9% avaient été référés. La majorité des enfants était âgé entre 12 et 36 mois, soit 73,23%, et avaient reçu la première dose d'artésunate. La létalité était de 7,6%. Les facteurs associés au décès étaient la convulsion, OR=5,6% ; IC95% [1,04-43,8], le défaut d'administration de la première dose d'artésunate, OR=1,8 ; IC95% [1,2-11,3], la forme anémique du paludisme OR=8,2 ; IC95% [1,5-64,9], et la non-conformité au protocole de prise en charge, OR=3,58 ; IC95% [1,10-11,61].

Conclusions: Une faible proportion des cas est référée. Le risque de décès était plus élevé chez les cas présentant la convulsion, la forme anémique, et ceux dont le protocole de prise en charge n'est pas respecté. Une sensibilisation des agents sanitaires sur ces facteurs de risque est nécessaire. La létalité due au paludisme grave chez les enfants de moins de cinq ans reste inquiétante. La prise de mesures pour contrôler ces facteurs associés pourrait réduire cette létalité.

Mots clés: Facteurs associés, Paludisme grave, Etude transversale, Convulsion, Bénin.

Abstract ID: OP308 Linking Drug Resistance Tuberculosis Surveillance Data to Public Health Action: Kenya Experience

James Marcomi^{1,*}, Ahmed Abade¹, Maurice Owiny¹, Fred Odhiambo¹, Caren Ndeti¹, Maria Nunga¹, Jackie Kisia², Martin Githiomi², Dennis Oira³, Nancy Gacheri³

¹Field Epidemiology and Laboratory Training Program, Nairobi-Kenya

²Division of National Tuberculosis, Leprosy and Lung Diseases, Nairobi-Kenya

³Centre for Health Solutions, Nairobi-Kenya

***Corresponding author:** James Marcomi, Field Epidemiology and Laboratory Training Program, Nairobi, Kenya, Email: mjmaragia@gmail.com +254 724 450 011

Introduction: Drug-resistant tuberculosis (DRTB) accounts for 4% of new TB morbidity, with rifampicin resistance accounting for 25% of antimicrobial resistance-related mortality globally. Over time, there has been increased resistance in Kenya with possible community spread of resistant strains, necessitating robust DRTB surveillance. This study shares Kenya's experience in utilizing DRTB data.

Methods: We abstracted data for 2022 from the Treatment Information from Basic Unit system (an electronic web-based system which anchors nationwide data), policies, guidelines, jobs aids and standard operating procedures from the National TB, leprosy, and lung diseases program (NTLDP) website, data performance reviews, newsletters, data quality audit reports and annual reports using data abstraction form containing the following variables: Policies and guidelines developed, tracking of trends and patterns, data used for a national strategic plan development, cure rate, treatment success rate, loss to follow up and death rate.

Results: Through a robust DRTB surveillance data collection system, the NTLDP has developed policies and programmatic management of drug-resistant TB guidelines, tracking DRTB trends and patterns to detect, investigate and respond to outbreaks. Equally, developing the national strategic plan 2023-2028, identifying the DRTB 'hot spots' to allocate resources, targeted healthcare training, risk communication, community engagement, screening, and tailored patient management. Resource mobilization success has been seen in reduced catastrophic cost, individualized regimen formulation, innovations (introducing new tools project), spatial analysis for equipment placement, adherence of >95% for all DR TB patients recruited and treatment success rates of 90%. Through all these initiatives, public health impact has been seen increased cure rate from 56% (2019) to 67% (2022), an increased treatment success rate from 77% (2019) to 81% (2022), a reduced death rate from 13% (2019) to 11% (2022) and reduced loss to follow up from 5% to 4%.

Conclusions: DRTB Surveillance data has changed the DRTB landscape through policy formulation, evidence-based guideline development, identification of hotspots, introduction of new diagnostic and treatment monitoring tools and individualized regimen formulation. Robust data collection systems and intervention measures for patients and healthcare workers could improve DRTB patient management and outcomes.

Keywords: Drug-resistant, Surveillance, Public health action, Data, Anti-microbial resistance

Abstract ID : OP313

Déterminants de l'épidémie de rougeole dans la ville province de Kinshasa en 2022.

Fabrice Sewolo Matondo¹, Jean Okitawutshu², Gauthier Mubenga Mashimba⁴, Ken Kayembe Mabika⁴, Linda Matadi Basadia⁴, Alain Nzanzu Magazani⁴, Leopold Lubula Mulumbu⁵, Col Gomba Ebb³, Antoinette Tshetu Kitoto²

¹Apprenant au Programme de formation en épidémiologie de terrain (FETP) Avancé cohorte 8, République Démocratique du Congo

²Département d'épidémiologie et Biostatistique, Ecole de santé Publique, Université de Kinshasa, Kinshasa, RDC

³Hopital militaire des anciens combattants, Ministère de la défense, Kinshasa, RDC

⁴Bureau de coordination AFENET, République Démocratique du Congo

⁵Direction surveillance épidémiologique, République Démocratique du Congo

***Auteur correspondant:** Fabrice Matondo Sewolo, Apprenant au Programme de formation en épidémiologie de terrain (FETP) Avancé cohorte 8, République Démocratique du Congo, +243895583066, fsewolo@gmail.com.

Introduction: Malgré l'existence d'un vaccin sûr et efficace, la rougeole demeure l'une des causes majeures de décès du jeune enfant en République Démocratique du Congo (RDC). Cette étude vise à identifier les facteurs contribuant à la survenue de l'épidémie de rougeole dans la ville de Kinshasa en 2022

Méthodologie: Une étude cas-témoins non appariée a été menée à l'aide d'un questionnaire structuré chargée sur Kobocollect au sein de la Division Provinciale de la Santé (DPS) de Kinshasa. Un échantillonnage aléatoire en grappe a été réalisé. Les cas étaient les enfants âgés de 6 mois à 15 ans, confirmés positifs à la rougeole par le laboratoire national ou par lien épidémiologique entre janvier et décembre 2022, et figurant sur la liste linéaire de la DPS de Kinshasa. Les témoins étaient les voisins proches des cas non atteints de rougeole. Le modèle de régression logistique a été produit à l'aide du logiciel Stata 17.

Résultats: Au total 250 cas et 250 témoins ont été recrutés, avec un âge médian de 4 (Q1=2 et Q3=7) et 3 (Q1=1 et Q3=5) ans respectivement ; 126 (50,4%) cas et 83 (33,2%) témoins étaient non vaccinés contre la rougeole.

L'absence de notion de contact, le niveau socioéconomique élevé ainsi que le niveau minimum d'instruction (primaire) des mères semblaient être des facteurs protecteurs contre la rougeole (ORa : 0,22 IC95% : 0,13 - 0,37) (ORa : 0,26 IC95% : 0,14 - 0,48) (ORa : 0,23 IC95% : 0,09 - 0,60) respectivement, tandis que la non-vaccination et la promiscuité étaient respectivement des facteurs de risque présumés (ORa : 3,17 IC95% : 1,93 - 5,21) (ORa : 2,17 IC95% : 1,28 - 5,68).

Conclusions: Cette étude souligne l'importance de renforcer l'éducation maternelle et le niveau socio-économique des ménages pour prévenir les épidémies de rougeole.

Mots clés: Déterminants, Rougeole, Kinshasa, République Démocratique du Congo, RDC

Abstract ID : OP318

Profil épidémiologique de la paralysie flasque aiguë, District Sanitaire de Boffa, République de Guinée, 2017-2021

Saidouba Touré¹, Claude Ngona Mandro⁴, Abdoulaye Sadio Baldé², Nouonan Gbamou³, Jolie Kasongo Kayembe⁴, & Salomon Corvil⁴, Fodé Amara Traoré³.

¹Ministère de la santé et de l'hygiène publique, Boffa, Guinée,

²Ministère de la santé et de l'hygiène publique, Boké, Guinée,

³Ministère de la santé et de l'hygiène publique, Conakry, Guinée

,⁴ Le réseau africain d'épidémiologie de terrain (AFENET), Conakry, Guinée.

***Auteur correspondant:** Kasongo Kayembe Jolie, Le réseau africain d'épidémiologie de terrain (AFENET), Conakry, Guinée, jkayembe@afenet.net

Introduction: La Guinée a connu entre 2020-2021 une épidémie de cVDPV2 faisant 49 cas chez les humains, 3 cas environnementaux et le profil de la paralysie flasque aiguë (PFA) à Boffa n'est pas connu. Le profil épidémiologique de PFA permettra de connaître chez qui, quand et où les cas ont été notifiés afin d'orienter les actions d'éradication de la poliomyélite.

Méthode: Une étude descriptive a été menée. La population d'étude était les enfants <15 ans de Boffa entre 2017-2021. On a utilisé la base de données DHIS2. Les définitions de cas de PFA et de polio du guide SIMR ont été utilisées. Les caractéristiques cliniques, démographiques et statut vaccinal ont été décrits en calculant la médiane, étendue, proportions, taux à l'aide d'Epi info7.2.

Résultats: Des 23 cas de PFA notifiés, 100% prélevés dans les 14 jours suivant le début de la paralysie, dont 20 (87%) adéquats, tous négatifs pour le poliovirus. Le taux de PFA non poliomyélitique (TPFA-NP): 4,6/100 000 enfants < 15 ans. Étaient plus représentés, paralysie soudaine et flasque 17 (100%), fièvre 16 (94%), tranche d'âge 12-59 mois 17 (74%) et sexe masculin : 17 (74%). Huit (35%) n'avaient reçu aucune dose de VPO contre 13 (56%) au moins 3 doses. Sur les cinq dernières années, 6 (75%) sous-préfectures ont notifié au moins 1 cas de PFA et 2 (25%) étaient silencieuses.

Conclusions: Le TPFA-NP ainsi que la proportion de selles adéquates prélevées dans le délai était dans les normes. Fièvre, paralysie soudaine et flasque, tranche d'âge 12 à 59 mois et enfants ayant reçus au moins 3 doses de VPO étaient les plus représentés. Les acteurs des sous-préfectures silencieuses ont été sensibilisés et ont notifié 2 cas de PFA. Il est recommandé un suivi continu pour maintenir dans les normes les indicateurs de PFA.

Mots-clés : Profil, épidémiologique, PFA, Boffa, Guinée

Abstract ID: OP321

Magnitude, Trends, and Seasonal Variations of Road Traffic Accidents in Ogun State, Nigeria: A Three-Year Review

Adesoji Olatunde Odukoya^{1,2,&}, Magbagbeola David Dairo³, Olukemi Titilope Olugbade^{1,4}, Celestine Attah Ameh¹, Sufiyan Muawiyah Babale⁵, Olumide Busuyi Oje-Adetule¹, Olayinka Stephen Ilesanmi¹, Muhammad Shakir Balogun⁶

¹Nigeria Field Epidemiology and Laboratory Training Programme, Abuja, Nigeria

²Department of Veterinary Services and Pest Control, Federal Ministry of Agriculture and Rural Development, Abuja, Nigeria

³Department of Epidemiology and Medical Statistics, Faculty of Public Health, College of Medicine University of Ibadan, Oyo State, Nigeria

⁴Department of Community Health, Obafemi Awolowo University Teaching Hospitals Complex, Ile-Ife, Nigeria

⁵Community Medicine Department College of Medical Sciences, Ahmadu Bello University Zaria, Nigeria

⁶African Field Epidemiology Network, Abuja, Nigeria

***Corresponding author:** Adesoji Olatunde Odukoya, 2Department of Veterinary Services and Pest Control, Federal Ministry of Agriculture and Rural Development, Abuja, Nigeria, e-mail:adesojiodukoya@gmail.com

Introduction: Globally, road traffic accidents (RTAs) are ranked among the eight-leading cause of death. By 2030, RTAs are projected to be among the top five causes of morbidity, disability, and mortality worldwide. We assessed the magnitude, trend, common causes and predicted variations of RTAs in Ogun State, Nigeria.

Methods: We reviewed RTAs data from 2017-2019 based on data that was obtained from the Traffic Compliance and Enforcement Corps Ogun State Road Traffic Command. Variables analyzed included gender, location of the RTAs cases, time of the year; and associated traffic violations/offences. We analyzed data using frequencies and proportions while additive decomposition model was used in the predictions of the variations in the patterns of RTA occurrences over time.

Results: A total of 4,611 RTAs events comprising of 3,533 injured cases, 625 deaths and 453 un hurt/not-hospitalized cases were reported. The case fatality rate in the three years under review was 13.6%; with Ado-Odo/Ota an urban LGA having the highest (18.7%) and Ogun Waterside a rural LGA the lowest (4.0%). More males were injured (66.1%) and died (72.5%). The most common cause of RTAs is speeding (29.4%). Highest number of RTAs occurred in December (10.4%) while June had the lowest (6.5%). Decomposition model revealed an increase of 4.96 percentage point in variation rate of RTAs every quarter.

Conclusions: Road traffic accidents in Ogun State are largely due to preventable human habits such as speeding. The pattern of increase in RTAs in the state is likely to continue for decades unless efforts are directed at enhancing drivers' adoption of preventive behaviours. Strict enforcement of road safety legislation for speeding, and sensitization of road users on the importance of using seat belts are recommended. Monitoring of road usage and sensitization of road users during periods of festivities and onset of rains should be prioritized by the Road Safety Agencies. .

Keywords: Speeding, Traffic Offences, variations, Ogun State

Abstract ID : OP323

Investigation d'une épidémie de shigellose dans l'aire de santé Prison, zone de santé Mweneditu, Lomami, République Démocratique du Congo, Octobre 2022.

Erick Tshibanda Mulangu¹, Jean Claude Kasongo Musasa², Delphin kalenda Tshibanda², Rosalie Nkole Milolo², Elie Mutomb Mukaleng², Pascal Tshimanga³, Linda Basadia Matadi⁴, Belinda Malasi Ayumuna⁴, Gautier Mashimba Mubenga⁴, Ken Mabika Kayembe⁴, Alain Magazani Nzazu⁴, Léopold Mulumbu Lubula⁵

¹Apprenant Formation Epidémiologie de Terrain Front line cohorte 15, Mwene ditu, Lomami, République Démocratique du Congo.

²Zone de santé de Mwene ditu, Division provinciale de la santé de Lomami, République Démocratique du Congo.

³Mentor , Formation Epidémiologie de Terrain Front

line cohorte 15, Mbuji-Mayi, République Démocratique de Congo.

⁴Bureau de coordination African Field Epidemiology Network, République Démocratique du Congo

⁵Direction Surveillance Epidémiologique, République Démocratique du Congo.

***Auteur correspondant:** Eick Mulangu Tshibanda, Formation épidémiologie de terrain de base cohorte 15, Mwene ditu, Lomami, République Démocratique du Congo. E-mail: mulanguerick@gmail.com

Introduction: Maladie diarrhéique contagieuse à potentiel épidémique, la shigellose est un problème de santé publique en République Démocratique du Congo. Le 02 octobre 2022, le responsable de l'aire de santé Prison a signalé la survenue inhabituelle de 22 cas de diarrhée sanglante dont un décès au sein de la population carcérale de Mwene Ditu ; une investigation a été menée pour décrire la situation.

Méthodes: Une étude transversale descriptive a été réalisée ; les dossiers médicaux des cas suspects ont été examinés et un entretien a été réalisé à l'aide de la fiche d'enquête standardisée. Un cas suspect était toute personne détenue ou travaillant à la prison de Mwene ditu du 24 septembre au 15 octobre 2022, souffrant de douleurs abdominales et de diarrhée sanglante. Une recherche active avec une coproculture ont été effectués chez les cas chez qui une antibiothérapie n'a pas été mise en place. Les analyses statistiques descriptives ont été utilisées avec Excel 2017.

Résultats: Au total 93 cas suspects et 2 décès (Létalité : 2,2%) ont été identifiés avec un taux d'attaque global de 0,4% (93/21920) pour l'aire de santé et 51%(89/174) à la prison centrale. Parmi les suspects, la majorité étaient de la prison centrale (96%) ; la plupart étaient des hommes (sexe ratio H/F égal à 9,3) ; avaient consommé l'eau de la citerne (94%), ne se lavaient pas les mains (98%) ; l'âge médian était de 27 ans [xmin=18 et xmax=66]. Parmi les 16 échantillons prélevés, 6 (37,5%) ont été confirmés positifs au Shigella Dysenteriae Type I

Conclusions: L'épidémie de shigellose a été confirmée. La prise en charge médicale et la sensibilisation des détenus sur les mesures d'hygiène faites ainsi que l'amélioration de l'accès à l'eau potable pourraient contribuer à réduire la morbi- mortalité liée à la maladie.

Mots Clés: Investigation, Shigellose, Prison Central de Mwene ditu, République Démocratique du Congo, RDC

Abstract ID: OP331

Cholera Outbreak Investigation Conducted in Mwansabombwe District, Luapula Province, Zambia – January 2023.

Ante Mutati^{1,2,3,&}, Lwito Salifyanji Mutale^{1,2}, Sebastian Hachizovu⁴, Dabwitso Banda^{1,2}, Martha Malasa^{1,2}
¹Ministry of Health, Lusaka, Zambia; ²Zambia National Public Health Institute; Lusaka, Zambia, ³Levy Mwanawasa Medical University, Lusaka, Zambia; ⁴Tropical Disease Research Center, Ndola, Zambia

&Corresponding author: Ante Mutati, Zambia National Public Health Institute, Lusaka, Zambia. Email: an.mutati@gmail.com

Introduction: On the 14th of January 2023, Mwansabombwe District of Luapula Province notified a patient of acute watery diarrhea in a 77-year-old man admitted with severe dehydration. By 17th January 2023, 14 suspected cholera patients were notified. We conducted an outbreak investigation to confirm and determine the risk factors in order to develop suitable interventions.

Methods: We conducted an un-matched case control study. A case was defined as any patient from Mwansabombwe presenting with acute watery diarrhea with or without vomiting and dehydration, while a control was any member of the same community without clinical signs and symptoms between 14th and 25th January, 2023. A structured questionnaire was used to collect demographic, clinical and water, sanitation and hygiene (WASH) data. We collected five stool samples for microscopy, culture and antibiotic sensitivity patterns to confirm diagnosis. We used a logistic regression to measure the odds of being a case adjusting for demographic, WASH and food history.

Results: Tool culture revealed that 40% (n=5) of samples had vibrio cholerae organism isolated. A total of 22 cases and 49 controls were enlisted. Median ages for cases and controls were 31 (interquartile range [IQR]: 38.3) and 32 (IQR: 22) respectively.

Females accounted for 59% of the cases. Being unemployed (adjusted odds ratio [AOR]=7.8, 95% CI: 0.5-282), no education (AOR=7.3, 95% CI: 1.0-66.9), public borehole (AOR=3.0, 95% CI: 0.5-23.1), consuming nshima with fish, vegetables (AOR=2.14, 95% CI: 0.32-42.6), storing water in buckets (AOR=2.1, 95% CI: 0.4-8.9) not treating water (AOR=1.1, 95% CI: 0.2-8.4), and attending funerals (AOR=1.1, 95% CI: 0.1-4.4) posed a risk of contracting a disease.

Conclusions: Though none of the risk factors were significant, we recommended good personal health and hygiene, intensified health promotion, and risk communication and community engagement (RCCE).

Keywords: Cholera, outbreak, case control study, Mwansabombwe District

Abstract ID : OP339

Aspects épidémiologiques et thérapeutiques de la Tuberculose Multi Résistante chez l'enfant à Kinshasa, République Démocratique du Congo, 2017-2022.

Nicole Muzutie Anshambi^{1,&}, Fabrice Mateo Matuta², Michel Kiyombo Kaswa², Nicolas Masheni. Kierre³, Pierre Mpiana Wumba⁴, Belinda Ayumuna Malasi⁵, Gauthier Mubenga Mashimba⁵, Ken Kayembe Mabika⁵, Alain Nzanu Magazani⁵, Leopold Lubula Mulumbu⁶

¹Programme de formation en épidémiologie de terrain (FETP) Avancé cohorte 2, Kinshasa, République Démocratique du Congo, nicoleanshambi@gmail.com

²Programme National de Lutte contre la Tuberculose, République Démocratique du Congo

³OMS, Kinshasa, République Démocratique du Congo

⁴Action Damien, Kinshasa, République Démocratique du Congo

⁵Bureau de coordination AFENET, Kinshasa, République Démocratique du Congo

⁶Direction surveillance épidémiologique, Kinshasa, République Démocratique du Congo

***Auteur correspondant:** Nicole Muzutie Anshambi, Programme de formation en épidémiologie de terrain (FETP) Avancé cohorte 2, Kinshasa, République Démocratique du Congo, +243852015340, nicoleanshambi@gmail.com

Introduction: La tuberculose multirésistante (TB-MR) demeure grave chez l'enfant du fait de la difficulté de contrôle et constitue un frein pour la lutte contre la tuberculose dans le monde ; surtout dans les pays aux ressources limitées.

La République Démocratique du Congo (RDC) compte parmi les 30 pays à lourde charge de TB-MR ; sa capitale Kinshasa portait en 2022, 37 % de cas du pays. La charge de la TB-MR chez l'enfant est peu connue en RDC d'où la raison d'être de cette étude qui a pour objectif de décrire les aspects épidémiologiques et thérapeutiques de cette maladie chez l'enfant à Kinshasa.

Méthode: Une étude transversale descriptive portant sur 67 cas de TB-MR chez l'enfant colligés entre 2017 -2022 dans 45 centres de santé de Kinshasa a été réalisée. Les patients ont été confirmés TB-MR par le test moléculaire. Les analyses statistiques descriptives ont été réalisées avec Excel 2016.

Résultats: La TB-MR chez l'enfant représentait 3 % (67/1979) des cas TBMR notifiés à Kinshasa de 2017-2022. Le sexe féminin était majoritaire avec un sexe ratio F/H égal à 1,6 ; l'âge médian était de 11 (Xmin=1 et Xmax=14) ans ; 79%(53/67) d'enfants n'avaient jamais souffert de Tuberculose ; 3%(2/67) d'enfants présentaient la forme ganglionnaire et 6%(4/67) avaient une sérologie positive au Virus d'Immunodéficience Humaine (VIH) ; 82%(55/67) d'enfants étaient sous schéma court de 9 mois et ont terminé leur traitement : 85 % (47/55) des cas étaient guéris, 11% (6/55) décédés et 4 % (2/55) perdus de vue

Conclusions: Cette étude a montré que la majorité d'enfants atteints de TB-MR étaient des nouveaux patients avec une létalité élevée. Le dépistage systématique des contacts enfants au voisinage des cas index de TB-MR pourra améliorer la prise en charge et l'issue des enfants malades.

Keywords: Tuberculose Multi Résistante, Enfant, Epidémiologie, Traitement, Kinshasa, RDC

Abstract ID: OP353

Measles Outbreak Investigation among Anti-Vaccination Religious Communities in Sinazongwe and Pemba Districts, Southern Province-Zambia, 2022

Tebello Kolobe^{1,4,5,*}, Situmbeko Mwangala^{1,2,3}, Stephen Longa Chanda^{1,2}, James Exnobot Zulu^{1,2}, Dabwitso Banda^{1,2}, Nyambe Sinyange^{1,2}, Amos Hamukale^{1,2}, Nathan Kapata²

¹Zambia Field Epidemiology Training Program (FETP), Lusaka, Zambia

²Zambia National Public Health Institute, Lusaka, Zambia

³Southern Provincial Health Office, Southern Province, Zambia

⁴Levy Mwanawasa Medical University, Lusaka, Zambia

⁵Ministry of Health, Maseru, Lesotho

***Corresponding author:** Tebello Kolobe, Zambia National Public Health Institute, Lusaka, Zambia, sistebe@gmail.com

Introduction: Measles outbreaks are increasingly common in Zambia. On August 15th 2022, Sinazongwe district reported a measles outbreak after three confirmed cases were identified from a community dominated by one religious sect that eschews vaccination. An investigation was conducted to identify additional cases and assess the vaccination status and associated factors.

Methods: We reviewed medical records, conducted active case search and interviewed cases or guardians. A suspected case was any person from the affected communities of Pemba and Sinazongwe, presenting with fever and maculopapular rash and; cough, coryza or conjunctivitis since July 26th 2022.

A confirmed case was a suspected case with positive IgM antibodies or epidemiologically linked to a lab-confirmed case. A measles death was defined as any death that met the case definition with or without co-morbidities. We calculated the case fatality rate (CFR) and applied logistic regression to calculate the odds of being vaccinated among cases, with a 95% confidence interval (CI).

Results: Between July 26th and September 1st 2022, a total of 132 cases (nine lab-confirmed and 123 epi-linked) with 18 deaths (CFR: 13.6%) were recorded. Out of the 81 cases that were interviewed, 43 were males (53%) with a median age of seven years (interquartile range [IQR]: 4 -12). A total of 72 (89%) cases were never vaccinated and 92% of those belonged to one religious group. Belonging to a religion other than Old Apostolic was significantly associated with being vaccinated among the cases (OR=26.6, CI: 2.42-291.24), as was having knowledge about measles among guardians (OR=16.5, 95% CI: 1.52-179.21).

Conclusions: This outbreak highlights the substantial impact of anti-vaccination beliefs in the spread of measles and a case fatality twice as high as expected. To achieve the Immunization Agenda 2030, and mitigate the impact of potential future outbreaks, we recommend active engagement with anti-vaccination communities to raise awareness about vaccination.

Keywords: Masles, disease outbreaks, Zambia, religion, immunization.

Abstract ID : OP357

Facteurs associés à l'échec du traitement préventif intermittent du paludisme à la sulfadoxine – pyriméthamine chez les gestantes dans la maternité du centre hospitalier de Kingasani, Kinshasa, République Démocratique du Congo, janvier à novembre 2022

Elie Kazadi Tshilumba^{1(&)}, Thérèse Mambu Nyangi², Belinda Ayumuna³, Gauthier Mubenga³, Ken Kayembe³, Linda Matadi³, Alain Magazani³, Léopold Lubula⁴

¹Programme de formation en épidémiologie de terrain (FETP), Ecole de santé Publique, Université de Kinshasa, Kinshasa, RDC,

²Département de Santé Communautaire (soins de la mère et de l'enfant), Ecole de santé Publique, Université de Kinshasa, Kinshasa, RDC

³ Africa Field Epidemiology Network (AFENET), Kinshasa, RDC. ⁴Direction surveillance épidémiologique, Kinshasa, République Démocratique du Congo

***Auteur correspondant:** Elie Kazadi Tshilumba : Programme de formation en épidémiologie de terrain, Ecole de santé Publique, Université de Kinshasa, Kinshasa, RDC, Tél : (+243)855745708/817349648, eliekazadi68@gmail.com

Introduction: Le paludisme chez la femme enceinte est un problème majeur de santé publique en Afrique et l'accès palustre pendant la grossesse continue d'être une cause fréquente d'hospitalisation avec des conséquences graves sur la mère, le fœtus et le nouveau-né. Bien que le Traitement Préventif Intermittent à la Sulfadoxine-Pyriméthamine (TPI-SP) soit recommandé pour prévenir le paludisme pendant la grossesse, nous observons un échec de ce dernier dans certaines Zone de Santé ; raison de cette étude menée pour déterminer les facteurs associés à l'échec thérapeutique au TPI-SP.

Méthode: Une étude cas-témoins a été menée du 1er janvier au 30 novembre 2022 au centre hospitalier de Kingasani (CH kingasani). Le groupe des cas était constitué des 102 (33,3%) femmes enceintes sous TPI-SP avec un examen microscopique GE ou TDR positif (cas échec au TPI-SP) et le groupe des témoins était constitué de 204 (66,7%) femmes enceintes sous TPI-SP ayant un TDR négatif, toutes en consultation prénatale au CH kingasani. Les informations obtenues concernaient les caractéristiques socio démographiques, le profil clinique, les connaissances et comportements pendant la grossesse. Les associations ont été recherchées entre l'échec thérapeutique au TPI-SP et les facteurs potentiels par la régression logistique à l'aide du logiciel SPSS version 26.0.

Résultats: L'âge moyennes enquêtées 29,6±6,9 ans. Les facteurs associés retrouvés après régression logistique : Antécédent d'hospitalisation pour paludisme (ORa= 21, IC95% [14,4-30,9] p= 0.000) ; Le non utilisation de la moustiquaire imprégnée d'insecticide à longue durée d'action (MIILDA) (ORa=72 IC 95% [6,5-78,8] p=0.000) et une seule prise de dose de TPI-SP durant la grossesse (ORa= 54,6 IC 95% [4,9-59,8] p= 0.001) restaient statistiquement associés à l'échec du TPI-SP.

Conclusions: Les antécédents d'hospitalisation pour paludisme, non utilisation de MIILDA et la prise d'une seule dose de TPI-SP durant toute la grossesse sont des facteurs associés à l'échec du TPI-SP au Centre Hospitalier de Kingasani.

Mots-clés: Paludisme, Traitement préventif intermittent, Sulfadoxine-Pyriméthamine, République Démocratique du Congo, RDC.

Abstract ID : OP358

Investigation des Cas de Rougeole à l'Hôpital Balbala Cheiko, Djibouti, Juin 2022

Ahmed Rouffa Aballah^{1,3,4,&}, Aboukader Mohamed Ali^{1,3,4}, Mohamed Ismael Dini^{1,2,4}, KadraDaherHassan⁴, Moustapha Omar Hared^{2,4}, Mohamed AbdiAli^{2,4}, Sahara Moussa Bouh^{1,4}, Prosper Ilunga Kelebwe^{4,5}, PedwindéHamadou Seogo^{4,5}, Ahmed Robleh Abdilleh¹, TatekAnbessie Bogale⁶, Herbert Kazoor Brian⁷, Houssein Youssouf Darar^{1,2,4}

¹Ministère de la Santé de Djibouti, Djibouti, Djibouti

²Institut National de Santé Publique de Djibouti, Djibouti, Djibouti

³Hôpital Balbala Cheiko, Djibouti, Djibouti

⁴Djibouti Program Field Epidemiology Training-Frontline, Djibouti, Djibouti

⁵African Field Epidemiology Network de Djibouti, Djibouti, Djibouti

⁶African Field Epidemiology Network, Addis Ababa, Ethiopie

⁷African Field Epidemiology Network, Kampala, Ouganda

&Auteur correspondant: Ahmed Rouffa Abdallah, Ministère de la santé de Djibouti, Hôpital Balbala Cheiko, Djibouti, Djibouti, Djibouti E-mail : ahmedrouffa@gmail.com.

Introduction: Au cours de la 24^{ème} semaine épidémiologique 2022, le service de pédiatrie a notifié 04 cas suspects de rougeole hospitalisés à l'Hôpital Balbala Cheiko (HBC). L'objectif de notre investigation était de confirmer cette flambée, déterminer son ampleur et mettre en place des mesures de prévention et de contrôle.

Méthodes: Nous avons réalisé une étude descriptive sur les cas de rougeole enregistrés à l'HBC couvrant la période du 19 juin au 04 octobre 2022. Un cas suspect était défini comme toute personne avec une fièvre et éruptions maculo-papillaires généralisées associées à la toux ou rhinite ou conjonctivite notifiés à HBC pendant la période d'étude et un cas confirmé comme un cas suspect avec un test d'ELISA positif ou

ayant un lien épidémiologique avec un cas confirmé. Une recherche active a été menée à travers une revue documentaire des registres des services de HBC et un entretien dans la communauté. Une fiche a été utilisée pour collecter nos données. Les données ont été analysées à l'aide de SPSS 20. Des médianes, des proportions, des taux et des ratios ont été calculés.

Résultats: Au total 92 cas de rougeole ont été notifiés dont 37(40%) cas positifs aux IgM rougeole et le reste des cas l'a été par lien épidémiologique avec zéro décès. Le sexe masculin était le plus représenté (54,3%). L'âge médian était de 12 mois (4mois-9ans), les moins de 5 ans représentaient 93% des cas. La majorité des cas n'était pas vaccinée (68%). Le taux d'attaque était de 29 cas pour 100000 habitants.

Conclusions: L'investigation a permis de confirmer l'épidémie de rougeole touchant plus les moins de cinq ans. La majorité de cas n'étaient pas vaccinés. Nous recommandons la vaccination de moins de cinq ans, une sensibilisation des parents sur l'intérêt de la vaccination et la réalisation d'une étude approfondie sur la rougeole à Djibouti.

Mots-clés: Investigation, Epidémie, Rougeole, Hôpital Balbala Cheiko, Djibouti

Abstract ID : OP361

Les prédictors de décès lié à la COVID-19, à 30 jours d'hospitalisation dans la ville de Goma entre Mars 2020 -Septembre 2021.

Cosma Kajabika Luberamihero¹, Claire Rukiya Sangara², Belinda Ayumuna Malasi³, Gauthier Mubenga Mashimba³, Ken Kayembe Mabika³, Linda Matadi Basadia³, Alain Nzanu Magazani³, Léopold Lubula Mulumbu⁴, Odrade Chabikuli⁵, Prince Kimpanga Diang⁵.

¹Programme de formation en épidémiologie de terrain (FETP), Division provinciale de la santé du Nord Kivu, Goma, République

Démocratique du Congo,

²Ecole de Santé Publique de l'Université de Goma, Nord Kivu, République Démocratique du Congo,

³Bureau de coordination AFENET, Kinshasa, République Démocratique du Congo,

⁴Direction surveillance épidémiologique, Kinshasa, République Démocratique du Congo,

⁵Ecole de Santé Publique de l'Université de Kinshasa, République Démocratique du Congo,

***Auteur correspondant:** Cosma Kajabika Luberamihero, MD, MPH, Msc, Programme de formation en épidémiologie de terrain (FETP), Division provinciale de la santé du Nord Kivu, Goma, République Démocratique du Congo, Téléphone +243997180755/+243810869845, mail : kajabika_come@yahoo.fr/ cosmakajabika7@gmail.com

Introduction: La pandémie de COVID-19 a touché toutes les provinces de la République Démocratique du Congo, en particulier, la ville de Goma (Nord-Kivu). La létalité en RDC était de 1,93% alors qu'à Goma, elle était de 7,4%. Cette étude voudrait déterminer les prédictors associés au décès due à la COVID-19 à 30 jours d'hospitalisation dans la ville de Goma.

Méthode: Une étude de cohorte historique a été menée sur les personnes hospitalisées pour COVID-19 dans les Centres de traitement de la COVID-19 de la ville de Goma. L'échantillon minimal calculé était de 356 personnes. L'infection SARS-Cov 2 a été confirmé par le RT-PCR et/ou un test de diagnostic rapide et la définition de l'OMS a été utilisée pour retenir les décès. La régression de Cox a servi à identifier les prédictors indépendants du décès lié à la COVID-19 dans la ville de Goma.

Résultats: 400 dossiers médicaux des hospitalisés COVID-19 ont été inclus, l'âge médian de la population d'étude était de 50 ans [34-65], le séjour médian à l'hôpital était de 9 jours [5,25-13] en général alors que le séjour médian était significativement différent entre les vivants et les décédés, respectivement de 10 jours [8-14] et 4 jours [2-8], $p=0,0001$ et de la régression de Cox a permis d'identifier les prédictors du décès suivant : le stade clinique à l'admission, HR ajusté 18,518 (3,402-100,797), $p=0,001$; l'antécédent de Diabète Sucre, HR ajusté 3,025 (1,284-7,126), $p=0,011$; la Tachycardie, HR ajusté 3,181 (1,271-7,962), $p=0,013$.

Conclusions: Le stade clinique à l'admission, l'antécédent de Diabète Sucre et la Tachycardie étaient des prédictors de décès lié à la COVID-19, à 30 jours d'hospitalisation dans la ville de Goma. Une prise en charge précoce et correcte des patients à risque devrait diminuer la létalité liée à la COVID-19 dans la

ville de Goma.

Mots-clés: Prédictors, décès, COVID-19, ville de Goma et RDC.

Abstract ID : OP365

Investigation d'une épidémie de poliomyélite dans les aires de santé de Metho Kibombo, Jilundu et Kasuku, zone de santé de Kibombo, Maniema, République Démocratique du Congo, mai 2022.

Mireille Elongo Zamuda^{1,*}, Omari Walumba², Linda Matadi³, Belinda Ayumuna³, Gauthier Mubenga³, Ken Kayembe³, Alain Magazani³, Léopold Lubula⁴

¹Apprenant FETP/FL cohorte I3, Zone de santé de Kibombo, Maniema, République Démocratique du Congo. ²Mentor antenne PEV/Kindu, Maniema, République démocratique du Congo

³Bureau de coordination AFENET, Kinshasa, République Démocratique du Congo

⁴Direction surveillance épidémiologique, Kinshasa, République Démocratique du Congo

***Auteur correspondant:** Mireille Elongo Zamuda, Apprenant FETP, Zone de santé de Kibombo, Maniema, République Démocratique du Congo, Email : mireille.pataule@gmail.com

Introduction: La poliomyélite est une infection virale aiguë due au poliovirus dont l'homme est le seul réservoir. Déclarée libre de circulation des poliovirus sauvages depuis le 26 novembre 2015, la République Démocratique du Congo avait connu environ 74 mois d'arrêt de circulation de ces virus jusqu'au 08 mai 2017 où des épidémies dérivées du vaccin sont confirmées dans presque toutes les provinces. Le 02 mai 2022, la zone de santé de Kibombo a reçu des alertes de 4 cas de Paralyse Flasque Aigue (PFA) provenant des aires de santé (AS) Metho Kibombo, Bilundu et Kasuku ; ainsi, une investigation a été menée pour vérifier la situation.

Méthodes: Une étude descriptive transversale a été conduite. Les dossiers médicaux ont été examinés et un entretien a été réalisé avec les parents des cas à l'aide de la fiche d'investigation. Un cas correspondait à tout enfant de moins de 15 ans atteint d'une PFA

ou toute personne atteinte d'une paralysie à tout âge chez qui le clinicien soupçonne une poliomyélite entre le 01 janvier et le 15 mai 2022 dans les 3AS ciblées. Les analyses statistiques descriptives ont été réalisées avec Excel 7.0.

Résultats: Au total 18 cas de PFA ont été enregistrés dont 13 cas confirmés au poliovirus dérivé du vaccin de type 2 circulant (cVDPV2) ; le sexe masculin était majoritaire (sexe ratio H/F= 1,6) ; 10 cas (76,9%) étaient dans la tranche d'âge de 12 à 59 mois, 10 cas (77%) n'étaient pas vaccinés contre la poliomyélite et 2 (66,7%) des AS touchées avaient une couverture vaccinale(CV) moyenne en VAR de 87%.

Conclusions: L'épidémie de cVDPV2 a été confirmée. La sensibilisation de la communauté sur les mesures d'hygiène faite et le maintien de la CV dans les normes pourraient contribuer à réduire la morbidité et les invalidités liées à cette maladie.

Mots Clés: Investigation, Poliomyélite, Kibombo, Maniema, République Démocratique du Congo, RDC

Abstract ID : OP370

Evaluation du système de surveillance des décès néonataux dans le département de l'Ouémé, Bénin, de juillet 2021 à juin 2022.

Augusta Akouènon ADANVE^{1&}, Bernard ANIWANOU², Nestor Denakpo NOUDEKE³, Matilde Adjoavi HOUSSOU³

¹Ministère de la Santé, Porto-Novo, Bénin

²Ministère de la Santé, Cotonou, Bénin

³African Field Epidemiology Network, Cotonou, Bénin

&Auteur correspondant: Augusta Akouènon ADANVE, IMinistère de la Santé, Porto-Novo, Bénin Email; adanva00@gmail.com

Introduction: La mortalité néonatale est l'ensemble des enfants nés vivants mais décédés entre 0 et 28 jours. Le Bénin dispose d'un système de surveillance des décès néonataux depuis 2016 et qui est basé sur la notification continue au moyen des supports ; Chaque année, environ 12 000 décès de nouveau-nés sont enregistrés par le système qui

n'a pas été évalué ; à cet effet, nous avons initié cette évaluation dans l'Ouémé de juillet 2021 à juin 2022 afin d'apprécier sa performance.

Méthode: Il s'agit d'une étude transversale descriptive basée sur la méthode d'évaluation des systèmes de surveillance du Centers for Disease Control and Prévention (CDC Atlanta). Des interviews et une revue de littérature ont été réalisées auprès de 83 agents impliqués dans la surveillance des maladies à potentiel épidémique, pour évaluer certains attributs. Les données collectées ont été analysées à l'aide de EPI Info7.2 avec un seuil de 80% pour chaque attribut. Les fréquences absolue et relative ont été calculées.

Résultats: Sur 83 acteurs interviewés, l'évaluation de la simplicité montre que la définition de cas est facile pour 77/83 soit 92,8%. La transmission des données est facile pour 68/83 soit 81,9%. Quant à l'utilité, moins de 80% des acteurs estiment que le système permet de suivre les tendances, de prévenir et de réduire les décès néonataux. A propos de l'acceptabilité, une complétude de 100% et une promptitude de 84% sont observées par rapport à la transmission des données. Quant à la qualité des données, 4% des fiches de notification sont complètement remplies ; le système est représentatif car les données collectées ont permis de faire une description des cas en termes de temps, lieu et personne.

Conclusions: Le système est jugé simple, utile, représentatif et accepté des acteurs qui doivent néanmoins améliorer la qualité des données.

Mots-clés: Evaluation, Décès néonataux, Etude transversale, Bénin

Abstract ID : OP374

Profil épidémiologique des données de décès néonataux de 2018 à 2021 dans le département de l'Ouémé au Bénin

Augusta Akouènon ADANVE^{1&}, Bernard ANIWANOU², Nestor Denakpo NOUDEKE³, Matilde Adjoavi HOUSSOU³

¹Ministère de la Santé, Porto-Novo, Bénin

²Ministère de la Santé, Cotonou, Bénin

³African Field Epidemiology Network, Cotonou, Bénin

***Auteur correspondant:** Augusta Akouènon Adanve, ¹Ministère de la Santé, Porto-Novo, Bénin Email; adanva00@gmail.com

Introduction: La mortalité néonatale est l'ensemble des enfants nés vivants mais décédés entre la naissance et le 28ème jour de vie. Dans le monde, parmi les 130 millions de naissances annuelles, environ 4 millions de décès néonataux sont enregistrés et près de 3 millions en Afrique chaque année.

Au Bénin, environ 12 000 décès de nouveau-nés sont enregistrés chaque année et l'objectif de l'étude est de contribuer à la réduction des décès néonataux dans l'Ouémé.

Méthode: Nus avons réalisé une étude transversale descriptive. La population d'étude était constituée des décès néonataux de 2018 à 2021 enregistrés dans la base de données de l'Ouémé. Les données ont été extraites puis apurées et analysées à l'aide d'EPI Info 7.2.

Résultats: Dans le département, 1824 décès de nouveau-nés ont été enregistrés, la mortalité néonatale était de 11,7‰. La majorité des nouveau-nés décédés étaient de sexe masculin soit 58,2% (978) et 1292 soit 77,4% des nouveaux-nés décédés ont été accouchés par voie basse naturelle.

Un faible poids de naissance inférieur à 2500g a été retrouvé chez 61,8% des nouveau-nés décédés ; la plupart des décès sont survenus entre 0 à 7 jours, soit 84,3 % (1514) et respectivement 28% (501) et 27% (496) des décès ont été enregistrés en 2019 et 2020.

Les nouveau-nés décédés provenaient pour la plupart de Porto-Novo soit 30% (551) des cas ; de Avrankou soit 15% (265) et de Akpro-Missérété soit 11% (198). Les principales causes de décès sont : la prématurité (29,86%), l'asphyxie périnatale (17,41%) et les infections néonatales (15,9%).

Conclusions: La mortalité néonatale reste élevée dans le département de l'Ouémé. Une attention particulière doit être portée aux enfants présentant les principales causes pour une réduction de la mortalité néonatale dans le département.

Mots-clés: Mortalité néonatale, Nouveau-nés, Asphyxie, Etude transversale, Bénin

Abstract ID: OP375

Tuberculosis and COVID-19 Coinfection at the Two University Teaching Hospitals in Lusaka, Zambia, 2020-2022

Madalitso Nkhata^{1,2,&}, Elizabeth Heilmann^{3,4}, Lily Besa^{5,6}, Warren Malambo³, Brittany Moore⁷, Linos Mwiinga³, Duncan Chanda^{5,6}, Andrew Auld³, Sombo Fwoloshi^{5,6}, Jonas Hines³

¹Zambia Field Epidemiology Training Program, Lusaka, Zambia;

²Levy Mwanawasa Medical University, Lusaka, Zambia;

³U.S. Centers for Disease Control and Prevention, Lusaka, Zambia;

⁴Public Health Institute, Oakland, California, USA

⁵Ministry of Health, Lusaka, Zambia;

⁶University Teaching Hospital, Lusaka, Zambia

⁷U.S. Centers for Disease Control and Prevention, Atlanta, Georgia, USA

***Corresponding author:** Madalitso Nkhata, Zambia Field Epidemiology Training Program, Lusaka, Zambia, email: madankhata2003@gmail.com

Introduction: Zambia has a high burden of tuberculosis (TB), a disease associated with worse COVID-19 outcomes. Whether persons with TB are at increased risk of COVID-19 is not well documented. We assessed the prevalence of TB-COVID-19 coinfection in Lusaka, Zambia.

Methods: We conducted a cross-sectional study on TB and COVID-19 testing at University Teaching Hospital and Levy Mwanawasa Medical University Teaching Hospital in Lusaka, Zambia. We linked TB and COVID-19 polymerase chain reaction (PCR) laboratory Results from July 2020 to September 2022 using probabilistic matching based on sex, age and name. Testing was done based on clinician suspicion of TB and/or COVID-19 but no information on clinical symptoms was available. We defined TB-COVID-19 coinfection as the occurrence of a positive PCR test for both infections within one month. We calculated the proportion of TB-COVID-19 coinfection among those tested to determine the prevalence and conducted Pearson's Chi-square test to determine the association between TB and COVID-19 infection.

Results: Among 126,884 COVID-19 and 17,047 TB tests, 781 (754 with both Results) persons had matching records. Males comprised 56%, and median age was 40 years (IQR: 14,43). 125 of 754 (16.6%) were positive for COVID-19, 77 of 754 (10.2%) were positive for TB, and 562 of 754 (74.5%) had none of the infections. The prevalence of TB-COVID-19 coinfection was 1.3% (10 of 754). COVID-19 positivity differed among TB-positives (13 %) and negatives (17%). There was no statistically significant association between TB and COVID-19 infections (p 0.371).

Conclusions: In this study, few people were tested for both conditions and TB-COVID-19 coinfection appeared to be low. TB and COVID-19 did not show any association with each other. Increasing bi-directional screening in both COVID-19 and TB clinics among those presumed or confirmed to have either COVID-19 or TB could help identify potential coinfections to enable appropriate and adequate clinical management.

Keywords: Zambia, COVID-19, Tuberculosis, TB-COVID-19 coinfection, University Teaching Hospital, prevalence

Abstract ID: OP377 Predictors of Severe COVID-19 among Hospitalized Patients in Zambia, 2020-2021.

Oliver Mweso^{1,2,3,&}, Dabwitso Banda⁴, Warren Malambo⁵, Francis Dien Mwansa⁶, Cephas Sialubanje³, Freeman Chabala³, Micky Ndhlovu³, Duncan Chanda⁷, Jonas Hines⁵, Nyambe Sinyange⁴, Nawa Mukumbuta³

¹Zambia Field Epidemiology Training Program, Lusaka, Zambia; ²Expanded Programme on Immunization – Ministry of Health, Lusaka, Zambia; ³Levy Mwanawasa Medical University, Lusaka, Zambia; ⁴Zambia National Public Health Institute, Lusaka, Zambia; ⁵U.S. Centers for Disease Control and Prevention, Lusaka, Zambia; ⁶United Nations Children's Fund, Lusaka, Zambia; ⁷Ministry of Health, Lusaka, Zambia.

&Corresponding author: Oliver Mweso, MBChB, MMED, MSc Field Epidemiology Training Program, Lusaka, Zambia, Expanded Programme on Immunization – Ministry of Health Tuletaka Road, PO Box: 30205, Lusaka, Zambia, E-mail: oli.mweso@yahoo.

com | Phone: +260 966 493016

Introduction: COVID-19 has had a significant burden across the world, including in Zambia. COVID-19 has been marked with high mortality rates associated with evolving predictability. More findings need to be reported on COVID-19 considering the emergence of new strains and evolving epidemiology. We report findings from a study on the predictors of severe COVID-19 among hospitalized patients in Zambia.

Methods: We conducted a retrospective cohort study of hospitalized patients at COVID-19 treatment centres in Zambia from August 2020 to January 2021. Patients had demographic and clinical characteristics abstracted from their medical records. Severe COVID-19 was defined as: oxygen saturation of 30 breaths/minute or needing oxygen therapy at admission.

Characteristics of participants by COVID-19 severity status (severe vs non severe) were compared using a 2-sided Pearson chi-square test and Wilcoxon rank sum tests to assess for statistical significance. Logistic regression was used to calculate the odds of severe COVID-19 adjusting for sex, treatment centre, smoking and comorbidities.

Results: We analyzed data on 613 patients from August 2020 to January 2021. The prevalence of severe COVID-19 was 46.40% (95% confidence interval [CI]: 42.40-50.40). Patients with severe COVID-19 on admission had higher age (median age [IQR]: 51 [40-64] vs 41 [30-51]), smoking (2.20% vs 0.30%) and alcohol use (15% vs 4.40%), employment (42% vs 30%) and uneducation levels (5.90% vs 3.90%), diabetes mellitus (20% vs 7.70%) and hypertension (46% vs 17%), $p < 0.05$.

Logistic regression analyses indicated that increasing age (aOR, 1.03; 95% CI, 1.01–1.04) and alcohol use (aOR, 2.75; 95% CI, 1.21–6.27) were predictive factors for severe outcome.

Conclusions: Age and alcohol use are helpful for prediction of the deterioration trend in patients diagnosed with COVID-19 in Zambia. These predictors could be used to stratify patients for risk of severe disease on admission to COVID-19 treatment centres in Zambia and thus appropriate patient management and resources.

Keywords: COVID-19, Hospitalization, Retrospective study, Zambia, Africa.

Abstract ID: OP386

Epidemiological analysis of the national acute flaccid paralysis surveillance data, Sierra Leone, 2018 to 2022. A descriptive secondary data analysis

Andrew Kekurah Kemoh^{1,2}, Amara Alhaji Sheriff^{1,2,3}, Adel Hussein Elduma^{1,3}, Solomon Aiah Sogbeh^{1,2,3}, Gebrekrstos Negash Gebru^{1,3}, Umaru sesay^{1,2,3}, Annah Jammeh³

¹Sierra Leone Field Epidemiology Training Program, Freetown, Sierra Leone ²Ministry of Health and Sanitation, Freetown Sierra Leone, ³African Field Epidemiology Network, Freetown, Sierra Leone Field

&Corresponding author: Gebrekrstos Negash Gebru, Sierra Leone Field Epidemiology Training Program, Freetown, Sierra Leone, Email: ggebru@afenet.net

Introduction: Acute Flaccid Paralysis (AFP) surveillance is the gold standard for the poliovirus eradication initiative. In Sierra Leone, the last case of wild poliovirus (WPV) was detected in 2010. However, in 2020, the country experienced an outbreak of circulating vaccine-derived poliovirus type 2 (cVDPV2). We aimed to describe the AFP surveillance performance in Sierra Leone using the World Health Organization (WHO) performance indicators.

Methods: We conducted a descriptive analysis of the national AFP surveillance data, for 2018-2022. Data were extracted from the national AFP surveillance database and analysed using Epi Info 7. Key AFP surveillance performance indicators analysed include non-polio AFP rate ($\geq 2/100,000$), case notification within 7 days of symptom onset ($\geq 80\%$), case investigation within 48 hours after notification ($\geq 80\%$), stool condition and adequacy ($\geq 80\%$), and vaccination status of reported cases.

Results: There were 668 cases of AFP reported, of which 55% (368/668) were males and 78% (521/668) under 5 years of age. Of the total cases, 2% (15/668) were confirmed as cVDPV with zero WPV. Average annual non-polio AFP rate was 4 per 100,000 <15-year populations. Cases notified ≤ 7 days of symptom onset was 70% (468/668), and cases investigated ≤ 48 hours was 90% (601/668). Though stool condition was

90% (601/668) good, the adequacy was 77% (450/585) and only 7% (41/585) arrived at the national laboratory within 3 days after collection. Majority of the cases, 91% (609/668), including confirmed cVDPV2, had received three or more doses of oral poliovirus vaccine (OPV).

Conclusions: The performance of the AFP surveillance system in Sierra Leone surpassed WHO indicators' target for annualized non-polio AFP rate, case investigation and stool condition but failed to achieve the minimal target for stool adequacy, case notification and sample transportation indicating the likelihood of missing a case. We recommend the Ministry of Health and Sanitation to strengthen the sample referral system.

Keywords: Acute flaccid paralysis, data, surveillance, Sierra Leone, poliovirus

Abstract ID : OP391

Épidémie de fièvre de Lassa importée à la clinique privée de Gbessia dans la région de Conakry, août 2022

Lamah Vokpo¹, Claude Ngona Mandro³, Sékou Sidate SYLLA², Nouonan Gbamou¹, Jolie Kasongo Kayembe³, Salomon Corvil³, Fodé Amara Traoré¹.

¹Ministère de la santé et de l'hygiène publique, Conakry, Guinée, ²Ministère de la santé et de l'hygiène publique, Dalaba, Guinée, ³Le réseau africain d'épidémiologie de terrain (AFENET), Conakry, Guinée.

&Auteur correspondant: Kasongo Kayembe Jolie, Le réseau africain d'épidémiologie de terrain (AFENET), Conakry, Guinée, jkayembe@afenet.net

Introduction: A la date du 09/08/2022, la clinique Gbessia a alerté la Direction de santé de Matoto de la survenue de deux cas suspects de fièvre hémorragique virale testés positifs pour fièvre lassa parmi son personnel, contact d'un cas probable. Une investigation était menée pour déterminer l'ampleur et pour rompre la chaîne de transmission.

Méthodes: Une étude de série de cas était réalisée. Les définitions des cas maladie virale Ebola (MVE) de l'OMS étaient utilisées. Nous avons mené

une recherche active des cas dans la communauté et structures visitées par les cas confirmés et probable. Tout cas suspect était testé par PCR pour Lassa, Ebola et Marburg. Les données étaient analysées sur Epi info 7.2 pour calculer proportions, médian et étendue. Une enquête environnementale était menée à Kissidougou et à Conakry.

Résultats: Le cas index était un homme de 30 ans vivant à Kissidougou avec des symptômes de fièvre apparus le 21 juin 2022. Sans amélioration, il a été hospitalisé le 16 juillet à la clinique Gbessia pour dyspnée, méléna et hématémèse et décède le 25 juillet. Parmi 16 cas suspects identifiés, quatre (25%) étaient positifs, tous contacts du cas index. Des cas confirmés, quatre (66,7%) étaient personnel de santé de clinique Gbessia, deux (33,3%) membres de sa famille. L'âge médian était de 30 ans. Parmi les cas positifs, on enregistre deux (28,6%) décès. Aucun personnel de santé n'a utilisé les mesures de prévention et de contrôle des infections (PCI). Cinquante-trois *Mastomys natalensis* étaient capturés à Kissidougou.

Conclusions: L'épidémie de fièvre de Lassa était importée à Conakry et s'est propagée parmi le personnel soignant et les membres de la famille en raison de l'absence de mesures de PCI. La clinique était approvisionnée en matériel PCI. Nous recommandons de renforcer la PCI et d'éduquer la population d'éviter tout contact avec les *Mastomys* et de les éliminer dans l'environnement.

Mots-clés: Fièvre, Lassa, épidémie, importée, Conakry, Guinée

Abstract ID : OP393

Investigation d'une flambée de conjonctivite à l'école de Garsale-Daba, Région de Dikhil/ Djibouti, janvier 2022

Abdi Houssein Egueh^{2,4,8}, Seogo Pedwindé Hamadou^{4,5}, Ilunga Kelebwe Prosper^{4,5}, Sahra Moussa Bouh^{1,4}, Samatar Kayad Guelleh^{1,4}, Ahmed Robleh Abdilleh¹, Tatak Anbessie Bogale⁶, Herbert Kazoora Brian⁷, Houssein Youssouf Darar^{1,3,4}

¹Ministère de la Santé de Djibouti, Djibouti,

²Centre Médical Hospitalier de Dikhil, Djibouti

³Institut National de Santé Publique de Djibouti, Djibouti

⁴Djibouti Program Field Epidemiology Training-Frontline, Djibouti

⁵African Field Epidemiology Network of Djibouti, Djibouti

⁶African Field Epidemiology Network, Addis Abeba, Ethiopie

⁷African Field Epidemiology Network, Kampala, Ouganda

***Auteur correspondant:** Abdi Houssein Egueh, Centre Médical Hospitalier de Dikhil, Djibouti, Tel : + 25377839810, E-mail : abdihoussein13@hotmail.fr

Introduction: Le 16 Janvier 2022, le Directeur de l'école de Garsale-Daba dans la région de Dikhil a alerté le Centre Médico-Hospitalier de Dikhil la présence de 20 cas de conjonctivite chez les élèves. Une investigation a été menée pour confirmer la flambée, caractériser le phénomène de santé et proposer les actions de réponses appropriées.

Méthodes: Une étude descriptive a été menée du 1er au 20 Janvier 2022 à l'école de Garsale-Daba. Un cas suspect de conjonctivite était défini comme toute personne de l'école de Garsale-Daba présentant de la rougeur des yeux, associée à des démangeaisons ou picotements ou écoulement clair ou purulent pendant la période d'étude. Un cas confirmé était un cas suspect confirmé cliniquement par un ophtalmologue. Une recherche active de cas a été menée dans la communauté. Les données ont été collectées par entretien (enseignants et/ou parents) avec un questionnaire. Les données ont été analysées avec Excel. Les fréquences, proportions, médiane, taux et ratio ont été calculés.

Résultats: Au total 257 cas suspects étaient enregistrés dont 88 confirmés. L'écoulement purulent et le larmolement étaient les signes cliniques associés chez 68(77%) cas. L'âge médian de cas était de 7 ans (5-12ans). Cinquante-cinq (63%) cas étaient de sexe féminin. Le cas index était un élève de la 2ème année, âgé de 8 ans. Le taux d'attaque était de 31 cas pour 100 élèves. La classe de la 2ème année était la plus affectée (30 cas). Plus de 80% de cas avaient reçu un traitement traditionnel. Tous les cas étaient pris en charge par l'équipe d'investigation.

Conclusions: L'investigation avait confirmé la flambée de la conjonctivite. La majorité de cas avaient une conjonctivite surinfectée causée peut être par les pratiques traditionnelles.

La sensibilisation de la population est nécessaire pour renforcer leurs connaissances en santé des élèves et changer leurs mauvaises pratiques.

Mots-clés: Investigation, Flambée de conjonctivite, Etablissement scolaire, Garsale- Daba, Région de Dikhil, Djibouti, janvier 2022.

Abstract ID : OP398

Profil épidémiologique de la rougeole dans le département de la Donga, Bénin, 2017 à 2021.

Sanni Salifou-Issaka^{1,&}, Modeste Houémenou², Nestor Noudèkè³, Mathilde Adjoavi Houssou³

¹Direction Départementale de la Santé, Djougou, Bénin

²Zone Sanitaire Nikki, Nikki, Bénin.

³AFENET-Bénin, Cotonou, Bénin.

&Auteur correspondant: Sanni Salifou-Issaka, Direction Départementale de la Santé, Djougou, Bénin ; salifou.sanni@gmail.com

Introduction: La rougeole, maladie grave contagieuse et évitable par la vaccination, sévit dans tous les pays du monde. Depuis 2020 avec le contexte de COVID-19, les cas de rougeole n'ont cessé d'augmenter dans les pays africains du fait du retard de la vaccination des enfants. Au Bénin en 2018 le département a connu des foyers épidémiques, malgré la couverture vaccinale de la rougeole qui était à 93,9%. Cette étude vise à déterminer le profil épidémiologique des cas de rougeole enregistrés dans le département de la Donga de 2017 à 2021.

Méthode: Il s'est agi d'une étude transversale descriptive qui a porté sur l'exhaustivité des cas suspects de rougeole notifiés dans la base de Surveillance Intégrée des Maladies et Riposte (SIMR) du département de la Donga de 2017 à 2021. Les données ont été extraites de la base, apurées et analysées avec EPI-Info 7.2. Les fréquences relative et absolue ont été calculées. La cartographie a été faite avec QGIS.

Résultats: Au total, 134 cas suspects de rougeole ont été notifiés dont 59 confirmés sur 107 prélèvements. L'incidence globale était de 18 pour 1000000 habitants. Le sexe ratio (H/F) à 1,1. Les enfants de 0 à 4 ans étaient les plus atteints 78,3% [70,4-85,0].

Durant la période d'étude, toutes les communes ont notifié au moins un cas. L'incidence globale était 6 fois plus élevée chez les sujets non vaccinés, et plus élevée dans Djougou (25 pour 1000000 habitants). L'incidence annuelle la plus élevée a été observée en 2018 à Copargo (98 pour 1000000 habitants).

Conclusions: La rougeole sévit toujours dans le département de la Donga et se retrouve plus chez les enfants de moins de 5 ans non vaccinés. Un renforcement des stratégies de vaccination permettrait de réduire l'incidence de la maladie.

Mots-clés: Rougeole, Vaccination, Incidence, Bénin.

Abstract ID: OP401

HIV yield from assisted partner notification (APN) in Uganda: 2020-2022

Peter Chris Kawungezi^{1,&}, Marie Gorreti Zalwango¹, Rebecca Akunzirwe¹, Robert Zavuga¹, Thomas Kiggundu¹, Brian Agaba¹, Lawrence Oonyu¹, Richard Migisha¹, Benon Kwesiga¹, Daniel Kadobera¹, Lilian Bulage¹, Peter Mudiopo², Alex Riolexus Ario¹, and Julie Harris³

¹Uganda Public Health Fellowship Program, Uganda National Institute of Public Health, Kampala, Uganda

²Uganda AIDS Control Program, Ministry of Health, Kampala, Uganda

³Division of Global Health Protection, US Centers for Disease Control and Prevention, Kampala, Uganda

&Corresponding author: Peter Chris Kawungezi, |Uganda Public Health Fellowship Program, Uganda National Institute of Public Health, Kampala, Uganda, Email: peter@uniph.go.ug

Introduction: HIV testing services (HTS) are crucial to achieving the 2025 UNAIDS global 95-95-95 targets. In Uganda in 2020, only 81% of persons living with HIV (PLHIV) knew their status, falling short of the first 95%. Routine HIV testing yielded only 2.6% positive during 2022. Assisted partner notification (APN), a targeted HIV testing Methods introduced in 2017, aims to identify PLHIV with unknown status using minimal resources by interviewing known HIV-infected persons about sexual partners and confidentially offering those partners HTS.

We examined trends and distribution of HIV testing yield among partners aged ≥ 15 years in Uganda during 2020-2022.

Methods: We analyzed facility-based HTS data in the District Health Information System 2. We downloaded 6-month data for APN partners elicited, notified, tested for HIV, and linked to HIV care during January 2020-December 2022.

The HIV-positive yield was calculated as the proportion of all partners tested (denominator) that tested HIV-positive (numerator). Logistic regression was used to analyze trends in HIV yield across all 15 health regions in Uganda.

Results: Among 461,274 partners identified, 411,294 (89%) were notified; 331,622 (81%) of these were tested for HIV, and 71,518 (22%) tested positive. The overall yield was higher among female (23%) than male partners (20%) ($p < 0.001$). Six-monthly HIV testing yield in Bunyoro, South Central, and West Nile regions increased over the study period; Bunyoro increased the most (OR=1.10, 95% CI 1.07-1.11). The remaining 12 regions had decreasing yield; Teso Region decreased the most (OR=0.82, 95% CI 0.80-0.85).

Conclusions: APN improved the efficiency of finding PLHIV in Uganda from fewer than 1 in 30 to more than 1 in 5 persons tested. For unknown reasons, APN yield declined from 2020-2022 in many regions. Intensifying APN across the country, especially in regions with declining testing yield, could facilitate the identification of undiagnosed PLHIV and HIV elimination.

Keywords: Uganda, assisted partner notification, HIV

Disclaimer: The findings and Conclusions in this report are those of the authors and do not necessarily represent the official position of the U.S. Centers for Disease Control and Prevention.

Abstract ID : OP402

Impact de la pandémie de COVID-19 sur la vaccination contre la rougeole dans le district de la Kozah du Togo de 2019 à 2022

Idrissa Douiti^{1,*}; Rebecca Kinde²; Sabi Worou³; Abdel Kadère Alfa¹; Yendouban Douiti⁴

¹Direction Préfectorale de la Santé de Kozah, Kara Togo.

²AFENET, Lomé, Togo.

³Direction Régionale de la Santé de Kara, Kara, Togo.

⁴Centre de Formation et de Recherche en Santé Publique, Lomé Togo

***Auteur correspondant:** Idrissa Douiti, Direction Préfectorale de la Santé de Kozah, Kara Togo, Email : idrisdouti@gmail.com

Introduction: Le district sanitaire (DS) de la Kozah a connu une épidémie de rougeole en 2022 malgré les mesures de prévention mises en place notamment la vaccination. Cette étude est menée pour évaluer les couvertures vaccinales anti-rougeoleuses et les cas de rougeoles enregistrés avant et après l'apparition en mars 2020, de la pandémie de COVID-19 au Togo.

Méthodes: Il s'agit d'une étude descriptive portant sur les données de vaccination contre la Rubéole-Rougeole (RR) et des cas de rougeole dans le DS de la Kozah de 2019 à 2022. Les données extraites de la plateforme Dhis2 et de la base de surveillance de la rougeole ont été exportées dans Excel et traitées. Les proportions calculées ont été comparées sur la période de l'étude.

Résultats: De 2019-2022, les couvertures vaccinales (CV) en RRI et RR2 sont passées respectivement de 102,4% à 81,7% et de 111,2% à 61,3%. Le nombre de formations sanitaires ayant des CV $< 80\%$ est passé de 13 à 22 pour RRI et 10 à 29 pour RR2. Le taux d'abandon en Penta1/RR2 est passé de -5,8% à 32,5%. La proportion des stratégies avancées/mobiles dans les CV a diminué passant de 10% à 5,4% pour RRI et 32,4% à 7,1% pour RR2. Par contre les cas suspects de rougeole ont augmenté passant de 16 à 83 de 2019 à 2022 avec une épidémie qui a commencé à la semaine 8 de 2022. En 2022, 96,3% des confirmés avaient moins de 9 ans et parmi eux 78% avaient 0 dose et 18% 1 dose

Conclusions: Cette étude a montré une baisse des couvertures vaccinales anti-rougeoleuses durant la période active de la pandémie de COVID-19. Ceci aurait favorisé la survenue d'une épidémie de rougeole en 2022 dans la Kozah. Nous recommandons le renforcement des activités de vaccination.

Mots clés: Couvertures vaccinales, vaccin antirougeoleux, épidémie de rougeole, Kozah, Togo

Abstract ID : OP404

Profil épidémiologique des hépatites virales B et C chez les primo-donneurs de sang au Centre National de Transfusion Sanguine de Lomé de 2020-2022.

Kokou Ayamekpe^{&1}, Koboyo Liza Nadjir², Koffi Akolly³, Yendouban Douti¹, Rebecca Méyè Kindé⁴, Amegnikpa Ablam Améyissa², Winiga Logtabe Koudéma⁵, Papissi Possowa Gnansa⁶, Péléké Mawaba Hilim⁷, Wama P'lakim Ouyengah², Lochina Fétéké², Koumavi Didier Ekouevi¹
¹Centre de formation et de recherche en santé publique de Lomé, Togo, ²Centre national de transfusion sanguine de Lomé, Togo, ³Institut National d'Hygiène Lomé, Togo, ⁴AFENET Bureau Pays Lomé, Togo, ⁵Bureau Togo OMS Consultant IVD/Polio (Lomé, Togo), ⁶Centre des opérations et des urgences de santé publique Lomé, Togo, ⁷COVID Coordination, USAID Global Health Supply Chain, Lomé Togo

&Auteur correspondant: Kokou Ayamekpe, Centre de formation et de recherche en santé publique de Lomé, Togo Email : akojacq@yahoo.fr, Tel : 00228 92 59 57 40

Introduction: Les hépatites B(VHB) et C(VHC) sont des maladies infectieuses virales spécifiques du foie pouvant évoluer vers la chronicité. Au Togo en 2011 une étude a montré que la prévalence était de 16,3% pour l'hépatite B et 5,6% pour l'hépatite C. Elles font parties des infections transmissibles par transfusion et sont automatiquement recherchées chez tout donneur de sang au Centre National de Transfusion Sanguine (CNTS) de Lomé. L'objectif de l'étude est de décrire le profil épidémiologique des hépatites B et C chez les primo-donneurs de sang.

Méthode: Il s'est agi d'une étude transversale descriptive portant sur les primo-donneurs de sang au CNTS de Lomé de 2020 à 2022. Nous avons procédé à une extraction exhaustive de données secondaires de la base de données du CNTS. Les données extraites ont été analysées par Epi info 7. Nous avons calculé les proportions avec IC à 95%, la moyenne et son écart type. Les variables étudiées étaient l'âge, le sexe, la profession et le statut matrimonial.

Résultats: De 2020 à 2022, 579 cas ont été confirmés d'hépatites virales chez 20278 primo-donneurs soit une prévalence globale de 2,8 % IC95% (2,6-3,0). La proportion de VHC était de 63% IC95% (59,4-67,2). L'âge moyen des primo-donneurs infectés était de 30,4±7 pour le VHB et 28,4±6 pour le VHC. La tranche d'âge de [20-30ans] était plus représentée (52,8% IC95% (45,8-59,7) pour VHB et 57,4% IC95% (52,3-62,4) pour VHC). Parmi les infectés, 56,6% IC95%(52,5-60) étaient des élèves/étudiants. Les célibataires prédominaient (79 % IC95% (73,5-84,4) pour VHB et 75,4% IC95% (70,9-79,8) pour VHC).

Conclusions: Notre étude montre une prédominance du VHC chez des élèves et jeunes étudiants primo-donneurs au CNTS de Lomé. Une éducation intensive, un dépistage de masse, une vaccination des personnes séronégatives et une prise en charge thérapeutique adéquate des cas sont recommandés.

Mots-clés: Epidémiologie, hépatite B, Hépatite C, Primo-donneurs de sang, Lomé (Togo)

Abstract ID: OP412

Cholera Outbreak following a Wedding Party in Kiambu, Central Kenya

Sarafina Sikwata^{1,2 &}, Mark Matheka², Ahmed Abade², Oscar Gaunya², Helen Masila², Geoffrey Githinji², Steve Okumu², Gerald Gakuo², James Marcomic², Dominic Ongaki², Kenneth Nyoni³, Evelyn Kanyina³, Mourice Owiny², Emmanuel Okunga³, Fredrick Odhiambo²
¹National AIDS & STI Control Program (NASCO), Nairobi, Kenya. ²Field Epidemiology and Laboratory Training Program (FELTP), Nairobi, Kenya ³Division of Disease Surveillance and Response (DDSR), Nairobi Kenya

&Corresponding author: email address: sikwatapharmd@yahoo.com

Introduction: On October 9, 2022, the Division of Disease surveillance and Response (DDSR) was notified of suspected cholera outbreak presenting as acute watery diarrhea among people who attended a wedding ceremony in Kiambu, Kenya. We investigated to characterize the outbreak and implement control measures.

Methods: We conducted a retrospective cohort study. We defined probable case as any person who attended the wedding and had profuse watery diarrhea of acute onset with more than 3 episodes in 24 hours, and confirmed case as any attendee with positive RDT for Cholera or isolation of *Vibrio cholerae*. We conducted physical and phone call interviews with wedding attendees and their contacts. We collected socio-demographic, clinical information and calculated descriptive and analytic statistics. We conducted environmental assessment using a checklist and collected water and stool samples for laboratory investigation.

Results: We interviewed 104 wedding attendees of whom 68% (71) met our case definition; The mean age for cases was 52±14 years with 54% (38/71) being male and 80% came from Kiambu and Nairobi Counties. Hospitalization rate among cases was 27% (19/71), with 73% (14/19) being males and aged above 50 years. At the time of interview, only 11% (2/19) of the hospitalized were still admitted. The attack rate among those who ate grilled chicken breast was 66% (57/86). The risk of getting cholera was two times more among those aged 50–89 years than those below 50 years (Risk Ratio: 2.6, 95% CI: 1.1–6.3). Water samples had coliforms. *Vibrio cholerae* O1 Ogawa strain was isolated from nine stool samples.

Conclusions: Contaminated water could have been used during the wedding. Those who ate grilled chicken breast and those aged above 50 years were most affected. We recommended scale up of active case search in the community, and distributed water chlorination chemicals to the affected communities.

Keywords: Cholera, outbreak, Contamination, *Vibrio Cholera*, Kenya.

Abstract ID: OP415

Characteristics and outcomes of COVID-19 patients hospitalized at a central hospital in Harare, 2020-2022

Linda Nyasha Kanzara¹, Hamufari Dumisani Mugaauri², Isaac Phiri², Addmore Chadambuka^{1, &}, Tsitsi Patience Juru¹, Gerald Shambira¹, Notion Tafara Gombe³, Mufuta Tshimanga¹

¹Department of Primary Health Care Sciences, University of Zimbabwe, Harare, Zimbabwe, ²Ministry of Health and Child Care, Harare, Zimbabwe,

³African Field Epidemiology Network, Harare, Zimbabwe.

&Corresponding author: Addmore Chadambuka, Department of Primary Health Care Sciences, University of Zimbabwe, Harare, Zimbabwe, Mobile: +263 773 272 110 Email: achadambuka@afenet.com

Introduction: In June 2021, Zimbabwe experienced a third COVID-19 wave characterized by a 3.55% case fatality rate compared to 1.55% in the first wave and 2.6% in the second wave. Sixty-eight percent of these deaths were among hospitalized patients. We investigated the characteristics and outcomes of hospitalized COVID-19 patients at a central hospital in Harare from 2020 to 2022. The findings are critical in informing strategies to reduce morbidity and mortality.

Methods: We conducted a cross-sectional study using secondary data from 384 randomly sampled COVID-19 patient admission records. Participants were any COVID-19 patients hospitalized at the central hospital in Harare from March 2020 to September 2022. Demographic and clinical characteristics, vaccination status, and treatment outcome were collected using an adapted abstraction tool. Descriptive statistics, odds ratios, and % confidence intervals were generated using Epi Info.

Results: Of the 384 hospitalized patients, females contributed 234 (60.9%). Eighty-four of 384 (21.9%) patients were between 61-70 years. Common signs and symptoms recorded were shortness of breath 286 (74.5%), cough 135 (35.2%), and fatigue 67 (17.5%). The top two comorbidities were hypertension 125 (35.3%)

and diabetes mellitus 52 (13.5%). In-hospital mortality was 25.78% (99). The odds of being discharged in patients less than 30 years were 14.67 times greater than the odds of being discharged in those above 80 years [OR =14.67 (95% CI 3.57 – 60.31)]. When oxygen saturation was below 88% on oxygen, being discharged was less likely [OR =0.02 (CI 0.0002 – 0.02)]. Compared to diabetic patients, asthmatic patients had 99% less odds of being discharged [OR = 0.07 (95% CI 0.01 – 0.63)].

Conclusions: Most hospitalizations were among females and those aged 61 – 70 years. Increasing age, lower oxygen saturation, and asthma were associated with high mortality. We facilitated the intensification of case-based surveillance and review of case management protocols.

Keywords: SARS-CoV2, COVID-19, Hospitalization, Characteristics, Outcomes

Abstract ID : OP424 **Investigation de l'Epidemie de Rougeole dans le District Sanitaire du Golfe, Togo, février 2022**

Kokouvi Gamadé Dégué^{1,2}, Vovolité Koffi Agbétiafa²

¹Field Epidemiology Training Program, Lomé, Togo

²Direction Préfectorale de la Santé du Golfe, Lomé, Togo

&Auteur correspondant: Kokouvi Gamadé Dégué, 2Direction Préfectorale de la Santé du Golfe, Lomé, Togo, Email :jeandegue@gmail.com

Introduction: En 2021, aucun des 16 cas suspects de rougeole prélevés dans le district du Golfe n'était positif. Mais en début février 2022, 09 cas notifiés dans le district ont été confirmés par le laboratoire National. Nous avons mené une investigation pour connaître l'ampleur de l'épidémie et proposer des mesures de contrôle et de prévention.

Méthode: Il s'est agi d'une étude descriptive. Un cas suspect de rougeole était toute personne présentant une fièvre, une éruption maculo-papulaire et une toux, un rhume ou une conjonctivite entre le 15 décembre 2021 et le 21 février 2022 dans la préfecture du Golfe.

Nous avons collecté les données au cours d'une recherche active en communauté et dans les formations sanitaires à l'aide des formulaires d'investigation. Les données ont été traitées puis analysées dans Epi Info7. Nous avons calculé les proportions avec leur IC95% et la médiane d'âge avec son IIQ.

Résultats: Au total, 32 cas suspects étaient retrouvés dont 15 confirmés en laboratoire et 11 par lien épidémiologique sans décès. L'âge médian était de 3 ans, IIQ [2-4]. Le taux d'attaque cumulé était de 2/100000 habitants. Le sex-ratio H/F était de 1,6. Les enfants de 1-5ans représentaient 76,9% IC95% (56,3 -91). Le cas index était une fillette de 3 ans consultée le 04 janvier 2022. L'épidémie a débuté à SI 2022 et s'était poursuivie. La fièvre et l'éruption cutanée étaient présentes chez tous les cas. Les non vaccinés représentaient 84,6%, IC95% (65,1-95,6) dont 73% âgées de 1-5ans et avaient un périmètre brachial >12cm. Dans les ménages, 5 personnes en moyenne habitaient une pièce.

Conclusions: La non vaccination surtout des enfants âgés de 1-5ans et la promiscuité auraient favorisé la flambée des cas de rougeole dans le district sanitaire du Golfe avec un risque de propagation élevé d'où la nécessité d'une riposte vaccinale.

Mots-clés: Epidémie, Rougeole, Golfe, Togo, 2022

Abstract ID: OP429 **Comparative analysis of measles in border and non-border districts of Sierra Leone, 2018-2021: Retrospective secondary data analysis**

Mohamed Salieu Bah^{1,2}, Umaru Sesay^{1,2,3}, Adel Hussein Elduma^{2,3&}, Gebrekrstos Negash Gebru^{2,3}

¹Ministry of Health and Sanitation, Freetown, Sierra Leone

²Sierra Leone Field Epidemiology Training Program, Sierra Leone

³Africa Field Epidemiology Network, Freetown, Sierra Leone

&Corresponding author: Adel Hussein Elduma; Sierra Leone Field Epidemiology Training Program, Freetown, Sierra Leone; ahussein@afenet.net

Introduction: In recent years, Sierra Leone had recorded multiple outbreaks of measles, and the last three outbreaks (2018, 2021, 2022) were reported from point-of-entry communities. Despite the continued occurrence of measles, there is limited information on measles in border districts. This study aimed to describe the epidemiological trend, vaccination status, and incidence of measles in border and non-border districts of Sierra Leone.

Methods: We conducted a descriptive study on measles case-based surveillance data (from 2018 to 2021), extracted from the national line list and district health information system database. We used the measles standard case definition to classify cases across border districts (8) and non-border districts (8).

Results: Nationally, a total of 3,054 suspected cases of measles were recorded, of which: 216 (7%) were IgM positive; 1,907 (62%) were negative; and 931 (31%) were probable cases. Among the positive cases, border districts accounted for 73% (158/216) whilst non-border districts were 27% (58/216). Among the cases recorded in border districts, 59% (93) were males; the median age was 9 years (range: 0.5-37 years). Regarding vaccination status, 38% (60/158) of children in the border district were vaccinated; and in the non-border district, 62% (37/58) were vaccinated. The average incidence for the border districts was 86/100,000 populations and for the non-border districts, it was 20/100,000 populations. The measles incidence in border districts decreased from 150 in 2018 to 56 per 100,000 population in 2021; whilst in the non-border districts, it increased from 13 in 2018 to 19 per 100,000 population in 2021.

Conclusions: A

Conclusions: A high incidence of measles cases was recorded in border districts and the vaccination status among susceptible was poor, indicating that the majority of persons were at higher risk of contracting measles. We suggest supplemental immunization campaigns be implemented targeting border districts, and intensified routine immunization across Sierra Leone.

Keywords: Measles, Disease outbreaks, vaccination, Incidence, Sierra Leone

Abstract ID : OP43 I

Facteurs associés à la flambée de Coqueluche dans le district de Kokolou, sous-préfecture de Linsan Saran, Préfecture de Lélouma, janvier 2023 : Etude de cohorte rétrospective.

Bakary Oularé¹, Alpha Mamoudou Diallo¹, Boubacar Djenabou Diallo¹, Nouonan Gbamou², Thierno Bassirou Baldé³, Mohamed Fanton Kourouma³, Mamadou Nansira Doumbouya¹, Ibrahima Sory Bah¹, Mohamed Soumah¹, Jolie Kasongo Kayembe³, Fodé Amara Traoré², Mamadou Pathé Bah¹, Kassié Fangamou¹

¹Ministère de la santé et de l'hygiène publique, Lélouma, Guinée,

²Ministère de la santé et de l'hygiène publique, Conakry, Guinée,

³Le réseau africain d'épidémiologie de terrain (AFENET), Conakry, Guinée

&Auteur correspondant: Kasongo Kayembe Jolie, Le réseau africain d'épidémiologie de terrain (AFENET), Conakry, Guinée, Email : jkayembe@afenet.net

Introduction: Le 31 Décembre 2022, un agent de santé du centre de santé amélioré de Linsan Saran a alerté la direction préfectorale de la santé de l'existence des enfants présentant une toux quinteuse suspectant la coqueluche. Une investigation était menée pour confirmer la flambée de coqueluche, déterminer l'ampleur, identifier les facteurs de risque et rompre la chaîne de transmission.

Méthodes: une étude de cohorte rétrospective chez les 0-17 ans groupés en exposé, non exposé aux facteurs et en malade ou non malade étaient menée. Les variables sociodémographiques, cliniques, facteurs de risques (vaccination, contact avec un cas, notion de voyage, promiscuité) étaient collectées.

Les échantillons nasopharyngés étaient testés à la PCR en France. Médiane, étendue, proportions, taux d'attaque, RR, IC à 95% ont été calculées avec Epi info7.2.4, open épi. Un monitoring rapide de couverture en Penta 3 était réalisé.

Résultats: Dmonitorage rapide de couverture en Penta 3 était réalisé.

Résultats : Des 83 cas enregistrés, 10 confirmés au Bordetella pertus et 73(88%) confirmés par lien épidémiologique. L'âge médian : 5(0,33-17) ans, les enfants de 1-9 ans : 58 (70%), les garçons 46(55,4%), 69(83,1%) non vaccinés, 80(96,4%) étaient en contact avec un cas, 60(72,29%) vivaient dans la promiscuité. Le taux d'attaque de Ley Sèrè : 46 pour 100 enfants. Couverture vaccinale par monitoring rapide : 28%. Les non vaccinés, les ayant un contact avec un cas, les vivants dans la promiscuité avaient 6.4 [IC95% : 3.9 - 10.7], 5.8 [IC 95% : 1.9 - 17.3], 1.8 [IC 95% : 1,2 - 2.6] plus de risque de contracter la coqueluche que les vaccinés, les non en contact avec un cas, ceux ne vivant pas dans la promiscuité respectivement.

Conclusions: La flambée était confirmée, les facteurs de risque étaient la non vaccination, le contact avec un cas et la promiscuité. Une riposte était organisée. Le respect des stratégies avancées et le rattrapage des enfants était recommandé.

Mots clés: Coqueluche, facteurs, associés, Linsan Saran, Guinée, 2023

Abstract ID: OP439

Factors affecting the uptake of routine second dose measles containing vaccine among young children, Oromia Regional State, Ethiopia, 2021

Abyot Bekele Woyessa^{1,2,&}, Monica Shah³, Binyam Moges⁴, Jeff Pan⁵, Leuel Lisanwor⁴, Getnet Yimer⁴, Shu-Hua Wang⁵, Pekka Nuorti², Mii Artama², Almea M. Matanock^{3,6}, Qian An³, Paulos Samuel¹, Bekana Tolera¹, Birhanu Kenate¹, Abebe Bekele¹, Tesfaye Deti¹, Getachew Wako⁷, Amsalu Shiferaw⁷, Yohannes Lakew Tefera⁸, Melkamu Ayalew Kokebie⁸, Tatek Bogale⁹, Habtamu Tekle¹⁰, Aaron Wallace³, Ciara Sugerman³. ¹Oromia Regional Health Bureau, Addis Ababa, Ethiopia, ²Tampere University, Tampere, Finland, ³Global Immunization Division, Centers for Disease Control and Prevention, Atlanta, Georgia, USA, ⁴Global One Health Initiative, Ohio State University, Addis Ababa, Ethiopia, ⁵Ohio State University, Columbus, Ohio, USA, ⁶Global Immunization Division, CDC-Ethiopia, Addis Ababa, Ethiopia, ⁷United Nations International Children's Emergency Fund (UNICEF), Addis Ababa, Ethiopia, ⁸Ministry of Health Addis Ababa,

Ethiopia, ⁹African Field Epidemiology Network, Addis Ababa, Ethiopia ¹⁰Ethiopian Public Health Institute, Addis Ababa, Ethiopia

***Corresponding author:** Abyot Bekele Woyessa, Oromia Regional Health Bureau, Addis Ababa, Ethiopia, Email: abyot.woyessa@tuni.fi, Mobile number: +251954690454, ORCID: 0000-0003-3585-1625

Introduction: Recommended vaccination at nine months of age with measles-containing vaccine (MCV1) has been part of Ethiopia's immunization program since 1980. A second-dose of MCV (MCV2) was introduced in February 2019 for children 15 months old. Oromia Region is the most populous region and contributes close to half of the unvaccinated children in the country. In 2021, we examined MCV1 and MCV2 coverage and factors associated with measles vaccination status.

Methods: A cross-sectional household survey was conducted among caregivers of children aged 12-35 months in selected districts of the Oromia region. Measles vaccination status was sourced from home-based records, when available, or caregiver recall. We analyzed the association between MCV1 and MCV2 vaccination status and household, caregiver, and child factors using bivariate and multivariable logistic regression models with adjusted odds ratios (aOR) and 95% confidence intervals (CIs) reported.

Results: Caregivers of 598 children aged 12-23 months and 574 aged 24-35 months were interviewed. MCV1 coverage was 71%, and MCV2 coverage was 48%. The drop-out rate from the first dose of the pentavalent vaccine to MCV1 was 22%, and from MCV1 to MCV2 was 46%. Caregivers who believed their child had received all recommended vaccines (aOR: 8.3, CI: 4.5–16.3), knew the correct number of vaccination visits (aOR: 3.1, CI: 1.9–5.4), gave birth at a health-facility (aOR: 2.4 CI: 1.3–4.5), and knew the correct doses of MCV (aOR: 1.6, CI: 1.1–2.5) were more likely to vaccinate their child with MCV2. Factors associated with MCV1 vaccination status were similar to identified MCV2 factors.

Conclusions: Two years post-introduction, MCV2 coverage remains low, with high measles dropout rates in the Oromia Region. Caregivers with high awareness of MCV and its schedule were more likely to vaccinate their children. Intensified demand creation and social mobilization are needed to improve MCV2 uptake in the Oromia Region of Ethiopia.

Keywords: Measles, Measles-Containing Vaccine, MCV2, immunization-coverage, barriers, Oromia, Ethiopia.

Abstract ID: OP452

Assessment of Neonatal Sepsis among Preterm Infants in Nyamata hospital, Bugesera District -Rwanda, 2023

Didier Ndabana^{1,&}, Jean Claude Niyoyita², Emmanuel Nshimiyimana²

¹Nyamata Hospital, Nyamata, Rwanda

²African Field Epidemiology Network (AFENET) Kigali, Rwanda

&Corresponding author: Didier Ndabana, Nyamata Hospital, Nyamata, Rwanda, didierndabana@gmail.com,

Introduction: The WHO estimates that Neonatal infections that include sepsis Results in over 550,000 neonatal deaths every year. In preterm infants, sepsis is one of the major causes of neonatal deaths worldwide as well in Rwanda. Neonatal sepsis is subcategorized into early onset (EOS) and late onset (LOS) depending on the time of onset. Following increase in number of neonatal infections at Nyamata Hospital in December 2023, we conducted a study to characterize neonatal sepsis infections in Nyamata Hospital.

Methods: We conducted a hospital based retrospective cross-sectional study where clinical records from December 2022 to February 2023 were reviewed to collect sociodemographic and clinical data. We classified neonatal sepsis among preterm infants into EOS and LOS. LOS was defined as a sepsis onset after 72 hours of life while EOS was defined as sepsis in less than 72 hours. Results were summarized in frequencies and proportions using Microsoft excel.

Results: In total, 104 preterm infants were recorded of whom 59 (57%) were females, the predominant age group based on gestational age was 28-37 weeks 80 (76.9%).

Of preterm infants, 95 (91.3%) developed neonatal sepsis, with 85 (89.5%) having LOS sepsis, followed by

10 (10.5%) that had EOS sepsis. Only 5 (5.8%) among LOS were confirmed with blood culture positive, of which Salmonella typhi 2/5(40%), Enterococci Species 1/5(20%), and Klebsiella pneumonia 2/5(40%) were isolated.

Conclusions: LOS neonatal sepsis was the most prevalent neonatal infections in Nyamata hospital. Despite that, most cases had been clinically diagnosed and lacked laboratory confirmation, Klebsiella Pneumonia was identified as one of LOS causes, which might be the Results of nosocomial infections. These findings led the hospital to change the neonate hospitalization room to a new one and routine environmental monitoring and improved use of blood culture were recommended.

Keywords: Neonatal sepsis, Late-Onset Sepsis, Early onset sepsis, Preterm Infants.

Abstract ID: OP454

Evaluation of food poisoning surveillance system in Kirehe District of Eastern Province in Rwanda, October 2022.

Philbert Rugirangoga^{1,&}, Jean Claude Munyemana¹, Jean Claude Niyoyita², Emmanuel Nshimiyimana²

¹Kirehe District Hospital, Kirehe, Rwanda

²African Field Epidemiology Network (AFENET), Kigali, Rwanda

&Corresponding author: Rugirangoga Philbert, Kirehe District Hospital, Kirehe, Rwanda. micoshema@gmail.com

Introduction: An estimated 600 million people, almost 1 in 10 people worldwide, fall ill annually by consuming contaminated food or drinks Results in food poisoning outbreaks. In Rwanda, food poisoning is reported through the integrated disease surveillance and response (IDSR) system aiming for early detection and response to outbreaks. We conducted an evaluation of food poisoning surveillance system to assess if it achieves its objectives in Kirehe District of Rwanda.

Methods: We conducted a descriptive cross-sectional study using the updated CDC guidelines for evaluating public health surveillance systems. We

used a reference period of 2017 to 2021. We reviewed IDSR data and conducted interviews of key informants in health facilities using questionnaire in mobile Epi Info 7. We defined the rates of attributes to evaluate including representativeness, data quality (accuracy), completeness and timeliness), usefulness, simplicity, stability, and acceptability. We defined acceptable low rate of 80% and analyzed data in Epi info 7 and Excel.

Results: From 2017 to 2021, Kirehe district hospital recorded six episodes of food poisoning outbreaks, affecting 201 people from four (30%) of 12 sectors of Kirehe district. In general, 22 respondents from 10 health facilities participated. The representativeness rate was 91%, accuracy, completeness and timeliness were 68.6%, 82% and 52% respectively. The usefulness rate was 25% with 0% (0/6) causative agent detection rate, 67% (4/6) outbreaks detected on time, 33% (2/6) investigated outbreaks, 0% (0/6) reports with intervention made. Simplicity rate was 86% (18/21), stability rate was 90% (9/10), and overall acceptability rate was 78% with 100% satisfied.

Conclusions: This evaluation revealed that the food poisoning surveillance system in Kirehe District is representative, simple, stable and satisfactory. However, findings submitted to stakeholders indicate that the district should ensure timely reporting and causative agent detection to improve the surveillance system's usefulness.

Keywords: Food Poisoning, Surveillance system, Evaluation, Kirehe District

Abstract ID : OP456

Investigation d'une épidémie de Diphtérie dans le District Sanitaire de Tesker, région de Zinder, Niger, 2022.

Issiakou Aboubakar Gandou^{1,&}, Tassiou Ibrahim¹, Issifou Djibo², Sani Karimou², Alkassoum Ibrahim Salifou^{3,4}.

¹Ministère de la Santé Publique, Direction de la Surveillance et de la Riposte aux Epidémies, Niamey-Niger.

²African Field Epidemiology Network (AFENET), Niamey-Niger

³Université Abdou Moumouni de Niamey, Niger,

⁴Université de Maradi, Maradi, Niger

***Auteur correspondant:** Issiakou Aboubakar Gandou, Ministère de la Santé Publique, de la Population et des Affaires Sociales, Direction de la Surveillance et de la Riposte aux épidémies, Centre d'Opérations d'Urgence de Santé publique, Niamey, Niger. Email : iaboubakargandou@yahoo.fr

Introduction: Le 05 Septembre 2022, le District de Tesker a notifié à la Direction de la Surveillance et Riposte aux Épidémies des cas suspects de diphtérie avec décès. Le 07 Septembre 2022, une équipe multidisciplinaire a mené une investigation afin de confirmer l'existence d'une épidémie, de décrire les caractéristiques sociodémographiques des cas et de mettre en place des mesures de contrôle et prévention de la maladie.

Méthode: Nous avons réalisé une étude descriptive des cas de diphtérie survenus au District de Tesker du 17 Août au 25 septembre 2022. Un cas de diphtérie est défini comme toute personne présentant une dysphagie associée ou non à une pseudomembrane. Nous avons mené une recherche active des cas dans la communauté, des entretiens et une revue documentaire. Les logiciels Epi-Info 7.2 et Excel 2019 ont été utilisés pour l'analyse. Des fréquences et proportions ont été calculées.

Résultats: Au total, 34 cas suspects de diphtérie, 9(26,47%) décès ont été notifiés. Le cas index était de sexe masculin âgé de 13 ans admis le 17 Août au centre de santé de Tesker. La recherche active a permis de recruter 6(17,65%) nouveaux cas au niveau communautaire. Six échantillons ont été collectés. Le sexe féminin était de 23(67,65%). L'âge médian était de 10 ans (1-60 ans). La tranche d'âge 1-14 ans étaient de 26(76,47%). Les principaux signes cliniques étaient entre autres la dysphagie (100%) et fausses membranes (20,59%). Aucun cas n'a été vacciné. Trois (50%) échantillons ont été testés positifs à la PCR. A l'antibiogramme, les macrolides et tétracycline étaient efficaces.

Conclusions: L'investigation a permis de confirmer pour la première fois biologiquement la diphtérie. Cette épidémie révèle la circulation du *Corynebacterium diphtheriae* malgré l'existence d'un vaccin efficace et gratuit. Nous recommandons le renforcement de la vaccination de routine.

Mots-clés: Investigation, Diphtérie, Tesker, Niger

Abstract ID: OP468

Cholera Outbreak in Special Institutions Machakos County, Kenya, 2022

Serah Nchoko^{1&}, Clara Andala¹, Geoffrey Githinji^{1,2}, Nicholas Lagat³, Aricha Stephine^{1,2}, Maryanne Gashari¹.

¹Field Epidemiology and Laboratory Training Program Nairobi Kenya.

²Division of Malaria Ministry of Health Nairobi Kenya.

³Division of Disease Surveillance and Response Nairobi Kenya.

&Corresponding author: Serah Nchoko, Field Epidemiology and Laboratory Training Program Nairobi Kenya. Email serahmoses7@gmail.com

Introduction: Kenya experienced widespread cholera outbreaks in 1997-1999 and 2007-2010. The re-emergence of cholera in Kenya in 2022 indicates that cholera remains a public health threat. Understanding the risk factors is important for preventing future outbreaks. This study aimed to identify risk factors for the cholera outbreak in Machakos School for the deaf and Machakos main prison during the time period Oct 2022-Nov 2022.

Methods: This was a cross-sectional study carried out in Machakos County. Outpatient (OPD) and laboratory registers were reviewed from Oct 2022 through Nov 2022 as well as an active case search conducted. Data were abstracted and a line list was developed. Descriptive and analytical statistics were conducted. Multivariate analysis was conducted to identify independent factors associated with cholera.

Results: A total of 214 suspected cholera cases, were included in the study, the mean age of the participants was 20.2 (± 12 sd), with age group ≤ 20 years contributing 75.5% (161/214), males were 54.2% (116/214). Participants with positive laboratory Results were 10.2% (22/214) of these 91% (20/22) were from the prison department. *Vibrio cholerae* O1, serotype Ogawa, was the predominant isolated strain. Overall case-fatality rate [CFR], 1.4% (3/214). The attack rate in prison was 4.4% (40/900) and in school for the deaf 46.5% (174/374). The odds of being a case was 7 times more likely among those who did not wash their hands before eating. OR=7.5(95%CI 1.27,44.08;P=0.02).

Conclusions: There was a confirmed cholera outbreak affecting both institutions, improved sanitation facilities, hygiene as well as access to clean drinking water is necessary for the prevention of cholera infection. Institution to treat water refilled by tankers before consumption. The ministry of health to intensify vaccination to the vulnerable population in the county.

Keywords: Cholera Sanitation Prisons Serogroup *Vibrio cholerae* O1 Disease Outbreaks

Abstract ID : OP469

Investigation approfondie autour d'un cas confirmé de Fièvre Jaune dans le District Sanitaire de Gazaoua, région de Maradi, Niger, 2023

Issiakou Aboubakar Gandou^{1,&}, Tassiou Ibrahim¹, Issifou Djibo², Sani Karimou², Alkassoum Ibrahim Salifou^{3,4}.

¹Ministère de la Santé Publique, Direction de la Surveillance et de la Riposte aux Epidémies, Niamey-Niger.

²African Field Epidemiology Network (AFENET), Niamey, Niger

³Université Abdou Moumouni de Niamey, Niger,

⁴Université de Maradi, Maradi, Niger

&Auteur correspondant: Issiakou Aboubakar Gandou, Ministère de la Santé Publique, de la Population et des Affaires Sociales, Direction de la Surveillance et de la Riposte aux épidémies, Centre d'Opérations d'Urgence de Santé publique, Niamey, Niger, Email : iaboubakargandou@yahoo.fr

Introduction: L'Institut Pasteur de Dakar a confirmé un cas de Fièvre Jaune provenant du district sanitaire de Gazaoua, région de Maradi le 15 janvier 2023. Nous avons mené une investigation afin de décrire l'histoire du cas, d'identifier l'agent vecteur, d'estimer la couverture vaccinale et de mettre en place des mesures de prévention et de contrôle de la maladie.

Méthode: Nous avons réalisé une étude descriptive du cas de Fièvre Jaune au district de Gazaoua. Un cas suspect est une personne présentant une fièvre élevée, avec un épisode de jaunisse apparaissant dans les 14 jours suivant les premiers symptômes. Nous avons mené une recherche active des cas dans la communauté

suivie d'une enquête sur la couverture vaccinale contre la fièvre jaune et une enquête entomologique dans le village du cas index ainsi qu'une revue documentaire.

Résultats: Le cas index était un garçon âgé de 16 ans sans notion de voyage, non vacciné contre la fièvre jaune provenant du village de Gorobjia. Le début remonterait au 15 novembre 2022 par une forte fièvre suivie d'un ictère le 24 novembre devant lequel il fut emmené en consultation le même jour au Centre de Santé intégré d'Aikawa d'où il a été notifié. L'enquête entomologique a identifié onze (11) Aèdes et la couverture vaccinale était estimée à 71%. La revue documentaire a permis de constater que le district a notifié 3 cas suspects en 2022. La recherche active a permis de notifier et prélever 4 cas suspects.

Conclusions: L'étude de ce cas nous a permis de décrire l'histoire de sa maladie, de mettre en évidence la circulation du vecteur. La population a été sensibilisée sur la prévention vaccinale et les moyens de lutte. Nous recommandons le renforcement de la vaccination de routine.

Mots-clés: Investigation, Fièvre Jaune, Maradi, Niger

Abstract ID: OP470

Perception of Rapid SMS users in Promoting Community Health in Huye District, Rwanda, 2021.

Kizito Habakurama^{1,*}, Daniel Rudasingwa¹, Hosee Niyompano², Jean Claude Niyoyita³, Emmanuel Nshimiyimana³

¹Kabutare District Hospital, Huye, Rwanda

²Rwanda Biomedical Centre, Kigali, Rwanda

³African Field Epidemiology Network (AFENET), Kigali, Rwanda

&Corresponding author: Kizito HABAKURAMA, Kabutare District Hospital, Huye, Email: kizitohab@gmail.com

Introduction: In the framework of reducing under five and maternal mortality, in 2014 Rwanda adopted Rapid SMS as a platform to facilitate communication between Community Health Workers (CHW) and the broader health system. Data on pregnant women, postpartum women and children

health collected and sent via cell phone SMS to a Ministry of Health central server hosting the Rapid SMS application. We conducted this study to assess the perception of CHW on the use of Rapid SMS in promoting health in the community.

Methods: This was a descriptive cross-sectional study whereby rapid SMS users who are Community Health Workers (CHW) were interviewed face-to-face using a pre-designed questionnaire.

The sample size calculated was 64 distributed equally in 16 health facilities within Huye district. Four CHW per health facilities were selected conveniently based on their availability during the visit. Collected information was analyzed using Microsoft excel and presented in proportion.

Results: In total 64 CHW responded. All of them (100%) were trained on the use and importance of rapid SMS in health sector. All (100%) have responded that the use of Rapid SMS has reduced maternal and infant mortality, 56 (87.6%) of respondents said that the platform has improved the support provided to child and pregnant women during the emergency.

All (100%) respondents appreciated the receipt of automated feedbacks and intervention done by health providers. A number of respondents expressed the challenges of lack of electricity to charge telephones 18 (27.6%) and limited skills on the use of the platform 9 (13.8%)

Conclusions: The findings of the study showed that Rapid SMS is contributing to the improved community health through the interventions done by the health providers receiving the SMS. However, there are still challenges that might compromise its utility. A refresher training was recommended to improve the usability of the platform.

Keywords: Perception, Community health workers, Rapid SMS, Community Health

Abstract ID: OP472

High seroprevalence and factors associated with Hepatitis B virus infection: A snapshot from HIV-1 infected pregnant women population in Mtwara region, Tanzania

Vulstan James Shedura^{1,2,*}, Ally Kassim Hussein², Geoffrey Joseph Mchau^{2,3}, Doreen Donald Kamori⁴

¹Department of Clinical Research, Training, and Consultancy, Southern Zone Referral Hospital, Mtwara, Tanzania

²Tanzania Field Epidemiology and Laboratory Training Program, Dar es Salaam, Tanzania

³Tanzania Food and Nutrition Centre, Dar es Salaam, Tanzania

⁴Department of Microbiology and Immunology, Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania

***Corresponding author:** Vulstan James Shedura, Department of Clinical Research, Training, and Consultancy, Southern Zone Referral Hospital, P.O. Box 272, Mtwara, Tanzania. Email: vulstanshedura@gmail.com

Introduction: Hepatitis B virus (HBV) infection is still a global public health problem. As of 2019, there were 296 million people chronically infected with HBV, resulting in nearly 1 million deaths from decompensated cirrhosis or hepatocellular carcinoma. Seroprevalence of HBV among pregnant women in Tanzania ranged between 3.8% and 8.0%. However, data on HBV infection in HIV-infected pregnant women is limited. We determined seroprevalence and factors associated with hepatitis B virus infection among pregnant women living with HIV (LWHIV) attending Prevention of Mother to child transmission (PMTCT) in selected health facilities in Mtwara region, Tanzania.

Methods: A health facility-based quantitative cross-sectional study was conducted among pregnant women LWHIV attending PMTCT in selected health facilities in the Mtwara region. A structured questionnaire was used to collect socio-demographic characteristics, clinical, socio-cultural, and laboratory information (including syphilis, HIV viral load, and CD4 count Results tested within 6 months). Blood

specimens were screened for HBV and confirmed using rapid diagnostic tests and automated ELISA test (Abbot ARCHITECT-PLUS®i2000SR immunoassay analyzer, U.S.A.) respectively. Variables with p-value < 0.05 were considered significantly associated with HBV infection in pregnant women LWHIV.

Results: We enrolled a total of 220 pregnant women LWHIV, with a median age of 32.7 years (IQR: 27.6-37.6). The seroprevalence of HBV infection was 10.5% (Chronic infection (10.0%), and acute infection (0.5%)). Multiparous women [aOR=11.99; 95%CI 1.11-129.01, p=0.040], being infected with syphilis [aOR=27.65; 95%CI 9.07-84.30, p<0.001], and having HIV-1 viral load of 1000 copies/ml and above [aOR=16.00; 95%CI 1.70-150.63, p=0.015] were associated with HBV infection.

Conclusions: Seroprevalence of HBV infection of 10.5% showed high endemicity. We recommend scaling up screening and vaccination programs including: routine HBV screening, and other opportunistic infections including syphilis at PMTCT clinics, instituting HBV prophylaxis, and introducing HBV vaccine birth dose in neonates born from infected mothers to prevent perinatal transmission.

Keywords: Seroprevalence, Hepatitis B virus, HIV-1 infected, pregnant, women, Tanzania.

Abstract ID : OP473

Investigation autour d'un cas confirmé de dengue au district sanitaire de Madaoua, région de Tahoua, Niger, 2023

Hassane Aouadé^{1,*}, Issifou Djibo², Sani Karimou², Issiakou Aboubakar Gandou³, Nafissa Moussa¹, Abdoukader Halilou¹, Sayadi Madja¹

¹District Sanitaire de Madaoua, Niger

²African Field Epidemiology Network (AFENET)

³Ministère de la Santé Publique, Direction de la Surveillance et de la Riposte aux Epidémies, Niamey-Niger.

***Auteur correspondant:** Hassane Aouadé, District sanitaire de Madaoua, Niger : aouadehassane@gmail.com

Introduction: Suite à la confirmation d'un cas de Dengue provenant d'un village de l'aire de santé de Manzou au district sanitaire de Madaoua, une équipe d'investigation multi disciplinaire s'est rendue dans le village afin d'approfondir les investigations. L'objectif était d'enquêter les ménages autour du cas confirmé afin de rechercher et prélever tous les cas supplémentaires.

Méthodes: Il s'est agi d'une étude descriptive. L'investigation s'est déroulée le 18 février 2023. Un cas suspect était défini comme toute personne présentant une maladie fébrile aiguë d'une durée comprise entre 2-7 jours, s'accompagnant d'au moins deux des symptômes suivants : céphalées, douleur rétro-orbitale, myalgie, arthralgie, éruption cutanée, manifestations hémorragiques. Les données ont été collectées par entretien, et recherche active des cas au niveau communautaire puis analysées avec Excel.

Résultats: Au total, 50 ménages autour du foyer du cas confirmé ont été visités, 31 cas suspects identifiés et tous prélevés. Parmi les cas suspects, 25(80,6%) avaient plus de 15 ans. La fièvre (97%), les céphalées (87%) et les arthralgies (52%) étaient les symptômes les plus fréquents. Quant à l'utilisation des moustiquaires, sur les 22 ménages interrogés, 8 (36,6%) en disposent et seulement 2(25%) l'utilisent.

Au niveau du village natal du cas, la recherche active dans les ménages a trouvé une femme qui a tous les symptômes de la maladie et qui a déjà séjourné à l'hôpital de Madaoua et celui de Guidan Roumdji sans succès thérapeutique. Le mari du cas positif à la Dengue est à Niamey avec des déplacements fréquents au Nigeria.

Conclusions: L'investigation autour de ce cas confirmé de dengue a permis d'identifier plusieurs cas suspects dans le village qui ont tous bénéficié d'un prélèvement sanguin afin de rechercher d'autres cas positifs éventuels dans la population. Aussi cette communauté a bénéficié d'une sensibilisation sur la maladie.

Mots clés: Investigation, Dengue, Madaoua, Niger

Abstract ID: OP482

Determinants of multi-drug resistant Tuberculosis treatment outcomes among HIV co-infected patients in Tanzania from 2017-2019

Twilumba Edson Lihweuli^{1,2,&}, Ally Khamis Hussein^{1,2}, Elias Musa Bukundi¹,

¹Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania

²Tanzania Field Epidemiology and Laboratory Training Program, Dar es Salaam, Tanzania

***Corresponding author:** Twilumba Edson Lihweuli, Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania, Email- vinickiter@gmail.com

Introduction: Unfavourable treatment outcomes in Multidrug-resistant Tuberculosis patients with Human immunodeficiency virus co-infected (MDR-TB/HIV) continue to be a global issue of concern. The suggested WHO treatment success rate is 90%, however the current percentage of treatment success is still low (59%), poses a great threat to TB control. This study aimed to identify determinants of treatment outcomes among MDR-TB /HIV co-infected in Tanzania from 2017-2019.

Methods: Aretrospective cohort study was conducted, involving all MDR-TB/HIV co- infected patients enrolled for treatment from January 2017-December 2019 from National TB and Leprosy program (NTLP) database. Kaplan Meier estimator was used to determine survival probabilities and then log-rank was used to compare these probabilities. Extended cox-regression model was used to assess associations between independent variables and treatment outcomes. The findings were considered to be statistically significant at confidence interval of 95% and p-value of <0.05. Ethical clearance was obtained from Muhimbili University of Health and Allied Sciences and Ministry of health at NTLP.

Results: Among 342 MDR-TB/HIV co-infected patients included in the analysis, proportion of unfavourable and favourable treatment outcome was found to be 28.4% and 71.6% respectively. Follow up time was 24 months and yielded a total of 4359

person-months with the median survival time of 30 months. MDR-TB/HIV co-infected patients with malnutrition had poor survival probabilities (log rank test $P < 0.001$). Additionally there was significant association between being malnourished and having unfavourable treatment outcomes among MDR-TB/HIV co-infected patients $aHR = 2.57$ (95% CI, 1.63-4.04). On top of that having drug adverse effect was also significant associated with unfavourable treatment outcomes $aHR = 1.09$ (1.01-1.17).

Conclusions: Unfavourable treatment outcomes for MDR-TB/HIV co-infected are more likely to be negatively affected by malnutrition and drug adverse effects, Tanzania's national TB control programs need to make this two factors potential target for future intervention.

Keywords: Determinants, Multidrug resistant tuberculosis, HIV co-infected, treatment outcomes

Abstract ID : OP484

Investigation autour d'un phénomène anormal à Kpo-kahankro, district Bouaké Sud, Gbêkê, Côte d'Ivoire, décembre 2022-janvier 2023

Jean Louty Diomande^{&,1}, Moussa Soro², Wilnique Pierre³, Joseph Blaise Otshudiandjeka³, Issiaka Tiembre², Vroh Joseph Benie Bi²

¹Ministère de la Santé de l'Hygiène Publique et de la Couverture Maladie Universelle (MSHPCMU), Bouaké, Côte d'Ivoire,

²Institut National d'Hygiène Publique (INHP), Abidjan, Côte d'Ivoire

³African Field Epidemiology Network (AFENET), Abidjan, Côte d'Ivoire

&Auteur correspondant: Jean Louty Diomande, Ministère de la Santé de l'Hygiène Publique et de la Couverture Maladie Universelle (MSHPCMU), Bouaké, Côte d'Ivoire, loutyd@yahoo.fr

Introduction: Le 02 décembre 2022, le district sanitaire de Bouaké Sud a reçu une notification de décès soudain et inexplicable de six enfants de ménages différents. Les personnes décédées présentaient des signes de gastro-entérites et des convulsions. Une

investigation préliminaire a été menée. En attente des résultats un autre épisode s'est déclenché cinq semaines plus tard avec 14 décès en neuf jours, face à la situation, une équipe d'investigation multidisciplinaire s'est rendue sur le terrain pour approfondir l'enquête, identifier la source et proposer des mesures de contrôle.

Méthode: Une étude descriptive transversale a été menée. Un cas suspect défini comme toute personne vivant à Kpo-Kahankro de décembre 2022 à janvier 2023 et présentant un ou trois des symptômes suivants : vomissements, diarrhée, fièvre, convulsion, douleur abdominale, toux. Cas confirmé : Personne chez qui on a isolé le germe.

Un questionnaire semi-structurel a été utilisé pour la collecte des données sociodémographiques et cliniques. Des échantillons de sang, Liquide céphalo-rachidien (LCR), selles et d'eau ont été prélevés et acheminés au laboratoire. Les données collectées saisies et analysées sur Excel et Epi-Info 7.2

Résultats: Au total 78 cas notifiés parmi eux 22 décès, ce qui fait respectivement un taux d'attaque et de létalité de 18,6% (78/419) et 28,2% (22/78). L'âge médian des cas est 15,33 ans (1-83). Les signes et symptômes présentés sont : vomissements (24%), convulsion (24%), Fièvre (21%), diarrhée (18%) douleurs abdominales (13%), et toux (6%). Le résultat de l'échantillon environnemental sur un objet adoratif du village, a objectivé le *Clostridium botulinum*. Et les autres résultats des autres prélèvements sont en cours.

Conclusions: Létalité élevée chez les jeunes de ce phénomène anormal, dont on ignore encore la cause, malgré la présence de *clostridium botulinum* dans un espace environnemental.

Des études supplémentaires devront être réalisées pour trouver la cause. On recommande de renforcer la surveillance et l'alerte précoce de tout phénomène anormal dans la communauté.

Mots Clés: Investigation, phénomène anormal, Décès, Kpo-kahankro, Côte d'Ivoire

Abstract ID : OP486

Référence des cas de paludisme grave et facteurs associés à la létalité chez les enfants de moins de 5 ans dans les hôpitaux publics de l'Alibori au Bénin du 1er avril au 31 octobre 2022

Zoubérou Bio Béri¹*, Virgile Hounkpè², Nestor Dénakpo Noudèkè³, Mathilde Adjoavi Houssou³

¹Direction Départementale de la santé, Kandi ; Bénin;

²Direction Départementale de la Santé; Parakou ; Bénin ;

³AFENET ; Cotonou, Bénin

***Auteur correspondant:** Zoubérou Bio Béri, Direction Départementale de la santé, Kandi ; Bénin, Email : bioberizouberou@yahoo.fr

Introduction: Le paludisme est une maladie transmise par la piqure de moustique. Son incidence au Bénin est de 15% en général. Elle est de 39% chez les 0-11 mois et 34% chez les 1-4 ans. L'incidence du paludisme grave est de 2%.

Le profil des référés et les facteurs associés à la létalité ne sont pas connus. Cette étude vise à évaluer la référence et les facteurs associés à la létalité des cas graves chez les enfants de moins de 5 ans dans les hôpitaux de l'Alibori du 1er avril au 31 octobre 2022.

Méthode: Notre étude est transversale analytique. La sélection est faite par échantillonnage aléatoire avec Open Epi. La taille minimale de l'échantillon calculé avec la formule de Schwartz était de 384.

La source de données était les dossiers médicaux des 0 à 59 mois. Les données ont été collectées avec kobocollect. L'analyse a été faite avec Epi Info7.2. Les fréquences et odds ratios ont été calculés.

Résultats: Des 419 enfants inclus dans l'étude, 22,67% étaient référés. Les enfants de 12-36 mois étaient plus touchés (66,67%). Le sexe masculin (54,65%) était plus touché. La létalité était de 11,46%. Parmi les référés, 62% ont bénéficié d'un traitement de pré référence. Parmi ces derniers 40% et 57% respectivement avaient reçu la première dose d'artésunate et un abord veineux.

Les facteurs associés à la létalité étaient l'incapacité de se nourrir (OR=2,49 ; IC95% : [1,28-4,81]) ; les difficultés respiratoires (OR=6,81; IC95% : [3,54-13,09]) le saignement anormal (OR=6,11; IC95% : [1,32-28,20]), les vomissements incoercibles (OR=1,95; IC95% : [1,28-4,81]).

Conclusions: Plusieurs facteurs particulièrement les difficultés respiratoires, le saignement anormal, sont liés à la létalité du paludisme grave dans l'Alibori. Leur priorisation lors du traitement des cas réduirait cette létalité.

Mots-clés: Paludisme grave, Artésunate, Etude transversale, Bénin.

Abstract ID: OP488

Prevalence of cardiovascular emergencies and associated factors: case of the emergency department of the National Hospital of Niamey- Niger, February to March 2020

Fatoumata Mounkaila Issa^{1,*}, Jean Kabore^{2,3}, Yanogo Pauline^{3,4}

¹Ministry of Health, Niger, Direction of Surveillance and Response to Epidemics, PO box 623, Niamey, Niger

²Epidemiologist, Researcher, IRSS-CNRST National Centre for Scientific and Technology Research Institute for Research in Health

Science (IRSS), PO box 5054 Ouagadougou CNT, Ouagadougou, Burkina Faso

³Université Ouagadougou I Pr. Joseph Ki Zerbo, Ouagadougou, Burkina Faso

⁴Burkina Field Epidemiology and Laboratory Training Program, Ouagadougou, Burkina Faso

***Corresponding author:** Fatoumata Mounkaila Issa, Ministry of Health, Niger, Direction of Surveillance and Response to Epidemics, PO box 623, Niamey, Niger, Email: bafatoum@gmail.com

Introduction: Cardiovascular pathologies are the leading cause of death worldwide, contributing to 17.7 million deaths annually. Many of these conditions come in the form of emergencies.

There is no study on this subject in Niger; our objective was to determine prevalence and factors associated with cardiovascular emergencies in patients admitted to medical emergency room of Niamey National Hospital.

Methods: Ie conducted an analytical cross-sectional study from February 01 to March 25, 2020, including all patients aged 15 years and above, admitted to the medical emergency room of Niamey National Hospital, for a cardiovascular emergency or not, during our study period, until our sample size was obtained.

We used semi-structured questionnaire and conducted an interview with patient, as well as documentary review based on their care sheets. Data were processed with Epi Info 7.2.2.6 software and MS Excel 2019. We performed a logistic regression.

Dependent variable was cardiovascular emergency. Threshold of significance was a p-value <0.05.

Results: Our study involved 422 patients and 27.5% (116) were admitted for cardiovascular emergencies. Of these, 68% (79/116) were over 50 years with a 50.9% (59) were male.

The most common personal medical history was hypertension found in 50.8% (59/116). Of the 15 deaths recorded, 33.3% (5) were due to stroke. The main causes of cardiovascular emergency were stroke (32/116, 32%) hypertensive flare (33/116, 28%) and heart failure (21/116, 18%).

Having a history of hypertension [OR = 6,09 (95% CI :3,31-11,21), p <10-4] and age over 50 [OR =2,34 (95% CI :1,33-4,10), p = 0.002] were independently associated with cardiovascular emergency.

Conclusions: ardiovascular emergencies are a major public health problem in Niger. Adequate management of high blood pressure would reduce the incidence of cardiovascular emergencies.

Keywords: Emergencies, cardiovascular, risk factors, Niger

Abstract ID: OP489

Determinants of viral load non-suppression among HIV-positive children and adolescents attending care and treatment clinics in Tabora region, Tanzania from January 2018 to April 2022

Ruth Daniel Mchomvu^{1,*}, Ally Kassim Hussein² and Mecky Isaac Matee³

¹Tabora College of Health and Allied Sciences, P.O. Box 1119, Tabora, Tanzania

²Tanzania Field Epidemiology and Laboratory Training Program, P.O. Box 9083, Dar es Salaam, Tanzania

³Department of Microbiology and Immunology, Muhimbili University of Health and Allied Sciences, P.O. Box 65001, Dar es Salaam, Tanzania

***Corresponding author:** Ruth Daniel Mchomvu, Tabora College of Health and Allied Sciences, P.O. Box 1119, Tabora, Tanzania, Email: ruthmchomvu@gmail.com

Introduction: In Africa, data on viral suppression among Human immunodeficiency virus (HIV)-positive children and adolescents on antiretroviral (ART) is scarce unlike in the adult population. We determined determinants of HIV Viral Load (VL) non-suppression among HIV-positive children and adolescents who attend Care and Treatment clinics (CTCs) in Tabora region.

Methods: A retrospective cohort study was conducted among HIV-positive children and adolescents (below 20 years old) who attended CTCs in seven hospitals in Tabora region from January 2018 to April 2022. Data were abstracted from CTCs' database and patient records and this included socio-demographic, ART drug regimen, clinical, virological and immunological features, for a maximum of 52 months. Viral non-suppression was defined as plasma VL \geq 1000 copies/ml after six months on ART, during the follow-up period.

Cox proportional hazards regression model and Hazard ratios were used in estimating the determinants of viral non-suppression, considering a 95% CI with P<0.05 statistically significant.

Results: A total of 378 HIV-positive children and adolescents were enrolled. About 124 (32.8%) had virological non-suppression. The overall rate of VL non-suppression was 1.38 (95%CI, 1.15, 1.64) per 100 person-months of observation. After adjusting for other factors, determinants of viral non-suppression were poor ART adherence level at initiation of ART (HR=3.3; 95% CI 2.16, 4.91), low CD4 count at ART initiation (HR=2.2; 95% CI 1.29, 3.87), nevirapine based regimen (HR=2.64; 95% CI 1.32, 5.26), efavirenz-based regime (HR=2.08; 95% CI 1.03, 4.18), lopinavir/ritonavir based regimen (HR=2.21; 95% CI 1.13, 4.32) and being on second-line regimen (HR=6.11; 95% CI 2.50, 14.96).

Conclusions: This study found high HIV viral non-suppression among children and adolescents in Tabora, and was associated with poor ART adherence level, low CD4 count, NVP, EFV and LPV/r based regimen. Intensified comprehensive efforts are required to improve viral suppression rates and attain the 3rd goal of the UNAIDS 95-95-95.

Keywords: Determinants, viral load, non-suppression, HIV, children, adolescents

Abstract ID: OP501

Prevalence and Associated Factors of Immediate Postpartum Family Planning Utilization in Nyabihu District, Rwanda, 2021.

&,¹Emmerance Igihozo Hirwa, ¹Jean Amour Sinayobye,

²Samuel Rwunganira, ¹Judith Ntaganira, ³Joseph Mukamurigo

¹Field epidemiology Program Resident, Kigali, Rwanda

²African Field Epidemiology Network Mentor, Kigali, Rwanda.

³University of Rwanda, Kigali, Rwanda.

&Corresponding author: Igihozo Hirwa Emmerance, Field epidemiology Program Resident, emigh13@gmail.com, +250781141570, Kigali, Rwanda

Introduction: Immediate Postpartum Family Planning (PPFP) is the initiation of Family Planning (FP) Methods within 48 hours after delivery; It focuses on preventing unintended and short interbirth intervals. This is a public health concern, as 20 % of obstetrical

deaths are related to short interbirth intervals; Therefore, this study aimed to assess the prevalence of immediate postpartum family planning use and associated factors among postpartum women in Nyabihu district for better maternal and child health.

Methods: A health facility-based cross-sectional study design was used to identify the factors associated with immediate PPFP in Nyabihu District from January to June 2021. Secondary data on social demographic and obstetric characteristics were extracted from health facility medical records.

The data were entered in Excel and exported in STATA for analysis. Both bivariate and multivariate logistic regression analyses were performed to identify the associated factors. P values < 0.05 with a 95% confidence level were used to declare statistical significance.

Results: Of the 1682 of postpartum women, 38.05% used immediate PPFP. Having an antenatal care visit [adjusted odds ratio (aOR) =7.7 (95%CI, 4.3-13.5), previous use of FP [adjusted odds ratio (aOR) = 3.4(95%CI, 2.3-5.03)], being married (adjusted odds ratio (aOR) = 1.9 (1.07 - 3.5), having a university level of education (aOR) = 13(2.1-81), having 30-39 years aOR = 0.4 (0.2 - 0.7), being in Ubudehe cat 3 aOR =5.4 (2.1 - 12.2) and having more than 5 children aOR = 9.2 (5.1-16) were significantly associated with utilization of Immediate PPFP.

Conclusions: This study showed low prevalence of immediate PPFP in Nyabihu District. Therefore, strengthening FP counseling during antenatal and postnatal care visits, and improving women's educational status are crucial steps to enhance contraceptive use among postpartum women and to develop comprehensive postpartum care programs and related guidelines.

Keywords: Prevalence, Postpartum, Family planning, Utilization.

Abstract ID: OP504

Prevalence and Risk Factors of Hypertension among Adults in Tanga Region in January, 2023: A Cross-Sectional Community Based Survey

Sephord Saul Ntibabara^{1,2,&}, Peter Torokaa^{1,2}, Godbless Henry Mfuru^{1,2}, Evelyne Bartazar Ngoli^{1,2}, Thobias Bollen^{1,2}, Rukia Mohamed Mashauri^{1,2}, David John osima^{1,2}, Fatma Moh'd Juma^{1,2}, Faraja David Ng'ida^{1,2}, Fungo Samson Masalu^{1,2}, George Atmos Massawe^{1,2}, Khadija Shamte^{1,2}, Nemes Josaphat^{1,2}, Jasper Kimambo^{1,2}, Mariam Monah^{1,2}, Mariam Mbwana Ramadhani^{1,2}, Agnes Fridomu Njau^{1,2}, Helman Nyigo^{1,2}, James Allan^{1,2}, Jonhas Masatu^{1,2}, Loveness Urio,² Elias Bukundi¹, Mucho Mizinduko¹, Ally Hussein²

¹Department of Epidemiology and Biostatistics, Muhimbili University of Health and Allied Sciences, P.O.Box 65001, Dar es salaam, Tanzania.

²Tanzania Field Epidemiology and Laboratory Training Programme (TFELTP), Ministry of Health, P.O. Box 743 Dodoma, Tanzania.

&Corresponding author: Sephord Saul Ntibabara. Department of Epidemiology and Biostatistics, Muhimbili University of Health and Allied Sciences, P.O.Box 65001, Dar es salaam Email: sesantiro@gmail.com.

Introduction: Cardiovascular diseases (CVDs) account for 12% of all yearly deaths in Tanzania. Hypertension is a significant risk factor for CVDs, recent surveys indicate prevalence increase from 25% to 30-35%. To develop effective control measures, updated and relevant information is crucial. This study aimed to determine the prevalence and risk factors for hypertension, which are essential for reducing the burden of non-communicable diseases.

Methods: A community-based cross-sectional survey was conducted in Tanga City, Muheza, and Mkinga districts of Tanga region. Demographic information, lifestyle-related factors, history of hypertension, family history, and medication use patterns were collected using the standardized STEPS survey questionnaire. Descriptive analysis was conducted to present frequencies and proportions. A modified Poisson

regression analysis was performed to assess relationship of independent variables with hypertension. Chi-square was performed to assess differences in distribution based on the hypertension status. The p-value <0.05 was considered to be statistically significant.

Results: A total of 1818 participants were recruited in the survey. A hypertension prevalence of 38% (95% CI: 35.5-40.0%) was observed. Urban areas had higher prevalence than rural areas (Adjusted Prevalence Ratio [APR]: 1.06, 95% CI: 1.02-1.11). Two thirds (66.5%) of hypertensive individuals were unaware of their status. Among known patients with hypertension, 80.5% were not taking daily medication. Independent risk factors associated with a higher hypertension prevalence include: Male (APR: 1.06, 95% CI: 1.02 – 1.10), older age (APR: 1.41, 95% CI: 1.31-1.51) and being obese (APR: 1.20, 95% CI: 1.15-1.25). Exercise was associated with a lower prevalence of hypertension (APR: 0.96, 95% CI: 0.93-0.99).

Conclusions: The survey revealed a high prevalence of hypertension, with more than half of the patients being unaware of their status. Regular hypertension screenings should be conducted in all areas, including rural settings. Health education should be given to stress the importance of taking anti-hypertensive medication and seeking proper healthcare. Physical activity was proven to have a protective effect.

Keywords: hypertension, risk factors, obesity, exercise

Abstract ID : OP506

Investigation approfondie des cas de tétanos materno-néonatale dans la zone de santé de Kongolo, de janvier à décembre 2022

Michel Luhembwe^{1&}, Jean-Pierre Kitenge³, Wilma Lwabola⁴, Linda Matadi⁵, Belinda Ayumuna⁵, Marc Yambayamba², Aimée Lulebo²

¹Programme de formation en épidémiologie de terrain, Ecole de santé Publique, Université de Kinshasa, Kinshasa, RDC.

²Département d'épidémiologie et Biostatistique, Ecole de santé Publique, Université de Kinshasa, Kinshasa, RDC.

³Programme Elargie de Vaccination, Division Provinciale

de la Santé du Tanganyika, Kalemie, RDC.

⁴Bureau Information Sanitaire et Communication, Division Provinciale de la Santé du Tanganyika, Kalemie, RDC.

⁵African Field Epidemiology Network (AFENET), Kinshasa, RDC.

***Auteur correspondant:** Michel Luhembwe, Programme de formation en épidémiologie de terrain, Ecole de Santé Publique, Université de Kinshasa, Kinshasa, RDC, +243814070045, luhembwemichel@gmail.com

Introduction: Le tétanos néonatal (TNN) est l'une des principales causes de mortalité néonatale dans le monde surtout dans les pays en développement. La République Démocratique du Congo fait partie de 47 pays ayant éliminé le TNN en 2020. Cependant les cas de TNN sont encore notifiés. Cette étude visait à décrire les cas de TNN notifiés en 2022 dans la zone de santé(ZS) de Kongolo.

Méthodologie: ne étude descriptive portant sur une collecte transversale des données secondaires de TNN en 2022 a été menée dans la ZS de Kongolo. L'échantillon était exhaustif constitué de 8 cas suspects de TNN. Secondairement, l'enquête ménage a été réalisé autour de chaque cas. Un questionnaire a permis de collecter les données sociodémographiques et cliniques. La létalité et les couvertures vaccinales étaient calculées. Les analyses statistiques descriptives ont été réalisées avec SPSSv25.

Résultats: Au total 8 cas de TNN dont 5 décès (létalité :62,5%) ont été enregistrés. Le sexe ratio H/F=7. L'âge médian des cas était de 4jours (Xmin=2 et Xmax=7). Le service de consultation prénatale (CPN) était utilisé par 62,5%(5/8) des femmes; 87,5%(7/8) accouchements se sont déroulés à domicile dans des conditions non hygiéniques et la section du cordon ombilical s'est faite à l'aide du matériel non stérile (lame rasoir). L'enquête ménage a révélé que la couverture vaccinale en Td2+ était de 28,6% et celle des autres antigènes (BCG, DTC1, DTC2 et VAR) était en dessous de 60% auprès des enfants de 0 à 23 mois.

Conclusions: Cette investigation a permis de confirmer l'épidémie de TNN. Nos résultats montrent une faible couverture de femmes en vaccin antitétanique, une faible utilisation de service de CPN, les accouchements à domicile et la section du cordon ombilical par du matériel souillé.

La vaccination et le respect des mesures d'asepsie restent un moyen efficace pour lutter contre le TNN.

Mots-clés: Investigation, Tétanos Néonatal, Kongolo, RDC

Abstract ID: OP517

Investigation des cas de Brucellose dans la région d'Obock, Djibouti, Novembre 2021

Oudoum Kamil Aboubaker^{1,2,&}, Fozia Youssouf Barkadleh^{2,3}, Mohamed Abdi Ali^{2,3,4}, Abdoukader Mohamed Ali^{2,5}, Seogo Pedwindé Hamadou^{2,6}, Ilunga Kelebwe Prosper^{2,6}, Sahra Moussa Bouh^{2,3}, Ahmed Robleh Abdilleh³, Tatak Anbessie Bogale⁷, Herbert Kazoora Brian⁸, Houssein Youssouf Darar^{2,3,4},

¹Centre Médico-Hospitalier d'Obock, Obock, Djibouti

²Program Field Epidemiology Training-Frontline, Djibouti, Djibouti

³Ministère de la Santé de Djibouti, Djibouti, Djibouti

⁴Institut National de Santé Publique de Djibouti, Djibouti, Djibouti

⁵Hôpital Cheiko de Balbala, Djibouti, Djibouti

⁶African Field Epidemiology Network of Djibouti, Djibouti, Djibouti

⁷African Field Epidemiology Network, Addis Ababa, Ethiopie

⁸African Field Epidemiology Network, Kampala, Uganda

***Auteur correspondant:** Oudoum Kamil Aboubaker, Centre Médico-Hospitalier d'Obock, Obock, Djibouti Tel: + 253 77863302, E-mail : awdahiss@gmail.com

Introduction: Le 21 novembre 2021, le Centre Médico-Hospitalier d'Obock (CMHO), notifié cinq (5) cas de brucellose humaine confirmés. Nous avons mené une investigation pour confirmer, caractériser la flambée, rechercher les facteurs favorisants et proposer les actions appropriées.

Méthodes: Nous avons mené une étude descriptive du 1er au 25 novembre 2021. Un cas suspect de Brucellose était défini comme toute personne présentant une fièvre (Temp \geq 38.5°C) ou des arthralgies avec au moins un des signes suivants: sueurs profuses, asthénie, anorexie, perte de poids, céphalées et douleurs généralisées notifié pendant

la période d'étude et comme cas confirmé, tout cas suspect confirmé par le laboratoire. Une recherche active au CMHO, à Wadi et Dalay Af a été réalisée. Nous avons utilisé un questionnaire pour collecter les données dans les registres et la communauté. Un test de Wright était utilisé chez les humains et caprins. Nos données ont été analysées avec Excel. Des médianes, ratios et proportions ont été calculés.

Résultats: Au total 47 cas suspects de brucellose ont été enregistrés dont 21 cas confirmés positifs. L'âge médian des cas confirmés était de 42 ans (10-67 ans). Quatorze (67%) était de sexe masculin (sexe ratio (M/F)=2 :1). La fièvre(19/21(90%)), l'arthralgie(21/21(100%)) et la transpiration (14/21(67%)) étaient les principaux signes cliniques. La majorité des cas (17/21(81%)) provenait de Wadi. Les cas confirmés ont été pris en charge et des actions de sensibilisation communautaires ont été menées. Cinq prélèvements effectués sur les caprins se sont révélés positifs à la brucellose. Dix-neuf (90%) cas avaient bu le lait non pasteurisé des caprins.

Conclusions: L'investigation a confirmé une épidémie de brucellose dans la région de Obock. Des campagnes de sensibilisation de la communauté à l'abattage des animaux infectés, la non-consommation de produits laitiers non pasteurisés et la vaccination des animaux sains permettra de lutter contre la brucellose.

Keywords: Brucellose humaine, Investigation, Région Obock, Djibouti, Novembre 2021

Abstract ID: OP520

Epidemiological characteristics of a nationwide measles outbreak in a complex humanitarian setting, South Sudan, 2022

Abraham Ajok¹, James Sylvester Squire², Gildo Okure^{2&}, Mabior Kudior Kiir¹, Joseph Hickson Lasu¹, George Legge³, John Pasquale Rumunu¹

¹Public Health Emergency Operations Center, Ministry of Health, Juba, South Sudan

²African Field Epidemiology Network (AFENET), Field Epidemiology Training Programme, Juba, South Sudan

³Expanded Program on Immunization, Ministry of Health, South Sudan

***Corresponding author:** Gildo Okure; AFENET; Juba, South Sudan; gokure@afenet.net

Introduction: Measles is a highly contagious viral disease and one of the major causes of childhood morbidity and mortality in humanitarian emergencies. South Sudan is experiencing a protracted humanitarian crisis leaving communities vulnerable to multiple outbreaks due to the disruption of health services. Measles vaccination coverage rate in the country remained low at 69% in 2021. Starting in January 2022, the country experienced an increase in measles cases, with outbreaks declared on 23rd February 2022 in Torit and Maban counties in Eastern Equatoria and Upper Nile States respectively, and on the 10th December 2022 countrywide. We described the epidemiological characteristics of the outbreak.

Methods: We conducted a descriptive analysis of the measles outbreak data from January- December 2022. We computed frequencies, proportions, attack rate (AR) and case-fatality-rate (CFR) and plotted an epi-curve to describe the trends and epidemiological characteristics of the outbreak.

Results: A total of 3,573 suspected measles cases and 38 (1.1%) deaths were reported between January and December 2022. Cases peaked in November and December and covered all the 10 states and 3 administrative areas. Of the reported cases, 2,453 (68%) were epi-linked, 369 (10.3%) laboratory confirmed, 85 (2.4%) clinically compatible, and 519 (14.5%) discarded. Majority of the cases were reported from Central Equatoria 946 (26.5%). The highest attack rate was 57.6 per 100,000 population in Unity state. Children under five years were most affected with a cumulative attack rate of 89.6 cases per 100,000 population. Only 173 (4.8%) of the confirmed, epi-linked, and clinically compatible cases were vaccinated.

Conclusions: The low coverage of measles vaccination among reported cases is the likely cause of the large outbreak of measles in South Sudan. Efforts to improve nationwide vaccination coverage and the measles surveillance system in the context of complex emergencies are needed to prevent future outbreaks.

Keywords: Measles, outbreak investigation, response, epidemiological characteristics, humanitarian emergency, South Sudan

Abstract ID: OP524

Measles case investigation in Lumezi district in Eastern Zambia, January 2023.

Daliso Ngulube¹*, James Exnobert Zulu⁴, Hellen Kaoma⁵, Musenge Lwendela¹, Ignatius Chileshe², Joseph Kasonde², Monica Mbulo², Jonathan Mwanza², Charles Fanaka³, Jordan Banda³, Amos Hamukale⁴

¹Lumezi District Health Office, Lumezi, Zambia

²Lumezi Mission Hospital, Lumezi, Zambia

³Eastern Province Health Office, Chipata, Zambia

⁴Zambia Field Epidemiology Training Program, Lusaka, Zambia

⁵Macha Mission Hospital, Choma, Zambia

***Corresponding author:** Daliso Ngulube, Lumezi District Health Office, Lumezi, Zambia, Email: dariosteckly@gmail.com

Introduction: Measles is an acute disease that can lead to death and is still being experienced in most rural communities globally. On the 9th of January 2023, one case of measles - a female child aged two years - was confirmed with measles at Lumezi Mission Hospital in Eastern Zambia. We conducted a case investigation in order to find more cases, identify potential risk factors and prevent further spread of the infection.

Methods: A case investigation was conducted from the 10th to the 15th of January 2023. To identify additional cases, we reviewed outpatient registers and abstracted patient details. Contacts were screened and blood samples were collected from symptomatic children. A suspected case was defined as any resident of Lumezi presenting with fever and a generalized maculopapular rash, or in a patient whom a health care worker suspected measles. A confirmed case was a suspected case with laboratory confirmation of a positive IgM antibody. Cases were also linked epidemiologically. To identify the risk factors, we collected data on vaccination status and travel history by using measles case investigation form..

Results: Eighteen cases, one confirmed and 17 epidemiologically linked were identified. The median age was four (IQR 2-7), 67% (12/18) were male with the confirmed case coming from Boma village. Three cases were seen first at the hospital in December 2022 and misdiagnosed while the rest were detected in January 2023 through screening in the community

and epidemiologic linkage by rapid response team. Fifteen blood samples were collected and six (33%) presented with rash, 11 (66%) were vaccinated and three (18%) of the cases had history of travel from Boma village to Kajipaike.

Conclusions: The investigation suggested an active infection spreading in the community. We enhanced active surveillance and community sensitization. Targeted measles supplemental immunization activities were implemented.

Keywords: Measles, surveillance, vaccination, Zambia

Abstract ID: OP537

Factors Associated with HIV Pre-exposure prophylaxis Uptake Among Female Sex Workers in Karongi Peri –Urban Area: A Cross-Sectional Study.

Gabriel Twagirimana¹*, Emmanuel Nshimiyimana², Eric Remera³, Rugigana Etienne⁴

¹Kibuye Referral Hospital, Kibuye City/Rwanda

²African Field Epidemiology Network Mentor Kigali / Rwanda

³Rwanda Biomedical Center Mentor Kigali /Rwanda

⁴University of Rwanda Lecturer Kigali /Rwanda

***Corresponding author:** Gabriel Twagirimana Kibuye Referral Hospital, Kibuye city, Rwanda, Email: twagabriel@yahoo.com

Introduction: Pre-exposure prophylaxis is an effective strategy for HIV prevention among high-risk populations recommended in HIV national guideline. However, the program was being implemented and uptake was unknown. This study aimed to determine the factors associated with HIV Pre-exposure Prophylaxis uptake among female sex workers (FSW) in Karongi District, western Province of Rwanda March 2021 – December 2021.

Methods: We conducted a cross sectional analysis of data extracted retrospectively review from patients clinical records, with a sample size of 800 female sex workers enrolled in PrEP service from seven facilities and constituted our dataset. PrEP uptake is defined as

the proportion of potentially eligible people enrolled in HIV pre-exposure prophylaxis service and accepted to be initiated oral pre-exposure prophylaxis. We collected socio-demographic, clinical features and HIV exposure information.

We summarized in form of frequency and percentages for categorical variable then bivariate and multivariate analysis using logistic regression to determine factors associated independently associated with the outcome. We reported adjusted odds ratios (aORs), 95% confidence intervals of 95% and p-values.

Results: Of the 800 enrolled, 33% FSW uptake PrEP and mean age is 27 ±5 SD. Being single in marital status (aOR 4.1, 95% CI 1.8 – 9.1), being a farmer (aOR 3.5, 95% CI 2.1 – 6.1), having health insurance (aOR 10.5, 95% CI 5.5 – 20.1), having multiple sex partners between 3 – 4 (aOR 2.3, 95% CI 1.3 – 4.1), FSW awareness on PrEP (aOR 4.9, 95% CI 2.5 – 9.5), condom user (aOR 5.7, 95% CI 2.8 – 10.8) and being tested for HIV in the last 3 months (aOR 3.2, 95% CI 1.9 – 5.7) were statistically associated with the PrEP uptake in the study population.

Conclusions: The study showed a low proportion of PrEP uptake among the FSW. Strengthening community awareness can improve the PrEP uptake among the FSW, integration of PrEP services in other departments and client centered approach to promote condom use among female sex workers.

Keywords: PrEP, HIV, FSW, Karongi

Abstract ID : OP538

Profil épidémiologique de la fièvre hémorragique de Lassa dans le département du Borgou de janvier 2016 à décembre 2021 au Bénin

François Dadidje^{1, &}, Victor Allanonto², Matilde Houssou³, Nestor Dénoukpo Noudeke⁴, Yao Akpo²

¹Ministère de l'Agriculture, de l'Élevage et de Pêche BP: 708 Parakou, Bénin

²Direction de l'Élevage Cotonou, Bénin,

³AFENET Cotonou, Bénin;

⁴Université d'Agriculture, Kétou Bénin;

***Auteur correspondant:** François DADIDJE, Ministère de l'Agriculture, de l'Élevage et de Pêche BP: 708 Parakou, Bénin, Emails: dadidje@yahoo.fr

Introduction: La fièvre hémorragique virale de Lassa est endémique en Afrique Occidentale. C'est une affection très contagieuse transmise par des rongeurs et dont la mortalité peut atteindre 15%. Depuis 2014, des épidémies sont enregistrées au Bénin avec le premier cas toujours issu du département du Borgou. L'objectif de cette étude est de décrire le profil épidémiologique des cas de Lassa de 2016 à 2021 dans le Borgou.

Méthode: Nous avons mené une étude transversale descriptive. Les données de 2016 à 2021 concernaient la fièvre de Lassa dans le département du Borgou. Ces données ont été extraites de la base nationale de surveillance Intégrée des Maladies et Riposte. Après apurement, lesdites données ont été analysées avec EPI-INFO 7.2. Les fréquences relatives et absolues ont été calculées. La cartographie a été faite avec QGIS.

Résultats: Au total, 60 cas suspects de fièvre à virus Lassa ont été enregistrés dans le département du Borgou sur cette période. Le sexe ratio est de 1. La tranche d'âge la plus touchée était de 15-30 ans avec une proportion de 40% (24/60). Toutes les communes du département ont été touchées sauf Sinendé. La majorité des cas provenaient de la commune de Tchaourou (63,33%) (38/60). Seuls 55% (33/60) ont été testés au laboratoire et parmi eux 66,6% (22/33) étaient confirmés.

Les cas sont retrouvés entre le mois de janvier et avril de chaque année. Le taux de létalité est de 31,66%. L'incidence globale était de 39 pour 1.000.000 et la commune de Tchaourou connaît la plus forte incidence qui est de 145 pour 1.000.000 d'habitants

Conclusions: La fièvre hémorragique de Lassa est saisonnière et sa létalité est très élevée. Les jeunes sont les plus touchés. Le contrôle de cette maladie pourrait passer la sensibilisation de la couche juvénile.

Mots clés: Fièvre Lassa, Incidence, Rongeur, Etude transversale, Bénin.

Abstract ID: OP545

Effect of corona virus disease 2019 pandemic on turnaround time for laboratory testing of measles samples, South Sudan, 2020-2021

Manuela Alphonse¹, David Kabba Kargbo², Gildo Okure^{2&}, Wilbrod Mwanje², Joseph Lasu³, Gordon Abias Abe¹, John Pasquale Rumunu³

¹National Public Health Laboratory, Ministry of Health, Juba, South Sudan

²African Field Epidemiology Network, Field Epidemiology Training Program, Juba, South Sudan

³Public Health Emergency Operations Center, Ministry of Health, Juba, South Sudan

&Corresponding author: Gildo Okure; AFENET; Juba, South Sudan; gokure@afenet.net;

Introduction: In South Sudan, laboratory performance on measles samples testing during corona virus disease 2019 (COVID-19) pandemic is not well understood. We assessed turnaround time (TAT) before (2018-2019) and during (2020-2021) COVID-19 pandemic to evaluate performance on measles samples testing.

Methods: We analyzed data for 1,515 measles samples tested at the national public health laboratory (NPHL) during 2018-2021. We calculated the median and interquartile range (IQR) of TAT intervals. We compared calculated TATs with the recommended integrated disease surveillance and response (IDSR) TAT from sample collection to sample reception at NPHL (surveillance TAT) of 3 days, TAT from sample reception to Results dispatch (laboratory TAT) of 7 days, and TAT from sample collection to Results dispatch (sample TAT) of 10 days.

Results: Twenty-one percent (242/1140) of the samples arrived at the NPHL within 3 days of collection before the COVID-19 pandemic compared 9% (34/375) during COVID-19. Sixty-four percent (733/1140) of the laboratory Results were released within 7 days of sample receipt at the NPHL before COVID-19 compared to 35% (131/375) during COVID-19. Thirty-two percent (368/1140) of Results were released within 10 days of the sample collection before the

COVID-19 pandemic compared 12% (44/375) during COVID-19. Denominators varied due to missing data. The median surveillance TAT before and during COVID-19 were: 7 (IQR, 4-11) and 13 (IQR, 6-21) days, respectively. The median laboratory TAT before and during COVID-19 were: 5 (IQR, 3-8) and 11 (IQR, 3-33) days, respectively. The median sample TAT before and during COVID-19 were: 14 (IQR, 9-19) and 29 (IQR, 17-62) days, respectively.

Conclusions: The turnaround times for measles samples testing were higher during COVID-19 pandemic and not within the recommended IDSR standard probably due to more focus on the COVID-19 testing and response. We recommend detailed investigation of the delays and sub-national testing hubs to minimize delays.

Keywords: Effect, COVID-19, laboratory, turnaround-time, Measles, South Sudan

Abstract ID: OP547

Factors associated with seeking skilled birth attendance services among women aged 15 – 49 years in North-Horr sub-County, Marsabit County, Kenya

Qabale Anna Duba^{1&}, Elvis Omondi Oyugi², Paul Nyongesa³, Joseph Obiero Ogutu¹, Maurice Omondi Owiny¹

¹Kenya Field Epidemiology and Laboratory Training Program, Nairobi, Kenya

²National Malaria Program, Ministry of Health (MOH), Nairobi, Kenya

³Department of Reproductive Health, Moi University, Eldoret, Kenya

&Corresponding author: Qabale Anna Duba, Kenya Field Epidemiology and Laboratory Training Program, Nairobi, Kenya, Email: dubaqabale@gmail.com Tel; +254728844356

Introduction: One of the most effective ways of reducing maternal mortality ratio (MMR) is through skilled birth attendance (SBA). Kenya's MMR declined from 362 to 353 deaths per 100,000 live births between 2014 and 2021. However, MMR for Marsabit County has remained high, and only a small proportion of births are conducted by

skilled birth attendants. We estimated the coverage and identified the factors associated with seeking skilled birth attendance services.

Methods: We conducted a cross-sectional study between November and December 2021 in North Horr Sub-County.

A multistage, random sampling technique was used to identify women with children below five years. We interviewed 294 women using structured questionnaires.

We performed descriptive statistics, calculated odds ratios (OR) at the bivariate level, adjusted odds ratios (aOR) at the multivariable level and their corresponding 95% confidence intervals and p-values to identify factors associated with the utilization of SBA. We considered factors with $p < 0.05$ at the multivariable level as independently associated with the utilization of SBA.

Results: We interviewed 294 women. The mean age was 28.5 years (SD \pm 5.9 years), 135 (46%) were aged 15 – 27 years, and only 124 (42.2%) delivered in a health facility. Women who lived far from a health facility were less likely to seek SBA services (aOR= 4.8; 95% C.I 1.99 – 12.02; $p < 0.001$) compared to those who lived near.

Similarly, women who were Muslims (aOR)= 3.70; 95% C.I 2.0 – 6.8); earned below Ksh 1000 monthly (aOR= 2.8; 95% C.I 1.28-6.27; $p < 0.01$) were less likely to seek SBA services. Being accompanied by the husband to the clinic (aOR= 9.4; 95% C.I 1.69-53.0) increased the odds of seeking SBA services.

Conclusions: Our findings call for close attention from Marsabit County in addressing SBA delivery gaps, especially in the North Horr sub-county. To cut down on travel time, the county should establish additional health facilities.

Keywords: Skilled birth attendance, Marsabit County, North Horr

Abstract ID: OP550

Retrospective cohort study of factors associated with non-initiation of antiretroviral therapy among adults newly diagnosed with HIV in Andijan, Uzbekistan, 2018-2021

Shokhruh Usmanov^{1,2,3,8}, Roberta Horth^{2,4}, Dilyara Nabirova^{2,4}, Alfiya Denebayeva^{1,2,5}, Sevak Alaverdyan^{1,6}, Botir Kurbanov³, Feruza Nasirova⁷, Ikromjon Otajonov⁷

¹Central Asia Field Epidemiology Training Program, Almaty, Kazakhstan

²Asfendiyarov Kazakh National Medical University, Almaty, Kazakhstan

³Services for Sanitary and Epidemiological Well-being, Tashkent, Uzbekistan

⁴U.S. Centers for Disease Control and Prevention, Central Asia Office, Almaty, Kazakhstan

⁵Almaty City Center for Prevention and Control of AIDS, HIV Center, Kazakhstan

⁶American University of Armenia, Manoogian Simone College of Business and Economics, Yerevan, Armenia

⁷Andizhan State Medical Institute, Andizhan, Uzbekistan

***Corresponding author:** Shokhruh Usmanov, Central Asia Field Epidemiology Training Program, Almaty, Kazakhstan, Email: shohrux1718@gmail.com

Introduction: Immediate uptake of antiretroviral therapy (ART) by people newly diagnosed with HIV reduces morbidity and viral transmission. Since 2018, in Uzbekistan people newly diagnosed with HIV are immediately offered ARVs, but just over half of people living with HIV are estimated to be on ART. To reach global targets, we assessed factors associated with ART non-initiation.

Methods: We conducted a retrospective cohort study using secondary data from Andijan Region Republican AIDS Center. Our study included all people 18 years of age and older newly diagnosed with HIV between January 1, 2018, and June 31, 2021. We analyzed sociodemographic and behavioral factors associated with non-initiation of ART, defined as not having initiated ART by December 31, 2021.

Using multivariable analysis, we calculated risk ratios (RR) and 95% confidence intervals (CI).

Results: From 2018 to 2021 in Andijan Province, 1,098 people were newly diagnosed with HIV, of which 113 (10.3%) did not initiate ART. Participants were mostly 30-49 years old (49%), male (56%), married (46%), and with secondary education (74%). Also, 39% and 31% had HIV clinical stage I and II, respectively. Risk for non-initiation was higher among people with secondary education (RR=8.6 [CI: 1.2–60.9]) compared to higher education, with multiple partners (RR=2.7 [1.5–5.0]), with disease stage I (RR=3.3 [2.0–5.2]) and stage II (RR=4.4 [2.8–7.0]). People with sexual partners living with HIV had higher risk of non-initiation (RR=1.8 [1.2–2.9]) than people with partners that did not have HIV. Being single was associated with reduced risk of non-initiation (RR=0.1 [0.03–0.3]).

Conclusions: People with multiple partners and with partners living with HIV should be prioritized for ART initiation support. Increased risk of non-initiation among people in non-symptomatic or mild disease stages earlier disease stages points to the need for interventions to increase awareness of test-and-start among providers.

Keywords: HIV; Uzbekistan; antiretroviral therapy; art initiation; linkage; retrospective cohort

Abstract ID: OP553

Investigation of an upsurge of bacterial meningitis cases in Northern Bahr-El-Ghazal State, South Sudan, January-July 2022

Thomas Dugan Guot¹, Gildo Okure^{2&}, Wilbrod Mwanje², David Kargbo Kabba², Joseph Hickson Lasu³, John Pasquale Rumunu³

¹State Ministry of Health, Northern Bahr-El-Ghazal State, Juba, South Sudan.

²African Field Epidemiology Network, Field Epidemiology Training Program, Juba, South Sudan.

³National Ministry of Health, Juba, South Sudan

&Corresponding author: Gildo Okure; AFENET; Juba, South Sudan; gokure@afenet.net;

Introduction: South Sudan being in the meningitis belt has experienced meningococcal meningitis outbreaks in 2006, 2007, 2009 and 2013. On 3rd January 2022, Northern Bahr-El-Ghazal (NBEG) State Ministry of Health was notified of an upsurge in suspected meningitis cases in Aweil State Hospital. We investigated to confirm meningitis outbreak, characterize the outbreak, and identify risk factors to inform control and prevention measures.

Methods: A suspected meningitis case was any resident of NBEG state with onset of fever (>38°C) and neck stiffness or other meningeal signs from 1st January 2022. A confirmed case was a suspected case laboratory confirmed by identifying bacterial pathogen in cerebral spinal fluid (CSF) using polymerase chain reaction (PCR) test. We interviewed case-patients to collect demographics, clinical and exposure information, and collected CSF specimens. We conducted active case search in communities and health facilities, reviewed medical records, and line-listed cases. We computed frequencies, proportions, attack rate (AR) and case-fatality rate (CFR)

Results: During January-July 2022, a total of 333 case-patients were identified of which 170 (51%) were males, and 178 (53%) aged <5 years. Out of 76 (23%) CSF specimens collected, 6(9%) were PCR-positive for three pathogens: *Neisseria meningitidis* (2), *Streptococcus (2) pneumoniae*, and *Haemophilus influenzae type b* (2). Four of the five counties in NBEG surpassed alert threshold of 3 cases/100,000 people per week, but none reached the epidemic threshold (10/100,000). Aweil West County had the highest AR (48/100,000 people) compared to overall state AR of 25/100,000 people. Of the 333 case-patients, 31 died (CFR=9%). The CFR was highest in Aweil East County 13% (13/100) and amongst children <1 year 48.4% (15/31).

Conclusions: None of the counties in NBEG reached epidemic threshold probably due to low CSF collection and testing rate. We trained clinicians on meningitis case management and collection of CSF specimens for laboratory confirmation.

Keywords: Upsurge, Bacterial Meningitis, counties, Northern-Bahr-el-Ghazal

Abstract ID: OP554

Health insurance financing and patient retention in care at diabetics and hypertension clinics in Dar es Salaam and Pwani regions, Tanzania

Harrieth Mathias Manisha^{1,2,*}, Candida Simon Moshiro³, Ally Kassim Hussein^{2,3}, Fredrick Joseph Amani¹, Johnson Jeremia Mshiu¹, Jaffar Shabbar⁴, Sayoki Godfrey Mfinanga^{1,2,3,4}

¹National Institute for Medical Research, Dar es Salaam, Tanzania

²Tanzania Field Epidemiology and laboratory training program, Dar es Salaam, Tanzania

³Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania

⁴UCL Institute for Global Health, London, United Kingdom

***Corresponding author:** National Institute for Medical Research Muhimbili Centre, P.O. Box 3436 Dar es Salaam, Telephone: +255-22-2152232, Fax: +255-22-2150458, Email: harriethmanisha69@gmail.com.

Introduction: Hypertension and diabetes are chronic conditions with serious health consequences globally. Health insurance financing correlates with improved retention in chronic care.

In Tanzania, limited research exists on health financing in chronic care. We studied the effect of health insurance on retention in diabetes and hypertension care.

Methods: We conducted a Cohort study across 15 health facilities in Dar es Salaam and Pwani regions. Eligibility criteria: Adults (≥ 18 years), attending diabetes and hypertension clinics between 1/5/2020-30/4/2021 and enrolled in the INTE-AFRICA trial. Retention referred participants with two medical visits at least 90 days apart in 12 months.

Our sample size provided 100% power to detect (10%-30%) retention differences between insured and uninsured arms (95% CI). Data were abstracted from the INTE-Africa electronic database.

Proportions were compared using χ^2 tests. Prevalence and rate ratios were obtained using Generalised Linear Models.

Results: We followed 1716 patients for 1612.3 Person-years (PY) to observe 1351 incident retention. Among the insured (26.0%), females accounted for 65.9% and middle-aged adults contributed 58.8%. We observed high retention rates (Incidence Rate IR: 83.80/100 PY; 95% CI, 79.40-88.40). There was no difference in retention between the insured and uninsured (aRR:1.00; 95% CI, 0.94-1.06). Being middle-aged and senior-aged compared to young adults (adjusted Rate Ratio: 1.19; 95%, 1.07-1.32) and (aRR:1.24; 95% CI, 1.14-1.34), having diabetes and hypertension compared to having both conditions (aRR:1.19; 95%, 1.07-1.32) and (aRR:1.24; 95% CI, 1.14-1.34), having comorbidity of diabetes and hypertension with HIV compared to a single condition (aRR:1.20; 95% CI, 1.13-1.26) and (aRR:1.46; 95% CI, 1.28-1.67), and attending health centres and hospitals compared to dispensaries (aRR:1.13; 95% CI, 1.02-1.25) and (aRR:1.12; 95% CI, 1.01-1.24), determined retention in care.

Conclusions: Our Results indicated no effect of health insurance on patient retention to care. Further research is needed to understand patients' management in chronic care.

Keywords: Universal Health Coverage, Non-communicable Diseases, Diabetes, and Hypertension.

Abstract ID: OP556

Foodborne outbreak investigation at a wedding event - Batken, Kyrgyzstan, June 2022

Timur Dautov^{1,2,3}, Nasyat Kemelbekova², Marina Malysheva², Dinagul Otorbaeva², Roberta Horth^{3,4}, Dilyara Nabirova^{3,4}

¹Central Asia Field Epidemiology Training Program, Almaty, Kazakhstan

²Department of Disease Prevention and State Sanitary and Epidemiological Supervision, Kyrgyzstan Ministry of Health

³Asfendiyarov Kazakh National Medical University, Almaty, Kazakhstan

⁴U.S. Centers for Disease Control and Prevention, Central Asia Office, Almaty, Kazakhstan

***Corresponding author:** Timur Dautov, Central Asia Field Epidemiology Training Program, Almaty, Kazakhstan, e-mail: tdautov83@gmail.com

Introduction: On August 2nd, 2022, local health departments were informed that over a hundred people had sought care or reported gastrointestinal illness after attending the same wedding event in Batken, Kyrgyzstan, on July 30th. We investigated to identify the source and associated risks.

Methods: Using a retrospective cohort study design, we interviewed consenting wedding participants. A case was anyone who was linked to the event who became acutely ill or sought medical care with food poisoning symptoms.

We searched public health surveillance records for additional cases who sought healthcare for suspected foodborne disease, a reportable illness, from July 30th to August 2nd. Food and environmental samples were collected and tested. We used logistic regression to determine associations with case status.

Results: Of 250 attendees, 201 consented; 110 were cases and 91 non-cases. Among cases, 8% were <20 years old, 27% were >61 years old, and 80% were female. Top symptoms were fatigue (96%), abdominal pain (95%), diarrhea (95%), and fever (84%).

Most cases developed symptoms <24 hours of the event and 79% sought care. Odds ratio was 7.8 for egg salad containing chicken (95% confidence interval [CI]: 4.1-14.4, $p < 0.01$), 5.1 for grilled chicken (CI: 2.8-9.4, $p < 0.01$) and 3.9 for chicken salad (CI: 2.2-7.1, $p < 0.01$). Attack rate was 66% (105/160) among people who ate any chicken (95% of cases and 60% of non-cases). Patients were not tested. *Proteus vulgaris*, *Klebsiella* spp., and *Escherichia coli* were detected in chicken samples. *E. coli* was detected in 3/32 environmental samples.

Conclusions: Contaminated chicken was the likely source of illness. Source pathogen is uncertain because patients were not tested. Symptoms and onset were more consistent with *Klebsiella* spp. than *E. coli*, but *Klebsiella* spp food-associated outbreaks are rare.

Recommendations were made to ensure restaurant compliance with food safety measures. Diagnostic testing for gastrointestinal illness needs strengthening.

Keywords: UKyrgyzstan, Foodborne outbreak, Diarrhea, *Escherichia coli*, *Klebsiella* spp

Abstract ID: OP557

A prolonged outbreak of enteric fever associated with illegal miners in the City of Matlosana, South Africa, November 2020 – September 2022.

Phuti Given Sekwadi^{&1}, Anthony Marius Smith^{1,2}, Mimmy Ngomane¹, Mahlaku Sebiloane³, Leigh Johnston³, Linda Erasmus¹, Juno Thomas¹

¹Centre for Enteric Diseases, National Institute for Communicable Diseases, Private Bag X4, Sandringham, Johannesburg, South Africa.

²Department of Medical Microbiology, School of Medicine, Faculty of Health Sciences, University of Pretoria, Pretoria, South Africa

³South African Field Epidemiology Training Program, National Institute for Communicable Diseases, Private Bag X4, Sandringham, Johannesburg, South Africa.

&Corresponding author: Phuti Given Sekwadi, Centre for Enteric Diseases, National Institute for Communicable Diseases, Private Bag X4, Sandringham, Johannesburg, South Africa. Email: phutis@nicd.ac.za / pgsekwadi@gmail.com ; Tel: (+27) 11 386 6452 / Cell: (+27) 73 961 3895

Introduction: In South Africa, the annual incidence of enteric fever caused by *Salmonella enterica* serovar Typhi averaged 0.1 per 100 000 between 2003 and 2018. During 2021 an increase in the number of genetically related enteric fever cases was observed in the Northwest Province. An outbreak investigation was conducted to determine the magnitude and source of the outbreak.

Methods: We performed a cross-sectional descriptive study. Laboratory-confirmed enteric fever cases identified nationally between 2020 and 2022 were interviewed via telephone or face-to-face using a standardized case investigation form.

Whole-genome sequencing was performed on isolates and investigated using multiple bioinformatics tools. Drinking water samples were collected from the North West Province, tested and analysed. Descriptive analysis was performed.

Results: A cluster of 54 genetically highly related *Salmonella* Typhi isolates were identified from five different provinces in South Africa. Most (61%; 33/54) cases were in Northwest Province. Case investigation forms were completed for 57% (31/54) of cases. Males comprised 69% (37/54) of cases. Of these, 73% (27/37) were within age group 15-49 years (median: 31 years). Of the 27 males within age group 15-49 years, 56% (15/27) were illegal gold miners working in the City of Matlosana. All illegal miners reported illness onset while working underground. Isolates associated with the cluster showed ≤ 5 allelic differences. Five tap water samples tested, showed no evidence of faecal contamination.

Conclusions: This outbreak primarily affected illegal gold miners, most probably due to consumption of contaminated groundwater while working underground. The prolonged outbreak was likely perpetuated by a persistent source of transmission to illegal miners due to the presence of chronic carriers and acutely ill miners underground and further transmission among the contacts of the miners on the surface. This investigation highlights the value of whole-genome sequencing to detect clusters and support epidemiological investigation of enteric fever outbreaks.

Keywords: Enteric fever, whole-genome sequencing, typhoid carrier, prolonged-outbreak

Abstract ID: OP562

Salmonella enteritidis outbreak at a café - Turkestan Region, Kazakhstan, October 2022.

Saya Gazezova^{1,2,3,&}, Balaussa Zhuman^{1,2}, Lena Kassabekova^{1,2}, Manar Smagul^{1,2}, Aizhan Yesmagambetova⁵, Roberta Horth^{3,4}, Dilyara Nabirova^{3,4}

¹Central Asia Field Epidemiology Training Program, Almaty, Kazakhstan

²Scientific and Practical Center for Sanitary and Epidemiological Expertise and Monitoring, Almaty, Kazakhstan

³Asfendiyarov Kazakh National Medical University, Almaty, Kazakhstan

⁴U.S. Centers for Disease Control and Prevention, Central Asia Office, Almaty, Kazakhstan

⁵Ministry of Health of Kazakhstan, Astana, Kazakhstan

&Corresponding author: Saya Gazezova, Central Asia Field Epidemiology Training Program, Almaty, Kazakhstan, e-mail: sayagazezova@gmail.com

Introduction: From October 7 to 10, 2022, 98 patients were hospitalized with diarrhea in Turkestan region, Kazakhstan. All patients reported having eaten food ordered from the same café. We investigated risk factors and stopped any ongoing transmission.

Methods: We conducted a case-control study through face-to-face interviews using structured questionnaires. To identify additional cases, we reviewed all food transactions from October 4-7. A case was anyone having consumed food from the café during that period with symptoms of diarrhea, vomiting, and fever ($>38^{\circ}\text{C}$). Controls was anyone having consumed food from the café in the same period without symptoms. Patient stool and café food samples were tested for coliform bacteria, *Salmonella* enteritidis, *Staphylococcus aureus*. We conducted log-binomial logistic regression using R to estimate association between food and disease.

Results: We identified 276 people who had consumed café food, and 142 (51%) had become ill. Primary symptoms among ill persons were diarrhea (n=142, 100%), abdominal pain (n=141, 99%), headache (n=130, 92%), fever (n=120, 85%), nausea (n=110, 77%) and vomiting (n=105, 74%). Median age was 25 (IQR: 1- 76). Symptom onset was 6 hours to 4 days; 69% (n=98) were hospitalized. Attack rate was 51% for people who had consumed chicken wings and thighs (99% of cases vs 38% of controls). People who consumed chicken had 324 increased adjusted odds of illness (95% confidence interval: 68-3123, $p<0.01$). *Salmonella* enteritidis was isolated from stool samples of 22 patients and in chicken remnants. We identified several gaps in hygiene and sanitation related to food storage and preparation.

Conclusions: Symptoms and incubation period are consistent with *Salmonella* enteritidis. The high attack rate for chicken products points to it being the likely source of infection.

No other common restaurants or food items were identified. All remaining chicken was discarded. Recommendations were made to improve compliance with hygiene and sanitation requirements at the restaurant.

Keywords: Foodborne outbreak, Kazakhstan, Salmonella, Food hygiene and sanitation

Abstract ID: OP574

Prevalence of malaria infection and factors associated among HIV infected adult patients attending HIV care and treatment clinic at Kitete region referral hospital in Tabora region, Tanzania from March to May 2022

Hamad Jonas Nnimbo^{1,*}, Doreen Donald Kamori², Nsiande Andrew Lema³, Abdallah Haruna Mohamed⁴
¹Department of Health, Nyang'hwale District Council, Geita, Tanzania

²Department of Microbiology and Immunology, Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania

³Tanzania Field Epidemiology and Laboratory Training Program, Ministry of Health, Dar es Salaam, Tanzania

⁴Department of Laboratory Services, Kitete Regional Referral Hospital, Tabora, Tanzania

***Corresponding author:** Hamad Jonas Nnimbo, Department of Health, Nyang'hwale District Council, Geita, Tanzania Email: nnimbo3@gmail.com

Introduction: HIV and malaria are global public health concerns, particularly in Tanzania where there are 6.7 million malaria cases annually and a 4.9% HIV prevalence among adults. HIV-infected individuals are more likely to get malaria and its complications. However, data on the interaction of the two diseases in Tanzania is limited. This cross-sectional study aimed to determine the prevalence of malaria infection and associated factors among HIV-infected adults attending HIV care and treatment clinic at Kitete regional referral hospital in Tabora region, Tanzania.

Methods: The cross-sectional study was carried out between March and May 2022 at Kitete regional referral hospital in Tanzania. 246 HIV-infected adults were selected by systematic random sampling. Malaria was diagnosed using both Malaria Rapid Diagnostic Test (mRDT) and Malaria Microscopy.

Social demographic data was collected using a structured questionnaire, while clinical history and laboratory parameters were extracted from patients' files. Data were analyzed using STATA, and a p-Value <0.05 was considered statistically significant.

Results: 242 participants were recruited, with a male-to-female ratio of 1:2, and a median age of 49.5 (IQR: 40 - 58) years. The prevalence of malaria infection was 10.7% (95% CI: 7.4-15.3) by mRDT and 8.3% (95% CI: 5.4-12.5) by microscopy.

Independent factors associated with malaria infection were rural residency (aOR=2.81, 95% CI=1.06-7.45, p=0.038), ART poor adherence (aOR=3.66, 95% CI=1.04-12.7, p=0.043), HVL of ≥ 1000 copies/mL (aOR=3.2, 95% CI=1.00-10.5, p=0.02, CD4 count ≤ 350 cells/ μ L (aOR=2.8, 95% CI=1.10-7.30, p=0.03). While mosquito nets (aOR=0.27, 95% CI=0.08-0.90, p=0.033) and health education (aOR=0.26, 95% CI=0.09-0.71, p=0.009) were protective factors.

Conclusions: Malaria prevalence is high among HIV patients at Kitete Regional Referral Hospital, particularly in those with low CD4 counts, high HVL, and residing in rural areas, underscores the need for integrated malaria-HIV services. We recommend the incorporation of malaria diagnosis and prevention education into routine HIV services.

Keywords: Prevalence, malaria, HIV-infected adult, CTC, Tanzania

Abstract ID : OP578

Investigation d'une épidémie de rougeole dans la région de Tillabéri, Niger du 30 janvier au 12 mai 2022.

Abdoulaye Goubakoye^{1,4,*}, Djibril Barry², Hermane Yoda³, Pauline Yanogo^{1,3}, Nicolas Meda^{1,3},

¹Burkina Field Epidemiology and Laboratory Training Program (BFELTP), Ouagadougou, Burkina Faso

²African Field Epidemiology Network (AFENET), Niamey, Niger

³University Joseph Ki-Zerbo, Ouagadougou, Burkina-Faso

⁴Ministère de la Santé Publique (MSP), Niamey, Niger

***Auteur correspondant:** Abdoulaye Goubakoye, I Burkina Field Epidemiology and Laboratory Training Program (BFELTP), Ouagadougou, Burkina Faso, Email: goubakoyea@yahoo.com

Introduction: La rougeole est une maladie infectieuse virale contagieuse causée par un morbillivirus occasionnant de décès chez les enfants et évitable par la vaccination. Le Niger enregistre chaque année des cas de rougeole, la région de Tillabéri notifia un cas à la 5ème semaine épidémiologique. Nous avons conduit une investigation dont l'objectif était de rechercher des cas supplémentaires, les décrire en temps, lieu personnes et mettre en place des mesures de prévention et de contrôle.

Méthode: Nous avons mené une étude transversale descriptive du 30 janvier au 12 mai 2022. La population d'étude était constituée de la population des districts touchés par l'épidémie de rougeole dans la région de Tillabéri.

La recherche active effectuée avec la contribution du personnel et des relais communautaires à qui nous avons simplifié et adapté la définition des cas de l'OMS. Les données collectées à l'aide des fiches de notification, les listes linéaires ont été analysées avec Epi-info et Excel. Les proportions, ratio et moyennes calculés.

Résultats: 91 cas suspects (dont 6 cas à la recherche active) ont été notifiés, 98 prélèvements effectués, 26 cas positifs (8,93%) et 0 décès, le Taux d'attaque est 0,07 pour 1000 habitants. L'âge médian est de 6 ans EIQ (5-11 ans), extrêmes de 6 mois à 63 ans.

Le sexe ratio (H/F) était de 1,38. 25 cas sur les 26 positifs soit 96,15% étaient non vaccinés ou statut vaccinal inconnu. Les mois de mars et avril ont enregistré les incidences les plus élevées (respectivement 2,92 et 3,95 pour 100 000hbt).

Conclusions: La majorité des cas étaient des enfants de plus de 5 ans non vaccinés ou de statut vaccinal inconnu. Une riposte vaccinale ciblant les 0 à 14 ans fut organisée et nous avons recommandé un renforcement de la vaccination de routine dans la région de Tillabéri.

Mots-clés: Rougeole, Tillabéri, Niger, 2022

Abstract ID : OP579

Investigation d'une épidémie de rougeole dans le camp de réfugiés de la wilaya de Hodh Charghi, Mauritanie, 2023

LAM Mariata^{1,2,&}, Nikiema Mamouni⁵, Barry Djibril^{1,4}, Yanogo Pauline^{1,4}, Mohamed Ramdhane¹, Benane Hassanemohamed¹, Ba Hamet³, Ely Mahmoud M² Et Meda Nicholas^{1,4}

¹field Epidemiology Laboratory Training Program, Ouagadougou Burkina Faso

²direction Général De La Santé Publique, Nouakchott, Mauritanie

³african Field Epidemiology Network, Nouakchott, Mauritania

⁴université Joseph Ki-Zerbo, Ouagadougou, Burkina Faso

⁵Organisation mondiale de la santé, Nouakchott, Mauritania

***Auteur correspondante:** Mariata LAM, Field Epidemiology Laboratory Training Program, Ouagadougou, Burkina Faso; TEL : +22247878475 ; Email : biquetlammariata@gmail.com

Introduction: Les épidémies de rougeole dans les camps de réfugiés constituent un problème de santé publique en Mauritanie. La Direction Régionale de la Santé du Hodh El Charghi a notifié une épidémie de rougeole dans la 52 -ème semaine épidémiologique de 2022. Nous avons mené une investigation afin d'évaluer l'ampleur de l'épidémie et instauré des mesures de prévention et de contrôle.

Méthode: Nous avons mené une étude transversale descriptive et recherché activement des cas selon les définitions de cas des directives techniques nationales du 20 février au 02 mars 2023. Les données ont été analysées avec Excel 2016, Epi info7. Nous avons calculé des proportions et des taux.

Résultats: Au total 147 cas de rougeoles ont été notifiés à la date du 02/03/2023, les cas provenaient des moughataas de Bassiknou (97%) et Timbedra (3%). L'âge moyen des cas était de 19 ans ± 14. Le sexe masculin a représenté 50% des cas avec un ratio (H /F) = 1. Les taux d'attaque pour 1000 habitants étaient de 3 cas pour la tranche d'âge de 12-59 mois et de 1,9 pour 0 -11 mois. Parmi les cas déclarés, 97% des cas

de rougeole n'étaient pas vaccinés. La riposte vaccinale a permis de vacciner 400 enfants de moins de 5 ans.

Conclusions: L'épidémie de rougeole est confirmée dans plusieurs zones avec une prédominance masculine chez les tranches d'âge de 12-59 mois. La plupart des cas n'étaient pas vaccinés. Nous recommandons la vaccination des enfants de moins de 5 ans dans la région à travers une campagne de masse et un renforcement de la vaccination de routine.

Mots-clés: investigation, flambée, rougeole, camps réfugiés, Mauritanie

Abstract ID: OP581

Uptake and associated factors of Cervical Cancer Screening Services among Women attending Reproductive and Child Health Clinic in Dodoma Municipal Council, Tanzania from 1st March to 30th April 2022.

Omary Nassoro^{1,2,&}, Rose Mpembeni², Amir Juya³

¹Tanzania Field Epidemiology and Laboratory Training Program Dar es salaam Tanzania

²Muhimbili University of Health and Allied Sciences-Dar es salaam Tanzania

³African Field Epidemiology Network-FETP Malawi

&Corresponding author: Omary Nassoro, Tanzania Field Epidemiology and Laboratory Training Program Dar es salaam Tanzania, Email: omarykipuli@gmail.com

Introduction: Cervical cancer mortality can be avoided if proper preventive measures which include Human Papilloma Virus (HPV) vaccination, timely cervical cancer screening (CCS), and treatment of precancerous lesions are taken by women. Despite the increasing availability of cervical cancer screening services in Tanzania, only about 11% of eligible women were reported to have been screened.

We determined the uptake and associated factors of cervical cancer screening among women attending

Reproductive and Child Health (RCH) clinics in Dodoma Municipal Council from 1st March to 30th April.

Methodology: A cross-sectional study using both quantitative and qualitative Methods was conducted among women of reproductive age in RCH clinics and 7 RCH in-charges.

MS Excel and STATA were used for data management and analysis. Bivariate analysis using the Chi-square test was used to assess relationship between the uptake of CCS and independent variables.

Multivariable Poisson regression was used to determine independent factors associated with the uptake of CCS. Thematic analysis was used to analyse the Qualitative data.

Results: A total of 463 women were enrolled and the prevalence of cervical cancer screening was 25%; 95%CI=21%-29%. Women with secondary education (aPR = 0.6; 95%CI =0.44-0.89), unemployed women (aPR =0.4; 95%CI = 0.23-0.76) and women who were not aware of cervical cancer screening (aPR = 0.4; 95%CI =0. 13-1.00) were less likely to screen for cervical cancer compared to their counterparts.

Inadequate number of Health Care Workers (HCWs) for provision of CCS, Women's lack of readiness for screening and misconception on CCS procedures were frequently mentioned to deter CCS uptake.

Conclusions: Uptake of CCS among attendees of RCH clinic is below the National target of 60% of all eligible women.

Education level, occupation and awareness of symptoms of cervical cancer were found to be associated with CCS uptake.

RCH staff should provide education on cervical cancer screening, address misconceptions about screening procedures and the Government should ensure adequate number of HCWs to provide screening services.

Keywords: Uptake, Cervical Cancer, Screening, RCH, Tanzania

Abstract ID: OP589

Etiology, antimicrobial susceptibility patterns and factors associated with bacteriuria among HIV-infected women attending prevention of mother to child transmission clinic at Bukoba Municipality, Tanzania, 2022.

Eustadius Kamugisha Felician^{1,2,&}, Loveness Urio³, Mtebe Majigo¹, Said Aboud^{1,4}

¹Muhimbili University of Health and Allied Sciences, Dar es salaam - Tanzania

²Bukoba Regional Referral Hospital, Bukoba, Tanzania

³Tanzania Field Epidemiology and Laboratory Training Program, Dar es Salaam, Tanzania

⁴National Institute for Medical Research, Dar es Salaam, Tanzania

&Corresponding author: Eustadius Kamugisha Felician, 1 Muhimbili University of Health and Allied Sciences, Dar es salaam, Tanzania, P.O.Box 265, Bukoba - Tanzania; E-mail: eustadius.felician@yahoo.com, Telephone: +255754442389;

Introduction: The presence of bacteria in urine for both pregnant and lactating HIV-infected women can cause serious complications for women and fetuses for pregnant women. We determined the etiology, antimicrobial susceptibility testing patterns and factors associated with bacteriuria in HIV-infected women attending Prevention of Mother to Child Transmission (PMTCT) clinic at Bukoba Municipality.

Methods: A cross-sectional study was conducted from January to April 2022 among HIV-infected women attending PMTCT clinic at Bukoba Municipality. Clean-catch midstream urine was cultured on MacConkey and blood agars.

Bacteria isolated were identified by colonial characteristics, Gram stain and biochemical identification tests. After initial screening, double-disc synergy Methods confirmed the phenotypic detection of ESBL production and MRSA was confirmed using cefoxitin disc (30µg). Socio-demographic, clinical, and laboratory information data were collected using a structured questionnaire. Socio-demographic and clinical variables were analyzed using STATA version

15.0. A test for association was performed using modified Poisson regressions. A p-value ≤ 0.05 with its corresponding 95%CL was regarded as statistically significant.

Results: Of the 290 study participants, 66(22.8%) had significant bacteriuria. Breastfeeding women were 152(52.4%) and 138(47.6%) were pregnant women. The predominant bacteria isolated were E. coli 21(31.8%) while 17(34.0%) of gram-negative bacteria were Extended Spectrum Beta Lactamases (ESBLs) and 1(25.0%) was Methicillin-resistant Staphylococcus aureus (MRSA).

Escherichia coli showed high resistance rate against trimethoprim-sulfamethoxazole 21(100%), amoxicillin/clavulanic acid 20(95.0%). Staphylococcus aureus 4(100%) were resistance to both penicillin and trimethoprim-sulfamethoxazole. The proportion of multi-drug resistance (MDR) was 45(68.2%). Rwamishenye health Centre (APR: 2.12, 95%CL: 1.04-4.34, $p=0.027$), Kashai dispensary (APR: 2.63, 95%CL: 1.31-5.26, $p=0.006$) and single marital status (APR=1.85, 95%CI: 1.03-3.34) were the factors significantly associated with bacteriuria.

Conclusions: Prevalence of bacteriuria was high in Bukoba. Most isolated bacteria being resistance to most of the tested drugs suggest the use of antimicrobial agents to be supported by culture and Antimicrobial Susceptibility Testing (AST) Results.

Keywords: Aetiology, antimicrobial-susceptibility, bacteriuria, HIV-infected women, Tanzania

Abstract ID : OP597

Investigation d'une épidémie de rougeole dans le camps de réfugiés de la wilaya de Hodh charghi, Mauritanie ,2023

LAM Mariat^{1,2}, Nikiema Mamouni⁵, Barry Djibril^{1,4}, Yanogo Pauline^{1,4}, Mohamed Ramdhane¹, Benane Hassanemohamed¹, Ba Hamet³, Ely Mahmoud M² et Meda Nicolas^{1,4}

¹Field Epidemiology Laboratory Training Program, Burkina Faso;

²Direction General de la santé publique, Mauritanie ;

³African Field Epidemiology Network ;

⁴Université Joseph KI-ZERBO, Burkina Faso ;

⁵Organisation mondiale de la santé

&Auteur correspondante: Mariata Lam ;
TEL : +22247878475 ; Email : biquetlammariata@gmail.com

Introduction: les épidémies de rougeole dans les camps de réfugiés constituent un problème de santé publique en Mauritanie.

La Direction Régionale de la Santé du Hodh El Charghi a notifié une épidémie de rougeole dans la 52^{eme} semaine épidémiologique de 2022. Nous avons mené une investigation afin d'évaluer l'ampleur de l'épidémie et instauré des mesures de prévention et de contrôle.

Méthode: nous avons mené une étude transversale descriptive et recherché activement des cas selon les définitions de cas des directives techniques nationales du 20 février au 02 mars 2023. Les données ont été analysées avec Excel 2016, Epi info7. Nous avons calculé des proportions et des taux.

Résultats: au total 147 cas de rougeoles ont été notifiés à la date du 02/03/2023, les cas provenaient des moughataas de Bassiknou (97%) et Timbedra (3%). L'âge moyen des cas était de 19 ans \pm 14.

Le sexe masculin a représenté 50% des cas avec un ratio (H /F) = 1 Les taux d'attaque pour 1000 habitants étaient de 3 cas pour la tranche d'âge de 12-59 mois et de 1,9 pour 0 -11 mois. Parmi les cas déclarés, 97% des cas de rougeole n'étaient pas vaccinés. La riposte vaccinale a permis de vacciner 400 enfants de moins de 5 ans.

Conclusions: l'épidémie de rougeole est confirmée dans plusieurs zones avec une prédominance masculine chez les tranches d'âge de 12-59 mois. La plupart des cas n'étaient pas vaccinés.

Nous recommandons la vaccination des enfants de moins de 5 ans dans la région à travers une campagne de masse et un renforcement de la vaccination de routine.

Keywords: Mots clés : investigation, flambée, rougeole, camps réfugiés, Mauritanie

Abstract ID: OP598

Malaria outbreak investigation in Katima Mulilo District, Zambezi region, 14 – 25 March 2022

Maria Nuusiku Angala^{1,2,&}, Anety Likando^{1,3}, Austin Simasiku^{1,4}, Marthina Shitarara^{1,3}, Dianah Ewaga^{1,5}

¹Namibia Field Epidemiology and Laboratory Training Program, Windhoek, Namibia

²Ministry of Health and Social Services, Walvis Bay, Namibia

³Ministry of Health and Social Services, Rundu, Namibia

⁴Ministry of Agriculture, Water and Land Reform, Windhoek, Namibia

⁵University of Namibia, Oshakati, Namibia

&Corresponding author: Maria Nuusiku Angala, Namibia Field Epidemiology and Laboratory Training Program, Windhoek, Namibia, Email: angalamarian@gmail.com

Introduction: Malaria continues to be a major public health problem in Namibia, with approximately 1,629,289 (64%) Namibians at risk of contracting malaria. Zambezi is one of the malaria-endemic regions. We conducted a cross-sectional study in the Zambezi region to describe the magnitude and demographic distribution of this malaria outbreak, determine factors driving transmission and inform ongoing intervention.

Methods: Descriptive cross-sectional study was conducted. Desk reviews were conducted, and interviewer-administered questionnaire was used at the household level. The environmental assessment was done to determine the presence of potential breeding sites. The GPS coordinates of each house/case visited were captured using cell phones. Data was entered into Microsoft Excel and exported to Epi-info 7 for analysis.

Results: A total of 38 (70%) participants were interviewed of which males comprised 57.9% (22), median age was 19 (ranges 1-64 years). Nearly half of the respondents 42% (16) were from the urban area, while 76% (29) were Namibians. Over half 61% (23) of the respondents slept in structures that were not sprayed during the last malaria spraying campaign and the majority 84% (32) did not have a treated mosquito net. The environmental assessment revealed

the presence of gardening or vegetation around or nearby all 38 (100%) houses visited. More than half 68% (26) of the respondents said they had not been visited by a health extension worker in the six (6) months prior to this investigation.

Conclusions: The district needs to improve on prevention measures like the spraying of all houses and distribution of treated mosquito nets. Lastly, the district should intensify health education programs on environmental hygiene such as clearing vegetation around the houses.

Keywords: Cross-Sectional Studies, Namibia, Malaria, Disease Outbreaks

Abstract ID: OP600

Rifampicin Resistance and Determinants in TB Patients Attending Clinic in Abeokuta, Ogun State

Folake Olubunmi Ajayi^{1,2,&}, Aderem Oludiran Kehinde³, Magbagbeola David Dairo⁴, Bamidele David Ajayi⁵, Iyevhobu Kenneth Oshiohkhayamhe⁶

¹Nigeria Field Epidemiology and Laboratory Training Programme, Abuja, Nigeria

²Department of Public Health, Epidemiology Unit, Ministry of Health, Ogun State, Nigeria

³Department of Medical Microbiology and Parasitology, College of Medicine, University College Hospital, University of Ibadan, Ibadan, Nigeria

⁴Department of Epidemiology and Medical Statistics, Faculty of Public Health, University of Ibadan, Ibadan, Nigeria

⁵Department of Internal Medicine, State Hospital Ijaye, Abeokuta, Ogun State, Nigeria

⁶Department of Public Health, National Open University of Nigeria, Uromi Community Study Center, Uromi, Edo State, Nigeria

&Corresponding author: Folake Olubunmi Ajayi, Department of Public Health, Epidemiology Unit, Ministry of Health, Ogun State, Nigeria, E-mail: oluwaflakky@yahoo.com

Introduction: Tuberculosis (TB) is a major public health problem in Nigeria. The emergence of multidrug-resistant TB poses a threat to global TB

control and if not addressed, might erase achievements of previous efforts. The study determined the prevalence of rifampicin resistance and risk factors in TB patients attending clinic in Abeokuta, Ogun State, Nigeria.

Methods: Across-sectional study was conducted at Sacred Hospital Lantoro, State Hospital Ijaye and Federal Medical Center Abeokuta, Ogun State between December 2022, and March 2023. The study population were TB patients receiving care at the above listed facilities.

Results: A total number of 275 patients attending outpatient clinic at 3 facilities participated in the study. The age range of participants was 9 to 80 years with mean age of 33.5 years.

Most, 159 (57.8%) were males while 116 (42.2%) were females. The majority, 194 (71.3%) of participants were rural dwellers. Out of the total number of 59 TB positive cases, only 5 (8.5%) were rifampicin resistant, of which all were previously treated, rural dwellers, pulmonary and presumptive DR-TB patients.

Of the 5 patients who had RR-TB, 4 were previously treated for TB while 2 were co-infected with HIV (25%). Previous history of anti-TB treatment was the only risk factor found to have a significant association with the acquisition of RR-TB (OR: 4.781, 95% CI: 1.965 - 33.513 p=0.023).

Conclusions: The prevalence of 8.5% is slightly higher than the 3.2–5.4% WHO prediction for Nigeria. This calls for an improvement in the existing TB program towards strengthening adherence by patients accessing the facility for TB treatment.

Rifampicin resistant TB is a factor to be considered in refractory cases, hence the need for continuous monitoring of drug resistance trends, to assess the efficacy of current interventions and their impact on the TB epidemic.

Keywords: Tuberculosis, drug resistance, prevalence, patient, Ogun State

Abstract ID: OP604

Investigation of increased congenital syphilis cases at a District Hospital, Mpumalanga Province, June 2022 to June 2023

Alicia Kruger^{1,2}, Naume Tebeila³, Khuliso Ravhuhali^{2,&}

¹Gert Sibande District, Mpumalanga Department of Health, South Africa,

²South African Field Epidemiology Training Programme, National Institute of Communicable Diseases, a Division of the National Health

Laboratory Service, Johannesburg, South Africa,

³Provincial Epidemiology Team, Division of Public Health and Surveillance and Response, National Institute of Communicable Diseases

&Corresponding author: Khuliso Ravhuhali, National Institute for Communicable Disease, a Division of the National Health Laboratory Service, Johannesburg, South Africa, Email: khulisor@nicd.ac.za

Introduction: Congenital syphilis (CS) remains a leading cause of neonatal morbidity and mortality. CS is a category 2 Notifiable Medical Condition (NMC)-which means all healthcare workers are required to notify cases within 7 days of diagnosis. In July 2022, an increase in congenital syphilis (CS) cases was noted at Standerton Hospital compared to the previous six cases in 2021. We investigated to determine the possible cause of the increase and to implement control and preventative measures.

Methods: A retrospective descriptive study was conducted from June 2022 to June 2023. Neonates with CS were identified from Results obtained from the Notifiable Medical Conditions Surveillance System (NMCSS) database, as well as from admission records of the neonatal service. Neonatal and maternal records were reviewed. A confirmed case was defined as; any neonate (under the age of 28 days) with a positive rapid plasma reagin (RPR) test performed at Standerton Hospital between 1 June 2022 and 31 June 2023. Descriptive statistics were used to analyze the data.

Results: Forty-two neonates were diagnosed with CS with 1 death, mean gestational age was 37.6 weeks and mean birth weight was 2.9 kg. Twenty-five neonates were males. Six of the 42 (14%) neonates

had clinical features of congenital syphilis. Of the 42 neonates with CS, 35 (83%) of the mothers had attended clinics for antenatal care. Between November 2021 to June 2022, the hospital and surrounding clinics experienced a severe shortage in Benzathine penicillin supply, Resulting in a lack of treatment among some pregnant women.

Conclusions: The shortage of Benzathine penicillin may have contributed to the observed increase in congenital syphilis cases. Pregnant women not screened during pregnancy due to not attending antenatal services should be tested at delivery. This allows prompt identification and treatment of infected newborns.

Keywords: Congenital syphilis, Mpumalanga Province, Penicillin

Abstract ID: OP611

Prevalence of Hepatitis B Virus - Mpumalanga Province, South Africa, January 2020 - September 2022.

Sifiso Lucky Sithole^{1,2}, Hluphi Doreen Mpangane³, Helen Kgatla², Mandla Zeblon Zwane³, Khuliso Ravhuhali^{2,&}

¹Emalahleni sub-district, Nkangala Health District, Mpumalanga Province, South Africa

²South African Field Epidemiology Training Programme, National Institute for Communicable Diseases, a Division of the National Health Laboratory Service, Johannesburg, South Africa

³Mpumalanga Department of Health, Nelspruit, South Africa

&Corresponding author: Khuliso Ravhuhali, National Institute for Communicable Diseases, Johannesburg, South Africa, Email: khulisor@nicd.ac.za

Introduction: Hepatitis B Virus (HBV) is a vaccine-preventable condition with increased risk of death from complications such as cirrhosis and liver cancer. The World Health Organization estimated 296 million people with HBV, an incidence of 1.5 million yearly. In 2019, 820 000 related deaths from liver cancer were reported globally. This study was conducted to assess the quality of HBV surveillance data and to estimate the prevalence of HBV in Mpumalanga Province.

Methods: Passive laboratory-based surveillance data from the Notifiable Medical Conditions Surveillance System (NMCSSS) was used to describe the epidemiology of HBV surveillance data. All laboratory confirmed HBV cases notified between January 2020–September 2022 was included. Province prevalence was calculated using the 2021 mid-year population estimate per 100 000 populations. We summarized the findings using measures of central location (median age with range). Proportions and rates of missing information were calculated and expressed in percentages.

Results: A total of 279 HBV cases were notified between January 2020–September 2022. The proportion of missing data was 285 (92.5%) for travel history, 230 (82.4%), for vaccination status, 230 (82.4%) for patient vital status, 245 (87.8%) for the onset of symptoms date, 230 (82.4%) for admission status and 36 (12.9%) for age variable.

The HBV province prevalence was 6/100 000 population. More cases, 135 (48.4%) were from Gert Sibande district followed by Nkangala 81 (30.1%), and lastly Ehlanzeni with 60 (21.5%) cases. The median age was 35 years (0–86).

Conclusions: Most variables under analysis had high proportion of missing data. We recommend monthly trainings for healthcare facility and laboratory staff on completion of notification forms and data entry into web-based system to improve data quality.

Keywords: Hepatitis B, Mpumalanga Province, Prevalence.

Abstract ID: OP616 Cholera Outbreak Resulting from Lack of Handwashing in Pitsoa-Cameroon, July 2022

Haman Djabbo Abdoul Wahhab^{1, &}, Evaristus Ngong Ncham¹, Dongoa Gavli², Patricia Mendjime^{1, 3}, Armel Mbarga Evouna^{1, 3}

¹Cameroon Field Epidemiology Training Program, MOH, Yaounde, Cameroon; ²North Regional Delegation of Public Health, Garoua, Cameroon; ³Department of Disease, Epidemics and Pandemics Control, MOH, Yaounde, Cameroon.

&Corresponding author: Haman Djabbo Abdoul Wahhab, Cameroon Field Epidemiology Training Program, Yaounde, Cameroon, abdoulwahhab@gmail.com

Introduction: In October 2021, a cholera epidemic was declared in three regions of Cameroon. On February 18, 2022, *Vibrio cholerae* was isolated from a stool sample in Pitsoa Health District (PHD), Nord Region. By 5 June 50% (5/10) of the health areas (HAs) in PHD were affected. Considering the high risk of a cholera outbreak, we investigated to describe the outbreak and identify cholera risk factors.

Methods: We carried out a 1:2 matched case-control study in PHD from 5 to 12 June 2022. A questionnaire was administered to cases identified in health facility registers and, in the community, and controls selected.

Case definition included acute watery diarrhoea and having epidemiological link with a confirmed case in the PHD from 1 February to 5 June 2022, or with positive stool sample for *Vibrio cholerae*.

A control was any person without signs of the disease in the same house or neighbour of case. We calculated adjusted odds ratios (ORa) using Epi Info 7 to identify risk factors.

Results: We identified 51 cases and 4 deaths (CFR: 7.84%). The sex ratio (F/M) was 1.4 and 45% (23/51) of cases were children less than 5 years. The median age was 7 years (5 months - 80 years). The cases came from five HAs, among which Boula Ibi (23/51 = 45%) and Holma (11/51 = 21.6%) were the most affected. Failure to wash hands with soap ORa (95% CI) = 2.903 (1.096–7.687) was identified as a risk factor for cholera.

Conclusions: The cholera epidemic affected half of HAs in the PHD, with majority of cases coming from one HA. Females and children \leq 5 years were the most affected. Poor hand hygiene was a risk factor. Strengthening of WASH could limit the spread of cholera in the PHD.

Keywords: Case-control survey, Outbreak, Cholera, Cameroon.

Abstract ID: OP619

Descriptive Analysis of Severe Immunodeficiency in Persons living with HIV/AIDS, Lesotho, October 2021 – September 2022

Thato Seotsa^{1,*}, Mahlompho Moleko (Née Mahlape Tiiti)²

¹Lesotho Frontline Field Epidemiology Training Program, National Reference Laboratory, Ministry of Health, Maseru, Lesotho.

²Lesotho Ministry of Health, Lesotho Frontline Field Epidemiology Training Program, Maseru, Lesotho.

&Corresponding author: Thato Seotsa, Lesotho Frontline Field Epidemiology Training Program, National Reference Laboratory, Ministry of Health, Maseru, Lesotho. Email: seotsathato@gmail.com

Introduction: Lesotho has a high HIV prevalence of 22.7% among adults aged 15 years and older. Despite the introduction of test and treat strategy in 2016, severe immunodeficiency (CD4 count <200 cells/mm³) remains a challenge which predisposes people living with HIV to opportunistic infections, morbidity and mortality. We assessed the characteristics of people with severe immunodeficiency in Lesotho for programmatic interventions.

Methods: We conducted a descriptive study using a secondary data analysis of CD4 counts from 17 laboratories in Lesotho, from October 2021 to September 2022.

Data was extracted for analysis from the Laboratory Information System (LIS) into Microsoft Excel 2016. Descriptive analysis i.e., frequencies and proportions were used to summarise categorical variables and median and range for continuous variables.

Results: Of the total 48,473 people tested for CD4 count, 4,995 (10.0%) had severe immunodeficiency. The median age of persons with severe immunodeficiency was 39 years (Range: 5– 103 years) and 53% (n=2647) were males. National Reference Laboratory (25%) situated in the urban area and Motebang Hospital Laboratory (14%), situated in the peri-urban area reported the highest proportion of clients with severe immunodeficiency.

Conclusions: Severe immunodeficiency of 10%, even though it was lower than a World Health Organization (WHO) estimate of 30-40%, signifies a continued need to strengthen HIV testing and treatment adherence interventions. The introduction of differentiated service delivery models aimed at reducing morbidity and mortality for people with advanced HIV should prioritise people of middle age groups, both males and females equally.

Keywords: HIV+, CD4 count, severe immunodeficiency, Lesotho

Abstract ID: OP621

Outbreak investigation of Salmonella typhi, Simbi sector, Southern province, Rwanda: A descriptive study, November 2021

Isabelle Teta Batanage^{1,2,*}, Gaspard Bizimungu^{1,3}, Léonce Majyambere^{1,2}, Christophe Nkundabaza^{1,4}, Sandrine Uwamahoro², Edward Ruseesa², Samuel Rwunganira⁵

¹University of Rwanda, College of Medicine and Health Sciences, Kigali, Rwanda

²Ministry of Health, Rwanda Biomedical Centre, Kigali, Rwanda

³Ministry of Health, Kigeme District Hospital, Nyamagabe, Rwanda

⁴Ministry of Health, Bushenge Provincial Hospital, Nyamasheke, Rwanda

⁵African Field Epidemiology Network, Kigali, Rwanda

&Corresponding author: Isabelle Teta Batanage, Ministry of Health, Rwanda Biomedical Centre, Kigali, Rwanda, Email : tetaisabelle@gmail.com

Introduction: On November 23rd, 2021, Rwanda Biomedical Centre (RBC) was alerted of an unknown illness that caused an increase in patients at Simbi Health Center in the Southern Province, Rwanda. The symptoms included fever, severe headache, body weakness, abdominal pain, diarrhea, and vomiting. A team of epidemiologists and Rwanda Biomedical Centre staff investigated the outbreak.

Methods: In this descriptive analysis, the team documented patients who visited Simbi HC from October 1st to November 26th, 2021, with at least

three symptoms including fever, abdominal pain, diarrhea, vomiting, nausea, headache, or body weakness. Demographic, clinical, laboratory and environmental assessment characteristics were recorded for each patient in Epi Info. Blood and stool samples of newly presenting patients meeting the criteria were collected for further testing.

Results: A total of 129 suspected cases were recorded with a mean age of 25.1 years. Among these, 40% were under 5 years old, 53% were female, and 43% were primary school students. The earliest symptoms were reported on September 30th, 2021, with a peak in incidence on October 22nd, 2021. The most common symptoms reported were fever (91%), headache (73%), body weakness (67%), and abdominal pain (66%). Two of the 13 blood samples tested positive for *Salmonella typhi*, a bacterium causing typhoid fever. Environmental assessment showed that 67% of households used spring water, with only 20% treating water before drinking. 91% of households had latrines, among them only 34% maintained good hygiene. A water collection tank washed a day before the investigation was suspected as the infection source.

Conclusions: The outbreak was concluded to be caused by *Salmonella typhi*. Possible exposure in this study was contamination of water collection tank. Recommendations included proper water chlorination and filtration, improved latrine hygiene, water treatment before consumption, and sanitation and hygiene awareness campaigns, especially for children under 5 years.

Keywords: Outbreak, Typhoid fever, Huye, Investigation, *Salmonella typhi*.

Abstract ID: OP624

Factors associated with mortality among TB/HIV co-infected patients with drug susceptibility in Rwanda: A cross-sectional study

Kizito Nshimiyimana^{1,2,&}, Michael Habtu³, Patrick Migambi², Joseph Ntaganira¹, Albert Ndagijimana¹
¹Department of Epidemiology and Biostatistics, School of Public Health, College of Medicine and Health Sciences, University of Rwanda, Kigali, Rwanda.

²TB and Other Respiratory Diseases Division, Rwanda Biomedical Center, Ministry of Health, Kigali, Rwanda
³Department of Community Health, School of Public Health, College of Medicine and Health Sciences, University of Rwanda, Kigali, Rwanda.

&Corresponding author: Nshimiyimana Kizito, University of Rwanda, Kigali, Rwanda, Email:kizibus13@gmail.com

Introduction: Co-infection of Tuberculosis-Human Immune Virus (TB-HIV) remains the leading cause of death in Africa including Rwanda due to their synergic effect of each other. Very few studies have determined the predictors of mortality among TB-HIV co-infected people. This study aimed to investigate factors associated with mortality among TB-HIV co-infected patients in Rwanda.

Methods: A retrospective cross-sectional study was conducted among 1954 TB-HIV co-infected patients from all health facilities in Rwanda. They were registered in the national individual case-based surveillance system (e-TB) from July 2019 to June 2021. Data were extracted from e-TB and analyzed using Stata Version 16.0. Bivariate and multivariable logistic regressions were performed to determine factors associated with mortality.

Results: The study showed that 14.8% of TB-HIV co-infected patients died during the study period. Of these, 85% of deaths occurred in the two first months of TB treatment. Predictors of mortality were no nutritional support (aOR=1.97, 95% CI: 1.3–2.99), body mass index less than 18.5 (aOR=1.83, 95% CI: 1.36–2.48), being TB clinically diagnosed (aOR=1.52, 95% CI: 1.03–2.23), not started ART (aOR=14.51, 95% CI: 9.13–23.06), not being followed by Community Health Worker (aOR: 3.73, 95% CI: 2.4–5.81), the patients treated in Referral Hospitals (aOR= 2.0, 95% CI: 1.35–2.97) and those treated in District Hospitals (aOR=2.61, 95% CI: 1.67– 4.08).

Conclusions: Despite the availability of ART in Rwanda, there was high mortality among TB-HIV co-infected patients and there is a need for immediate intervention such as nutritional support, Antiretroviral, and follow-up by Community Health Workers for mitigation of the burden.

Keywords: Humans, Coinfection, HIV Infections, Cross-Sectional Studies, Rwanda

Abstract ID: OP633

Malaria Knowledge Among Women of Reproductive Age -Tete Province, Mozambique, 2019-2020

Gerson Afai^{1&}, Erika Valeska Rossetto², Cynthia Semá Baltazar³, Baltazar Candrinho¹, Abuchahama Saifodine⁴ and Rose Zulliger⁵

¹National Malaria Control Program, Ministry of Health, Maputo, Mozambique. ²CTS Global, Inc, Assigned for Centers for Disease Control and Prevention, Maputo, Mozambique. ³National Institute of Health, Maputo, Mozambique. ⁴United States President's Malaria Initiative, USAID, Maputo, Mozambique. ⁵United States President's Malaria Initiative, USAID, Washington, D.C., USA.

&Corresponding author: Gerson Afai; National Malaria Control Program, Ministry of Health, Maputo, Mozambique; e-mail: Gt.afai88@gmail.com

Introduction: Mozambique estimated malaria prevalence in children 6-59 months old is twice as high in rural areas (46.0%) as in urban areas (18.0%). However, 46.0% of women aged 15-49 years had complete knowledge of malaria in 2018. This study identified the factors associated with malaria knowledge among women of reproductive age in a high malaria burden district.

Methods: Across-sectional study was conducted in Tete Province, 2019. Data about women aged 15-49 was collected in community households, and randomly selected. We used a multivariate logistic regression to estimate adjusted odds ratios (aOR), at 95% confidence interval (CI), to determine malaria complete knowledge associated factors. Malaria knowledge was defined as when a woman responds correctly to five malaria questions about symptoms, transmission, prevention, and treatment. We used STATA 6.1 for data analysis.

Results: Overall, 1,899 women (mean age 27, SD ± 8.4) were included in this analysis. There was complete malaria knowledge among 49% of the respondents. Seventy-one percent mentioned fever as one of the malaria symptoms, 92% mentioned mosquito bite as the cause of malaria, 94% identified that mosquito nets prevent malaria, 92% agreed that malaria has a cure, and 76% were able to name at least one antimalarial medicine.

In the multivariate analysis, the following characteristics were associated with significantly higher odds of having complete malaria knowledge: having a secondary school or above education level (aOR=2.5;95%CI=1.3-4.6), being from the middle socioeconomic status group (aOR=1.5;95%CI=1.1-2.1), being from older age group of 35-39 (aOR=1.9;95%CI=1.1-3.1), having 1-2 children (aOR=1.8;95%CI=1.2-2.6), and having interviews completed in Portuguese (aOR=2.3;95%CI=1.3-4.1) or Cinyungwe aOR=2.1;95% CI=1.5-2.8).

Conclusions: Women in this study had good malaria knowledge, but gaps in complete knowledge remained. In order to broaden knowledge, educational messages about malaria prevention should be more effectively targeted to reach younger, less-educated women in non-dominant languages.

Keywords: Malaria: Malaria, Health Knowledge, Risk Factors, Mozambique

Abstract ID: OP635

Epidemiological analysis of Lassa fever in Sierra Leone: A Secondary Data Analysis, 2018 to 2022

Samuel Sama Turay^{1,2}, Solomon Aiah Sogbeh^{1,2,3}, Amara Alhaji Sheriff^{1,2,3}, Adel Hussein Elduma Abdalla^{2,3}, Umaru sesay^{1,2,3}, Anna Jammeh^{2,3}, Joseph Sam Kanu¹, James Sylvester Squire¹, Gebrekrstos Negash Gebru^{2,3,&}

¹Ministry of Health and Sanitation, Freetown, Sierra Leone, ²Field Epidemiology Training Program, Freetown, Sierra Leone, ³African Field Epidemiology Network, Freetown, Sierra Leone.

&Corresponding authors: Gebrekrstos Negash Gebru, African Field Epidemiology Network, Freetown, Sierra Leone: ggebru@afenet.net.

Introduction: Lassa fever is a zoonotic hemorrhagic disease that is endemic in many parts of West Africa, with frequent outbreaks of Lassa fever been reported from several districts in Sierra Leone. However, there has been limited information on the burden, epidemiological patterns, and risk population groups for Lassa fever infection in Sierra Leone. This study aimed to describe the burden, distribution, and epidemiological trends of Lassa fever in Sierra Leone.

Methods: A descriptive cross-sectional study was employed to analyze national Lassa fever data in Sierra Leone, 2018-2022. We extracted data from the District Health Information System (DHIS2) to compute descriptive analysis on key variables (age, sex, districts, and others); analyzed frequencies, proportions, and rates.

Results: A total of 1,127 suspected and 63 confirmed Lassa fever cases with 40 deaths (CFR-63%) were reported. Of the confirmed, the median age was 26 years (range: 1 to 90 years); female accounted for 57% (36), and 40% (25/63) of the cases were between 1-9 years. The average number of confirmed cases reported per year was 13, with the lowest (8 cases) in 2020 and the highest (16 cases) in 2021. The average incidence rate was 2 per 100,000 populations. Kenema district accounted for 81% (51/63), followed by Tonkolili and Bo Districts with 10% (6/63) and 5% (3/63), respectively.

Conclusions: The trend of Lassa fever cases per year was almost constant during the study period. Kenema District accounted for most Lassa fever cases, with people below 10 years mostly affected. We recommend the Ministry of Health and Sanitation to establish Lassa fever prevention, control and treatment interventions with a focus on children under ten years. Urgent community engagements and sensitization are needed to improve early health-seeking behavior in high incidence districts.

Keywords: Lassa fever, hemorrhagic, Kenema, Sierra Leone.

Abstract ID: OP655

Determination of recency of newly diagnosed HIV cases at Malindi Sub-County Hospital, Kenya, 2021-2023:

Hellen Mulalya Masila^{1,&}, Fredrick Odhiambo¹, Kimani Muroki Joseph²

¹Field Epidemiology and Laboratory Training Program, Nairobi, Kenya

²Malindi Sub-County Hospital, Malindi, Kenya

&Corresponding author: Hellen Mulalya Masila, Field Epidemiology and Laboratory Training

Program, Nairobi, Kenya, Email: hellen.masila@yahoo.com, +254727170753

Introduction: Globally, HIV has continued to be a major global public health issue having claimed more than 35 million lives so far. Kenya carries a high HIV burden with an estimated 1.4 million people living with HIV. The incidence of HIV is 0.14%, accounting for approximately 36,000 new infections annually. People who have recently acquired HIV are often unaware of their status.

Finding people with undiagnosed HIV infection enhances early treatment thus reducing HIV incidences. The cases of HIV recency in Malindi are unknown. Therefore, we sought to determine HIV recent and long-term infections at Malindi Sub-County.

Methods: We abstracted data from the MOH 362 registry at Malindi Sub-County Hospital for the period of September 1st, 2021, through March 31st, 2023. The variables collected were age, sex, marital status, recency and viral load results.

The Asante Serological test kits distinguished recent from long-term HIV infections. Recent cases were confirmed by viral load testing. Viral loads above 1000 copies/ml were classified as recent.

Results: Among the 169 HIV recency records abstracted, 101 (60%) were females. Most of the cases were long-term, accounting for 160 (95%). Among the 9 recent HIV infections, 6 (67%) had viral load values exceeding 1000.

The age group between 36-45 contributed the highest HIV infection at 58 (34%). Males were 3 times more likely to contract recent HIV infections compared to females, though not statistically significant (odds ratio [OR]=3.2; 95% CI: 0.76, 13.10, p=0.113). There was an association between being unmarried and HIV recent infection, however not statistically significant (OR=1.4; 9.5% CI: 0.37, 5.5 (p=0.613).

Conclusions: This data review revealed that the majority of people were unknowingly living with HIV. Innovative measures are required to improve early HIV diagnosis in order to stop additional HIV transmission, given the high frequency among people aged 36 to 45.

Keywords: HIV recency, long-term, virally suppressed, undiagnosed

Abstract ID: OP659

Outbreak of Foodborne Illness associated with Pentobarbital contaminated Horse Meat- Havana Informal Settlement, Windhoek, Namibia, April 2020.

Monika Amunyela^{1,*}, Shali Nghoshi^{1,2}, Emmanuel Hikufe^{1,3}, Emilia Kweenda^{1,4}

¹Namibia Field Epidemiology and Laboratory Training Program, Windhoek, Namibia

²University of Namibia, Windhoek, Namibia

³Ministry of Agriculture, Water and Land Reform, Windhoek, Namibia

⁴Ministry of Health and Social Services, Windhoek, Namibia

&Corresponding author: MMonika Amunyela, Namibia Field Epidemiology and Laboratory Training Program, Windhoek, Namibia, Email address: monicaamunyela@gmail.com, mobile: +264 81 3235628

Introduction: On 8 April 2020, children, cats and dogs from Havana Informal Settlement developed vomiting, nausea, unconsciousness, body weakness, diarrhea and/or unsteady gait after consuming horse meat. A foodborne outbreak was suspected. We investigated to verify the existence of the outbreak, determine its magnitude, identify the source and implement control and preventive measures.

Methods: We described the outbreak. We defined a case as a previously healthy resident or visitor in Havana Informal Settlement with acute onset of any two of the following symptoms; vomiting, nausea, headache unconsciousness, body weakness, diarrhea and unsteady gait.

We collected demographic data and food intake history on a standardized line list through face-to-face interviews with ill children's parents. We interviewed the meat seller, the veterinarian who dumped the horse carcass and dump site workers. Moreover, we searched for additional cases in the affected community and the local clinic.

Results: In total, five children aged 6-10 years fulfilled the case definition amongst seven children who ate the horse meat (attack rate of 71.4%) sold to their households on 7 April 2020. Four children had all the above-mentioned symptoms, one only

experienced nausea and headache. All children were hospitalized for 3 days. The horse meat was scavenged from a local vandalized dumping site. The horse was reportedly euthanized with 140ml Pentobarbital by the veterinarian as it was suffering from acute colic.

Conclusions: We informed the treating doctor about the cause of the children's condition for proper treatment. We educated implicated households and the meat seller.

The most-likely cause of the food poisoning was Pentobarbital, which ended up in the children's dinner as a result of buying scavenged horse meat from a local dump site. We recommended veterinarians to burn all euthanized animals, the Municipality to fix the vandalized fence and the Environmental Health Practitioners to intensify community education on food safety.

Keywords: Horsemeat, Dump site, Pentobarbital, Informal Settlement

Abstract ID: OP661

Evaluation of the Entomological Surveillance System of Vector Density, Province of Nampula/ Mozambique, 2017 to 2021

Raúl Duarte Namburete^{1&}, Kulssum F Mussa², Dulcesária Marrenjo Jotamo², Baltazar Neves Candrinho², José Carlos Langa³, Erika Valleska Rossetto⁴, Cynthia Sema Baltazar^{1,5}

¹Field Epidemiology Training Programme, Maputo City-Mozambique, ²National Malaria Control Programme, Ministry of Health, Maputo City –Mozambique; ³Eduardo Mondlane University, Faculty of Medicine, Maputo City—Mozambique; ⁴Massgenics, assigned to the Center for Control and Prevention of Diseases (CDC), Maputo City – Mozambique; ⁵National Institute of Health, Maputo Province-Mozambique

&Corresponding author: Raúl Duarte Namburete, Field Epidemiology Training Program, Maputo City-Mozambique, Email:duarte.namburete@gmail.com.

Introduction: Entomological surveillance is a tool, used by Mozambique's National Malaria Control Program, to help with vector control. In 2017, Nampula Province implemented it in three sentinel posts.

This study employed surveillance system evaluation principles to verify entomological surveillance performance and observe whether it effectively helps detect, prevent, and control, malaria vectors.

Methods: The study applied the 2001 updated Guidelines for Evaluating Public Health Surveillance Systems from the Center for Disease Control and Prevention, focusing on the flexibility and ability to adapt to changing information needs or operating conditions at little additional cost, data quality reflects the completeness and validity of the data recorded in the public health surveillance system, representativeness describes events over time distribution, place and person, and usefulness evaluation attributes. Secondary data from the National Malaria Control Program, collected between July 2017 and June 2021, were used. The study population consisted of 12,561 vectors. Excel 2016 was used for the construction of graphs and tables

Results: During the study period, two new entomological methods for vector collection were introduced, Procopack and Trap Light CDC, in relation to the previous Flit and bait Humana, without additional costs.

The database had 11 mandatory variables and 10 had high completeness: 95.4% (477/500) in 2017, 100% (1000/1000) in 2018, 2019, 2020, and 100% (250/250) in 2021.

The description of vectors over time, place and species was only made in three districts of the 23 existing ones. The system provided entomological data that helped the program assess the risks and impact of vector control interventions on decision-making.

Conclusions: The entomological surveillance system was considered flexible, non-representative, of good data quality for most of the mandatory variables, timely, and useful because it allowed for evaluation and readjustment of the strategies implemented by the program.

Keywords: Malaria, Entomology, Public Health, Surveillance

Abstract ID: OP662

Predictors of Institutional Delivery Service Utilization among Women in Northern Ghana, 2022

Abdul Gafaru Mohammed^{1,2,*}, Ruth Nimota Nukpezah³, Harriet Bonfull, Hilarius Paul Asiwome Kosi Abiwu⁴, Charles Lwanga Noora^{1,2}, Delia Bando², Jennifer Nai-Dowetin², Ernest Kenu^{1,2}

¹Department of Epidemiology and Disease Control, University of Ghana, Accra, Ghana

²Ghana Field Epidemiology and Laboratory Training Programme, Accra, Ghana

³School of Nursing and Midwifery, University for Development Studies, Tamale, Ghana

⁴Northern Regional Health Directorate, Ghana Health Service, Tamale, Ghana

***Corresponding author:** Abdul Gafaru Mohammed; Ghana Field Epidemiology and Laboratory Training Programme, Accra, Ghana; mohammedabdulgafaru46@gmail.com

Introduction: An increase in home delivery among expectant mothers may likely lead to high maternal and newborn morbidities and mortalities as complications related to the delivery. Despite the policy on free maternal healthcare in Ghana since 2005, more than 25% of deliveries still occur outside health facilities in Northern Ghana. This study assessed the prevalence and predictors of institutional delivery among women in Northern Ghana to inform decision-making.

Methods: We conducted a community-based cross-sectional survey among 310 women aged 15-49 years old who had given a live birth between January 2021 and January 2022, using a simple random sampling approach. Using a semi-structured questionnaire, we collected data on mothers' background characteristics, place of delivery for their most recent birth and reported health facility factors. Proportion of institutional deliveries was determined. A logistic regression model was performed to identify predictors of institutional delivery at a 5% significance level.

Results: Of 310 women in the study, the prevalence of institutional delivery was 79% (245) in their most recent births. More than 60% (200/310) of the women were married and 53% (163/310) had no

formal education. Being married (Adjusted Odds Ratio {aOR}=2.8, 95%CI:1.48-5.32), the availability of skilled health personnel (aOR=2.9, 95%CI:1.54-5.43), reported positive attitude of health workers towards their clients (aOR=1.8, 95%CI:1.03 – 3.23), positive attitude of husbands towards health facility delivery (aOR=2.5, 95%CI:1.35 – 4.96) and positive community perception of health facility delivery (aOR=3.8, 95%CI:1.64-8.71) were associated with increased odds of institutional delivery.

Conclusions: Our study found a high institutional delivery rate. Marital status, availability of skilled personnel, attitude of health workers, husbands' attitude and community perception were predictors of institutional delivery.

We organized discussions on institutional delivery with husbands in selected districts in the region. We recommend the Ministry of Health should develop well-defined care packages targeting single mothers, negative health worker's attitude and negative community perceptions.

Keywords: Institutional delivery, Health facility delivery, home delivery, Northern Region, Post-partum, Maternal health

Abstract ID: OP668

Factors associated with complications among Diabetes Mellitus cases in Kitui County Referral Hospital Diabetic Clinic, Kenya from June 2018 -September 2018

Diana Rose Wangari Mwaura^{1&}, Maria Nunga Thuita¹, Esther Ngina Kisangau², Gladwell Koku Gathecha³, Maryanne Nyawira Gachari¹

¹Field Epidemiology Laboratory Training Program, Ministry of Health, Nairobi, Kenya. ²Ministry of Health, Kitui County, Kenya.

³Ministry of Health- Department of Non-Communicable Diseases, Nairobi, Kenya

&Corresponding author: Diana Rose Wangari Mwaura, Kenya Field Epidemiology and Laboratory Training Program, Ministry of Health, Nairobi, Kenya. Email- dianarosewangari@gmail.com

Introduction: Diabetes and its complications is a major cause of mortality worldwide. There is limited published data on diabetes in Kitui County. This study examined factors associated with diabetes complications among diabetic patients on follow-up at a comprehensive diabetes clinic in Kitui County Referral Hospital.

Methods: We conducted a retrospective records review from June through September 2018 of the diabetes registers from the Ministry of health to retrieve demographic and clinical information of patients attending the comprehensive diabetes clinic. Data were abstracted and exported into Epi info for analysis.

We calculated proportions and frequencies for categorical variables, central tendency and dispersion measures for continuous variables. The prevalence odds ratio was used to measure the strength of association between variables and a p-value of < 0.05 was considered statistically significant.

Results: We abstracted 305 records. The mean age was 55 years ($\bar{x} \pm 15$), 222 (73%) were females, 163 (53.4%) were from Kitui Central sub-county and 187(61.3%) did not have a medical cover. Type 2 diabetes was most common with 287 (94.1%) cases and those with underlying hypertension were 168 (55.1%). Two hundred and three (66.6%) had an abnormal BMI whereas 257(84.3%) had a high-risk waist circumference.

Those with uncontrolled blood sugar were 182(59.7%) and 36(11.8%) had an underlying complication. The odds of developing a complication in men was higher (OR- 2.41, CI 1.18-4.92), in those aged ≥ 65 (OR- 2.79 CI-1.37-5.66), in underlying hypertension (OR- 3.87, CI 1.64-9.15), in cases with diabetes for ≥ 10 years (OR 3.33, CI 1.63-6.81) and in those with no NHIF cover (OR- 2.48, CI 1.22-5.04).

Conclusions: The majority of the cases were females, had an abnormal BMI, a high-risk waist circumference and uncontrolled sugars. Being male, age ≥ 65 , hypertension, diagnosis for ≥ 10 years, and lack of a medical cover increased the risk for complications.

Keywords: Waist Circumference, Body mass Index, Glycemic Control

Abstract ID: OP674

Descriptive epidemiology and response to diphtheria outbreak in Nigeria, 2022 – 2023

Bola Biliaminu Lawal^{1&}, Eme Ekeng¹, Oladipo Ogunbode¹, Lois Olajide¹, Abdullahi Kauranmata², Abdulsalam Adeshina³, Bisola Adebayo⁴, Huda Mustapha⁵, Zayyanatu Nuru¹, Olajumoke Babatunde¹, Fatimah Jummai Mustapha⁶, Oyeladun Okunromade¹, Ifedayo Adetifa¹

¹Nigeria Center for Disease Control and Prevention, Abuja, Nigeria.

²Kano State Ministry of Health, Kano, Nigeria.

³Lagos State Ministry of Health, Lagos, Nigeria.

⁴Lagos State University Teaching Hospital, Lagos, Nigeria.

⁵Aminu Kano Teaching Hospital, Kano, Nigeria.

⁶Department of Zoology, Ahmadu Bello University, Zaria, Nigeria.

&Corresponding author: Bla Biliaminu Lawal, Nigeria Center for Disease Control and Prevention, Abuja, Nigeria. bola.lawal@ncdc.gov.ng

Introduction: Diphtheria is an acute life-threatening vaccine preventable disease caused by the toxigenic *Corynebacterium* species. On 1st December 2022, Nigeria Center for Disease Control and Prevention was notified of suspected diphtheria outbreaks in Kano and Lagos States. We investigated to confirm the outbreaks, describe the epidemiology, and institute control measures.

Methods: Using the WHO case definition for diphtheria, we reviewed surveillance data and conducted active case search in health facilities and communities across affected states. Nasopharyngeal and oropharyngeal swabs were collected from suspected cases for laboratory confirmation using culture, PCR and Elek test. Antibiotics sensitivity test (AST) was done on culture isolates. Descriptive analysis was conducted to describe the outbreak in terms of person, place, and time. The final case classification was based on WHO diphtheria surveillance guidelines.

Results: Toxigenic *Corynebacterium diphtheriae* was isolated from samples tested. As of epi-week 11, 2023, a total of 1,064 suspected cases were reported across 21 states out of which 389 (36.6%) were confirmed cases. Kano State accounted for 377 (96.9%) of the confirmed cases. Of the confirmed cases reported, 305 (78.4%) were children 2-14 years old, 60

(15.4%) were fully vaccinated against diphtheria and 211 (54.2%) were female. A total of 62 deaths (case fatality rate: 15.9%) were recorded among confirmed cases. Of the 42 Toxigenic *Corynebacterium diphtheriae* isolates subjected to AST, 40 (95.2%) were susceptible to erythromycin while none was susceptible to penicillin.

Conclusions: For the first time in over two decades, diphtheria outbreak was confirmed and responded to in Nigeria. Findings from the investigation suggests sub-optimal vaccination coverage for diphtheria as the main driver of the outbreak. We strengthened laboratory capacity for confirmation, improved access to diphtheria anti-toxin, conducted reactive vaccination and sensitized clinicians and community members. We recommended strengthening routine immunization, and formulation of diphtheria booster dose policies in Nigeria.

Key Words: Diphtheria, Surveillance, Outbreak, Response

Abstract ID: OP676

Schistosomiasis Outbreak Investigation in Essuekyir, Ghana, January 2023.

Grace Adjoa Ocansey^{1,2,&}, Dora Dadzie^{1,3}, Shahadu Sayibu Shembla^{1,2}, Benedict Adzogble¹, Happy Ametorwodufia^{1,2}, Seth Baffoe^{1,2}, George Opoku-Asumadu^{1,2}, Peter Zunuo Naab³, Clifford Amponsah Ameyaw³, Philomina Afful³, Charles Lwanga Noora¹, Ernest Kenu¹.

¹Ghana Field Epidemiology and Laboratory Training Program, University of Ghana, School of Public Health, Accra Ghana

²Ghana Health Service, Accra Ghana

³Cape Coast Teaching Hospital, Cape Coast, Ghana

&Corresponding author: Grace Adjoa Ocansey, Ghana Field Epidemiology and Laboratory Training Program, University of Ghana, School of Public Health, Accra, Ghana; Email: graceadjoas@gmail.com

Introduction: Schistosomiasis, a neglected tropical disease with crippling consequences on health and socioeconomic activities affects 251 million people globally. It occurs in some parts of Ghana with varying endemicity.

On 4th January 2023, a 14-year-old boy was hospitalised for severe anaemia due to schistosomiasis with 11 other

cases within the community, which was higher than expected. We investigated the cluster to determine the magnitude, assess risk factors, and implement control measures

Methods: An unmatched case-control study was conducted in Essuekyir from 11th to 17th January 2023. Hospital and community case searches were done using case definitions.

Urine samples were obtained from cases and controls for microscopic evidence of *Schistosoma* ova. Demographic, clinical and exposure information were also collected.

Risk factors were assessed using logistic regression analysis at $p < 0.05$. Residents' contact with a river hypothesized as source of infection was observed. The river was assessed for presence of snails. Findings were presented as tables, texts, and graphs.

Results: Of 118 suspected cases, 111 (94.1%) were confirmed. Mean age of cases was 12 (± 5.4) years. Majority of cases, 77.5% (86/111) were male with 85.6% (95/111) pupils.

Household and community attack rates were 23.4% (84/359) and 5.8% (111/1912) respectively. Exposure to Kakum river through swimming (aOR = 5.0, 95% CI: (1.7-14.5)), fishing (aOR = 2.1, 95% CI: (1.1-4.0)), and drawing water (aOR = 2.9, 95% CI: (1.4-6.4)) increased the odds of infection.

Within an hour observation, 66 residents made contact with the Kakum river. *Bulinus* and *Oncomelania* species were recovered from it.

Conclusions: Children and males were mainly affected. Exposure to Kakum river was a significant factor for infection. Cases were treated with praziquantel, and residents were educated to avoid nonessential contact with the river or wear protective boots. Triennial mass praziquantel administration by Ghana Health Service was recommended.

Keywords: Schistosomiasis, outbreak, Essuekyir, Ghana

Abstract ID: OP691

Determinants of sub-optimal glycaemic control among patients enrolled in a medicine dispensing programme in Kwazulu-Natal: A longitudinal study, 2018-2021.

Leigh Johnston^{1,2,4,8}, Patrick Ngassa Piotie³, Innocent Maposa², Sandhya Singh⁴, Lazarus Kuonza^{1,2}, Alex de Voux⁵

¹South African Field Epidemiology Training Program, National Institute for Communicable Disease a division of the National Health Laboratory Service, 1 Modderfontein Road, Sandringham, Johannesburg, 2192.

²University of Witwatersrand, School of Public Health, 27 St Andrews Rd, Parktown, Johannesburg, 2193.

³University of Pretoria, School of Health Systems & Public Health, 31 Bophelo Rd, Prinshof 349-Jr, Pretoria, 0002

⁴National Department of Health- Non-Communicable Disease Directorate, 1112 Voortrekker Rd, Pretoria Townlands 351-Jr, Pretoria, 0187

⁵Division of Epidemiology and Biostatistics, School of Public Health, Faculty of Health Sciences, University of Cape Town, Cape Town, South Africa

***Corresponding author:** Leigh C. Johnston, South African Field Epidemiology Training Program, National Institute for Communicable Disease a division of the National Health Laboratory Service, 1 Modderfontein Road, Sandringham, Johannesburg, 2192, Email: leighj@nicd.ac.za

Introduction: In South Africa, by 2030, 50% of type 2 diabetes mellitus (T2DM) patients, receiving treatment, must achieve optimal glycaemic control (HbA1c $\leq 7\%$).

The Central Chronic Medicines Dispensing and Distribution (CCMDD) programme allows stable patients to collect their medication from community-based pick-up points. Information on glycaemic control for T2DM CCMDD-enrolled patients is scarce. We determined the proportion of T2DM CCMDD-enrolled patients with optimal glycaemic control at baseline and the rate and predictors of becoming sub-optimally controlled.

Methods: A longitudinal study, using HbA1c data from the National Health Laboratory Service for CCMDD-enrolled patients in eThekweni, South Africa from 2018–2021, was performed. We included patients optimally controlled at their baseline HbA1c and having ≥ 1 repeat test available. We used Kaplan Meier analysis to assess survival rates and Cox regression to determine associations between time to sub-optimal control (HbA1c $>7\%$) and several factors. Adjusted hazard rates (aHR), 95% confidence interval and p-values are reported.

Results: Of 41 145 T2DM patients enrolled in the CCMDD, 7 960 (19%) had an available HbA1c result over the study period. A quarter of patients (2 147/7 960; 27%) were optimally controlled at their baseline HbA1c. Of those controlled at baseline, 695 (32%) patients had a repeat test available, with 35% (242/695) changing their status to sub-optimal control. Patients prescribed dual-therapy had a higher rate of sub-optimal glycaemic control (aHR: 1.503; 95% CI: 1.16–1.95; p-value: 0.002) compared to those on monotherapy. HbA1c testing frequency in accordance with national guidelines (aHR: 0.46; 95% CI: 0.24–0.91; p-value: 0.024) was associated with lower hazard rates of sub-optimal glycaemic control.

Conclusions: HbA1c monitoring, in-line with testing frequency guidelines, is needed to flag sub-optimally controlled patients who become ineligible for CCMDD enrollment. Patients receiving dual therapy may require special consideration. Addressing these shortfalls can assist planning and implementation to achieve 2030 targets.

Keywords: Type 2 diabetes; glycaemic control; CCMDD programme; SEMDSA guidelines.

Abstract ID: OP696

Prevalence and trends of Typhoid fever in East Mamprusi District, 2022

Adam Anas¹*, Samuel Dapaa², Magdalene Akos Odikro², Joseph Asamoah Frimpong², Samuel Oko Sackey², Ernest Kenu². ¹Ghana Health Service, North East Regional Health Directorate, Gambaga, Ghana

²Ghana Field Epidemiology and Laboratory Training Program, School of Public Health, University of Ghana, Accra, Ghana

***Corresponding author:** Adam Anas; Ghana Health Service, North East Regional Health Directorate, Gambaga, Ghana; Email: adamas@yahoo.com

Introduction: Typhoid fever is among the leading causes of morbidity in low-and-middle-income countries. In Ghana, typhoid fever is endemic with 209/100,000 cases reported in 2019.

The East Mamprusi district recorded an increase in typhoid fever cases and outbreaks with a case fatality rate of 3.06% in 2019 and 2021. We determined the prevalence of typhoid fever in the district and characterized cases by person, place, and time.

Methods: We conducted a secondary data analysis of typhoid fever in East Mamprusi from January 2017 to December 2021. We abstracted data from the consulting room, admission, and discharge registers. Variables extracted were sex, age, sub-district, laboratory result, and date seen at the health facility. Frequencies, proportions, rates, and median were generated. A spatial map of cases was generated using QGIS. Results were presented in tables and figures.

Results: A total of 9,503 suspected typhoid fever cases were detected of which 37.5% (3,564/9,503) were tested and 57.8% (2,060/3,564) were positive. Females were 69.5% (1,431/2,060). The median age of confirmed cases was 26 years (Range: 1–92 years). The overall prevalence was 264/100,000 population with 2020 recording the highest prevalence of 465/100,000 population. Persons 30–49 years had the highest age-group prevalence (1866/100,000 population). Gambaga recorded the highest sub-district prevalence 611/100,000 population. The highest monthly proportion of cases 15.3% (1,449/9,503) was recorded in August, the peak of the rainy season each year.

Conclusions: Typhoid fever cases were suspected all year round during the five years with fluctuating prevalence. Persons 30–49 years and females were most affected. Gambaga sub-district recorded the highest incidence. More cases were recorded during the peak of the rainy season yearly. We shared our findings with the district health management team and recommended that active case searches be intensified in facilities and improve testing of all suspected typhoid fever cases.

Keywords: Typhoid fever, Data analysis, Outbreak, Northeast, Ghana

Abstract ID: OP702

Realizing sexual and reproductive health and rights of adolescent girls and young women through comprehensive SRHR approaches in Eastern Uganda, Buyende District: a quantitative study.

Martha Zalwango^{1,*}, Janat Nakavubu², Mary Immaculate Atuhairwe², Kenneth Bamwangwiya³

¹Rural Eastern Uganda, Buyende District, Uganda

²NIYETU-HOLD, Kampala Uganda

³Peace Corps, Kampala, Uganda

&Corresponding author: Martha Zalwango, Rural Eastern Uganda, Buyende District, Uganda, Email: zalwagomarta@gmail.com

Introduction: This paper reviews comprehensive approaches to mitigate negative social norms and attitudes affecting sexual reproductive health rights of adolescent Girls and Young Women. In Buyende District, Eastern Uganda, 75% of adolescent girls and young women experience Gender Based Violence. Of these, 45% face early pregnancy, 23% face difficulties accessing contraceptives, 42% have high rates of HIV and sexually transmitted infections.

Methods: An experimental study was carried out within 6 days from 29th March to 4th April 2022 in 5 sub-counties of Kagulu, Nkondo, BuyendeTC, Buyende rural, and Kidera in Buyende District, Uganda. 10 AGBV dialogues were carried out, 2 in each sub county within 5days. Participatory questionnaires were disseminated among AGYW 18 to 30 years during the AGBV dialogues. The snowball sampling method was used to recruit participants and on the 6th day, statistical analysis was done in addition to using Kobo Collect.

Results: With 466 participants, 266 AGYW engaged in both AGBV and Participatory questionnaires. Through Participatory Questionnaires, 203(76%) reported lack of access to information on SRHR. 67(25%) reported that testing, treatment services of

STIs were hard to reach and 27.2% could not obtain contraceptives. In AGBV dialogues where all the 466 participated, 43% were children and men, of these only 2 children and 10 men faced GBV. 57%(266) were AGYW and of these, 75%(199) faced GBV, 35% of 199 faced GBV due to negative social norms and 25%(50) misconceptions and myths. 40.4% faced SGBV leading to unwanted pregnancy (32.4%) and high prevalence of STIs. Communities were sensitized on: Dangers of GBV, interventions like educating children, engaging community leaders in conflicts, speaking against violent acts and reporting to authorities.

Conclusions: Access to SRHR information and services for AGYW in Uganda is still limited by negative social norms, attitudes and misconceptions hence continuous vulnerability to GBV adverse outcomes.

Keywords: Anti Gender Based Violence, Adolescent Girls and Young Women, Gender Based violence, Sexual Reproductive Health Rights, Sexually Transmitted Infections.

Abstract ID: OP708

An Outbreak of cVDPV2 in Dagahaley Refugee Camp, Dadaab Sub-County, Garissa County, Kenya, November 2021

Freshia Wanjiku Waithaka^{1,2,*}, Fredrick Ngeno³, Hillary. Kimeli Limo², Wickliffe Matini², Fredrick Odhiambo¹, Maurice Owiny¹

¹Kenya Field Epidemiology and Laboratory Training Program, Ministry of Health, Nairobi, Kenya.

²Disease Disease Surveillance and Response, Ministry of Health, Nairobi, Kenya.

³Ministry of Health Headquarters, Nairobi, Kenya

&Corresponding author: Freshia Wanjiku Waithaka, I Kenya Field Epidemiology and Laboratory Training Program, Ministry of Health, Nairobi, Kenya. Email: freshiwaithaka@gmail.com

Introduction: Circulating Vaccine Derived Polio Virus 2 (cVDPV2) is a rare circulating virus mutated from the weakened virus in Oral Polio Vaccine, which can only emerge in under-immunized populations. Using the AFP lay case definition, a community health volunteer picked the case of a paralyzed child in October 2021.

We investigated to describe the epidemiology of the outbreak and identify the risk factors.

Methods: We conducted a descriptive study using the World Health Organization's standard polio outbreak investigation checklist.

We defined a case as any person with poliovirus isolation in the stool. Data were analyzed using descriptive statistics.

Results: A 17-month-old female was found positive for poliovirus type two, which was genetically linked to an environmental sample from Garissa County and had been in circulation for seven years. She had paralysis on the right upper and lower limbs.

The contact sample was taken from three children and found to be negative. Children aged under-five years who arrived in the refugee camp from August through October 2021 were 51, of whom 49/51 (96.1%) had not received 1st dose of Oral Polio Vaccine (OPV).

Three facilities in the camps had less than 80% OPV3 and IPV coverage, while 7/61 (11.5%) families had no sanitation facilities and practiced open defecation.

Conclusions: Our investigation found that the existence of the unvaccinated child caused the cVDPV2 outbreak. The main concern is that vulnerable populations will always serve as breeding grounds for disease outbreaks and reservoirs for disease vectors.

The outbreaks show that there will always be a risk of sizable polio epidemics brought on by poliovirus importation from nations with a continuing polio epidemic unless polio transmission is stopped in these endemic polio countries.

We recommended strengthening polio cross-border surveillance systems by utilizing the existing structures and ensuring high vaccination coverage.

Keywords: Vaccination Coverage, Poliomyelitis, Paralysis, Kenya, Somalia, Refugee Camps, World Health Organization

Abstract ID: OP718 COVID-19 vaccination coverage survey in population 18 years and older, Bissau, Guiné-Bissau, January 2023

Gizelo Araújo Mendonça^{1,2,&}, Mouhammed Ould Hamed³, Jéssica da Cunha⁴, Elizabeth David dos Santos², Marta Helena Paiva Dantas^{9&10}, Deise Aparecida dos Santos⁹, Isaque Bartolomeu Silva^{1&7}, Mamadú Camará^{1&2}, Alberto Luís Papique^{1&3}, Dalanda Dafé¹, Domingos Blué Clodé², Marcelino Correia Nanque⁵, Victorino Martinho Aiogalé³, Augusto Na Lama³, Benvindo Joãozinho Sá^{1&3}, Sábado Fernandes Gomes⁵, Sidónia Gomes Vieira¹, Carla Maria Costa e Sá Gomes Ca¹, Iancuba Dahaba¹, Morto Mané⁵, Venâncio Sanca³, Victor Inhané⁸, Tamagnene Vasco Gomes da Silva⁶, Telma Angelina Gomes Sá Monteiro³, Vanira Elisa Pires Alves de Almada³, Malam Ba Camará¹, Nivreanes Tchernon Nulle Gomes^{1&2}

¹National Institute of Public Health (INASA), Bissau, Guiné-Bissau

²Field Epidemiology Training Program (FETP)/INASA, Bissau, Guiné-Bissau

³Ministry of Public Health (MINSAP), Bissau, Guiné-Bissau

⁴Ministry of Environment and Biodiversity, Bissau, Guiné-Bissau

⁵National Public Health Laboratory (LNSP)/INASA, Bissau, Guiné-Bissau

⁶Plan International, Bissau, Guiné-Bissau

⁷Bandim Health Project (PSB)/INASA, Bissau, Guiné-Bissau

⁸Immunization and Epidemiological Surveillance Service (SIVE), Bissau, Guiné-Bissau

⁹ African Field Epidemiology Network (AFENET), Kampala, Uganda, ¹⁰Centers for Disease Control and Prevention (CDC), Atlanta, United States of America

&Auteur correspondant: Gizelo Araújo Mendonça - Field Epidemiology Training Program (FETP)/INASA, Bissau, Guiné-Bissau, email: gizelo.mendonca@inasa.gw

Introduction: After three years of pandemic, COVID-19 still poses a serious problem to global public health. Despite vaccine availability, several countries face difficulties in reaching the 70% coverage target, including Guiné-Bissau. The objectives of this study were to estimate vaccination coverage for COVID-19 in the population aged 18 and older in Bissau, January/2023 and to analyze factors associated with vaccination.

Methods: A cross-sectional, household survey type study was conducted. The sampling was by cluster 30x7, in each of the 30 clusters seven people would be interviewed, totaling 210.

The selection of Bissau, the country's capital, was by convenience. The selection of clusters, blocks, households, and individuals to be interviewed was by simple random drawing.

A vaccinated individual was defined as an eligible individual who provided proof, through a vaccination card or certificate, of at least one dose of the COVID-19 vaccine.

Simple and relative frequencies, measures of central tendency and dispersion, prevalence ratio (PR), 95% confidence intervals (95%CI), and design effect (DE) were calculated.

Results: A total of 209 people were interviewed, median age 34 (18-71) years; 59.3% (124/209) female; 50% (104/209) married, 50.7% (106/209) Christian. Vaccination coverage was 49% (102/209). In bivariate analysis, married people [PR=1.5; (95%CI:1.12-2.01); DE=1.001] and having comorbidity [PR=1.37; (95%CI:1.04-1.81); DE=1.001] had higher probability to be vaccinated.

Conclusions: COVID-19 vaccination coverage was below the target. The probability of being married and getting vaccinated was an unusual finding, probably due to the influence of one of the members of the couple.

As for those with comorbidity, public health authorities and the media prioritized and emphasized the importance of vaccinating this group of people. It was recommended to intensify communication actions for the entire eligible population as well as vaccination actions against COVID-19 until the goal was reached.

Key words: COVID-19, vaccination coverage, cluster, Bissau.

Abstract ID: OP719

COVID-19 risk perception, prevention practices and vaccine uptake among hair stylists in Abeokuta metropolis, Ogun state, Nigeria.

Saheed Olalekan Akinbowale^{1,2,3&}, Magbagbeola David Dairo³

¹Nigeria Field Epidemiology and Laboratory Training Program, Abuja, Nigeria

²Ogun State Ministry of Health, Abeokuta, Nigeria.

³Department of Epidemiology and Medical Statistics, Faculty of Public Health, University of Ibadan, Ibadan, Nigeria

&Corresponding author: Saheed Olalekan Akinbowale, Department of Public Health, Ogun State Ministry of Health, Abeokuta, Nigeria. Email: akinbowalesaheed@gmail.com

Introduction: Multiple waves of COVID-19 infection and over 760 million confirmed cases have been reported world-wide despite several public health interventions including vaccination. As at March 2023, Nigeria reported at least five waves of COVID-19 outbreaks, multiple strains of COVID-19 virus, 266,000 confirmed cases and over 3,000 deaths. Ogun state reported 5,810 confirmed cases with 82 deaths. Only 65.1% of the global population and 32.4% of Nigerians were fully vaccinated. Community transmission of COVID-19 is a public health concern and hairstylists can serve as COVID-19 infection source to propagate spread through human-to-human transmission.

Methods: Across-sectional descriptive study using a multi-stage sampling technique to select 376 hairstylists. An observational checklist and an interviewer-assisted questionnaire with open-ended and close-ended questions was used. Descriptive, inferential statistics and Chi-square test with level of significance at 5%. Odds ratio at 95% confidence-interval was used. Data was analyzed using EPI-info version 7.0 software.

Results: More than half (51.9%) were females, 48.1% were barbers, mean age was 32.7±12.0 years, and 77.4% had completed secondary education. About 75% felt they were not likely to contract COVID-19 infection, 24.7% were observed using facemask, 64.1%

had hand-washing facilities/hand-sanitizer, 57.4% of workspaces had inadequate ventilation, 64.9% reported they received at least one dose of a COVID-19 vaccine.

Of the 132 unvaccinated respondents, 61.3% are willing to be vaccinated. Older respondents, respondents with adequate information on COVID-19 vaccine and respondents who trust public health agencies were more likely to be vaccinated.

Conclusions: COVID-19 risk perception of respondents was poor, prevention practices was moderate, proportion vaccinated with at least one dose of COVID-19 vaccine is higher than the general population but proportion of fully vaccinated respondents is lower than the general population.

More sensitization and vaccination outreach sessions to the informal sector will help improve prevention practices and increase vaccine-uptake in Ogun state.

Keywords: COVID-19, Vaccine uptake, Risk perception, Preventive practice

Abstract ID: OP738

SARS-CoV-2 post-mortem testing of out-of-hospital natural deaths - Mangaung metropolitan area, Free State Province, South Africa - August 2020 to August 2022.

Brian Brummer^{1,2,&}, Joy Ebonwu⁶, Motshabi Modise^{1,4}, Nelly Mabotsa³, Akhona Tshangela⁶, Hetani Mdose¹, Ramasedi Mokoena⁵

¹South African Field Epidemiology Training Programme, NICD, Johannesburg, South Africa

²School of Public Health, University of the Witwatersrand, Johannesburg, South Africa

³Free State Department of Health, Bophelo House, Bloemfontein, South Africa

⁴Division of Public Health, Surveillance and Response, National Institute for Communicable Diseases, Johannesburg, South Africa.

⁵Community Health, Faculty of Health Science, University of Free State, Bloemfontein, South Africa

⁶Africa Centres for Disease Control and Prevention, African Union, Addis Ababa, Ethiopia

&Corresponding author: Brian Brummer, South African Field Epidemiology Training Programme, NICD, Johannesburg, South Africa, Email: BrianB@nicd.ac.za

Introduction: Accurate and timely reporting of deaths due to COVID-19 infection is critical to ongoing public health surveillance and response. Excess mortality reports by the South African Medical Research Council suggest underreporting of COVID-19 related deaths, as routine COVID-19 death surveillance utilizes mainly data on hospitalised patients. SARS-CoV-2 post-mortem testing (PMT) for persons who died of natural causes out-of-hospital was implemented in South Africa and rapid mortality surveillance optimised at selected districts in the Free State Province (FSP), South Africa. We provide information on the testing, and positivity rate of PMT in the Mangaung metropolitan area, FSP, from 01 August 2020 to 31 August 2022.

Methods: We compiled a repository of out-of-hospital, natural deaths using both public and private mortuary registers in the Mangaung metropolitan area. The repository was linked to the cumulative COVID-19 laboratory test data and case line list, with outcomes recorded in the Go.data outbreak management system and harmonised with the case line list. We report the PMTs conducted, and COVID-19 associated deaths using frequency and proportions.

Results: During the analysis period, a total of 5150 out-of-hospital natural deaths were recorded, 56% (2885/5150) had SARS-CoV-2 PMT conducted. Private funeral parlours performed 26% (744/2885) of the PMTs. The positivity rate was 20% (574/2885). Within the review period, 2797 COVID-19 related deaths were reported with the following proportions: hospital deaths 65% (1818/2797), community deaths PMT 20% (574/2797), and community deaths ante-mortem tested 15% (405/2797).

Conclusions: The number of reported COVID-19 related deaths was enhanced by implementing SARS-CoV-2 post-mortem testing of out-of-hospital natural deaths and linking mortuary registers with COVID-19 laboratory test data and case line lists.

Keywords: COVID-19, Post-Mortem Testing, Excess Deaths, Mortality Surveillance

Abstract ID: OP739

Exploration of Causes Contributing to Low Covid-19 Vaccine Coverage at Mwanza District Hospital from March 2021 – December 2022

Dikirani Chadza^{1,*}, Daniel Mapemba², Grace Funsani²,
¹Ministry of Health, Mwanza District Health Office, Blantyre, Malawi.

²Ministry of Health, Public Health Institute of Malawi, Malawi Field Epidemiology Training Program, Lilongwe, Malawi.

***Corresponding author:** Dikirani Chadza, Ministry of Health, Mwanza District Health Office, Blantyre, Malawi. Email: dchadza@gmail.com

Introduction: As of 31st December 2022, Malawi had registered 88,214 confirmed cases of Covid-19, with 2685 total deaths. Additionally, 33% of the population were vaccinated against Covid-19. The World Health Organization recommends Covid-19 vaccination coverage of 70% of the population. By December 2022, Mwanza district hospital had reached 32.8% Covid-19 vaccination coverage and 13.1% fully immunized against a national set target of 50% of the population. We explored the causes for low vaccination uptake at Mwanza district hospital.

Methods: We conducted a focus group discussion (FGD) with primary vaccinators and their supervisors to explore the factors for low vaccine uptake and establish the critical cause using the Fish bone diagram. Qualitative data was analyzed by use of content, narrative and discourse analyses. An action plan was developed to address the factors that were identified during the problem analysis.

Results: Periodic vaccine stock outs, cold chain problems, high staff workload, inadequate knowledge on COVID-19, and poor attitudes and practices of some health care workers affected provision of the vaccine to the community. On the other hand, the target population's beliefs and misconceptions about Covid-19 vaccine and distance to vaccination sites hindered the communities' access to vaccine. Inadequate supervision by the district's administration was identified as the critical cause of the low Covid-19 uptake. Several factors affected low vaccine uptake.

Although most factors were staff-related, the critical cause identified to have influenced the low uptake of Covid-19 vaccine uptake was inadequate supervision from the district management team.

Conclusions: Inadequate supervision was critical cause of low Covid-19 vaccine coverage in Mwanza district. The district's administration should plan and conduct regular supervision of vaccinators.

Keyword: Humans, Covid-19 vaccines, Vaccination coverage, Focus Groups, Workload, Malawi

Abstract ID: OP744

Epidemiology of Multidrug-Resistant Enterobacteriaceae among Patients with Wound Infections in Ibadan, Nigeria

Olawale Sunday Animasaun^{1,5,7*}, Aderemi Oludiran Kehinde², Muhammed Shakir Balogun³, Olamide Priscilla Animasaun⁴, Busayo Kayode Akomolafe⁵, Babatunde Muideen Olatunji⁵, David Olusoga Ogbolu⁶, Olufunmilayo Ibilola Fawole⁷

¹Nigeria Field Epidemiology and Laboratory Training Programme

²Department of Medical Microbiology and Parasitology, University of Ibadan, Ibadan, Nigeria

³African Field Epidemiology Network Abuja, Nigeria

⁴Department of Biochemistry, Federal University of Agriculture Abeokuta, Abeokuta, Nigeria

⁵Oyo State Primary Health Care Board, Ibadan, Nigeria

⁶Department of Medical Laboratory Science, Osun State University, Osogbo, Nigeria.

⁷Department of Epidemiology and Medical Statistics, Faculty of Public Health, University of Ibadan, Ibadan, Nigeria

***Corresponding author:** Olawale Sunday Animasaun, Department of Medical Laboratory Services, Oyo State Primary Health Care Board, Ibadan, Nigeria, +2348069646890 Email: Prof_walexanny@yahoo.com

Introduction: Wound infections caused by Enterobacteriaceae pathogens are a major health problem globally, leading to debilitating outcomes. This is compounded by the menace of antimicrobial resistance. In Nigeria, antimicrobial resistance has been a major public health concern due to inadequate healthcare facilities.

We assessed the aetiology, antimicrobial susceptibility patterns, and determinants of wound infections in Ibadan, Nigeria.

Methods: We conducted a hospital-based cross-sectional study involving isolation of pathogenic bacteria from the 221 swabs and biopsies collected from patients with infected wounds enrolled by systematic sampling.

We used the Kirby-Bauer method to determine antimicrobial susceptibility. We screened multidrug-resistant (MDR) strains for the presence of resistance genes using polymerase chain reaction (PCR).

We collected data on the determinants of wound infection using a questionnaire. We used chi-square test to determine differences in recovery rate and determinants at $P < 0.05$.

Results: Bacterial pathogens recovered in 79.2% ($n=175$) of wound specimens. *Klebsiella* species was the most abundant Enterobacteriaceae pathogen isolated (47.3%) followed by *Escherichia coli* (32.4%) and *Proteus mirabilis* (20.3%).

There were significant differences in isolation of pathogens with respect to age, wound type, and co-existing morbidity (AOR 9.16, $P 0.0025$). Most isolates were sensitive to Levofloxacin (70%), Ofefix (60%) and Colistin (50%) and resistant to Ampiclox (95%), Cefixime (85%) and Imipenem (80%). Resistance genes detected: *qnrB* (84.2%), *KPC* (57.9%), *aacIb* (52.6%), *OXA-48* (36.8%), *qnrC* (10.5%), *mcr-2* (10.5%), *qepA* (5.3%), and *mcr-1* (5.3%).

Conclusions: We found a high prevalence of wound infection with MDR bacteria. Co-existing morbidity increased the risk of wound infection. Our finding further underlines the spread of resistance genes in Nigeria which has implications for patients' treatment and high potential for international spread.

There is a need to strengthen surveillance, infection prevention, and control measures and call for greater collaboration among relevant stakeholders to stem the spread of MDR bacteria..

Keywords: Wound infection, antibiotic susceptibility, co-morbidity, Enterobacteriaceae, resistant genes

Abstract ID: OP745

Enablers of age-appropriate vitamin A supplementation uptake among children aged 6-59 months in the Nadowli-Kaleo District, Upper West Region, Ghana - 2022

Sorengmen Amos Zieme¹*, Faith Agbozo², Francis Bruno Zotor²

¹Department of Public Health, Ho Teaching Hospital, Ho, Ghana

²Department of Family and Community Health, University of Health and Allied Sciences, Fred N. Binka School of Public Health, Hohoe, Ghana

***Corresponding author:** Sorengmen Amos Zieme; Department of Public Health, Ho Teaching Hospital, Ho, Ghana; ziemaamos@gmail.com

Introduction: Periodic vitamin A supplementation (VAS) uptake among children under-five years reduces mortality associated with diarrhoea, measles, and respiratory infections. Yet in Ghana, the national target of at least 80% coverage remained distant.

We determined age-appropriate uptake and enablers of VAS among children aged 6-59 months in the Nadowli-Kaleo district for evidence-informed policymaking.

Methods: An analytic cross-sectional study was conducted among 502 children aged 6-59 months and mother pairs. We used a multistage sampling approach to select sub-districts, communities, households, and participants.

Sociodemographic and supplementation data was extracted from maternal and child health record books and mothers interviewed with semi-structured questionnaires.

Proportion of age-appropriate VAS uptake was determined by children taking the required VA supplements per age schedules. Data analysed using logistic regression at 95% confidence interval (CI) produced predicted probabilities and odds ratios of age-appropriate VAS uptake.

Results: Appropriate VAS uptake per age schedules was 62.4% among the children. Predicted probabilities (Pr) of age with appropriate VAS uptake significantly decreased among older children; 6-11 months (Pr:0.95, 95%CI:0.90-0.99), 12-23 months (Pr:0.76, 95%CI:0.69-0.84), 24-35 months (Pr:0.59, 95%CI:0.50-0.68), 36-47 months (Pr:0.42, 95%CI:0.33-0.52), 48-59 months (Pr:0.30, 95%CI:0.19-0.40) accordingly. Children aged 12-23 months (AOR:8.06, CI:3.96-16.43), caregiver's level of education; senior high school education (AOR:0.30, 95%CI:0.13-0.69), tertiary education (AOR:3.25, 95%CI:1.06-10.01) and good knowledge on VAS schedules (AOR:4.65, 95%CI:1.4-15.1) were associated with increased odds of VAS uptake.

Conclusions: Uptake of VAS among the children was sub-optimal and declined as they aged. We found younger children, tertiary level educated, and good knowledge of mothers enabling age-appropriate VAS uptake. We sensitized health professionals to continuously educate mothers of children under five years to observe VAS.

Keywords: Vitamin A, supplementation, uptake, enablers, deficiency, Ghana.

Abstract ID: OP746

The Risk Perception of Mpox Disease Transmission Among Men Who Have Sex with Men in Rivers State, Nigeria.

Hastings Chinedu Onu^{1,*}, Golden Owonda², Ihuoma Aaron Wali³, Chidinma Eze-Emiri⁴, Nwadiuto lfeoma⁵, Ndubisi Akpoh⁶, Adedire Elizabeth⁷, Muhammad Balogun⁸

¹Nigeria Field Epidemiology and Laboratory Training Program Abuja, Nigeria.

²Department of Public Health and Disease Control Rivers State, Nigeria.

³Department of Community Medicine Rivers State Ministry of Health, Port Harcourt Nigeria.

⁴School of Public Health, University of Port Harcourt, Port Harcourt Rivers State, Nigeria

⁵Department of Public Health and Disease Control Rivers State, Nigeria

⁶Department of Public Health and Disease Control Rivers State, Nigeria.

⁷African Field Epidemiology Network, Abuja, Nigeria.

***Corresponding author:** Hastings Chinedu Onu, Nigeria Field Epidemiology and Laboratory Training Program Abuja, Nigeria, Email: onuhast123@gmail.com, dronuhastings@yahoo.com

Introduction: The global changing dynamics of Mpox resulted in the emergence of cases mostly among men who have sex with men (MSM). Among cases with sexual orientation reported, 85.5% have identified as gay, bisexual, and other men who have sex with men.

This proportion has consistently been above 75%, highlighting that most of the transmission continues to occur in this community. In Nigeria, MSM is conservatively estimated to be 1% of the population; however, there are evident demographic transitions with about 56,000 MSM in Rivers State. We therefore assessed the risk perception and psychosocial characteristics of the MSM community.

Methods: We conducted a cross-sectional study among MSM in Rivers State. We administered a pretested questionnaire to 498 respondents using a targeted sampling method. The data were summarized using frequencies and cross-tabulations for descriptive statistics.

Results: The mean age of the respondents was 30 ± 7.7 (12-71). Twenty-three (4.6%) of the total respondents identified as females. About 344 (69.1%) were urban dwellers. Two hundred and forty-six respondents (49.4%) CI (0.4501, 0.5379) perceived Mpox disease as a serious event while 129 (25.9%, 95% CI: 22.1-29.8) and 123 (24.7%, 95% CI: 20.9-28.5) perceived it to be very serious and not serious respectively. About 270 (54.2%, 95% CI: 49.8, 58.6) respondents thought it was unlikely to contract Mpox disease, while 183 (36.7%, 95% CI: 32.5-40.9) thought it was likely. Generally, Mpox was perceived as a low-risk event by the respondents 445 (89.4%, 95% CI: 86.7-92.1) There was no significant difference between educational levels and risk perception ($\chi^2(2(6))1.855a \quad 0.933$)

Conclusions: This low-risk perception for contracting Mpox highlights the danger of disease spreading among MSM, if a person does not perceive an illness as risky or posing severe risk, there may be no motivation to act or take preventive actions. Therefore, there should be effective risk communication to this key population.

Keywords: MSM, Mpox, Risk perception, Rivers State.

Abstract ID: OP752 **Paederus dermatitis (Nairobi fly) outbreak investigation in momona IDP Mekelle, Tigray, Ethiopia- October 2021.**

Amanuel Solomon^{1,*}, Gebre Mikael¹, Haile W¹
¹Mekelle University, Mekelle, Ethiopia

&Corresponding author: Amanuel Solomon, Mekelle University, Mekelle, Ethiopia, gebreaneniag9@gmail.com

Introduction: Paederus dermatitis is an irritant contact dermatitis caused by crushing insects of the genus Paederus, which releases a vesicant toxin called pederin. On Sep 28, 2021, the district health office received a report of cases with erythema, itching, and burning after contact with the Paederus insect. In response, we investigated the outbreak intending to describe, confirm, and identify the risk factors associated with the region's first reported outbreak

Methods: The investigation was conducted in Momona IDP, Mekelle town of Tigray region, Ethiopia. A community-based unmatched case-control study was conducted from Sep 30 to Oct 12, 2021. One hundred twenty-six (42 cases and 84 controls) study participants were involved in the study. An interviewer-administered questionnaire was used for the data collection, and multiple logistic regression was applied to determine the independent risk factors.

Results: According to our investigation a total of 42 cases with no death suspected Paederus Dermatitis were identified. Of the total cases, 26 (61.9%) of them were females. The age of the case patients ranged from 1 month to 81 years with a median age of 26 years. Multivariate analysis showed that the presence of outdoor light (AOR=5.1; 95% CI (2.5, 10.9)), presence of rotten leaves (AOR=6.4; 95% CI (2.9, 15.7)), sleeping on the floor (AOR=6.1; 95% CI (2.5, 15.7)), wearing protective clothing (AOR=0.2; 95% CI (0.1, 0.4)), and use of insect repellent (AOR=0.1; 95% CI (0.0, 0.4)) were significantly associated with Paederus dermatitis outbreak.

Conclusions: In an outbreak of Paederus dermatitis, the diagnosis of blistering beetle dermatitis should be kept in mind. Timely diagnosis, epidemiological investigation and insecticide spraying bring down the incidence of new cases. Creating awareness of the condition among the local population and instructing them regarding the control measures. The measure should include reducing the outdoor light and removing excess decomposing plants and foliage from the accommodation site.

Keyword: Paederus Dermatitis, Nairobi fly, rove beetle.

Abstract ID: OP757 **Determination of Dioxin Level in Cattle Hide Processed Using Different Fuel Sources for Human Consumption in Sokoto Central Abattoir, Sokoto, Nigeria**

Zakariyau Umar^{1,*}, Lawal Amadu¹, Junaidu Kabir², Beatty-Viv Maikai², Muhammad Shakir Bolugun³

¹Nigeria field epidemiology and Laboratory training program, Abuja, Nigeria

²Ahmadu Bello University Zaria, Kaduna State Nigeria

³African field Epidemiology Network, Abuja Nigeria

&Corresponding author: Zakariyau Umar, NigeriaField Epidemiology and Laboratory Training Program, Abuja. +2347034629367, umarzakariyau54@yahoo.com

Introduction: Using trashed tires to singe hide has been a practiced in Nigeria for several years. It exposes meat or hides to a hazardous chemical substance such as Heavy metals, Poly aromatic hydrocarbon, Dioxin and Furans. We therefore analyzed cattle hides singed using trashed tires at the Sokoto Abattoir to determine the baseline concentration of dioxin in the hide of slaughtered cattle in Sokoto Abattoir and the contribution of processing methods to dioxin content in hide.

Methods: In a quasi-experimental study, we sampled 160 cattle hides using systematic random sampling. Eighty (80) hides were subjected to processing using hot water (control) while the remaining eight (80)

were divided into three groups processed using either tires, plastics or firewood as a fuel source (test). Dioxin level in hide samples was determined using enzyme-linked immunosorbent assay (ELISA). We conducted a paired T-test and ANOVA to see if differences in the concentration of dioxin between the control and test group were statistically significant.

Results: The mean concentration of dioxin in cattle hide processed using hot water (control group) was 0.68ppt, and the concentrations for the other group's were 25.6ppt, 2.69ppt, and 8.33ppt for cattle hide processed using tires, plastics, and firewood as a fuel source respectively. The mean difference in concentration was statistically significant for hide processed using tires at $p < 0.05$ (0.004), but not statistically significant in hide processed using plastics and firewood at $p > 0.05$ (0.278 & 0.301).

Conclusions: Cattle hide singed using tires have high dioxin content, compared to hide processed using other methods and is potentially toxic to humans, animals and the environment. Governments, public health practitioners, and relevant stakeholders should work in synergy to discourage the practice of processing cowhide using trashed tires and polythene bags.

Keyword: Dioxin, Singed cattle hides, Carcinogenicity, ELISA

Abstract ID: OP762

Evaluation of Schistosomiasis (Bilharzia) Surveillance System at Ehlanzeni district, Mpumalanga province, 2020-2022

Ntombizodwa Madalane^{1,2}, Phuthi Sekwadi^{2,3}, Elsie Nqobile Ngoma^{2,3}, Khuliso Ravhuhali^{2,4}

¹Mpumalanga Department of Health, Ehlanzeni District, Mbombela, South Africa

²South African Field Epidemiology Training Programme, National Institute for Communicable Diseases, a Division of the National Health Laboratory Service, Johannesburg, South Africa

³Centre for Enteric Diseases, National Institute for Communicable Diseases, a Division of the National Health Laboratory Service, Johannesburg, South Africa

⁴University of Pretoria, Pretoria, South Africa.

***Corresponding author:** Khuliso Ravhuhali, National Institute for Communicable Diseases, Johannesburg, South Africa, Email: khulisor@nicd.ac.za

Introduction: Schistosomiasis, a neglected parasitic infection caused by trematode worms affects approximately 240 million people globally. In South Africa, more than 4 million people are estimated to be infected with schistosomiasis. South Africa has included schistosomiasis on its revitalized national Notifiable Medical Conditions (NMC) surveillance platform since July 2017. Schistosomiasis is a category 2 NMC- which means all healthcare workers (HCWs) are required to notify cases through paper-based or electronic case notification forms (CNF) within 7 days of diagnosis. The objective of the study was to describe and evaluate the schistosomiasis surveillance system in the Ehlanzeni district.

Methods: We conducted a cross-sectional descriptive study and administered a structured questionnaire to the involved public healthcare workers (HCW) in 3 health facilities. We reviewed 20 notification forms for data quality assessment. Using the updated Centers for Disease Control and Prevention (CDC) guidelines for evaluating surveillance systems. We assessed usefulness, knowledge, data quality, acceptability, and simplicity. We calculated frequencies and proportions.

Results: A total of 22 public HCWs participated in the survey, 18/22 (82%) were females and 4/22 (18%) were males. All participants had knowledge of the Schistosomiasis case definition and the notification processes.

None of the respondents used Schistosomiasis data at their level. Approximately, 18/22 (82%) found the system simple and were willing to continue participating in the system. HCWs trained in Schistosomiasis surveillance were 7/22 (32%). Twenty notification forms were reviewed and of these, 13/20 (65%) forms were notified in the NMCSS. Only 8/20 (40%) forms were fully completed and 12/20 (60%) were partially completed.

Conclusions: The strongest attributes of the schistosomiasis surveillance system in the Ehlanzeni district were simplicity and acceptability. Usefulness and data quality were the weaker attributes of the system. We recommended training of HCWs on the use of Schistosomiasis surveillance data in the district.

Keywords: Schistosomiasis, Evaluation, Ehlazeni District

Abstract ID: OP763

Molecular Characterization and Resistance Pattern of Carbapenemase-Producing *Klebsiella pneumoniae* from Clinical Specimens at Federal Medical Centre, Keffi-Nasarawa State, Nigeria 2023

Benson Igoche Omaiye^{1,&}, Muhammad Shakir Balogun^{1,2}, Egbu Henry Chinonso³, Istifanus Nkene⁴, Patrick Mboya Nguku², Celestine Ameh², Aishat Bukola Usman⁵

¹Nigeria Field Epidemiology and Laboratory Training Program, Abuja, Nigeria

²African Field Epidemiology Network, Abuja, Nigeria

³Federal Medical Center, Keffi, Nigeria

⁴Nasarawa State University, Keffi, Nigeria

⁵ECOWAS Regional Center for Surveillance and Disease Control, Abuja, Nigeria

&Corresponding author: Benson Igoche Omaiye, Nigeria Field Epidemiology and Laboratory Training Program, Federal Capital Territory, Abuja-Nigeria., +2347062949052 Email: happibensono@gmail.com

Introduction: The emergence of transmissible plasmid-mediated carbapenem resistance genes among Enterobacteriaceae as carbapenem-resistant *K. pneumoniae* (CKP) is now a global public health issue. Control and appropriate interventions for antimicrobial resistance depend on effective surveillance and knowledge of the patterns of resistance. We determined the resistance profile and molecular types of the genes responsible for carbapenem resistance in *Klebsiella pneumoniae* from clinical samples of patients at Federal Medical Centre, Keffi, Nasarawa State.

Methods: We conducted a hospital-based cross-sectional study between September 2022 and February 2023. We collected 239 clinical samples from which we isolated and identified *K. pneumoniae* using standard microbiological methods. We conducted antimicrobial susceptibility testing for phenotypic detection of carbapenemase production in the isolates using a disk

diffusion method. We detected the carbapenemase resistance genes blaKPC and blaOXA using the polymerase chain reaction.

Results: *K. pneumoniae* was isolated from 45 samples (18.8%). The highest rate of isolation was in urine [37 (24.8%)] and lowest in sputum [8 (13.3%)]. Resistance to antimicrobial agents: amoxicillin/clavulanic acid, cefuroxime, and nalidixic acid (100%); sulfamethoxazole/trimethoprim (91.1%) and ciprofloxacin (88.9%), ofloxacin (47.2%) and imipenem (19.4%). Multi-drug resistance rate was high (85.7%) while pan-drug resistance was 17%. Five of the 8 (62.5%) imipenem-resistant *K. pneumoniae* isolates were found to be carbapenemase-producers. Carbapenemase resistance genes detected included blaOXA gene [5 (100%)], blaOXA and blaKPC [4 (80%)].

Conclusions: blaKPC and blaOXA were prevalent among species of *K. pneumoniae* in Nasarawa State. Most of the imipenem-resistant isolates were carbapenemase producers and the predominate carbapenemase resistance gene detected was blaOXA. Information generated from this study will be used to intensify AMR surveillance, patient management and risk communication for carbapenem resistance. We recommend the establishment of guidelines for screening of KPCs. Strict compliance to antibiotic stewardship and enforcement of infection control practices should also be strengthened in all our health centres.

Keywords: *Klebsiella pneumoniae*, carbapenemase, Imipenem, gene, blaKPC

Abstract ID: OP765

Attitude and practices of informal health care providers towards febrile patients presenting at drug shops in Ebonyi State, Nigeria, 2021

Azuka Stephen Adeke^{1,2&}, Muhammad Shakir Balogun³

¹Nigeria Field Epidemiology and Laboratory Training Program, Abuja, Nigeria

²Alex Ekwueme Federal University Teaching Hospital, Abakaliki, Nigeria

³African Field Epidemiology Network Abuja, Nigeria

&Corresponding author: Azuka Stephen Adeke, Alex Ekwueme Federal University Teaching Hospital, Abakaliki, Nigeria, Email: azukaadeke@gmail.com

Introduction: Ebonyi State is one of the high-burden states with Lassa fever in Nigeria. Informal primary care providers such as patent medicine vendors are preferentially sought for healthcare rather than at health facilities, as there is easier access and lower cost. The patent medicine vendors own drug shops where they dispense medications for common illnesses. We therefore assessed the attitude and practices of patent medicine vendors towards febrile patients presenting to them.

Methods: We conducted a cross-sectional study using an interviewer-administered structured questionnaire among 197 patent medicine vendors selected using multi-stage sampling in four local government areas of Ebonyi State, Nigeria. We calculated means, medians, frequencies, and proportions.

Results: Mean age was 33.1 ± 9.4 years. Majority (102, 52%) were female, had completed secondary education (140, 71%), and were trained through apprenticeship (166, 84%). Median years of practice as patent medicine vendor was 5 years (range=1-42). In attending to febrile patients, 98 (50%, 95% CI: 43%-57%) reported they always checked their temperature, and 83 (42%, 95% CI=35%-49%) always wore hand gloves before touching them. Only 73 (37%, 95% CI: 30%-44%) perceived they had adequate index of suspicion of Lassa fever. When Lassa fever was suspected in febrile patients, 21 (11%, 95% CI: 7%-16%) patent medicine vendors would treat them against malaria, 20 (10%, 95% CI: 6%-15%) against typhoid fever, 41 (21%, 95% CI: 15%-27%) would inform the state surveillance unit, and 135 (69%, 95% CI: 62%-75%) would refer patients to the Lassa fever treatment center.

Conclusions: Some patent medicine vendors still have poor attitude and practices towards febrile patients. However, the study participants were sensitized about Lassa fever. More patent medicine vendors need to be trained on Lassa fever as they are commonly the first healthcare contacts when people are sick.

Keywords: Lassa fever, Febrile, Patent medicine vendors, Nigeria

Abstract ID: OP771

Cholera outbreak investigation, Gauteng Province, South Africa, February – March 2023: Re-emerging Public Health problem

Nchucheko Makhubele^{1,2,3,&}, Tebogo Matjokotja³, Mzimasi Neti³, Nqobile Ngoma^{1,4}, Phuti Sekwadi⁵, Juno Thomas⁵, Linda Erasmus⁵, Ntsieni Ramalwa-Sekhwama⁶, Refilwe Mokgetle³

¹South African Field Epidemiology Training Programme (SAFETP) National Institute for Communicable Diseases (NICD); Johannesburg, South Africa

²School of Health Systems and Public Health, University of Pretoria, South Africa

³Gauteng Provincial Department of Health (GDOH), South Africa

⁴Department of Family Medicine, School of Medicine, Faculty of Health Sciences, University of Pretoria, South Africa

⁵Centre for Enteric Diseases (CED); National Institute for Communicable Diseases (NICD); Johannesburg, South Africa.

⁶World Health Organisation (WHO), Pretoria, South Africa

&Corresponding author: Nchucheko Makhubele, South African Field Epidemiology Training Programme, Johannesburg, South Africa, NchuchekoM@nicd.ac.za

Introduction: On 1 February 2023, the Gauteng Department of Health was notified of the first imported suspected cholera case from a hospital in Johannesburg district. This follows ongoing outbreaks in neighbouring African countries. Cholera is not endemic in South Africa and the last outbreak was in 2007/8. We conducted an investigation to confirm the existence of an outbreak, identify cases and institute prevention and control measures.

Methods: We conducted a cross-sectional study in two districts in the Gauteng Province. Confirmed cases were those in which *V. cholerae*, *V. cholerae* O1 or O139 was isolated from a patient presenting with watery diarrhoeal stools or tested positive for toxigenic *V. cholerae* on PCR. A structured in-person interview was conducted to gather demographic and clinical characteristics. Stool and rectal samples were

collected for laboratory testing and serotyping. Water samples were taken for laboratory analysis. We used descriptive statistics to summarise the data.

Results: A total of 11 cases tested positive for toxigenic *V. cholerae* O1 serovar Ogawa. The age ranged from 3 – 50 years, with a median of 37 years (IQR=19 – 44). Sixty-four percent were female, with an overall case fatality ratio of 9.1%. Most of the cases (8/11) acquired infection locally, two were internationally imported and one had primary contact with these cases. Fifty-five percent of the cases were linked to traditional healer baptism activities. *V. cholerae* was detected in stream water in one district and no strains were detected in domestic drinking water.

Conclusions: Toxigenic *Vibrio cholerae* O1 serotype Ogawa is the current cause of the outbreak however, the source is still unknown as the strain detected in the stream water was not the outbreak-causing strain. All cases were treated, advised to isolate and practice safe hygiene. Health education is continuing in affected communities and surveillance is ongoing.

Keywords: *V. cholerae*, Gauteng Province, outbreak

Abstract ID: OP779

Who is taking Methadone in Mombasa, Kenya, 2015–2022.

Nassoro Juma Mwanyalu^{1,2&}, Maurice Owiny²

¹Department of Health services, Mombasa county Government, Mombasa, Kenya

²Field Epidemiology, and Laboratory training program, Nairobi, Kenya.

&Corresponding author: Nassoro Juma Mwanyalu, Department of Health services, Mombasa County Government, Email: namwanyalu@gmail.com, Mob: +254780543039

Introduction: Medically Assisted Therapy program is a harm reduction strategy targeting persons with Opioid Use Disorder (OUD) to stop risky sexual behavior and reduce HIV transmission and criminality. Little is known about the characteristics of clients accessing the Medically Assisted Therapy (MAT) program in Mombasa.

We aimed to describe social demographic, clinical characteristics, treatment outcomes and prevalence of infectious diseases for MAT entrants in Mombasa, 2015–2022.

Methods: We performed a records review in the outpatient public health facilities offering MAT services to Opioid-dependent persons in Mombasa County enrolled between 2015–2022. Using a data abstraction tool, we collected variables at baseline and treatment outcomes as of December 2022. Descriptive analysis was conducted using Epi info version 7.3.

Results: A total of 1767 clients were enrolled between 2015–2022. The mean age was 37 years SD±12.7, Majority were male at 88.1% (1557/1767). Only 29% (513/1767) were married at enrolment, 69.4% (1227/1767) were unemployed, 56% (989/1767) had a primary level of education and 33.1% (585/1767) injected heroin.

The period of drug use before MAT ranged from 3–26 years (median 7), and 2.7% (48/1767) were enrolled on MAT while in prison. HIV prevalence at baseline was at 10.9% (193/1767), Hepatitis B at 3.7% (66/1767), and Hepatitis C at 6.8% (118/1767). Almost half of the HIV-positive clients were injectors at 48.7% (94/193), and 1.6% (3/193) had defaulted to methadone and Anti-retroviral Therapy (ART).

On treatment outcomes, 3% (53/1767) were successfully weaned off and 3.7% (66/1767) had died.

Conclusions: Few injectors were accessing MAT and had a high HIV prevalence. HIV patients were defaulting to MAT and ART therapy.

We recommend retention of HIV-positive clients on ART and methadone while scaling up MAT and the Needle Syringe Program (NSP) among those with opioid use disorder (OUD).

Keywords: HIV, Opioid, Kenya, Hepatitis, Prison, Methadone

Abstract ID: OP785

An Analysis of Childhood Tuberculosis Notifications and Treatment Outcomes Incident Rates Ratios in Zambia, 2016-2021.

Jonathan Mpundu Chama^{1,2,&}, Amos Hamukale^{1,3}, Angel Mubanga², Clara Kasapo², Rahab Chimzizi², Graham Samungole², Judith Mzyece², Nyambe Sinyange^{1,3}, Dabwiso Banda^{1,3}

¹Zambia Field Epidemiology Training Program, Lusaka, Zambia

²National Leprosy and TB Program, Lusaka, Zambia,

³Zambia National Public Health Institute, Lusaka, Zambia

&Corresponding author: Jonathan Mpundu Chama, Zambia National TB and Leprosy Program, Zambia Field Epidemiology Training Program, Lusaka, Zambia, mpunduj@gmail.com

Introduction: Zambia is among the 30 high Tuberculosis burden countries and childhood TB is of concern because it is often difficult to diagnose. The burden of childhood TB is not well understood in Zambia, and there is limited information on trends. We aimed to estimate the incident rates ratio (IRR) of childhood TB notification and treatment outcomes in Zambia.

Methods: We conducted analysis of childhood TB notification and treatment outcomes from 2016 through 2021 and 2018 to 2021 respectively. Data were from the Zambia national TB and leprosy program surveillance system. We fitted Poisson regression models to investigate counts of childhood TB notifications and treatment outcomes adjusting for sex, age, type of TB, site of TB and year. IRR were considered statistically significant at $p < 0.05$.

Results: From 2016 to 2021, 15,507 notifications of childhood TB were recorded. There was nearly a twofold increase in IRR of childhood TB notifications each year from 2018-2020 and a threefold increase in 2021 (IRR: 1.79; 95% confidence interval [CI]: 1.70-1.89). TB notifications clinically diagnosed via pulmonary had the highest increase (IRR: 2.45; 95% CI: 2.35-2.55) while relapse notifications bacteriologically confirmed or clinically diagnosed via extrapulmonary

and pulmonary declined overall. The median treatment success proportion for childhood TB from 2018-2021 was 92.9% (interquartile range [IQR]: 84.9-100%). Yearly IRR of treatment success proportion stayed within the IQR ($p > 0.05$). Treatment success proportion by type of TB: pulmonary bacteriologically confirmed (IRR: 1.09; 95% CI: 0.95-1.09) and pulmonary clinically diagnosed (IRR: 0.99; 95% CI: 0.94-1.05) had nonsignificant changes during the period.

Conclusions: The incident rate of childhood TB notifications in Zambia increased while treatment success proportions consistently performed above WHO thresholds. The study highlights the importance of continued analysis of childhood TB notifications to identify declines in treatment outcomes which may likely be beneficial to the Zambia TB program.

Keywords: Childhood TB, incident rate ratio, treatment success proportions, Zambia

Abstract ID: OP802

C-Reactive Protein Levels in Patients Initiating Dolutegravir Based Antiretroviral Regimen in Ghana.

Kwasi Torpey¹, Margaret Lartey^{2,3}, Vincent Ganu^{3,&}, Stephen Ayisi Addo⁴, Jennifer Nai-Dowetin¹, Ernest Kenu¹

¹University of Ghana, School of Public Health, Accra, Ghana

²University of Ghana Medical School, Accra, Ghana

³Korle Bu Teaching Hospital, Accra, Ghana

⁴National AIDS/STI Control Programme, Ghana Health Service, Accra, Ghana

&Corresponding author: Vincent Ganu, Korle Bu Teaching Hospital, Accra, Ghana, Email: vincentjganu@gmail.com

Introduction: C-reactive protein (CRP) is an important indicator of inflammatory conditions and increased risk for cardiovascular disease. The association between CRP and HIV is still uncertain. This study describes the longitudinal evaluation of plasma CRP in patients initiated on dolutegravir (DTG) based antiretroviral regimen.

Methods: A prospective multi-center observational cohort study was conducted among PLHIV in Ghana from August 2020 to September 2022. We recruited newly diagnosed and known HIV-positive patients being initiated on DTG based regimen and followed each up for 18-months. Normal CRP levels were defined as less than 0.3mg/dl. Person-time and incidence rate (IR) were estimated using “stptime” function in STATA. Cox proportional hazard model with robust standard error was employed.

Results: Out of 2700 patients recruited, 73.4% were female. Participants mean age was 46.5 ± 11.8 years. Estimated total person-months of DTG exposure was 28152 with overall incidence rate (IR) of high CRP levels being 23.7 (95% CI: 21.9-25.5) per 1000 person-months. CRP levels IR at 3, 6 & 12 months were 171.4 (95% CI: 150.1-195.8), 117.9 (95% CI: 107-130) and 66.1 (95% CI: 60.9-71.8) per 1000 person-months respectively.

The IR of CRP among males 23.2 (95% CI: 20.0 – 26.9) per 1000 person-months was similar to that of females 23.8 (95% CI: 21.8 – 26.0) per 1000 person-months. The IR of CRP among ART naive patients 34.8 (95% CI: 26.7 – 45.3) was higher compared to that among those previously on ART 23.0 (95% CI: 21.2-24.9). The presence of comorbid conditions was associated with 2.35 (95% CI: 1.1-1.3) times higher risk of developing high CRP levels.

Conclusions: The cumulative incidence of increased CRP levels was 23.7 (95% CI: 21.9-25.5) per 1000 person-months. Patients who were ART naive or had co-morbid condition were at higher risk of high CRP levels increasing their risk of cardiovascular disease.

Keywords: C-Reactive Protein, Dolutegravir, Antiretroviral Regimen, Cardiovascular disease

Abstract ID: OP805

Malaria surveillance data analysis in the Kintampo North Municipality, Bono East Region, Ghana, 2023

Isaac Baffoe-Nyarko^{1&}, Christopher Tamal¹, Charles Lwanga Noora¹, Donne Ameme¹, Paulina Clara Appiah², Seth Baffoe¹, Thelma Teley Aphour¹, Ernest Kenu¹

¹Ghana Field Epidemiology and Laboratory Training Program

²Ghana Health Service, Regional Health Directorate

***Corresponding author:** Isaac Baffoe-Nyarko, Ghana Field Epidemiology and Laboratory Training Program, University of Ghana School of Public Health, Accra, Ghana: isaac.baffoe-nyarko@ghs.gov.gh

Introduction: Malaria is the leading cause of illnesses and deaths in children under 5 years in many tropical countries. Ghana ranked 12th of the 43 countries in the WHO African Region reporting malaria cases in 2021.

We determined the prevalence and distribution of malaria in the Kintampo North Municipality of the Bono East Region to inform malaria intervention decisions.

Methods: We extracted data from District Health Information Management System for the period 2018-2022 into Microsoft Excel 2019. Variables extracted included malaria cases and types, testing and positivity rates and IPT coverage. Data were analysed as frequencies and proportions. We constructed CUSUM2 threshold to determine missed outbreaks.

Results: From 2018 to 2022, the Kintampo North Municipality recorded 491,936 uncomplicated suspected cases of malaria. Testing was done for 97.3% (478,445/491,936) of which 40.0% (191,343/478,445) were confirmed positive by microscopy and RDT. The district accounted for 14.7% (491,936/3,346,055) of all uncomplicated suspected malaria cases and 11.4% (191,343/1,679,806) of all positive malaria cases from 2018-2022 in the Bono East Region. OPD Malaria cases per 1,000 population ranged from 229 in 2021 to 460 in 2019. The average monthly suspected malaria cases were 7,535 (SD \pm 2,753 cases). Malaria in children under five accounted for 26.8% (128,408/491,936) of OPD malaria cases with an overall positivity rate of 31.5% (60,366/191,343). IPT coverage declined from 97.3% in 2018 to 63.7% in 2022. Positivity rate was 49.7% (5,689/11,437) for all suspected malaria in pregnancy. The epidemic threshold using CUSUM2 was crossed five times within the review period.

Conclusions: Malaria is endemic in the Kintampo North Municipality with relative declining trend observed for malaria cases over the period. Five epidemics were missed with a decline in IPT coverage.

We oriented district staff on malaria case definition use, monitoring of CUSUM2 thresholds and facilitated discussions on improving IPT dropout rate.

Keywords: Malaria, data analysis, holoendemic, under 5, IPT, Kintampo North, Bono East

Abstract ID : OP813

Investigation des cas de dengue dans le district de Dikhil, Djibouti, Novembre 2021

Abdallah Houssein Ismael^{1,2,4,8}, Samatar Kayad Guilleh^{1,4}, Mohamed Ismael Dini^{1,2,4}, Idriss Elmi Aden^{4,5}, Mouhibo Hamoud Ahmed^{1,4}, Abdi Houssein Egueh^{1,3,4}, Sahra Moussa Bouh^{1,4}, Prosper Ilunga Kelebwe^{4,6}, Pedwindé Hamadou Seogo^{4,6}, Ahmed Robleh Abdilleh¹, Tatek Anbessie Bogale⁷, Herbert Kazoora Brian⁸, Houssein Youssouf Darar^{1,2,4}

¹Ministère de la Santé de Djibouti, Djibouti, Djibouti

²Institut National de Santé Publique de Djibouti, Djibouti, Djibouti

³Centre Médical Hospitalier de Dikhil, Dikhil, Djibouti

⁴Djibouti Program Field Epidemiology Training-Frontline, Djibouti, Djibouti

⁵Service de santé de militaire de Djibouti, Djibouti, Djibouti

⁶African Field Epidemiology Network of Djibouti, Djibouti, Djibouti

⁷African Field Epidemiology Network, Addis Ababa, Ethiopie

⁸African Field Epidemiology Network, Kampala, Ouganda

***Auteur correspondant:** Abdallah Houssein Ismael, Ministère de la santé de Djibouti, Institut National de Santé Publique de Djibouti, Djibouti
E-mail : abdallah88houssein@hotmail.com.

Introduction: Le 14 novembre 2021, le résident FETP de Dikhil a notifié au service de surveillance épidémiologique de l'Institut National de Santé Publique (INSP), dix-huit (18) cas suspects de dengue au Centre Médico-Hospitalier de Dikhil (CMHD).

Nous avons mené une investigation pour confirmer le diagnostic, déterminer l'ampleur, décrire les cas et mettre en place des mesures de prévention et de contrôle

Méthodes: Nous avons mené une étude descriptive sur les cas de dengue enregistrés au CMHD de la région de Dikhil du 1er octobre au 21 novembre 2021. Un cas suspect de dengue était défini comme toute personne résidant dans la région de Dikhil présentant une maladie fébrile aiguë (2-7 jours), avec au moins deux de symptômes suivants : céphalées, douleur rétro-orbitale, myalgie, arthralgie, éruption cutanée, manifestations hémorragiques, syndrome de choc et un cas confirmé était un cas suspect avec un test rapide-dengue positif ou ayant un lien épidémiologique avec un cas confirmé. Une recherche active a été menée au CMHD et dans la communauté. Un test rapide-dengue était utilisé. Les données ont été collectées par l'entretien et par une revue documentaire avec une fiche d'investigation. Les fréquences, proportion et médianes ont été calculées.

Résultats: Au total 265 cas suspects de dengue ont été enregistrés. L'âge médian était de 24 ans (4-70 ans). Parmi les cas, 148 (56%), étaient de sexe masculin. Sur 73 prélèvements testés par le test rapide-dengue, 28 (38%) s'étaient avérés positifs. Un seul cas était IgM positif et le reste était IgG positif par le test rapide de dengue. L'antigène NSI n'a pas été recherché.

Conclusions: L'investigation avait confirmé la présence de la dengue à Dikhil qui touchait plus l'adulte jeune. Le renforcement de la surveillance épidémiologique et la dotation des TDR-Dengue avec l'antigène NSI pour la détection rapide de cas de dengue s'avèrent nécessaires.

Mots-clés: Dengue, Investigation, TDR-Dengue, Surveillance, Dikhil, Djibouti

Abstract ID: OP832

Factors Associated with the Use of Directly Observed Treatment among Tuberculosis Patients in Mombasa County, Kenya.2020

Emily Chinyavu Kurera^{1,2,8}, Waqo Boru², Caren Gesare³, Elvis Kirui³, Fredrick Ouma Odhiambo², Maurice Mowiny², Ahmed Abade², Cosmos Mwamburi⁴, Richard Kiplimo⁵, Gibson Waweru^{1,2}, Salim Goda^{1,2}, Josphine Githaiga², Judy Mangeni⁶

¹Department of Health, Kwale County, Kenya, ²Kenya Field Epidemiology and laboratory Training Program,

³Ministry of Health Nairobi, Kenya, ⁴Department of

Health, Mombasa County, ⁵National Tuberculosis Leprosy and Lung Disease Program, Kenya, ⁶Moi University, Eldoret, Kenya

&Corresponding author: Emily Chinyavu Kurera, Department of Health, Kwale County, Kenya Field Epidemiology and laboratory Training Program, emmzchinyavu@gmail.com

Introduction: In 2019, approximately 10.4 million people had Tuberculosis (TB) globally. In Kenya, TB burden is 558/100,000 population. Directly observed treatment for TB, (DOTs) ensures TB patients have equitable access to high-quality diagnosis, treatment, care, and prevention. However, factors associated with its use in Mombasa County are unknown. We sought to determine factors associated with the use of DOTs among tuberculosis patients in Mombasa County.

Methods: Across-sectional study was conducted in 8 TB treatment sites in Mombasa County. In qualitative approach, Key informant interviews were conducted for 8 Health care workers from 8 TB treatment sites. In-depth interviews conducted for 18 tuberculosis patients on DOTs and focus group discussions conducted among 24 TB patients, from 3 purposively selected TB treatment sites. In quantitative, consecutive sampling was used to select study participants, structured questionnaires used to collect demographic and clinical data, from 369 Tuberculosis patients aged ≥ 18 years on DOTs. Continuous variables were summarized using measures of central tendency and dispersion; categorical variables were summarized by frequencies and proportions.

Bivariate and multivariate logistic regression was used to determine factors associated with utilization of DOTs. Odds ratio (OR) was used as measures of association and Statistical significance was considered for p value < 0.05 .

Results: A total of 369 tuberculosis patients were enrolled in the study. The mean age was 46.17 years (± 14.44 , and males were 223 (60.4%). Tuberculosis patients on DOTs were 328(88.9%). Seeking treatment from government facilities (Adjusted Odds Ratio, AOR=1.21, 95% C.I.:0.17-8.22), absence of side effects from taking TB drugs (AOR=7.3, 95% C.I 2.02-26.29), health education on tuberculosis treatment and drugs side effects from DOTs providers (AOR=11.71, 95% C.I, 1.49- 92.12) were associated with the use of DOTs.

Conclusions: Use of DOTs among tuberculosis patients was influenced by where the first form of tuberculosis treatment was sought, getting side effects from tuberculosis drugs, and health education by DOTs providers on tuberculosis treatment. Healthcare workers should provide health education on TB treatment and encourage patients to visit the health facility for proper diagnosis and treatment of TB.

Keywords: Tuberculosis, DOTs, Use, Mombasa

Abstract ID: OP835 Schistosomiasis surveillance system evaluation in Awutu Senya East Municipality, Central Region, Ghana.

Seth Baffoe^{1&}, Richard Buabeng², Isaac Baffoe-Nyarko¹, Robert. Osuom¹, Thelma Teley Aphaour¹, Benedict Adzogble¹,

¹Ghana Field Epidemiology and laboratory Training Program, University of Ghana School of Public Health, Accra, Ghana. ²Food, and Drugs Authority, Accra, Ghana

&Corresponding author: Seth Baffoe; Ghana Field Epidemiology and Laboratory Training Program, University of Ghana School of Public Health, Accra, Ghana; Email: slavebaffoe@gmail.com

Introduction: Globally schistosomiasis, a neglected tropical disease affects about 236 million people from 78 countries annually, with 85 percent of the cases coming from sub-Saharan Africa. In Ghana, the annual prevalence is about 26%. Schistosomiasis surveillance system aims to track the incidence of Schistosomiasis in order to devise effective measures for control. We evaluated the Schistosomiasis surveillance system in Awutu Senya East, Ghana to determine whether it is meeting its objectives, and to describe its attributes and usefulness.

Methods: The evaluation was descriptive using methods adopted from CDC-updated guidelines for evaluating public health surveillance systems. We collected primary data on surveillance operations from 21 surveillance officers, and reviewed the completeness, timeliness and quality of routine surveillance data for the district for the period 2017-2021. Frequencies and proportions were computed for quantitative data and direct content analysis was done for qualitative data.

Results: Eighty percent (17/22) of the surveillance officers expressed willingness to be part of the system. Health facilities reporting to the system were 80% (34/43) and 40% (8/43) used standard case definition used. Over the period, the district recorded 330 suspected cases, 116 of the suspected cases were tested, and the laboratory confirmed 107 cases (PVP-92%). Timeliness of reporting was 87% (37/43) and accuracy 80% (34/43). Surveillance data analysis led to outbreak detection in 2021. Logistics like praziquantel for managing cases were in shortage at the time of the evaluation.

Conclusions: The surveillance system is partially meeting its objectives. It is useful, representative, acceptable, and timely. Gaps identified included data quality and the use of case definition. We provided copies of case definitions to be pasted in the facilities recommended to the municipal health directorate to ensure their use. Health education on schistosomiasis infection was done on a local television health program.

Keywords: Schistosomiasis, surveillance system, evaluation, Awutu Senya East, Ghana.

Abstract ID: OP836

Post abortion contraception choices among women, Korle-Bu Teaching Hospital, Ghana, 2015-2019

Paul Henry Dsane-Aidoo^{1&}, Eunice Baiden-Laryea¹, Ernest Kenu¹, Priscillia Awo Nortey²

¹Ghana Field Epidemiology and Laboratory Training Program, Accra, Ghana

²School of Public Health, University of Ghana, Legon, Accra, Ghana

&Corresponding author: Paul Henry Dsane-Aidoo; Ghana Field Epidemiology and Laboratory Training Program, University of Ghana School of Public Health, Accra, Ghana; Email: dsaneaidoo@gmail.com

Introduction: Globally, 42 million pregnancies result in induced abortion annually. Up to 48% are unsafe, accounting for 13% of maternal deaths worldwide. In Ghana, unsafe abortion accounts for 6% of all maternal mortalities. Post abortion contraception (PAC) reduces the burden and effects of unwanted pregnancies and unsafe abortions.

This study estimated the PAC uptake and described contraceptive methods accepted by abortion clients in the reproductive health clinic at the Korle-Bu Teaching Hospital to inform client interventions.

Methods: An analytical cross-sectional study design was used. We extracted secondary data from the clinic register for clients that received abortion services from January 2015 to December 2019. We excluded records of clients who reported allergy to any contraception method.

Variables collected included socio-demography, obstetric and gynecologic history, and method of contraception accepted post-abortion. We de-identified data, and performed descriptive and inferential analysis to identify significant associations ($p < 0.05$) to PAC.

Results: Overall, 1559 women received abortion services from 2015 to 2019, among which 7.3% (114/1553) were adolescents. Median age of clients was 28 years (Interquartile range=23-33). Grand-multiparous women (with ≥ 5 children) constituted 23.5% (367/1559). Up to 57.5% (884/1537) of clients accepted PAC, of which 57.1% (502/880) received long-acting contraceptive methods. Intrauterine devices 30.8% (271/880) and injectables 27.6% (243/880) were most accepted. Only 1.25% (11/880) and 0.1% (1/880) of clients had their male partners accepting male condoms and vasectomy respectively as post-abortion contraceptive options. Having one to four children (AOR=2.2, 95% CI=1.5-3.2, $p < 0.001$), and grand-multiparity (AOR=3.6, 95% CI=1.3-10.1, $p < 0.02$) were independent associated factors for accepting PAC.

Conclusions: More than half of clients accepted PAC, preferably long-acting contraceptives. Grand-multiparous women formed one-fifth of abortion clients. Few male partners received male contraception.

We built the capacity of staff on targeted counselling to increase male contraception uptake. We recommended continued empowerment of women to access contraception to reduce unwanted pregnancies.

Keywords: contraception, abortion, male partner, maternal mortality, reproductive health, vasectomy

Abstract ID: OP839

Determinants of COVID-19 Vaccine Uptake among Students aged 15-30 years in Jasikan Municipality of Ghana, 2022

Hudatu Ahmed^{1,&}, Mawuli Gohoho^{2,3}, Samuel Adolf Bosoka^{2,4}, Isaac Annobil³, Veronica Okwuchi Charles-Unadike¹

¹Fred N. Binka School of Public Health, University of Health and Allied Sciences, Hohoe, Ghana

²Ghana Field Epidemiology and Laboratory Training Programme, University of Ghana School of Public Health, Accra, Ghana

³Jasikan Municipal Health Directorate, Ghana Health Service, Jasikan, Ghana

⁴Volta Regional Health Directorate, Ghana Health Service, Ho, Ghana

&Corresponding author: Hudatu Ahmed; Fred N. Binka School of Public Health, University of Health and Allied Sciences, Hohoe, Ghana: hahmed18@sph.uhas.edu.gh

Introduction: In 2021, 54.5% of confirmed COVID-19 cases in Jasikan Municipality were among students. Implementation of COVID-19 vaccination has significantly contributed to reduced COVID-19 morbidity and mortality. To improve the vaccination drive, we examined the determinants of COVID-19 vaccination uptake among students in Jasikan Municipality, Ghana.

Methods: We conducted a cross-sectional survey and sampled 420 students from four senior high schools using a multistage sampling technique. We administered a structured questionnaire on socio-demographics, attitude, and perceived barriers towards COVID-19 vaccination, AEFI, and constructs of health belief model. Data were analyzed using descriptive and inferential statistics. Multiple logistic regression analysis was estimated. Statistical significance was determined at $p < 0.05$.

Results: Of the 420 students, 238 (56.7%) had received at least one dose of COVID-19 vaccine and 232 (55.2%) have fully vaccinated. One hundred and seventy-four (73.1%) of 238 vaccinated students had received a booster dose. Two hundred and twenty (92%) of 238 vaccinated students experienced AEFI, with pain

at injection site (45.9%) and general body weakness (33.2%) being the most common. Determinants of COVID-19 vaccine uptake were programme of study (technical [AOR:2.41, 95%CI:1.46-3.99] and home economics [AOR:2.77, 95%CI:1.42-5.40]), attitude towards COVID-19 vaccination (AOR:1.06, 95%CI:1.01-1.13), and perceived barriers towards COVID-19 vaccination (AOR:0.95, 95%CI 0.91 - 0.99).

Conclusions: Six out of every ten students were fully vaccinated against COVID-19. Programme of study, particularly technical and home economics students, as well as students' attitude towards COVID-19 vaccination and perceived barriers to COVID-19 vaccination are determinants of COVID-19 vaccine uptake. Also, pain at injection site and general body weakness were the most reported AEFIs. Teachers and healthcare providers should provide education to address misconceptions and concerns surrounding COVID-19 vaccination and AEFIs, to help improve vaccine uptake among students.

Keywords: COVID-19 vaccine uptake, AEFI, Students, Jasikan, Ghana

Abstract ID: OP843

Factors associated with Mortality among Patients with Severe Covid-19 in Nairobi Metropolis, Kenya

Charles Mulwa Muendo^{1,&}, Ahmed Abade¹, Diana Menya², Penina Munyua³, Wako Boru¹

¹Kenya Field Epidemiology and Laboratory Training Program, Nairobi, Kenya,

²Moi University, Eldoret, Kenya

³Centers for Disease Control and Prevention, Nairobi, Kenya

&Corresponding author: Charles Mulwa Muendo, 1Kenya Field Epidemiology and Laboratory Training Program, Nairobi, Kenya, Email: claycmm6@gmail.com, +254717092077.

Introduction: Severe COVID-19 disease occurs in 20% of hospitalized patients. Many of these patients have underlying conditions that could contribute to COVID-19 mortality. We sought to identify factors associated with mortality in patients with severe COVID-19 disease in Nairobi Metropolis, Kenya.

Methods: We conducted cross-sectional study in Nairobi Metropolis between September to December 2021. We abstracted case patient information from the registers of selected hospitals with COVID-19 isolation Centres.

The information included demographic and clinical information and case management. Any patient who had severe COVID-19 infection and died was defined as COVID-19 mortality while those discharged upon cure were Covid-19 survivors.

Means and medians were calculated for continuous variables and frequencies and proportions for categorical variables. We used logistic regression to compare exposure factors with death outcome.

Results: We analyzed 150 non-survivors and 150 survivors out of 818 abstracted records. Males were 66.8%, and a mean age of 53.29 years \pm 17.7. Sixty-four (64.3) percent presented with difficulty breathing, while 63.7% had a cough.

Patients with oxygen saturation (SPO₂) concentration of \leq 94% were 39.9% at admission, rising to 90.0% during isolation. Patients with underlying diabetes were 29.3%, while hypertension/heart disease was 28.3%. Patients that developed acute respiratory distress syndrome (ARDS) were 26.0%.

Patients put on oxygen therapy were 28.3%, mechanical ventilation 19.3%, and Intensive Care Unit admissions were 3.7%. Hypertension (OR: 3.5, 95% CI: 1.34–9.45); ARDS (OR: 8.9, 95% CI: 3.05–26.14); severe disease at admission (OR: 18.7, 95% CI: 5.24–67.15); and failure to receive oxygen treatment (OR- 17.5, 95% CI- 5.54–55.32) were significantly associated with death were.

Conclusions: Difficulty in breathing was a common symptom while hypertension was associated with death.

We recommend additional attention to the identification and treatment of all patients with comorbidities and severe COVID-19 disease.

Keywords: COVID-19, Mortality, Comorbidity, Hypertension, Kenya

Abstract ID: OP845

Epidemiological analysis of acute flaccid paralysis surveillance data following three polio outbreaks – Western Region, Ghana, 2022

Dennis Jubin^{1,2}*, George Akowuah¹, Magdalene Akos Odikro¹, Joseph Asamoah Frimpong¹, Samuel Sackey¹
¹Ghana Field Epidemiology and Laboratory Training Program, University of Ghana School of Public Health, Accra, Ghana

²Western Regional Public Health Department, Ghana Health Service, Takoradi, Ghana

***Corresponding author:** Dennis Jubin; Ghana Field Epidemiology and Laboratory Training Program, University of Ghana School of Public Health, Accra, Ghana; dennisjubin82@.com

Introduction: One in 200 infectious of polio leads to permanent paralysis. The re-emergence of polio and sporadic outbreaks in countries calls for heightened surveillance. The western region of Ghana has recorded outbreaks in three districts. We assessed AFP surveillance indicators in Western Region against WHO standards and described AFP by person, place and time to inform interventions.

Methods: Routine AFP case-based surveillance data for Western Region from 2017-2021 was analyzed. Age, sex, districts, date of onset, vaccination status and laboratory feedback were extracted from e-line lists. Data was cleaned and analyzed into frequencies, proportions, and rates using Microsoft Excel 365, Epi Info and QGIS and compared to WHO targets. Results were presented in tables, maps and chart.

Results: From 2017 to 2021, 300 AFP cases were recorded. Majority, 86.3% (259/300) of the cases were investigated within 14 days of onset of paralysis.

Non-polio AFP rate ranged from 2.9 to 5.9/100,000 population. Averagely, 88% (265/300) timeliness and 83% (251/300) stool adequacy were achieved compared to WHO target of > 80%. Median age of cases was 3 (range: 1 – 46) years. Majority, 74% (222/300) of the cases were under five years and more than 54% (163/300) were males.

Three cases of circulating Vaccine Derived Polio Virus type 2 (cVDPV2) was recorded in Sekondi Takoradi, Tarkwa Nsuaem and Jomoro districts in 2020. Vaccination coverage for OPV and IPV were below 90%.

Conclusions: All AFP surveillance indicators per WHO standards were met. About three quarters of AFP cases were below five years whilst more than half were males. Achieving WHO targets is essential to surveillance, however, if a single child remains infected with polio, children in all countries are at risk of contracting polio. Given that three polio outbreaks were recorded over the period, mass vaccination of all eligible population in the region is recommended.

Keywords: AFP, Polio, cVDPV2, surveillance, Ghana

Abstract ID : OP852

Evaluation du système de surveillance de la maladie à Corona virus (Covid-19) dans la région de N'zérékoré, République de Guinée, novembre 2021

Sira Helene Guilavogui¹, Patrick Mavungu Ngoma³, Mohamed Fanton Kourouma³, Nouonan Gbamou², Jolie Kasongo Kayembe^{3,*}, Salomon Corvil³, Fodé Amara Traoré².

¹Ministère de la santé et de l'hygiène publique, N'zérékoré, Guinée,

²Ministère de la santé et de l'hygiène publique, Conakry, Guinée,

³Le réseau africain d'épidémiologie de terrain (AFENET), Conakry, Guinée.

***Auteur correspondant:** Kasongo Kayembe Jolie, Le réseau africain d'épidémiologie de terrain (AFENET), Conakry, Guinée, jkayembe@afenet.net

Introduction: Depuis l'avènement de la pandémie de Covid-19, la région de N'Zérékoré a notifié 403 cas confirmés et 29 décès à la date du 3 septembre 2021.

Un système de surveillance a été mise en place, avec pour objectif la détection précoce et l'investigation des cas. Cette étude vise à évaluer l'atteinte des objectifs du système afin de l'améliorer.

Méthodes: Le guide de CDC 2001 a été utilisé pour l'évaluation. Simplicité et acceptabilité ont été évaluées à l'aide d'un questionnaire administré au personnel impliqué dans la surveillance épidémiologique à N'Zérékoré.

Qualité des données, promptitude, valeur prédictive positive (VPP) et représentativité ont été évaluées à travers les données de surveillance issues du DHIS2. L'utilité a été à travers l'atteinte des objectifs du système.

Résultats: Soixante-neuf acteurs ont été enquêtés. Simplicité : 92% maîtrisaient la définition de cas, seulement 29% trouvaient le remplissage des fiches de notification facile. Acceptabilité : 100% des acteurs acceptaient de participer au processus de surveillance.

Tous les indicateurs de promptitude étaient 100%, toute fois la complétude des données était à 70%. Les cas ont été représentés en personne, temps et lieu et VPP était à 24% pour au moins 20% requis. Le système a permis de détecter des cas de Covid-19, de les prendre en charge, et de lister et suivre des contacts.

Conclusions: Le système est acceptable mais complexe dans le remplissage des outils. Il était prompt avec une qualité des données médiocre. Il était représentatif avec une bonne VPP. Le système de surveillance de Covid-19 est utile, il a atteint ses objectifs.

Les activités de briefing lors des supervisions ont permis de passer de 92% à 100% d'acteurs maîtrisant les définitions de cas, de 29% à 66% d'agents trouvant simple le remplissage des fiches de notification.

Mots clés: Evaluation, système, Covid-19, N'Zérékoré, 2021

Abstract ID: OP859

Factors associated with Black Water Fever among children with severe malaria in Kakumiro District, Western Uganda, February- August 2022

Helen Nelly Naiga¹&, Jane Frances Zalwango¹, Maria Goretti Zalwango¹, Lawrence Oonyu I, Richard Migisha¹, Julie Harris^{1,2}

¹Uganda Public Health Fellowship Program, Kampala, Uganda

²Division of Global Health Protection, US Centers for Disease Control and Prevention, Kampala, Uganda

&Corresponding author: Helen Nelly Naiga, 1Uganda Public Health Fellowship Program, Kampala, Uganda, Email: hnelly@musph.ac.ug

Introduction: Blackwater fever (BWF) is a complication of malaria characterized by passing tea-colored urine; untreated, it can be fatal. On August 12, 2022, the Uganda Ministry of Health received an alert of a “strange disease” in Kakumiro District, Western Uganda. The “strange disease” was reportedly manifesting as passing tea-colored urine and leading to death in children with malaria. We investigated to identify the strange disease and associated factors.

Methods: BWF case-patients were defined as children with severe malaria who passed tea-colored urine (Hillmen urine color chart value >5) during February-August 2022. We generated a line list and conducted an unmatched case-control study in the subcounty with the highest attack rates. Controls were conveniently-selected neighbor children with severe malaria (1:1 ratio) who had never passed tea-colored urine. A standardized questionnaire about malaria treatment was used to interview primary caretakers of case-patients and controls. We conducted regression with a common reference group to identify factors associated with BWF.

Results: We enrolled 102 case-patients (mean age=10 years; 44% female) and 139 controls (mean age=6 years; 50% female). Risk factors had an additive effect.

Compared with ‘low-risk’ children [children who always completed malaria treatment, didn’t have quinine tablets stored at home, and who did not take combinations

of ≥ 2 antimalarials], the odds of BWF were elevated among children who never completed treatment and took combinations of antimalarials (OR=2.7, 95%CI 1.1-6.5), who had oral quinine at home and took combinations of antimalarials (OR=4.8, 95%CI 1.1-21), who never completed malaria treatment and had oral quinine at home (OR=13, 95%CI 1.3-131), and who had all three risk factors (OR=19, 95%CI 2.1-183).

Conclusions: Inappropriate treatment of malaria was associated with BWF in Kakumiro District. Investigations into drug-resistant malaria may be warranted. Educating parents about the risks of self-medication and encouraging them to support their children's full treatment course may reduce BWF.

Keywords: Blackwater fever, severe malaria, children

Disclaimer: The conclusions, findings, and opinions expressed by authors do not necessarily reflect the official position of the U.S. Centers for Disease Control and Prevention, or the authors' affiliated institutions.

Abstract ID: OP860

Time to care-seeking and factors influencing appropriate EVD care among Ebola case patients in Uganda, September to November 2022

Rebecca Akunzirwe¹&, Richard Migisha¹, Brenda Simbwa¹, Mercy Wanyana¹, Jane Frances Zalwango¹, Julie Harris², Andrew Kwiringira¹, Simone Carter³

¹Uganda Public Health Fellowship Program, Kampala, Uganda

²Division of Global Health Protection, US Centers for Disease Control and Prevention, Kampala, Uganda

³United Nations Children’s Fund Public Health Emergencies, Geneva, Switzerland

&Corresponding author: Rebecca Akunzirwe, Uganda Public Health Fellowship Program, Kampala, Uganda, rakunzirwe@musph.ac.ug

Introduction: Early isolation of and appropriate care for Ebola Disease patients at Ebola Treatment Units (ETU) curbs outbreak spread and reduces case

fatality. We evaluated time-to-patient entry into the ETU and associated factors during the 2022 Sudan virus disease (SVD) outbreak in Uganda.

Methods: We included persons with RT-PCR-confirmed Sudan virus infection during September–November 2022 with onset after the outbreak was declared.

We categorized days from patient symptom onset to ETU entry ('delays') as short (≤ 2), moderate (3-5), and long (≥ 6); the latter two were considered 'delayed care'. We assessed demographics, onset (earlier vs later in the outbreak, using October 15 as a cutoff), and knowledge of one's status as a contact as predictors for delayed care using modified Poisson regression.

We conducted key informant interviews with 17 SVD case-patients with short ($n=8$) and long ($n=9$) delays to explore reasons for late care.

Results: Among 118 case-patients, 25 (21%) case-patients had short, 43 (36%) moderate, and 50 (43%) long delays. Seventy-five (64%) had symptom onset later in the outbreak. Having onset earlier in the outbreak increased risk of delayed care [cRR=1.8, 95%CI (1.2-2.8)].

Patients with short delays reported knowing that they were a case contact, knowing SVD symptoms, encouragement from a trusted person, and belief that early treatment-seeking was lifesaving as facilitators to early care. Patients with long delays reported fear of ETUs and lack of transport as contributing to later care.

Conclusions: Delayed care was common early in the outbreak. Strong contact tracing and community education and outreaches could facilitate more rapid presentation during similar outbreaks.

Keywords: Ebola, Healthcare seeking behaviour, Outbreak, Uganda

Disclaimer: The conclusions, findings, and opinions expressed by the authors do not necessarily reflect the official position of the U.S. Centres for Disease Control and Prevention, or the authors' affiliated institutions.

Abstract ID: OP864

Facilitators and barriers to tuberculosis case notification among private health facilities in Kampala Capital city, Uganda

Veronica Kembabazi^{1,2,&}, Elizeus Rutebemberwa¹, Julius Ssentongo^{1,3}

¹Makerere University School of Public Health, Kampala, Uganda

²Child's i Foundation Limited, Plot 1 Kyambogo View, Ministers Village, Ntinda, Kampala-Uganda

³Resilience Africa Network (RAN), Kampala, Uganda

&Corresponding author: Veronica Kembabazi, Makerere University School of Public Health, Kampala Uganda. Email: kdalene3@gmail.com,

Introduction: The linkage of Private Health Providers (PHPs) to National TB programs is known to improve Tuberculosis (TB) case finding. In Uganda, 58% of people with TB-related symptoms seek care initially from the private health sector, however, notification rates are low at 21% and have not changed significantly despite efforts to engage PHPs. This study set out to assess facilitators and barriers to TB case notification among private facilities in Kampala.

Methods: A cross-sectional study was conducted among 238 private facilities in Kampala where we surveyed 224 health workers, and conducted qualitative interviews among 14 selected TB focal persons at facility and program level. Associations between various factors were determined using Modified Poisson regression while themes on notification practices, facilitators and barriers were generated using Atlas.ti.

Results: Of the 224 health workers, 55.4%(124) were male and the majority (40%) were nurses. Regression analysis did not show TB case notification to increase with the facility's linkage to a public facility for TB notification, receiving suspected TB patients, nor having reporting tools. However, we found evidence indicating that the TB case notification was significantly lower among facilities that had no guide for TB screening and diagnosis (PR 0.50; 95%CI 0.25-0.97) and among facilities where the training of other health workers at the facility in TB diagnosis was unknown

(PR 0.35; 95%CI 0.13-0.93). Qualitative data showed that while some health workers may know appropriate TB screening practices, few conduct them in line with guidelines. Facilitators of TB case notification included support supervision, engagement activities, motivation, and funding for community case-finding activities, while barriers included TB stigma, lack of TB training, and lack of diagnostic facilities.

Conclusions: private health facilities in Kampala need regular supervision and support to conduct TB case notification according to programmatic guidelines and support the finding of missing TB cases.

Keywords: Tuberculosis case notification, private health facilities, private providers

Abstract ID: OP866

Geographic Distribution and Economic Factors Associated with Rapid Test for Recent HIV Infection (RTRI)-Recent HIV infections in Uganda, 2019-2021

Immaculate Atuhaire^{1,&} Richard Migisha¹, Steven Kabwama¹, Benon Kwesiga¹, Lisa Mills³, Julie Harris³, Alex Ario^{1,2}, Julius Ssempiira³

¹Uganda Public Health Fellowship Program, Ministry of Health, Kampala, Uganda

²Ministry of Health, Kampala, Uganda

³US Centers for Disease Control, Kampala, Uganda

&Corresponding author: Immaculate Atuhaire, Uganda Public Health Fellowship Program, Ministry of Health, Kampala, Uganda, +256777816066. atuhaire@musph.ac.ug

Introduction: As Uganda moves towards HIV epidemic control, it is increasingly important to rapidly identify recent infections and transmission hotspots. HIV recent infection surveillance is one approach to finding such infections and hotspots.

We determined the geographical distribution of Rapid Test for Recent Infection (RTRI)-recent HIV infections and assessed the association of the district economic index with the frequency of recent infections in Uganda.

Methods: We used program surveillance data for newly-identified HIV cases tested by RTRI for recent HIV infection (acquired <12 months ago) during November 2019-October 2021 in 112 districts carrying out recency testing. We abstracted data on RTRI-HIV recency results and overlaid a map of district wealth quintiles with recency data.

Wealth quintiles were derived from aggregated household-level data from the 2018 Malaria Indicator Survey, with the bottom two quintiles being 'poor', the middle quintile being 'moderately wealthy', and the top two quintiles being 'wealthy'. We regrouped these into wealth tertiles for this study.

We conducted an adjusted (for age and sex) logistic regression to determine the association between HIV RTRI-recency and geographical location and economic index.

Results: Among 12,274 newly-identified HIV infections, 1,230 (10%) were RTRI-recent. Quarterly rates of RTRI-recent infections ranged from 7-26%. RTRI-recent HIV infections were more frequent in the Western Region (12%) than other regions (Central: 9%; Northern: 10%; Eastern: 9%).

Western region had higher odds of recent HIV infection compared to Central region (aOR=1.3; 95%CI=1.1-1.5). The odds of recent infection were lower in districts categorized as wealthy (aOR=0.60, 95%CI=0.47-0.85) compared to districts categorised as poor.

Conclusions: Residence in Western Uganda was significantly associated with RTRI-recent HIV infections during 2019-2021. Lower socioeconomic status may also increase risk for RTRI-recent HIV infections.

Further studies that evaluate the impact of these variables at the individual (non-aggregated) level on recent infection and the addition of viral load data to enhance the reliability of recency results could help identify hotspots for new HIV infections.

Keywords: Recent HIV infection, Rapid HIV testing, Economic factors associated with HIV infections

Abstract ID: OP868

Sexual and Gender-Based Violence among Adolescent Girls and Young Women during the Main COVID-19 Period, Eastern Uganda

Patience Mwine^{1,3&}, Benon Kwesiga^{1,2}, Richard Migisha^{1,2}, Juliet Cheptoris³, Daniel Kadobera^{1,2}, Lilian Bulage^{1,2}, Peter Mudiope³, Rose Apondi⁴, Alex Riolexus Ario^{1,2}, Julie Rebecca Harris⁴

¹Uganda Public Health Fellowship Program, Kampala, Uganda, ²Uganda National Institute of Public Health, Kampala, Uganda, ³AIDS Control Program, Ministry of Health, Kampala, Uganda, ⁴United States Centers for Disease Control and Prevention, Kampala, Uganda

&Corresponding author: Patience Mwine, AIDS Control Program, Ministry of Health, Kampala, Uganda, Tel:+256777865638, Email : pmwine@musph.ac.ug,

Introduction: Global studies indicate that sexual gender based violence (SGBV) may increase during pandemics including the COVID-19.

The Mid-Eastern region in Uganda was of a concern due to high prevalence of intimate partner sexual violence among adolescent girls and young women (AGYW) (13% in 2016).

Due to limited data, we investigated factors associated with SGBV among AGYW during the COVID-19 pandemic in Eastern Uganda, April 2022.

Methods: We line listed all AGYW 10-24 years who obtained SGBV services at ten high-volume health facilities from March 2020 to December 2021, the main COVID-19 period in Uganda. We conducted a case-control study among these AGYW. A case was ≥ 1 SGBV episode experienced by an AGYW aged 10-24 years residing in Tororo and Busia Districts.

For every randomly-selected case from the health facility line list, we identified two neighbourhood-matched AGYW controls who reported no SGBV. We interviewed 108 and 216 controls on socio-demographics, socio-economics, and SGBV experiences during COVID-19. We conducted logistic regression to obtain adjusted odds ratios and confidence intervals.

Results: Among 389 SGBV cases, the mean age was 16.4 (SD \pm 1.6: range 10-24) years, and 350 (90%) were 15-19 years. Among 108 cases interviewed, 79 (73%) reported forced sex. Most (73; 68%) knew the perpetrator. In multivariate analysis, self-reported SGBV before the COVID-19 period [aOR=5.8, 95%CI: 2.8-12] and having older siblings [aOR=1.9, 95%:CI 1.1-3.4] were associated with SGBV during the period. Living with a family that provided all the basic needs was protective [aOR=0.42, 95%: CI 0.23-0.78].

Conclusions: Previous SGBV experiences and family dynamics, such as having older siblings, increased the odds of SGBV during the COVID-19 pandemic in Uganda. Conversely, a supportive family environment was protective. Identifying, supporting, and enacting protective interventions for existing SGBV victims and socioeconomically vulnerable AGYW could reduce the burden of SGBV during similar events.

Keywords: Sexual Gender-Based Violence, Adolescent Girls and Young Women, COVID-19

Abstract ID: OP879

Incidence of Preeclampsia among Pregnant Women attending Mbale Regional Referral Hospital, Uganda, January–December, 2022

Violet Chemutai¹ & Allan Komakech², Irene Kyamwine², Sarah Elayeete², Lilian Bulage², Doreen N. Gonahasa², Hildah T. Nansikombi²

¹Mbale Regional Referral Hospital, Mbale, Uganda, ²Uganda National Institute of Public Health, Kampala, Uganda

&Corresponding author: Chemutai Violet, Mbale Regional Referral Hospital, Mbale, Uganda, Email: chemutaiviolet5@gmail.com, +256782581530

Introduction: Preeclampsia (PET) is a life-threatening pregnancy complication characterized by new onset of high blood pressure ($\geq 140/90$ mmHg) and proteinuria at ≥ 20 weeks of gestation. In 2021/2022, PET accounted for 14.3% fresh stillbirths, 14% macerated stillbirths and 11% of newborn deaths with an overall perinatal mortality of 13.1% in Uganda. In addition, it ranked second leading cause of maternal

deaths contributing to 14% of maternal deaths. We determined the incidence of PET among pregnant women attending Mbale Regional Referral Hospital (MRRH) during January–December 2022.

Methods: We conducted a descriptive analysis using surveillance data for pregnant women attending MRRH during January–December 2022.

We collected data from maternity admission, antenatal registers, and daily ward report books by midwives. We collected data on age, parity, mode of delivery, pregnancy, and maternal outcome of pregnant women.

We summarized participant characteristics using proportions, frequency distributions and computed incidence of PET per 1,000 pregnant women.

Results: Among 13,776 pregnant women attending maternity care at MRRH, 34% were primigravida, 57% were multipara while 9% were grand multipara. Age ranged from 15–46 years. Age ranged from 15–46 years; those aged 20–24 years (30%) were most frequent.

Of the pregnant women, 328 had PET (overall incidence: 24/1,000 pregnant women). Women aged ≥ 45 years (105/1,000) and primigravidae (36/1,000) were most affected. The majority (53%) of women with PET were delivered by Caesarian section.

Two mothers died (case fatality rate=0.6%). Among the deliveries, 284 (87%) were live births, 22 (7%) were macerated stillbirths, and 20 (6%) were fresh stillbirths.

Conclusions: Pregnant women aged ≥ 45 years and primigravidae were most affected by PET.

We recommend health education on importance of adhering to contraceptive methods to avoid high-risk pregnancies and further studies to investigate the factors associated with PET in this region.

Keywords: Preeclampsia, Pregnant, Maternal death, Stillbirth, Uganda

Abstract ID: OP882

Gastrointestinal anthrax outbreak investigation in Ibanda District, Southwestern Uganda, August, 2022

Patrick King¹*, Brenda Nakafeero Simbwa¹, Peter Chris Kawungezi¹, Job Morukileng¹, Mercy Wendy Wanyana¹, Richard Migisha¹, Daniel Kadobera¹, Benon Kwesiga¹
¹Uganda Public Health Fellowship Program, Uganda National Institute of Public Health, Kampala, Uganda

***Corresponding author:** Patrick King, Uganda Public Health Fellowship Program, Uganda National Institute of Public Health, Kampala, Uganda, Email: kingp@uniph.go.ug, +256775432193,

Introduction: On August 23, 2022, the MoH was alerted about a community death due to suspected anthrax in Ibanda District, southwestern Uganda. We investigated to determine the scope of the outbreak and possible exposures and recommend suitable measures to control the outbreak.

Methods: We defined suspected gastrointestinal anthrax as acute-onset diarrhoea or vomiting in a resident of Ibanda District during August 12–30, 2022. Confirmed cases were suspected cases with positive culture or PCR for *Bacillus anthracis*. We reviewed health facility records to collect data on cases. We conducted a retrospective cohort study including all individuals residing in the village where the infected meat was distributed. Exposed individuals had contact with the infected meat whereas the unexposed had none. We used log-binomial regression to identify risk factors.

Results: There were 45 suspected cases (1 fatal) and 1 confirmed case. Twenty-seven (60%) were males; median age was 27 (IQR 12–45) years. Case-patients presented with abdominal pain (96%), vomiting (60%), and non-bloody diarrhoea (57%). Compared to unexposed cohort members, persons who ate (RR=4.7, 95%CI: 1.8–12.6) or ate and prepared the meat (RR=4.9, 95%CI: 1.3–13.5) were at increased risk. Compared to those eating only boiled meat, those who ate only roasted meat (RR=2.7, 95%CI: 1.1–6.2) or fried and roasted meat (RR=2.8, 95%CI: 1.2–6.7) were at increased risk.

Twenty-five (89%) case-patients who provided information on the source of meat purchased it from an unlicensed butcher's shop.

Conclusions: The outbreak was linked to eating meat of animals that died of unknown causes. A by-law prohibiting the sale of meat that has not undergone proper meat inspection was instated.

We recommend community sensitization on the health risks of eating meat of animals that have died of unknown causes and annual vaccination of animals against anthrax.

Keywords: Gastrointestinal anthrax, Anthrax, Outbreak, Uganda

Abstract ID: OP888

Post COVID-19 condition among individuals hospitalised during Wave 1 and Wave 2 at Mulago National Referral Hospital and Entebbe Regional Referral Hospital, Uganda, 2020-2021

Allan Komakech^{1,2} &, Judith Drazidio², Petranilla Nakamya¹, Daniel Kadobera¹, Lilian Bulage¹, Benon Kwesiga¹, Alex Riolexus Ario¹, Julie Rebecca Harris³

¹Uganda National Institute of Public Health, Kampala, Uganda

²Clarke International University, Kampala, Uganda

³U.S Centres for Disease Control and Prevention, Kampala, Uganda

&Corresponding author: Allan Komakech, MBChB, MPH, Uganda National Institute of Public Health, Kampala, Uganda, Email: akomackech@musph.ac.ug

Introduction: The presence of long-term symptoms among COVID-19 survivors is referred to as post COVID-19 condition (PCC). In Uganda, there is no standardised tracking or care for survivors and the burden of PCC is unknown.

We described the spectrum of PCC and risk factors for PCC among persons hospitalized with COVID-19 in Uganda to inform healthcare decision-making.

Methods: We conducted a retrospective cohort study among randomly selected COVID-19 survivors hospitalized at Mulago and Entebbe Referral Hospitals during Wave 1 (October 2020-December 2020) and Wave 2 (May 2021-June 2021) of the pandemic in Uganda. A PCC case was defined as persistent, returning, or new COVID-19 symptoms occurring during the 4-12 weeks after onset for non-severe disease, and during the 8-12 weeks from onset for severe disease, without an alternative diagnosis in a person with confirmed SARS-CoV-2 infection. Patients were contacted by phone to collect information on PCC using a standardized interview form. We used multivariable modified Poisson regression to establish risk factors for PCC.

Results: Among 798 COVID-19 survivors (Wave 1: 391; Wave 2: 407), we identified 63 (16%) cases of PCC in Wave 1 and 81 (20%) in Wave 2. The commonest PCC symptoms among Wave 1 patients were chest pain (14; 18%) and cough (11; 14%), while in Wave 2 patients, they were fatigue (16; 20%), cough (16; 20%) and chest pain (15; 19%). Having had severe disease (aIRR=2.0, 95%CI: 1.4-2.6) and any comorbidity such as hypertension or diabetes among others (aIRR=1.9, 95%CI: 1.2-2.8) during Wave 1, and any comorbidity (aIRR=2.6, 95% CI 2.1-3.3) during Wave 2 were associated with PCC.

Conclusions: Approximately 1 in 5 previously hospitalized COVID-19 survivors experienced PCC during both waves, with comorbidities and a history of severe disease predicting PCC. We recommend close follow-up of such patients to ensure they receive appropriate post-COVID-19 care.

Keywords: COVID-19, post COVID-19 condition, hospitalized, Uganda

Abstract ID: OP902

Qualitative insights on barriers to receiving a second dose of measles-containing vaccine (MCV2), Oromia Region of Ethiopia

Kalkidan Solomon Deribe^{1,8}, Brooke N. Aksnes², Abyot Bekele Woyessa³, Chala Geri Sadi⁴, Almea M. Matanock², Monica P. Shah², Paulos Samuel⁵, Bekana Tolera⁵, Birhanu Kenate⁵, Abebe Bekele⁵, Tesfaye Deti⁵, Getachew Wako⁴

Amsalu Shiferaw⁴, Yohannes Lakew Tefera⁴, Melkamu Ayalew Kokebie⁴, Tatek Bogale⁶, Habtamu Tekle⁷, Aaron Wallace², Ciara Sugerman², Mirgissa Kaba Serbessa¹

¹Department of Preventive Medicine, School of Public Health, College of Health Sciences, Addis Ababa University, Addis Ababa, Ethiopia

²Global Immunization Division, Centers for Disease Control and Prevention, Atlanta, Georgia, USA

³Oromia Regional Health Bureau, Addis Ababa, Ethiopia

⁴Federal Ministry of Health, Addis Ababa, Ethiopia

⁵United Nations International Children's Emergency Fund (UNICEF), Addis Ababa, Ethiopia

⁶African Field Epidemiology Network, Addis Ababa, Ethiopia

⁷Ethiopian Public Health Institute, Addis Ababa, Ethiopia

&Corresponding author: Kalkidan Solomon Deribe, Department of Preventive Medicine, School of Public Health, College of Health Sciences, Addis Ababa University, Addis Ababa, Ethiopia
Email: kallkidansolomon@gmail.com

Introduction: Ethiopia introduced a second dose of measles containing vaccine (MCV2) in 2019 to provide further protection against measles. However, sub-optimal coverage with both MCV1 and MCV2 suggest challenges with vaccine uptake. In this qualitative study, we explored barriers to uptake of MCV2 among caregivers, community leaders, and healthcare workers (HCWs).

Methods: We selected ten districts in Oromia Region, Ethiopia, stratified by settlement type (urban/rural), MCV1 coverage (high $\geq 80\%$, low $<80\%$ coverage), and history of measles outbreaks (measles outbreak between June 2019 and June 2020 or not). Barriers to MCV2 uptake were discussed using focus group discussions (FGDs), in-depth interviews (IDIs) with caregivers of children 12-24 and 25-36 months and key informant interviews (KIs) with HCWs and community leaders. Participants were recruited through purposive sampling. Recorded data were transcribed, translated to English, and analyzed using ATLAS.ti v.09.

Results: Forty FGDs and 60 IDIs with caregivers, 60 KIs with HCWs, and 30 KIs with community leaders were conducted. Barriers among caregivers included lack of knowledge and awareness about MCV2 and the vaccination schedule, competing priorities, long wait times at health facilities, vaccine unavailability, negative interactions with HCWs, and transportation challenges. At community level, trusted leaders felt they

lacked adequate knowledge about MCV2 to address caretakers' questions and community misconceptions. HCWs felt additional training on MCV2 would equip them to respond to caretakers' needs. Health system barriers identified included lack of human, material, and financial resources to deliver vaccines and provide immunization outreach services, which caretakers reported as their preferred way of accessing immunization.

Conclusions: Barriers to MCV2 uptake occur at multiple levels of immunization service delivery. Our recommended strategies to address these could include tools to help caretakers track appointments, enhanced community engagement, HCWs training to improve provider-client interactions and MCV2 knowledge, and efforts to manage HCWs workload.

Keywords: measles vaccine, caregivers, focus groups, Ethiopia, qualitative, barriers.

Abstract ID: OP904

Investigation of a protracted malaria outbreak in Upper Muzarabani, Centenary District, Zimbabwe, 2023

Nathan Chiboyiwa¹, Gerald Shambira¹, Fungai Kavenga², Addmore Chadambuka^{1&}, Notion Tafara Gombe³, Tsitsi Patience Juru¹, Gibson Mandozana¹, Mufuta Tshimanga¹
¹Department of Primary Health Care Sciences: Family Medicine, Global and Public Health Unit, University of Zimbabwe, Harare, Zimbabwe.

²National TB and Leprosy Control Unit, Ministry of Health and Child Care, Harare, Zimbabwe

³African Field Epidemiology Network, Harare, Zimbabwe

&Corresponding author: Addmore Chadambuka, Department of Primary Health Care Sciences: Family Medicine, Global and Public Health Unit, University of Zimbabwe, Harare, Zimbabwe, Email: achadambuka@afenet.net +263773272110

Introduction: From week 1 to week 29 of 2023, David Nelson Clinic in Upper Muzarabani reported a persistent surge in malaria cases surpassing weekly thresholds, a shift from the known geospatial burden of malaria in Centenary District which was traditionally concentrated in Lower Muzarabani.

We carried out an outbreak investigation to determine the drivers of the protracted malaria outbreak.

Methods: We conducted a descriptive study and a 1:1 unmatched case-control study of 156 respondents (78 cases and 78 controls).

We defined a case as a resident of Upper Muzarabani who presented with symptoms consistent with malaria and tested malaria positive on a malaria rapid diagnostic test between week 1 and week 29 2023.

A control was a resident of Upper Muzarabani who did not experience symptoms of malaria during the same period. We described the outbreak in time, place and person using proportions, and analysed entomological and rainfall patterns to determine vector and rainfall trends. We conducted bivariate and multivariate analyses to determine human host-related factors.

Results: A total of 2763 case-patients were recorded, giving an overall attack rate of 132/1000 population with a case fatality of 1.4/1000 cases. Community Health workers (CHWs) managed 75.6% of cases. An 8.5% (525mm to 574mm) increase in rainfall was recorded between 2018 and 2022.

The main vector was *Anopheles funestus* mosquito. 26.6% of sampled mosquitoes expressed genetic pyrethroid insecticide resistance. Engaging in late-night outdoor activities [aOR=3.86; 95% CI 1.64-9.06; $p < 0.001$] was an independent risk factor associated with contracting malaria.

Conclusions: Engagement in outdoor activities during peak vector biting times, vector adaptation and optimal vector breeding conditions were key factors associated with the protracted malaria outbreak.

We recommended the establishment of a District One Health committee to spearhead insecticide resistance surveillance and preparedness for climate-related health threats.

Keywords: protracted malaria outbreak; vector adaptation; climate change

Abstract ID: OP909

Implementing a hospital-based sentinel site surveillance for adverse events of special interest following COVID-19 vaccination, Uganda (HBSS_UG)

Stephen Pande Legesi^{1,2,6,8}, Daniel Kyabayinze¹, Allan Muruta¹, Ampaire Immaculate¹, Daniel Achoda^{3,6}, Annet Kisakye⁴, Erin Blau⁵, Jane Gidudu⁵, Christine Kihembo⁶, Helen Ndagije Bomire⁷, Ntale Ismail⁷, David Walusimbi⁶

¹Ministry of Health, Kampala, Uganda,

²Ministry of Health, Moroto RRH, Moroto, Uganda,

³Buyende District Local Government, Buyende, Uganda,

⁴World Health Organization, Kampala, Uganda,

⁵US Centres for Disease Control and Prevention, Atlanta, USA,

⁶African Field Epidemiology, Network, Kampala, Uganda

⁷National Drug Authority, Kampala, Uganda,

***Corresponding author:** Stephen Pande Legesi, Ministry of Health, Kampala, Uganda, Email: stephpande@gmail.com

Introduction: Limited resources, technical expertise, and support continue to challenge the country's capacity to maintain adverse events following immunization (AEFI) surveillance systems. Authorized COVID-19 vaccines proved to be safe and effective during clinical trials, however, the duration and sample size of these clinical trials may not detect rare but serious AEFIs or those with delayed onset. Hospital-based sentinel site surveillance (HBSS_UG) is aimed at monitoring vaccine safety in near real-time for adverse events of special interest (AESIs).

Methods: A country-specific protocol, AESI standardized case definitions using Brighton Collaboration criteria, data collection tools, and training materials were developed. Twenty-one Hospitals were assessed of which eight large Hospitals were selected, surveillance staff were trained on medical chart review, data collection, and case definitions using Brighton's collaboration and Online Data Kit (ODK) reporting. National AEFI committee was oriented on the Hospital-based sentinel Surveillance for predefined AESIs.

Results: Since September 2022, five site monitoring visits to participating hospitals were conducted, staff trained, and facilitated reporting to Uganda's national

AEFI ODK reporting. By August 2023, 163 (M=79, F=84) potential AESI cases were identified and 11 AESIs were validated by the causality committee. Data collection and prospective medical chart review for pre-defined AESI conditions at the 8 participating hospitals is ongoing.

Conclusions: Systematic immunization safety surveillance is essential for ensuring vaccine safety and public trust in immunization programs.

The introduction of COVID-19 vaccines in Uganda provides the opportunity to conduct active AESI surveillance to generate robust, standardized vaccine safety data to inform decision-making and contribute to global understanding of the safety profiles of COVID-19 vaccines.

As COVID-19 vaccines are mainstreamed into routine vaccination programs ongoing sentinel site surveillance is well positioned to expand to EASIs after newly introduced vaccines other than COVID 19 Vaccines, covering non-EPI focused populations.

Keywords: Adverse Events of Special Interest, Hospital Based Sentinel Site Surveillance, Open Data Kit, Brighton's collaboration criteria

Abstract ID: OP913 Characterizing general population participation in COVID-19 response measures: Liberia population-based SARS- CoV-2 seroprevalence study 2023 preliminary findings

Laura Skrip¹, Chukwuma David Umeokonkwo², Faith Kamara Whesseh^{2,*}, Axel Lehrer³, Julius Gilayeneh⁴, Maame Amo-Addae², Godwin Akpan², Peter Adewuyi², Bode Shobayo⁴, Mohammed Jalloh¹, Davidetta Tekah¹, Rachel Idowu⁵

¹University of Liberia, Monrovia, Liberia

²African Field Epidemiology Network, Monrovia, Liberia

³University of Hawaii, Manoa, USA

⁴National Public Health Institute of Liberia, Monrovia, Liberia

⁵US Centers for Disease Control and Prevention, Liberia Country Office, Monrovia, Liberia

***Corresponding author:** Faith Kamara Whesseh, African Field Epidemiology Network, Monrovia, Liberia, fwhesseh@afenet.net

Introduction: While most African nations experienced lower-than-expected rates of severe COVID-19, detection and response were often challenged by limited capacity and willingness to undertake widespread measures. In Liberia, the rollout of COVID-19 response began in March 2021 and encountered supply shortages, population hesitancy, and insufficient financial resources. To characterize the general population's response efforts, we investigated testing, quarantine compliance, and vaccine-seeking behavior in a nationally representative survey.

Methods: We conducted a cross-sectional study in May 2023 among adults (aged 18 years and above) using multistage sampling of counties, enumeration areas, and households across the five regions of Liberia. A structured questionnaire collected information on sociodemographic factors, COVID-19 exposure, and experience with response measures. Proportions of participants who self-reported being tested, quarantined, and vaccinated were estimated and factors associated with vaccination status were assessed using Mann-Whitney U and chi-squared tests.

Results: A total of 3273 adults participated in the survey with a median age of 40 (IQR:28-54) years. Just over 2% (65/3114) reported ever being around someone who had COVID-19 at home, school, work, and/or in the community. About 2% of participants reported ever getting tested for COVID-19 (75/3108) while less than 1% of participants (24/3114) had ever been isolated or quarantined for COVID-19. About 65% (2039/3114) indicated they had been vaccinated at least once since vaccines became available. County-level vaccination coverage ranged from 47% in Montserrado County to 86% in Grand Cape Mount County. Compared to participants who were not vaccinated, those vaccinated were significantly older, more heavily distributed in rural versus urban settings, and more likely to be employed ($p < 0.001$).

Conclusions: The survey provided evidence of low rates of testing and geographically heterogeneous rates of vaccine uptake in Liberia. Linking reported exposure and behavior with serological evidence could offer more insight into the pandemic experience in Liberia.

Keywords: CSARS-COV2, vaccine uptake, pandemic response measures, Liberia

Abstract ID: OP915

Evaluating the effectiveness of a mentorship programme in improving infection prevention and control standards at the primary healthcare level in Nigeria

Aisha Sani Faruk^{1&}, Chris Ononiwu Elemuwa², Tochi Joy Okwor³, Moreen Kamateeka¹, Ibrahim Suleiman¹, Elizabeth Bunmi Adedire¹, Celestine Ameh¹, Jenom Danjuma⁴, Muzzammil Gadanya³, Kakisu Ibrahim Ahmad⁵, Dan Apagu Gadzama⁶, Olayinka Surajudeen⁷, Christopher Lee⁴, Patrick Mboya Nguku¹

¹Africa Field Epidemiology Network, Abuja, Nigeria

²National Primary Health Care Development Agency, Abuja, Nigeria

³Nigeria Centre for Disease Control and Prevention, Abuja, Nigeria

⁴Resolve to Save Lives, New York, United States of America

⁵Kano State Primary Health Care Management Board, Kano, Nigeria

⁶FCT Primary Health Care Board, Abuja, Nigeria

⁷Ogun State Primary Health Care Board, Ogun, Nigeria

&Corresponding author: Aisha Sani Faruk, Africa Field Epidemiology Network, Abuja, Nigeria, afaruk@afenetng.ng

Introduction: Infection prevention and control (IPC) is essential for healthcare workers' (HCWs) safety. Mentorship programmes have gained recognition as a potential strategy for improving IPC standards in resource-limited settings. We assessed the effectiveness of a mentorship programme in improving IPC standards in primary healthcare facilities (PHCs) in Nigeria during the COVID-19 pandemic.

Methods: From April 2022 to July 2023, we implemented a longitudinal mentorship model as part of an IPC multimodal intervention programme in 225 PHCs across three states. The programme involved IPC experts (mentors) providing training, monthly monitoring, onsite mentorship with task shifting from external mentors to facility staff, supportive supervision,

and data utilization for performance improvement. We conducted baseline and end-line assessments using a standardized IPC checklist to evaluate performance in IPC standards.

We also conducted a qualitative survey to assess mentor and mentee perceptions of IPC knowledge and skills, attitude and compliance to IPC standards, mentorship experience, and the effectiveness of task-shifting. Respondents rated their experiences on a 4-point Likert scale ranging from "Strongly Disagree" to "Strongly Agree" and provided detailed feedback through open-ended questions.

Results: The overall IPC performance score significantly increased by 34.9% (95% CI: 34.0-35.8) from baseline to end-line. Two hundred and eighteen (97%) of the mentees responded to the survey; 97% strongly agreed that the mentorship improved their ability to use data for performance improvement and were satisfied with the mentorship experience.

Similarly, 98% strongly agreed that the mentorship improved their IPC knowledge, attitude compliance to IPC standards, and ability to take on the mentorship role effectively.

Conclusions: This mentorship strategy contributed to improving HCW IPC capacity and enhancing IPC standards in PHC settings. Mentorship with task shifting was well perceived. The mentorship model should be further evaluated for scalability and sustainability.

Keywords: mentorship, primary healthcare worker, infection prevention control, Nigeria

Abstract ID : OP928

Investigation d'un cas de Paralysie Flasque Aiguë, district Ikongo, Madagascar, août 2023

Andrindraibe Nantenaina Désiré Hanitriniaina¹, Dany Bakoly Ranoaritiana², Arlette Tsaralahy¹, Bonodong Zongnukuu Guri¹, Patrick Dely^{1&}

¹Madagascar Field Epidemiology Training Program, Antananarivo, Madagascar,

²Direction de la Veille Sanitaire de la Surveillance Épidémiologique et Riposte, Antananarivo Madagascar

&Corresponding author: Patrick DELY,
IField Epidemiology Training Program, Antananarivo,
Madagascar, pdely@afenet.net

Introduction: Tout cas de paralysie flasque aiguë (PFA) est généralement présumé "Poliomyélite", donc à déclaration et investigation immédiates selon l'Organisation Mondiale de la Santé. Madagascar est déclaré « free » de tout poliovirus sauvage en 2020. Une flambée épidémique liée au poliovirus dérivé d'une souche vaccinale a été apparue en 2021. Le 19/05/2023, le CSB Ambodiara Sakavazoho, a notifié un cas au responsable du district sanitaire Ikongo. L'investigation a été menée pour identifier l'agent causal, classifier le cas et mettre en place une mesure de prévention.

Méthodologie: Il s'agit d'une étude descriptive. L'investigation a eu lieu le 19/05/2023 à Ambodiara sakavazoho qui est endémique à la drépanocytose. Nous avons administré un questionnaire standard à la famille du cas, suivi de prélèvement de selles pour la recherche de poliomyélite et sang pour la drépanocytose. Nous avons effectué une recherche active d'autre cas. L'analyse suit les termes temps-lieu et personne à l'aide de Microsoft Excel.

Résultats: L'investigation a révélé un cas de PFA survenue le 16/05/2023 chez un garçon de 59 mois, complètement vacciné. Il a présenté soudainement une paralysie asymétrique avec pâleurs intense, céphalée chronique, amaigrissement, aphasie et trouble de l'équilibre. La paralysie est réversible 18 jours après début des signes. La recherche de la poliomyélite est négative mais la drépanocytose de type SS confirmée. Aucun cas similaire n'a été retrouvé lors de la recherche active. Nous avons sensibilisé la population sur la lutte contre la défécation à l'air libre, la supplémentation en acide folique et vitaminothérapie et le test drépanocytaire et groupe sanguin avant le mariage.

Conclusions: Nous pouvons conclure que la cause de la PFA est la drépanocytose dans un district endémique. Ceci est renforcée par les signes cliniques qui sont conformes à la littérature. C'est le seul cas identifié. Des mesures de prévention ont été prises.

Mots clés: Investigation, paralysie flasque aiguë, drépanocytose, Ikongo, Madagascar

Abstract ID: PP4 **Implementation of Event-Based Surveillance Systems in West Africa: Challenges.**

Lionel Solété Sogbossi^{1,&}, Appolinaire Kima¹, Babacar Fall¹, Sedjro Catraye¹, Virgil Kuassi Lokossou¹, Felix Agbla², Issiaka Sombie², Melchior Athanase Joel Codjovi AISSI²

¹ECOWAS -Regional Centre for Surveillance and Diseases Control, Abuja Nigeria

²West African Health Organization, Bobo-Dioulasso, Burkina Faso

&Corresponding author: Lionel. S. Sogbossi, IECOWAS -Regional Centre for Surveillance and Diseases Control, Abuja Nigeria, Email: liosogbos@gmail.com Tel: (+229) 96145325/ (+234) 8087034499

Introduction: Event-Based Surveillance (EBS) is a surveillance system that provides faster and real-time information, which can improve the speed of triggering Early warning mechanisms as well as the response to Public Health Events. Recent infectious disease outbreaks have revealed weaknesses in surveillance systems as well as shortcomings in indicator-based surveillance and the need to strengthen the analysis of information from all sources outside the health care system in ECOWAS countries. We assessed the implementation of EBS in ECOWAS countries.

Methods: This is a cross-sectional assessment. A structured questionnaire was to the national surveillance officers of the region from May to July 2022. Quantitative data were analyzed using IBM SPSS statistical software and open questions were analyzed with the open semantic data analysis approach.

Results: Seven out of fifteen countries (46.7%) have reported the implementation of EBS in their country. these countries were at different levels of the implementation of EBS. The number of signals is different per week, from one country to another. The health professionals, the National Public Health Institutes and the social media were involved in the identification of signals.

They are respectively 66.7%, 57.1% and 57.1%. The EBS challenges included a lack of effective and structured decentralization of the EBS process, a lack of adequate and skilled manpower, a lack of information and technology equipment and tools, both at regional and national levels, and inadequate use of EBS information.

Conclusions: The Results highlighted that the implementation of EBS in West Africa is at the beginning with challenges. Those challenges need to be addressed in order to improve rapid notification, detection and effective response to public health events in the ECOWAS region.

Keywords: Event-Based Surveillance, rapid response, public health events, ECOWAS region.

Abstract ID: PP7 **COVID-19 Vaccines Acceptance Among Marketeers and Their Customers at Main Masala Market Of Ndola District in Zambia, January 2023**

Francis Mwenya¹, Charles Chilima², Nyambe Siyanga³
¹Zambia Field Epidemiology Training Program, Lusaka, Zambia,

²Ministry of Health, Ndola DHO, Zambia

³Zambia National Public Health Institute, Lusaka, Zambia

&Corresponding author: Nyambe Siyanga, Zambia National Public Health Institute, Lusaka, Zambia, Email: bsinyange@gmail.com

Introduction: COVID 19 became a global public health threat and vaccinations remained paramount in curbing the pandemic though characterized with low turnout in Zambia. Main Masala market like any other public place became a fertile spreading ground as it is characterized with Trans-border traders from Tanzania through Tunduma-Nakonde boarder post making it more vulnerable even from imported COVID 19 cases. The market became an epicenter and recorded the first BID case of a core boy epidemiologically linked to a suspected imported case. The survey was aimed at evaluating, awareness on vaccines, existing legislation and associated factors to vaccine uptake.

Methods: A mixed Methods design that run parallel was used to collect qualitative and quantitative data and a questionnaire plus Focus Group Discussions (FDGs) were employed for data collection. Simple random sampling was used and Probability Proportion to Size (PPS) was applied i.e Taxi drivers (8%) Core boys (12%), Restaurant (10%) Tavern owners (13%), customers (7%) and marketeers (50%).

Results: Study findings showed that all the 286_100% respondents were aware about COVID 19 vaccines but about 197_69% had not received the vaccine implying poor acceptance levels. This Results could have been attributed by associated factors that included poor attitude towards vaccine uptake which accounted for 32_11%. An assertion of poor public health legal re-enforcement accounted for 42_15% and respondent's perception of the vaccine accounted for 212_74%. These associated factors were attributed by social media that was flooded with a lot of information that instilled fear and anxiety in most respondents. Other factors include the notion that Negroes have a stronger immunity compared to other races with a reference of the case fatality rates that stood at 4.1% in the western world and 1.2% in Zambia specifically.

Conclusions: Vaccine uptake still remains delicate propagated by that myths that surrounded COVID 19.

Keywords: COVID 19, Awareness, Acceptance, Legal Enforcement, Attitude, Perception

Abstract ID: PP8

Associated factors of immunization status among nomadic children under five in two districts in the Volta Region, Ghana, March 2023

Amatus Nambagyira^{1,3*}, Kwesi Senanu Djokoto³, Ernest Kanu¹, Donne Ameme¹, Gideon Kye-Duodu², Joseph Yaw Jerela^{1,3}, Emmanuel Bonsu^{1,3}, Samuel Adolf Bosoka³, Robert Dedi³, Sebastian Dodzi³, Fortress Aku Yayra²
¹Ghana Field Epidemiology and Laboratory Training Programme, School of Public Health, University of Ghana. ²F.N. Binka School of Public Health, University of Health and Allied Science, Hohoe, Ghana

³Volta Regional Health Directorate, Ghana Health Service, Ho, Ghana

***Corresponding Author:** Amatus Nambagyira, Volta Regional Health Directorate, Ghana Health Service, Ho, Ghana, Email Address: amatus11@yahoo.com

Introduction: Vaccine-preventable diseases (VPDs) remain the most common causes of childhood mortality, with approximately 3 million deaths every year mainly in Africa and Asia. In Ghana, VPDs are responsible for one in eleven deaths before the age of five.

Fully immunized coverages in the Adaklu and Akatsi North districts in the Volta Region of Ghana stand at 83.2% and 47.0% respectively in 2021. These fell short of the national target of 90%. We assessed the factors associated with immunization status of nomadic children under five in the two districts.

Methods: We conducted a community-based descriptive cross-sectional study with a multi-stage sampling of 157 participants. Data on vaccination history, and Introduction characteristics were collected through interviews using a structured questionnaire and analyzed with Stata Version 16. Descriptive statistics were used to summarize the data. Binary logistic regression model was used to determine factors associated with immunization status. Statistical significance was considered at $p < 0.05$.

Results: Of the 157 children involved in the study, females were 136 (86.6%). The odds of complete vaccination were higher among children aged 13 months and above [AOR=3.08, 95%CI:(1.31-7.23)], children of caregivers with a history of postnatal care visits [AOR=3.12, 95%CI:(1.23-7.92)], home visits by health workers [AOR=3.63, 95%CI:(1.42-9.32)], and caregivers being convenient with the immunization schedule [AOR=3.63, 95%CI:(1.42-9.32)]. Caregivers reporting long waits at vaccination centers had lower odds [AOR=0.23, 95%CI:(0.08-0.67)] of complete vaccination

Conclusions: Immunization status of nomadic children under five in Adaklu and Akatsi North Districts are associated with the child's age, postnatal care visits of caregivers, home visits by health workers, convenience of immunization schedules and long waiting times. We recommend that measures be put

in place by vaccination teams to reduce waiting time and thereby improve the rate of full vaccination.

Keywords: Nomadic, Expanded Program on Immunization, Vaccine-Preventable Diseases, Volta Region, Adaklu, Akatsi North, Ghana.

Abstract ID : PP13

Analyse des données de surveillance de la fièvre de la vallée du Rift chez les humains en Mauritanie de 2011 à 2021

Cheikh Zeini Abd El Jelil^{1,&}, Nicolas Meda², Pauline Yanogo², Mohamed Ely Mahmoud², Djibril Barry², Mohamedou Ahmed Salem²

¹chef de district sanitaire de Bababe en Mauritanie

²Epidemiology and Laboratory Training Program, Ouagadougou, Burkina Faso

&Auteur correspondant : Cheikh Zeini Abd El Jelil, Ichef de district sanitaire de Bababe en Mauritanie, Email : abdoulcheggar@gmail.com

Introduction: La Fièvre de la Vallée du Rift demeure un problème de santé publique en Mauritanie. Elle est une maladie virale le plus souvent observée chez les animaux domestiques en Afrique subsaharienne. L'objectif de ce travail est d'analyser les données de surveillance de la fièvre de la vallée de Rift chez les humains en Mauritanie de 2011 à 2021. Le but de notre travail de contribuer à l'amélioration de la sante en Mauritanie.

Méthodes: Nous avons menés une étude transversale rétrospective sur les données de la surveillance épidémiologique de la fièvre de la vallée du rift chez les humaines en Mauritanie de 2011 à 2021. Des proportions, des fréquences et taux ont été calculés.

Résultats: Sur les 308 cas suspects de la fièvre de la vallée du rift enregistrés, 142 cas soit 46,10% était confirmés par laboratoire. La tranche d'âge de 20-40 ans était la plus représentée avec 47,18%. L'âge médian était de 26 ans (1 ans-91ans). Le sexe ratio H/F était égal à 3,6. La profession d'Eleveur était la plus touchée avec 7,04%. Les cas confirmés non identifier étaient au nombre de 89 soit 62.67%. La région de Tagant a enregistré le plus grand nombre de cas confirmés (50)

soient 35.21%. Sur les 142 cas confirmés, 83 décès ont été enregistré soit une létalité de 58,45%.

Conclusions: Cette étude montre que les formes hémorragiques de Fièvre de la Vallée du Rift présentent une létalité importante et la prévention de la maladie passe par le renforcement de la lutte contre les vecteurs, l'éviction des contacts, la non-consommation des produits biologiques provenant d'animaux malades et la vaccination des animaux dans les zones où la maladie est endémique.

Mots clés: Fièvre valle du rift, Base de données, analyse, Mauritanie.

Abstract ID: PP23

Factors associated with the persistence of meningitis cases in Burkina Faso from 2012 to 2021

Guillaume Touwendyam Yanogo^{1,&}, Nikiema Madi^{2,3}, Brice Wilfried Bicaba⁴, Barry Djibril³, Yameogo Issaka³, Yanogo Pauline Kiswendsida^{1,5}, Bondoné David¹, Meda Nicolas¹

¹Burkina Field Epidemiology and Laboratory Training Program, (BFELTP), University Joseph Ki-Zerbo, Ouagadougou Burkina Faso;

²General Directorate of Population Health and Public Hygiene Ouagadougou, Burkina Faso

³Health Emergency Response Operations Center (CORUS), Ouagadougou, Burkina Faso

⁴Joseph KI-ZERBO University, Ouagadougou, Burkina Faso.

&Corresponding author: Yanogo Touwendyam Guillaume, Burkina Field Epidemiology and Laboratory Training Program, (BFELTP) Ouagadougou, Burkina Faso, Email: yguillaume38@gmail.com

Introduction: In Burkina Faso, meningitis epidemics have been recurrent for several years. Despite preventive measures through vaccination, sporadic cases and epidemics as well as deaths are reported each year. The objective of our work was to study the associated factors in order to reduce the morbidity and mortality of meningitis in the country.

Methodsology: We conducted a cross-sectional and analytical study of secondary data from national surveillance of meningitis cases from 2012 to 2021. Adjusted odds ratios were calculated on Epi info to estimate the association between meningitis and independent factors (age, sex, vaccination status, residence setting the level of significance of $P < 0.05$ was used.

Results: A total of 24,859 meningitis cases were included. Children under 5 were the most represented 13,066 cases or 52.56%. The sex ratio was 1.26 in favor of men. Vaccination coverage was 37.34% or 9282 vaccinated cases. 55% or 13,682 of the cases came from rural areas. In addition, 7689 cases (30.93%) were confirmed in the laboratory and streptococcus pneumoniae was the most incriminated germ in 2202 of the confirmed cases (28.63%). Sex (OR=1.07, [1.019-1.12] p-value=0.003), age (OR=2.14 [2.03-2.25]; p-value=0.0001), place of residence (OR=2.13 [2.03-2.25] p-value=0.00001) and vaccination status (OR=1.12 [1.06-1.17]; p-value=0.00001).

Conclusions: This study allowed us to describe the epidemiological profile of meningitis and to study the associated factors. It mainly affects children under five (05) years old. We recommend improving pneumococcal vaccination coverage in children under five and intensifying vaccination and surveillance in rural areas of Burkina Faso.

Key words: meningitis, associated factors, Burkina Faso, 2012-2021, BFELTP

Abstract ID: PP24

Analysis of Community-Led Total Sanitation Surveillance Data in Central Region, Ghana 2022

Okyere Derrick^{1, 2, &}, Rita Agyekumwah Asante Kusi², Ernest Kenu²

¹Central Regional Coordinating Council, Cape Coast, Ghana

²Ghana Field Epidemiology and Laboratory Training Programme, Accra, Ghana

***Corresponding author:** Okyere Derrick, I Central Regional Coordinating Council, Cape Coast, Ghana, Email: Okyere.k.derrick36@gmail.com

Introduction: Open Defecation remains a major canker in Central Region as about 95% of communities in the region still practice Open Defecation. Community Led Total Sanitation (CLTS) was piloted in Central Region in 2010 as a behavioral change intervention to eradicate Open Defecation (OD) and improve household latrine construction in the region to promote public health.

We analyzed the CLTS Verification Data to know the trends of Open Defecation Free (ODF) achievement, the population access to basic sanitation, number of latrines constructed and the distribution of ODF communities in the Region.

Methods: A secondary data analysis was employed for the (CLTS) in the Central region from 2017 to 2021. An Excel template was design to extract data from CLTS Verification Database.

Key variables collected are District, community name, number of households, population, latrines constructed and ODF status. Collected data was analyzed by performing summary descriptive statistics with Results presented in tables and graphs.

Results: A total of 487 communities were triggered .75.35% (367/487) communities were declared ODF. 63,407 people were triggered for improved latrines, 54.81% (34,755/63,407) now have access to basic sanitation.

Access to basic sanitation corresponds to having access to improved latrines, with 66.9% (6525/9753) of the households owing improved latrines of the targeted latrines. Upper Denkyira East Municipality had the highest ODF community declaration among the 16 MDAs with ODF communities.

Conclusions: From 2017 to 2021, ODF communities marginally increased with the highest ODF in 2019 and least in 2021. More than half of the population triggered now have access to latrines. More than half of latrines expected were constructed from 2017 to 2021. ODFs were declared within 16 Metropolitan, Municipal and District Assemblies (MMDAs).

We recommend that the Ministry of Sanitation and Water Sanitation should support the full implementation of CLTS Programme in the Central Region to promote health and sanitation.

Keywords: Sanitation, Open Defecation, Community, Households, Latrines, Population, Triggering

Abstract ID: PP25

Progress on Field Epidemiology and Laboratory Training Programme (FELTP) in ECOWAS region: lessons learnt from COVID-19 pandemic response

Virgil Kuassi Lokossou¹, Adeke Stephen Azuka², Chukwuma David Umeokonkwo³, Aishat Bukola Usman^{1,4}, Lionel SOGBOSSI^{1,4}, Appolinaire Kima^{1,4}, Marianne Comlan^{1,4}, Patrick Nguku⁵, Issiaka Sombie⁴, Felix Agbla⁴, Melchior Athanase Joel Codjovi AISSI⁴

¹ECOWAS Regional Center for Surveillance and Disease Control, Abuja, Nigeria

²Alex Ekwueme Federal University Teaching Hospital, Abakaliki, Nigeria

³African Field Epidemiology Network, Monrovia, Liberia

⁴West African Health Organization, Bobo-Dioulasso, Burkina Faso

⁵African Field Epidemiology Network, Abuja, Nigeria

& Auteur correspondant: Virgil Kuassi Lokossou, ECOWAS Regional Center for Surveillance and Disease Control, Abuja, Nigeria, Email: vlokossou@wahooas.org

Introduction: COVID-19 pandemic has been persistent with huge demand for human health resources. A vital component of outbreak preparedness and response is the health workforce development.

Globally, the public health workforce through field epidemiology and laboratory training programme (FELTP) has been instrumental to the pandemic response. We analyzed FELTP contributions during the COVID-19 pandemic response in the ECOWAS region.

Méthodes: We conducted a desk review of country-level FELTP reports. Member states received a questionnaire by email on the status of FELTP. Also, West African Health Organization organized an online two-

day regional consultative meeting on field epidemiology training on 30th-31st March 2022 for group discussions. Data collected were analyzed in themes.

Résultats: All countries had established FELTP, 2/15 countries had one level of FELTP while 10 countries had two levels. Burkina Faso, Ghana, and Nigeria had all three levels. Between 2019 and 2022, Frontline graduates increased from 2996 to 4364, intermediate – 41 to 412, and advanced – 409 to 809. Although, there has been disproportionate progress in most countries.

The pandemic response emphasizes the relevance of field epidemiologists for outbreak response in the region. Activities supported through FELTP graduates and trainees were coordination; surveillance (case investigation, contact tracing); data collection and management; laboratory support (sample collection/testing); case management; risk communication; infection prevention and control; COVID-19 vaccination; and research.

Crucial to the success of outbreak response is the strengthening of the One-Health approach, political will and local commitment. Other lessons learnt include enhancing routine surveillance systems through improved data quality and skills of surveillance officers, use of virtual training Methods, strengthening the research capacity of FELTP officers and mentorship.

Conclusions: Despite improvements in the FELTP programme in the ECOWAS region, there is a need for continuous stakeholder engagement for its implementation, resource mobilization for sustainability, and leveraging of critical partnerships. Our study also revealed the urgent need for tailoring support to some countries in advancing FELTP programmes.

Mots clés: COVID-19 Pandemic, FELTP, Lessons Learnt, ECOWAS

Abstract ID : PP38

Connaissances, attitudes et pratiques des communautés et des prestataires de la santé humaine dans le district sanitaire de Kédougou sur la prévention de la rage en 2022 (Sénégal).

Fodé Danfakha^{1,*}, Mbouna Ndiaye², Mamadou Sarifou BA², Boly Diop³, Mayacine Diongue⁴

¹Région Médicale de Kédougou – District Sanitaire, Kédougou, Sénégal

²Programme de formation en épidémiologie de terrain, Dakar, Sénégal

³Ministère de la santé et de l'action sociale, Dakar, Sénégal

⁴Faculté de médecine, Université cheikh Anta Diop, Dakar, Sénégal

***Auteur correspondant:** Fodé Danfakha, Région Médicale de Kédougou – District Sanitaire, Kédougou, Sénégal, e-mail : deffode47@gmail.com

Introduction: La rage reste un problème de santé publique au Sénégal. Le district de Kédougou avait notifié 305 cas de morsure en 2021. L'objectif de l'étude était d'évaluer les connaissances, attitudes et pratiques (CAP) sur la prévention de la rage chez les professionnels de la santé humaine et chez les communautés.

Méthodes: Il s'agissait d'une étude transversale et analytique menée dans le district de Kédougou. Un recrutement exhaustif a été effectué auprès des prestataires (n=46). Un échantillonnage en grappes à plusieurs degrés de l'OMS était utilisé au niveau communautaire (n=845).

Les données ont été collectées du 09 au 13 novembre 2022 à l'aide de questionnaire sur Google forum. Les caractéristiques sociodémographiques et les CAP ont été étudiés avec un scoring.

Résultats: Les communautés de sexe masculin étaient plus prédisposées à une bonne pratique (OR= 3,35, p= 0,000012) de même que ceux qui étaient instruits (OR= 2,21, p=0,01).

Les connaissances suffisantes, les attitudes positives et les bonnes pratiques vis-à-vis de la rage représentaient

respectivement 34,03%, 29,45% et 26,84% chez les prestataires. Elles étaient respectivement de 25,68%, 19,55% et 14,98% dans la communauté.

Les professionnels orientés sur la rage étaient plus prédisposés à avoir une connaissance suffisante sur la rage (OR 4,09, [1,43 – 11,68], p=0,03,) et une bonne pratique (OR= 15,2, [1,15 – 199,64], p=0,01).

Les membres de la communauté ayant reçu des informations sur la rage avaient le meilleur score de connaissance suffisante en matière de prévention de la rage (OR= 6,7, [1,57 – 28,63], p=0,002) de même qu'une bonne pratique (OR= 5,52, [2,34 – 12,97], p= 0,000012).

Conclusions: Cette étude a montré qu'il existe chez les prestataires et les communautés des lacunes dans les CAP à l'égard de la rage. La formation médicale sur la rage et le renforcement de la communication, sont nécessaire et doivent être continue.

Mots clés: Connaissances-Attitudes-Pratiques ; Prestataires ; Communauté ; Rage.

Abstract ID: PP46

Investigation of COVID-19 outbreak among police barracks of a state guest house, New Delhi, India, 2020.

Prasoon Sheoran^{1,*}, Chandrakant Moghe²

¹Directorate of Health and Medical Welfare, Uttarakhand state, India.

²South Eastern Asia Regional Office for WHO, New Delhi, India.

***Corresponding Author:** Prasoon Sheoran, Directorate of Health and Medical Welfare, Uttarakhand state, Uttarakhand Sadan, Chanakyapuri, New Delhi 110011, India. Email: prasoonsheoran12@gmail.com, +91-1126875615

Introduction: Till December 2022, New Delhi reported more than 2 million COVID-19 cases and 26521 deaths. In September 2020 a state guesthouse A located in Chanakyapuri area of New Delhi reported a cluster of COVID-19 cases among its workers. We investigated to describe the epidemiology of the outbreak and provided evidence-based recommendations to prevent such outbreaks in the future.

Methods: We defined a case of COVID-19 as a positive Reverse Transcriptase Polymerase Chain Reaction (RT-PCR) or Rapid Antigen Test (RAT) among residents of state guest house A between 08-30 September 2020. We investigated the cases using a semi-structured questionnaire for collecting data. Microsoft Excel was used for descriptive statistics.

Results: We identified 18 COVID-19 cases (15 by RT-PCR and three by RAT) among 37 workers residing at State guest house A. The overall attack rate was 59%. The median age was 32 years (range 22-57), 16 (89%) were policemen, 17 (94%) were male. Four (22%) were symptomatic. We did not find any cases of vaccination against COVID-19. Sixteen (89%) cases have travelled from another state to New Delhi in the last 15 days. None of them tested at the border testing facility. The same 16 (89%) cases stayed at the basement police barrack at the state guest house. All of them were exercising COVID-19 appropriate behaviour.

Conclusions: This was a COVID-19 outbreak predominantly among policemen at the basement police barrack. We recommended isolation of cases at the appropriate institute and quarantine of the contacts. We further recommended relocating policemen from barracks to ventilated rooms on the upper floors. We recommended a complete entry ban to the guest house for the next two weeks.

We further recommended contact tracing, early testing, daily monitoring of cases for symptoms, and compulsory testing for all new workers reporting to duty and guests at the guest house after that.

Keywords: COVID-19, State guest house, Police barracks.

Abstract ID : PP62

Evaluation du système de surveillance de la méningite dans la région de Niamey, Niger 2021

Hadjara Aboubacar^{1,2,&}, Djibril Barry¹, Issifou Djibo^{2,4}, Yoda Hermann¹, Tassiou Ibrahim³, Pauline Yanogo¹, Nicolas Meda¹

¹Burkina Field Epidemiology and Laboratory Training Program (BFELTP), University Joseph KI ZERBO, Ouagadougou, Burkina Faso

²Ministère de la Santé Publique, Niamey, Niger

³Faculté de Médecine, Université Joseph KI ZERBO, Ouagadougou, Burkina Faso

⁴African Field Epidemiology Network (AFENET), Ouagadougou, Burkina Faso

***Auteur correspondant:** Hadjara Aboubacar, Burkina Field Epidemiology and Laboratory Training Program (BFELTP), University Joseph KI ZERBO, Ouagadougou, Burkina Faso, Email: aboubacarhadjara@yahoo.fr

Introduction: La méningite reste un problème de santé publique de par sa mortalité élevée et ses séquelles lourdes chez les enfants.

Dans le monde environ 8,5 millions de nouveaux cas de méningite et 463 000 décès ont été notifiés en 2019. En Afrique, pendant la saison épidémique, 24 pays ont notifié au total 15 324 cas suspects, dont 915 décès en 2019. Le taux d'incidence hebdomadaire dépasse 10 cas suspects et on rapporte plus de 25 000 cas suspects chaque année.

Au Niger en 2015, suite à une épidémie, 2102 cas de méningite à méningocoque dont 129 décès ont été notifiés. Malgré les progrès remarquables accomplis ces 20 dernières années dans la lutte contre la méningite, cette maladie reste toujours d'actualité en santé publique au Niger.

Notre travail s'inscrit dans cette logique en se proposant d'évaluer le système de surveillance de la méningite au Niger en 2021 afin de l'améliorer.

Méthodes: Il s'est agi d'une étude transversale descriptive dans la région de Niamey sur une période d'un an, l'année 2021.

La population d'étude était constituée des acteurs directement impliqués dans la surveillance à tous les niveaux du système de surveillance de la région. Les données sont collectées sur un questionnaire.

L'analyse des données a été effectuée à l'aide des logiciels Epi info 7.2.5.0, Excel 2016 et QGIS. Nous avons calculé des proportions et des fréquences. Nos résultats ont été présentés sous forme de tableaux, graphiques et cartes.

Résultats: Le système de surveillance de la méningite est bien organisé et structuré. Il est utile aux mesures de contrôle et atteint ses objectifs. Il est simple, accepté (82,61%), sensible à 100%.

Conclusions: Le système de surveillance a été jugé utile et a atteint ses objectifs. La représentativité et la qualité doivent être améliorés.

Mots clés: Evaluation, Surveillance, Méningite, Niamey, 2021

Abstract ID: PP63

National Measles Surveillance Data Analysis from 2016-2019, Ethiopia

Mesfin Asmamaw Weldemeskel^{1,*}, Abdulnasir Abagero Haji²

¹Ethiopia Public Health Institute , Public health Emergency Management ,Addis Ababa , Ethiopia

²Ethiopian Field Epidemiology Training Program, School of Public Health, Addis Ababa University, Ethiopia

***Corresponding author:** Mesfin Asmamaw Weldemeskel, Ethiopia Public Health Institute , Public health Emergency Management, Addis Ababa, Ethiopia, Email: meshasma@gmail.com

Introduction: Measles is a major cause of morbidity and mortality in children worldwide, and it is prevalent in many developing countries, including Ethiopia. We conducted this surveillance data analysis to determine the magnitude and trends of measles in Ethiopia from 2016 to 2019.

Methods: Four years national measles surveillance data (2016-2019) were collected from Ethiopia Public Health Institute national database. Retrospective descriptive analysis was conducted from May to June 2021.

All confirmed, suspected measles cases and deaths reported through weekly reports, the line list and case based from 2016-2019 were included in the analysis.

The epidemiology and incidence of measles cases by age, vaccination status, year of occurrence, and geographic area were analyzed.

Results: During 2016-2019, a total of 21,032 suspected measles cases were reported. Of which, 11,978 (57%) were confirmed cases. The highest mean annual incidence was recorded in 2016 with 49 cases per one million population.

The range of measles annual incidence was 15-49 cases per one million. The mean annual incidence of 30 cases per one million population.

Under five years children represented the most affected age group accounting for 38.4 % of the total cases. It peaked in February and January. The highest average incidence rate was recorded in the Somali region. The average case fatality rate was 1.1% .32 % of reported measles cases vaccinated. 29 percent of cases were unvaccinated and 39 % had unknown vaccination status. The highest number of unvaccinated measles cases accounted for 44% and 34% were reported in Somali and Afar regions respectively.

Conclusions: The average annual incidence rate of measles was far higher than the national target of less than one case per million by 2020. The Somali and Gambela regions of the county had the highest measles annual incidences. The Afar and Somali regions had the highest unvaccinated population.

Keywords: Measles, Surveillance data, Ethiopia

Abstract ID: PP64

Risk factors of mortality due to Covid -19 in the Tigray region of Ethiopia: A cross-sectional study

Kissanet Tesfay Weldearegay^{1,*}, Samuel Aregai Gebresilasie², Alefech Addisu Gezahegne¹, Afewerki Tesfahuney Nigus¹, Aregawi Gebreyesus¹, Mekonnen Gebremichael Gebrekidan², Mebrahtu Hafte Amaha², Weldegerima Gebremedhin Hagos², Gidey Gebrelibanos Gebresilasie²

¹Department of Epidemiology, School of public health, College of Health Sciences, Mekelle University, Mekelle, Ethiopia,

²Tigray Regional Health Bureaus, Mekelle, Ethiopia

***Corresponding Author:** Kissanet Tesfay Weldearegay, Department of Epidemiology, School of public health, College of Health Sciences, Mekelle University, Mekelle, Ethiopia, Email: tefaykissanet@gmail.com

Introduction: On May 18, 2021, there were 3,405,682 fatalities and 164,305,625 coronavirus cases worldwide. A total of 4,738,237 coronavirus cases with 126,913 fatalities had been reported throughout Africa. There were 4,008 fatalities and 266,646 confirmed COVID-19 cases in Ethiopia.

The first verified COVID-19 case in Ethiopia was discovered on March 13, 2020. The objective of the study was to identify the magnitude and risk factors of death in Covid-19 patients among the treatment centers of Tigray region of Ethiopia in 2020.

Methods: Facility-based Cross-sectional study design with record review was used. The entire Covid-19 patient group up until October 19, 2020 served as the study's sample population. Data on the mortality of COVID-19 cases were retrieved using a data extraction technique from registers, patient cards, and patient line lists. Data were entered in EpiData, and analyzed using SPSS 21. OR with 95% CI were estimated and the level of significance was declared at $p\text{-value} \leq 0.05$.

Results: There were 38 fatalities and a total of 6188 COVID-19 confirmed cases in the Tigray region as of October 19, 2020. Case fatality rate of this study was 0.6%. Males were 64.6% and 30 was the mean age of the cases. Age groups greater than 45 years old [AOR= 18.8 CI (7.44-47.50) P-value=0.000], Private employee [AOR= 8.96 CI (2.69-29.80) P-value=0.000], having underlying illness [AOR=16.57 CI (3.86-71.08), and history of close contact [AOR=9.17 CI (1.22-68.94) P-value=0.031] were associated with death of Covid-19 in multivariate analysis.

Conclusions: The case fatality rate due to Covid-19 was relatively low. Being age >45 years of age, private employee, having an underlying illness, and having close contact with Covid-19 patient was associated with death due to Covid-19. We would like to recommend special attention to be given to Covid-19 patients with underlying illness and having close contact.

Keywords: COVID-19, Underlying illness, Close contact

Abstract: PP67

Measles outbreaks in regions neighboring armed conflict zones; Experiences from the West region of Cameroon, 2018-2022

Gael Kouamen^{1,*}, Hadisson Eposi I, Cynthia Satchop I, 3, Frankline Mbolingong², Nicole Kenfack I, Elie Simo I.
1 Ministry of Public Health, Yaoundé, Cameroon,
2 Chirurgische Abteilung Kreiskliniken Böblingen, Krankenhaus Herrenberg, Germany,
3 Comité international de la Croix Rouge, Yaoundé, Cameroon

***Corresponding author:** Gael Kouamen, Ministry of Public Health, Yaoundé, Cameroon, Email: gaelgt@yahoo.co.u

Introduction: In 2019, a nationwide measles/rubella vaccination campaign was organized in Cameroon. However, in 2022, 67 districts reported measles outbreaks. The West region (WR) reported outbreaks in seven districts among which four border the Northwest region (NWR). Since 2016, an armed conflict in the NWR and Southwest region has caused massive influx of people into the WR. Population displacement negatively affects routine immunization and favors outbreaks. We therefore aimed to determine factors associated with measles outbreaks in the WR of Cameroon.

Methods: A retrospective study of the West regional surveillance data was carried out from 2018-2022. Data on the classification, demographics and vaccination status of measles cases were retrieved. Data analysis consisted of testing trends and seasonality by moving means Methods and calculating Odds Ratios (OR) and using logistic regression within 95% confidence limits.

Results: A total of 878 cases were reported from 2018-2022. The number of cases/years progressively increased from 106 in 2018 to 309 in 2022. The median age was 34 months (2 months – 57 years), 55% were male and a majority (74%) lived in rural areas. Seventeen percent (n=149) of cases were laboratory confirmed while 30% (n=271) were epi linked; 2.4% (n=21) were Rubella cases. About half (n=441) had received at least one dose of measles containing vaccine.

Through the years 60% of symptom onset occurred during epi weeks 1 and 13 with a peak at week 11. Trends showed seasonality. Risk factors identified were living in a health district neighboring the NWR, OR 5.7 (95%CI, 3.7- 8.7) and being unvaccinated OR 5.8 (95%CI, 4.1- 8.4).

Conclusions: Population displacement due to the armed conflict in the NWR has created pockets of susceptible children in the VWR. Periodic intensification of routine immunization should be organized in the affected districts while emphasizing on vaccination in hard-to-reach populations.

Keywords: Armed conflicts Measles Outbreak Hard to reach

Abstract ID: PP70

Severe Acute Malnutrition Outbreak Investigation at Dubti District of Awsiresu Zone, Afar Region, North Eastern Ethiopia, 2022

Abiyie Demelash Gashe^{1,*}, Aman Yesuf Endris²

¹Ethiopian Field Epidemiology and Laboratory Training Programme EFELTP, St. Paul's Hospital Millennium Medical College, Addis Ababa, Ethiopia

²St. Paul's Hospital Millennium Medical College, Department of Epidemiology, Addis Ababa, Ethiopia

&Corresponding author: Abiyie Demelash, St. Paul's Hospital Millennium Medical College, Addis Ababa, Ethiopia, Email: abiyiedemelash@gmail.com

Introduction: Although Ethiopia has made substantial progress to end child under-nutrition, following an armed conflict in northern part of country, Dubti district of Afar region received unusual cluster of Severe Acute Malnutrition (SAM) cases. We aimed to determine the magnitude and extent of outbreak and investigate its associated factors

Methods: We applied a descriptive cross-sectional study followed by unmatched case-control study from May 1-15, 2022 at Dubti District of Afar region, North Eastern Ethiopia.

Cases were children 6-59 months of age whom weight for height (WFH) <3 standard deviation (SD) or mid upper circumference (MUAC) <110mm or presented with bilateral pitting edema while controls were children of same age whom WFH ≥1SD and/or MUAC ≥125mm without edema.

We used line list for descriptive study and 252 mother-child pair for case-control study, case-control ratio 1:2. Data were collected via structured and pretested questionnaire, entered to Epi-data 3.1 and analyzed by SPSS 25.0.

Binary logistic regression was conducted to identify independent factors of SAM outbreak at P-value <0.05.

Results: A total of 442 SAM cases and 39 deaths were reported in present outbreak. The Attack rate was 61.8/1000 while case fatality rate was 9.2%. Mothers without formal education Adjusted Odds Ratio (AOR)=8.9, 95 CI: 3.90-20.86), family size ≥5, AOR=2.59, 95% CI: 1.09-6.14), unvaccination (AOR=2.31, 95% CI: 1.98-5.423), pneumonia (AOR=3.5, 95% CI: 1.50-8.27), diarrhea (AOR =3.37, 95% CI: 1.48-7.68), lack of sanitation and hygiene (AOR =3.7, 95% CI: 1.54-8.96), and infrequent child feeding (AOR =4.02, 95% CI: 1.72-9.40) were associated with SAM outbreak

Conclusions: Mothers having no formal education, family size ≥5, unvaccination, pneumonia, diarrhea, lack of sanitation and hygiene, infrequent child feeding were factors contributing SAM outbreak in the Dubti District.

There is need for multisectoral and multidisciplinary collaboration to meet nutritional needs of children during emergency

Keywords: Malnutrition, SAM, Under-five children, Outbreak, Ethiopia

Abstract ID : PP75

Analyse des données de surveillance épidémiologique de la Fièvre Jaune, Burkina Faso 2017 à 2021

Ferima Nikiema^{8,1,5}, Thérèse S. Kagoné^{2,3}, Brice W. Bicaba⁴, Dramane Kania³, Sofiane Sanou³, Djibril Barry⁵, Pauline K. Yanogo^{1,5}, Ramdhane Mohamed^{1,5}, Meda Nicolas^{1,5}

¹Burkina Field Epidemiology and Laboratory Training Program, (BFELTP), University Joseph Ki-Zerbo, Ouagadougou Burkina Faso;

²Laboratoire National de Référence des Fièvres Hémorragiques Virales, Bobo-Dioulasso, Burkina Faso ;

³Centre MURAZ, Bobo-Dioulasso, Burkina Faso;

⁴Centre des Opérations de Réponses aux Urgences Sanitaires (CORUS), Ouagadougou, Burkina Faso ;

⁵Université Joseph KI-ZERBO, Ouagadougou, Burkina Faso.

&Auteur correspondant: Nikiema Ferima, Burkina Field Epidemiology and Laboratory Training Program, (BFELTP) Ouagadougou, Burkina Faso, Email: ferimanikiema6@gmail.com

Introduction: La fièvre jaune (FJ) est une fièvre hémorragique grave et mortelle due à un arbovirus de la famille des flavivirus. Ces dernières années, plusieurs épidémies de fièvre jaune ont été rapportées en zone d'endémie africaine.

Le Burkina Faso est une zone endémique de fièvre jaune malgré les activités de PEV de routine. Dans l'optique de comprendre la réémergence de cette maladie nous avons analysé les données de surveillance afin de proposer des actions qui permettront aux décideurs de mettre en œuvre un plan de lutte contre la Fièvre Jaune.

Méthodologie: Une étude descriptive transversale sur les données de surveillance de fièvre jaune au Burkina Faso de 2017 à 2021 a été menée. La population d'étude est constituée de tous les cas suspects de fièvre jaune enregistrés dans la base nationale.

La complétude et la promptitude des données étaient respectivement 96,1% et 90,09%. Les données ont été analysées en temps, lieu, personne avec Excel, Epi Info, présentées sous forme de tableaux, graphiques.

Résultats: Au total 4545 cas suspects de fièvre jaune dont les prélèvements ont été envoyé au Centre Muraz. Vingt-sept (27) cas étaient confirmés positifs aux IgM soit (0,59%) et la tranche d'âge de moins de 10 ans était les plus représenté avec n=9 (33,35%) ; 14 (51,85%) des cas confirmés sont de sexe féminin avec un sex-ratio (F/H) de 1,07. Parmi les cas confirmés 17 étaient vaccinée (62,96%).

Conclusions: L'analyse nous a permis de confirmer des cas de fièvre jaune dans la quasi-totalité des régions sanitaires du Burkina Faso. La couverture vaccinale n'était pas effective chez tous les cas confirmés.

Cependant la vaccination reste l'une des mesures de protection contre la fièvre jaune. Alors nous recommandons aux autorités sanitaires nationales de sensibiliser la population sur la vaccination et formation des agents.

Mots clés: Fièvre jaune, surveillance, Burkina Faso, BFELTP

Abstract ID: PP80 Measles outbreak investigation in Raya-Kobo District, North Wollo Zone, Amhara Region, Ethiopia, 2022: An unmatched case-control study

Birhanu Enyew Zeleke^{1,&}, Getachew Hailu², Alemu Worku³, Demilie Kassa⁴

¹Bahirdar University, Bahirdar, Ethiopia

²School of Public Health, Department of Epidemiology and Biostatistics, Bahir Dar University, Bahirdar, Ethiopia

³Amhara Public Health Institute Woldyia branch, Woldyia, Ethiopia

⁴North Wollo Health Department, Woldyia, Ethiopia

&Corresponding author: Birhanu Enyew Zeleke, Bahirdar University, Bahirdar, Ethiopian, Email: birhanuenyew2014@gmail.com

Introduction: Measles is one of the highly contagious viral diseases caused by Morbillivirus that usually occurs as an outbreak in low-income countries. As of November 2022, measles suspected outbreak was reported from Raya Kobo district. We investigated the outbreak to identify its possible sources, control measures and associated risk factors of acquiring infection in the district.

Methods: Unmatched case-control study was conducted in Raya-Kobo district from November 14 to December 8/2022. Sample size was determined by using, Epi-infoTM7 from previous study conducted at Basoliben, 90 participants (30 cases and 60 controls) were included in the study.

Binary and multivariate logistic regression analysis was conducted to identify risk factors associated with measles outbreak at a p-value ≤ 0.05 .

Results: 183 cases were identified including 5 deaths with overall attack rate of 7.6/10,000 population and a case fatality rate of 2.7%. Being unvaccinated (AOR=14.3, 95% CI = 3.15-65.127, P= 0.001), having contact with patient (AOR=7.082[95%CI= 1.514-33.131], P<0.013], taking two or more doses of measles vaccine (AOR= 0.033, 95%CI = 0.002-0.553, P= 0.018) and being age of 60-168 months (AOR= 0.08, 95%CI= 0.013-0.462, P=0.005) and were shown significant associated with measles infection.

Conclusions: A confirmed measles outbreak has occurred in the Raya-Kobo district. Being unvaccinated and having a contact history with measles cases were the main risk factors for a measles outbreak. We recommend conducting vaccination campaigns, strengthening routine immunization programs, and strength active surveillance to reduce future measles outbreaks.

Keywords: Measles outbreak, Raya-Kobo, risk factors,

Abstract ID: PP84

Diphtheria Trend at Three High Risk Governorates in Yemen, 2017-2021

Fatema Ahmed Haidar^{1&}, Reema Abdul Rahim Alusfi², Yasser Ahmed Ghalab¹

¹Yemen Field Epidemiology Training Program, Ministry of Public Health and Population, Sana'a, Yemen,

²Early Integrated Disease Early Warning System, Sana'a, Yemen.

&Corresponding author: Fatema Ahmed Haidar, Yemen Field Epidemiology Training Program, Ministry of Public Health and Population, Sana'a, Yemen, Email: drfatemahaidar.2021@gmail.com

Introduction: The prolonged conflict and deterioration of health infrastructure have led to the persistence of diphtheria in Yemen, particularly in the last five years. This study aims to describe the trend and epidemiology of diphtheria cases and determine the immunization status of affected patients.

Methods: We used a descriptive analytical study. Secondary data of reported cases that meet WHO case definition of diphtheria covering from October 2017 to December 2021 at three governorates (Saadah, Al Hodeida and Dhmar) was obtained from electronic Integrated Diseases Early Warning System (eIDEWS). Variables for age, sex, district, date of onset, vaccine doses, and outcome were included.

Population from Central Statistical Organization was used for calculating incidence rates (IR) per 100,000 populations, P value < 0.05 was used as the cutoff point for significance

Results: The total number of cases reported was 2499 between 2017 and 2021. There was an obvious rise in cases by 30% in 2019 and 2020. All cases had the same seasonal distribution, being highest in cold months. The most affected age group was 5-<15 years and cases were higher among females 57%. The majority of cases were unvaccinated (56%) and 86% of vaccinated cases take three doses. Overall, IR was 36.2/ 100000 population and it was significantly higher in conflict governorates (42 vs 22, p< 0.001). The overall case fatality rate (CFR) was 7.4%. It was significantly higher in 2020 (23.3% vs 7.7%, p< 0.001), among <5 years (12.3% vs 6.6%, P< 0.001) and patients with zero dose vaccination (11.9% vs 6.7%, p= 0.001) compared to the relevant groups.

Conclusions: Diphtheria still causes childhood mortality and morbidity in three governorates especially among those aged <5 years and partially or unvaccinated. Therefore, strengthening surveillance, providing antitoxin in conflict areas, and routine immunization as well as introducing booster doses are recommended.

Keywords: Diphtheria; surveillance; conflict; Yemen

Abstract ID: PP85

Pertussis Remerging in Saadah governorate, Yemen

Dahm Aziz Saadan^{1,&}, Reema Abdul Rahim Alusfi², Yasser Ahmed Ghalab¹. ¹Yemen Field Epidemiology Training Program, Ministry of Public Health and Population, Sana'a, Yemen, ²Early Integrated Disease Early Warning System, Sana'a, Yemen.

***Corresponding author:** Dahm Aziz Saadan, Yemen Field Epidemiology Training Program, Ministry of Public Health and Population, Email: dahmaziz.med@gmail.com

Introduction: Pertussis (whooping cough) is a highly contagious community disease mainly caused by *Bordetella pertussis*. Infants and young children have remained most susceptible to pertussis-related morbidity and mortality especially in Yemen due to war consequences and conflict. The study aims are to describe the epidemiological characteristics, and magnitude of pertussis and determine the immunization status of affected patients.

Methods: A descriptive analytical study was conducted using available secondary data from Saadah governorate of pertussis that was obtained by the electronic Integrated Disease Early Warning System (eIDEWS) in 2021. All cases were identified by using the clinical standard case definition of pertussis adopted by WHO. Variables for demographic information, clinical, vaccination status, and outcome were included. Population from Central Statistical Organization was used for calculating the incidence rate (IR) per 100,000 population, P-Value ≤ 0.05 is considered statistically significant

Results: A total of 1418 pertussis cases were reported from fifteen districts in saadah governorate, of them one case died (CFR: 0.1%). The peak of cases occurred in September 2021. Two-thirds (69.5%) were < five years and (52.2%) were females. Based on the vaccination status, and (87%) were unvaccinated and only (2%) received three doses. The overall IR was 10.6/10000 of the population, significantly higher among < 5 years' cases (86 vs 4, $p < 0.001$). Furthermore, four districts that were difficult to access (Al Hashwah, Haydan, Majz, Al safra) had higher IR compared to the others (18 vs 7, $p < 0.001$).

Conclusions: Pertussis still has significant challenges to control in Saadah governorate with high morbidity among those aged less than five years and unvaccinated. Therefore, Routine immunization activities should be strengthened with community health education, and strengthening the surveillance system as well as increasing activity outreach is highly recommended to support service vaccination.

Keywords: Pertussis, Remerging, Saadah, Yemen

Abstract ID: PP86

Antimicrobial Resistance of Bacterial Isolates, Sana'a city, Yemen 2018-2019

Raja Mohammed Al-Haimi^{1,*}, Mohammed Abdullah Al Amad¹, Huda Zaid Al-Shami²

¹Yemen Field Epidemiology Training Program, Ministry of Public Health and Population, Sana'a, Yemen

²National Program for Antimicrobial Resistance, Ministry of Public Health and Population, Sana'a, Yemen

***Corresponding author:** Raja Mohammed Al-Haimi, Yemen Field Epidemiology Training Program, Ministry of Public Health and Population, Sana'a, Yemen, Email: Rajamohamed543@gmail.com

Introduction: Antimicrobial resistance (AMR) is a major urgent threat to clinical medicine and public health systems. An estimated 10 million deaths in 2050 will be due to antibiotic resistance and 90% of these deaths will be in low- and middle-income countries. In a country with poor resources, such as Yemen, AMR can cause an increase in mortality and morbidity due to treatment failures and a lack of effective therapy. The aims are to describe the epidemiological bacteria and multi-drug resistance of Gram-positive bacteria and Gram-negative bacteria isolated at main laboratories in Sana'a city.

Methods: A soft copy of data was obtained from the National Antimicrobial Resistance Surveillance Program. It contained the Results of antimicrobial susceptibility tests that were performed in the microbial labs of Sana'a city during 2018-2019. Incidence rate of positive culture was calculated. Definitions of multi-drug resistance organisms (MDROs) based on European Centre for Disease Prevention and Control (ECDC) was used

Results: A total of 4043 (68.7%) microbial organisms were isolated from 5832 samples. The overall positive culture incidence rate was 68.7 per 100 samples, the highest 99.6 was from blood samples and the lowest 9.2 was from Stool samples. Out of the total 4043, *Staphylococcus aureus* (27.6%) was the predominant gram-positive isolate, while *E. coli* (23.4%), *Pseudomonas spp* (13.8%) and *Klebsiella spp* (10.4%) were the most Gram-negative isolates, respectively. For MDROs, Methicillin-resistant *Staphylococcus aureus*

(MRSA), MDR Escherichia coli, and MDR Pseudomonas species accounted for 50.6%, 24%, and 16% of the total 981 MDROs, respectively.

Conclusions: There is a high percentage of bacteria resistant to several antibiotics as well as MDR in Sana'a city. The Results highlighted the problem of MDR in Yemen. Monitoring the dispensing of antibiotics and increasing community awareness to reduce the use of antibiotics are recommended.

Keywords: MDR, Gram-negative bacteria, Gram-positive bacteria, Yemen

Abstract ID: PP91

Health Problems among Children Enrolled for Integrated Management of Childhood Illnesses, Yemen 2020

Abdullah Hassan Al-Gufli^{1, &}, Khaled Al-Jamrah², Mohammed Abdullah Al Amad³

¹Yemen-Field Epidemiology Training Program, Ministry of public health, Sana'a-Yemen

²Child Health Directorate, Ministry of public health, Sana'a, Yemen

&Corresponding author: Abdullah Hassan Al-Gufli, Yemen Field Epidemiology Program, Ministry of public health, Sana'a, Yemen. Email; algufliaabdullah@gmail.com

Introduction: Yemen is one of the Middle East's low-income countries and for the last eight years of conflict has had the highest percentage of children's morbidity and mortality. The purpose is to describe sick children enrolled in the Integrated Management of Childhood Illness (IMCI), common health problems among children under 5 years, and to determine the coverage of IMCI services.

Methods: A descriptive analysis of IMCI secondary data was carried out. The data were collected by staff of functioning IMC during 2020 and reported as accumulative data to the IMCI directorate at the Ministry of Health. Frequency and proportion are used and attendance rate based on IMCI guidelines was calculated.

Results: A total of 1,678,110 sick children with

more than one health condition were enrolled in functioning IMCI at 14 Yemeni governorates. 52% were males, 47% were aged (>2y-5y) and the majority 91% were enrolled for a primary visit with a monthly equal percentage. The overall attendance rate was 17.4%, significantly higher in five governorates; Amran, Sana'a, Hajjah, Sa'adah and Ma'reb (32.5% vs. 12% p < 0.001). The common health problems for children aged two months to less than 5 years were; acute respiratory infection, diarrhea, nutritional problems, and throat infection accounting for 33%, 24%, 20%, and 12%, respectively. Acute bacterial infection and diarrhea accounted for 41% and 31% among infants < 2 months, respectively.

Out of all enrolled children, 51% were referred without medicines and 92% those who have been asked for follow-up had improved.

Conclusions: significant numbers of children benefited from IMCI services in targeted governorates. To reduce the morbidity among children U5, mother counseling for child health and course of treatment, promotion of breastfeeding for under 2 years, and water and sanitation hygiene are recommended. A further study to identify reason for difference coverage is required.

Keywords: Integrated Management of Childhood Illnesses, Yemen

Abstract ID: PP101

Seroprevalence of Toxoplasmosis and Rubella in Pregnant Women from Antenatal Clinic in Ibadan (Nigeria) And Bamako (Mali).

Abdullah Hassan Al-Gufli^{1, &}, Khaled Al-Jamrah², Mohammed Abdullah Al Amad³

¹Yemen-Field Epidemiology Training Program, Ministry of public health, Sana'a-Yemen. ²Child Health Directorate, Ministry of public health, Sana'a, Yemen

&Corresponding author: Aazo Kone, I Department of Zoology, University of Ibadan, Ibadan, Nigeria, mzoager@yahoo.fr

Introduction: Though Toxoplasma gondii and Rubella virus infections have asymptomatic outcomes they could Results in serious complications in pregnant

women. Congenital infections are significant causes of neonatal mortality and infant morbidity worldwide. The dearth of information about these infections in the West-African sub-region informed this study, which determined the seroprevalence of toxoplasmosis and rubella among pregnant women in Ibadan, and Bamako.

Methods: A total of 486 pregnant women attending Papa & Kadiatou (Pa&Ka) medical laboratory in Bamako (217) and five health centres from Ibadan (269) for routine ante-natal care were enrolled in a cross-sectional study.

Blood samples were collected and antibodies (IgG, IgM) to *Toxoplasma gondii* and Rubella were assessed by chemiluminescence (Elecsys®) for seroprevalence. Chi-square test was used to determine the significant risk factors for toxoplasmosis.

Results: The overall seroprevalence of toxoplasmosis and rubella in both Ibadan and Bamako was 42.54% and 96.01% respectively.

The highest seroprevalence of toxoplasmosis (64.82%) and rubella (59.73%) was recorded in the women aged between 21-30 years while the lowest seroprevalence of toxoplasmosis (11.36%) and rubella (12.25%) was recorded in women aged between 14-20 years. The IgG and IgM antibodies to *T. gondii* was recorded in 40.66% and 4.03% of the women respectively, while presence of IgG to Rubella was 95.50% and 1.51% for IgM in study participants. Significant risk factors for toxoplasmosis were eating undercooked meat (OR=0.24, P=0.0001), and eating raw and unwashed vegetables or salads (OR=0.50, P=0.0045).

Conclusions: The predominantly latent infection due to high prevalence of toxoplasmosis and rubella Immunoglobulin G pose an increased risk of congenital disorders, morbidity, neonatal and maternal mortality in pregnant women.

This knowledge is important for effective management and control of infections

Keywords: Seroprevalence, Toxoplasmosis, Rubella, Antibodies, Risk factor, pregnant

Abstract ID: PPI07

High Mortality from Clinical Rabies in Tigray during the Prolonged War and Deadly Siege: Call for Action

Afewerki Tesfahunegn Nigusse^{1,&}, Gebremedhin Berhe Gebregergs¹, Mebrahtom Hafte Amaha², Tesfay Temesgen Hailu², and Mulubirhan Assefa Alemayohu^{1,3}

¹Mekelle University, Mekelle, Ethiopia

²Tigray Regional Health Bureau, Mekelle, Ethiopia

³University of Verona, Verona, Italy

&Corresponding Author: Afewerki Tesfahunegn Nigusse, Mekelle University, Mekelle, Ethiopia, Email: afom.te@gmail.com

Introduction: Despite the improvements to achieve zero human death due to rabies by 2030, clinical rabies mortality during collapsed health systems caused by prolonged war and deadly sieges remains unknown.

Therefore, this study aimed to describe the pattern and mortality of rabies and explore challenges in preventing and controlling the disease in Tigray, Ethiopia.

Methods: A retrospective analysis of surveillance data from 2014-2021, complemented by an in-depth interview from April-May, 2022 was conducted in Tigray health and agriculture bureaus.

Surveillance data like place and time of report, population size, and livestock populations were collected using a data extraction tool and analyzed using MS Excel 2016 and ArcGIS. In-depth interviews were recorded electronically and analyzed thematically.

Results: A total of 14,082 dog bite exposures and 58 clinical rabies deaths were reported in Tigray, with a 0.41% mortality rate from dog bite exposure, varying from 0.11% in 2014 to 11.8% in 2021. The clinical rabies deaths were higher during the deadly siege and prolonged war (mortality rate-11.8%) and in central, northwestern, and southern zones of Tigray with a 12% report notification rate compared to the prewar periods. Poor health-seeking behavior of the community diminished prevention and control measures like post-exposure prophylaxis, and poor coordination between sectors in the concept of the one health approach was identified.

Conclusions: The case fatality rate of rabies in Tigray increased alarmingly during the prolonged war and siege, while the rabies notification rate was low due to the systematic communications blackout. Qualitative Results indicate that almost all rabies prevention and control measures, including the one-health approach, have been discontinued.

Therefore, bureau of health and agriculture, and its partners are expected to compel the federal government to open the siege and avail supplies for dog bite victims like post-exposure prophylaxis to revitalize the rabies surveillance system.

Keywords: Rabies, Tigray, Rabies mortality, One Health, and Rabies prevention

Abstract Id : PPI09

Investigation Sur Les Cas Suspects De La Grippe Dans Les Centres De Sante Des Districts Sanitaires De Talangai Et Mougali A Brazzaville, Republique Du Congo En 2022

Fresnovie Géladore Mbele¹, A ndr é Misombo Kalabela², Symphorien Edoungatso¹, Aimé Magloire Evongo¹, Duc Magloire Malonga¹, Ben Borgea Nianga¹, Jean Médard Kankou^{1, &}

¹ministère de la santé et de la population, Brazzaville, Congo

²African Field Epidemiology Network, Kinshasa, République Démocratique du Congo

&Auteur correspondant: kankou Jean Médard, ministère de la santé et de la population, Brazzaville Congo, Email : jkankou@yahoo.fr

Introduction: La covid-19 a intensifié la surveillance des maladies à Brazzaville avec 41.00 cas suspects de grippe notifiés en 2020 contre 35694 cas suspects en 2019. Cependant les études sur les cas de grippe sont peu documentées. Les objectifs de l'étude étaient de confirmer les cas de grippe et déterminer l'agent causal.

Méthodes: L'investigation a eu lieu à Brazzaville, précisément au CSI Plateau des 15 ans et Moukondo dans le district sanitaire de Mougali et au site sentinelle de référence CSI Marien Ngouabi pour la grippe dans

le district sanitaire de Talangai. Il s'agissait d'une étude transversale descriptive de décembre 2021 à Janvier 2022 et la collecte des données du 11 au 13 janvier 2022. L'échantillonnage était systématique. Les données collectées concernaient octobre à décembre 2021 et un formulaire correspondant à la définition de cas de la SMIR a été utilisé.

La variable d'intérêt était la confirmation biologique, les techniques utilisées consistaient à la revue des registres de consultation. Des échantillons ont été prélevés au CSI Marien Ngouabi puis transférés au Laboratoire national de santé publique.

Les données ont été contrôlées, traitées avec Excel puis analysées avec le logiciel Epi info 7.2.

Résultats: Au total, 90 cas suspects de grippe ont fait l'objet de l'enquête dont 66,7 % à Mougali et 33,3 % à Talangai. Seuls les 30 cas de Talangai soit 33,3% ont bénéficié d'un prélèvement et 9 cas se sont révélés positifs pour la grippe, soit 30% pour le centre et 10% pour tous les cas étudiés. Les virus grippaux détectés étaient de type grippal A H3N2 à 77,8 % et à 22,2 % de type grippal H1N1.

Conclusions: Cette investigation a pu ressortir seulement 9 cas confirmés et souligne l'importance d'intensifier les activités de dépistage des cas suspects de grippe dans les établissements de santé de Brazzaville.

Mots-clés: investigation, cas suspects de grippe dans les centres de santé de Talangai et Mougali, République du Congo.

Abstract ID: PPI16

A Discrete Choice Experiment to Predict Factors Associated with Enrollment to a National Health Insurance Scheme in Kampala District, Uganda.

Deborah Aujo^{1,2, &}, Angela Kisakye², Josephine Tumuhamy², Freddie Sengooba², Suzanne Kiwanuka²

¹Jinja Regional Referral Hospital, Jinja Uganda

²Department of Health Policy Planning and Management, School of Public Health, Makerere University, Kampala, Uganda

African Field Epidemiology Network, Lugogo House, Plot 42 Lugogo By-Pass, Kampala

&Corresponding author: Aujo Deborah, Jinja Regional Referral Hospital, Jinja Uganda and Department of Health Policy Planning and Management, School of Public Health, Makerere University, Kampala, Uganda, Email: deborah.aujo@gmail.com

Introduction: Despite significant healthcare needs, Uganda is the only East African country without an operational National Health Insurance Scheme (NHIS). Since March 2020, discussions have been ongoing about the proposed NHIS, particularly expected enrollment. Studies have associated socioeconomic and scheme-level factors to NHIS enrollment. We assessed the importance of different design attributes and scheme tradeoffs in Kampala, to enrollment. Findings will inform policy decisions and help create a more equitable and accessible health care system in Uganda, reducing the inequity in health care coverage.

Methods: Between January and March 2021, we conducted a Discrete Choice Experiment (DCE) among 433 participants. Prior to the DCE, a situational assessment using focus group discussions was conducted to guide on attributes and the respective levels. Scheme specific attributes included premium cost per person per month, payment modalities, unit of enrollment, and health benefit packages. We included participants under formal employment.

A conditional logistic regression model was used to analyze the relative importance of treatment attributes, and the trade-offs people were willing to make.

Results: Over 69.1% (299) respondents were willing to take up NHIS with males more likely (52.5%, $p = 0.02$) than females. Of the scheme level factors, respondents were more likely to take up a NHIS with comprehensive health package OR = 4.5 compared to those who prefer a basic health package (95% CI: 3.52 – 5.82, $p = 0.00$). The odds of enrollment to NHIS among respondents who prefer annual contribution were 1.79 times those who prefer monthly premium contribution (95% CI: 1.51 – 2.13, $p = 0.00$). In addition, the relative importance of providing a NHIS with comprehensive health service benefits was 0.5. (difference between the highest and the lowest marginal effect).

Conclusions: Scheme level factors have an effect on enrollment to NHIS hence the need to incorporate the consumer preferences when designing and implementing NHIS.

Keywords: National Health Insurance, Discrete Choice experiment, Enrollment

Abstract ID: PPI17

Assessing compliance to Tuberculosis/HIV standards of care through clinical audits at referral hospitals in Uganda

Veronica Kembabazi^{1,2,&}, Andrew Tsubira¹, Proscovia Namuwenge³

¹Makerere University School of Public Health, Kampala, Uganda. ²Child's i Foundation Limited, Plot I Kyambogo View, Ministers Village, Ntinda, Kampala-Uganda

³Ministry of Health, Kampala, Uganda

&Corresponding author: Veronica Kembabazi, Makerere University School of Public Health, Kampala Uganda. Email: kdalene3@gmail.com,

Introduction: Continuous monitoring of Tuberculosis (TB)/HIV standards of care at facilities enhances the quality of TB/HIV care. Uganda has, for over a decade, implemented TB/HIV integrated care at ART clinics; however, little is known about the performance of these facilities regarding TB/HIV care. We assessed compliance to standards of integrated TB/HIV care at referral hospitals in Uganda.

Methods: We conducted clinical audits, between July and August 2020, at 15 referral hospitals in Uganda. We assessed files of TB/HIV co-infected patients who were diagnosed between January and December 2019. Lot quality assurance sampling (LQAS) principles were used to guide the sampling and auditing of files as well as determine the compliance level. Each file was audited against the 18 criteria for integrated TB/HIV care. A hospital was compliant when it met the 80% target based on the LQAS decision rules. We estimated rates of compliance to standards across hospitals.

Results: A total of 591 files of TB/HIV co-infected patients were assessed. Two hundred forty-three (41%) files were for females, 226(38%) for males, and 122(21%) for adolescents and children. Only four of 591 files met all the standard criteria. Overall, none of the hospitals met the 80% LQAS compliance target with the highest having 40% and the lowest 0%. The compliance rates to the TB/HIV standards of care were

lower among children (39%) compared to men (52%) and women (53%). Across hospitals, the compliance rate was highest for “patient weight measurement at every visit” (94.3%) and “Correct dosage of Septrin prophylaxis” (93.1%) but was lowest for “Monitoring for side effects” (30.2%) and “sputum monitoring” (40.7%).

Conclusions: Compliance to TB/HIV standards of care was low. Strategies to improve quality of TB/HIV care should target pharmacovigilance, sputum monitoring and more sensitive tests for adolescents and children. The LQAS method proved feasible and can be used to assess TB/HIV care at lower-level health facilities.

Keywords: Tuberculosis/HIV care, clinical audits

Abstract ID: PPI21

Data Quality and Associated Factors in Health Facilities Providing Routine Immunization Service in Angwaa Zone, Gambella Region, Ethiopia

Destaw Assefa Gobezie^{1,&}, Dereje Oljira Donacho², Mohamedjud Hasen², Kefale Boka², Shuma Goshu², Habtamu Setegn², Natnael Animut Tilahun³, Mamo Dereje Alemu¹

¹Ministry of Health, Addis Ababa, Ethiopia

²College of Health Science, Mettu University, Mettu, Ethiopia

³Gambella Regional Health Bureau, Gambella, Ethiopia

&Corresponding author: Destaw Assefa, Ministry of Health, Addis Ababa, Ethiopia, email: assefa.destaw46@gmail.com

Introduction: At all levels of healthcare, accurate and timely immunization data are essential for informing decisions and enhancing program effectiveness. The capacity to achieve program goals and achieve meaningful vaccination coverage may be hampered by poor data quality.

However, there is not enough concrete information to support the measures that should be taken in this situation. This study's primary goal was to evaluate the level of routine immunization (RI) data quality and associated factors among health facilities in the Angwaa Zone, Gambella, Ethiopia.

Methods: The study was carried out in Gambella Region, Angwaa zone in all health facilities from October 2020 – November 25, 2020. The facility-based cross-sectional study was employed. A total of 147 respondents from 39 health facilities participated and nine key informants were interviewed to gather qualitative data. Descriptive statistics and bivariate and multivariate analysis were done for quantitative data. Qualitative data were collected, and field notes were taken, and then summarized into the key thematic analysis. This study was intended to measure the quality of data in routine immunization services.

Results: A total of 147 respondents have participated with a response rate of 97%. The overall routine immunization data quality was 78.8%. Accuracy, completeness, and timeliness dimensions were 83.8 %, 100%, and 53% respectively. Health workers who participated in EPI data aggregation [AOR=5.6 CI (1.18, 26.6)], conducting RI data accuracy test [AOR= 3.47 CI (1.24, 9.66)], received regular feedback [(AOR=5.67, 95% CI (1.9, 16.7))] and got management support [AOR= 3.43 CI (1.01, 11.56)] were more likely to report quality data when compared to those counterparts.

Conclusions: Over and under-reporting of all indicators were observed in most facilities. Strengthening continuous data quality checks, management support and regular feedback are necessary measures to scale up immunization data quality.

Keywords: Data quality, EPI, Timely report, data accuracy

Abstract ID: PPI24

Malaria framework and socioeconomic predictors among under-five children: study of three referral hospital in Kisumu East sub county Kisumu county, Kenya.

Silas Onyango Awuor^{1,&}

¹Microbiology Department, Jaramogi Oginga Odinga Teaching and Referral Hospital, P.O Box 849, Kisumu, Kenya.

&Corresponding author: Silas O. Awuor, Microbiology Department, Jaramogi Oginga Odinga

Introduction: African region accounts for 95% of all malaria cases and 96% of malaria deaths with under-five children accounting for 80% of all deaths in the region. This study was to assess the socioeconomic determinants of malaria prevalence and provide evidence on the socioeconomic profile of malaria infection among under-five children in three referral hospitals within Kisumu East sub county.

Methods: The study used data from the 2011 to 2012 Demographic and Health Survey (DHS). The survey used a two-stage stratified-cluster sampling design based on the sampling frame of the population and housing census of countries included.

Statistical analyses relied on Pearson's χ^2 , using the CHAID decision-tree algorithm and logistic regression implemented in R V.4.6.

Results: Of 3540 children considered, 24.2% (95% confidence interval CI 23.4–25.05%) had malaria infection. The prevalence of malaria infection seems to increase with age. This variable is statistically associated with the prevalence of malaria infection among under-five children, maternal education, sex of household head, household wealth index, place of residence, and locations where mother–child pair lives. Children whose mothers have secondary education have about 56% lower risk (odds ratio=0.44; 95% CI 0.40–0.48) of malaria infection. Malaria risk was 73% lower (odds ratio=0.37; 95% CI 0.32–0.43) among children living in the richest households, compared to children living in the poorest households.

Conclusions: This study provided unique insights on how socioeconomic and demographic variables; especially maternal education level significantly predicts malaria prevalence in under-five children across the sub county.

Therefore, ensuring that malaria interventions are underpinned by a multisectoral approach that comprehensively tackles the interplay of maternal education and other socioeconomic variables will be critical in attaining malaria prevention and control targets in Kisumu East sub county.

Keywords: Malaria, Children, Under-five, Determinants, Kisumu west

Abstract ID: PPI25

Distribution of *Anopheles stephensi* and Malaria prevention practice among travellers in areas of high human population movement along Ethio-Djibouti border: mixed research design, 2022

Fentahun Agegnehu Worku^{1,*}, Aman Yesuf Endries¹, Tolcha Kebebew Motuma², Sarah Zohdy³, Chloe Crocker⁴

¹Ethiopian Field Epidemiology and Laboratory Training Program, St. Paul's Hospital Millennium Medical College, Addis Ababa, Ethiopia

²US Centers for Disease Control and Prevention (CDC), Addis Ababa, Ethiopia

³US President's Malaria Initiative, Division of Parasitic Disease and Malaria, Centers for Disease Control and Prevention, Atlanta, GA, USA

⁴US Centers for Disease Control and Prevention, Atlanta, GA, USA

***Corresponding author:** Fentahun Agegnehu Worku, St. Paul's Hospital Millennium Medical College, Addis Ababa, Ethiopia, Email: fentishmw@gmail.com

Introduction: Malaria is the leading cause of morbidity and mortality in Ethiopia. Despite being targeted for elimination, an invasive malaria mosquito, *Anopheles stephensi* has been increasingly reported across the country. Population movement across international borders increases the risk of exposure to new vectors and is a recognized obstacle for malaria elimination. We aimed to understand entomology of *Anopheles* mosquitoes and assess malaria prevention practices to identify factors among travellers along Ethio-Djibouti border.

Methods: A mixed research design involving interview, focused group discussions (FGDs) and key informant interviews was conducted among travellers along Ethio-Djibouti border from July 10th–30th, 2022. Quantitative data were collected from 400 randomly selected participants while qualitative data were collected from four FGDs and eight key informants. Additionally, 342 mosquito larvae were collected from discarded tires, water reservoirs and irrigational canals

for entomological investigation. Quantitative data were entered into Epi-data 3.1 and analyzed with SPSS 25.0. Binary logistic regression model was applied to identify factors associated with malaria prevention practices and was measured with AOR at p-value <0.05. Qualitative data was analyzed manually and thematically using the content analysis theory.

Results: Only 118 (29.5%) of travellers reported practicing malaria prevention measures. Of the 342 larvae/pupae collected, 43.2% were *Anopheles stephensi*, 35.9% were *Anopheles gambiae* and 19% were *Aedes aegypti*. Prior travel history [AOR=9.1; 95% CI=5.6-34.9], Good attitude [AOR=2.5; 95% CI=1.5-3.8], education [college and above] [AOR=3.8; 95% CI=2.8-7.4] and good knowledge [AOR=1.8; 95% CI=1.2-3.6] were factors significantly associated with malaria prevention practice.

Conclusions: *Anopheles stephensi* is a widely distributed vector along Ethio-Djibouti border and only (29.5%) of travellers practiced malaria prevention measures. Prior travel history, educational level, knowledge and attitude were significant factors for malaria prevention practice. Our findings demonstrate the need for strict implementation of malaria prevention and vector control programs, especially targeting newly emerging vectors along Ethio-Djibouti border.

Keywords: Malaria prevention practice, travellers, distribution of *Anopheles stephensi*, Ethio-Djibouti border.

Abstract ID: PPI28

Coverage and Factors associated with Utilization of Pyrethroid-Piperonyl Butoxide treated nets in a Malaria Endemic Region, Western Kenya

Stephen Aricha^{1&}, Maurice Owiny¹, Fredrick Odhiambo¹, Judy Mangeni³, Elvis Oyugi²

¹Division of Field Epidemiology and Laboratory Training Program, Nairobi, Kenya

²Division of National Malaria Program, Nairobi, Kenya

³Moi University, School of Public Health, Eldoret, Kenya

&Corresponding author: Stephen Aricha, Division of Field Epidemiology and Laboratory Training Program, Nairobi, Kenya, Email: arichasteve@gmail.com

Introduction: Increased resistance to pyrethroid based Long-Lasting Insecticidal Nets (LLINs) informed WHO recommendation to deploy Piperonyl Butoxide (PBO) based LLINs. Kenya adopted use of PBO nets in endemic areas, though coverage is unknown. We determined coverage and factors associated with utilization of PBO nets in a malaria endemic county, Western Kenya.

Methods: A cross-sectional study was conducted in Matayos Sub-County, Busia County, between June and July 2022. Multi-stage sampling was employed to identify households. Data on bed net ownership, access, and utilization were collected using a semi-structured questionnaire. The analysis was performed using Stata version 16. Universal coverage was defined as possessing one PBO net for every two household members. Proper utilization involved sleeping under the net the previous night, consistent usage, and appropriate hanging. Continuous variables were summarized as mean and standard deviations, while categorical variables were presented as frequencies and proportions. Associations were assessed using odds ratios and 95% confidence intervals, considering p<0.05 as significant.

Results: A total of 402 participants were interviewed; mean age was 41.2 years (± 16.7 years), 268 (66.7%) resided in rural areas, 313 (77.9%) were females, 287 (71.4%) were married, 181 (45%) had formal education and 348 (86.6%) had informal occupations. Among all respondents, 347 (86.3%) had nets, 92.8% (322/347) were PBO and 261 (64.9%) households attained universal coverage.

The utilization of PBO treated LLINs was significantly lower in households with heads in informal occupations compared to those in formal occupations (aOR = 0.29, 95% CI = 0.11-0.78). Additionally, households without universal coverage for bed nets had significantly lower odds of utilizing a PBO-treated LLIN compared to those with universal coverage (aOR = 0.01, 95% CI = 0.01-0.03).

Conclusions: Universal coverage of PBO nets was below the national target. Occupation and universal coverage were found to be associated with the utilization.

Keywords: Insecticide, Piperonyl-Butoxide, Insecticide resistance, Incidence, Malaria

Abstract ID: PPI29

The effect of a pilot universal health coverage program on hospital workload: A comparative study of Embu and Nyeri Counties in Kenya

John Njuguna^{1,&}

¹County Government of Nyeri, Kiganjo/Mathari Nyeri Way Municipal Hall, Nyeri Kenya.

&Corresponding author: John Njuguna, County Government of Nyeri, Kiganjo/Mathari Nyeri Way Municipal Hall, Nyeri, Kenya. Email: jowanju2002@gmail.com

Introduction: Universal health coverage (UHC) aims to provide individuals with the healthcare they need without predisposing them to catastrophic health expenditures. The Kenyan government piloted UHC in four select counties in 2019.

Nyeri County was one of the selected counties. Area residents accessed health services from government-owned health facilities at no cost. This study assessed the effect of this pilot on the workload of major health facilities in Nyeri.

Methods: The monthly workload of one level 5 hospital, two level 4 hospitals and 3 level 3 health facilities in Nyeri was compared to that of similar facilities in the non-participating county of Embu. Monthly workload on outpatient, specialist clinics, dental extractions and surgeries was downloaded from the Kenya health information system for aggregate reporting. Monthly means for each indicator over the two periods of 2018 and 2019 was downloaded. The difference-in-differences method was used to calculate monthly change for each indicator in the intervention health facility.

Results: The level 5 hospital in Nyeri County recorded an increase in eight indicators. Out of these, four recorded significant increase.

Three indicators recorded non-significant decline. In terms of absolute numbers, outpatient attendance for the above 5 years cohort had the highest increase at 6642. Among level 4 hospitals, outpatient attendance for the over 5 years cohort increased significantly while

that of the under 5 years cohort increased though insignificantly. The reverse was observed for level-3 facilities. Outpatient attendance for under 5 increased significantly while that of over 5 increased though insignificantly.

Conclusions: The pilot UHC program led to an increase in workload and by extension increased utilization of health services. It is advised that the UHC program be rolled out in the entire country.

Keywords: universal health coverage, Kenya

Abstract ID : PPI35

Facteurs associés aux mortinaissances dans le district sanitaire de Pô, région du Centre-Sud, Burkina Faso, juillet 2022

Boureima Kouraogo^{1,6,&}, Apiako Kouloumpare^{1,6}, Madi Nikièma^{2,6}, Denis Yelbéogo^{3,4}, Bérénger Kabore^{3,4}, Pedwindé Hamadou Seogo^{4,5}, Bernard Sawadogo⁴, Didier Dipama^{1,6}, Seydou Ouattara^{3,6}

¹Direction régionale de la santé et de l'hygiène publique du Centre-Sud, Manga, Burkina Faso, ²Centre des opérations de réponse aux urgences sanitaires, Ouagadougou, Burkina Faso, ³Programme de formation en épidémiologie de terrain, Ministère de la santé, Ouagadougou, Burkina Faso, ⁴Réseau Africains des Epidémiologistes de Terrain (AFENET), Ouagadougou, Burkina Faso, ⁵Programme de formation en épidémiologie de terrain, Djibouti, Djibouti, ⁶Ministère de la santé et de l'hygiène publique, Ouagadougou, Burkina Faso

&Auteur correspondant: Boureima Kouraogo, Ministère de la santé et de l'hygiène publique, 09 BP 1102 Ouagadougou 09, Burkina Faso ; Email : kenzakouraogo@gmail.com

Introduction: La mortinaissance est préoccupante dans la région du Centre-Sud du Burkina Faso. Durant le premier semestre de 2022, sur 28 mort-nés enregistrés dans les rapports hebdomadaires de la région, le district sanitaire de Pô (DSP) a notifié 85,71% (24/28) cas. L'objectif de notre étude était d'identifier les facteurs associés à cette mortinaissance élevée dans le DSP.

Méthodes: Nous avons mené une étude cas-témoins appariée avec un ratio 1 cas pour 2 témoins du 4 au 8 juillet 2022. Les cas étaient les mort-nés enregistrés dans les dossiers médicaux du 26 décembre 2021 au 12 juin 2022 et les témoins, les enfants nés vivants dans les 48 heures suivant le cas. Un questionnaire a permis de recueillir les caractéristiques sociodémographiques, gynécologiques et obstétricales ainsi que les paramètres anthropométriques des nouveaux nés. La régression logistique a été utilisée pour calculer les odds ratio et les intervalles de confiance (IC) à 95 % pour identifier les facteurs associés aux mort-nés.

Résultats: Notre échantillon était de 138 enfants (46 cas et 92 témoins). L'âge médian des accouchées était de 25 ans dans les 2 groupes (16-43/15-43). Le poids médian des mort-nés était de 2550 grammes (1000-4000). Parmi les cas, 52,63% (20/38) étaient de sexe féminin ; 69,57% résidaient en milieu rural et 55% étaient des mort-nés frais (22/40). L'âge gestationnel inférieur à 37 semaines (aOR= 13,98, CI =1,55-125), la hauteur utérine (HU) inférieure à 29 cm (bOR= 8,07, CI=2,73-23,84) et le poids de naissance inférieur à 2500g (bOR=3,26, CI=1,90- 5,60) étaient les facteurs associés à la mortinaissance.

Conclusions: La mortinaissance au DSP est associée à des facteurs liés à l'évolution de la grossesse. Nous recommandons l'amélioration de la surveillance de l'accouchement chez les femmes avec un âge gestationnel inférieur à 37 semaines ou une HU inférieure à 29 cm pour réduire la mortinaissance.

Mots-clés: facteurs associés, mortinaissance, Pô, Burkina Faso.

Abstract ID : PPI 36

Investigation d'une flambée de Fièvre Aphteuse à Nambé, commune de Koubri, Burkina Faso, Octobre 2022

Relwendé Urbain Ouedraogo^{1,4,6}, Kadré Sanfo^{2,6}, Bérenger Kabore^{3,5}, Denis Yelbeogo^{3,5}, Aminata Kabore^{4,6}

¹Poste Vétérinaire de Koubri, Koubri, Burkina Faso, ²Direction Générale des Services Vétérinaires, Ouagadougou, Burkina Faso, ³African Field Epidemiology

Network, Ouagadougou, Burkina Faso, ⁴Direction Provinciale des Ressources Animales et Halieutiques du Kadiogo, Ouagadougou, Burkina Faso, ⁵Programme de formation en épidémiologie de terrain, Ministère de la santé, Burkina Faso, ⁶Ministère de l'agriculture, des ressources animales et halieutiques, Ouagadougou, Burkina Faso.

***Auteur correspondant:** Relwendé Urbain OUEDRAOGO, Poste vétérinaire de Koubri, Burkina Faso, Email : ouederyu78@gmail.com

Introduction: Au Burkina Faso, la Fièvre Aphteuse (FA) sévit de façon endémique. Entre 2020 et 2021, ce fut 1705 cas rapportés avec un taux de mortalité de 1,02%.

Le 18 septembre 2022, le Poste vétérinaire de Koubri fut alerté par un éleveur pour la présence dans sa ferme, à Nambé, de bovins présentant une boiterie, des plaies buccales et une hypersalivation. Au vu du contexte épidémiologique, nous avons mené une investigation pour rechercher la cause et mettre en place des mesures de contrôle.

Méthodes: Nous avons réalisé une étude transversale du 20 au 31 octobre 2022. La population d'étude était l'ensemble des bovins du village de Nambé.

Un cas suspect était tout bovin présentant une fièvre accompagnée d'une boiterie, des plaies buccales ou une hypersalivation entre le 14 septembre et le 31 octobre 2022. Un cas confirmé était tout cas suspect avec un résultat positif du laboratoire.

L'examen des animaux et les entretiens auprès des fermiers ont permis de renseigner un questionnaire sur les données cliniques. Nous avons procédé à un prélèvement aléatoire de 12 échantillons de sang sur 6 bovins. Les données saisies sur Excel ont permis le calcul des proportions

Résultats: Nous avons trouvé 16 bovins dans la ferme. L'examen des animaux a retrouvé 2 cas suspects avec une symptomatologie dominée par une hypersalivation et des plaies buccales.

L'ensemble des 12 (100%) échantillons prélevés est revenu positif au sérotype O de la FA. Les animaux ont été mis en observation pendant 3 semaines. L'évolution a été marquée par la mort des deux cas suspects. Nous avons sensibilisé 12 fermiers sur les moyens de lutte contre la FA et incinéré les 2 cadavres.

Conclusions: La FA a été confirmée dans la ferme. Afin de protéger le cheptel de la commune, la vaccination des animaux sains a été recommandée.

Mots-clés: nvestigation, Fièvre Aphteuse, Bovin, Nambé, Koubri

Abstract ID: PPI38

Rapid health assessment in the refugee host communities in Kisoro District, South Western Uganda, June–July 2022

Brenda Nakafeero Simbwa¹&, Thomas Kiggundu¹, Jane Frances Zalwango¹, Saudah Namubiru Kizito¹, Mackline Victorious Ninsiima¹, Brian Agaba¹, Hellen Nelly Naiga¹, Peter Chris Kawungezi¹, Richard Migisha¹, Daniel Kadobera¹, Julie Harris², Alex Riolexus Ario¹
¹Uganda Public health Fellowship Program, Kampala, Uganda. ²Division of Global Health Protection, Global Health Center, U.S. Centers for Disease Control and Prevention, U.S.A

***Corresponding author:** Brenda Nakafeero Simbwa, Uganda Public health Fellowship Program, Kampala, Uganda, Email: bsimbwa@uniph.go.ug +256774038653

Introduction: In late March 2022, conflicts in the Democratic Republic of Congo (DRC) led to >50,000 persons crossing into Kisoro District, Uganda. While the district has a well-organized transit center to house refugees, most stayed in the Bunagana Town Council (BTC; population ~18,000), the nearest town across the border, as they awaited to return home. We carried out a rapid health assessment in July 2022 to establish the health gaps in BTC and recommend public health actions for rapid response.

Methods: We carried out 5 key informant interviews with the local leaders in Kisoro District to establish areas affected by the influx from DRC and used a checklist to assess resource gaps in the community. We adapted the WHO standardized health assessment tool for assessing 23 health facilities in Kisoro and BTC. Scores <70% were ‘low preparedness.’

Results: Key informants reported uncontrolled entry and exit of refugees with no screening for diseases at the border. Refugees stayed in BTC instead of the refugee transit centre due to fear of being permanently and involuntarily resettled, fear of mandatory vaccination, and separation of husbands and wives at the centre.

There were two health facilities with 14 health workers, two public toilet facilities, and two public water sources to serve the permanent BTC population and all refugees in BTC. The 2 health facilities in BTC reported drug stockouts as their biggest challenge, and 96% of health facilities scored <70% for preparedness assessment.

Conclusions: BTC was not adequately prepared in terms of public resources for a large refugee influx; a transit centre organized to address such influxes was considered undesirable by some.

Given proximity to DRC, such an influx is likely to happen again. Educating refugees about resettlement and consideration of rules that allow families to stay together might encourage greater acceptance of the transit centre.

Keywords: Influx, Refugees, Rapid Health assessment, transit centre, resources

Abstract ID: PPI40

Trends and Distribution of Severe Malaria Cases, Uganda, 2017-2021: A Descriptive Analysis of the Health Management Information System Data

Marie Gorreti Zalwango¹&, Lilian Bulage¹, Jane Frances Zalwango¹, Bosco Bekiita Agaba², Richard Migisha¹, Daniel Kadobera¹, Benon Kwesiga¹, Jimmy Opigo², Alex Riolexus Ario¹, Julie Riolexus Harris³

¹Uganda Public Health Fellowship Program, Uganda National Institute of Public Health, Kampala, Uganda

²National Malaria Control Division, Ministry of Health, Kampala, Uganda.

³Division of Global Health Protection, US Centers for Disease Control and Prevention, Kampala, Uganda

&Corresponding author: Gorreti M. Zalwango, Uganda Public Health Fellowship Program, Uganda National Institute of Public Health, Kampala, Uganda, Email: mzalwango@musph.ac.ug, Tel: +256752610802

Introduction: Severe malaria remains the largest contributor to mortality among children <5 years in Uganda.

We evaluated the trends and distribution of severe malaria from 2017-2021 to inform progress on current interventions to reduce malaria mortality in the country.

Methods: We used secondary data from monthly malaria surveillance reports from the District Health Information System (DHIS2) for 2017–2021.

As per DHIS2, severe malaria was defined as any admission with confirmed malaria (by microscopy or rapid diagnostic test (RDT)). We calculated proportions of malaria cases that progressed to severe malaria for each year using severe malaria cases as the numerator and total outpatient malaria cases as the denominator. We used logistic regression to evaluate trends by administrative levels and by health facility type.

Results: Overall, severe malaria cases as a proportion of all malaria cases decreased by 10% annually (OR=0.90; $p<0.001$). The proportion among children <5 years reduced from 13% in 2017 to 10% in 2021 while that for >5 years reduced from 4.4% to 3.5%. Among the 15 regions, only Bukedi Region (OR=1.04; $p<0.001$) and Northern Central Region (OR=1.02; $p<0.001$) had increases in severe malaria case proportions.

Severe malaria cases increased at regional referral hospitals (OR 1.15; $p<0.001$) and private clinics (OR 1.04; $p<0.001$), while other levels had significant reductions. Both private (OR 1.09; $p<0.001$) and public health facilities (OR 1.13; $p<0.001$) had increases.

Conclusions: The consistent reduction in cases suggests progress in control and management of uncomplicated cases.

However, some regions are still experiencing increases and the burden in treatment of severe malaria cases was higher at regional referral hospitals and private clinics.

Strengthening uncomplicated malaria management in all regions especially those with increasing cases could reduce severe malaria in Uganda.

Keywords: Severe malaria, proportions, Uganda

Abstract ID: PPI43

Prevalence and predictors of self-medication for COVID-19 among slum dwellers in Jinja City, Uganda

Prossy Nakito^{1,&}, Angela Nakanwagi Kisakye^{2,3}, Abel Wilson Walekhwa^{4,5}, Gloria Tumukunde⁴, Charity Mutesi⁴, Nicholas Muhumuza⁴, Carolyne Nyamor⁴, David Musoke⁵, Geoffrey Musinguzi⁵, Dathan Mirembe Byonanebye^{1,6}

¹Department of Community Health and Behavioural Sciences, School of Public Health, Makerere University, Kampala, Uganda

²African Field Epidemiology Network Lugogo House, Plot 42 Lugogo By-Pass, Kampala, Uganda

³Department of Health Policy Planning and Management, School of Public Health, Makerere University, Kampala, Uganda

⁴Diseases Dynamics Unit, Department of Veterinary Medicine, University of Cambridge, United Kingdom

⁵Department of Disease Control and Environmental Health, School of Public Health, Makerere University School of Public Health, Kampala, Uganda

⁶Kirby Institute, University of New South Wales, Sydney, Australia

&Corresponding author: Prossy Nakito, ¹Department of Community Health and Behavioural Sciences, School of Public Health, Makerere University, Kampala, Uganda, Email: prossynakito@gmail.com

Introduction: Self-medication is a serious public health concern globally and is more prevalent in underserved populations, especially in resource-limited settings. The lack of effective treatment for COVID-19 and poor access to healthcare are drivers of self-medication. We assessed the prevalence and factors associated with self-medication for COVID-19 among slum dwellers in Ugandan slums.

Methods: We conducted a cross-sectional study among slum dwellers in Jinja City. We recruited participants with confirmed or self-reported COVID-19 during 2021. Participants were interviewed, and data were imported into Stata 14.0 for analysis to determine the proportion of self-medication. Modified Poisson regression was used to identify factors associated with self-medication. Multi-collinearity was checked, and the final model was tested for fitness.

Results: We recruited 517 respondents, the median age (years) was 31 (26-40). Prevalence of self-medication for COVID-19 was 87% (451/517), with over 56% (256/517) aware of its dangers. Self-medication was associated with Age \geq 50 years, compared to 20-29 years [APR: 1.1, 95% CI: 1.1, 1.2], being a minor [APR: 1.6, 95% CI: 1.3, 2.1], having severe symptoms [APR: 1.5, 95% CI: 1.2, 2.0], having access to internet [APR: 1.1, 95% CI: 1.1, 1.2], family/friends influence [APR: 1.3, 95% CI: 1.1, 1.4], and anxiety/fear of being quarantined [APR: 1.4, 95% CI: 1.1, 1.6]. Having medical insurance [APR: 0.6, 95% CI: 0.5, 0.9] and aware of self-medication legislations [APR: 0.9, 95% CI: 0.8, 1.0] had a lower risk of self-medication.

Conclusions: The prevalence of self-medication among slum dwellers in Uganda was high despite high awareness about its dangers. Self-medication was common among those with severe symptoms and had access to the internet. Having health-insurance coverage and being aware of self-medication legislation were protective against self-medication. There is a need to control infodemia and improve health insurance coverage in informal settlements.

Keywords: Self-medication, COVID-19, Slum dwellers, Self-reported COVID-19

Abstract ID: PPI47 Pertussis Outbreak Investigation in Beyeda Woreda, North Gondar Zone, Amhara Region, Ethiopia: Case-Control Study March, 2022

Alemayehu Abebe Kifle^{1,&}, Ahmed Ali Ahmed², Muluken Gizaw³, Gizaw Tekla⁴

¹Ethiopian Field Epidemiology and Laboratory Training

Program, Addis Ababa University, School of Public Health, Addis Ababa, Ethiopia,

²Addis Ababa University, School of Public Health, Addis Ababa, Ethiopia,

³Addis Ababa University, School of Public Health, Addis Ababa Ethiopia

⁴Ethiopian Public Health Institute, Addis Ababa, Ethiopia

&Corresponding author: Alemayehu Abebe Kifle, ¹Ethiopian Field Epidemiology and Laboratory Training Program, Addis Ababa University, School of Public Health, Addis Ababa, Ethiopia, Email: alexabel977@gmail.com

Introduction: Pertussis or whooping cough is a highly contagious respiratory illness and about 160,000 deaths occur per year. In March 2022, a cluster of suspected pertussis cases reported from Beyeda Woreda Health Office. We investigated the epidemiology of the outbreak to identify and characterize risk factors and implement control measures.

Methods: We conducted descriptive and unmatched case-control study with 1:2 ratio. Active case search and review of medical records of patients was conducted. We defined cases as non-improving cough of 14 days or more or cough of any duration with paroxysms or cough of any duration with whoop. For case control study, 58 cases were selected using computer-generated simple random sampling and 116 controls selected from the nearest neighbors of cases. Ten nasopharyngeal swab (NS) samples were collected.

Results: We identified 60 pertussis cases and two deaths with case fatality rate of (CFR) 3.3%. The mean age of cases was 11.4 years. Of the 58 interviewed patients, 35 (60%) were men, and of the 116 controls, 62 (53.4%) were men. Eighty-three percent (50/60) cases didn't receive pertussis containing vaccine and 46 (79%) cases had history of contact. The attack rate (AR) was higher in males (75/100000). Six of the ten samples tested positive for *Bordetella pertussis*. Vaccination status (AOR: 0.91; 95% CI: 0.23-0.355; P: 0.001), awareness on mode of transmission of pertussis (AOR: 0.44; 95% CI: 0.009-0.212; P: 0.000) and housing condition (AOR: 0.21; 95% CI: 0.005-0.88; P: 0.000) were statistically significant factors.

Conclusions: Laboratory-confirmed pertussis outbreak occurred in the Beyeda Woreda of Amhara Region. Low immunization coverage, lack of awareness on mode of transmission of pertussis and housing

condition contributed to the occurrence of the outbreak. We recommended strengthening routine immunization service and raising the community awareness on mode of transmission and prevention of pertussis.

Key words: Pertussis, Outbreak, Beyeda, Woreda

Abstract ID: PPI49

Five years of hypertension descriptive data analysis at Merawi primary hospital, West Gojjam Zone,

Henok Abere Ali^{1,*}, Atalay Goshu Muluneh², Destaw Fetene Teshome², Muluken Chanie Agimas²

¹University of Gondar College of Medicine and Health Sciences, Institute of Public Health, Department of Field Epidemiology, Gondar, Ethiopia

²University of Gondar College of Medicine and Health Sciences, Institute of Public Health, Department of Epidemiology & Biostatistics, Gondar, Ethiopia

***Corresponding author:** Henok Abere Ali, University of Gondar College of Medicine and Health Sciences, Institute of Public Health, Department of Field Epidemiology, Gondar, Ethiopia, Email: henokabe07@gmail.com

Introduction: Hypertension (HTN), a global health issue, is defined as a resting blood pressure measurement of two occasions with (average of 3 readings) $\geq 140/90$ mmHg for age ≥ 18 years, potentially leading to cardiovascular disease (CVD) and death if untreated. Hypertension is progressing, and the risks of CVD are rising dramatically around the world, particularly in low and middle-income countries including Ethiopia. The study aimed to fill the information gap by describing the trend of HTN over the previous five years at Merawi Primary Hospital in West Gojjam Zone, Amhara Regional, Ethiopia.

Methods: Retrospective record review was done from 15 June 2022 to 10 July 2022 by Secondary data from electronic Health Management Information System and Demographic Health Information System from 2018 -2022.

The study population was hypertensive patients who visited Merawi primary hospital. Data was cleaned before analysis was done by STATA version 14.1

Results: From 2018 -2022 there were 264,017 total hospital visits and HTN accounts for 1842(0.7%) of patients. From 2020 to 2022, the prevalence of HTN among patients screened rises from 5.6 to 123 per 100,000 people. Among 14,368(7.88%) patients screened 10.5% had HTN. Incidence among screened was 6.5% for age <30 years and 11% for age ≥ 30 years. While 41% of male cases and 59% of female cases treated for HTN and 81.2% of cases were controlled. Among follow-up 74% cases were Stage I, 24% were Stage II, 2% cases were hospitalized but no deaths were recorded due to HTN.

Conclusions: According to trends from 2018 to 2022, the prevalence of HTN has risen over time. The mostly affected sex was female. Prevention, control and Screening activities of HTN should be strengthened. Further studies on the burden and risk factors of HTN are required in this area.

Keywords: Hypertension, data analysis, Screening, Ethiopia, Merawi

Abstract ID: PPI54

COVID-19 outbreak among refugees at Nyakabande Transit Centre, Kisoro District, Uganda, June–July 2022

Peter Chris Kawungezi^{1,*}, Robert Zavuga¹, Jane Frances Zalwango¹, Brendah N. Simbwa¹, Thomas Kiggundu¹, Brian Agaba¹, Lawrence Oonyu¹, Richard Migisha¹, Irene Kyamwine¹, Daniel Kadoobera¹, Benon Kwesiga¹, Lilian Bulage¹, Robert Kaos Majwala^{2,3}, Alex Ariolexus¹, and Julie Harris⁴

¹Uganda Public Health Fellowship Program, Uganda National Institute of Public Health, Kampala, Uganda,

²Ministry of Health, Kampala, Uganda

³Department of Global Health Security, Baylor Uganda, Kampala, Uganda

⁴Division of Global Health Protection, US Centers for Disease Control and Prevention, Kampala, Uganda

&Corresponding author: Peter Chris Kawungezi, Uganda Public Health Fellowship Program, Uganda National Institute of Public Health, Kampala, Uganda, Email: peter@uniph.go.ug

Introduction: Nyakabande Transit Centre (NTC) is a temporary shelter for refugees from the Democratic Republic of Congo (DRC) in Kisoro District. Around 34,000 refugees arrived at NTC between March and June 2022 due to the DRC conflict. As of June 2022, Kisoro District reported >330 COVID-19 cases among NTC residents since April 2022. We investigated the outbreak to assess the magnitude, identify risk factors, and recommend control measures.

Methods: We defined a confirmed case as a positive SARS-CoV-2 antigen test in an NTC resident during March 1–June 30, 2022.

We generated a line list through medical record reviews and interviews with residents and health workers. We assessed the setting to understand possible infection mechanisms.

In a case-control study, we compared exposures between cases (persons staying ≥ 5 days at NTC between June 26 and July 16, 2022, with a negative COVID-19 test at NTC entry and a positive test at exit) and unmatched controls (persons with a negative COVID-19 test at both entry and exit who stayed ≥ 5 days at NTC during the same period).

We used multivariable logistic regression to identify factors associated with contracting COVID-19.

Results: Among 380 case-persons, 206 (54.2%) were male, mean age was 19.3 years (SD=12.6); none died. The attack rate (AR) at NTC was higher among exiting persons (3.8%) than entering persons (0.6%) ($p < 0.0001$).

Among 42 cases and 127 controls, close contact with symptomatic persons (aOR=9.6; 95%CI=3.1-30) increased odds of infection; having a face mask (aOR=0.06; 95% CI=0.02-0.17) decreased odds. We observed overcrowding in shelters, poor ventilation, and most NTC residents not wearing face masks.

Conclusions: A COVID-19 outbreak at NTC was facilitated by overcrowding and failure to use facemasks. Enforcing face mask use and expanding

shelter space could reduce the risk of future outbreaks. The collaborative efforts resulted in successful health sensitization and expanding the distribution of facemasks and shelter space.

Keywords: COVID-19 outbreak, refugees, forcibly displaced persons, emergency response, Uganda

Abstract ID: PPI55

Scabies outbreak investigation in Hoima District, Western Uganda, February–June 2022

Rebecca Akunzirwe^{1,&}, Richard Migisha¹, Saudah Luyima¹, Brian Agaba¹, Benon Kwesiga¹, and Julie Harris²

¹Uganda Public Health Fellowship Program, Kampala, Uganda

²Division of Global Health Protection, US Centers for Disease Control and Prevention, Kampala, Uganda

&Corresponding author: Rebecca Akunzirwe, Uganda Public Health Fellowship Program, Kampala, Uganda, rakunzirwe@musph.ac.ug

Introduction: Scabies is endemic in most resource-limited tropical areas, including Uganda. Hoima District in Western Uganda has had 4 scabies outbreaks in the last 5 years. On May 21, 2022, the Ministry of Health was notified of >1,000 cases of scabies in Hoima District. We investigated to assess the scope of the problem and identify associated factors.

Methods: We defined a suspected scabies case as the onset of an itchy pimple-like skin rash filled with pus, wounds, or crusting from February–June 2022 in a resident of Hoima District, Uganda. We reviewed medical records, performed active case-finding, and computed attack rates by age, sex, and village per 1,000 population. We compared exposures among 100 randomly sampled case-patients and 100 unmatched controls living in Rwentale Landing Site in Hoima during June 2022.

Results: We found 2,236 suspected scabies cases in Hoima district. Rwentale Village had the highest attack rate (AR=233/1,000 population) among area villages. Children aged 5-14 years were more affected (AR=64/1,000) than persons aged ≥ 15 years

(AR=8/1,000) ($p < 0.0001$). Males (AR=22/1,000) were as affected as females (AR=20/1,000) ($p=0.76$). Rwentale Village includes a fishing area known as Rwentale Landing Site where 1,119 (50%) cases in Hoima district were identified. At this landing site, cases began in April, shortly after the end of the peak fishing and trading season. Being aged 5-14 years (AOR=4.9, 95%CI 2.0-12), being male (AOR=2.4, 95%CI 1.1-5.1), living with another case (AOR=3.1, 95%CI 1.5-6.2), and sharing personal items with persons infested with scabies (AOR=8.9, 95%CI 2.2-36) were associated with case status.

Conclusions: This scabies outbreak was likely initiated by person-person interactions during peak fishing and trading months at a landing site and propagated by close household interactions. There is a need for community sensitization on scabies, especially before fishing and trading seasons, for early identification and prevention of future outbreaks.

Keywords: Scabies, *Sarcoptes scabiei*, Outbreak, Uganda

Abstract ID: PPI 64 Increasing HIV Incidence in Southwest Ethiopia: Evidence from Case-Based Surveillance Data 2019-2022

Nigatu Admasu Desta^{1,*}, Abraham Lomboro², Enyew Kebede³, Tolcha Kebebew⁴, Gemechu Chemed⁵

¹Ethiopian Field Epidemiology Laboratory Training Program (FETP), Jimma University, Jimma, Ethiopia

²Department of Epidemiology, Jimma University, Jimma, Ethiopia. ³Southwest Ethiopia Peoples' Regional Health Bureau, Southwest Ethiopia

⁴US Centers for Disease Control and Prevention, CDC, Addis Ababa, Ethiopia

⁵Field Epidemiology Laboratory Training (FETP) Resident Advisor, Jimma University, Jimma, Ethiopia

***Corresponding author:** Nigatu Admasu Desta, Ethiopian Field Epidemiology Laboratory Training Program (FETP) Resident, Jimma University, Jimma, Ethiopia, Email: nig2admasu@gmail.com

Introduction: Human Immunodeficiency Virus (HIV) Case-Based Surveillance (CBS) is a system that gathers data on newly diagnosed HIV infections and related events, providing crucial information for evidence-based decision making.

In this study we examined distribution of newly diagnosed and recent HIV infections by person, place, and time.

Methods: In this study, we conducted a retrospective analysis of HIV CBS Southwest Ethiopia Peoples' (SWEP) regional data from July 2019 to June 2022. Permission was obtained from Ethiopian Public Health Institute.

Data confidentiality was ensured through anonymity. Data was extracted from the Research Electronic Data Capture and provided in Microsoft Excel. The data were transferred to SPSS for analysis.

Descriptive analyses used frequency and percentage. Risk factor was analysed using multivariable logistic regression that provided odds ratio with 95% confidence intervals and p-value.

Results: The study included a total of 1167 newly diagnosed HIV infections reported from 11 CBS facilities in SWEP region. Majority were females, 761 (65.2%) and in the 25-29 age group with a mean age of 28 years. Recency testing was conducted for 775 (66.4%), and 89 (11.4%) (95% CI: 11.2, 11.5%) were found to have recent infections.

The highest proportion of newly diagnosed HIV infections, 743 (63.7%) of cases were reported from Bench sheko zone. Recent infection is significantly associated with paid/received gift for sex in the last 12 months (AOR: 3.009, 95% CI: 1.542–5.870) and Married (AOR: 1.757, 95% CI: 1.069–2.888). Additionally, 1057 (90.6%) of the diagnosed individuals in the study area initiated antiretroviral therapy (ART).

The incidence of recent HIV infections increased from approximately 62 infections per 1000 people in 2019/20 to 108 per 1000 people in 2021/2022.

Conclusions: Newly diagnosed and recent HIV infections are a public health concern in Southwest Ethiopia, with varying burdens by person, place, and time. Targeted prevention efforts are necessary, especially for females and younger people.

Keywords: HIV Case-Based Surveillance, Newly diagnosed infection, Recent infection, Southwest Ethiopian Peoples' Regional State, Ethiopia.

Abstract ID: PPI66

Measles Outbreak Investigation in Ebnat district, Amhara Region, Ethiopia, March-April, 2021: An unmatched case-control study

Mekonnen Yimer Sisay¹, Anemaw Asrat², Abebe Gelaw², Fisseha Wale³

¹Ethiopian Field Epidemiology and Laboratory Training Program, Bahir Dar University, Bahir Dar, Ethiopia;

²College of Medicine and Health Sciences, Bahir Dar University, Bahir Dar, Ethiopia,

³Amhara Public Health Institute, Bahir Dar, Ethiopia

***Corresponding author:** Mekonnen Yimer Sisay, Ethiopian Field Epidemiology and Laboratory Training Program Graduate, Bahir Dar University, Bahir Dar, Ethiopia; Email:

Introduction: Measles is highly contagious and vaccine preventable disease. On March 2021, a measles outbreak was occurred in Ebnat district, Northwest Ethiopia. This study aims to investigate risk factors of the outbreak.

Methods: We conducted 1:2 unmatched case-control studies in Ebnat district, Northwest Ethiopia, 2021. We recruited all cases (55) found in the line list and 110 neighborhood controls. Cases are those either suspected or laboratory confirmed or epidemiologically linked to confirmed cases and identified by case search and controls were selected randomly from neighbors of cases. We used a structured questionnaire prepared and loaded to Epicollect5. Data were cleaned in excel and exported to SPSS version 21 for analysis. Variables in bivariable model at p -value ≤ 0.20 were entered to multivariable model; and p -value ≤ 0.05 were identified as statistically significant risk factors.

Results: Of ten tested blood samples six were positive for measles specific IgM antibodies confirming

the outbreak. About 55 cases and three deaths with attack rate (113/10,000) and case fatality rate (5.3%) were reported from March 17 to April 05. Of which, 31 (56.4%) were males and 40 (72.7%) ≥ 5 years. Median age of cases was 18 years. In district about 3459 and 2,300 children were dropouts from MCV1 to MCV2 in 2020/21 respectively. Presence of measles case in neighbor [AOR: 6.33; 95%CI: 2.68-14.98], unvaccinated [AOR: 3.84; 95%CI: 1.08-13.65], having travel history within 7 to 18 days [AOR: 2.91; 95%CI: 1.22-6.93] and having contact history [AOR: 2.75; 95%CI: 1.20-6.26] were statistically significant risk factor for measles outbreak.

Conclusions: Presence of measles case in the neighbor, unvaccinated, travel and contact history with suspected measles cases were the possible risk factors. Case search, measles deaths audit and outbreak control were done. We recommend to avoid contact with case, conducting measles supplementary immunization and to limit travel.

Keywords: Measles, Outbreak, Investigation, Ebnat district, Northwest Ethiopia

Abstract ID: PPI73

Evaluation of anti-Salmonella activity and acute toxicity of Azadirachta indica (A. Juss) seed oil

Marie Paule Yede^{1,*}, Estella Achick Tembe Fokunang², Herve Bayaga², Borgia Legrand Njinkio Nono², Hortense Gonsu Kamga³, Charles Fokunang²

¹Department of Biochemistry, Faculty of Sciences, University of Yaoundé I, Cameroon

²Department of Pharmacotoxicology & Pharmacokinetics, Faculty of Medicine and Biomedical Sciences, University of Yaoundé I, Cameroon

³Department of Microbiology, Parasitology, haematology and infectious diseases, Faculty of Medicine and Biomedical Sciences, University of Yaoundé I, Cameroon

***Corresponding author:** Marie Paule Yede, University of Yaoundé I, Yaoundé, Cameroon, Email: riyayede@gmail.com

Introduction: Bacterial infections by Salmonella remain a real public health threat causing each year, more than 1.2 million deaths worldwide. The treatment by antibiotics is usually compromised due to the emergence of multi-resistant strains, supply chain problems and the high cost of medicines in developing countries where infectious diseases are usually endemic. Faced to these difficulties, these populations turn to medicinal plants treatment and essential oils, whose uncontrolled use poses effectiveness and safety issues. The aim of this work was to evaluate the anti-Salmonella activity and the acute toxicity of Azadirachta indica (A. Juss) seed oil in rats.

Methods: Using agar diffusion and macrodilution methods, we selected three Salmonella strains to evaluate the antibacterial activity of Azadirachta indica seed oil. Subsequently, an acute toxicity study of the extract was performed on Wistar albino rats of both sexes by force feeding of the test groups with 2 ml/100kg of body weight, according to the slightly modified Organisation for Economic Co-operation and Development (OECD) guideline 420.

Results: Two of the three bacterial strains were susceptible with diameters of 17mm for Salmonella typhi and 18,5mm for Salmonella paratyphi. Their minimum inhibitory and bactericidal concentrations were 37.5mg/ml and 150mg/ml respectively with a MBC/MIC ratio equals to 4. Acute toxicity analyses showed that the lethal dose 50 (LD 50) of this oil was greater than 2ml/100g.

Conclusions: Azadirachta indica seed oil possessed anti-Salmonella bacteriostatic properties on two strains and it was toxicologically safe at the dose of 2 ml/100g of body weight.

Keywords: Anti-Salmonella, Acute toxicity, Azadirachta indica seed oil.

Abstract ID: PPI75

Determinants of Podoconiosis among residents in Machakel District, East Gojjam Zone, Amhara, Ethiopia 2022

Teshome Tefera Lingerhe¹, Melkamu Bedimo², Gizachew Tadesse²

¹Ethiopian Field Epidemiology and Laboratory Training Program, Amanuel, Ethiopia: teshomet23@gmail.com
²Bahir Dar University, School of Public Health, Bahirdar, Ethiopia

***Corresponding author:** Teshome Tefera Lingerhe, |Ethiopian Field Epidemiology and Laboratory Training Program, Amanuel, Ethiopia, Email: teshomet23@gmail.com

Introduction: About 4 million people are said to be affected by the disease worldwide and it is deemed a serious public health problem in at least 10 African countries.

Eleven million Ethiopians (18% of the population) are at risk through exposure to the irritant soil and it is estimated that at least 1 million people are affected.

Therefore, this study aimed to identify determinants of Podoconiosis in Machakel woreda, East Gojjam zone, Amhara, Ethiopia, 2022.

Methods: Unmatched case control study design was conducted from August 30 to September 30/ 2022. The sample size was calculated using Epi-info software 211 controls and 106 cases.

Simple random sampling technique was used to select the cases using registration books of the district as a sampling frame. Data were entered to Epi info version 7 and exported to SPSS version 22 for statistical analysis. Binary logistic regression was used to identify explanatory variables.

Results: A total of 317 sample size and 312 study participants (104 cases and 208 controls) were included giving for a response rate of 98.42%. Bare foot (AOR, 5.83 [95% CI: 2.34-14.50]), female sex (AOR, 4.25 [95% CI: 2.22-8.14]), family history of podoconiosis (AOR 3.01(95% CI: 1.41-6.42) and age group 41-60 (AOR 5.05(95% CI: 2.35-10.83), and 61-80 AOR 15.74 95% CI: (5.56-44.55) were determinants of Podoconiosis.

Conclusions and recommendation: Barefoot, sex, family history of podoconiosis and age group were determinants of Podoconiosis.

District health office should encourage for at risk populations especially for older age and family history of Podoconiosis about shoe wearing practice in all their lives and do not expose their skin and feet.

Keywords: Determinants, Machakel, Podoconiosis

Abstract ID: PPI86

Respiratory Syncytial Virus outbreak Investigation at Abobo District of Agnuwaak Zone, Gambella Region, Ethiopia, 2021: Unmatched Case-Control Study

Bortola Abdisa Ayana^{1,&}, Aman Yesuf Endris², Shambel Habebe³

¹The national COVID-19 Preparedness and Response Epidemiological surveillance team leader at Ethiopian Public Health Institute, Addis Ababa, Ethiopia

²Ethiopian Field Epidemiology and Laboratory Training Program academic coordinator at St. Paul's Hospital Millennium Medical College, Department of Epidemiology, Addis Ababa, Ethiopia

³Early Warning and Information System Management Directorate Director at Ethiopian Public Health Institute, Addis Ababa, Ethiopia.

&Corresponding author: Bortola Abdisa, The national COVID-19 Preparedness and Response Epidemiological surveillance team leader at Ethiopian Public Health Institute, Addis Ababa, Ethiopia, Email: bortolaabdisa21@gmail.com

Introduction: Human respiratory syncytial virus (RSV) is a leading cause of severe acute respiratory infections among under-five children worldwide. In early 2021, Abobo district, in Gambella region of Ethiopia received unusual cluster of Acute Respiratory Infections (ARIs) illness. Patients were tested for influenza, SARS COV-2, other febrile illness and later confirmed to be RSV infection. Hence, we investigated the cause of outbreak so as to implement preventive and control measures.

Methods: We conducted a descriptive cross-sectional study followed by unmatched case-control study at Abobo district from September 29–November 19, 2021. We took 98 nasopharyngeal samples for confirmation. For case control study, 62 cases were recruited by simple random sampling and 124 controls were purposively selected from neighbors.

The socio-demographic, comorbid conditions such as child malnutrition, hypertension, diabetes and other determinates were collected via structured and pretested questionnaire, entered to Epi-Info™ 7 and analyzed with SPSS 25. Multivariate binary logistic regression was fit to identify factors associated RSV infection at p-value <0.05.

Results: A total of 29 laboratory confirmed and 731 epidemiologically linked RSV cases were identified. The Attack Rate (AR) was 27/1,000 population while case fatality rate (CFR) was 1.3%. The highest AR (152/1000 population) and CFR (2.11%) were among 36-59 months children. Maternal smoking (AOR=5.6, 95% CI: 2.0-15.5), having >4 children in a compound (AOR=3.1, 95% CI: 1.4-6.8), using pond water source (AOR=6.9, 95% CI: 2.5-19.1) and comorbidities (AOR=6.3, 95% CI: 1.6-24.4) were associated with RSV infection

Conclusions: The AR and CFR were higher than the one reported in prior RSV outbreaks. Maternal smoking, overcrowding, presence of comorbidities and using pond water source were associated with RSV outbreak. The findings necessitate health education and promotion activities on avoidance of child exposure to passive smoking, cleaning pond water, reducing overcrowding and strict adherence to preventive methods among persons with underlying comorbidities.

Keywords: Respiratory syncytial virus, outbreak, Case-Control, Abobo district, Gambella, Ethiopia

Abstract ID: PPI97

Improving Pre-Exposure Prophylaxis Screening and Initiation among Adolescent Girls and Young Women in Selected Health Facilities, Western Uganda; January-June 2022

Patience Mwine^{1,3,&}, Benon Kwesiga^{1,2}, Richard Migisha^{1,2}, Juliet Cheptoris³, Daniel Kadobera^{1,2}, Lilian Bulage^{1,2}, Gordon Peterson Tugume⁴, Gerald Pande³, Hebert Kadama³, Alex Riolexus Ario^{1,2}, Lisa Mills⁵, Julie Rebecca Harris⁵

¹Uganda Public Health Fellowship Program, Kampala,

Uganda, ²Uganda National Institute of Public Health, Kampala, Uganda, ³AIDS Control Program, Ministry of Health, Kampala, Uganda, ⁴Elizabeth Glaser Pediatric AIDS Foundation, Mbarara, Uganda, ⁵United States Centers for Disease Control and Prevention, Kampala, Uganda

&Corresponding author: Patience Mwine, Uganda Public Health Fellowship Program, Kampala, Uganda, +256777865638, pmwine@musph.ac.ug,

Introduction: Pre-exposure prophylaxis (PrEP) effectively reduces HIV acquisition, particularly among high-risk groups like adolescent girls and young women (AGYW). However, poor PrEP screening and uptake were observed among eligible AGYW at four PrEP sites in Western Uganda. A quality improvement (QI) project was conducted from January to June 2022 to address this issue and enhance PrEP screening and uptake.

Methods: Data from October to December 2021 on PrEP and HIV testing were analyzed to establish baseline figures for AGYW (aged 15-24) who tested HIV-negative, underwent screening, were eligible for PrEP, and initiated treatment. The screening rate represented the proportion of HIV-negative AGYW screened for PrEP eligibility, and the uptake rate indicated the proportion of eligible AGYW who started PrEP. Focus group discussions with healthcare workers (HCWs) and AGYW peers were conducted to identify root causes and develop interventions.

Results: Factors contributing to low PrEP uptake included heavy HCW workload, poor documentation, misconceptions about PrEP being exclusive to female sex workers (FSW), direct and uncomfortable screening questions, dislike and stigma surrounding daily PrEP pills, and discomfort in discussing sexual activity. In January 2022, two AGYW at each site were trained as PrEP peer educators to mobilize others for screening. HCWs received training on PrEP guidelines, and the screening tool was revised to be age-appropriate.

Pre-intervention (October-December 2021), only 13% (157/1,195) of HIV-negative AGYW underwent screening. Among them, 99% (155/157) were FSWs, and 31% (48/157) were eligible, with 75% (36/48) initiating PrEP. Post-intervention (January-June 2022), screening increased to 28% (1,106/3,914). Of those screened, 47% (516/1,106) were FSWs, and 44% (488/1,106) were eligible, with 89% (434/488) initiating PrEP.

Conclusions: The implemented interventions resulted in moderate improvements in PrEP screening and initiation rates among eligible AGYW. Scaling up this approach to similar PrEP sites could have a comparable impact.

Key words: HIV, adolescent girls, young women, pre-exposure prophylaxis Word count: 295

Abstract ID : PPI98 Investigation des cas d'envenimation par morsures des serpents dans le district sanitaire de Bessao, Tchad, 2022

Albert Fogoza^{1,3,&}, Esaïe Kodmon¹, Ahmed Djoufouna³, Ali Soumaïne Baggar³, Fittouin Dissia², Nestor Ndakala⁴
¹DS(District de Santé, Bessao, Tchad, ²MSPP(Ministère de la Santé Publique et de la Prévention), BP 548, N'Djaména, Tchad, ³DPSP LOR(Délégation Provinciale de la Santé Publique) Logone Orientale), BP 548, Doba, Tchad, ⁴Ancien Conseiller Résident AFENET Tchad

&Auteur correspondant: Dr Albert Fogoza, Médecin Chef de District de Bessao, Province Logone Orientale, République du Tchad, Email : albertfogoza@gmail.com ;
Tél : +23566640685/92295233

Introduction: Au Tchad, la situation des morsures de serpents reste encore mal connue car aucune étude n'a été faite malgré l'augmentation des cas dans nos communautés. Les morsures de serpents sont très fréquentes dans le District de Bessao. L'objectif est de décrire la fréquence des cas de morsures de serpents dans le District sanitaire de Bessao.

Méthodes: L'étude a porté sur 26 cas de morsures de serpents observés dans 3 zones de responsabilités du district de Bessao. Un questionnaire semi-structuré a été appliqué à chaque patient pour collecter les données clinique, épidémiologique et thérapeutique. Ces données collectées ont été organisées, traitées et analysées avec le logiciel Excel 2016.

Résultats: La tranche d'âge la plus touchée par les morsures est celle de 31- 40 (38%) avec une prédominance féminine (58%). L'âge médian est de 29 ans avec un minima de 11 ans et un maxima de 50. La plupart des personnes mordues sont des agriculteurs (42%).

Les morsures sont l'apanage des vipéridés, des élapidés et d'autres serpents, la symptomatologie dominante après morsure était faite de douleur (65%), de saignement (19%) Les complications hémorragiques étaient très fréquentes (38%), neurologiques (15%), les tuméfactions (34%).

Les morsures ont lieu dans la plupart des cas au moment des travaux champêtres (73%) et chez les personnes portant les souliers ouverts (65%). Des cas de décès n'ont pas été enregistrés dans la communauté. La majorité des patients étaient guéris avec des séquelles (65%) comme les névralgies et les cicatrices indélébiles.

Conclusions: Les envenimations par morsures de serpents sont fréquentes dans le District Sanitaire de Bessao et interpellent la communauté à adopter des comportements appropriés pour s'en protéger. L'approvisionnement des formations sanitaires en vaccins antivenimeux et tous les intrants accessoires est primordiale.

Mots-clés: Tchad, Morsures serpents, 2022

Abstract ID : PP200

Investigation sur la mortinatalité à l'hôpital de district de Ngouri/lac Tchad, 2022

¹&Marius Madjisse, ²Nestor Ndakala Gyamba, ³Issa Fadjari

¹Ministère de la Santé Publique du, Ngouri, Tchad

²Field Epidemiology Training Program, Ndjamen-Tchad

³Ministère de la Santé Publique du, Ndjamen, Tchad

***Auteur correspondant:** Marius MADJISSEM, Médecin chef de District de Ngouri, Ministère de la santé Publique et de la Prévention (MSPP) République du Tchad, Tél : +235 66 464 046/+235 90 349 349, Email : mariusmadjisse@gmail.com

Introduction: La mortinatalité est la mort du fœtus pendant la grossesse, suivie ou non de rétention fœtale et pendant l'accouchement.

Près de deux (2) millions d'enfants naissent mort-nés chaque année et les $\frac{3}{4}$ de cas ont eu lieu en Afrique subsaharienne ou en Asie du Sud. Il n'y avait pas eu de travaux consacrés à ce problème préoccupant dans le District Sanitaire de Ngouri d'où le choix de ce thème en visant à Contribuer à la PEC de la mortinatalité dans le service de gynéco- obstétrique de l'HD de Ngouri.

Methodes: Il s'agissait d'une étude rétrospective et descriptive, allant de janvier 2020 à décembre 2021. Concernant les parturientes ayant accouché du fœtus mort in utero pendant la période d'étude.

Le recueil des données a été fait après une revue de littérature (dossiers médicaux, registre d'accouchement, partogrammes), la consignation des informations sur la fiche d'enquête, la saisie et l'analyse sur le logiciel SPSS (version 18).

Resultsats: Cette étude a permis de retrouver 131 mort-nés sur 563 naissances soit une prévalence de 23,27%. La tranche d'âge la plus représentée chez les parturientes était celle de 25-36 ans (38,2%), les ménagères (73,3%), les non scolarisées (99,3%), les référées et évacuées (65,6%), l'âge gestationnel 28-36 SA (58%) ; les primigestes et les nullipares (44%). L'absence de CPN (44,3%) ; le déclenchement du travail au Misoprostol (56,5%).

Conclusions: Cette étude a permis de constater que la mortinatalité reste encore très élevée dans notre pays. Elle constitue un drame pour beaucoup de familles et un échec pour le personnel de gynéco-obstétrique.

Une fréquentation de services de CPN, une CPN de qualité, une surveillance rigoureuse du travail d'accouchement dans les différentes structures socio-sanitaires permettront de résoudre ce problème.

L'amélioration de la compétence du personnel pour une CPN de qualité, un bon suivi de l'accouchement et la sensibilisation des parturientes permettront de réduire la mortinatalité

Mots clés: Tchad, Mortinatalité, Ngouri, 2022

Abstract ID: PP202

Meningitis Epidemiology and Pattern in Yemen Conflict Country Adnan

Mohammed Al-Hindi^{1,*}, Sharaf Sharaf Al-Kuhlani², Mohammed Al Amad¹.

¹Yemen Field Epidemiology program, Ministry of Public Health and Population, Sanaa, Yemen

²Yemen Meningitis surveillance program, Ministry of Public Health and Population, Sanaa, Yemen

&Corresponding author: Adnan Mohammed Al-Hindi, Yemen Field Epidemiology program, Ministry of Public Health and Population, Sanaa, Yemen. Email: adnanalhindi17@gmail.com

Introduction: Meningitis is an important cause of mortality and morbidity among under five children. permanent disabilities such as brain damage, hearing loss, and learning disabilities are the consequence among recovered people. Conflict countries such as Yemen have a higher burden of meningitis. The aims are to describe the epidemiology and pattern of meningitis.

Methods: A soft copy of surveillance data was obtained from Meningitis Surveillance Program in excel format, which was collected by surveillance staff at nine sentinel sites during 2018-2021. Data was analyzed in Excel and Epi Info 7.2 version for variables categories: demographic, clinical, bacteriological data.

Results: A total of 7,285 suspected cases were reported. 47% < one year of age, 58% were males, 42% and 17% of cases were reported from Taiz and Ibb governorates, respectively. The overall case fatality rate was 3.6% and varied by year from the lowest of 1.9% in 2021 to the highest 4.8% in 2019. The most common presentations were: fever (99%) and seizure (74%). 81% received antibiotics prior to a week of admission, 69% and 70% were vaccinated for Streptococcus pneumoniae and Haemophilus influenza type b (Hib) respectively. Cerebral spinal fluid (CSF) of 93% (6743) cases examined. Microbial culture, rapid Latex, and Bainx tests were performed for 99.8 % (6732), 7% (454), and 28% (1893) of samples and the positivity rates were 0.4%, 4% and 4%, respectively. S.pneumoniae was the commonly isolated organism by (0.2% and 6.4 %) by microbial culture and repaid tests, reservedly.

Conclusions: A significant number of patients are enrolled in MSP, and a higher percentage of CSF samples shortage in laboratory techniques, and early administering of antibiotics could negatively affect the diagnosis of meningitis. The present study highlighted the importance of focusing efforts to improve laboratory techniques as well as vaccination as diagnostic and preventive measures for meningitis in conflict countries.

Keywords: meningism, surveillance, Yemen

Abstract ID: PP210

Facteurs associés aux lésions précancéreuses du col de l'utérus chez les femmes dépistées dans la région de Diourbel en 2022

Moussa Ndiaye^{1,*}, Mbouna Ndiaye², Mamadou Sarifou BA², Mama Sagna¹, Babacar Ndoeye³, Boly Diop¹

¹Ministère de la santé et de l'action sociale, Dakar, Sénégal,

²FETP Senegal, Dakar, Senegal,

³CDC Senegal, Dakar, Senegal

&Corresponding author: Moussa Ndiaye, Ministère de la santé et de l'action sociale, Dakar, Sénégal, E-mail: tonsndiaye2019@gmail.com

Introduction: Le cancer du col de l'utérus est le quatrième cancer le plus courant chez la femme à travers le monde. Le Sénégal a mis en place une stratégie de dépistage de masse, dénommée « Octobre Rose » basée sur l'inspection visuelle avec application de Lugol ou d'acide acétique. L'objectif de cette étude était d'étudier les facteurs associés aux lésions pré cancéreuses du col de l'utérus chez les femmes dépistées.

Méthodes: Nous avons réalisé une étude analytique de type cas témoin avec 1 cas pour 2 témoins. Les cas étaient les femmes dépistées pour les lésions précancéreuses du col de l'utérus durant la période du mois d'Octobre 2022 au niveau de la région de Diourbel ayant un résultat positif. Les témoins étaient celles ayant un résultat négatif.

L'échantillonnage était exhaustif. La collecte a été faite par interview à l'aide d'un formulaire kobo collect. Nous avons calculé des moyennes, proportions et odd-ratio.

Résultats: Au total 69 cas et 138 témoins ont été enquêtés. L'âge moyen était de 42,7±8,98 ans pour les cas et de 38,9 ±9,53 ans pour les témoins. Le nombre moyen de grossesses était de 5 ± 2 pour les cas et 4±2 pour les témoins. Le nombre moyen d'accouchements était 5 ± 2 pour les cas et 4±2 pour les témoins. Les facteurs associés aux lésions précancéreuses étaient : l'exposition industrielle (OR=5,60 ; IC95[2,05–15,33] ; p=0,00027) ; l'antécédent d'infection sexuellement transmissible (OR=3,12 IC95[1,63– 5,99] ; p=0,0002) ; l'antécédent familial de cancer gynécologique (OR=2,72 IC95[1,07– 6,92] ; p=0,0199) et le tabagisme (OR=2,69 IC [1,10– 6,60] ; p=0,0167).

Conclusions: Plusieurs facteurs étaient associés à la survenue des lésions précancéreuses du col. Une réduction du tabagisme et l'utilisation d'équipements de protection appropriés pour les femmes travaillant dans l'industrie sont des mesures accessibles pouvant réduire le risque de lésions précancéreuses du col.

Mots clés: lésions précancéreuses ; cancer du col ; Diourbel

Abstract ID: PP218

Evaluation of the adherence of healthcare workers to Prenatal care standards in the context of free care program in Burkina Faso

Satouros Arsene Some^{1,&}, Herve Bekyaire Namwiniakare Kpoda¹, Manituo Aymar Serge Somda^{1,2}, Mimboure Yara¹, Eric Bernard Dabone¹, Clement Meda², Bernard Ilboudo¹, Souleymane Sanou¹, Nicolas Meda³, Herve Hien¹.

¹Centre Muraz Research Center, Institut National De Sante Publique, Burkina Faso

²Nazi Boni University, Bobo-Dioulasso, Burkina Faso

³Joseph Ki-Zerbo University, Ouagadougou, Burkina Faso

***Corresponding author:** Satouros Arsene SOME, Centre MURAZ research Center, Institut National de Sante Publique, Bamako, Burkina Faso, Email: satourosome2011@gmail.com

Introduction: To reduce maternal mortality, Burkina Faso has been offering free care to childbearing women since 2016. The free care program is aimed to increase the access of care to this vulnerable population. However, is the care offered free of charge of good quality? Based on the paucity of previous evaluation of the competences of healthcare workers (HCWs) during prenatal care in the free care program period, we would like to assess the adherence level of HCWs to the prenatal care tasks in the context of free care.

Methods: We conducted a cross-sectional study from July 2020 to March 2021 in 40 primary healthcare centers and two district hospitals of Hauts-Bassins region in Burkina Faso. This study included 901 pregnant women in order of attendance at the selected health facilities. Data were collected through interviews after the prenatal consultation using a tablet. Univariate and bivariate analysis were performed using STATA software 14.

Results: The overall adherence of healthcare workers to Prenatal care standards was 74.65 (72.57-76.59). Most women (899) reported that they have been weighted during the prenatal care consultation (99.77% (99.47-100.00)). The tetanus vaccine was also administered to 893 pregnant women (99.11% (98.50 – 99.73)). Also, the womb of 893 pregnant women was palpated (99.11% (98.50 – 99.73)).

However, only 112 pregnant women were screened for syphilis (12.43% (10.27 – 14.59)). No statistically significant difference was found in the overall adhesion of healthcare workers to prenatal standard care according to the residence, the type of healthcare center and the pregnancy age.

Conclusions: The majority of prenatal care tasks were performed in almost all the pregnant women despite the increase of HCW workload in the context of free care indicating that the care offered free of cost is of good quality. The syphilis screening was rare because its cost was not covered.

Key words: Adherence; Prenatal care; Free care; HCW; Burkina Faso

Abstract ID: PP219

Evaluation of Measles Surveillance System in Kenya, 2022.

Francis Muoka Ndonge^{1,&}, Caren Ndeti¹, Rosemary Nzunza³, David Kareko², Hilary Limo²

¹Field Epidemiology and Laboratory Training Program, Nairobi, Kenya,

²Ministry of Health, Division of Disease Surveillance and Response, Nairobi, Kenya, ³Kenya Medical Research Institute, Centre for Virus

Research, Nairobi, Kenya.

&Corresponding author: Francis Muoka Ndonge, Field Epidemiology and Laboratory Training Program, Nairobi, Kenya; Email: nyaikafrank@gmail.com

Introduction: In 2011, the World Health Organization African Region (WHO-AFRO) targeted to eliminate measles by the year 2020. Between 2019 and 2021 Kenya recorded 378 confirmed cases of measles with 2 deaths. Measles is a priority disease, with weekly case-based data reported through the Integrated Disease Surveillance and Response (IDSR). The surveillance system had not been evaluated before. We evaluated the system to assess its effectiveness for the years 2020 and 2021.

Methods: We used CDC guidelines for the evaluation of a public health surveillance system. Measles is suspected in persons with fever, rash and one of cough, coryza or conjunctivitis.

We reviewed data for 2020–2021 abstracted from the laboratory and surveillance databases using a data abstraction tool. The system attributes were assessed using structured tools. Data were analyzed and summarized using frequencies, tables, graphs and maps.

Results: We reviewed 2077 suspected measles cases; 1160 (56%) were reported in 2021. The total laboratory-confirmed cases were 188 in 30 out of the 47 counties, with 101 (54%) cases in 2021.

Confirmed male cases were slightly more than females at 95 (50.5%). The most affected age group was 0 – 4 years (49%). Garissa County reported the highest number of cases; 44 (23.4%).

There was a delay of more than a year between an outbreak of measles in five (5) counties and a supplemental immunization activity conducted in June 2021 in 22 counties. The surveillance system was simple and representative, with a positive predictive value of 9.8%.

Conclusions: Measles is still endemic in many parts of the country (confirmed cases in 30/47 counties). The system is useful in detecting measles outbreaks but is plagued by data quality and timeliness issues. Developing a Measles-Rubella Strategic Plan and allocating more resources towards measles surveillance and prompt response are recommended.

Keywords: Measles, rash, retrospective review, socio-demographic

Abstract ID: PP229

Descriptive Analysis of Malaria Cases, Okavango District, Botswana-2023

Priscilla Malibo^{1,&}, Nkidi Machiba¹, Nesredin Jami Oumer², Uzoma Ogbonna²

¹District Health Management Team, Okavango District. Botswana

²African Field Epidemiology Network, Field Epidemiology Training Program, Gaborone, Botswana.

&Corresponding author: Priscilla Malibo, ¹District Health Management Team, Okavango District. Botswana, Email: pmalibo@gmail.com

Introduction: Malaria remains a cause of morbidity and mortality in Sub-Saharan Africa. Following successes recorded in malaria control, Botswana aims to eliminate malaria. However, there has been an upsurge in the number of reported cases in Okavango district threatening elimination targets. We investigated to describe the epidemiological characteristics of case-patients in Okavango district.

Methods: We conducted a descriptive analysis of confirmed malaria cases diagnosed in Okavango from October 1, 2021, to February 18, 2023. A confirmed case was defined as a person with or without clinical symptoms, in whom malaria parasites including gametocytes were detected using rapid diagnostic

tests or microscopy. Demographic, clinical, risk factor, and contact tracing information was extracted from the malaria surveillance database. We described the epidemiological characteristics of case-patients using frequencies, proportions, and rates.

Results: Three hundred and three cases were reported with 1 death (CFR: 0.3%), 263(87%) cases were detected passively. 286(94%) were uncomplicated cases, *Plasmodium falciparum* was solely responsible for 215(70.9%) cases, 87(28.7%) were mixed infections of *Plasmodium falciparum* and vivax. 279(98%) cases were indigenous.

The age group 10 – 19 years accounted for 92(30.4%) cases, 204(62%) were males and 301(99%) were Batswana. The number of cases reported were highest from weeks 5-13. Cumulative incidence was highest (50 cases/1000 persons) in Gudigwa village. 179(60%) case-patients reported they did not sleep under a net, 201(66%) reported travel outside their place of usual residence.

No case-patient reported having received blood transfusions prior to illness. 217(72%) reported that their houses were sprayed during the previous indoor residual spray (IRS) season. Forty-six (105/225) reported breeding sites around residence. The IRS coverage for the district is 59%.

Conclusions: This investigation confirmed malaria transmission in Okavango district. Further studies are required to ascertain the effectiveness of IRS and nets. We conducted health education on malaria prevention and treatment.

Keywords: Malaria, Elimination, Okavango, Botswana

Abstract ID : PP234

L'analyse des causes profondes de la flambée de rougeole dans la préfecture de Mandiana, Octobre 2022¹

Moussa Doumbouya¹, Jolie Kasongo Kayembe^{3, &}, Nouonan Gbamou², Salomon Corvil³, Fodé Amara Traoré²

¹Ministère de la santé et de l'hygiène publique, Pita, Guinée,

²Ministère de la santé et de l'hygiène publique, Conakry, Guinée,

³Le réseau africain d'épidémiologie de terrain (AFENET), Conakry, Guinée.

***Auteur correspondant:** Kasongo Kayembe Jolie, Le réseau africain d'épidémiologie de terrain (AFENET), Conakry, Guinée, jkayembe@afenet.net

Introduction: Malgré une couverture vaccinale moyenne 95% entre 2017 et 2021, Mandiana a connu quatre épidémies de rougeole, cette évaluation est menée pour déterminer les causes profondes de la survenue des flambées répétées afin de prendre des mesures adéquates.

Méthodes: Le guide d'évaluation des causes profondes des flambées de la rougeole de l'OMS était utilisé. Surveillance : 8 indicateurs de performance étaient évalués et la recherche active menée. Vaccination : le dysfonctionnement était évalué. Riposte : étaient évalués l'isolement-traitement, mobilisation sociale et délai de riposte. Des questionnaires étaient administrés aux prestataires du district, centres de santé et communauté.

Résultats: surveillance : 70% des structures notifiaient les cas à temps. Taux de rejet : 17 cas non-rougeole / 100000 population, 56% des cas investigués dans 48 heures, 57% des échantillons adéquats collectés et testés, aucun résultat rendu dans 4 jours post réception. Sur les 8 foyers, 38% étaient confirmés par laboratoire. Des 121 cas, 53(44%) n'étaient pas notifiés, 38 (71%) au niveau des structures par mauvaise information, insuffisance surveillance à base communautaire.

Dysfonctionnement de la vaccination : ouverture des flacons pour 8 enfants éligibles jusqu'à 12 mois et VA2 n'est pas opérationnel. Cinq sessions manquées par interférence et réticence, 80% des répondants refusaient le vaccin par rumeurs et 60% par déplacements des mères d'enfant dans les zones minières ou culture. Riposte : pas d'isolement ni traitement, absence de mobilisation sociale par manque de financement et ignorance, retard de la riposte par rupture.

Conclusions: La causes profondes de la flambée étaient la sous-notification, le retard dans le rendu des résultats, la non-vaccination des enfants, le manque des sessions par rumeurs, le non isolement et traitement

des cas ainsi que la riposte tardive par rupture des vaccins. Agir sur ces causes pourra éviter les flambées futures.

Mots-clés: Rougeole, flambée, analyse, causes, profondes, Mandiana, Guinée

Abstract ID: PP235

Early evaluation of the alert system used during response to the Sudan Ebola Virus Outbreak, Mubende District, Uganda-2022

Denis Okethwangu^{1,8,*}, Annet Ngabirano Alenyo², Godfrey Kayita³, Costantine Thembo⁴, Olivia Ndagire⁵, Daniel Emong³, Felix Ocom⁶, Talent Nuwabiine¹, Simon Peter Okia⁷, Helen Nakazzi⁷, Kuluthum Ampaire⁷, Anna Nyisomeh⁸, Hakim Kasumba⁷, Bernard Lubwama¹ and Charles Okoya Okot⁹

¹Department of Integrated Epidemiology, Surveillance and Public Health Emergencies, Ministry of Health, Kampala, Uganda, ²World Health Organization Headquarters, Geneva, Switzerland, ³African Field Epidemiology Network, Kampala, Uganda, ⁴Kasese District Local Government, Kasese, Uganda, ⁵Department of Emergency Medical Services, Ministry of Health, Kampala, Uganda, ⁶National Public Health Emergency Operations Center, Ministry of Health, Kampala, Uganda, ⁷Mubende District Local Government, Mubende, Uganda, ⁸Baylor Uganda, Global Health Security Project, Kampala, Uganda,

⁹World Health Organization, Africa Regional Office, Brazzaville, Republic of the Congo.

***Corresponding author:** Denis Okethwangu, Department of Integrated Epidemiology Surveillance and Public Health Emergencies, Ministry of Health, Kampala, Uganda. dokethwangu@musph.ac.ug

Introduction: During 20 September, 2022, the Uganda Ministry of Health declared an outbreak of Ebola in Mubende District. We evaluate the alert management system established in Mubende District to strengthen the early warning alert and response during the outbreak.

Methods: We established a call desk with five phones and toll-free lines maintaining a 24/7 operation. Data collected were name, age, sex, telephone contact, and residential address.

Others were signs and symptoms and date of onset; travel to a hotspot; attendance of burial of, or physical contact with, a probable or confirmed case; visiting a healthcare facility, Church or traditional healer where a probable or confirmed case had been; all within the previous 21 days.

Desk verifiers decided whether an alert case is evacuated, discarded or further assessed by field verifiers. We used the WHO and CDC evaluation guidelines to assess the system for validity, timeliness, representativeness, usefulness and stability.

Results: As at 6 December, 2022, 2,160 alerts had been received. Of these 1,981 (91.8%) were from Mubende District. 1,550 (78.2%) alerts were verified as suspect cases, 18 (1.2%) became confirmed cases. 1,589 (80.2%) alerts were from the community; others were from field teams, health facilities and schools.

Sensitivity was 94.3% (95%CI: 93.2%-95.3%) and specificity was 80.1% (95%CI: 78.6%-81.5%). Positive predictive value was 74.7% (95%CI: 73.3%-76.1%) and negative predictive value was 95.7% (95%CI: 94.9%-96.5%).

The average decision time from receiving an alert was 35 minutes (SD: 21 hrs). Overall alert incidence from all 18 sub-counties was 1.6 alerts/10,000 population/day (range: 0.1-2.3).

There were more alerts among females (53.1%). Children aged <10 years and adults aged ≤50 years had the most proportion of alerts (19.2% each).

Conclusions: The system implemented was an effective component of surveillance. We demonstrate the importance of efficient and sustainable early warning systems during and beyond emergency response.

Keywords: Hemorrhagic Fever, Ebola; Disease Outbreaks; Traditional Medicine Practitioners; Uganda

Abstract ID: PP236

Descriptive Epidemiology of Mpox Outbreak in Delta State, Nigeria December 2022

Anthonia Chukwuemeka^{1,*}, Mildred Nwamaka Okowa², Idotenyin Ibanga Eny², Nneka Chuka-Imarhia², Dumebi Achuzia Nkenchor³, Tetshola Oghenetega Christian², Philomena Okeowo²,

¹Federal ministry of Health, Abuja, Nigeria

²Delta State Ministry of Health, Asaba, Delta State, Nigeria

³Nigerian Center for Disease Control, Abuja, Nigeria

***Corresponding Author:** Anthonia Chukwuemeka, Federal Ministry of Health, FCT, Nigeria,
Email: maamahnwendu@yahoo.co.uk

Introduction: The resurgence of Mpox has posed a global health threat. In Nigeria, the first case was reported in 1971. In December 2017, Nigeria witnessed the re-emergence of the disease in some states. The index case in Delta State in 2022 was in a 33-year-old male who lived in Ghana and traveled to Delta State to seek health care. Following this case, Delta State has experienced sporadic outbreaks reporting 30 confirmed cases and no deaths in 2022. We conducted a descriptive analysis of MPX cases in Delta State.

Methods: We identified retrospective cases from Surveillance Outbreak Response Management Analysis System (SORMAS), and carried out active case search and contact tracing. Laboratory confirmation was done using Polymerase Chain Reaction (PCR). We analyzed data by calculating proportions, attack rates, and case fatality ratio and presented data in charts and tables.

Results: Of the 67 samples collected, 30 (45%) were positive of which 66% were males. The median age was 21 years (Interquartile range: 3-35 years). The most affected age group was 25-29 years with 7 (23%) cases. 57% of confirmed cases reside in Delta North senatorial zone with an attack rate of 8.1 per 1 million population. The most prevalent symptoms observed were Itching [21 (70%)], sore throat [14 (47%)], chills [13 (43%)], lymphadenopathy [14 (21%)], while vomiting [4 (13%)], oral ulcers [4 (13%)], cough [4

(13%)], sensitivity to light [4 (13%)] and conjunctivitis [4 (13%)] recorded the least. From regression analysis conducted, we found that for a unit increase in age, the risk of the disease increases by 13.9 (95% CI 6.1-21.6) P-value < 0.005.

Conclusions: Males were worse affected by this outbreak. We recommend that sensitization on the disease should be intensified with priority on males. Health-seeking behavior among males also needs to improve.

Keywords: Delta State, Mpox, orthopoxvirus, outbreak, zoonoses

Abstract ID : PP239

Profil épidémiologique et facteurs associés aux diarrhées à Rotavirus, centre hospitalier régional de Gaoua, Burkina Faso, de 2013 à 2022.

Wendkouni Serge Alain Tougma^{1,*}, Souleymane Porgo², Bérenger Kaboré³, Denis Yelbéogo³, Bernard Sawadogo³.

¹Ministère de la Santé et de l'Hygiène Publique, Ouagadougou, Burkina Faso ;

²Global Health Security Agency, Ouagadougou, Burkina Faso;

³African Field Epidemiology Network Burkina, Ouagadougou, Burkina Faso.

***Auteur correspondant:** TOUGMA W. Serge Alain, Ministère de la Santé et de l'Hygiène Publique, Ouagadougou, Burkina Faso Email: sergetougma@yahoo.fr ; 00226 78278348 / 74136510

Introduction: La diarrhée est l'une des maladies infantiles les plus meurtrières en Afrique dont la majorité est causée par les Rotavirus. Au Burkina Faso, les diarrhées à Rotavirus font l'objet d'une surveillance sentinelle depuis 2013 après l'introduction du vaccin. Cette étude a pour objectif de décrire le profil épidémiologique des diarrhées à Rotavirus au centre hospitalier régional (CHR) de Gaoua et de déterminer les facteurs associés à ces diarrhées.

Méthodes: Il s'est agi d'une étude transversale analytique de novembre 2013 à avril 2022. Tous les enfants de moins de 5 ans hospitalisés au CHR de

Gaoua pour raison de diarrhées aiguë, chronique et sanguinolente et présents dans la base de données Rotavirus ont été enrôlés. Pour l'analyse des facteurs associés, nous avons utilisé le test du Khi carré et l'estimateur de l'association était le ratio de prévalence (RP) avec un intervalle de confiance (IC) à 95%.

Résultats: Nous avons enregistré 1776 cas suspects de diarrhées à Rotavirus. L'âge médian était de 12 mois (2-48 mois) avec une prédominance masculine de 55,80%. La prévalence des diarrhées confirmées à Rotavirus était de 26,30%. La saison sèche était associée à un risque plus élevé d'avoir des cas positifs de diarrhées à Rotavirus (RP:1,43 (IC=1,36-1,50)) et la malnutrition était associée à un risque plus élevé de décès parmi les cas suspects de diarrhées à Rotavirus (RP:2,28 (IC=1,40-3,71)).

Conclusions: Les diarrhées à Rotavirus sont présentes dans la région du Sud-Ouest. Une vaccination préventive à l'approche de la saison sèche pourrait réduire la prévalence des diarrhées à Rotavirus.

Mots-clés: Rotavirus, diarrhées, Gaoua, Burkina Faso

Abstract ID : PP240

D é t e r m i n a n t s d e l'acceptabilité de la vaccination contre la COVID-19, régions du Centre-Sud, Sud-Ouest, Centre-Ouest et Centre au Burkina Faso, juin 2022.

Aristide Compaoré^{1,9,&}, Maryse Olivia Ouédraogo^{2,8}, Serge Alain Tougma^{3,8}, Boureima Kouraogo^{4,8}, Bérenger Kaboré^{5,6}, Denis Yelbéogo^{5,6}, Seydou Ouattara^{7,8}

¹Direction de la Santé Animale, Ouagadougou, Burkina Faso, ²Direction Régionale de la Santé du Centre Ouest, Burkina Faso, ³Centre des Opération de Réponse aux Urgences Sanitaires, Burkina Faso, ⁴Direction Régionale de la Santé du Centre Sud, Burkina Faso, ⁵African Field Epidemiology Network, Burkina Faso, ⁶Programme de formation en épidémiologie de terrain, Ministère de la santé, Burkina Faso, ⁷Direction de la Promotion de la Santé de la Population, ⁸Ministère de la Santé et de l'Hygiène Publique,

⁹Ministère de l'agriculture, des ressources animales et halieutiques, Ouagadougou, Burkina Faso

***Auteur correspondant:** Aristide Compaoré, Direction de la santé animale, Ouagadougou, Burkina Faso, 09 BP 907, Email : vet-aris@hotmail.com

Introduction: En mai 2022, la couverture de la population complètement vaccinée au Burkina Faso était inférieure à 12 % alors que les cas de Covid-19 persistaient toujours. L'hésitation croissante et le rejet pur et simple de nouveaux vaccins figurent parmi les dix principales menaces pour la santé mondiale. L'objectif de notre étude était d'étudier les déterminants de l'acceptabilité de la vaccination contre la COVID-19 au sein de la population dans 4 régions du Burkina Faso

Méthodes: Il s'agissait d'une étude transversale mixte analytique qui s'est déroulée du 20 au 31 juin 2022 dans quatre régions du Burkina Faso. Un échantillonnage raisonné de 24 concessions par région a été réalisé. Dans chaque concession sélectionnée, 2 ménages ont été enquêtés. Notre échantillon était constitué de 288 personnes. Les données ont été collectées à l'aide de l'outil ODK. Un test de Khi carré avec le rapport de prévalence comme estimateur a été réalisé pour déterminer les associations entre l'acceptabilité de la vaccination et les différents facteurs potentiels.

Résultats: Parmi les 288 personnes enquêtées, 34,72% étaient vaccinées contre la COVID-19. Les hommes avaient plus de chance d'accepter la vaccination que les femmes avec un RP=1,43 (1,04-1,96). La croyance en l'efficacité des vaccins était associée à un risque infiniment très élevé de faire le vaccin contre la COVID-19 (p=0.002). Aussi, la perception des effets bénéfiques des vaccins contre la COVID-19 par les enquêtés était associée à une chance 3 fois plus élevée de faire la vaccination avec un RP=3,06 (1,05-8,91).

Conclusions: L'hésitation devant les vaccins demeure une réalité au Burkina Faso. S'appuyer sur les personnalités publiques âgées ayant fait la vaccination comme des portes-flambeaux des campagnes de sensibilisation en faveur de la vaccination contre la COVID-19 pourrait améliorer cette situation.

Mots-clés: Vaccination, COVID-19, acceptabilité, Burkina Faso.

Abstract ID: PP241

Adapting sub-national public health emergency management: the Mbale regional emergency operations center experience in eastern Uganda

Herbert Kiirya Isabirye^{1,2,&}, Nakawuki Ashley² Maiteki Robert², Benjamin Fuller³, Mohamed Larmode¹, Francis Kakoza¹, Immaculate Nabukenya¹, Judith Nanyondo¹, Allan Komakech⁴, Christopher Moore³, Richard Ssekitoleko⁵, Henry Bosa Kyobe⁶

¹Infectious Diseases Institute Makerere University, Kampala, Uganda

²Mbale Regional Emergency Operations Center Mbale, Uganda

³Division of Infectious Diseases and International Health, University of Virginia, Charlottesville, USA

⁴Africa Centre's for Disease Control and Prevention, Yaounde, Cameroon

⁵World Health Organization, Kampala, Uganda

⁶Ministry of Health, Kampala, Uganda

&Corresponding author: Herbert Kiirya Isabirye, Mbale Regional Operations Centre, Mbale City, Uganda, Email: hkisabirye@gmail.com

Introduction: The COVID-19 pandemic tested emergency response capacities in low- and middle-income countries (LMICs), demonstrating the need for home-made interventions. Uganda has a robust national response coordination system, but subnational capacities are constrained. In 2020, the Uganda Ministry of Health established the Mbale Regional Emergency Operations Centre (Mbale REOC) to coordinate responses to public health and natural disasters in Eastern Uganda. The Mbale REOC multidisciplinary regional response team works under the Ministry of Health, Regional Referral Hospital with partners and academia. We aimed to describe the experience of the Mbale REOC over the 3 years from inception, including during the COVID-19 pandemic.

Methods: We conducted a mixed methods cross-sectional study including a review of key documents and reports, district preparedness and response checklists and semi-structured interviews/ key informant interviews of 18 participants involved

in the establishment of the Mbale REOC. We studied response indicators and used thematic approach and framework analysis using NVivo 12 software to analyze qualitative data.

Results: In the first year of Mbale REOC operations, 15 partner coordination meetings on average were conducted. There was a marked improvement in completeness of daily regional surveillance data from 43% to 93%.

Maintained an updated logistics inventory and coordinated logistics transfers in the region. We trained 21 regional trainers, 72 district mentors, and 256 Health facilities on laboratory outbreak monitoring and evaluation.

Through data analysis, the mobile laboratory testing capacity was increased from 200 to 500 samples per day reducing the COVID-19 PCR result turnaround time from ≥ 7 to ≤ 2 days

Conclusions: The Mbale REOC improved the sub-national response to outbreaks and disasters and was recognized by the Ministry of Health as a model for sub-national public health emergency management. A regional REOC strategy could be adopted by other LMICs to build local public health emergency response capacity.

Keywords: Public health emergency management
Emergency operations Center COVID-19

Abstract ID: PP242

Investigation of cases of serpiginous dermatitis in a paramilitary training institution: Mozambique, November-December 2022

Angélica Tomás Sotomane^{1,&}, Cristolde Atanásio Salomão^{1,2}, Samuel Nuvunga^{1,2}, Verónica Casmo², Érika Valeska Rossetto³, Cynthia Semá Baltazar^{1,2}

¹Field Epidemiology Training Program, Maputo, Mozambique,

²National Institute of Health, Maputo, Mozambique,

³MassGenics assigned to Center for Disease Control and Prevention, Maputo, Mozambique

&Corresponding author: Angélica Sotomane, Mozambique Field Epidemiology Training Program, National Institute of Health, Maputo-Mozambique, Mobile: (+258)847134988 or (+258)874134988, Email: asotomane@gmail.com

Introduction: Serpiginous dermatitis or Cutaneous Larva Migrans (CLM) is a parasitic zoonosis predominant in the tropics. The *Ancylostoma caninum* is present in CLM reservoirs feces of dogs and cats. Since 2021, there has been a recurrent occurrence of suspected CLM cases in first-year paramilitary training institutions first-year trainees. With the objective of evaluating the risk factors associated with CLM, an investigation was taken.

Methods: It was conducted by an epidemiologist team, a retrospective cohort investigation. A questionnaire was applied to all first-year trainees in 2022 who provided written consent. Considered suspect cases were all individuals with a self-reported history of CLM in 2022, no laboratory diagnosis was performed. Sociodemographic characteristics, behavioral factors, and environmental investigation of academy grounds were described and calculated Relative Risk (RR) with significance level: $P=0.05$ and 95% CI to analyze associations and possible risk factors of CLM.

Results: The cohort consisted of 266 trainees where 92% agreed to participate in the investigation and of these, 75.7% were suspected cases; 68.6% were male and 67.9% were between 18–24 years old. Cadets who had contact with dog and cat feces during training in soil had 1.9 (1.7-2.2, $P=0.0001$), and 1.6 (1.3-2.1, $P=0.04$), times more risk of contracting the disease when compared to those not exposed. Those who had prolonged training in contact with the wet ground had a 1.6 (1.3-2.1, $P=0.0001$), times greater risk of developing CLM than those who were not exposed. Feces weren't observed in the academy ground, only dogs resting in the grass.

Conclusions: Direct contact with wet soil and the feces of dogs and cats during curricular activities were factors significantly associated with CLM. Disinfecting soil in training areas and reinforcing fences to prevent access to dogs and cats may help reduce CLM exposure.

Keywords: Outbreak, Cutaneous Larva Migrans, Serpiginous Dermatitis, Mozambique.

Abstract ID: PP243

Prevalence of Substance use disorder and associated risk factors among mental health patients at the Edward Snoh Grant's Mental Health Hospital, Liberia, 2021

Emmanuel Dwalu^{1,2,3,&}, Chukwuma David Umeokonkwo^{3,4}, Henry Eementary Kpoe¹, Patrick Kpanyen^{1,2}, Obafemi Joseph Babalola^{3,4}, Himiede Wede Wilson-Sesay^{3,4}, Peter Adewuyi^{3,4}, Maame Amo-addae^{3,4}

¹School of Graduate and Professional Studies, Cuttington University, Monrovia, Liberia,

²National Public Health Institute of Liberia, Monrovia, Liberia,

³Liberia Field Epidemiology Training Program, Monrovia, Liberia,

⁴African Field Epidemiology Network, Monrovia, Liberia

&Corresponding author: Emmanuel Dwalu, National Public Health Institute of Liberia, Telephone: +231770883760, Email: dwaluemmanuel2@gmail.com

Introduction: Substance use disorder (SUD) among mental health patients is a growing public health problem prevalent among African youths, including in Liberia. We determined the prevalence of substance use disorder and associated risk factors among mental health patients at Edward Snoh (E.S.) Grant's Mental Health Hospital, Liberia, 2021.

Methods: We conducted a retrospective chart review of all 62 mental health patients admitted at the E. S. Grant's Mental Health Hospital from January to March 2021. Using a checklist, we extracted socio-demographic characteristics, diagnosis, history of substance use, age of onset of ever-use substance, and factors influencing the use of substances. The risk factors associated with substance use were examined using chi-square & logistic regression at a 5% significance level.

Results: The median age of the patients was 28 (IQR 23-37) years. There were 74% males, 89% single, 92% unemployed, and 69% high school students. Substance use disorder (76%), schizophrenia (8%), psychosis (7%), bipolar disorder (5%), and depression (5%) were the types of mental health conditions among the 62 patients. The prevalence of substance use was

76%. Marijuana 57%, alcohol 17%, tobacco 17%, cocaine 2%, heroine 2%, tide 2%, and tramadol 2% were the substances used by patients. Family history of substance use was 58% and the median age at the commencement of substance use was 18 (IQR 15-22) years. Most of the participants were introduced to substances by peers 49% and peer pressure, 72%. Being male (aOR=7.0, 95% CI:1.8-28.2), was a risk factor associated with substance use disorder.

Conclusions: We report a high burden of substance use disorder among mental health patients at E.S. Grant and gender as a risk factor. We recommend that the Ministry of Health establish a national substance-use surveillance system and increase education and awareness to reduce the burden.

Keywords: substance use disorder, prevalence, risk factors, mental health patient, Liberia

Abstract ID: PP245

Increased vulnerability to HIV infection among key populations during the COVID-19 emergency, Mozambique 2022, Formative-Assessment.

Hélder Filipe Fumo¹&; Auria Ribeiro Banze²; Erika Valeska Rossetto³; Cynthia Semá Baltazar²

¹National Institute of Health, Marracuene, Mozambique, e-mail: helfumo@gmail.com

²National Institute of Health, Marracuene Mozambique.

³MassGenics assigned to the Centers for Disease Control and Prevention, Maputo Mozambique.

&Corresponding author: Hélder Filipe Fumo, National Institute of Health, Marracuene, Mozambique, e-mail: helfumo@gmail.com

Introduction: Over the last three years the colliding AIDS and COVID-19 pandemics along with economic and humanitarian crises have placed HIV/AIDS response progress among the key population under increasing threat, especially in low-and-middle-income countries.

The goal of this early formative study was to assess the impact of the COVID-19 state of emergency on the HIV response for key populations in Mozambique.

Methods: A qualitative study was conducted in the city of Maputo and the capitals of Maputo, Gaza, Inhambane, Manica, and Zambezia Provinces in the first quarter of 2022.

Men who have sex with men, people who inject drugs, female sex workers, transgender people, and pimps, previously contacted by community-based organizations, police, and health professionals, participate in individual and focal group interviews, conducted with standardized scripts on risk behaviours and access to health and support services since the first state of emergency for COVID-19 in March 2020. Data collection continued until saturation of responses was reached. Analysis was based on grounded theory principles.

Results: A total of 144 interviews were conducted, 108 individual and 36 focus groups. Some female sex workers reported discontinuing antiretroviral treatment as they feared contracting COVID-19 at health facilities.

They also reported the interruption of the prevention and HIV test brigades at hotspots. Men who have sex with men reported a reduction in HIV lectures and training in community-based organizations.

People who inject drugs reported that group therapy was canceled. Health workers reported canceling meetings to coordinate health promotion activities for key populations while the state of emergency prevailed.

Conclusions: There is an ongoing need to adapt health services and support to key populations to today's dynamics.

The crisis experienced during the COVID-19 state of emergency must serve as a basis for strengthening strategies to combat HIV in Mozambique and worldwide.

Keywords: HIV, AIDS, COVID-19 Pandemic, Mozambique.

Abstract ID : PP246

Evaluation du système de surveillance de la rage dans la préfecture de Faranah, Septembre 2021

Abou Sylla¹, Jolie Kasongo Kayembe³, & Nouonan Gbamou², Salomon Corvil³, Fodé Amara Traoré²

¹Ministère de l'Agriculture et l'Élevage, Faranah, Guinée,

²Ministère de la santé et de l'hygiène publique, Conakry, Guinée, ³ Le réseau africain d'épidémiologie de terrain (AFENET), Conakry, Guinée.

***Auteur correspondant:** Kasongo Kayembe Jolie, Le réseau africain d'épidémiologie de terrain (AFENET), Conakry, Guinée, jkayembe@afenet.net

Introduction: Faranah s'est engagé à éliminer la rage d'ici 2030. La surveillance était renforcée dont les objectifs sont de détecter les épidémies et riposter à temps. Cette évaluation avait pour but de savoir si les objectifs fixés étaient atteints.

Méthodes: Le guide d'évaluation de 2001 de CDC-Atlanta a été utilisé. Un questionnaire était administré aux acteurs de la santé humaine et animale pour évaluer simplicité et acceptabilité. L'analyse des données était faite pour évaluer qualité des données, promptitude, représentativité, VPP et utilité. Proportions étaient calculées en Epi info 7.2.

Résultats: Simplicité : des 46 enquêtés, 57% trouvaient définition de cas simple et la connaissaient, 74% estimaient remplissage des fiches simple et 57% trouvaient simple circuit de notification. Qualité des données : concordance (registre CTEPI- base élevage) : 20%, DHS2 : (complétude : 2,2%, validité : 100%), base élevage : (complétude : 77%, validité : 80%). Acceptabilité : 60% des chiens mis en observation, 80 % échantillons de chiens errants abattus, 45% des réunions une seule santé tenues. Promptitude : 87% cas détectées dans 24 h, investiguées dans 72 h après notification, 87% des échantillons prélevés et reçus au laboratoire dans 24H, 85% des résultats rendus 24 h après la réception, 0% riposte effectuée dans 72 h après confirmation. Représentativité en personnes, temps, lieu. VPP : 96%, Utilité : détection des cas de morsures, rage canine, humaine, 99% des personnes avaient bénéficié PPE.

Conclusions: Le système était complexe avec une mauvaise qualité des données, peu acceptable, prompt sauf pour la riposte, représentatif avec une VPP élevée, le système était utile. La formation des prestataires, la sensibilisation et les réunions régulières ont amélioré la compréhension sur la définition des cas et le remplissage des fiches, la concordance des données, ainsi que le délai de la riposte.

Mots-clés: évaluation, système, morsures, rage humaine, canine, Faranah

Abstract ID: PP256

Leveraging the Acute Flaccid Paralysis Surveillance System to Enhance COVID-19 Surveillance in Uganda, 2020

Wilbrod Mwanje^{1,&}, Nicholas Ayebazibwe¹, Douglas Makanga², Godfrey Nsereko², Issa Makumbi², Anita Kisakye², Jayne Tusiime³, Edson Katushabe³

¹African Field Epidemiology Network, Kampala, Uganda

²Ministry of Health, Kampala, Uganda

³World Health Organization Country Office, Kampala, Uganda

***Corresponding author:** Wilbrod Mwanje; African Field Epidemiology Network, Kampala, Uganda, Email: wilbrodmwanje@gmail.com

Introduction: Uganda confirmed her COVID-19 outbreak on 21-March-2020 and subsequently instituted total lockdown restrictions with exception of cargo. Only 121 cases had been confirmed by 11-May-2020 leading to suspicion of low COVID-19 surveillance-sensitivity. The lockdown constrained both access to routine immunizations and surveillance of previously controlled vaccine-preventable-diseases risking their resurgence. National Stop transmission of polio members (NSTOPers) conducted active surveillance for missed cases COVID-19 and Acute Flaccid Paralysis (AFP).

Methods: We deployed NSTOPers to 7-high-risk districts on June 1, 2020 and searched health facility (HF) registers for missed cases. A missed COVID-19 suspect was any individual with any one of the diagnoses (severe acute respiratory illness, pneumonia or severe pneumonia) seen ≤ 14 -days pre-investigations and without a filled Case Investigation Form (CIF). A missed

AFP case was any person aged <15 years with any one of the diagnoses (AFP, injection, neuritis, paralysis, suspect-polio, limb weakness or limpness) seen within 3-months pre-investigations and without a filled CIF. We verified missed cases using standard case definitions.

We collected stool samples from AFP cases found within 30-days of paralysis-onset, nasopharyngeal swabs from COVID-19 suspects and submitted disease-specific CIFs via ODK-App. Virologic tests for SARS-COV-2 and Wild Poliovirus (WPV) were performed on nasopharyngeal and stool specimens respectively. We assessed active search visits to HFs in preceding 3-months. We calculated frequencies and proportions.

Results: We visited 170 HFs. Of these 29(17%) had active search visits both in March and April compared to 34(20%) in May 2020. Six missed AFP cases were detected two of which were verified and their stool samples tested negative for WPV. Of 363 COVID-19 suspects detected, 312(84.5%) provided samples that all tested negative for SARS-COV-2.

Conclusions: Neither COVID-19 nor Polio were confirmed. The AFP surveillance system can be used to implement COVID-19 surveillance. Ministry of health adopted ODK to collect district level COVID-19 sitreps.

Keywords: Enhancing COVID-19 surveillance, leveraging Surveillance systems

Abstract ID: PP261

“Anthrax is not a mysterious disease”: Revelation from an outbreak investigation in Shinyalu, Kakamega County, Kenya, 2021

Florence Wanjiru Mugo^{1,&}, Emmanuel Okunga², Shem Otwabe¹, Leshan Koyie¹, Ecleus Mbat³, Moses Seg², Fredrick Odhiambo¹

¹Field Epidemiology Laboratory Training Program, Nairobi, Kenya

²Division of Disease Surveillance and Response, Nairobi, Kenya

³Kakamega County Health Department, Kakamega, Kenya

***Corresponding Author:** Florence Mugo, IField Epidemiology Laboratory Training Program, Nairobi, Kenya, Email: flomugo88@gmail.com

Introduction: Anthrax, a bacterial zoonotic disease caused by *Bacillus anthracis*, is endemic in some parts of Kenya. Kakamega County Health Department reported a suspected anthrax outbreak that the media had reported as a mysterious disease linked to witchcraft. A multidisciplinary team was deployed to investigate and respond to the suspected outbreak on 8th April 2021.

Methods: We applied mixed methods: Quantitative data used structured questionnaires targeting the County health officers and households that had a suspected case. Qualitative data were used Focus Group Discussions targeting the community members, and active case search in health facilities and communities. A case was any person residing in Shinyalu Sub-County, presenting with pruritic papule on an exposed surface at vesicular stage or depressed black eschar. Verbal autopsies to establish the link to the disease were conducted. We geocoded residences of human and animal cases.

Results: Sixteen human cases with an attack rate of 0.0095%, six deaths (Case Fatality Rate: 37%), and 16 livestock deaths identified. The majority were male 81% (13/16) while most affected age group was <39 (56%). The index case was reported in March while the date of onset was in February, a peak was noted in April. Eschar was observed in the hands (56%), back (31%), and legs (13%). Of the human cases, 89% had not vaccinated their animals and 88% reported sudden death of their livestock, all (100%) had consumed dead animal's meat. Traditional alcohol consumption by 81% of the cases was significant (p-value 0.0015). Qualitatively, 94% perceived witchcraft as cause of illness, and 75% believed traditional medicine was the best measure of prevention of the disease.

Conclusions: Clinically, the mysterious disease was anthrax. Public health interventions were instituted to curb the transmission. Development of risk communication strategy and sensitization on anthrax cause, prevention, and control was recommended.

Keywords: Kenya, Anthrax, zoonotic, cases, investigation, outbreak

Abstract ID: PP269

Malaria outbreak investigation, Selebi-Phikwe district, Botswana, February 2023

Gabobofane Maphakwane^{1,&}, Tshepiso Mothupi¹, Nesredin Jami Oumer², Uzoma Ogbonna²

¹Selebi-Phikwe District Health Management Team, Selebi-Phikwe, Gaborone, Botswana.

²African Field Epidemiology Network, Field Epidemiology Training Program, Botswana.

&Corresponding author: Gabobofane Maphakwane, Selebi-Phikwe District Health Management Team, Selebi-Phikwe, Botswana. Email: bofnamaps@gmail.com

Introduction: Malaria, an infectious disease spread by mosquitoes is a leading cause of disease and death in many developing countries. Botswana has targeted malaria for elimination. In 2022, Selebi-Phikwe district health management team (SPDHMT) reported one malaria case. Health-workers reported an increase in cases for February 2023. The SPDHMT supported by a frontline-FETP trainee investigated to confirm the diagnosis, search for additional cases, describe the epidemiological characteristics and institute control measures.

Methods: A confirmed case was defined as a person with or without clinical symptoms, in whom malaria parasites including gametocytes were detected using rapid diagnostic tests (RDT) or microscopy. A passively detected case triggered an investigation that targeted the index case household and households in a 500m radius. All consenting community members received an RDT. Demographic, clinical, and risk factor data was obtained from cases. We described the cases using frequencies, proportion, and summary statistics.

Results: Five cases were detected (incidence proportion: 12/100,000 persons/month), three passively. Plasmodium falciparum was responsible for all five cases, 1 (20%) was complicated, 3 (60%) were seen as outpatients, 4 (80%) were indigenous, all (100%) were Batswana. 3 (60%) were males, median age was 20 years (range: 11 – 42 years). Three cases were from Selebi-Phikwe, two from Mmadinare. All case-patients did not sleep under a mosquito net, 3 (60%) reported travel outside their place of residence. No case-patient received blood transfusion prior to illness. 2 (40%)

reported their houses were treated during the previous indoor residual spray (IRS) season in Mmadinare. IRS is not done in Selebi-Phikwe village. Mosquito breeding sites were documented around the residence of all case-patients.

Conclusions: This investigation confirmed transmission of malaria in the district, suboptimal interventions are likely responsible. We treated case-patients for malaria and conducted community sensitization. We recommend the implementation of IRS, and the removal of mosquito breeding sites in Selebi-Phikwe.

Keywords: Malaria, Botswana, Elimination

Abstract ID : PP270

Facteurs associés à la flambée de rougeole, sous-préfecture de Ninguélandé, district Pita, Guinée, décembre 2021 : étude de cohorte rétrospective.

^{1,&}Thierno Bassirou Baldé, ²Nouonan Gbamou, ³Jolie Kasongo Kayembe, ⁴Salomon Corvil, Fodé Amara Traoré².

¹Direction préfectorale de la santé, Pita, Guinée, bassirbalde@gmail.com

²Agence nationale de sécurité sanitaire, Conakry, Guinée

³African Field Epidemiology Network, Conakry Guinée

&Auteur correspondant: Thierno Bassirou Baldé, Direction préfectorale de la santé, Pita, Guinée, bassirbalde@gmail.com

Introduction: En 2022, la guinée a enregistré 12426 cas confirmés de rougeole dont 60 décès. La région de Mamou a notifié 281 cas confirmés parmi lesquels 227 (81%) provenaient de Pita.

En quatre semaines consécutives, la sous-préfecture de Ninguélandé a notifié cinq cas positifs. Une investigation a été menée pour établir l'ampleur de la flambée et déterminer les facteurs associés.

Méthodes: Une cohorte rétrospective a été menée chez les enfants de 0-10 ans groupés en deux selon que l'enfant ait été exposé ou non aux facteurs de risque. Des recherches actives ont été menées. Ont

été collectées des variables socio démographiques, cliniques et facteurs de risques (vaccination, contact avec un cas confirmé, voyage dans les 21 dernières jours, promiscuité, fréquentation de l'école et malnutrition). Médiane, étendue, proportions, RR, IC à 95% ont été calculées avec Epi info7.2.4, Rstudio et Excel. Le seuil de signification fixée à 5%.

Résultats: Sur un total 100 enfants, 30 cas étaient confirmés dont 5(17%) par laboratoire, 25(83%) par lien épidémiologique. Age médian : 6 ans [6 mois-10 ans], tranche d'âge plus touchée : 1 à 9 ans, 28(93,3%) non vaccinés, 23(76,7%) des contacts, 20(66,7%) vivaient dans la promiscuité, 14(46,7%) fréquentaient l'école. La non vaccination OR 3.2[1.26-8.60], la méconnaissance de la rougeole OR 2[1,01-3.99], le contact avec un cas confirmé OR 5.35[2.56-11.19], les malnutris OR 2.16[1.39-4.33] et ceux qui fréquentaient l'école OR 2.03[1.16-3.53] étaient les facteurs associés à la survenue de la rougeole

Conclusions: Les facteurs de risque associés à cette flambée étaient la non-vaccination, contact avec cas confirmé, fréquentant école pendant l'épidémie, malnutrition, manque de connaissance de la rougeole. Une amélioration de la vaccination et la sensibilisation des parents et des enseignants sur la rougeole sont recommandées.

Mots-clés: Rougeole, Cohorte rétrospective, investigation, Ninguélandé, 2021

Abstract ID: PP272

Laboratory Surveillance of Diarrhoeal Etiologic Agents, Lobatse, November 2022

Chika Marilyn Olorato¹, Edith Poni Ramogaladi², Nesredin Jami Oumer³, Uzoma Ogbonna³

¹Athlone hospital laboratory, Lobatse, Botswana.

²Greater Lobatse District Health Management Team, Lobatse, Botswana.

³African Field Epidemiology Network, Field Epidemiology Training Program, Gaborone, Botswana.

&Corresponding author: Chika Marilyn Olorato, Athlone hospital laboratory, Lobatse, Botswana. Email: lamps27@gmail.com

Introduction: Diarrhea is a leading cause of child morbidity and mortality in Botswana. Stool samples submitted for diagnostic testing present an opportunity to monitor the trend of etiological agents (EA). However, little is known of the distribution of these EA. We describe EA isolated from stool samples of children under five years submitted to the Athlone hospital laboratory, Lobatse, to inform national guidelines.

Methods: We conducted a retrospective descriptive analysis of diarrhea cases extracted from worksheets at Athlone hospital laboratory, Lobatse (AHLL). The sample were children aged 0-59 months seen at district health facilities whose stool samples were obtained and analyzed at AHLL between January 2021 to August 2022. Samples were cultured for Adenovirus, Rotavirus, Salmonella, Shigella, and Escherichia coli species. We compared the number of samples analyzed to the number of diarrhea cases reported in the district and examined the completeness of data. We calculated frequencies and proportions for samples that tested positive to any pathogen, and samples that tested positive for each pathogen. We described seasonality of diarrhea and turnaround time for samples.

Results: 1141 cases of diarrhea were reported for the district in the study period, 129(11%) samples were received at AHLL for the corresponding period. 84(65%) had data collected for all variables, the commonest missing variables were sex (21%) and age (11%). 62(52%) samples were from females, 86(67%) were less than 1 year. 27(21%) samples yielded at least 1 pathogen. Eighteen (14%) samples yielded rotavirus, eight (6%) adenovirus, one (0.8%) salmonella, one (0.8%) shigella and one (0.8%) E. coli. Seasonality was seen in samples received at the laboratory. 127(98%) samples were processed within 72 hours.

Conclusions: Diarrhea causing pathogens largely remain unknown. Low pathogen yield indicates a need for optimization of laboratory Methods. We recommend further studies to formulate guidelines to inform clinical management.

Keywords: Diarrhea, Laboratory, etiologic agents, Botswana

Abstract ID: PP276

Health care workers knowledge, perceptions and attitudes towards Coronavirus Disease 19 prevention and control during the pandemic in Tigray, Ethiopia

Gebretsadik Berhe^{1,&}, Tesfay Gebregzabher Gebrehiwot¹, Kibrom Gebrselassie¹, Dawit Zenebe¹, Gebrecherkos Gebregiorgis¹

¹Mekelle University, Mekelle, Ethiopia

&Corresponding author: Gebretsadik Berhe, Mekelle University, Mekelle, Ethiopia, Email: gebretsadik_b@yahoo.com

Introduction: Globally, healthcare workers (HCWs) are at the frontline of Coronavirus Disease 19 (COVID-19) pandemic prevention and response measures. However, fear and hesitation due to the occupational risk coupled with knowledge gaps can compromise the COVID-19 prevention and control measures. Therefore, this study was conducted to assess the knowledge, perception and attitude of HCWs towards COVID-19 prevention and control in Tigray, Ethiopia.

Methods: A cross-sectional study design was used. The 475 HCWs sample size was proportionally allocated to the twelve health facilities and then study subjects were recruited using systematic random sampling Methods. Eligibility criteria included those HCWs who were 18 years old, permanent employee, and on duty during the study period. A pre-tested structured questionnaire was developed and administered by interviewer. Knowledge, perception and attitudes on COVID-19 were measured through 19 and 12 question items, respectively. The median was used as cut-off value to classify good knowledge and positive attitude and perception. Descriptive statistics and binary logistic regression analysis were conducted using SPSS version 23.

Results: Out of the 475 study subjects, 48.6% (231) of the respondents had inadequate knowledge on COVID-19 prevention and control and 41.9% had negative attitude and perception. The multivariable analysis Results indicated that HCWs working in referral (Adjusted Odds Ratio= 0.4 95% Confidence Interval: 0.18-0.76) and general hospitals

(AOR= 0.4 95% CI: 0.21-0.84) had 60% lower odds of inadequate knowledge compared to those working in health centers. Similarly, being female, nurse, midwife and pharmacist were significantly associated with inadequate knowledge.

Likewise, males and midwives had 50% and 70% lower odds of negative attitude and perception, respectively.

Conclusions: More than half of the HCWs had inadequate knowledge, negative attitude and perception on COVID-19 prevention and control measures. Therefore, capacity building trainings and risk minimization interventions are required to alleviate the gaps.

Keywords: Attitude, COVID-19, Ethiopia, Health Personnel, Pandemics

Abstract ID: PP277

“The right equipment, sundries ... alone gives me a reason to go and work” Health workforce incentives and dis-incentives during the COVID-19 pandemic: Experiences from four African countries

Suzanne Namusoke Kiwanuka^{1&}, Ziyada Babirye¹, Steven Ndugwa Kabwama¹, Andrew Tusubira¹, Susan Kizito¹, Rawlance Ndejjo¹, Marc Bosonkie², Landry Egbende², Berthold Bondo³, Mala Ali Mapatano², Ibrahima Seck⁴, Oumar Bassoum⁴, Mamadou Leye⁴, Issakha Diallo⁴, Olufunmilayo Fawole⁵, Bello Segun⁵, Salawu Mobolaji⁵, Eniola Bamgboye⁵, Magbagbeola Dairo⁵, Ayo Steven Adebowale⁵, Rhoda Kittu Wanyenze¹

¹Makerere University College of Health sciences, School of Public Health, Kampala, Uganda

²University of Kinshasa; School of Public Health, Kinshasa, D.R. Congo

³Barumbu General Referral Hospital, Kinshasa, D.R. Congo

⁴The Cheikh-Anta-Diop University (UCAD), Dakar Senegal

⁵Faculty of Public Health, College of Medicine, University of Ibadan, Nigeria

&Corresponding author: Suzanne Namusoke Kiwanuka, Makerere University College of Health sciences, School of Public Health, Kampala, Uganda, Email: skiwanuka@musph.ac.ug

Introduction: The COVID-19 pandemic presented a myriad of challenges for the health workforce around the world due to its escalating demand on service delivery. In some settings incentivizing health workers motivated them and ensured continuity in the provision of health services. We described the incentive strategies and their distribution across the health workforce in four African countries during the COVID-19 response. The disincentives experienced by health care workers during the pandemic were documented.

Methods: A qualitative multi-country research involving four countries namely: - (DRC), Nigeria, Senegal and Uganda to assess their health system response to COVID-19. We conducted key informant interviews (n=60) with staff at ministries of health, policy makers and health workers. Interviews were face to face and virtual using the telephone or zoom. They were audio recorded, transcribed verbatim and analyzed thematically.

Results: Health worker incentives included (i) Financial rewards in the form of allowances and salary increments. These motivated health workers, sustaining the health system and the health workers' efforts during the COVID-19 response across the four countries. (ii) Non- financial incentives related to COVID-19 management such as provision of medicines/supplies, on the job trainings, medical care for health workers, social welfare including meals, transportation and housing, recognition, health insurance, psychosocial support, and supervision. Improvised determination and distribution of both financial and non-financial incentives was common across the countries.

Dis-incentives included lack of personal protective equipment, lack of transportation to health facilities during lockdown, long working hours, harassment by security forces and perceived unfairness in access to and inadequacy of financial incentives.

Conclusions: Financial incentives motivate health workers but must occur amidst supportive and well-resourced work environments. Financial incentives should be pre-determined, equitably provided and transparent in their distribution because arbitrarily applied financial incentives become dis-incentives. Decision makers should exercise due precautions to avoid dis-incentives for the workforce during emergencies.

Keywords: Health workforce, Incentives, Disincentives, COVID-19

Abstract ID : PP278

Evaluation du système de surveillance des décès maternels de juillet 2021 à juin 2022 dans le département du Couffo, Bénin

Nestor Sossoukpè^{1&}, Rosette Koufèdé², Nestor Dénakpo Noudèkè³, Mathilde Adjoavi Houssou³

¹Ministère de la santé, Aplahoué, Bénin

²Ministère de la Santé, Parakou, Bénin

³AFENET Bénin, Cotonou, Bénin

***Auteur correspondant:** Nestor Sossoukpè, I Ministère de la santé, Aplahoué, Bénin, sossoukpe@gmail.com

Introduction: Au Bénin, la surveillance des décès maternels a connu une amélioration depuis 2017. Dans le département du Couffo, il y a eu une évolution croissante du ratio depuis 2018 passant de 143,2 à 223,8 pour cents milles naissances vivante en 2021. L'objectif était d'évaluer le système de surveillance des décès maternels du département du Couffo de juillet 2021 à juin 2022.

Méthodes: Une étude transversale descriptive a été réalisée. Des interviews ont été menées auprès de 28 agents intervenant dans la surveillance. Le Guide CDC 2001 a été utilisé pour évaluer certains attributs à savoir la simplicité, l'acceptabilité, la qualité des données et la représentativité. Les données ont été traitées avec Epi info 7.2 pour un seuil minimal de 80% par attribut et des mesures de fréquences ont été calculées.

Résultats: Le système de surveillance des décès maternels du Couffo dispose d'un comité d'audit des décès dans les différentes zones sanitaires. La définition de cas des décès maternels n'était affichée dans aucune formation sanitaire ; 17 (65,4%) des enquêtées ont pu l'énoncer et ont jugé de sa facilité à être comprise et utilisée ; aussi 22 (84,6%) des personnes interrogées maîtrisent le circuit de transmission des fiches de notification et trouvent la transmission facile. Les décès notifiés à temps étaient 40 (87%) et 38 (82,6%) étaient audités dans le délai. La promptitude de la notification et la complétude de remplissage des fiches étaient de 100%.

La représentativité était bonne car les données pouvaient décrire les cas en temps, lieu et personne.

Conclusions: Le système de surveillance des Décès Maternels du département du Couffo est fonctionnel, utile, acceptable et représentative avec des données de qualité. Sa simplicité reste à améliorer par le briefing régulier des agents.

Mots-clés: Décès maternels, Grossesse, Naissance vivante, Bénin

Abstract ID : PP279 **Evaluation du système de surveillance de la méningite dans le département de l'Alibori, Bénin, 2017 à 2021**

Zoubérou Bio Béri¹*, Virgile Hounkpè², Nestor Dénakpo Noudèkè³, Mathilde Adjoavi Houssou³

¹Direction Départementale de la santé, Kandi; Bénin;

²Direction Départementale de la Santé; Parakou; Bénin;

³AFENET; Cotonou, Bénin

***Auteur correspondant:** Zoubérou Bio Béri, Direction Départementale de la santé, Kandi ; Bénin, Email : bioberizouberou@yahoo.fr

Introduction: La méningite est une inflammation des méninges. En 2020, 819552 nouveaux cas et 885 décès sont signalés par les pays africains de la ceinture méningitique. La létalité de la méningite dans ces pays est de 5-14 % depuis 2010. Elle était de 17% au Bénin. En 2020, l'Alibori enregistrait une létalité de 10,6%. La méningite est sous surveillance dans l'Alibori à travers un système de surveillance intégrée qui doit être évalué régulièrement pour réorienter les interventions. Ce système n'est jamais évalué d'où le but de notre étude de l'évaluer afin d'améliorer ses performances.

Méthodes: Notre étude est transversale descriptive. Les directives actualisées du guide « CDC-Atlanta 2001 » ont été utilisées pour évaluer le fonctionnement et les attributs. Des interviews ont été réalisées auprès de 56 agents de la surveillance. Les données ont été analysées avec Epi-info 7.2 au seuil de 80% comme objectif à atteindre pour chaque attribut. Des fréquences relative et absolue ont été calculées.

Résultats: La définition de cas était simple et facile à utiliser pour 98,65% des enquêtés. Le circuit de notification était simple selon 45% des enquêtés.

La promptitude des notifications était de 99% avec une complétude des rapports de 100%. Les données reflètent les caractéristiques des cas en termes de temps, lieu et personne d'où une bonne représentativité ; Les cas provenaient des 6 communes. Le système a permis la détection une épidémie causée par *Neisseria meningitidis* X et C en 2019. Les investigations et la riposte vaccinale ont été réalisées.

Conclusions: Le système de surveillance de la méningite dans l'Alibori était utile, simple, acceptable, représentatif. La sensibilisation des agents sur le circuit de notification et le bon remplissage des fiches de notification rendra le système plus performant.

Mots-clés: Méningite, Etude transversale, Vaccination, *Neisseria meningitidis*, Bénin

Abstract ID: PP288 **Factors associated with acute bacterial meningitis before and after the introduction of conjugate vaccine A in 2017 in Mali – Bamako, 2021**

Toumani Sidibe³*, Oumar Sangho², Djibril Barry¹, Asset Dembele³, El Hadj Issa Amaguiré Sy³, Jean Kabore⁴, Pauline Kiswendsida Yanogo¹, Bouyagui Traore⁵, Hanine Keita⁵, Nicolas Meda¹

¹Epidemiology and Laboratory Training Program, Ouagadougou, Burkina Faso

²Department of Teaching and Research in Public Health/ Faculty of Medicine and Odontostomatology, Bamako, Mali

³Directorate General of Health and Public Hygiene, Bamako, Mali

⁴Institute for Research in Health Science, Ouagadougou, Burkina Faso

⁵Field Epidemiology Program Training, Bamako, Mali

***Corresponding author:** Toumani SIDIBE, Directorate General of Health and Public Hygiene, Bamako, Mali, Tel: (00223) 76 36 19 68, Email: sidibetoumani84@yahoo.fr

Introduction: Acute bacterial meningitis is a public health problem, due to its epidemic potential despite the vaccination strategies adopted. The objective of this study was to study the epidemiological profile and the factors associated with acute bacterial meningitis before and after the introduction of the conjugate vaccine A in Mali.

Methods: This is a cross-sectional study with an analytical aim. All samples received at the National Reference Laboratory for suspected meningitis from 2014-2019 were included in this study.

Results: We recorded 646 patients with acute bacterial meningitis including 330 before and 316 after the introduction of the conjugate vaccine A in Mali.

Children under the age of one were the most affected. *S pneumoniae* was the most responsible 186 (56%) of acute bacterial meningitis before the introduction against 176 (56%) after the introduction of the conjugate vaccine in children under one year old.

The introduction of the conjugate vaccine A has led to the disappearance of acute bacterial meningitis due to meningococcal A. However, other strains of meningococci *Neisseria meningitidis* C, X and W135 remain the most responsible for acute bacterial meningitis in children over 5 years.

The age groups of less than one year ($p < 0.001$), 5 – 14 years, 14 – 29 years ($p < 0.001$), people living in rural areas ($p < 0.001$) and the cloudy aspect of the CSF ($p < 0.001$) were independently associated with acute bacterial meningitis in Mali.

Conclusions: Acute bacterial meningitis remains a public health problem despite the disappearance of meningococcal A. good vaccine coverage remains the only solution for the elimination of meningitis by 30 years, taking into account changes in serotypes at the time of origin of epidemics in the meningitis belt.

Keywords: Factors, acute bacterial meningitis, Mali

Abstract ID: PP289

Sierra Leone Reducing Maternal Mortality in the last five years, 2016 – 2021: A secondary data analysis on MDSR System

Zainab JuhehBah^{1,2}, Amara Alhaji Sheriff^{1,2,3}, Kassim Kamara², Adel Hussein Elduma^{1,3}, Solomon Aiah Sogbeh^{1,2,3}, Umaru Sesay^{1,2,3}, Francis Moses², Tom Sesay², Gebrekrestos Negash Gebru^{1,3,&}

¹Sierra Leone Field Epidemiology Training Program, Freetown, Sierra Leone; ²Ministry of Health and Sanitation, Freetown, Sierra Leone; ³African Field Epidemiology Network, Freetown, Sierra Leone

&Corresponding author: Gebrekrestos Negash Gebru, African Field Epidemiology Network, Freetown, Sierra Leone, Email: ggebru@afenet.net

Introduction: Globally, Sierra Leone was among countries with the highest maternal mortality ratio (MMR) at 717 per 100,000 live births in 2019. Since then, anecdotal reports show a rapid decline in the MMR. However, limited information exists on the trend, and underlying factors contributing to maternal deaths. This study aimed to describe the trends, distributions, and causes of maternal mortality in Sierra Leone.

Methods: A retrospective descriptive analysis was conducted using data for 2016-2021 extracted from the National Electronic Maternal Death Surveillance and Response System database. We analyzed key variables including age, place and time of death, gravidity, and cause of death. We calculated frequencies, proportions, and ratios using Microsoft Excel.

Results: A total of 3,491 maternal deaths were recorded out of 1,312,951 live births from 2016 to 2021. The average MMR was 266 deaths per 100,000 live births, ranging from 319 to 255 per 100,000 live-births in 2016 and 2021 respectively. Of the 3,491 maternal deaths, 84% (2948) were investigated and reviewed, and 90% (2465) were notified within 24 hours after death. The median age of decedent mothers was 27 years (range: 12 to 50 years), age group 25-34 years accounted for almost half, 45% (1552/3491), of the deaths. Multigravida women accounted for 41% (1353/3491) of deaths. Most maternal deaths, 79% (2,767/3491) occurred at health facilities, of which 75% (2,065/2767) were from referral hospitals. Haemorrhage was the leading cause of maternal deaths

at 43% (1,489/3491), followed by hypertensive disorder at 17% (577), Indirect causes at 13% (437), and the least was from abortion/ectopic 3% (97).

Conclusions: There was a decline in maternal death from 2016 to 2021. Haemorrhage was the leading cause of maternal death. We recommend the Ministry of Health and Sanitation implement targeted strategies on haemorrhage prevention and further reduction of maternal mortality in Sierra Leone.

Keywords: Maternal Mortality Ratio, Maternal Death, Cause of death, haemorrhage, Sierra Leone

Abstract ID: PP291

Assessment of Undernutrition in Children aged 6 to 59 months enrolled at Doldol Subcounty Hospital Nutrition Clinic, Laikipia County, 2019 - 2023

David Mwangi Kariuki¹ & Maryanne Gachari², Godfrey Habil¹

¹Department of Health- Laikipia County, Nanyuki, Kenya, ²Kenya Field Epidemiology and Laboratory Training Program, Nairobi, Kenya

&Corresponding author: David Mwangi Kariuki, Department of Health-Laikipia County, Nanyuki, Kenya, damka92@gmail.com

Introduction: Childhood undernutrition in sub-Saharan Africa continues to have unfavourable morbidity and mortality outcomes. Since 2021, Laikipia North Subcounty has experienced prolonged drought, limiting food access. Subsequently, inadequate dietary diversity has caused an increase in cases of undernutrition at Doldol Subcounty Hospital.

This study aimed to: characterize biodemographic factors of children <5 years enrolled at Doldol Subcounty Hospital Nutrition clinic, determine proportion undernourished children <5 years, assess enrollment trend from 2019 to 2023, and conduct a data quality analysis (DQA).

Methods: This was a retrospective descriptive study. We abstracted secondary data on socio-demographic, time and clinical factors from the Child Nutrition Service Register for all children aged 6 to

59 months at first enrollment between 2019 and 2023. We determined Child Growth indicators using the WHO Child Growth Standards tables.

We defined undernutrition as mid-upper arm circumference (MUAC) <12.5cm or any growth indicator <-2 standard deviations (SD) from the median of reference population.

We cleaned and analysed the data with Microsoft Excel using frequencies and proportions for categorical variables, and mean with standard deviation or median with interquartile range (IQR) for continuous variables. We conducted DQA to assess completeness using a standard CDC tool.

Results: Data of 341 enrolled children was analysed. Their median age was 24 (IQR=34.5) months, 45.5% were aged 6 to 23 months. Girls were 50.4%. Residents of Seek village were 13.2%. Means for height, weight and MUAC were 84.9±14.7cm, 9.7±2.9kg, 12.8±0.9cm respectively. Overall, 75.9% of the children were wasted, 61.3% were underweight and 31.6% were stunted. Enrollment declined by 9.9% between 2019 and 2021 then increased by 43.7% from 2021 to 2023. The weighted DQA average was 66.5%.

Conclusions: A majority of the children were wasted with significant increase in overall childhood undernutrition from 2021 noted. We recommend targeted anthropometric screening with appropriate linkage to care.

Keywords: Africa South of the Sahara, Malnutrition, Thinness, Child, Retrospective studies

Abstract ID : PP294

Facteurs associés au décès des nouveau-nés de faible poids de naissance au centre hospitalier universitaire de Tengandogo, Burkina Faso, 2013-2017

Yewayan Berenger Kabore¹ & Noëlie W. Zougrana², Hamadou Seogo¹, Denis Yelbeogo¹

¹African Field Epidemiology Network, Ouagadougou, Burkina Faso ; ²Ministère de la santé, CHU Tengandogo, Ouagadougou, Burkina Faso

&Auteur correspondant: Yewayan Berenger KABORE, African Field Epidemiology Network,

Introduction: La mortalité hospitalière des faibles poids de naissances des nouveau-nés demeure préoccupante en Afrique sub-saharienne avec des taux de décès allant jusqu'à 38%. Notre étude avait pour objectif d'étudier les facteurs associés au décès chez les nouveau-nés de faible poids au centre hospitalier universitaire de Tengandogo (CHU-T) selon le terme de la grossesse.

Méthodes: Nous avons réalisé une étude de cohorte rétrospective portant sur les nouveau-nés de faible poids de naissance hospitalisés au CHU-T du 1er janvier 2013 au 31 décembre 2017. Était considéré comme faible poids de naissance tout nouveau-né dont le poids de naissance était inférieur à 2500 g. Nous avons calculé l'incidence de décès, les probabilités de survie. Nous avons utilisé le modèle de Cox en analyse multivariée. Le seuil de signification des différents tests utilisé était de 5%.

Résultats: Le taux d'incidence global était de 22 décès pour 1000 nouveau-nés-jour d'hospitalisation. La survie était inférieure chez les nouveau-nés de faible poids de naissance et prématurés comparée aux nouveau-nés de faible poids de naissance à terme (p-value du log-rank test = 0,07). En régression multivariée selon le modèle de Cox, la présence de signes cliniques à l'admission HRa=2,34, IC à 95% [1,05-5,22], le temps de naissance supérieur à 7 jours avant l'hospitalisation HRa=3,06, IC à 95% [1,10-8,47], le sexe masculin HRa=1,64, IC à 95% [1,03-2,61], l'extrême faible poids de naissance HRa=4,87, IC à 95% [2,63 ; 9,02] étaient associés au risque de survenue de décès chez les prématurés. Le taux d'hémoglobine ≥ 14 g/dl était un facteur protecteur contre la survenue du décès.

Conclusions: L'amélioration de la survie des prématurés de faible poids de naissance au CHU-T est tributaire de leur prise en charge clinique, de l'admission précoce dans les unités spécialisées et la gestion des extrêmes faibles poids de naissance.

Mot-clés: : nouveau-né, faible poids de naissance, facteurs de risque, décès, Tengandogo

Abstract ID: PP300

Investigation of a confirmed case of human rabies in the health area of Béléko, Fana, Mali, April 2022

Youssouf Diawara^{1,*}, Ousmane Boua Togola², El hadj Issa Amaguiré Sy², Bouyagui Traoré³, Sadou Ongoïba⁴, Moussa Tan-oulé Keïta¹, Youssouf Samaké¹, Yacouba Koné², Oumar Sangho⁵, Boubacar Dianéké Coulibaly⁶

¹Reference Health Centre, Fana, Mali

²Directorate General of Health and Public Hygiene, Bamako, Mali

³Field epidemiology training programme, Bamako, Mali

⁴Ségou Regional Health Department, Mali

⁵Public Health Teaching and Research Department, Bamako, Mali

⁶Veterinary post in Fana, Mali

***Corresponding author:** Dr Youssouf Diawara, Fana reference health center, Fana, Mali, Téléphone: (00223) 74 49 40 20 / 63 44 81 72. Email: diakdiaw60@gmail.com

Introduction: Rabies is an almost always fatal disease, responsible for around 55,000 deaths a year. The notification of a case of human rabies in the Béléko health area led to an investigation to describe the case, measure the extent of the problem and establish control measures.

Methods: This was a descriptive cross-sectional study conducted between February 07 and May 30, 2022 in the Béléko health area. Subjects included contacts of the confirmed case, those who had been bitten by a suspect animal and suspect animals. Data were collected by interview, documentary review of data collection media, and active case finding in the community.

Results: A 50-year-old woman living in Béléko was bitten on the right ring finger by an unvaccinated puppy about a month earlier, developed signs of human rabies and subsequently died. A total of 3 people out of 13 (contact cases), or 23%, were bitten by the same puppy. Of these contact cases, 61.5% (8/13) were aged 30 and predominantly male, with 76.9% (10/13) and 69.2% (9/13) residing in Béléko.

No postexposure prophylaxis had been performed. No contacts showed signs of rabies. Biting dogs were slaughtered after follow-up. All contacts were vaccinated.

Conclusions: The investigation enabled us to gather information on the case and locate contacts, so that we could take the necessary steps to contain the disease. Systematic consultation in the event of an animal bite is essential.

Key words: investigation, human rabies case, Fana, Mali

Abstract ID: PP305

Has the COVID-19 pandemic affected tuberculosis control in Sierra Leone? -A retrospective secondary data analysis, 2019-2022

Josephine Amie Koroma¹, Adel Hussein Abdallah², Jean Leonard Hakizimana², Amara Alhaji Sheriff², Kassim Kamara², James Sylvester Squire², Gebrekrstos Negash Gebru^{3,&}

¹National Tuberculosis Leprosy Program, Ministry of Health and Sanitation, Freetown, Sierra Leone

²Sierra Leone Field Epidemiology Training Programme, Freetown, Sierra Leone

³African Field Epidemiology Network, Freetown, Sierra Leone

&Corresponding author: Gebrekrstos Negash Gebru, African Field Epidemiology Network, Freetown, Sierra Leone, Email: ggebru@afenet.net

Introduction: Globally, tuberculosis remains the leading cause of death from a single infectious disease. Sierra Leone was making progress in tuberculosis reduction before the COVID-19 pandemic. However, the government prioritized the COVID-19 response over other health priorities, including tuberculosis, which may have affected tuberculosis control measures. We aim to assess the impact of the COVID-19 pandemic on the control of tuberculosis in Sierra Leone.

Methods: Data were extracted from the National Tuberculosis Control Programme from January 2019 to 2022. We calculated the tuberculosis case detection rate, the treatment success rate (target: 90%), the

case notification rate (target: 90%), and death from tuberculosis (31 per 100,000). We compared key indicators before, during, and after the COVID-19 pandemic to assess the impact of the pandemic on tuberculosis control.

Results: The incidence rate of tuberculosis per 100,000 population was 295 in 2019. During the peak of the pandemic in 2020, the rate increased to 298 per 100,000 people. However, it dropped to 286 per 100,000 population in 2022. The case detection rate decreased from 76% in 2019 to 65% in 2020. However, the rate increased to 80% in 2022. The treatment success rate decreased from 89% in 2019 to 87% in 2020. But, in 2020 it increased to 91%.

Loss to follow-up increased from 3% in 2019 to 4% in 2020. Tuberculosis-associated deaths increased from 4% in 2019 to 5% in 2021. Tuberculosis case notification decreased from 78% in 2019 to 65% in 2020.

Conclusions: In Sierra Leone, the COVID-19 pandemic had a negative impact on tuberculosis control. We observed a decrease in the tuberculosis treatment success rate, the rate of notification of cases, and an increase in lost to follow-up. We recommend the National Tuberculosis Control Programme improve tuberculosis control measures and develop strategies to mitigate the impact of future large-scale outbreaks on tuberculosis control interventions.

Keywords: Tuberculosis, the impact of the COVID-19 pandemic, Sierra Leone

Abstract ID: PP310

Epidemiological Profile and Treatment outcome of tuberculosis cases at Moyamba District, Sierra Leone, 2023: A retrospective study

Joseph. Sam^{1,&}, Anna. Jammeh², Amara Alhaji. Sheriff², Adel Hussein. Elduma², Solomon Aiah. Sogbeh², Umaru. Sesay², Gebrekrstos Negash. Gebru²

¹National Tuberculosis program, Ministry of Health and Sanitation, Sierra Leone, Freetown, Sierra Leone

²Sierra Leone Field Epidemiology Training Program, Freetown, Sierra Leone

***Corresponding author:** Joseph Sam,
National Tuberculosis program, Ministry of Health
and Sanitation, Sierra Leone, Freetown, Sierra Leone
Email: joekinisam@gmail.com

Introduction: Tuberculosis (TB) remains one of the oldest debilitating infectious diseases globally but disproportionately affect the world's poor. Globally, TB is the leading cause of death from a single infectious agent. Sierra Leone is one of the countries with a very high burden of tuberculosis with an estimated incidence of 289 per 100,000 populations. Treatment success rates and enhanced case detection are critical indicators for evaluating the TB control program performance in Sierra Leone. We analysed TB surveillance data from Moyamba District to determine the burden, trends, distribution, and treatment outcome.

Methods: We conducted a descriptive analysis of all TB cases registered from 2020-2022 in all 12 Directly Observed Treatment (DOT) facilities within Moyamba District. We extracted data from the monthly TB reports, District Health Information system2 (DHIS2), district laboratory and treatment registers. Data collected included: disease status, age, sex, sub-district, and treatment status. Analysis was done to determine frequencies, proportions, and rates.

Results: A total of 1,481 TB cases were registered, of which 8.2% (122) were diagnosed with extra-pulmonary tuberculosis whilst 91.8% (1360) had pulmonary tuberculosis. Of the total, 53% (789/1481) were males and the most affected age group was between 25-44 years of age and a median age of 29 years. The incidence per 100,000 populations were: 97.9, 85.1 and 147.4 for 2020, 2021 and 2022 respectively. The prevalence of HIV positive TB cases among new and relapsed cases was 36.4% (494/1355) whilst TB positive cases on ART treatment was 10% (136/1355). Of the 923 who had a documented treatment outcome, 86.8% had successful treatment rate, 0.6% treatment failure, 4.2% died and 1% were lost to follow up.

Conclusions: The high incidence of pulmonary tuberculosis showed there is a high probability of community transmission. We recommend mass sensitization and active case search of suspected cases.

Keywords: Tuberculosis, Data, co-infection, Relapse, extra-pulmonary

Abstract ID : PP311

Evaluation du système de surveillance de la rougeole dans la zone de santé de N'Djili, Kinshasa, République Démocratique du Congo, 2021 à 2022

Fabrice Sewolo Matondo^{1,*}, Betty Mununga Tshakena², Belinda Ayumuna Malasi³, Gauthier Mubenga Mashimba³, Ken Kayembe Mabika³, Linda Matadi Basadia³, Alain Nzanzu Magazani³, Leopold Lubula Mulumbu⁴

¹Programme de formation en épidémiologie de terrain (FETP), Ecole de Santé Publique de l'Université de Kinshasa, République Démocratique du Congo

²Programme de formation en épidémiologie de terrain (FETP) niveau Avancé cohorte ⁶, Kinshasa, République Démocratique du Congo.

³Bureau de coordination AFENET, République Démocratique du Congo. ⁴Direction surveillance épidémiologique, République Démocratique du Congo

***Auteur correspondant:** Fabrice Matondo Sewolo, Apprenant Programme de formation en épidémiologie de terrain (FETP), Ecole de Santé Publique de l'Université de Kinshasa, Kinshasa, République Démocratique du Congo, +243895583066, fsewolo@gmail.com

Introduction: En 2022, la zone de santé (ZS) de N'djili a été la deuxième zone de santé la plus touchée par la rougeole dans la ville de Kinshasa. L'objectif de cette étude était d'évaluer les performances du système de surveillance épidémiologique dans la ZS de Ndjili de 2021 à 2022.

Méthodes: Les attributs du système de surveillance de la rougeole ont été évalués selon les directives d'évaluation des systèmes de surveillance en santé publique des Centres de Contrôle et de Prévention des maladies et les normes de surveillance des maladies évitables par la vaccination de l'Organisation Mondiale de la Santé dont la représentativité, la valeur prédictive positive (VPP), la simplicité et la réactivité. Les données secondaires de surveillance de la rougeole de 2021 à 2022 ont été collectées à partir d'un questionnaire semi structuré. Les acteurs clés du niveau central, intermédiaire et zonale ont été interviewés. Epi info 7.2.3 a été utilisé pour le traitement et l'analyse des données.

Résultats: Au total 13 acteurs ont été interviewés et avaient une expérience professionnelle médiane de 15 [xmin=11 et xmax=19] ans ; 72 % ceux du niveau zonal n'étaient pas formés en surveillance intégrée de maladies et riposte troisième édition.

Les formulaires de données de surveillance étaient correctement remplis à 95%. La complétude était 61,5%, le système était simple à 74%, acceptable à 60%. La représentativité était de 89%. La probabilité du système de surveillance à détecter un cas de rougeole était de 67%. La VPP était de 18%. La réactivité du système était de 63%.

Conclusions: Le système de surveillance a permis de confirmer l'épidémie dans cette zone. Cependant, ce système est peu satisfaisant et manque de simplicité et l'adhésion des acteurs. Il n'est pas sensible ni réactif avec une faible VPP. Les fonctions de soutien doivent être mises en œuvre pour améliorer le système.

Mots Clés : Evaluation du système de surveillance, rougeole, N'djili, République Démocratique du Congo, RDC

Abstract ID: PP315 **Analysis of Tuberculosis Laboratory Data, Southeast district, Botswana, September 2022**

Ketshepaone Herry^{1,&}, Ogopotswe Kgoleyamotho², Nesredin Jami Oumer³, Uzoma Ogbonna³

¹Bamalete Lutheran Hospital laboratory, Southeast district, Botswana

²Southeast District health management team, Southeast, Botswana

³African Field Epidemiology Network, Field Epidemiology Training Program, Gaborone, Botswana.

&Corresponding author: Ketshepaone Herry, Southeast District Health Management Team, Southeast, Botswana. Email: bherry73@gmail.com

Introduction: Botswana is listed among the high burden countries for Tuberculosis (TB) and has one of the highest TB incidence globally (>300/100,000 persons). TB is potentially fatal to humans but curable. The laboratory aids in diagnosis, treatment, and monitoring drug resistance patterns. In Southeast

District Botswana however, little is known about TB trends and drug resistance as laboratory data has never been analyzed.

This study described confirmed cases, assessed prevalence of Rifampicin Resistant TB (RR-TB) and laboratory turnaround time.

Methods: A retrospective descriptive study using data collected from January 1, 2019, to December 2021 at the Bamalete Lutheran Hospital laboratory (BLHL), Southeast, Botswana.

A presumptive case was defined as person with chronic cough and fever, weight-loss, and night-sweats, confirmed cases were those who tested positive using GeneXpert.

Presumptive cases from district health facilities were referred to BLHL for confirmatory testing using GeneXpert. From laboratory TB registers, we obtained data on age, sex, test outcome, dates of when specimen was received, analyzed, and the Results sent to the physician. Furthermore, data was obtained on RR-TB, and HIV status. Frequencies, proportions, and case notification rates (CNR) were calculated.

Results: 141 (9.7%) of 1,460 presumptive cases tested positive, all were new cases. 53 (CNR: 48/100,000 persons) cases in 2019, 39 (CNR: 35/100,000 persons) in 2020, and 49 (CNR: 44/100,000 persons) in 2021. Age group 40–49 years accounted for 37 (26%) cases, and 30–39 years for 31 (22%).

Overall, 97 (69%) were males, 37 (CNR: 67/100,000 males) in 2019, 23 (CNR: 43/100,000 males) in 2020 and 37 (CNR: 70/100,000 males) in 2021. 56 (39.6%) were co-infected with HIV, 23 (42%) in 2019, 16 (41%) in 2020 and 17 (35%) in 2021. No case was resistant to rifampicin. 128 (92%) met the prescribed turnaround time.

Conclusions: This study revealed a zero RR-TB prevalence among new TB cases. We recommend continued directly observed treatment, and continuous surveillance of RR-TB to maintain low RR-TB rate.

Keywords: TB/HIV coinfection, Botswana, Laboratory

Abstract ID: PP317

Investigation of a cluster of illness and deaths, Dutlwe Village, Kweneng East, Botswana, November, 2022

Gofaone Mogorosi^{1,&}, Terrence Mukuhwa¹, Nesredin Jami Oumer², Uzoma Ogbonna²

¹Kweneng-east District Health Management Team, Kweneng-east, Botswana.

²African Field Epidemiology Network, Field Epidemiology Training Program, Gaborone, Botswana.

&Corresponding author: Gofaone Mogorosi, Kweneng-east District Health Management Team, Kweneng-east, Botswana. Email: goofymogorosi@gmail.com

Introduction: On 15th November 2022, Kweneng district health management team received an alert from Dutlwe local clinic, reporting three cases (CFR: 67%) of suspected food poisoning. From 15th – 30th November 2022, a rapid response team led by a frontline field epidemiology trainee investigated to confirm the diagnosis, identify the source, characterize the extent of the problem, and institute control measures.

Methods: Case was defined as any person in Dutlwe presenting with excessive-sweating and dizziness, and one of diarrhea or vomiting from 13th – 15th November 2022. We interviewed case-patients, caregivers, and health-workers. Food, water, and postmortem biological samples were obtained and analyzed at National Food Control Laboratory, Botswana. We conducted active case-finding and described cases using frequencies, proportion, and summary statistics.

Results: We identified six case-patients (four females), with two deaths (CFR: 33%). Median age was 53.5 years (range:35-61 years). Five were members of same household (attack rate: 83%), sixth, a visitor. Case-patients presented with excessive-sweating(100%), dizziness(100%), diarrhea(100%), and vomiting(83%). Household sourced drinking water from a standpipe in the neighbours' compound, no case arose from this compound. Water samples from household storage containers revealed 650 µg/l (compliance standard - <70µg/l) cyanide, 414000 µg/l (compliance standard - <8000µg/l), Total Organic Carbon (TOC), >100CFU

total coliforms (compliance standard – not to be detected in 100ml of water [ND]), and >100CFU fecal coliforms (compliance standard –ND) and >100CFU Escherichia coli (compliance standard –ND). Water samples from standpipe had <70 µg/l cyanide and <500 µg/l TOC, >100CFU total coliforms, >100CFU fecal coliforms, and >100CFU Escherichia coli. Post-mortem Results revealed methomyl in tissue samples.

Conclusions: We confirmed cyanide and methomyl poisoning among household members in Kweneng-east district from contaminated household water. We collaborated with the police and engaged the community members on disposal of waste, water treatment and storage. We recommend further investigation to ascertain source of cyanide and methomyl.

Keywords: Poisoning, Cyanide, Methomyl, Botswana

Abstract ID: PP319

Evaluation of COVID-19 Surveillance System in Ogun State, Nigeria: April 2020 – May 2021

Adesoji Olatunde Odukoya^{1,2,&}, Magbagbeola David Dairo³, Yusuff Akeem Hakeem⁴, Olukemi Titilope Olugbade^{1,5}, Muhammad Shakir Balogun⁶

¹Nigeria Field Epidemiology and Laboratory Training Programme, Abuja, Nigeria

²Department of Veterinary Services and Pest Control, Federal Ministry of Agriculture and Rural Development, Abuja, Nigeria

³Department of Epidemiology and Medical Statistics, Faculty of Public Health, College of Medicine University of Ibadan, Ibadan, Nigeria

⁴Ministry of Health, Abeokuta, Nigeria

⁵Department of Community Health, Obafemi Awolowo University Teaching Hospitals Complex, Ile-Ife, Nigeria

⁶African Field Epidemiology Network, Abuja, Nigeria

&Corresponding author: Adesoji Olatunde Odukoya, Department of Veterinary Services and Pest Control, Federal Ministry of Agriculture and Rural Development, Abuja, Nigeria, E-mail: adesojiodukoya@gmail.com

Introduction: The COVID-19 pandemic in Nigeria is part of the worldwide pandemic of coronavirus disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). Surveillance evaluation determines whether public health emergency has been monitored efficiently, achieving its objectives and decision-making is being informed by the system data. An effective surveillance system is needed to efficiently control disease outbreaks. We therefore assessed the capacity of the COVID-19 surveillance system for early detection of outbreak, monitor the spread and progress of the pandemic and effectiveness of measures instituted to control the outbreak.

Methods: We used the CDC's Updated Guidelines for Evaluating Public Health Surveillance Systems in evaluating the Ogun State COVID-19 surveillance system. We analyzed data for the period of April 2020-May 2021 from the Epidemiology Unit of the Ministry of Health.

We assessed the attributes of the system and positive predictive value through key informant interview and COVID-19 surveillance data. We used the evaluation Methods and scoring system to rate performance for each quantitative indicator as follows: <60% (poor performance); 60–79% (moderate performance); ≥80% (good performance).

Results: The attributes of the system revealed that usefulness score was 95%, simplicity 87.4%, flexibility 65%, data quality 77.5%, acceptability 78%, timeliness 76%, sensitivity 84.5%, representativeness 89.5%, stability 76%, between April 2020 to May 2021. The predictive value positive of the system is 6.7 %.

Conclusions: There was no functional laboratory in the State for testing COVID-19 samples at beginning of the pandemics. The attribute of the system assessed were commendable and possess quality characteristics that may have contributed to early detection and identification of COVID-19 in Ogun State.

The positive predictive value of the system is low, indicating large number of people with false positive Results will inevitably be confirmed to have COVID-19. Therefore, there is a need to establish an appropriate and adequate laboratory support system.

Keywords: Surveillance system, Evaluation, COVID-19, pandemic, Ogun State

Abstract ID: PP322

The Role of Eating Out and Physical Contact with a Patient in Cholera Transmission in Salima District, Malawi October 2022

Akuzike Tauzi Banda^{1,8,&}, Noel Khunga^{2,8}, Mercy Mziya^{3,8}, Wamaka Msopole^{4,8}, Edward Chitete^{5,8}, Marvin Phonera^{6,8}, Good William Mlotha^{7,8}, Amiri Yusuph Juya⁸

¹National Malaria Control program, Ministry of Health, Lilongwe, Malawi; ²Public Health Institute of Malawi, Ministry of Health, Malawi; ³National Tuberculosis and Leprosy Elimination Program, Ministry of Health, Lilongwe, Malawi; ⁴Chikwawa District Hospital, Chikwawa, Malawi; ⁵Blantyre District Health Office, Blantyre, Malawi; ⁶Department of animal Health and Livestock Development, Central Veterinary Laboratory, Lilongwe Malawi; ⁷Zomba District Hospital, Zomba, Malawi; ⁸Malawi Field Epidemiology Training Program, Public Health Institute of Malawi, Ministry of Health, Malawi

&Corresponding Author: Akuzike Tauzi Banda, National Malaria Control program, Ministry of Health, Lilongwe, Malawi; akuzikebandak@gmail.com. Introduction: As of September 04, of 2021/22 cholera season, eighteen districts in Malawi had reported cholera cases. Cumulatively 1862 cholera cases including 72 deaths were recorded. By October 18, 2022, Salima district recorded 149 cases within 7 days. Outbreak investigation was done to determine the magnitude and risk factors.

Methods: An unmatched, 1:1 ratio case-control study was used to investigate the outbreak. Line list was used to identify cases. Controls were relatives or neighbors to the case. Six health workers were also interviewed. Logistic regression was used to calculate odds ratios. Environmental assessment was conducted. Stool and water samples were not collected because the district team had already collected 11 stool samples and tested in the laboratory.

Results: Of the 43 cases interviewed, (79%) were males and (21%) females. Median age was 25 years (range of 2 - 75 years). Majority of cases (40%) belonged to the age group of 20 to 30 years and most of them were fishermen (44%). Of the 11 stool samples tested in the laboratory, (91%) were positive for *Vibrio*

cholerae 0139. Only three (50%) of the interviewed health workers reported to receive formal training on cholera diagnosis. Risk factors identified for cholera transmission in Salima were; sex (female/male), OR=0.13, 95% CI=0.05–0.34, $p < 0.001$, history of eating out, OR=2.86, 95% CI=1.19–6.85, $p = 0.018$, occupation (being a fisherman), OR=3.0, 95% CI=1.16–7.73, $p = 0.021$ and physical contact with a cholera case, OR=7.25, 95% CI= 2.39–21.96, $p = 0.001$.

Conclusions: The disease was spreading rapidly among the fishing communities. Poor hygiene and sanitation is a factor leading to the spread of the disease. We recommend that the district emphasize on health education on hygiene and sanitation at household and community levels, regular inspection of food premises and train health workers on cholera case management. Key words: Malawi, Salima, Cholera

Abstract ID: PP325 **Evaluation of distribution of Insecticide Treated Nets for Malaria prevention in Chikwawa District, Malawi, 2021/2022.**

Wamaka Blessings Msopole^{1,2, &}; Evanson Sambala^{2,3}

¹Chikwawa District Hospital, Chikwawa, Malawi.

²Malawi Field Epidemiology Training Program, Lilongwe, Malawi.

³Kamuzu University of Health Sciences, Blantyre, Malawi.

&Corresponding author: Wamaka Blessings Msopole, Chikwawa District Hospital, Chikwawa, Malawi, wmsopole@gmail.com

Introduction: The National Malaria Control Programme (NMCP) usually conducts a mass distribution campaign of insecticide-treated mosquito nets (ITNs) every three years. From the 15th to the 17th of November 2021, the NMCP distributed 428,514 nets to 166,564 households in Chikwawa district. The impact of the mass net distribution on malaria incidence at the district level has not been documented yet. This analysis sought to evaluate the incidence of malaria before and after mass net distribution.

Methods: This was a cross-sectional descriptive analysis that extracted aggregated data from the District Health Information System 2, a health information

system that houses national malaria data. Data for all suspected and confirmed cases and total deaths were extracted for the period of July 2020 to June 2022. Descriptive statistics and malaria incidence were calculated.

Results: In 2020/2021 there were 234,706 confirmed cases and an incidence of 379 (95% C.I 378-381) per 1,000 population. In 2021/2022 there were 143,681 confirmed cases and a lower incidence of 233 (95% C.I 232-234) per 1,000 population. Overall, there were fewer confirmed cases in the post-campaign period compared to the pre-campaign period.

Conclusions: There was a significant decrease in the incidence of malaria cases following the mass distribution of mosquito nets. Sleeping under insecticide-treated mosquito nets is a proven Methods for malaria prevention and mass net distribution needs to continue to ensure high coverage.

Keywords: Malaria, ITN, Chikwawa, Malawi

Abstract ID: PP329 **Evaluation of an Electronic Case-based Disease Surveillance System in Karene District, Sierra Leone, 2022**

Eldred Moore¹, Umaru Sesay^{1,2}, Alhaji Amara Sheriff^{1,2}, Solomon Aiah Sogbeh^{1,2}, Adel Hussein Elduma², Bridget Magoba², Gebrekrstos Negash Gebru^{2&}

¹Ministry of Health and Sanitation, Freetown, Sierra Leone; ²Sierra Leone Field Epidemiology Training Program, Freetown, Sierra Leone.

&Corresponding author: Gebrekrstos Negash Gebru; Sierra Leone Field Epidemiology Training Program; Freetown, Sierra Leone; ggebru@afenet.net

Introduction: In 2019, the Government of Sierra Leone introduced an electronic Case-based Disease Surveillance System (eCBDS) to enhance prompt data collection, analysis, and dissemination— for outbreak detection. To date, there is limited information on its performance. Here, we described the operation and assessed the surveillance system attributes in Karene district, to determine if the system is meeting its objectives.

Methods: We conducted a mixed-Methods study, from October to December 2022. We purposive selected and interviewed 15 stakeholders from ten health facilities to describe the operation and assessed qualitative attributes. We reviewed health facility registers and eCBDS database to assess quantitative attributes, from January to December 2022. We used a Likert scale to rank the system attributes as poor (<30%), average (30-70%), and good (>70%). We computed the scores by calculating the proportion of total respondents who answered each question. We then averaged the scores per attribute; and reported for quantifiable data.

Results: The eCBDS system functions as both an active and passive surveillance system. Data reporting is done immediately, and supervision is done quarterly. Simplicity and stability were average, with 66% of respondents saying the system was easy to operate and did not experience breakdown. Representativeness was average, with 65% of respondents stating the system captures all patient demographics. Acceptability was good, with 85% of respondents saying healthcare workers were willing to participate in the system. Data quality was good, with 97% of the records reviewed did not have any missing variables. Sensitivity was average, 69; and predictive-value-positive was good, 83%. Usefulness was average, with 67% of respondents saying the system's data was used to detect outbreaks.

Conclusions: The eCBDS system was useful in meeting its objective. To maintain a well-functioning system, we recommend regular supportive supervision and feedback be provided to healthcare workers on the performance of eCBDS system.

Keywords: Electronic case-based disease surveillance system, Disease outbreaks, Sierra Leone

Abstract ID: PP330

Evaluation of the Acute flaccid paralysis surveillance system in Southern Province, Zambia, 2020-2022

Nangoma Agness Haambote¹, James Zulu², Banda Dabwitso², Nyambe Sinyange², Situmbeko Mwangala³, Mushabati Mulengula³, Warren Malambo⁴, Jonas Hines⁴
¹Zambia Field Epidemiology Training Program, Lusaka, Zambia

²Zambia National Public Health Institute, Lusaka, Zambia

³Southern Provincial Health Office, Choma, Zambia

⁴U.S. Centres for Disease Control and Prevention, Lusaka, Zambia

&Corresponding Author: Nangoma Agness Haambote, Zambia Field Epidemiology Training Program, Lusaka, Zambia (haambotenangoma@gmail.com)

Introduction: Zambia continues to experience the threat of poliovirus, with wild-type and vaccine-derived outbreaks. Thus, ensuring high-quality acute flaccid paralysis (AFP) surveillance is critical to detecting any cases of paralytic polio.

However, Southern province has not met the national target of detecting at least 2 non-polio AFP (NP-AFP) cases per 100,000 children below 15 years. We did an AFP surveillance system evaluation in Southern Province to make recommendations for improvement.

Methods: We used CDC MMWR surveillance system evaluation guidelines to assess AFP surveillance in Southern province from 2020 to 2022. Data was collected at provincial, district, and facility levels. Sources of data included case investigation forms (CIFs), laboratory requisition forms, IDSR surveillance data, and a semi-structured questionnaire. Four districts were selected based on their performance using the NP-AFP rate with 4 facilities selected in each district using probability proportional to catchment population size. Descriptive analysis was applied for quantitative data while content analysis was used for qualitative data.

Results: Simplicity, acceptability, and representativeness are good (79% easy to use, 90% well integrated into work schedules, and all districts use the system). Stability and data quality are good with adequate supplies and 80% correctly filled in CIFs. Sensitivity is good as the NP-AFP rate is above 2 for 2020 to 2022. Flexibility and timeliness are fair (56% unwelcomed the introduction of stool runners). The positive predictive value is poor at 47%. Knowledge levels on the case definition of AFP (11%) and the full process of the surveillance system (21%) were poor.

Conclusions: The AFP surveillance system is useful for detecting cases of AFP and enables adequate investigating and reporting. The system requires increased training and mentorship of focal

point persons. Data quality audit meetings with all key stakeholders are recommended to improve data synchronization from facility, district, and provincial levels.

Keywords: Poliovirus, AFP Surveillance, non-polio AFP, Zambia

Abstract ID: PP333

Evaluation of the Acute Flaccid Paralysis (AFP) Surveillance System in Eastern Province, Zambia, 2020-2022

Chriswell Nkoloma^{1,2,4,&}, Martha Malasa^{1,2}, Dabwitso Banda^{1,2}, Nyambe Sinyange^{1,2}, Amos Hamukale^{1,2}, Jordan Banda³, Muzala Kapina²

¹Zambia Field Epidemiology Training Programme, Lusaka, Zambia

²Zambia National Public Health Institute, Lusaka, Zambia

³Eastern Provincial Health Office-Chipata, Zambia

⁴Levy Mwanawasa Medical University, Lusaka, Zambia

&Corresponding author: Chriswell Nkoloma, Zambia National Public Health Institute, Lusaka, Zambia, nkolomachriswell@gmail.com

Introduction: Poliomyelitis is an infectious disease that affects mostly children <15 years of age. In 2022, WHO declared outbreak of wild poliovirus detected in Malawi, and 4 more cases were reported in Mozambique's Tete province, the two countries bordering Zambia in the Eastern province.

We evaluated the AFP surveillance system for the Eastern province because it was identified as at risk due to its proximity to Malawi and Mozambique.

Methods: We used CDC MMWR attributes guidelines for evaluating public health surveillance systems; usefulness, simplicity, acceptability, timeliness, representativeness, flexibility, stability, data quality, sensitivity, and Positive Predictive Value. We visited four districts selected based on Non-polio AFP rate performance and sixteen health facilities randomly selected using probability proportional to catchment population size. We conducted key informant interviews for 20 HCWs using a semi-structured questionnaire. We also reviewed AFP surveillance CIFs from 2020-2022. We summarized data using frequencies and proportions.

Results: The Results showed that the system was good in terms of acceptability (100%) HCWs reported a positive attitude towards its use, representativeness (100%) of facilities participating in AFP activities, and stability (>80%) of supplies for specimen collection and packaging were available. However, we noticed poor performance on timeliness (most indicators <80% except one), simplicity (25%) of HCWs able to give full case definition for AFP, data quality as CIFs reviewed majority had missing data, sensitivity < 2/100,000 NP-AFP rate in children <15 years as compared to ≥2/100,000 NP-AFP annualized target, and Positive Predictive Value (PPV) of 53.3%.

Conclusions: Overall, the system is fair with improvements in attributes like sensitivity, data quality, and timeliness, it could be more effective and efficient in detecting and monitoring cases of AFP. Therefore, we recommend training HCWs, implementing data validation and verification exercise, and regular communication and feedback with HCWs.

Keywords: Zambia, acute flaccid paralysis, evaluation, poliovirus, surveillance

Abstract ID: PP334

Measles Outbreak Investigation in Raso District of Afder zone, Somali Region, Ethiopia, 2022

Ebsa File Terefa^{1,2,&}, Abdulnasir Abagero¹, Yohannes Dugasa Feyisa³. ¹Addis Ababa University College of Health Science, School of Public Health, Addis Ababa, Ethiopia. ²Ethiopian Field Epidemiology Training Program, Addis Ababa, Ethiopia. ³Ethiopian Public Health Institute (EPHI), Addis Ababa, Ethiopia

&Corresponding author: Ebsa File Terefa, 1Addis Ababa University College of Health Science, School of Public Health, Addis Ababa, Ethiopia, Email: fileebsa@gmail.com

Introduction: Measles is endemic in Ethiopia, with cases reported every year. Between 12 August 2021 and 1 May 2023, 16 814 laboratory-confirmed measles cases and 182 deaths – with a (CFR) of 1.1% nationally. Outbreak was reported from Raso district of Somali Region on March 27, 2022 (4th WHO week).

Methods: From 27th March 2023 to 29th April 2023, a total of 85 cases were actively searched from the community and health facilities using case definition of “anyone with fever, maculopapular rash, cough, coryza, or conjunctivitis in Raso District and line listed. Unmatched case control with 1:2 ratio was used: a total of 58 cases selected from total line list (sampling frame) using computer-generated simple random sampling and 116 controls were enrolled in the study. Five blood specimens were tested for Measles IgM and the remaining cases were epi linked.

Information for case control were gathered by standard and structured questionnaires and analyzed by Excel for Place, person time characteristics. Logistic regression was executed by SPSS; variables with P-Value <0.05 upon binary logistic regression were selected and included multiple logistic regression.

Results: The attack rate was 1.7/1000, and CFR was 2.3%. Children under 59 months had the highest attack rate (6.5/1000). Being unvaccinated (adjusted odds ratio/AOR with 95% confidence interval [CI]:1.039(1.026-1.256), contact with patients (AOR=3.22, 95% CI:1.05-11.17), moderate malnutrition (AOR=1.156, 95% CI: 1.085-1.210), family size greater than five (AOR = 1.32, 95% CI: 0.03-3.56), and being younger than five years of age (AOR=22.8, 95% CI: CI: 1.69-309.2) were shown significant associated with measles infection.

Conclusions: The outbreak was linked to immunization status, Age, malnutrition, family size and previous contact with measles cases. To prevent further measles outbreaks, we advise implementing vaccination campaigns, nutritional interventions, and strengthened routine immunization program.

Keywords: outbreak, measles, Raso, case control, Somali Region Ethiopia 2022.

Abstract ID: PP335

Prevalence of SARS-CoV-2 Infection in the Influenza-Like Illness and Severe Acute Respiratory Infection Sentinel Surveillance System-Zambia, 2021-2022

Grace Funsani^{1,5,&}, Edward Chentulo², Dabwitso Banda³, Miniva Mwanza², Aaron Samuels⁴, Warren Malambo⁴,

Muzala Kapina³, Paul Simusika², Nyambe Sinyange³, Jonas Hines⁴, Mwaka Monze²

¹Zambia Field Epidemiology Training Program, Lusaka, Zambia

²University Teaching Hospital Virology Laboratory, Lusaka, Zambia

³Zambia National Public Health Institute, Lusaka, Zambia

⁴U.S. Centers for Disease Control and Prevention, Lusaka, Zambia

⁵Levy Mwanawasa Medical University, Lusaka, Zambia

&Corresponding author: Grace Funsani, Zambia National Public Health Institute, Lusaka, Zambia, gracefunsani@gmail.com

Introduction: Since 2010, Zambia has implemented influenza-like-illness (ILI) and severe acute respiratory infections (SARI) sentinel surveillance to monitor influenza.

During the COVID-19 pandemic, patients with ILI/SARI were also tested for SARS-CoV-2. We demonstrate the use of ILI/SARI sentinel surveillance system in monitoring the prevalence of SARS-CoV-2 infection in Zambia.

Methods: We analysed data from 10 ILI/SARI surveillance sites in Zambia from January 2021 to December 2022. ILI was defined as fever $\geq 38.0^{\circ}\text{C}$ and cough of ≤ 10 days; SARI was defined as ILI that required hospitalization. COVID-19 waves were defined according to national case surveillance data (which used all SARS-CoV-2 tests done in Zambia to define waves).

We calculated the percentage of SARS-CoV-2 positive specimens among patients. Logistic regression was used to measure the odds of testing SARS-CoV2 positive during wave periods and by demographic characteristics.

Results: Of 9,271 patients recruited, 3,107 (33.5%) had ILI, 4,172 (45.0%) had SARI, and 1,992 (21.5%) did not meet a case definition (although 98.8% reported fever and 60.4% reported cough). Of patients with ILI/SARI, 3,726 (51.2%) were male, and the median age was 17.4 years. Overall, 659 (9.1%) ILI/SARI patients tested SARS-CoV-2 positive (10.5% in ILI patients and 8.0% in SARI patients [$p < 0.01$]), with substantial monthly variation (range 0.0% [October 2022]-34.1% [December 2021], [$p < 0.01$]). Patients recruited during waves had greater odds of testing SARS-CoV-2 positive

than those from non-wave periods (odds ratio [OR]: 2.9 (95% confidence interval [CI]: 2.4-3.4). Patients aged ≥ 18 years (OR: 1.9; 95% CI: 1.6-2.2) and those who reported active tuberculosis (OR: 4.0; 95% CI: 1.3-12.9)) had greater odds of testing SARS-CoV-2 positive.

Conclusions: ILI/SARI sentinel surveillance identified COVID-19 waves in Zambia, demonstrating its value as a SARS-CoV-2 surveillance system for the country. This suggests that ILI/SARI sentinel surveillance system might also provide an opportunity for integrating other common respiratory pathogens in Zambia.

Keywords: SARS-CoV-2, COVID-19, Sentinel surveillance, Zambia

Abstract Id: Pp340

Facteurs Associes A La Suppression De La Charge Virale Chez Les Personnes Vivant Avec Le Vih Sous Un Regime A Base De Dolutegravir Dans La Ville De Kolwezi, Lualaba, Republique Democratique Du Congo, Juin 2019 A Juin 2021.

Christian Kadianda^{1,*}, Prince Kimpanga², Alain Magazani³, Belinda Ayumuna³.

¹Programme de formation en épidémiologie de terrain du niveau Avancé, Ecole de Santé Publique de l'université de Kinshasa, Kinshasa, RDC

²Département d'Epidémiologie et Bio statistiques, Ecole de Santé Publique, Université de Kinshasa, Kinshasa, RDC.

³Africa Field Epidemiology Network (AFENET), Kinshasa, RDC.

& Auteur correspondant: Christian Kadianda, Programme de formation en épidémiologie de terrain du niveau Avancé, Ecole de Santé Publique de l'Université de Kinshasa, Kinshasa, RDC, +243971158834, duncankad15@gmail.com

Introduction: Le Virus de l'Immunodéficience Humaine (VIH) continue d'être un problème majeur de santé publique dans les pays en voie de développement notamment en République Démocratique du Congo. Sur base de son profil efficacité et sécurité, le régime à base de dolutégravir est préférentiel. Cette étude vise

à déterminer les facteurs associés à la suppression de la charge virale chez les personnes vivant avec le VIH sous ce régime à 24, 36, 48 et 52 semaines de suivi dans la ville de Kolwezi de juin 2019 à juin 2021.

Méthodes: Une étude de cohorte rétrospective a été menée et l'échantillonnage aléatoire proportionnelle à la fréquence cumulée des effectifs des PVVIH a permis d'inclure 418 naïfs, avec un critère principal d'évaluation : la survenue de la suppression virale (charge virale inférieure à 1000 copies/ml).

La Méthodes de Kaplan Meier a permis de décrire la probabilité de suppression, le test de Log Rank à comparer les courbes de survie et le modèle de régression de Cox a permis d'identifier les facteurs associés à la suppression virale.

Résultats: La suppression globale était 76,8% [IC 95% : 72,4 ; 80], le taux d'incidence était de 2,53 suppressions pour 100 personnes. Les proportions de suppression étaient de 77%, 80%, 77% et 74% respectivement à la 24, 36, 48 et 52 semaines. Le stade clinique précoce de la maladie HRaj : 0,291 [IC 95% : 0,092 ; 0,922] et la prophylaxie à l'Isoniazide HRaj : 0,068 (IC 95% : 0,013 ; 0,362) étaient associés à la suppression virale.

Conclusions: La suppression de la charge virale est obtenue dès la 24 semaine de traitement et le fait de débiter le traitement tôt ainsi que l'utilisation de la prophylaxie à l'isoniazide contribuent significativement à la suppression de la virémie. Les deux initiatives sont à promouvoir.

Mots clés: Dolutégravir, suppression virale, VIH, Kolwezi, RDC.

Abstract ID: PP34 I

Investigation of a meningitis outbreak in the Bouza Health District, Niger 2022.

Moussa Ahamadou^{1,*}, Alkassoum Salifou Ibrahim², Djibril Barry¹, Yoda Hermann¹, Tassiou Ibrahim³, Pauline Yanogo¹, Nicolas Meda¹

¹Burkina Field Epidemiology and Laboratory Training Program (BFELTP), University Joseph KI ZERBO, Ouagadougou, Burkina Faso

²Faculty of Medicine, University Abdou Moumouni, Niamey, Niger. ³Ministry of Health, Niamey, Niger

&Corresponding author: Moussa Ahamadou, 1Burkina Field Epidemiology and Laboratory Training Program (BFELTP), University Joseph KI ZERBO, Ouagadougou, Burkina Faso, Email: dmousame@gmail.com

Introduction: Meningitis is an infectious inflammation of the meninges. *Neisseria meningitidis* continues to be a public health problem in Niger. The Distinct Sanitaire of Bouza had crossed the epidemic threshold of meningitis at epidemiological week 13,2022. We conducted an investigation to measure the extent and make appropriate response.

Methods: We conducted a descriptive study of cases reported by the district from April,8th to 24, 2022 associated with active case finding. The data were analyzed with Epi info 7 v 2.2.6[®] / Excel 2016[®] software. Proportions, rates and frequencies were calculated to describe cases in “Time-Place-People” and case fatality. The Results were presented by tables, graphical and text formats.

Results: First cases were reported in week14, the epidemic threshold was crossed in the same week and the peak was reached in week15. The epidemic was located in a single surveillance zone at the Gradoumé health center. The male sex was mostly affected (65%) with an M/F ratio of 1.85. The 5-14 age group was the most affected (70%) with a median age of 8(3.5; 11.5) years. The germs identified are NmC (50%), Hi (25%) and Spn (25%). The case fatality is 20%. It was more important at the beginning of the epidemic (50% in W14). Case fatality is higher among 5–14-year-olds (21.4%).

Conclusions: The meningitis outbreak at the DS of Bouza in 2022 was abrupt with a high lethality of 20%. We had strengthened the laboratory to do the rapid test. A response with the ACWY[®] vaccine allowed us to reach 87.33% of children aged 1 to 14 years.

Keywords: Investigation-Outbreak- Meningitis-Niger-2022

Abstract ID: PP344

Monkeypox outbreak investigation in Gbarpolu County, Liberia, March 18, 2023: A preliminary report

Thomas Zubah. Kowel^{1,3,&}, Augustus Koryeh Alfred^{1,2}, Nathaniel Fineboy^{1,2}, Chukwuma David Umeokonkwo⁴, Maame Pokuah. Amo-Addae⁴

¹Gbarpolu County Health Team, Bopolu City, Gbarpolu County, Liberia

²Ministry of Health, Monrovia, Liberia

³National Public Health Institute of Liberia, Monrovia, Liberia. ⁴Liberia Field Epidemiology Training Program, Monrovia, Liberia

&Corresponding Author: Thomas Zubah. Kowel, National Public Health Institute of Liberia, Republic of Liberia, Email: zkowel@gmail.com, Contact : +231888-003-665/+231777-224-435

Introduction: Monkeypox is a re-emerging viral zoonotic infection. Globally, 86,646 laboratory-confirmed cases and 112 deaths have been reported this year as of 21 March 2023. The Belle District Surveillance Team received information of a suspected monkeypox case in the Golita community on March 13, 2023. The surveillance team set out to confirm the outbreak and institute control measures.

Methods: Belle District is one of the five health districts in Gbarpolu County with an estimated population of 20,595 inhabitants most of whom are farmers and hunters. We defined a case as anyone who travel to Golita from March 11, 2023 and presents any of the following signs and symptoms: unexplained rash all over the body, palm, mouth, throat, headache, fever, lesions that itch, nausea, muscle pain, and fatigue. We conducted an active case search, line-listing, and contact follow-up. Two samples of whole blood were collected for PCR confirmation.

Results: A 28-year-old woman was confirmed positive of monkeypox. Case-patient presented with a rash all over her body, palm, mouth, fever, and lesions that itch. She had no travel history to previously affected regions, no history of contact with a wild animal, and was in a monogamous stable relationship. Four contacts were line listed and followed up but none developed symptoms. Active case finding was done but no new case was identified. The case patient was isolated and managed at home. The patient recovered.

Conclusions: This was the first confirmed case of monkeypox in Gbarpolu County. We have recommended to the National Public Health Institute of Liberia (NPHIL) and the Ministry of Health Liberia to conduct a phylogenetic study to identify the source of the infection.

Keywords: Monkeypox, Outbreak, Belle District, Gbarpolu, Liberia

Abstract ID : PP346

Investigation des cas de rougeole au CS Croix Rouge, zone de santé de Lubilanji, province du Kasai Oriental, République Démocratique du Congo, Septembre 2022

Philippe Kasonga Kazadi¹, Rachel Ciabu Kalengayi², Isaac Mpungu Kaleka², Sylvain Mulamba Mbuebue², Arlon Kayeya Mbuyamba³, Linda Basadia Matadi⁴, Belinda Ayumuna⁴.

¹formation en épidémiologie de terrain du niveau frontline, Kasai Oriental, République Démocratique du Congo

²Affiliation Zone de santé de lubilanji , ville de Mbuji mayi , République Démocratique du Congo

³Programme de formation en épidémiologie de terrain du niveau avancé cohorte 15, Kasai Oriental, République Démocratique du Congo

⁴Coordination AFENET RDC, Kinshasa, République Démocratique du Congo

&Auteur correspondant: Philippe Kasonga Kazadi, formation en épidémiologie de terrain du niveau frontline, Kasai Oriental, République Démocratique du Congo ,doctaphilippekasonga@gmail.com, +243 977450242, 851437877

Introduction: La rougeole reste un lourd fardeau dans le pays en voie de développement pour les enfants de moins de Cinq ans. Le Centre de santé Croix rouge dans l'aire de santé (AS) BUPUEKELE a alerté sur une augmentation des cas suspects de rougeole à la trente septième semaine épidémiologique, motif de l'investigation était de confirmer une épidémie.

Méthodes: Nous avons mené une étude descriptive et procédé par la revue documentaire (Formulaire de notification, relevé hebdomadaire épidémiologique, registre de consultation curative, fiche technique),

observation et entretien avec la communauté ainsi que les familles des cas, recherche active des cas et examen physique.

Au total 35 échantillons ont été prélevés et la prise en charge des cas assurée. Les données étaient analysées par Excel 2010 et présentées sous forme de tableaux et graphiques.

Résultats: Des 35 échantillons des cas suspects de rougeole des différentes aires de santé transmis au mois de juin 2022 au laboratoire National de Kinshasa (INRB) 21 se sont ont révélé positifs IgM-Rougeole (21/35) atteignant 12 AS/15(80%).

Les signes les plus présentés par les cas étaient : fièvre (100%), éruption cutanée (100%) et conjonctivite (100%). Le sexe ratio Homme-femme était de 52/48 (1,1). La couverture vaccinale dans l'AS BUPUEKELE au premier et deuxième trimestre était respectivement en 2021(102% et 81%) et 2022 (98,3% et 97,3%).

La tranche d'âge de 0-5 ans était la plus touchée (27/39), soit 69%. Nous avons noté 2 décès (létalité de 5%).

Conclusions: Cette investigation nous a permis de confirmer l'épidémie de rougeole dans la Zone de Santé de LUBILANJI. Nous préconisons le renforcement de la Surveillance épidémiologique (recherche active des cas) dans les établissements de soins et la communauté et une campagne de suivi en faveur des enfants de 6 mois à 15 ans.

Mots-clés: Investigation des cas de rougeole, Zone de Santé de Lubilanji, Kasai Oriental, RDC, Septembre 2022

Abstract ID: PP348

An investigation of a suspected foodborne outbreak at a birthday party in Gwembe district - Southern Zambia, January 2023.

Mapoloko Theresia Moholoholo^{1,2,4,5&}, Dabwitso Banda^{1,2}, Situmbeko Mwangala ^{1,2}, Thelma Shinjeka^{1,3}, James Zulu ^{1,2}, Amos Hamukale^{1,2}, Felix Mavwanda³, Kunda Musonda², Emmy Nkhama⁵, Nyambe Sinyange^{1,2}
¹Zambia Field Epidemiology Training Programme, Lusaka, Zambia

²Zambia National Public Health Institute, Lusaka, Zambia

³Ministry of Health, Lusaka, Zambia

⁴Ministry of Health, Maseru, Lesotho

⁵Levy Mwanawasa Medical University, Lusaka, Zambia

&Corresponding author: Mapoloko Theresia Moholoholo, Zambia Field Epidemiology Training program, Lusaka, Zambia, Email: mantsorichards83@gmail.com

Introduction: Foodborne outbreaks related to homebrewed beverages, such as the traditional beverage chibwantu, are a significant public health issue in Zambia. Chibwantu is made from fermented grind maize, water, plant roots, and sugar, and is consumed during social gatherings.

In January 2023, a birthday party in a village in Southern Province, Zambia, led to 45 individuals developing acute gastrointestinal symptoms, including diarrhea and vomiting. Additionally, a child aged 7 years died after exhibiting additional symptoms of hallucinations, convulsions, and respiratory distress. An outbreak investigation was conducted to determine the cause and scope of the outbreak.

Methods: From 18-19 January 2023, we reviewed facility registers, patient records, linelists, and interviewed party attendees using structured questionnaire. Suspected cases were defined as individuals experiencing gastrointestinal symptoms within 72 hours after the party.

Epicurve was constructed, Fisher exact test examined association between chibwantu consumption and illness. Chibwantu samples were sent for toxicological analysis.

Results: We interviewed 57 party attendees. The median age was 15 years (interquartile range [IQR]: 8-30) and 61% were females. Forty-five (79%) reported symptoms including diarrhea (75%), abdominal pain (60%), and headache (59%). Of the 45 persons with illness, 41 (91%) sought medical care and 1 (2%) died. Consuming chibwantu was significantly associated with a higher rate of illness (73% vs. 25%, $p=0.005$). No association was observed for the consumption of other foods served during the party and sickness. Laboratory testing of the chibwantu specimens was negative.

Conclusions: We hypothesized that the outbreak was associated with the consumption of chibwantu.

Given the frequent outbreaks linked to homebrews in Zambia — including this one — more thorough laboratory testing of suspected tainted products, including time-of-flight mass spectrometry, is needed to identify potential underlying causes. In the meantime, Zambia should develop health communication messaging that emphasizes safe food practices specific to homebrewing since cessation of this practice is unlikely.

Keywords: foodborne diseases, food handling, diarrhea, vomiting, beverages, Zambia

Abstract ID: PP354

Impact of COVID-19 on Measles Immunization and Incidence in Zambia, 2017-2022; An Interrupted Time Series Analysis

Tebello Kolobe^{1,3,4,&}, Kelvin Mwangilwa², James Exnobert Zulu^{1,2}, Dabwitso Banda^{1,2}, Nyambe Sinyange^{1,2}, Muzala Kapina², Nathan Kapata², Cephas Sialubanje³

¹Zambia Field Epidemiology Training Program (FETP), Lusaka, Zambia

²Zambia National Public Health Institute, Lusaka, Zambia

⁴Levy Mwanawasa Medical University, Lusaka, Zambia

⁴Ministry of Health, Maseru, Lesotho

&Corresponding author: Tebello Kolobe, Zambia National Public Health Institute, Lusaka, Zambia, sistebe@gmail.com

Introduction: Zambia still has measles immunization coverage below WHO 95% standard. In 2018 for instance, the country's coverage for both measles-containing vaccine (MCV1 and MCV2) was 92% and 88% respectively. The country's first case of COVID-19 was reported in March 2020, potentially disrupting routine immunization and increasing measles incidence nationwide. We assessed the impact of COVID-19 on measles immunization and incidence before and during the pandemic.

Methods: We conducted an interrupted time series (ITS) analysis using national records from Health Information Management System (HMIS) on monthly aggregate data for MCV1, MCV2, and laboratory-confirmed cases from 2017- 2022, with March 2020 as the break-point.

Using R, we compared the immunization coverage before and during the pandemic.

We applied a quasi-Poisson regression, adjusted for seasonal trends and estimated the rate ratios for the level and slope changes at 95% confidence interval (CI).

Results: Before the pandemic (2017-2019), MCV1 and MCV2 coverage were 91% and 88%, respectively, compared to 94% and 63% during the pandemic (2020-2022).

There was no significant difference in the level change (RR: 1.0, CI: 0.79-1.26) or slope change (RR: 1.14, CI: 0.95-1.35) in MCV1 compared to pre-COVID-19. However, there was a significant decrease of 28% in MCV2 coverage following the onset of the pandemic (RR: 0.72, CI: 0.63-0.82), with no significant gradual change (RR: 0.99, CI: 0.87-1.12).

Measles annual incidence was 1.0 (interquartile range [IQR]: 0.4-5) per million population before COVID-19 and increased to 14 (IQR: 2-27) during COVID-19. We estimated a significant difference in the level change in measles incidence (RR: 4.67, CI: 1.03-21.1), and the slope change (RR: 0.07, CI: 0.02-0.27).

Conclusions: COVID-19 had minimal impact on MCV1 and was associated with a decline in MCV2, and an increase in measles incidence. Maintaining routine immunization during pandemics may be essential to keep coverage above the WHO standard, and prevent measles outbreaks.

Keywords: COVID-19, Measles, pandemics, vaccination, incidence

Abstract ID : PP359

Profil épidémiologique de la rougeole dans le département du Mono, Bénin, de janvier 2016 à juin 2022

Edouard Hountohotègbè^{1&}, Rodrigue Codjo Kohoun², Nestor Dénakpo Noudèkè³, Mathilde Adjoavi Houssou³

¹Ministère de la Santé ; Lokossa, Bénin

²Ministère de la Santé, Cotonou, Bénin

³AFENET Bénin, Cotonou, Bénin

&Auteur correspondant: Edouard Hountohotègbè, Ministère de la Santé ; Lokossa, Bénin, hountedo2@yahoo.fr ou hountedo2@gmail.com

Introduction: La rougeole est une maladie virale hautement contagieuse causée par un Morbillivirus qui touche, selon l’OMS, plus de 30 millions d’enfants dans le monde et provoque près de 777 000 décès chaque année, dont plus de la moitié en Afrique. Au Bénin, cette maladie est endémique. L’objectif de cette étude est de décrire le profil épidémiologique des cas de rougeole de janvier 2016 à juin 2022 dans le département du Mono.

Méthodes: une étude transversale descriptive des données de la rougeole du département du Mono de 2016 à 2021 a été menée. Les données ont été extraites de la base de données de surveillance du département apurées et exportée dans Epi Info 7.2 pour être analysée. Les fréquences absolue et relative ont été calculées. Un cas suspect de rougeole a été défini comme fièvre plus éruption cutanée maculo-papuleuse

Résultats: Au total, 118 cas suspects de rougeole ont été enregistrés dans le département du Mono de 2016 à 2021. Le sexe-ratio F/H était de 1,5. La tranche d’âge la plus représentée est celle de 5 ans à 9 ans (50,0%). La majorité des cas de rougeole enregistrés (108 cas, 91,5%) provenaient des zones rurales. Les cas ont été enregistrés dans toutes les communes. La majorité des cas de rougeole, était cliniquement confirmé soit 65% et 30,5% par le laboratoire Trois épidémies de rougeole ont été gérées sans décès. Une saisonnalité a été notée lors des épidémies de rougeole car elles survenaient en saison sèche.

Conclusions: L’analyse des données de la rougeole dans le département du Mono a révélé que les enfants de 5 ans à 9 ans sont les plus touchés. Cette étude suggère la préparation de la riposte à l’épidémie de rougeole à l’approche des saisons sèches.

Mots-clés: Rougeole, Vaccination, Morbillivirus, Bénin

Abstract ID: PP362

Suspected Newcastle Disease Outbreak Investigation in Bukirasaki commune, Burundi, 2023

Felix Nimbona^{1,2,3}, Désiré Ntakirutimana¹, Munekayi Padingani^{3,&}, Adolphe Ndareraho³, Joseph Nyandwi³, ¹Ministry of Environment, Agriculture and Livestock / Animal Health Directorate, Bujumbura, Burundi

²National Veterinary Laboratory of Bujumbura, Burundi

³Burundi Field Epidemiology Program, Bujumbura, Burundi

&Corresponding author: Munekayi Padingani, Burundi Field Epidemiology Program, Bujumbura, Burundi, Email: drmunepad@gmail.com

Introduction: Newcastle disease is a highly contagious and often serious worldwide disease that affects birds, especially domestic poultry. It is caused by viruses belonging to the avian paramyxovirus serotype 1APMV-1. The Newcastle disease is a mild zoonosis, the disease is manifested in humans by transient conjunctivitis and respiratory disorders. As of March 11, 2023, cases of high mortality of chickens in household poultry farms in Bukirasaki commune in Gitega province were reported. The issue was investigated to determine the extent of the problem, to describe signs presented by poultry, to identify possible cause of poultries mortality so as to institute control measures.

Methods: A descriptive study was conducted. Households were visited for observations, interview with community, farmers and provincial animal husbandry officer. Specimen collection from poultries that presented with signs on 12 March was done.

Results: A total of ten (10) households were visited. The problem started two months before in the neighbouring communes. Noted signs were drowsiness, diarrhoea, weight loss and turnings. Poultries were not vaccinated. The mortality rate was 97% and a laboratory confirmation of Newcastle disease was done.

Conclusions: High mortality of poultries was due to Newcastle disease. The problem started in neighbouring communes probably two month before. Sensitization meetings were conducted.

Keywords: Newcastle disease, zoonosis, high mortality, descriptive study, Bukirasaki, Burundi

Abstract ID : PP366

Evaluation du système de surveillance de la méningite dans la zone de santé de Selembao, 2022 en République démocratique du Congo.

Blandine Kisangani^{1&}, Nancy Mbula³, Annie Iko⁴, Marc Yambayamba², Belinda Ayumuna³, Aimée Lulebo²

¹Programme de Formation en Epidémiologie de Terrain (FETP), Ecole de santé Publique, Université de Kinshasa, Kinshasa, RDC,

²Département d'épidémiologie et Biostatistique, Ecole de santé Publique, Université de Kinshasa, Kinshasa, RDC

³Africa Field Epidemiology Network (AFENET), Kinshasa, RDC.

⁴Bureau information sanitaire et communication, Division Provinciale de la Santé Kinshasa, RDC.

&Auteur correspondant: Blandine Kisangani, Programme de Formation en Epidémiologie de Terrain, Ecole de Santé Publique, Université de Kinshasa, Kinshasa, RDC, Tél : (+243)810454445, blandineyodre01@gmail.com

Introduction: En 2022, la RDC a rapporté 3842 cas de méningites avec 189 décès. Pour la détection précoce des cas, la surveillance basée sur le cas de Méningite a été mis en œuvre dans la Zone de Santé (ZS) de Selembao mais sa performance était méconnue, d'où la raison de cette étude d'évaluation du système de surveillance en 2021.

Méthodes: C'était une étude transversale qui a inclus tous les points focaux de surveillance dans la ZS de Selembao en 2021. Les données ont été collectées par interview, observation et examen de registres pour décrire l'organisation, le fonctionnement et les attributs : utilité, simplicité, acceptabilité, flexibilité, représentativité, réactivité, qualité des données et Valeur Prédictive Positive (VPP) du système de surveillance. Les analyses statistiques descriptives ont été effectuées avec Excel 2016.

Résultats: 39% des points focaux de surveillance interviewés, (7/18) ont correctement décrit la définition de cas de la méningite. Concernant l'équipement, il y avait une rupture des kits des prélèvements dans la plupart des structures et les matériels étaient vétustes. Le système fonctionnait avec trois canaux de transmission

des données notamment par téléphone, en dur et en électronique. Le système a été jugé peu utile et simple. Il était flexible et très acceptable. Le système avait une promptitude des rapports hebdomadaires de 77% (11 141 /14 560) suite à une faible connectivité à l'internet et à une faible disponibilité des ressources. Les cas suspects provenaient, en majorité de trois aires de santé. La qualité des données était bonne et la VPP était de 5% (8/65), IC 95% (30% - 54%) donc médiocre.

Conclusions: Le système de surveillance de la méningite dans la zone de santé de Selembao est moins performant. D'où la nécessité de renforcement des capacités du personnel en Surveillance intégrée des maladies et ripostes 3eme édition.

Mots-clés: évaluation, méningite, système de surveillance, Selembao, Kinshasa, République Démocratique du Congo.

Abstract ID : PP371

Investigation des cas de Gale au Service de Santé de la Gendarmerie Nationale, Djibouti, Janvier 2022

Abdo Arita Macisso^{3,4,8}, Ahmed Said Salem^{1,2,3}, Gamal Mohamed Ahmed⁴, Souleiman Daoud Omar⁴, Fatouma Mohamed Aden⁴, Abdourouf Bourhan Mohamed⁴, Sahra Moussa Bouh^{1,3}, Prosper Ilunga Kelebwe^{3,5}, Pedwindé Hamadou Seogo^{3,5}, Ahmed Robleh Abdilleh¹, Tatak Anbessie Bogale⁶, Herbert Kazoora Brian⁷, Houssein Youssouf Darar^{1,2,3}

¹Ministère de la Santé de Djibouti, Djibouti, Djibouti

²Institut National de Santé Publique de Djibouti, Djibouti, Djibouti

³Djibouti Program Field Epidemiology Training-Frontline, Djibouti, Djibouti

⁴Service de santé de Gendarmerie de Djibouti, Djibouti, Djibouti

⁵African Field Epidemiology Network of Djibouti, Djibouti, Djibouti

⁶African Field Epidemiology Network, Addis Ababa, Ethiopie. ⁷African Field Epidemiology Network, Kampala, Uganda

&Auteur correspondant : Abdo Arita Macisso Service de santé de la gendarmerie nationale, Djibouti, Djibouti .abdoaraita9@gmail.com.

Introduction: La gale humaine est une ectoparasitose due à *Sarcoptes scabiei*. Son diagnostic est essentiellement clinique. Le 23 Janvier 2022, le Service de Santé de la Gendarmerie (SSG) a notifié à l'unité de surveillance de l'Institut National de Santé Publique de Djibouti 08 cas de gale en une semaine. Nous avons réalisé une investigation multidisciplinaire afin de mieux comprendre et circonscrire cette flambée de cas de gale au sein des gendarmes et leur famille.

Méthodes: Nous avons mené une étude descriptive sur les cas de gale enregistrés au SSG entre 1er et 31 janvier 2022. Un cas de gale était défini comme toute personne présentant une lésion cutanée avec prurit et/ou des lésions hyperkératosiques.

Nous avons réalisé une recherche active des cas à travers une revue documentaire des registres de consultation et d'hospitalisation de SSG et dans la communauté par l'entretien et l'observation. Les données ont été collectées à l'aide d'une fiche et ont été analysées avec Epi-info. Les fréquences, proportions et médiane ont été calculées.

Résultats: Au total 29 cas ont été enregistrés dont 19(66%) de sexe masculin. L'âge médian était de 23 ans (2-46). La majorité de cas 21(72,4%) provenait de familles de gendarme. Les élèves étaient les plus représentés 9(31%).

Une notion de contagion était retrouvée dans 15(52%) cas. Tous les cas avaient un prurit dont 25(86%) cas à prédominance nocturne. Les lésions siégeaient aux plis fessiers 14(48%), aux poignets 11(38%), aux régions mammaires 5(17%). Les nodules scabieux (55%) et sillons scabieux(45%) étaient les types de lésions le plus observés.

Conclusions: L'investigation a permis de confirmer la flambée au sein des gendarmes et leurs familles. Elle a touché plus les hommes avec des nodules prurigineux siégeant plus aux plis fessiers. La sensibilisation et la prise en charge précoce ont permis de circonscrire la maladie.

Mots-clés: Flambée, Gale, Investigation, Service de Santé de la Gendarmerie Nationale, Djibouti

Abstract ID: PP378

Prevalence and Factors Associated with SARS-CoV-2 Among Persons Living with HIV in Six Districts-Zambia, July 2020: A secondary analysis of three concurrent SARS-CoV-2 Prevalence Surveys

Stephen Longa Chanda^{1,2,3, &}, Cephass Sialubange³, Mukumbuta Nawa³, Nyambe Sinyange², Warren Malambo⁴, James Zulu², Dabwitso Banda², Paul Zulu^{2,5}, Jonas Hines⁴

¹Zambia Field Epidemiology Training Program (ZFETP), Lusaka Zambia

²Zambia National Public Health Institute (ZNPHI), Lusaka Zambia

³Levy Mwanawasa Medical University (LMMU), Lusaka Zambia

⁴United States Centers of Disease Control and Prevention, Lusaka Zambia

⁵Ministry of Health, Lusaka Zambia

&Corresponding Author: Dr Stephen Longa Chanda ZFETP, ZNPHI, LMMU Lusaka Zambia, email: longachandadoc88@gmail.com

Introduction: People living with HIV (PLHIV) are a unique population because of their altered immune system and taking antiretroviral therapy (ART). Evidence from sub-Saharan African countries suggests that, despite not having higher SARS-CoV-2 prevalence/incidence, PLHIV suffer worse COVID-19 outcomes. We measured the prevalence and clinical presentation of SARS-CoV-2 by HIV status in July-2020 in Zambia.

Methods: We analysed data from three concurrent SARS-CoV-2 prevalence surveys (household, outpatient-department, and health-worker) conducted in six districts of Zambia in July-2020, during the upswing of Zambia's first COVID-19 wave.

Information on demographics and medical history was collected. Nasopharyngeal swabs were used to screen for SARS-CoV-2 RNA using polymerase-chain-reaction (PCR). Blood samples were screened for SARS-CoV-2 virus-specific antibodies using an enzyme-linked-immunosorbent-assay (ELISA).

Test-specific SARS-CoV-2 prevalence was calculated. Multilevel logistic regression models were used to measure adjusted odd ratios (aORs) controlling for location, survey type and demographics and 95% confidence intervals (CIs) of SARS-CoV-2 by HIV status.

Results: Among 7,092 participants, 4,717 (66.5%) consented to blood draw and 4,642 (65.5%) consented to nasopharyngeal swab. Overall SARS-CoV-2 positivity was 9.4% by PCR and 3.8% by ELISA. SARS-CoV-2 prevalence was higher among PLHIV by PCR (12.4% vs 9.1%, OR: 1.4, 95% CI: 1.0-1.9) and lower by ELISA (1.9% vs 3.9%, OR: 0.5, 95% CI: 0.2-0.9).

Among PLHIV, not being on ART was an independent predictor of SARS-CoV-2 test positivity (aOR: 7.4, 95% CI: 1.5-37.9). PLHIV had higher odds of symptomatic SARS-CoV-2 infection (OR: 2.3, 95% CI: 1.3-4.2).

Conclusions: During the first COVID-19 wave in Zambia, PLHIV were more likely to be acutely infected with SARS-CoV-2 (as measured by PCR) but less likely to have a prior infection (as measured by ELISA). This could be due to a poorer humoral immune response to SARS-CoV-2 antigens in PLHIV.

Ensuring early access to COVID-19 vaccinations, testing and ART might reduce COVID-19 morbidity among PLHIV.

Keywords: HIV infections, SARS-CoV-2, Prevalence, Reverse Transcriptase Polymerase Chain Reaction, Enzyme-Linked Immunosorbent Assay, Zambia, COVID-19 Vaccines

Abstract ID : PP379

Investigation d'une épidémie de Monkeypox dans la zone de santé de Popokabaka, Kwango, République Démocratique du Congo, 2022.

Alphonse Nkololo Tshonaka^{1,&}, François Tshakotsho Mwakisenda², Belinda Malasi Ayumuna³, Gauthier Mashimba Mubenga³, Ken Kayembe³, Linda Basadia Matadi³, Alain Nzanzu Magazani³, Mariam Laurent⁴, Léopold Mulumbu Lubula⁵

¹Programme FETP Frontline, Division Provinciale de

la santé du Kwango, Kenge, République Démocratique du Congo,

²Division Provinciale de la santé du Kwango, Kenge, République Démocratique du Congo,

³Bureau de coordination AFENET, Kinshasa, République Démocratique du Congo,

⁴CDC, Kinshasa, République Démocratique du Congo,

⁵Direction surveillance épidémiologique, Kinshasa, République Démocratique du Congo,

&Auteur correspondant: Alphonse Nkololo Tshonaka, 1Programme FETP Frontline, Division Provinciale de la santé du Kwango, Kenge, République Démocratique du Congo, tshotshotshonaka@gmail.com

Introduction: Le Monkeypox, ou « variole de singe », est une maladie virale, causée par un virus de la famille des Orthopox virus, isolé pour la première fois dans les années 50 ; le premier cas humain a été découvert à Basankusu en 1970, en République Démocratique du Congo(RDC).

La zone de santé (ZS) Popokabaka au Kwango, RDC a reçu une alerte de cas suspects de monkeypox de l'aire de santé(AS) Kiamfunkinzadi ; ainsi, une investigation a été conduite pour confirmer l'épidémie et identifier les facteurs de risque dans cette AS y compris celles de Popo1 et 2.

Méthodes: Une étude transversale descriptive conduite du 22 septembre au 2 octobre 2022 auprès des personnes habitants les 3 AS précitées. Un questionnaire administré aux cas suspect de Monkeypox, considérée comme toute personne avec fièvre élevée d'apparition brutale suivie d'une éruption vésicule-pustuleuse prédominant à la face, aux paumes des mains ou au moins 5 cicatrices de type variolique habitant ou ayant séjourné dans ces AS.

Des prélèvements réalisés pour confirmation au laboratoire. L'analyse des données faite sur Excel 2019.

Résultats: Au total 16 cas suspects identifiés, prédominants dans l'AS cité Popo 2 ; $\frac{3}{4}$ présentaient des éruptions vésiculo-pustuleuses précédées par la fièvre. 8 échantillons prélevés dont 6 (75%) confirmés au Monkeypox, avec une vitesse de propagation de 0,3%, les autres l'ont été par lien épidémiologique. L'âge moyen de cas confirmés était de 27 ans, et ratio H/F= 2.

La consommation de la viande de bœuf trouvé mort (75%) et la promiscuité étaient identifiées comme facteurs de risque de propagation de la maladie.

Conclusions: L'épidémie de Monkeypox a été confirmée. La prise en charge des cas, la bonne communication, l'isolement des malades et la limitation de contact avec les animaux contribueraient à réduire la morbi-mortalité liée à cette maladie.

Mots Clés: Etude transversale, cas suspect, MonkeyPox, Kwango, République Démocratique du Congo, RDC

Abstract ID : PP380

Facteurs associés à la gravité de la COVID-19 chez les malades hospitalisés dans la ville de Goma, Mars 2020 et septembre 2021

Cosma Kajabika Luberamihero¹, Claire Rukiya Sangara², Belinda Ayumuna Malasi³, Gauthier Mubenga Mashimba³, Ken Kayembe Mabika³, Linda Matadi Basadia³, Alain Nzanzu Magazani³, Léopold Lubula Mulumbu⁴, Stanis Wembonyama Okitocho².

¹Programme de formation en épidémiologie de terrain (FETP), Division provinciale de la santé du Nord Kivu, Goma, République Démocratique du Congo,

² Ecole de Santé Publique de l'Université de Goma, Nord Kivu, République Démocratique du Congo,

³Bureau de coordination AFENET, Kinshasa, République Démocratique du Congo,

⁴Direction surveillance épidémiologique, Kinshasa, République Démocratique du Congo,

&Auteur correspondant: Cosma Kajabika Luberamihero, Md, Mph, Msc, Programme de formation en épidémiologie de terrain(FETP), Division provinciale de la santé du Nord Kivu, Goma, République Démocratique du Congo , Téléphone +243997180755/+243810869845, mail : kajabika_come@yahoo.fr/ cosmakajabika7@gmail.com

Introduction: Le pronostic vital de la COVID-19 est dépendant de la gravité de la maladie à COVID-19 ; en effet, la ville de Goma a notifié environ 25% de la létalité de toute la RDC pendant les trois premières vagues de la COVID-19 en RDC, sur ce, notre étude, voudrait mettre en évidence les facteurs associés à la gravité de la COVID-19 dans la ville de Goma.

Méthodes: Il s'agit d'une étude transversale

analytique des dossiers des patients hospitalisés pour la COVID-19 dans la ville de Goma entre Mars 2020 et septembre 2021. La régression logistique binaire multiple a servi à identifier les facteurs de risque indépendants de la gravité COVID-19 dans la ville de Goma.

Résultats: 400 dossiers médicaux des hospitalisés ont été inclus dans notre étude, l'âge médian était de 50 ans [34-65]. Les cas graves ont représenté 33% des hospitalisés. La prise des produits traditionnels était le principal facteur de risque avec OR ajusté de 70,1 avec IC95% (4,69-1047,94), $p = 0,002$ suivi de la protéine C réactive avec OR ajusté de 9,94 avec IC95% (1,37 - 66,67), $p = 0,022$ et enfin la polypnée avec un OR ajusté de 12,5 avec IC95% (10,52 - 14,92), $p = 0,011$. Dans l'analyse bivariée, l'âge à partir de 40 ans, comorbidités, les veuves, les sans professions, l'alcoolisme, la tachycardie, l'hypertension artérielle, la fièvre, la désaturation en oxygène $\geq 90\%$, consultation tardive ≥ 6 jours, hyperleucocytose, granulocytose, d-dimère $\geq 500 \mu\text{g/L}$, CRP $\geq 6 \text{ mg/ml}$, la glycémie $\geq 7 \text{ mmole/L}$, étaient facteurs de risque de la gravité.

Conclusions: La prise des produits traditionnels, la CRP élevée et la polypnée sont des facteurs de risque indépendants de la gravité COVID-19. Une sensibilisation contre l'usage des produits traditionnels réduirait la prévalence de la gravité COVID-19 dans la ville de Goma.

Mots-clés: Patients COVID-19, gravité, facteurs de risque, ville de Goma et RDC.

Abstract ID: PP383

High fatality of Lassa fever outbreak, Bo District, Sierra Leone, February 2023

Hassan Swarray^{1,2}, Amara Alhaji Sheriff^{1,2,3}, Andrew Kekura Kemoh^{1,2}, Ibrahim Conteh^{1,2}, Joseph Sam^{1,2}, Milkailu Tahiru Manyeh^{1,2}, Lucy Mbatilo Matina Coker^{1,2}, Samuel Samah Turay^{1,2}, Lilian Kumba Admire-Taylor^{1,2}, Annah Jammeh^{1,3}, Adel Hussein Elduma^{1,3}, Solomon Aiah Sogbeh^{1,2,3}, Umaru sesay^{1,2,3}, Gebrekrstos Negash Gebru^{1,3&}

¹Sierra Leone Field Epidemiology Training Program, Freetown, Sierra Leone, ²Ministry of Health and Sanitation, Freetown Sierra Leone, ³African Field Epidemiology Network, Freetown, Sierra Leone

&Corresponding author: Gebrekrstos Negash Gebru, African Field Epidemiology Network, Freetown, Sierra Leone, Email: ggebru@afenet.net

Introduction: Lassa fever (LF) is endemic in West Africa, causing about 5,000 deaths annually. On February 1, 2023, the Bo District Surveillance Team received a notification from Dambala community, Bo District about deaths suspected of LF. Field Epidemiology Training Program trainees were deployed to confirm the diagnosis, assess the magnitude, and identify possible infection transmission routes.

Methods: We adapt the LF surveillance case definition and collected demographic, clinical, and exposure data through interviews and a review of clinical records. Blood samples were collected and sent for laboratory confirmation of LF. We conducted environmental assessments, and active case searches in the affected community and eight health facilities. Thirty contacts were line listed and monitored for 21 days.

Results: From January 1 to February 10, 2023, two probable and six suspected cases of LF were recorded. The two probable cases, aged 10 months and 24 years old, died unreported on January 25 and 26 respectively. All six suspected cases were investigated, two cases tested positive for LF antigen.

On January 28, 2023, a 21-year-old female (case-patient 1), presented with fever, cough, and chest pain. On January 29, 2023, she was treated for malaria and later started bleeding. She died on January 31, 2023. On January 29, 2023, a 57-year-old female, mother of case-patient 1, developed fever, cough, and headache. On February 2, 2023, she presented to a hospital with bleeding and died on arrival.

All cases (confirmed and probable) lived in the same house. The case fatality rate (CFR) was 100%. No additional cases were identified and none of the contacts developed LF symptoms. Rodent droppings found in case-patients' residences.

Conclusions: Lassa fever outbreak was confirmed with a high CFR in Bo District. We sensitized clinicians on LF early diagnosis and raised awareness among affected communities to keep homes clean, and store meals in rodent-proof containers.

Keywords: Lassa fever, Bo, viral hemorrhagic, Sierra Leone, Outbreak

Abstract ID : PP387

Facteurs associés à la létalité du paludisme grave chez les enfants de moins de 5 ans dans les hôpitaux publics du Bénin du 01 avril au 31 octobre 2022

Nestor Sossoukpè¹*, Rosette Koufèdè², Nestor Dénakpo Noudèkè³, Mathilde Adjoavi Houssou³

¹Ministère de la santé, Aplahoué, Bénin

²Ministère de la Santé, Parakou, Bénin

³AFENET Bénin, Cotonou, Bénin

***Auteur correspondant:** Nestor Sossoukpè, Ministère de la santé, Aplahoué, Bénin, Email : sossoukpè@gmail.com

Introduction: Le paludisme demeure un problème de santé publique dans le monde. La forme grave constitue l'une des principales causes d'hospitalisation et de décès. Au Bénin, l'incidence du paludisme grave était de 3,4% avec une létalité de 19,8% chez les enfants de moins de cinq ans en 2021.

L'objectif était d'identifier les facteurs associés à la létalité due au paludisme grave chez les enfants de moins de 5 ans dans les hôpitaux publics du Bénin

Méthodes: Une étude transversale analytique qui a porté sur les cas de paludisme grave confirmés biologiquement dans 35 hôpitaux publics du Bénin du 1er Avril 2022 au 31 Octobre 2022. Un échantillonnage aléatoire simple a été réalisé avec le logiciel Open Epi. Les données ont été analysées avec Epi Info 7.2. Les fréquences et odds ratios ont été calculés.

Résultats: Des 5884 cas collectés, la majorité était dans la tranche d'âge de 12 à 36 mois soit 61,6%. Le sex ratio H/F est de 1,1. Les cas provenaient plus du milieu rural soit 72% et 29,4% avaient été référés. La létalité était de 7%.

Les enfants ayant un trouble de la conscience OR=2,2 : IC 95% [1,79-2,71], une convulsion OR=1,56 : IC 95% [1,3-1,95], des troubles respiratoires OR=2,15 : IC 95% [1,74-2,65] ; un OAP, OR=2,46 : IC 95% [1,33-4,3], une incapacité de se nourrir, OR=2 : IC 95% [1,6-2,48] et ceux pour qui le protocole de prise en charge n'est pas respecté OR=3,56 : IC 95% [2,49-5,07], avaient plus de risque de mourir.

Conclusions: La létalité du paludisme grave est liée à la présence d'affections respiratoires et de trouble de la conscience. La sensibilisation des agents sanitaires sur le respect du protocole de prise en charge et les supervisions formatives pourraient réduire cette létalité.

Mots-clés: Paludisme grave, Conscience, Convulsion, Etude transversale, Bénin

Abstract ID : PP390

Investigation de cas de leishmaniose viscérale, à l'Hôpital Cheicko, Djibouti, Janvier 2022

Mohamed Abdi Ali^{1,2,4,8}*, Fozia Youssef Barkadleh^{1,4}, Houssein Mohamed Omar^{1,2}, Sahra Moussa Bouh^{1,4}, Abdoukader Mohamed Ali^{3,4}, Prosper Ilunga Kelebwe^{4,5}, Pedwindé Hamadou Seogo^{4,5}, Ahmed Robleh Abdilleh¹, Tatak Anbessie Bogale⁶, Herbert Kazoora Brian⁷, Houssein Youssef Darar^{1,2,4}

¹Ministère de la Santé de Djibouti, Djibouti, Djibouti

²Institut National de Santé Publique de Djibouti, Djibouti, Djibouti

³Hôpital Cheicko de Balbala, Djibouti, Djibouti

⁴Djibouti Program Field Epidemiology Training-Frontline, Djibouti, Djibouti

⁵African Field Epidemiology Network of Djibouti, Djibouti, Djibouti

⁶African Field Epidemiology Network, Addis Ababa, Ethiopia

⁷African Field Epidemiology Network, Kampala, Uganda

***Auteur correspondant:** Mohamed Abdi Ali, Ministère de santé, Institut National de Santé Publique de Djibouti, Djibouti + 25377624935, E-mail : medinspd@yahoo.fr

Introduction: La leishmaniose viscérale est une maladie avec une létalité pouvant atteindre 95% en absence de traitement. Le 26 décembre 2021, l'Hôpital Cheicko (HC) à Djibouti a notifié deux cas confirmés de leishmaniose viscérale aux tests sérologiques leishmaniose. Nous avons mené une investigation pour déterminer l'ampleur, décrire les cas et mettre en place des mesures de prévention.

Méthodes: Une étude descriptive a été conduite entre 10 décembre 2021 et 18 janvier 2022 à HC et dans

la communauté. Était considéré comme cas suspect, toute personne hospitalisée ou non présentant la fièvre irrégulière prolongée, la splénomégalie, et la perte du poids, notifié pendant la période d'étude et comme cas confirmé, tout cas suspect avec test sérologique leishmaniose positif. Une recherche active à HC et dans la communauté a été réalisée. Nous avons utilisé un questionnaire pour collecter les données dans les registres ainsi que dans la communauté. Des pièges ont été placés dans des localités pour capturer et identifier les phlébotomes. Nos données ont été analysées avec l'EPI-Info. L'âge médian, des ratios et des proportions ont été calculés.

Résultats: Au total 11 cas suspects ont été enregistrés dont 5 confirmés avec le test sérologique leishmaniose (3 leishmania infantum et 2 leishmania donovani).

La majorité de cas (80%) provenaient de pays limitrophe. Aucun phlébotome n'a été identifié parmi les mouches capturées. L'âge médian était de 14 ans (2-19 ans). Trois (60%) étaient de sexe masculin. Tous les patients présentaient une fièvre, amaigrissement et hépatomégalie. Le taux de létalité était de 2/5 (40%). Un retard de confirmation et absence de traitement ont été observés.

Conclusions: L'investigation a confirmé la présence de Leishmania avec un taux élevé de létalité. La sensibilisation de la population et la dotation des structures en tests de diagnostic et médicaments pourraient améliorer la prise en charge.

Mots-clés: Investigation, Leishmaniose viscérale, leishmania infantum, Phlébotome, Hôpital Cheicko, Djibouti

Abstract ID: PP396

Increasing stockouts of critical malaria commodities in public health facilities in Uganda, 2017-2022

Jane Frances Zalwango^{1&}, Marie Gorreti Zalwango¹, Helen Nelly Naiga¹, Rebecca Akunzirwe¹, Ronald Kimuli², Lilian Bulage¹, Daniel Kadobera¹, Richard Migisha¹, Julie Harris³

¹Uganda Public Health Fellowship Program, Ministry of Health, Kampala, Uganda

²National Malaria Control Division, Ministry of Health, Kampala, Uganda

³Division of Global Health Protection, Global Health Center, US Centers for Disease Control and Prevention, Kampala, Uganda

&Corresponding author: Jane Frances Zalwango, Uganda Public Health Fellowship Program, Ministry of Health, Kampala, Uganda, Email: jzalwango@musph.ac.ug

Introduction: Consistent access to malaria treatment commodities at health facilities is necessary to address malaria morbidity and mortality. In Uganda, there is need for documentation of the stockouts trends of these commodities. We described the trends and spatial distribution of stockouts of malaria diagnostic and treatment commodities in Uganda, 2017-2022.

Methods: We analyzed monthly artemisinin combination therapy (ACT) and rapid diagnostic test (RDT) stock data from the District Health Information System for public facilities at the general hospital level and below during 2017-2022. A facility was considered stocked-out in a month if it reported ≥ 1 day of stockout of a commodity during that month. We calculated the proportion of facilities stocked out of the commodities per month and evaluated ACT stockouts by health facility type. We used the seasonal Mann-Kendall test and Sen's slope estimator to evaluate trends. Districts were considered stocked-out for a commodity in a year if the average monthly health facility stockout proportions were $>10\%$ in that year.

Results: Among an average of 2,210 facilities reporting per month, most (56%) were Health Centre IIs. There were seasonal peaks in stockouts of ACTs and RDTs, with small peaks in December through February and sharp peaks in June through September. At the national level, we observed a significant increase in the monthly ACT ($S=474$, $p<0.001$; Sen's slope= $+0.59$) and RDT ($S=444$, $p<0.001$; Sen's slope= $+0.616$) stockouts over the study period. Monthly ACT stockouts increased significantly across all facility levels, with Health Centre IIs having the largest increase ($S=472$, $p<0.001$; Sen's slope= $+0.697$). Among 136 districts, the number of districts experiencing ACT stockouts increased steadily, from 5 in 2017 to 85 in 2022.

Conclusions: Malaria diagnosis and treatment commodity stockouts increased from 2017-2022 across Uganda. Reasons for this increasing trend should be explored and addressed to improve access to essential malaria treatment commodities.

Keywords: Malaria, stockout, District Health Information System, Uganda

Disclaimer: The Conclusions, findings, and opinions expressed by the authors do not necessarily reflect the official position of the U.S. Centers for Disease Control and Prevention, or the authors' affiliated institutions.

Abstract ID : PP399

Investigation d'un phénomène inconnu dans le village Nkonko, zone de santé de Lukafu, province du Haut Katanga, République Démocratique du Congo, aout 2022

David Ntumba^{1,&}, Deborah Bondo² Valery Ngoie², Djo Kalenga², Patrick Diata², Thiery Kanzembe², Vanessa Mughole², Jack Katele² Linda Matadi³, Belinda Ayumuna³, Gauthier Mubenga³, Ken Kayembe³, Alain Magazani³, Léopold Lubula⁴

¹Field Epidemiology Training Program, Kinshasa, République Démocratique du Congo

²Division Provinciale du Haut Katanga, Lubumbashi, République Démocratique du Congo

³Bureau de coordination AFENET, Kinshasa, République Démocratique du Congo,

⁴Direction surveillance épidémiologique, Kinshasa, République Démocratique du Congo,

&Auteur correspondant: David Ntumba, Field Epidemiology Training Program, Kinshasa, République Démocratique du Congo, davnkana@gmail.com

Introduction: Le 01 juillet 2022, une rumeur en provenance du village Nkonko, Zone de santé Lukafu dans le Haut Katanga en République Démocratique du Congo, faisait état d'un phénomène inhabituel, mal identifié ayant entraîné la mort d'au moins 82 personnes et un déplacement de population depuis décembre 2021. Une investigation a été menée comprendre ce phénomène et mettre en place les mesures de contrôle.

Méthodes: Une étude descriptive transversale a été réalisée de décembre 2021 à août 2022. Les dossiers médicaux des suspects ont été examinés ; un entretien avec les survivants et les personnes ressources a été réalisé à l'aide d'un questionnaire électronique sur

Kobocollect. Des prélèvements des échantillons ont été effectués dans l'environnement (eau de boisson) et sur les suspects (coproculture et hémoculture). Les analyses statistiques descriptives ont été réalisées avec SPSS version 23.

Résultats: Au total, 115 cas suspects dont 45 décès (létalité : 39%) ont été identifiés avec un taux d'attaque global de 43‰. Le sexe ratio H/F=1,4 ; l'âge médian était de 19,5 ans (Xmin=1et Xmax=78) ; 83% (95/115) des cas présentaient la fièvre, frissons, douleurs abdominales, maux de tête, constipation, vomissement et diarrhée. Tous les cas n'avaient pas accès à l'eau potable ; 27% (31/115) des cas n'avaient pas des toilettes. L'évolution vers un abdomen aigu chirurgical était observée chez 46% (53/115) des cas. Les résultats de laboratoire ont identifié quelques Salmonella spp dans les selles ; le Staphylococcus simulans dans le sang ; le Proteus rettgeri et Citrobacter freundii dans l'eau.

Conclusions: Cette investigation a permis de confirmer l'épidémie de Salmonellose au village Nkonko. La prise en charge médicale ; la sensibilisation de la population sur les mesures d'hygiène et l'amélioration de l'accès à l'eau potable pourraient contribuer à réduire la morbi-mortalité liée à cette maladie

Mots-clés: Investigation, phénomène inconnu, village Nkonko, Lukafu, Haut Katanga, RDC.

Abstract ID : PP400

Performance de la lutte contre le paludisme chez les enfants de moins de 5 ans dans le district sanitaire de Tchaoudjo au Togo de 2019 à 2021

Kossivi Ahe^{1,&}, Akawulu N'djao¹, Salami. Bebou², Yendoube Douti³, Koffi Akolly⁴, Rebecca Méyé. Kinde⁵,
¹Direction préfectorale de la santé de Tchaoudjo (DPS), Sokode, Togo

²Direction régionale de la santé, Région Centrale, Togo

³Centre de Formation et de Recherche en Santé Publique, Lomé, Togo

⁴Institut National d'Hygiène, Lomé, Togo

⁵afenet-Togo, Lomé, Togo

&Auteur correspondant: Kossivi AHE, Direction préfectorale de la santé de Tchaoudjo (DPS), Sokode, Togo, kossivi_ah@yahoo.fr

Introduction: Le paludisme reste un problème de santé publique, avec 43% des maladies traitées en 2019. Particulièrement chez les enfants de moins de 5 ans dans le district de Tchaoudjo au Togo, l'incidence était de 31.9% malgré les stratégies de lutte mises en place. L'objectif de cette étude était d'évaluer les performances de la lutte contre le paludisme dans ledit district de 2019 à 2021.

Méthodes: Il s'est agi d'une étude descriptive qui a porté sur les données de paludisme chez des enfants de moins de 5 ans enregistrés dans le district de Tchaoudjo de 2019 à 2021.

L'évaluation faite en référence au cadre de performance du PNLP désagrégé à chaque district. Nous avons procédé à l'extraction des données de la base de DHIS2 et calculé les proportions à l'aide d'un classeur Excel®.

Résultats: 108092 cas suspects de paludisme étaient enregistrés chez les enfants de moins de 5 ans. Le test de diagnostic rapide était plus utilisé (86,8%) dont 74,5% dans les structures sanitaires publiques. Environ 96% des enfants avaient bénéficié d'un test de confirmation et 66848 enfants étaient confirmés au paludisme.

L'incidence annuelle a diminué de 14,1% à 10,8% pour le paludisme simple et de 11,4% à 7,3% pour le paludisme grave. La létalité a baissé de 1%. Les Combinaisons thérapeutiques à base d'Artémisinine ont été utilisées chez 97,4% d'enfants confirmés.

Conclusions: Cette étude a montré le respect des directives de lutte contre le paludisme chez les enfants de moins de 5 ans dans le district de Tchaoudjo avec un impact notable en termes de morbidité du paludisme. Néanmoins la mortalité reste encore élevée.

Le renforcement de la mobilisation sociale pour une meilleure adhésion à la Chimio-Prévention Saisonnière va contribuer la réduction de cette mortalité.

Mots clés : Performance, paludisme, enfants de moins de 5 ans, Togo.

Abstract ID: PP403

Investigation of malaria upsurge in Indoor Residual Spraying (IRS) in four districts in Eastern Uganda, 2016-2021

Alice Asio^{1,*}, Lawrence Oonyu¹, Daniel Kadobera¹, Benon Kwesiga¹, Lillian Bulage¹, Alex R. Ario¹

¹Uganda Public Health Fellowship Program, Kampala, Uganda and Uganda National Institute of Public Health, Kampala, Uganda

***Corresponding author:** Alice Asio, Uganda Public Health Fellowship Program, Kampala, Uganda and Uganda National Institute of Public Health, Kampala, Uganda, Email: aasio@musph.ac.ug, Tel: +256788006553

Introduction: IRS is the application of a long-lasting, residual insecticide to potential malaria vector resting surfaces such as internal walls, eaves, and ceilings of houses or other structures, including domestic animal shelters where such vectors might come in contact with the insecticide. During March 2021, 13 districts of Uganda were sprayed with Fludora infusion (85% of households), Actellic, and Sumishield. Serere, Pallisa, Kibuku and Budaka districts all had malaria upsurges immediately following the IRS. We evaluated malaria patterns in these districts and the possible contributing factors to the apparent failure of IRS.

Methods: We analyzed malaria surveillance data from DHIS2, 2016–2021 from IRS districts of Serere, Pallisa, Kibuku, and Budaka to identify patterns linked to the application of IRS interventions. We conducted focused group discussions and key informant interviews for district teams that were involved in IRS exercise. We conducted interviews using a guided questionnaire on transportation, storage, training of the sprayers, mixing of the chemical, spraying, and quality control. We also reached out to neighboring country, Kenya to find out the impact of fludora infusion on their malaria rates.

Results: From DHIS2 data, it was observed that malaria cases continued rise despite of IRS and other interventions in 2021 compared to other years. Insecticide was transported efficiently from Entebbe to district stores where storekeepers took charge and re-distributed them to team leaders, who in turn distributed them to the spray operators.

The chemical was stored within the recommended temperature of 5 to 35°C. The spray team was chosen based on experience, with the majority of members having participated in previous exercises.

Training typically began at the district level, with cascade trainings occurring at the sub-county and parish levels. The training lasted four days and included chemical mixing, storage, spraying with practical sessions. Quality assurance was emphasized at every stage of the exercise, from the initial stages to the end. Testing of the houses was done by entomologists before and after spraying, and morning drills.

The machine operators were supervised by team leaders, and sub-county staff and other staffs from the district were also supervised by the Ministry of Health and PMI project officers. Kenya reported fludora infusion to have a positive impact in reducing malaria cases in 2021.

Conclusions: The IRS (fludora infusion) for 2021 was a new insecticide that did not reduce malaria cases in the four IRS districts. We recommend that the chemical be changed.

Abstract ID : PP405

Profil épidémiologique des paralysies flasques aiguës et des poliomyélites dérivées du vaccin au cours de l'épidémie dans la Zone de Santé de Nyunzu en 2022 République Démocratique du Congo.

Mounier Bulaba^{1,*}, Gaston Mushaba², Constantin Mbayo³

¹African Field Epidemiology Network (AFENET), Kinshasa, République Démocratique du Congo.

²Zone de Santé de Nyunzu, Nyunzu, République Démocratique du Congo.

³International Medical Corps (IMC), Nyunzu, République Démocratique du Congo.

& Auteur correspondant: Mounier Bulaba, African Field Epidemiology Network (AFENET), Kinshasa, République Démocratique du Congo. Email :bulabamounier777@gmail.com.

Introduction: Depuis Mai 2017, la République Démocratique du Congo (RDC) a enregistré 703 cas

des poliovirus circulants dérivés de la souche vaccinale (cVDPV) dont 686 issus des Paralysies Flasques aiguës (PFA).

En 2022, plus de 436 cas de cVDPV ont été répertoriés parmi lesquels 142 provenaient de la Province de Tanganyika dont fait partie la zone de santé de Nyunzu et pour lesquels plusieurs ripostes ont été organisées sans résultats escomptés.

L'objectif de l'étude était de décrire le profil épidémiologique des cas de PFA et de cVDPV et mettre en place des actions de Santé Publique.

Methodes: Une étude rétrospective descriptive a été réalisée à partir des formulaires d'investigation. L'échantillonnage était exhaustif, soit 96 cas identifiés dans la zone de santé de Nyunzu pour l'année 2022. Les données ont été analysées avec le logiciel Microsoft Excel 2016 et R, à 95% d'intervalle de confiance.

Resultsats: Sur 96 cas de PFA, 13 [7,4 - 22,0] étaient cVDPV positifs. Les cas des PFA et des cVDPV étaient respectivement en pourcentage : Majoritairement féminin (51,0 vs 53,8) ; âgés de 12 à 59 mois (71,9 vs 100,0) ; étaient « zéro dose » (41,7 vs 69,2) ; n'étaient pas complètement immunisé au vaccin contre la poliomyélite (82,3 vs 100,0).

La paralysie concernait les membres inférieurs (77,0 vs 71,8). Nonante deux virgule sept pourcent d'alertes PFA étaient investiguées dans les 24 heures et 75,0 % des 2^e échantillon des selles prélevées étaient expédiées dans les 48 heures au laboratoire.

Conclusions: La couverture vaccinale contre la poliomyélite demeure très faible dans la zone de santé de Nyunzu. Les indicateurs de surveillance PFA sont dans les normes. La proportion d'enfants « zéro dose » est très élevée ; d'où la propension aux épidémies. Le renforcement de la vaccination de routine et supplémentaire s'avère impérieux.

Mots clés : Profil épidémiologique ; Paralysies Flasques aiguës ; Poliomyélites dérivées du vaccin ; Nyunzu.

Abstract ID: PP408

Factors associated with self-discontinuation of Pre-Exposure Prophylaxis among Adolescent Girls and Young Women in Mazowe District, Zimbabwe, 2021.

Godwin Choga¹, Owen Mugurungi², Gerald Shambira¹, Addmore Chadambuka^{1,&}, Tsitsi Patience Juru¹, Notion Tafara Gombe^{1,3}, Mufuta Tshimanga¹

¹Department of Primary Health Care Sciences, Family Medicine, Global and Public Health Unit. University of Zimbabwe, Harare, Zimbabwe.

²National AIDS and TB Program, Mukwati Building, Harare, Zimbabwe.

³Africa Field Epidemiology Training Network, Harare, Zimbabwe.

&Corresponding Author: Dr Addmore Chadambuka, Department of Primary Health Care Sciences, Family Medicine, Global and Public Health Unit. University of Zimbabwe, Harare, Zimbabwe, Email: achadambuka1@yahoo.co.uk

Introduction: Adolescent girls and young women (AGYW) in Zimbabwe are at high risk of acquiring HIV. In 2020, HIV incidence among AGYW was 9.5 times that of males. AGYW are targeted for Pre-Exposure Prophylaxis (PrEP) as part of combination HIV prevention. In Mazowe district, 28.7% of AGYW initiated on PrEP in 2021 self-discontinued within a month of commencement.

This reduces PrEP effectiveness and increases risk of emergence of HIV drug resistance. We determined factors associated with PrEP self-discontinuation among AGYW in Mazowe.

Methods: We conducted an analytical cross-sectional study among 384 AGYW. Participants were randomly selected proportionate to number initiated on PrEP in 20 health facilities in Mazowe District.

Using Interviewer-administered questionnaires data was collected on sexual behaviour, reasons for starting PrEP and determinants of self-discontinuation. We performed logistic regression analysis to determine independent factors for PrEP self-discontinuation.

Results: Of the 384 AGYW, 57.8% were married, 24.5% were divorced and 17.7% had never married. Reasons for starting PrEP among AGYW were multiple sexual partners (29.2%) and promiscuous sexual partner (29.2%).

Prevalence of PrEP self-discontinuation was 41% with a median time to self-discontinuation of 4 (IQR 2-5) months. Of 157 AGYW who self-discontinued PrEP, 59.2% had multiple sexual partners and 57.3% had transactional sex in the preceding 6 months.

Independent factors associated with PrEP self-discontinuation among AGYW were being a sex worker [aOR 4.86; 95% CI (1.33-17.69)], non-disclosure of PrEP status to sexual partner [aOR 3.63; 95% CI (2.13-6.19)], being discouraged to take PrEP by sexual partner [aOR 3.04; 95% CI (1.31-7.04)] and experiencing PrEP side effects [aOR 2.38; 95% CI (1.49-3.81)].

Conclusions: Sex work, lack of partner support and PrEP side effects were significant risk factors for self-discontinuation of PrEP. Economic empowerment projects for AGYW to reduce sex work, community awareness and provision of differentiated, client centred PrEP services may enhance PrEP retention.

Keywords: adolescent, pre-exposure prophylaxis, discontinuation, HIV, Zimbabwe.

Abstract ID: PP409

Measles Outbreak in Harper and Pleebo Districts, Maryland County, Liberia, 2022

Dedesco Doebia Gweh^{1,2,&}, Methodsius George², Maame Amo-Addae³, Chukwuma David Umeeokonkwo³, Himiede Wede Wilson-Sesay³, Lassana Molley Jabateh⁴

¹National Public Health Institute of Liberia, Monrovia, Liberia

²Maryland County Health Team, Ministry of Health, Harper City, Maryland County, Liberia

³Liberia Field Epidemiology Training Program, AFENET, Monrovia, Liberia,

⁴Partners In Health, Maryland County, Liberia

&Corresponding author: Dedesco Doebia Gweh, Maryland County Health Team, Harper City, Maryland County, Liberia. dedesco1212@yahoo.com

Introduction: Measles is a highly contagious disease caused by the measles virus. In Liberia, only one dose of the measles vaccine is given at nine months of age. Liberia had been in a protracted measles outbreak since December 2021. On February 2, 2022, a Community Health officer reported five suspected cases of measles from Harper City, Maryland County, Liberia. We investigated to verify the outbreak, identify the source and implement control measures.

Methods: Maryland County is one of the 15 counties in Liberia with a measles vaccination coverage of 82%, Harper District 81.5%, and Pleebo District 79.5% for 2021. We defined a suspected case as anyone from Harper and Pleebo Districts with fever, maculopapular (non-vesicular) generalized rash, cough/coryza, red eyes, or anyone in whom a clinician suspects measles from January 2022.

A probable case was anyone with the signs and symptoms above who has had contact with a confirmed case and a confirmed case was a suspect in whom measles was laboratory confirmed. Contact was anyone who lives or plays together with a confirmed case. We conducted active surveillance, isolated cases, identified and monitored contacts, and collected blood samples for laboratory confirmation. We vaccinated all eligible children in affected communities and analyzed data descriptively.

Results: Of the 120 cases, 20 were laboratory-confirmed and 100 were epidemiologically linked. The median age was 5 years (IQR: 3-7). Females constituted 55.0% (66/120) of cases and 19.2% (23/120) had not received measles vaccine.

The index case was a female one-year-old, a resident of Harper City, with no vaccination nor travel history, and had no contact with any confirmed measles case. The attack rate for Harper District was 3% and Pleebo was 7% respectively. No deaths were recorded, and no contacts became a case after 14 days of follow-up. We vaccinated 79 children during the reactive vaccination and all cases recovered.

Conclusions: We confirmed a measles outbreak in Harper and Pleebo Districts. The outbreak could be due to the effect of the COVID-19 pandemic on routine immunization. There is a need to evaluate measles vaccination in the districts.

Keywords: Measles, Outbreak, Liberia, Immunization

Abstract ID : PP410

Maladie à virus de Marburg : séroprévalence, facteurs associés, connaissances, attitudes et pratiques de la population de trois sous-districts de Guéckédou, Guinée mai 2022

^{1,&}Thierno Bassirou Baldé, ²Nouonan Gbamou, ³Jolie Kasongo Kayembe, ³Claude Mandro Ngoma, ³Salomon Corvil, ²Fodé Amara Traoré

¹Direction préfectorale de la santé de Pita, Guinée,

²Agence nationale de sécurité sanitaire, Conakry, Guinée

³African Field Epidemiology Network, Conakry, Guinée

&Auteur correspondant: Thierno Bassirou Baldé, Direction préfectorale de la santé de Pita, Guinée, Email : bassirbalde@gmail.com

Introduction: En août 2021, la Guinée a notifié le premier cas de maladie à virus Marburg (MVM), où 172 contacts (99,4 %) étaient recensés. Une étude écologique a identifié des grottes avec chauves-souris. La réticence de la communauté était notée. Cette étude vise à estimer la séroprévalence, identifier les facteurs associés et évaluer les connaissances, attitudes, pratiques des populations.

Méthodes: Nous avons mené une étude analytique transversale parmi les personnes de 15 ans et plus. Trente-huit grappes étaient choisies par échantillonnage en grappe de la base de l'Institut national des statistiques et 1111 individus par échantillonnage aléatoire simple. Vingt ml de sang étaient prélevés chez les adultes et 10 ml chez les enfants.

Nous avons effectué un test ELISA à Atlanta. Le niveau de connaissance était classé en faible, modéré, élevé. Attitudes en positive et négative et pratiques en bonne et mauvaise. Fréquences, rapport de prévalence (RP) avec intervalles de confiance à 95 % étaient calculés en utilisant Epi Info 7.2.4 et R.

Résultats: La séroprévalence globale était : 4(0,4 %), chez les contacts à haut risque : 36,4%, Témessadou M'Boké : 1,6%. De 984 personnes, 92% avaient de faibles connaissances, 66 % une attitude positive, 80 % des mauvaises pratiques. Les facteurs associés : être contacts à haut risque : [RP=151,1 ; IC95% (20,8-1106)], vivre à

Témessadou M'Boké : [RP=12,2 ; IC95% (1,35-123)], mineur [RP=17,64 ; IC95% (5,98-51,96)], bûcherons [RP=14,9 ; IC95% (4,94- 45. 06)], agents de santé [RP=9.7 ; 95%CI (3.07-30.66)].

Conclusions: La séroprévalence de MVM est faible mais élevée chez les contacts à haut risque et à Témessadou M'Boké. Faible connaissance, attitude positive et mauvaises pratiques. Être contact à haut risque, mineurs, bûcherons, agents de santé étaient des facteurs de risque. Les résultats étaient utilisés pour élaborer un plan de communication axé sur les populations à haut risque.

Mots clés: séroprévalence, facteurs associés, connaissance, attitude, pratique, virus de Marburg, Guéckédou, 2022

Abstract ID: PP411 Demographic and Clinical Characteristics of COVID-19 Deaths in Kadoma City, Zimbabwe, September 2020-August 2021: A Secondary Data Analysis

Derek Masokovere¹, Daniel Chirundu², Tsitsi Patience Juru¹, Gerald Shambira¹, Addmore Chadambuka^{1,&}, Notion Tafara Gombe¹, Mufuta Tshimanga¹

¹Department of Primary Health Care Sciences: Family Medicine, Global and Public Health Unit, University of Zimbabwe, Harare, Zimbabwe

²Kadoma City Health Department, Kadoma, Zimbabwe

&Corresponding Author: Addmore Chadambuka, 1Department of Primary Health Care Sciences: Family Medicine, Global and Public Health Unit, University of Zimbabwe, Harare, Zimbabwe
Email: achadambuka1@yahoo.co.uk , Phone: +263 24 2792157

Introduction: Zimbabwe recorded the highest Case Fatality Rate (CFR) for COVID-19 of 3.5% from June to September 2021. Kadoma City had CFR of 10% in the third wave which was above the national average. Analysis of COVID-19 deaths will help identify and describe the demographic and clinical characteristics of individuals who died from COVID-19.

We analyzed demographic and clinical characteristics

of COVID-19 deaths in Kadoma City from September 2020 to August 2021 to inform targeted prevention measures.

Methods: We conducted a secondary data analysis of 129 records of COVID-19 deaths for the period from September 2020 to August 2021 obtained from the Kadoma City COVID-19 death line list. Variables analyzed included age, sex, signs and symptoms, comorbidities, treatment received, date of diagnosis, date of death and survival time from date of diagnosis.

We generated frequencies, proportions and estimated the median time from diagnosis to death, the age and sex distribution and spatial distribution of deaths in Kadoma City.

Results: Of the 129 records of COVID-19 deaths, Males contributed 79 (61%) and the median age at death was 67 years [Interquartile range (IQR):47-80]. The median time from date of diagnosis to death was 3 days (IQR: 2-5). The major cause of death was acute respiratory distress syndrome (ARDS) 127 (98%). The commonest comorbidities were diabetes 28 (45%) and hypertension 28 (45%).

Conclusions: The majority of the deaths were living with comorbidities. Old age also makes them vulnerable to death from viral diseases such as COVID-19. COVID-19 deaths occurred mainly among the elderly and those with comorbidities. ARDS was the major cause of death. We recommended mobilisation of resources for contact tracing and patient monitoring to strengthen surveillance, risk communication and community engagement and acquiring of COVID-19 vaccines for targeted vaccination of the elderly and those with comorbidities.

Keywords: COVID-19, deaths, clinical characteristics

Abstract ID: PP417 Effectiveness of indoor residual spray on malaria control; a review of the malaria cases among children under five years in Rachuonyo North Sub County, Homa Bay County, Kenya.

Gabriel Kotewas^{1,&}, Onesmus Oketch¹, Phaniel Otieno¹
¹Department of Homa Bay County, Homa Bay, Kenya

&Corresponding Author: Gabriel Kotewas, Department of Homa Bay County, Homa Bay, Kenya, Email: gkotewas01@gmail.com,

Introduction: Indoor residual spraying (IRS) is one of the key interventions recommended by World Health Organization in preventing malaria infection. Rachuonyo North is one of the Sub counties of Homa Bay County where IRS has been implemented from 2018 to 2022. The objective of this study was to assess the effect of IRS on malaria cases among children under 5 years pre and post IRS.

Methods: IRS was done in the month of February every year, we abstracted retrospective malaria data from KHIS MOH 706 Rev 2022 for the year 2021 and 2022 and tallied monthly aggregates of total tests done and the positivity rates among children less than 5 years in Rachuonyo North Sub County.

We performed descriptive analysis and estimated the effect of the interventions and temporal changes of malaria positivity rate before and after IRS and nine months post IRS. We also compared the effect of the insecticide used during the IRS activity on malaria cases.

Results: Total malaria test were 8239 and 7502 in 2021 and 2022 respectively. Fludora fusion insecticide was used in 2021 IRS whereas SumiShield was used in 2022.

Average positivity rate was 20% (1582/8239) in 2021 and 29% (2192/7502) in 2022. Malaria cases reduced from 24% (94/390) in January to 10% (55/567) in February after IRS with Fludora fusion in 2021.

However, in 2022 there was increase in cases from 26% (181/705) in January to 30% (107/352) in February after spray with SumiShield. Follow up nine months later, malaria positivity rate was at 23% (204/872) from 10% with Fludora fusion whereas SumiShield recorded a slight increase to 32% (275/857) from 30%.

Conclusions: IRS has demonstrated reduction in malaria cases and effectiveness in malaria control however the efficacy seem to be short lived, if the frequency of spraying is enhanced can yield better Results.

Keywords: Effectiveness, IRS, Malaria, Control

Abstract ID: PP418

Achieving the 95-95-95 fast track targets: HIV care and treatment cascade, Zimbabwe, 2021: a secondary data analysis.

Ernest Tsarukanayi Mauwa¹, Owen Mugurungi², Tsitsi Patience Juru¹, Gibson Mandozana¹, Addmore Chadambuka^{1,8}, Notion Tafara Gombe¹, Gerald Shambira¹, Mufuta Tshimanga¹

¹Department of Primary Health Care Sciences: Family Medicine, Global and Public Health Unit, University of Zimbabwe, Harare, Zimbabwe.

²AIDS and TB and Unit, Ministry of Health and Child Care, Harare, Zimbabwe

&Corresponding author: Addmore Chadambuka, Department of Primary Health Care Sciences: Family Medicine, Global and Public Health Unit, University of Zimbabwe, Harare, Zimbabwe. E-mail: achadambuka@afenet.net

Introduction: Zimbabwe has one of the highest HIV prevalence in sub-Saharan Africa (12.8%). The HIV care and treatment cascade model outlines steps that People Living with HIV (PLHIV) go through from diagnosis, linkage to care, antiretroviral therapy (ART) initiation and retention in care until viral suppression is achieved.

The cascade model seeks to achieve and maintain viral suppression in PLHIV. We identified gaps in the HIV continuum of care.

Methods: We conducted an ecological study using aggregate secondary Zimbabwe HIV program data (DHIS2, Laboratory Information Management System and HIV Estimates) as data sources. There were no patient identifiers. Permission to undertake the study was obtained and ethical principles were adhered to.

Results: There were about 1 301 400 PLHIV in Zimbabwe in 2021. Of these, only 94% (1 223 316) knew their HIV status, 97% (1 188 636) of the 1 223 316 were on ART and 93% (1 105 431) of the 1 223 316 achieved virological suppression. Of the 72 100 children estimated to be living with HIV, 19 467 (27%) did not know their HIV status.

All children (52 633) known to be HIV positive were put on ART. However, 11 053 (21%) of those on ART (52 633) were unsuppressed. Of 3 456 PLHIV switched

from first line to second line ART, 410 (11.9%) were children. Of 227 PLHIV who switched from second line to third line ART, 201 (88.5%) were adults and 26 (11.5%) were children.

Conclusions: Zimbabwe achieved 94-97-93 of the UNAIDS 95-95-95 targets. Children (0-14) lagged behind on the first and third 95 at 73-100-79. Intensified case finding, targeted testing, accelerated defaulter tracking in children, strengthening infant diagnosis to improve the first 95 target and enhanced adherence counselling are recommended to improve performance on gaps identified and to sustain gains already achieved.

Keywords: HIV, Care, Treatment, Cascade, Continuum, Zimbabwe.

Abstract ID : PP420

Épidémiologie et Facteurs d'Exposition des Cardiopathies Congénitales au Service de Pédiatrie du Centre Hospitalier Universitaire Campus de Lomé de 2017 à 2022

Yamdi Kanou⁸¹, Manani Hemou¹, Mazama Pakoudjare¹, Winiga Logtabe Koudema², Possowa Papissi Gnansa³, Yendouban Douti⁴, Koffi Akolly⁵, Rébecca Méyé Kinde⁶

¹Service de Pédiatrie, CHU-Campus de Lomé, Togo

²Consultant IVD/Polio OMS Lomé, Togo

³Centre des Opérations et des Urgences de Santé Publique Lomé, Togo

⁴Centre de Formation et de Recherche en Santé Publique Lomé, Togo

⁵Institut National d'Hygiène Lomé, Togo

⁶AFENET Bureau Pays, Lomé, Togo

&Auteur correspondant: Yamdi Kanou, Service de Pédiatrie, CHU-Campus de Lomé, Togo
Email : k.yamdi@yahoo.fr

Introduction: Les cardiopathies congénitales (CC) représentaient 14,13% des pathologies prises en charge par l'ONG Terre des Hommes au Togo en 2002. Elles restent mal documentées à la pédiatrie du Centre Hospitalier Universitaire Campus (CHU-C). Cette étude est menée pour décrire le profil épidémiologique des CC et leurs facteurs d'exposition au CHU-C de Lomé de 2017 à 2022

Méthodes: Etude transversale portant sur les données des CC hospitalisées dans le service de pédiatrie du CHU-C de Lomé du 1er janvier 2017 au 31 décembre 2022. Tout enfant de moins de 16 ans dont l'échographie cardiaque révèle une malformation cardiaque a été considéré comme une CC.

Nous avons calculé des proportions avec IC à 95% et des moyennes avec écart type. Les variables étudiées étaient : âge, provenance, motifs de consultation et types de CC.

Résultats: Au total 87 cas de CC ont été recensés sur 8625 enfants hospitalisés soit une prévalence hospitalière de 1%. La létalité globale (22/87) était de 25,3%. Le sex-ratio (H/F) était de 0,8 et la tranche d'âge 1-24 mois était plus représentée (65,5%).

L'âge médian était de 7,5 mois IIQ (3-24). Les motifs de consultation étaient essentiellement la détresse respiratoire (40,3%), le souffle cardiaque (28,7%), la cyanose (27,5%).

Les CC les plus représentées étaient la communication interventriculaire (CIV=41,4%), la communication interauriculaire (CIA=24,1%), les canaux atrio-ventriculaires (CAV=16,9%) et la tétralogie de Fallot (T4F=8%).

La région sanitaire du Grand Lomé est la plus représentée avec 78,2% des cas. Les facteurs d'exposition notés étaient l'âge maternel ≥ 35 ans (41,3%), la consommation d'alcool (27,6%), la toxoplasmose (25,3%), la rubéole maternelle (13,2%), la consanguinité (2,3%).

Conclusions: Au CHU-Campus, les CC ont une faible prévalence dominée par les CIV et une forte létalité due aux CC cyanogènes et au retard de diagnostic. La sensibilisation sur les facteurs d'exposition pourrait réduire leur survenue.

Mots-clés: Cardiopathies congénitales, Communication interventriculaire, communication interauriculaire, facteurs d'exposition.

Abstract ID: PP421

Profil épidémiologique des cas de tentative de suicide et les facteurs associés aux décès au Centre Hospitalier Régional de Dapaong, Togo de 2018 -2022

Komlan Aziamadji^{1,2,&}, Yendoukoi Labite^{1,2}, Péléké Hilim³, Yenduban Douti⁴, Rebecca Kinde⁵, Koffi Akolly⁶

⁽¹⁾Centre Hospitalier Régional de Dapaong, Togo,

⁽²⁾Direction Régionale de la Santé, Savanes, Togo

⁽³⁾Direction Préfectorale de la Santé, Sotouboua, Togo

⁽⁴⁾Centre de Formation et de Recherche en Santé Publique, Lomé, Togo

⁽⁵⁾AFENET, Lomé, Togo

⁽⁶⁾Institut National d'Hygiène, Lomé, Togo

&Auteur correspondant: Komlan Aziamadji, Centre Hospitalier Régional de Dapaong, Togo, 00228 91 55 74 68 e-mail:aziamadjimichel@gmail.com

Introduction: Chaque année, selon l'OMS on dénombre plus de 800000 décès par suicide et de nombreuses tentatives de suicide (TS).

Dans la région des savanes du Togo, le nombre de TS est passé de 389 à 784 de 2018 à 2022 selon le DHIS2. Nous avons mené cette étude pour connaître le profil épidémiologique des victimes, leurs motivations ainsi que les facteurs associés aux décès.

Méthodes: Nous avons conduit une étude analytique transversale portant sur des patients admis pour TS du 1er janvier 2018 au 31 décembre 2022. Une revue des dossiers des patients admis a été faite.

Un TS est toute personne admise pour ingestion de produits chimiques, pharmaceutiques ou des gaz asphyxiants dans le but de mettre fin à sa vie.

Les variables étudiées: âge, sexe, profession, district de provenance, milieu de résidence, durée de séjour, substances utilisées, motif et issue. La médiane avec IIQ et les proportions ont été calculées, les OR au seuil de significativité statistique de 0,05.

Résultats: Au total, 657 cas de TS ont été enregistrés avec une incidence annuelle qui a varié de 39,3‰ à 48,1‰. Le sex-ratio H/F=0,7. L'âge médian était 30 ans

IIQ (23-42). La tranche d'âge de 20-39ans représentait 58,3%. Les cultivateurs/ménagères représentaient 77,4%. La résidence rurale représentait 75,8%. Les TS ont été enregistrés tous les mois de l'année. Le délai d'hospitalisation 0-3 jours représentait 90%.

Les pesticides étaient utilisés dans 67,1% des cas. Les conflits conjugaux et familiaux représentaient 39,3%. Le milieu de vie (OR=1,9[1,13-3,09]), la durée d'hospitalisation 0-1 jour (OR=34,90 [12,58-96,80]) et la prise de pesticides (3,32 [1,01-10,90]) étaient associées au décès.

Conclusions: Les TS étaient majoritairement des cultivateurs/ménagères jeunes du milieu rural. Vivre en milieu rural et ingérer les pesticides constitue un risque pour le décès. Une enquête communautaire et des sensibilisations s'avèrent nécessaire.

Mots-clés: Tentative de suicide, Facteurs associés, Pesticides, Savanes, Togo.

Abstract ID: PP423

Investigation de Mortalités Massives de Volailles dans le Village de Solimbia, Commune de Kaboli, Togo en Février 2022

Yanissou Djobo^{1&}, Gilbert Kouama¹, Salami Bebou², Rébecca Kinde³, Yendoubam Douti⁴, Koffi Akolly³

¹Division contrôle vétérinaire/ Région centrale – Sokodé -Togo ; Ministère de l'Agriculture de l'Elevage et du Développement Rural

²Direction régionale de la santé/centrale- Sokodé – Togo ; Ministère de la Santé de l'hygiène publique et de l'Accès Universel aux Soins.

³Programme de Formation en Epidémiologie de Terrain, Lomé – Togo

⁴Centre de Formation en Santé Publique, Lomé - Togo

&Auteur correspondant: Yanissou DJOBO, Division Contrôle Vétérinaire/Région Centrale, Sokodé, Togo. Email: yandjob22@gmail.com

Introduction: Des mortalités massives de volailles nous ont été notifiées par un auxiliaire villageois d'élevage le 6 février 2022 dans le village de Solimbia dans le District de Tchamba. Nous avons mené cette investigation pour identifier l'agent pathogène et mettre en place les mesures de contrôle.

Méthodes: Nous avons conduit une étude descriptive. Un cas suspect était toute mortalité de tout espèce de volaille dans le village de Solimbia avec des signes suivants : hémorragie, troubles respiratoires, diarrhée, troubles nerveux, prostration entre le 14 janvier et le 8 février. Nous avons effectué des Tests de diagnostic rapide de l'Influenza Aviaire (IA) puis réalisé des prélèvements d'organes, de sang et d'écouvillons pour la recherche des Ag de l'IA et de la Maladie de Newcastle (MN) par PCR. Nous avons calculé la médiane et les proportions.

Résultats: Un total de 179 cas a été enregistré avec une létalité de 81,5% dans 03 concessions contiguës à Solimbia. Le taux d'attaque cumulé était de 114 cas/1000 têtes. L'âge médian était de 4,6 mois avec des extrêmes de 1-16mois. Le cas index, poule de 7 mois, a présenté les signes suivants : gonflement du cou, dyspnée, diarrhée, incoordination motrice, prostration le 1/02/2022 et est mort le 02/02/2022. Le cas primaire a été introduit dans le poulailler le 19/01/2022 sans quarantaine et est mort le 26/01/2022. Les espèces de volailles (pintades, canards, poules) vivantes en divagation étaient représentées et aucune n'était vaccinée. Les résultats du TDR étaient négatifs et ceux de la PCR ont confirmé la MN.

Conclusions: C'était une épidémie de la MN dans 03 concessions due à l'introduction d'une nouvelle volaille sans quarantaine et dont la propagation a été favorisée par le -type d'élevage. Nous avons abattu les volailles atteintes, mené une riposte vaccinale et sensibilisé les ménages et éleveurs sur l'importance de la vaccination.

Mots-clés: Mortalités massives, Maladie de Newcastle, Influenza aviaire, Solimbia, Togo.

Abstract ID : PP430

Investigation des cas de Covid -19 dans le district de Nongrémassom dans la région du Centre, Burkina Faso 2023

Clarisse Balima^{8,1,4}, Pascal Kabore^{1,4}, Herman Madi Nikiema^{1,2,4}, Djibril Barry⁴, Hugues Alphonse Tarpaga¹, Kabore Yamregm^{1,2}, Adjima Combarry^{1,3}, Pauline Kiswendsida Yanogo^{1,4}, Nicola Meda^{1,4}

¹Ministère de la santé, Ouagadougou, Burkina Faso

²Centre des Opérations de Réponses aux Urgences Sanitaires (CORUS), Ouagadougou, Burkina Faso

³Programme National de Lutte contre la Tuberculose (PNT) Ouagadougou, Burkina Faso

⁴Burkina Field Epidemiology and Laboratory Training Program (BFELTP) /Université Joseph Ki Zerbo, Ouagadougou, Burkina Faso

***Auteur correspondant:** BALIMA Clarisse, Burkina Field Epidemiology and Laboratory Training Program (BFELTP) /Université Joseph Ki Zerbo, Ouagadougou, Burkina Faso, Email : kyauriane@gamil.com

Introduction: La COVID-19 a été déclarée comme est une urgence de santé publique de portée internationale. Le premier cas de COVID-19 a été notifié au Burkina Faso, le 9 mars 2020. Le 13 Février 2023, une épidémie de covid- 19 a été signalée dans deux établissements scolaires privés.

Une enquête a été menée pour évaluer l' ampleur de la situation et mettre en œuvre des mesures de prévention et de contrôle.

Méthodes: Nous avons mené une enquête transversale descriptive du 17 Février au 13 Mars 2023 dans les deux établissements scolaires privés du district de Nongrémassom dans la région du centre au Burkina Faso. Les données socio démographiques épidémiologiques et cliniques pour les cas confirmés et les cas suspects ont été recueillies et analysées avec Excel et Epi Info présentés sous forme de tableaux et de graphiques

Résultats: Il y a eu deux éclosions distinctes de COVID-19 dans le district de Nongrémassom. Le cas index était un homme de 56 ans avec notion de voyage récent. Le premier foyer avait quatre cas confirmés et le second cinq cas confirmés. Le taux d'attaque le plus élevé était de 4 cas pour 100 habitants dans le premier foyer. L'âge moyen des cas confirmés est 32 ans avec un sex- ratio = 4 (femme/homme). Le signe le plus fréquent était la faiblesse générale dans 70% des cas. La couverture vaccinale était de 80% .Tous les contacts ont été suivi et testé négatif pour COVID-19. Il n'y a pas eu de décès.

Conclusions: L'investigation a confirmé une épidémie de COVID-19 le district de Nongrémassom. La recherche efficace des contacts, respect des mesures barrières, une éducation et une promotion adéquates de la santé par la direction des établissements ont contribué à circonscire l'épidémie.

Mots-clés: Covid -19, épidémie, Burkina Faso, 2023.

Abstract ID : PP433

Investigation d'un cas de rage canine à Kiffa, Région d'Assaba, Mauritanie, Avril 2022

El Yedaly Mohameden Hamed^{1&}, Sidi Mohamed Hama², Ba Hamet Abderahmane³, Pedwindé Hamadou Seogo⁴
¹Délégation de l'élevage de l'Assaba, Direction des services Vétérinaires, Ministère de l'élevage – Kiffa – Mauritanie,

²Office National de recherches et de développement de l'élevage et du Pastoralisme- Nouakchott- Mauritanie.

³Ministère de la santé, Directeur du programme Mauritanie – FETP, Nouakchott – Mauritanie

⁴African Field Epidemiology Network (AFNET), Nouakchott- Mauritanie

&Auteur correspondant: El Yedaly Mohameden HAMED, Délégation de l'élevage de l'Assaba, Direction des services Vétérinaires, Ministère de l'élevage – Kiffa – Mauritanie, email : yedalihamed@yahoo.fr

Introduction: Le 6 avril 2022, la délégation vétérinaire a été informé par la Direction régionale de la santé de l'Assaba d'un cas de morsure d'un enfant par un chien suspect de rage dans la ville de Kiffa. Nous avons mené une investigation pour confirmer la suspicion de cas de rage, identifier d'autre cas de morsure et mettre en place les mesures de contrôle et de riposte.

Méthodes: Nous avons mené une étude descriptive du 02 au 16 avril 2022 dans la population animale et humaine de Kiffa. Nous avons recherché activement les cas dans les registres et dans la communauté. Des entretiens avec les malades et accompagnants ont été effectués en utilisant un questionnaire pour collectés les données sur les animaux et les personnes mordues. Des prélèvements ont été faits pour le laboratoire.

Résultats: Le chien mordeur était de race locale, errante, femelle, âgée de 6 ans, non vacciné avec de petites blessures sur le corps. Il a été abattu et la tête prélevée le 6 avril 2022 pour le laboratoire qui a confirmé la rage le 07 avril 2022. La chienne a mordu trois personnes d'une même famille (deux hommes âgés de 3 et 6 ans et une femme de 2 ans) et une brebis de 5

ans, tous au quartier de Seyf dans la ville de Kiffa. Les personnes mordues ont été suivis et ont bénéficié des traitements selon le protocole national ce qui a permis leurs guérisons. La brebis mordue a été abattue.

Conclusions: L'investigation a permis de confirmer la rage provoquée par une chienne errante. Les mesures prises nous ont permis d'interrompre la chaîne de transmission. Nous recommandons de renforcer la sensibilisation de la population sur la rage et les campagnes de vaccination des chiens.

Mots-clés: Rage, Chien, Investigation, Kiffa, Assaba, Mauritanie

Abstract ID: PP434

Clinico-epidemiological characteristics of Road Traffic injuries presenting at the Trauma Centre of Connaught Teaching Hospital, Sierra Leone, 2020-2022

Isata Theresa Kamara^{1,2}, Annah Jammeh^{2,3}, Solomon Sogbeh^{1,2}, Umar Sesay^{1,2}, Adel Hassan Elduma Abdalla^{2,3}, Amara Sheriff^{1,2,3}, Gebrekrstos Negash Gebru^{2,3}

¹Ministry of Health and Sanitation, Freetown, Sierra Leone. ²Sierra Leone Field Epidemiology Training Program (SLFETP), Freetown, Sierra Leone.

³African Field Epidemiology Network (AFENET), Freetown, Sierra Leone.

&Corresponding Author: Gebrekrstos Negas Gebru, African Field Epidemiology Network (AFENET), Freetown, Sierra Leone. Email: ggebru@afenet.net

Introduction: Road traffic accidents account for a significant proportion of unintentional injuries and cause morbidity, disabilities, and mortality. In Sierra Leone, 2,763 accidents with 770 serious injuries and 31% of deaths were recorded in 2020. The study aimed to describe the clinico-epidemiological characteristics of road traffic injuries seen at the accident center at Connaught Teaching Hospital, Freetown.

Methods: We conducted Hospital-based secondary data analysis of road traffic injury attendees at the Connaught Teaching Hospital. Medical records were

extracted using a checklist from charts of all patients of road traffic accidents treated at the Hospital from January 1, 2020, to December 31, 2022. Data were entered, cleaned, and analyzed, findings presented in frequencies and percentages..

Results: In total, 336 cases were registered, sixty nine percent (210) were the age group 20 – 41 years and 78.6% (264) were males. Students accounted for 17.3% and residents of the Westend of Freetown accounted for most cases (25%). Case severity with potential disabilities was at 6.3 %. Most common injuries were lacerations 158(47%), fractures 138(41%) , abrasions 97(29%) , and swellings 87(26%) .

Commonly injured body parts werelower Limbs 51% and head 43%. Fractures of tibia (15.5%), fibula (11.7%), and femur accounted for 8% of lower limb injuries while the most common injuries of the head were lacerations and fractures of the basal skull 6.3% and mandible 2.4%. The fatality rate was 7.7 %, most injuries occurred between 16:00 and 8:00 local time ,86% presented on the same day and Motorbikes and Tricycles are the leading causes (44%). Unknown vehicle type (OR=3.53,95% CI 1.39-9.01) and age group 20-40years (P=0.011) had increased risk (X²=16.0027) of dying at bivariate analysis.

Conclusions: Road traffic accidents caused a significant number of deaths and we therefore recommend the Ministry of transportation to increase road checks during the hours of 16:00 to 8:00.

Keywords: Road Traffic Accident, Epidemiology, Fracture, swelling, Records

Keywords: Road Traffic Accident, Epidemiology, Fracture, swelling, Records

Abstract ID: PP435

Evaluation of HIV Surveillance System within the Prevention of Mother to Child Transmission Program, Western Area Urban District, Sierra Leone, 2022

Saidu Heisenberg Mansaray^{1,2}, Umaru Sesay^{1,2,3}, Amara Alhaji Sheriff^{1,2,3}, Adel Hussein Elduma^{2,3}, Gebrekrstos Negash Gebru^{2,3&}

¹Ministry of Health and Sanitation, Freetown, Sierra Leone

²Sierra Leone Field Epidemiology Training Program,

Freetown, Sierra Leone

³African Field Epidemiology Network

&Corresponding author: Gebrekrstos Negash Gebru; Sierra Leone Field Epidemiology Training Program, Freetown, Sierra Leone; ggebru@afenet.net

Introduction: In 2015, the HIV surveillance system was established within the mother-to-Child Transmission Programme, to monitor the epidemiological trend and pattern of HIV. To date, no studies have been conducted to determine its performance.

Here, we describe the operation and evaluate the characteristics of the HIV surveillance system within the PMTCT program in the urban district of the Western area.

Methods: We conducted a descriptive cross-sectional study from October to December 2022. We purposively selected and interviewed 18 healthcare workers using a semi-structured questionnaire to describe the operation and evaluated qualitative attributes. We review health facility registers and District Health Information Systems (DHIS2) to assess quantitative attributes, from January to December 2022. We used a Likert scale to rank attributes: as poor (<3), average (3-7), or good (>7). We averaged the scores per each attribute; and reported for quantifiable data.

Results: The HIV surveillance system operates as a passive surveillance system. Data reporting is done monthly; feedback and supervision are done quarterly. Simplicity was average, with 69% of respondents saying that the case definition was easy to use. Acceptability was good, with 79% of the respondents saying that healthcare workers were willing to participate in the system. Stability was good, with 73% of the respondents stating that the system did not experience a breakdown. Representativeness was poor, as private health facilities do not perform HIV surveillance. Sensitivity was good; the proportion of records submitted to DHIS2 was 90% (74,555/82,839). The usefulness was average, with 57% of respondents saying actions were taken on generated data.

Conclusions: The HIV surveillance system was useful in meeting its objective. However, the lack of participation in private health facilities implies that the system might be missing cases. We recommend that private health facilities receive tools and capacity-building training in the HIV surveillance system.

Keywords: HIV/AIDS, PMTCT, Surveillance, Sierra Leone. (297/300 words)

Abstract ID: PP436

Measles resurgence: An outbreak investigation in Chimanimani district, Manicaland province, Zimbabwe, 2022

Ernest Tsarukanayi Mauwa¹, Owen Mugurungi², Tsitsi Patience Juru¹, Gibson Mandozana¹, Addmore Chadambuka^{1,&}, Notion Tafara Gombe¹, Gerald Shambira¹, Mufuta Tshimanga¹

¹African Field Epidemiology Network, Harare, Zimbabwe (AFENET)

²AIDS and TB and Unit, Ministry of Health and Chilcare, Harare, Zimbabwe

&Corresponding author: Addmore Chadambuka, Department of Primary Health Care Sciences: Family Medicine, Global and Public Health Unit, University of Zimbabwe, Harare, Zimbabwe.
E-mail: achadambuka@afenet.net

Introduction: Measles is a vaccine-preventable disease. It's highly contagious with a 90% attack rate if not immune. Children that are unvaccinated, below 5 years of age, malnourished or immune-compromised are at risk of severe measles disease. The World Health Organization recommends routine and supplemental immunizations. We set out to determine the factors contributing to resurgence of measles in Chimanimani District.

Methods: We conducted a 1:1 unmatched case-control study in Chimanimani district. A case was a person residing in Chimanimani district below 15 years who developed signs and symptoms of measles or tested IgM positive from 06 August to 06 September 2022. Controls were neighborhoods who did not have measles signs and symptoms. Cases were randomly selected. We recruited 126 cases and 126 controls. An Interviewer-administered questionnaire, line list, and record review of cases were used to obtain information about the outbreak.

Permission for the study was sought and ethical principles were adhered to. We estimated vaccine effectiveness. We analyzed the district vaccination coverage. We conducted bivariate analysis and logistic regression controlling for confounding.

Results: Majority 102 (80.9%) of measles cases were unvaccinated while 58 (46.0%) controls were unvaccinated. Age of child less than 5 years [AOR= 2.06, 95% CI (1.15-3.68)] and receiving less than 2 doses of measles vaccine [AOR 5.27, 95% CI (2.96-9.38)] were independent risk factors for contracting measles. The Chimanimani district measles vaccination coverage ranged between 70–89% during 2018 to 2022. Vaccine effectiveness was 84% (95% CI: 66 - 92%) in children aged 9 - 59 months.

Conclusions: Measles outbreak was due to a high susceptible population as there was a low vaccination coverage and lack of herd immunity. Vaccine effectiveness was high. We recommend increasing routine and supplemental immunizations coverage to at least 95% so as to achieve and sustain herd immunity.

Keywords: Measles, Outbreak, Vaccination, Chimanimani, Zimbabwe

Abstract ID: PP437

Predictors of time to viral load suppression in young people in Gwanda District, Zimbabwe 2021

Mutizwa Thomas Mupedziswa¹, Rudo Chikodzore², Gerald Shambira¹, Addmore Chadambuka^{1,&}, Tsitsi Patience Juru¹, Mujinga Karakadzai¹, Notion Tafara Gombe^{1,3}, Mufuta Tshimanga¹

¹Department of Primary Health Care Sciences: Family Medicine, Global and Public Health Unit, University of Zimbabwe.

²Matabeleland South Provincial Medical Directorate, Ministry of Health and Child Care, Harare, Zimbabwe.

³African Field Epidemiology Network, Harare, Zimbabwe (AFENET)

&Corresponding Author: Addmore Chadambuka, Department of Primary Health Care Sciences: Family Medicine, Global and Public Health Unit, University of Zimbabwe.
Phone number: +263 242792157, Email: achadambuka1@yahoo.co.uk

Introduction: Antiretroviral Treatment (ART) aims to achieve and maintain viral suppression in individuals living with HIV. Unsuppressed viral load

leads to HIV transmission, susceptibility of HIV patients to infections, and premature death. Gwanda District failed to meet national target of viral suppression of 95%. We determined predictors of time to suppression in ART-initiated young people (15-25 years).

Methods: We reviewed records of young people 15-25 years in Gwanda district. Demographic and baseline clinical characteristics were captured using Microsoft Excel and analyzed using Epi info 7.

Kaplan Meier log-rank test was used to compare time to event experience between groups of different baseline clinical characteristics. Cox proportional hazard model was used to determine significant predictors.

Results: Median time to suppression was 207 days Interquartile range (IQR) (204-215). The majority were females 502/667 (75.4) and the majority age group was 21-25 years 428/667 (64.3%).

The study observed curve differences in categories of Cotrimoxazole preventative therapy (CPT), baseline CD4>350cells/ml, and tuberculosis preventative therapy (TPT) (p-value <0.00). Independent predictors of time to viral load suppression were baseline CD4 count>350cells/ml [Adjusted Hazard Ratio (AHR) = 2.52 (95% CI 1.94-3.28)], CPT [AHR = 3.18 (95% CI 2.31-4.38)], TPT [AHR = 5.48 (95% CI 4.22-7.11)], substance use [AHR = 1.56 (95% CI: 1.14-2.14)], and migration [AHR = 1.549 (95% CI: 1.25-1.92)].

Conclusions: The median time to viral suppression was marginally higher than the expected 180 days. Predictors of time to suppression included baseline CD4, baseline viral load, migration, substance use, CPT and TPT.

Migrants and substances users had delayed times to suppression probably due defaulting by substance users and reduced ART access leading to poor adherence among migrants.

We recommended intensive monitoring of at-risk persons and improved CPT and IPT to reduce time to viral suppression.

Keywords: Viral load, suppression, Young People, migration,

Abstract ID: PP44 I

Assessing awareness, attitude, and practices of veterinarians towards antimicrobial resistance in Bugesera District of Rwanda- January to February 2023.

Sarah Mwera^{1&}, Hyacinthus Uwitonze², Methodse Ngabo Gasana², Jean Claude Niyoyita³, Emmanuel Nshimiyimana³

¹Rwanda Agriculture and Animal Resources Development Board, Kigali-Rwanda

²Bugesera District, Bugesera, Rwanda

²Rwanda Agriculture and Animal Resources Development Board, Kigali-Rwanda

³African Field Epidemiology Network (AFENET), Kigali-Rwanda

&Corresponding Author: Sarah MWERA, Rwanda Agriculture and Animal Resources Development Board, Kigali-Rwanda, mwersarah@gmail.com

Introduction: Antimicrobial resistance is one of the greatest global health challenges and as consumption of animal protein increases in low and middle-income countries, accurate monitoring of antimicrobial resistance (AMR) becomes very important. Rwanda is facing increases in AMR in different sporadic places of the country mainly due to improper use of antibiotics by veterinarians and individuals providing animal health services. This study aimed at assessing awareness, attitude, and practices of antimicrobial resistance among veterinarians in Rwanda.

Methods: We conducted a cross-sectional study among operational public and private veterinarians from January to February 2023 in Bugesera District, Rwanda. We collected data on awareness, attitudes, and practices of veterinarians towards antimicrobial resistance using a pre-designed questionnaire through online google form. The form was distributed through emails and WhatsApp group. Data was analyzed using Excel and findings were presented in frequencies and proportions.

Results: A total 45 veterinarians were interviewed. Of them 37(82.2%) were males, 23 (51.1%) were aged between 30-39 years, 33(73.3%) were private veterinarians and 15(33.3%) had bachelor's degree. Of

the respondents, 44(97.8 %) knew and respected the dose prescription, 40(88.9%) were aware and respected the antimicrobials storage conditions, 32(71.1%) had not received any training on antimicrobial resistance. Through routine supervision of respondents, 31(68.9%) reported to have witnessed farmers prescribe antibiotics and treat animals by themselves, while 23(51.1%) reported that farmers do not respect dosage.

Conclusions: The study finding revealed that even though a high number of veterinarians were not trained on antimicrobial resistance they knew and respected antibiotic usage.

However, it has been observed that farmers are the ones treating the big number of animals and misuse antibiotics, hence antimicrobial resistance. Thus, awareness of treatment and drug use guidelines adherence were recommended to prevent antimicrobial resistance.

Keywords: Antimicrobial resistance, Attitudes, awareness, veterinarian practices

Abstract ID: PP445

Positivity rate of Pulmonary Tuberculosis among people Living with Human Immunodeficiency Virus attending Kibungo Referral Hospital, Ngoma District-Rwanda 2020-2021

Shaban Havugimana^{1&}, Patrick Uwiduhaye¹, Jean Claude Niyoyita², Emmanuel Nshimiyimana²

¹Kibungo Referral Hospital, Kibungo, Rwanda

²African Field Epidemiology Network (AFENET), Kigali, Rwanda

&Corresponding author: Shaban HAVUGIMANA, Kibungo Referral Hospital, Kibungo, Rwanda, inezashaban5@gmail.com.

Introduction: Pulmonary tuberculosis (TB) is one of the leading causes of death among people living with HIV in developing countries. Each year, all people living with HIV and under follow up are screened for TB infection.

However, data are not systematically analyzed in Ngoma district. In 2022, we reviewed Hospital data to determine the positivity rate and characterize TB patients among people living with HIV (PLHIV) attending Kibungo Referral Hospital.

Methods: A cross-sectional retrospective study was conducted at Kibungo Referral Hospital in Rwanda. We reviewed clinical registers and files of PLHIV and their laboratory TB screening results, in the period of 2020-2021 at Kibungo Referral Hospital.

The positivity rate was calculated using the number of TB Positive divided by the Number of PLHIV multiplied by 100. We assessed demographics and ARV adherence among co-infected. Data were extracted into Excel sheets and analyzed. Results were presented using frequency and proportions.

Results: A total of 110 PLHIV were under follow up at Kibungo Referral Hospital. Of them, four were diagnosed with pulmonary TB, yielding a positivity rate of 3.6%. Among co-infected people, 3/4 (75%) were males, including 2/3 (66.6%) in age group 30-39 years and 1/3 in age group 40-49 years, while 1/4 (25%) was female in age group 20-29 years. None of the co-infected people had good adherence to antiretroviral (ARV).

Conclusions: Despite the efforts to halt TB and HIV co-infection, there are still preventable cases of co-infection in Kibungo. Failure to adhere to ARV might have been attributed to these cases of co-infection.

These results were presented to Hospital management with recommendations to strengthen awareness of efficient use of ARV drugs, and to determine factors associated with developing TB-HIV co-infection. Thus, the ARV department has implemented regular follow up of ARV uptake.

Keywords: Person living with HIV, Tuberculosis, Positivity rate, TB&HIV Co-infection.

Abstract ID : PP450

Assessment of Nutritional Status among Children Living with HIV in Kibuye Referral Hospital Catchment Area, Karongi district - Rwanda, January-November 2022

Jean Pierre Bucyanayandi^{1,*}, Michel Ishimwe¹, Jean Claude Niyoyita², Emmanuel Nshimiyimana²

¹Kibuye hospital, Karongi, Rwanda

²African Field Epidemiology Network (AFENET), Kigali, Rwanda

&Corresponding author: Dr Jean Pierre Bucyanayandi, Kibuye hospital, Karongi, Rwanda, email: bujepie@gmail.com; Tel: +250788639913

Introduction: Achieving the Sustainable Development Goals about nutrition depends on the ability to address nutritional status of children in general and those infected or affected by HIV/AIDS in particular. Deficient intake and obesity are the two most common types of pediatric malnutrition. Thus, this study aimed to assess nutritional status of children under fifteen years of age living with HIV at Kibuye hospital catchment area.

Methods: This is a descriptive cross-sectional study conducted at Kibuye Hospital catchment area. HIV clinical files of children Under 15 years who had under follow up from January to November 2022 were reviewed in the period of October to November 2022. Anthropometric measures including age, weight and height were used to identify the types and degree of malnutrition including stunting, wasting and obesity while the WHO classification (Growth charts and Z-scores) was used for categorization. Data were analyzed using Microsoft excel to express different proportions.

Results: A total of 104 children under fifteen years living with HIV were identified, of whom 51% were female. Of them, 52% had malnutrition including 39.4% (41/104) with stunting and 12.5% (13/104) with wasting. Of the children with stunting, 19.2% and 20.2% had moderate and severe stunting respectively. Among the children with wasting 8.6% and 3.8% were moderate and severe respectively. None of the children had obesity.

Conclusions: The findings show that most Children living with HIV in Kibuye hospital have had malnutrition either stunting or wasting. Strengthened awareness strengthening on proper nutrition was initiated for the children attending follow up sessions. However, further studies were recommended to explore possible causes of malnutrition in the area to guide the appropriate interventions.

Keywords: HIV, malnutrition, stunting, wasting, Growth Charts and Z-scores, Children

Abstract ID : PP455

Investigation d'une épidémie de Mpox dans l'aire de santé Iofuko, zone de santé de Befale, Tshuapa, République Démocratique du Congo, 2022.

Jacques Lomanga^{1*}, Passy Bosomba⁴, Elie Bongenda⁴, Marc Yambayamba², Belinda Ayumuna³, Aimée Lulebo²

¹Programme de Formation en Epidémiologie de Terrain (FETP), Ecole de santé Publique, Université de Kinshasa, Kinshasa, RDC,

²Département d'épidémiologie et Biostatistique, Ecole de santé Publique, Université de Kinshasa, Kinshasa, RDC

³Africa Field Epidemiology Network (AFENET), Kinshasa, RDC.

⁴Bureau information sanitaire et communication, Division Provinciale de la Santé Tshuapa, Boende, RDC.

&Auteur correspondant: Jacques Lomanga, Programme de Formation en Epidémiologie de Terrain, Ecole de Santé Publique, Université de Kinshasa, Kinshasa, RDC, Tél : (+243)811968713, lomangajacques80@gmail.com

Introduction: Mpox est une maladie zoonotique causée par l'Orthopoxvirus. Il circule dans les régions tropicales humides d'Afrique occidentale et centrale. Il est endémique en RDC notamment dans les provinces de la Tshuapa et de Sankuru. Le 20 septembre 2022, onze cas suspects dont cinq décès (létales:45,5%) ont été rapporté dans l'aire de santé (AS) Lofuko, proche de la réserve naturelle de Lomako. Une investigation a été conduite pour confirmer ou infirmer l'existence d'une épidémie en décrivant les facteurs de risque (sociodémographiques et cliniques) et mettre en place les mesures de contrôle.

Méthodes: Une étude transversale descriptive a été réalisée dans la ZS Befale du 22 au 26 septembre 2022.

La fiche d'investigation au cas par cas a été utilisée pour récolter les informations chez tous les cas suspects et un écouvillonnage a été réalisé et envoyé au laboratoire national de santé publique pour des tests PCR spécifiques du virus de la variole du singe et varicelle-zona. Les analyses statistiques descriptives ont été utilisées avec Excel 2016.

Résultats: Au total 11 cas suspects dont 5 décès (léthalité : 45,5%) ont été identifiés dans l'AS Lofuko, ZS Befale avec une vitesse de propagation 5%.

L'âge moyen de cas suspects était de 11 ans, un sexe ratio H/F= 1,8 ; la profession de chasseur était un des facteurs ayant favorisé la propagation de la maladie ; tous les cas avaient consommé la viande d'un singe trouvé mort. Parmi les 11 échantillons prélevés, 7(63,6%) ont été confirmés positifs au Mpox.

Conclusions: Cette investigation a permis de confirmer l'épidémie. L'isolement, la prise en charge des cas, la sensibilisation communautaire sur les mesures d'hygiène, la manipulation et la consommation des animaux malades ou trouvés morts pourraient contribuer à réduire la morbi-mortalité liée à la maladie.

Mots-clés: Etude transversale, Mpox, Befale, Tshuapa, République Démocratique du Congo, RDC

Abstract ID: PP457

Investigating Cholera Outbreak in Nyamasheke District, Rwanda from 20th February to 09th March, 2023

Solange Nyinawabeza^{1,2&}, Esperance Niragire², Emmanuel Nshimiyimana³, Jean Claude Niyoyita³

¹Field Epidemiology Training Program, Kigali, Rwanda

²Kibogora Hospital, Nyamasheke, Rwanda

³African Field Epidemiology Network AFENET, Kigali, Rwanda

&Corresponding author: Solange Nyinawabeza, Kibogora Hospital, Nyamasheke, Rwanda, nyinawabeza@gmail.com

Introduction: Every year, around 1.3 to 4 million people in the world suffer from cholera and 21,000 to 143,000 dies from it. In Rwanda, especially in the Kivu Lake belt, cholera remains a public health concern. Suspected cholera cases were reported beginning 20th February 2023 from three sectors of Nyamasheke District: Mahembe, Kagano and Gihombo, each bordering Lake Kivu. An investigation was conducted with the aim to confirm diagnosis and propose interventions.

Methods: A cross sectional outbreak investigation was conducted from 20th February to 9th March 2023. We reviewed clinical registers and interviewed patients using a questionnaire.

A suspected case was any person older than two years, from Mahembe, Kagano and Gihombo sectors, with watery diarrhea more than three times per 24 hours, vomiting, and dehydration, symptoms of onset on or after 20th February 2023.

Samples were collected and sent to the National Reference laboratory for confirmation. A confirmed case was isolation of *Vibrio cholerae* in the stool of suspected case. A line list for data collection was established and drug sensitivity pattern was performed.

Results: In total, 29 suspect cholera cases were identified, and line listed. Most of them 20(68.9%) were from Mahembe Sector, 16(55.1%) were females and 14(48.2%) were between 21-40 years. All suspected cases had watery diarrhea and 29(100%) reported to use untreated Kivu Lake water. Seventeen stool samples collected, 9(53%) *Vibrio Cholerae* 01 ogawa were isolated which were 100% sensitive to Tetracycline and 100% resistant to Cotrimoxazole. Case fatality rate was 0%.

Conclusions: The investigation concluded the occurrence of Cholera outbreak in Nyamasheke district, which was likely due to the use of untreated water from Kivu Lake. As response, community sensitization on cholera prevention was conducted and refresher training and tabletop exercise on cholera outbreak preparedness and readiness with rapid response teams from hospitals around Kivu Lake conducted.

Keywords: Cholera, Outbreak investigation, Nyamasheke District, Kivu Lake

Abstract ID: PP460

Sero-prevalence of transfusion-transmissible infections among blood donors in Port Loko District Government Hospital, Sierra Leone: 2020-2021

Mbaimba Saidu Kamara^{1,2}, Anna Jammeh², Solomon Aiah Sogbeh^{1,2}, Amara Sheriff^{1,2}, Umar Sesay^{1,2}, Adel Hussein Elduma², Gebrekrstos Gebru^{2&}

¹Ministry of Health and Sanitation, Freetown, Sierra Leone

²Sierra Leone Field Epidemiology Training Program, Freetown, Sierra Leone

&Corresponding author: Gebrekrstos Negash Gebru; Sierra Leone Field Epidemiology Training Program, Freetown, Sierra Leone; ggebru@afenet.net

Introduction: The Prevention of blood transfusion-transmitted infections includes the routine screening of blood donors and donated blood products. Hepatitis B Virus (HBV), hepatitis C virus (HCV), human immunodeficiency virus (HIV), and Syphilis are among the greatest threats to blood safety for recipients. They are also the leading causes of death and chronic and life-threatening abnormalities. Blood transfusion accounts for 5–10% of HIV infections in sub-Saharan Africa. The study aims to determine the seroprevalence of HBV, HCV, HIV, and syphilis and associated factors among blood donors in Port Loko District Sierra Leone.

Methods: A retrospective observational study of apparently healthy blood donors from January to December 2020-2021 was reviewed. Seroprevalence of hepatitis B, hepatitis C, human immunodeficiency viruses and syphilis were determined in whole blood donations collected at Port Loko District Hospital, using Elisa kits following standard protocols. Statistical analysis was performed using epi info.

Results: A total of 2845 blood donations were conducted during the period of which 79% (2249/2845) donors were males and 21% (574/2845) were females. The median age was 28 years and the highest blood donations age category was between 20 to 29 years 42.1% (1198/2845) followed by 30 to 39 years of age, 36% (1025/2845).

The most common occupation of the donors was farming 30% (866/2845). The overall seroprevalence of HBV, HIV, HCV, and syphilis infections were 36%, 0.17%, 0.07%, and 0.07% respectively. None of the donors had multiple infections. Blood group “O positive” was the most common with 57% followed by “B positive” at 22%. Risk factors identified include married donors (OR:0.44, 95% CI=0.25-0.76; P-Value<0.0028) and replacement donor type (OR:0.03,95% CI=0.01-0.24; P-Value<0.0001).

Conclusions: The findings showed that a substantial percentage of blood donors are infected with either HBV or HIV; therefore, the need for proper screening of blood before transfusion and increase in community sensitization.

Keywords: Hepatitis, Infection, HIV, Blood Donors, seroprevalence

Abstract ID : PP463

Investigation d’une flambée de méningite dans un centre de santé intégré du district sanitaire de Magaria, région de Zinder, Niger, 2023

Aboubacar Manzo Mariama^{1,&}, Atti Salifou¹, Maman Lawan Oumarou², Sani Karimou³, Issifou Djibo³

¹District Sanitaire de Magaria, Niger

²Centre de Santé Intégré de Jalgawassa, Magaria, Niger

³African Field Epidemiology Network (AFENET), Niamey, Niger

&Auteur correspondant: Aboubacar Manzo Mariama, District Sanitaire de Magaria, Niger, Email : mariechantal2022@yahoo.com

Introduction: Début janvier 2023, le Centre de Santé Intégré (CSI) de Jalgawassa du district sanitaire de Magaria a notifié au district des cas suspects de méningite.

Devant l’augmentation du nombre des cas, une mission d’investigation du district a été conduite, afin de déterminer les facteurs d’exposition et endiguer la maladie.

Méthodes: Nous avons mené une étude transversale descriptive et une recherche active des cas

dans la communauté le 25 janvier 2023 suivi d'analyse. Les cas suspects étaient définis comme toute personne présentant une fièvre soudaine et l'un des signes suivants : raideur de la nuque, bombement de la fontanelle, convulsions ou autres signes méningés.

Résultats: Au total, 3 foyers ont été identifiés. Les cas index étaient 2 enfants de moins de 3 ans provenant d'un même village ayant consulté au CSI le 12 janvier 2023. Puis du 16 au 25 janvier 2023, six autres cas suspects ont été rapportés, dont 1(12,5%) décès, issus de 2 nouveaux foyers. Tous les 8 cas répondaient à la définition des cas et ont été prélevés pour confirmation. 5 (62,5%) cas sont de sexe masculin et 3 (37,5%) de sexe féminin, et leur âge varie de 3 mois à 50 ans. Des 7 cas qui sont éligibles pour la vaccination, aucun n'a été vacciné malgré la riposte vaccinale menée au CSI en 2021 avec le trivalent (A-C-W135). Au 24 mars 2023, un cumul de 21 cas suspects a été rapporté par le CSI. Les résultats de laboratoire de 4 prélèvements nous sont parvenus, dont 1(25%) positif à N. meningitidis C.

Conclusions: L'investigation a permis de décrire le phénomène, renforcer les mesures de surveillance pour la détection précoce des cas et conclure que les facteurs d'exposition ne peuvent être liés qu'au statut vaccinal des cas.

Mots-clés: Méningite, Investigation, Magaria, Niger

Abstract ID: PP465 Evaluation of Measles surveillance system in Kibilizi District Hospital catchment area, 2017-September 2022

[Alice Musabyeyezu](#)^{1,4,8}, Jean.Claude Niyoyita², Jean d'Amour Sinayobye²,

Emmanuel Nshimiyimana², Esperance Niragire³, Vedaste Mbayire⁴

¹Rwanda FETP intermediate- cohort one, Gisagara, Rwanda

²African Field Epidemiology Network (AFENET), Kigali, Rwanda

³Rwanda Biomedical Centre-PHEOC, Karongi, Rwanda

⁴Kibilizi District Hospital, Gisagara, Rwanda

&Corresponding author: Alice Musabyeyezu, Gisagara, Rwanda, alica2255@gmail.com,

Introduction: Measles virus is a preventable and highly infectious disease with greater than 90% secondary attack rates among exposed persons. Rwanda implemented integrated diseases surveillance and responses system including Measles and Rubella. However limited information exists on its functionality in Kibilizi DH Catchment area thus this study aimed to evaluate existence and performance of measles surveillance systems in eleven health facilities of Kibilizi DH Catchment area.

Methods: A retrospective cross sectional study design was conducted in Kibilizi Hospital catchment area. All members of the Surveillance team at Health center were recruited in every health center and hospital rapid response team.

The primary data were collected through a questionnaire complemented by clinical record review for assessing the surveillance system attributes including timeliness, simplicity, attributes. Data analysis was performed using Epi info and Excel.

Results: A total of 62 health workers participated in the study, of them 29(46.7%) were female and 33(53.3%) were male. About 58(94%) health facilities were using surveillance system with 97.3% of reporting timeliness, 94.9% had standard cases definition, 90.9% were using standard case definition during consultation, 87% of health facilities had taken sample for confirmation, and 100% received results from laboratory and no positive case identified. Eighty two Percent of the health facilities conducted measles data quality review once per month.

Data quality review showed that 97.5% of all suspected cases were reported within 24 hours as required, 93.5% of health facilities used IDSR system for sharing measles information and only 45.16% have measles case management protocol and 59% received training on measles surveillance.

Conclusions: The study highlights that the surveillance system is fully integrated into the routine healthcare delivery system with good timeliness. However, the lack of case management protocol and the inadequate number of trained staff could jeopardize its utility. We recommend availing case management protocol and capacity building of health facility staff.

Keywords: Measles, Attributes Completeness, timeliness, KibiliziDH, IDSR

Abstract ID: PP467

Malaria Data analysis in Kibilizi subdistrict, Southern province, Rwanda, 2022

Alice Musabyeyezu^{1,4,&}, Jean.Claude Niyoyita², Jean d'Amour Sinayobye², Emmanuel Nshimiyimana², Esperance Niragire³, Vedaste Mbayire⁴

¹Rwanda FETP, Gisagara, Rwanda

²African Field Epidemiology Network (AFENET), Kigali, Rwanda

³Rwanda Biomedical Centre-PHEOC, Karongi, Rwanda

⁴Kibilizi District Hospital, Gisagara, Rwanda

&Corresponding author: Alice Musabyeyezu, Kibilizi District Hospital Gisagara, Rwanda, Email: alica2255@gmail.com,

Introduction: Malaria is a major burden in Rwanda with about 2.9 million cases and three thousands deaths recorded in 2020. It is monitored through the Health Management Information System (HMIS) and it is among the top ten causes of morbidity and mortality in Kibilizi sub district. We conducted data analysis to highlight the burden of malaria in the Kibilizi subdistrict of Gisagara district.

Methods: A cross-sectional retrospective data review were conducted. Malaria data from all health facilities in Kibilizi Hospital catchment area in the period of 2014-2021 were extracted from HMIS and imported to Microsoft excel for analysis. A malaria case was defined as any person with malaria blood smear or Malaria Rapid test positive. Completeness (reports received/expected reports) of reports, annual prevalence, and case fatality rate (CFR) were calculated during the eight years period.

Results: The average completeness of malaria reporting was 97.7%. Malaria cases increased from 64,500 cases in 2014 (33.9% prevalence) to 124,148 cases in 2017 (59.7% prevalence), and then decreased to 73,688 cases in 2021 (32.6% prevalence). The number of deaths due to malaria increased from 11 deaths in 2014 (CFR=1.7 deaths per 10,000 cases) to 13 deaths in 2018 (CFR=1.3 deaths per 10,000 cases) and decreased to two deaths in 2021 (CFR= 0.3 deaths per 10,000cases). Of the total deaths, 3% occurred at health centers and 97% occurred in the Hospital.

Conclusions: In the course of eight years, Kibilizi sub district recorded a higher malaria occurrence in 2017 and number of deaths-in 2018 compared with other years. Although, the trend has been reducing over the eight-year period, malaria remains a burden in the area, which still need effort investment. These findings highlighted the need for additional studies to explore the factors associated with malaria for appropriate interventions.

Keywords: Malaria, data analysis, burden, Kibilizi sub-district

Abstract ID: PP47 I

Dengue Fever Outbreak-Howl-wadag district, Mogadishu city, Somalia October, 2022.

Kasim Sultan Mahdi¹, Ahmed Mohamed Fidhow², Bisma Abdullahi Maalin^{3,&}

¹World Health Organization (WHO), Garissa, Kenya

²African Field Epidemiology Network, Mogadishu, Somalia. ³Public Health Emergency Operations Centre (PHEOC), Mogadishu, Somalia

&Corresponding Author: Bisma Abdullahi Maalin, Public Health Emergency Operations Centre PHEOC, Mogadishu, Somalia (bisma.maalin@nih.gov.so)

Introduction: Dengue Fever (DF) Is a tropical viral disease that has become epidemic-prone in recent decades. Somalia reported an emergence of dengue fever in 2022. A cluster of febrile cases was reported in the Hawl-wadag district of Mogadishu city to the National laboratory on 9th October 2022. We investigated the outbreak to confirm its existence and to formulate appropriate recommendations for containment from 10th October to 25th December 2022.

Methods: We conducted a retrospective review of patient records and some house-to-house visits in Hawlwadag district, Mogadishu city from 10th October to 25th December 2022. Dengue cases were identified and line-listed based on the World Health Organization (WHO) case definition for dengue. Laboratory confirmation was based on detection of Dengue NS1 (Rapid Diagnostic Test) in blood samples using a rapid diagnostic test done at the National Reference Laboratory.

Results: We identified a total of 81 suspected dengue cases, of which 6 were confirmed positive with Dengue NS1. The overall attack rate for the district was 6.7 per 10,000 population. Most affected gender was female, with 68% of cases. More than half of the cases (53%) were above the age group of >15 years. Fever was the Most Common symptom (100%), followed by myalgia (99%). The sub-section of Sayidka had an attack rate of 15 cases per 10,000 people, with no deaths and IDP camp residents were the Most affected. None of the six health facilities had DF surveillance Tools.

Conclusions: We detected and confirmed a dengue fever outbreak in Hawl-wadag district, Mogadishu city. Community education and awareness about dengue and effective dengue surveillance were taken successfully to control the outbreak. To prevent future outbreaks, we recommend strengthening the surveillance system, enhancing laboratory capacity, controlling mosquito breeding sites around IDP camps and implementing vector control measures.

Keywords: Dengue Fever, Somalia, Descriptive Study, Outbreak

Abstract ID: PP474

Evaluation of Food Poisoning Surveillance System at Rwamagana Provincial Hospital, Rwamagana District, Rwanda, 2017- 2021

Theobald Gasigwa^{1,2}, Noella Benemariya^{3,5}, Marie Aimee Muhimpundu⁴

¹Rwanda Field Epidemiology Training Program, Kigali,, Rwanda. ²Rwamagana Provincial hospital, Rwamagana, Rwanda. ³University of Rwanda, Kigali, Rwanda

⁴World Health Organization, Kigali, Rwanda

⁵Public Health Emergency Operations Center, Eastern Province, Rwamagana City, Rwanda

&Corresponding author: Theobald Gasigwa, Rwamagana Provincial Hospital, Rwamagana city, Rwanda, Email: cdcrwamaganaph@gmail.com.

Introduction: Food poisoning has a detrimental influence on both the Economy and public health resulting in Great financial losses, and potential morbidity. Globally, approximately 1 in 10 peoples get sick after eating contaminated food.

Additionally, lack of accurate data on the Prévalence, impact, and cost of foodborne illness is a significant barrier to effectively addressing food safety concerns. We conducted this study to evaluate the food poisoning surveillance system in Rwamagana provincial Hhospital.

Methods: Descriptive cross-sectional study was used and respondents involved in disease surveillance activities were purposively sampled. Interview of consenting respondents to evaluate surveillance system attributes such as usefulness and simplicity while Clinical records from 2017 to 2021 were reviewed to evaluate data quality. We used Epi Info software to collect and analyze data. We calculated frequency and percentages for each attribute to present the results.

Results: To evaluate the usefulness and simplicity in total 36 participants were interviewed including 21(58%) males and 15(42%) females and for data quality, 28 participants including 13(46%) male and 15(54%) female were interviewed. Overall, 80.6% of respondents reported the system to be useful in early case detection, while 31.4% reported that it was not simple. Regarding data quality, 39.2% of reporting forms were not well completed, while 85.7% indicated that reporting was timely.

Conclusions: The evaluation of food poisoning surveillance system indicated that the system may be useful for early case detection, but it is not simple. Additionally, improvements are needed in timeliness of reporting and completion of the reporting forms. Findings were presented to Hospital surveillance team to revamp its utility and data quality.

Keywords: Surveillance System Attributes Evaluation, Food poisoning

Abstract ID: PP475

Spatial clustering, hotspot analysis and temporal distribution of the 2022 Ebola Virus Disease outbreak in Uganda.

George Paas^{1,2,&}, Peter Olupot-Olupot^{1,2}

¹Mbale Clinical Research Institute, Mbale Uganda.

²Department of Community and Public Health, Busitema University Faculty of Health Sciences, Tororo, Uganda

&Corresponding author: George Paasi, Mbale Clinical Research Institute P.O. Box 1966, Mbale, Uganda, email : georgepaasi8@gmail.com .

Introduction: Uganda has experienced seven outbreaks of Ebola virus disease (EVD) since 2000. The Ministry of Health declared the latest outbreak of Sudan ebolavirus (SVD) following a confirmed case in Mubende district on 19 September 2022. This study, therefore, aimed to determine the spatial clustering, hot spot analysis and temporal distribution of the 2022 EVD out break in Uganda.

Methods: The study used an ecological design based on the 2,184 sub counties in Uganda as the spatial unit. Initial exploratory analysis used measures of spatial autocorrelation in the R statistical package. Using the Anselin's Local Moran test cluster detection method, spatial autocorrelation was applied to determine the presence of statistically significant clusters and hotspots at the sub-county level during the 2022 EVD outbreak in Uganda. We used an alpha level of 0.01 to assess statistical significance.

Results: Overall, 164 cases (142 confirmed and 22 probable) of EVD were reported, of which 55 died (CFR: 39%), and 87 recovered. In addition, 22 deaths among probable cases were reported in individuals who died before samples could be taken (overall CFR: 47%).

Overall, nine Ugandan districts were affected by this outbreak: Bunyangabu, Jinja, Kagadi, Kampala, Kassanda, Kyegegwa, Masaka, Mubende, and Wakiso. When the number of permutation test was set to 9999, Moran's $I = 0.37261$, $P = 0.0085$, and was significant at significance level of 0.01. Spatial cluster analysis identified two most likely cluster; one large multi-centred cluster in districts of Mubende and Kassanda with 13 locations and one cluster in Rubaga division in Kampala district.

Conclusions: Substantial spatial clustering of EVD was detected at sub-county level in the recent outbreak at two districts of Mubende and Kassanda in the central region of Uganda. This study identifies hotspot areas for efficient implementation of early targeted interventions for the prevention and control of the outbreak.

Keywords: Ebola virus disease, spatial analyses, Uganda, Hotspots

Abstract ID : PP476

Evaluation du système de surveillance de la rougeole dans le Béré, Côte d'Ivoire, novembre 2022

Brou Affoua Annicette Sophia^{1,&}, Kouadio Koffi Felix², Pierre Wilnique³, Joseph Otshudiandjeka³, Tiembre Isaac², Bénié Bi Vroh Joseph².

¹Field Epidemiology Training Program, Abidjan, Côte d'Ivoire

²Institut National d'Hygiène Publique (INHP), Abidjan, Côte d'Ivoire

³African Field Epidemiology Network (AFENET), Abidjan, Côte d'Ivoire

&Auteur correspondant: Brou Affoua Annicette Sophia, Field Epidemiology Training Program, Abidjan, Côte d'Ivoire, Email : brousophiany@gmail.com

Introduction: En Côte d'Ivoire, le nombre de cas de rougeole est passé de 372 en 2019 à 600 en 2020. Le plan d'élimination de la rougeole exige que la surveillance soit renforcée afin d'atteindre cet objectif d'ici 2030. La sous notification des cas de rougeole dans le Béré constitue une préoccupation à l'atteinte de cet objectif. D'où l'objectif de cette étude était de pouvoir évaluer le système de surveillance de la rougeole dans le Béré pour des recommandations utiles.

Méthodes: Une étude descriptive a été menée. Les directives pour l'évaluation du système de surveillance en santé publique des centres de contrôle et de prévention des maladies (CDC 2001) étaient utilisées. Un questionnaire structuré a été administré aux personnels chargés de la surveillance, une revue documentaire des outils de surveillance ont permis de recueillir des données relatives aux attributs suivants : simplicité, représentativité, acceptabilité, flexibilité, stabilité, utilité. Ces attributs étaient classés mauvais, moyen et bon selon l'atteinte des objectifs fixés par indicateur (score moyen > ou = 80%). L'analyse des données a été faite sur Excel et Epi-Info 7.2.

Résultats: Au total, 23 (100 %) agents ont répondu au questionnaire. La performance du système avait été reconnue d'une simplicité de 97 %, d'une représentativité de 100 % et d'une acceptabilité de 95 %. Par contre la flexibilité et la stabilité n'étaient que respectivement de 39% et 52%. L'utilité du système était de 91 %.

Conclusions: Le système de surveillance de la rougeole dans la région du Béré est utile, cependant des efforts restent à fournir pour la stabilité et la flexibilité. Il convient donc de renforcer la surveillance épidémiologique de la rougeole pour une meilleure performance du système.

Mots Clés: Évaluation, Surveillance, Rougeole, Béré, Côte d'Ivoire

Abstract ID: PP477

Retrospective Rabies Exposure Cases analyses -Kicukiro District, Rwanda, 2018-2022

Honorine Mutuyimana^{1,&}, Claude Niyoyita², Aphrodis Hagabimana³

¹Masaka District Hospital, Kicukiro District, Kigali, Rwanda

²African Field Epidemiology Network, Kigali, Rwanda

³Rwanda Biomedical Center, Kigali, Rwanda

&Corresponding author: Honorine Mutuyimana, Masaka District hospital, Kicukiro District, Kigali city, Rwanda, Email: mutuyehonorine@gmail.com.

Introduction: Rabies is a zoonotic and vaccine preventable viral disease¹. It is a fatal disease and most often transmitted through the bite of a rabid animal. Worldwide, 40% of people who are bitten by suspect rabies animal are children under 15 years of age. In Rwanda, the Ministry of Health monitors rabies exposure surveillance through the electronic Integrated Diseases Surveillance System (eIDSR). We analyzed clinical data to characterize rabies exposure cases in Kicukiro District.

Methods: A cross-sectional study was conducted in Kicukiro District in January 2023, by reviewing rabies exposure surveillance data (medical records and eIDSR) from 2018 to 2022.

Rabies exposure was defined as any bite, scratch, or mucus membrane contact with an unvaccinated animal or unknown vaccination status.

Descriptive epidemiology was conducted and timeliness, completeness and data accuracy were assessed. Data were analysed using Excel and presented in frequencies and proportions.

Results: Of the 103 rabies exposure cases identified, 61% were male and 39% were female. Adults aged 30-39 were 43% (45/103), and the proportion of children under 15 years was 12% (12/103).

The most affected sector was Kicukiro Sector (four cases per 10000 people). All 103 (100%) cases were reported to the eIDSR system, 89 (86%) completed the five anti-rabies vaccine doses as recommended, and 92% (95/103) sought medical care on time.

All the rabies exposure cases reported to be bitten by dogs with unknown vaccination status and no death recorded. Timeliness, completeness, and accuracy were 95%, 81% and 81%, respectively.

Conclusions: Rabies exposure still a public health concern in the area. Targeted prevention efforts should be enhanced among males, 30-39 year olds and in Kicukiro sector.

Moreover, there is a need for improvement in eIDSR for rabies exposure data quality. In response to the findings, community sensitization was conducted to improve dog vaccination awareness.

Keywords: Rabies exposure, Timeliness, Completeness, accuracy

Abstract ID : PP479

Référence du paludisme grave et les facteurs associés à la létalité chez les enfants de moins de 5 ans dans les hôpitaux publics du Littoral au Bénin en 2022

Arnaud Wilfried Padonou^{1,&}, Bernard Aniwano², Nestor Denakpo Noudeke³, Mathilde Adjoavi Houssou³

¹Centre National Hospitalier Universitaire-HKM, Cotonou, Bénin,

²Ministère de la Santé, Cotonou, Bénin ;

³African Field Epidemiology Network (AFENET), Cotonou, Bénin ;

&Auteur correspondant: Arnaud Wilfried Padonou, Centre National Hospitalier Universitaire-HKM, Cotonou, Bénin, arnaudwilfriedpadonou@gmail.com

Introduction: Le paludisme est une infection parasitaire fébrile dont la forme grave se retrouve plus chez les enfants. Le paludisme grave est un problème de santé publique et constitue l'une des principales causes de décès en Afrique.

En 2021 au Bénin, le paludisme grave a constitué la première cause de décès avec une incidence de 19,8% chez les enfants de moins de cinq ans et les causes de décès liées aux formes graves sont multifactorielles.

Notre étude visait à évaluer la référence et à déterminer les facteurs associés à la létalité du paludisme grave.

Méthodes: Il s'agit d'une étude transversale analytique sur les enfants âgés de 0-59 mois, hospitalisés dans trois (3) hôpitaux publics.

La sélection a été aléatoire simple avec le logiciel Open Epi. Les données ont été collectées avec l'application kobocollect. L'analyse a été faite à l'aide d'Epi Info7.2 avec le calcul des fréquences et odds ratios bruts.

Résultats: Sur les 386 cas enquêtés, 48,9% étaient dans la tranche d'âge de 12-36 mois. Le sexe ratio était de 1,1 avec une létalité de 5,7%. Les signes de danger fréquents étaient: l'anémie soit 91,9%, et les vomissements soit 79,2%.

Les paludismes anémique et neurologique étaient les formes les plus retrouvées, soit 66,8%. Les cas référés représentaient 47% et parmi ceux-ci, 27,3% l'ont été avec l'ambulance et 64,9% ont bénéficié d'un traitement de pré référence.

Les troubles de conscience (OR=3,44 ; IC95% : [1,44-8,23]), l'incapacité de se nourrir (OR=5,38 ; IC95% : [2,22-11,81]) et la malnutrition (OR=5,34 ; IC95% : [1,77-16,02]) étaient associés à la létalité.

Conclusions: La létalité du paludisme grave est associée surtout à l'incapacité de se nourrir et à la malnutrition. Ces cas doivent faire l'objet d'une attention particulière dans la prise en charge afin de réduire cette létalité.

Mots-clés: Paludisme grave, Référence, Incidence, Etude transversale, Bénin

Abstract ID : PP483

Référence des cas de paludisme grave et facteurs associés à la létalité chez les enfants de moins de 5 ans dans les hôpitaux de zone de Tanguiéta et de Kouandé du 01er avril au 31 octobre 2022

Gally Akoakpo Djaboutou^{1,&}, Virgile Olivier Hounkpè², Mathilde Adjoavi Houssou³, Nestor Dénakpo Noudékè³

¹Direction Départementale de la Santé, Natitingou, Bénin

²Direction Départementale de la Santé, Parakou, Bénin,

³African Field Epidemiology Network, AFENET, Cotonou, Bénin,

&Auteur correspondant: Gally Akoakpo Djaboutou, Direction Départementale de la Santé, Natitingou, Bénin, Email : djabougall@yahoo.fr

Introduction: Le paludisme est une maladie fébrile parasitaire qui sévit sous deux formes. La forme grave est plus fréquente chez les enfants. Au Bénin, en 2021, il représente 44,9 % des causes de recours aux soins dans les formations sanitaires et 57,1% dans l'Atacora. L'objectif de cette étude était d'évaluer la référence et les facteurs associés à la létalité des cas graves de paludisme chez les enfants de moins de 5 ans enregistrés pour paludisme grave dans les hôpitaux publics de Tanguiéta et de Kouandé du 1er avril au 31 octobre 2022.

Méthodes: Nous avons mené une étude transversale analytique. L'échantillonnage aléatoire simple a été réalisé avec Open Epi.

Les données ont été recueillies par dépouillement des dossiers médicaux et analysées avec Epi info7.2 pour calculer les proportions.

Résultats: Sur 394 enfants inclus dans l'étude, 97,7% provenaient du milieu rural ; 57,4% étaient référés. La tranche d'âge de 12-36 mois était plus touchée à 71,32% ; le sexe ratio était de 1 et la létalité 2,03%. Les principaux signes de danger étaient l'anémie 71,8%, les vomissements incoercibles 38,6% et les convulsions 31,5%. Parmi les référés, 32,3% ont bénéficié d'un traitement de pré référence et dans 70% des cas, la moto a servi de moyen de transport.

La prise d'un abord veineux et l'administration de la première dose d'artésunate étaient faits dans respectivement 80,82% et 23,29% des cas. La prise en charge initiale par un paramédical (OR=6,93 ; IC95% [1,31-36,75]) ; la présence de trouble de conscience (OR=7,27 ; IC95% [1,70-31,11]) étaient les facteurs associés à la létalité.

Conclusions: Le trouble de conscience et la prise en charge initiale par un paramédical, sont fortement associés à une hausse de la létalité. Un accent particulier doit être mis sur ces facteurs lors de la prise en charge.

Mots clés: Référence, Paludisme grave, Etude transversale, Bénin

Abstract ID : PP490

Référence des cas de paludisme grave et facteurs associés à la létalité chez les enfants de moins de 5 ans à l'hôpital de zone de Natitingou du 01 avril au 31 octobre 2022

Edgard Sotiré N'tchagaba^{1*}, Victor Allanonto², Mathilde Houssou³, Nestor Dénakpo Noudeke³,
¹field Epidemiology Training Program, Natitingou, Bénin

²Direction de l'Elevage Cotonou Bénin

³AFENET Cotonou, Bénin ;

***Auteur correspondant:** Edgard Sotiré N'tchagaba, Field Epidemiology Training Program, Natitingou, Bénin. Email: dibawe@gmail.com

Introduction: Le paludisme demeure un problème de santé public dans le monde. Au Bénin, le paludisme grave est une cause majeure de morbidité et de mortalité chez les enfants.

Cette étude avait pour objectif d'étudier l'impact de la référence et les facteurs associés à la létalité des cas de paludisme grave chez les enfants de moins de 5 ans à l'hôpital de zone de Natitingou du 01 avril au 31 octobre 2022.

Méthodes: Nous avons mené une étude transversale analytique sur les cas graves de paludisme chez les enfants de moins de 5 ans admis à l'hôpital de

zone de Natitingou du 01 avril au 31 octobre 2022. Un échantillonnage aléatoire simple des dossiers médicaux a été réalisé avec Open-Epi. Les données ont été collectées par dépouillement des dossiers avec kobocollect. Ces données ont été analysées avec Epi Info 7.2. Les fréquences et les odds ratio bruts ont été calculés.

Résultats: Parmi les 391 cas inclus dans notre étude, 45 (11,51%) étaient référés. La majorité des enfants 61, 48% était âgée de 12 à 36 mois. Aucun décès n'a été observé chez les référés mais la létalité était de 6,14%.

Les facteurs associés au décès dû au paludisme grave étaient le trouble de conscience (OR=14,95 ; IC à 95% : [4,69-47,69]), la convulsion ou antécédent de convulsion (OR=4,51 ; IC à 95% : [1,91-10,64]) et les difficultés respiratoires (OR=24,26 ; IC à 95% : [5,08-115,84]).

Conclusions: La létalité due au paludisme grave chez les enfants demeure inquiétante en milieu hospitalier. A l'hôpital de zone de Natitingou, le risque de décès est très élevé chez les cas présentant un trouble de conscience et/ou difficultés respiratoires. Une sensibilisation sur la protection des enfants contre les piqûres de moustiques s'impose.

Mots clés: Référence, Paludisme, Etude transversale, Bénin.

Abstract ID : PP491

Investigation autour d'un cas suspect de variole de singe (Monkeypox), localité d'Iboke-v2, district sanitaire de Tabou, région de San Pedro, Côte d'Ivoire, 30 Juillet 2022

Kalifa Coulibaly^{1,*}, Sabine Lasm¹, Joseph Otshudiandjeka², Pierre Willnique², Issaka Tiembre³, Béné Vroh Bi³

¹Chef de service Suivi-évaluation à la direction régionale de la santé, de l'hygiène publique et de la couverture maladie universelle de San Pedro, Côte d'Ivoire, Email : stkalif73@gmail.com

²Réseau Africain des Epidémiologistes de Terrain, AFENET-Côte d'Ivoire

³Institut National d'Hygiène Publique (INHP), Abidjan, Côte d'Ivoire

&Auteur correspondant: Kalifa Coulibaly, Chef de service Suivi-évaluation à la direction régionale de la santé, de l'hygiène publique et de la couverture maladie universelle de San Pedro, Côte d'Ivoire, Email : stkalif73@gmail.com

Introduction: Le District sanitaire de Tabou partage une grande frontière naturelle empreinte du fleuve et de la forêt dense avec le Libéria (Pays voisin).

Dans ce pays, le bulletin national du mois de juin 2022 rapporte un cas confirmé de variole de singe, faisant foi d'une évolution de la maladie de variole de singe ou Mpox. On note que ce dernier a résidé à Iboké-v2 dans le district sanitaire de Tabou dans la région sanitaire de San Pedro, avant de se rendre au Libéria.

Le 30 juillet 2022, le Centre Médical social d'Iboké-v2 notifie un cas suspect de variole de singe en lien avec le cas confirmé.

Méthodes: Une étude descriptive transversale a été réalisée. Les registres de consultations, les fiches de notification individuelles ont été parcourues.

Les caractéristiques sociodémographiques ont été décrites. Les mesures de tendance centrale et de fréquence calculées, la revue documentaire a été effectuée.

Résultats: 10 cas contacts identifiés dont 80% en lien avec le cas suspect identifié et 20% en lien avec le cas confirmé du Libéria. 100% des contacts du cas suspect vivent à Iboké-v2 dans le district sanitaire de Tabou contre 50% pour le cas confirmé au Libéria.

L'âge moyen des contacts du cas suspect était de 28 ans et la médiane était de 28.5 ans. Les extrémités calculées s'étendaient de [5 ans - 43 ans]. Le Sex ratio étant de 1,7.

Conclusions: Il s'agit d'un cas suspect de variole de singe âgé de 46 ans, masculin, et frère aîné du cas confirmé. Les mesures prises : isolement du patient, prise en charge médicale et alimentaire du cas suspect, diffusion des directives aux centres de santé, renforcement de la surveillance épidémiologique, recherche active d'éventuels cas contacts, mise en quarantaine des cas contacts.

Mots clés: Monkeypox, cas suspects, contacts, IPCI

Abstract ID : PP494

Référence des cas graves de paludisme et facteurs associés à la létalité chez les enfants de moins de cinq ans, département des Collines, Bénin, 1er avril au 31 octobre 2022.

Richard Sèfounon^{1,&}, Lydie Monloto Dèdèwanou², Nestor Dénakpo Noudèkè³, Mathilde Adjoavi Houssou³
¹Ministère de la santé, Dassa, Bénin, sefounonrd@gmail.com

²Ministère de la santé, Tchaourou, Bénin

³AFENET, Cotonou, Bénin

&Auteur correspondant: Richard Sèfounon, Ministère de la santé, Dassa, Bénin, Email : sefounonrd@gmail.com

Introduction: Le paludisme est une affection fébrile parasitaire sévissant sous deux formes. Le paludisme demeure un problème majeur de santé publique dans le monde et surtout en Afrique dont fait partie le Bénin avec 2 289 948 cas et 2450 décès en 2020. La forme grave se retrouve surtout chez les enfants. Notre objectif était d'évaluer la référence et les facteurs associés à la létalité des cas graves de paludisme chez les enfants de moins de 5 ans dans le département des Collines, du 1er avril au 31 octobre 2022.

Méthodes: Une étude transversale analytique a été réalisée. Un échantillonnage aléatoire simple a été réalisé à l'aide du logiciel Open Epi. Les données recueillies à partir des dossiers médicaux des patients sur kobocollect, ont été analysées avec Epi Info7.2. Nous avons calculé les fréquences et les odd-ratio avec leurs intervalles de confiance.

Résultats: Sur les 403 cas recensés, la majorité était âgé de 12 à 36 mois soit 55,74% et 82,13% provenait du milieu rural, avec un sexe ratio H/F de 1,13. Les pics étaient observés en mai (83 cas) et août (115 cas). Les signes de danger observés étaient l'anémie dans 79,90% et la convulsion dans 46,15%. La létalité était de 5,21%. Les cas référés représentaient 6,95% et 82,14% parmi eux ont été référés avec la moto; 46,47% avaient reçu des soins de pré référence. Les facteurs associés au décès étaient les difficultés respiratoires (OR=4,94 ; IC à 95% : [1,85-12,67]) et la malnutrition (OR=20 ; IC à 95% : [2,67-149,77]).

Conclusions: La référence des cas graves du paludisme n'était pas médicalisée. Certains facteurs sont associés aux décès. Une référence médicalisée des cas et une prise en compte de ces facteurs permettraient de réduire la létalité du paludisme grave.

Mots-clés: Référence, Paludisme grave, Etude transversale, Bénin

Abstract ID : PP497

Analyse des données de surveillance du feu de brousse survenu dans le village de Dakaré, Région de Maradi, Niger, 2021

Aboubacar Amadou^{1&}, Issifou Djibo², Sani Karimou², Issiakou Gandou Aboubakar³

¹Niger Field Epidemiology Training Program (Frontline), Direction Régionale de l'Environnement et de la Lutte Contre la Désertification, Maradi, Niger

²African Field Epidemiology Network (AFENET), Niamey, Niger

³Direction de la Surveillance et de la Riposte aux Epidémies, Niamey, Niger

&Auteur correspondant: Aboubacar Amadou, Niger Field Epidemiology Training Program (Frontline), Direction Régionale de l'Environnement et de la Lutte Contre la Désertification, Maradi, Niger, E-mail : aboubamadou@gmail.com

Introduction: Au Niger, le feu de brousse est un phénomène environnemental récurrent durant les saisons sèches. Il présente des répercussions graves sur le paysage, la faune et les animaux domestiques. Maradi a enregistré 17,14 et 36 feux de brousse respectivement en 2019, 2020 et 2021.

Ces feux impactent aussi la vie socio-économique des communautés et le disponible fourrager. Ceci nous a motivé à analyser les données de surveillance de 2021. L'objectif était de décrire la fréquence des feux, identifier les causes et mettre en place des mesures de prévention.

Méthodes: Il s'agit d'une étude descriptive sur le feu de brousse. Nous avons inclus tous les feux de brousse enregistrés dans la région de Maradi du 1er janvier au 31 décembre 2021.

Un feu de brousse est un incendie d'origine naturelle ou humaine qui se propage sur une étendue boisée. Le feu est une réaction chimique entre trois éléments (oxygène, chaleur et combustible). Les victimes de Dakaré ont été interrogées. Epi-info 3.5.4-2012 a été utilisé pour l'analyse des données. Les fréquences et proportions ont été calculées avec des données extraites du rapport 2021 de la Direction Régionale de l'Environnement.

Résultats: Au total 36 feux de brousse ont été enregistrés avec une perte de 68.411 tonnes de matière sèche sur 58.075,545 hectares consommés. En octobre, 55,55% ont été enregistrés. Seul le feu de Dakaré a occasionné 22 blessés avec 22,7% femmes et 13,6% enfants, dont 22,27% blessés graves brûlés aux membres et au visage. Les victimes ont été traitées et 475 personnes sensibilisées. L'origine était un feu (humain ou naturel) mal éteint propagé par le vent.

Conclusions: L'analyse a permis d'identifier la cause qui est un feu mal éteint. Nous recommandons d'intensifier la sensibilisation sur les feux de brousse en début de chaque saison sèche.

Mots clés: Feu de brousse, Maradi, Niger

Abstract ID : PP499

Profil épidémiologique de la tuberculose multi-résistante à Kinshasa de janvier 2016 à décembre 2021

Yannick Ebengo^{1&}, Antoine Monama⁶, Linda Matadi³, Belinda Ayumuna³, Nicole Anshambi⁴, Fabrice Matuta⁴, Annie Iko⁵, Marc Yambayamba², Aimée Lulebo²

¹Programme de formation en Epidémiologie de Terrain (FETP), Ecole de Santé Publique, Université de Kinshasa, Kinshasa, RDC.

²Département d'Epidémiologie et Bio statistiques, Ecole de Santé Publique, Université de Kinshasa, Kinshasa, RDC.

³Africa Field Epidemiology Network (AFENET), Kinshasa, RDC.

⁴Coordination Provinciale de Lutte contre la Lèpre et Tuberculose, Division Provinciale de Santé de Kinshasa, Kinshasa, RDC.

⁵Bureau d'Information sanitaire et communication, Division Provinciale de Santé de Kinshasa, Kinshasa, RDC. ⁶Cellule de Suivi et Evaluation, Secrétariat Général à la Santé Publique, Kinshasa, RDC.

&Auteur correspondant: Yannick EBENGO, Programme de formation en épidémiologie de terrain (FETP), Département d'Epidémiologie et Bio statistiques, Ecole de Santé Publique, Université de Kinshasa, Kinshasa, RDC, Tél : +243816235264, yaneben91@gmail.com.

Introduction: La tuberculose multi-résistante (TB-MR) constitue un défi majeur pour le monde ; l'OMS compte la République Démocratique du Congo parmi les 4 pays africains à lourde charge de cette maladie. En 2022, la ville de Kinshasa portait 20% des tuberculeux du pays, toutes formes confondues et 37% pour la TB-MR ; l'objectif de cette étude était de décrire le profil épidémiologique de cette maladie à Kinshasa en vue de contribuer à l'amélioration de la lutte contre ce fléau.

Méthodes: Une étude descriptive transversale portant sur les données secondaires de cas de TB-MR enregistrés à Kinshasa de 2016 à 2021 a été menée. Tous ces patients ont été confirmés TB-MR par le test moléculaire. Les analyses statistiques descriptives (fréquences et proportions) portant sur les caractéristiques sociodémographiques et cliniques des cas ont été réalisées avec SPSS version 25.

Résultats: Au total 1819 cas de TB-MR dont 278 décès (léthalité : 15,3%) ont été enregistrés. Les zones de santé de Kinshasa portant la lourde charge étaient Bumbu : 166 cas (9,1%), Binza Météo :140 cas (7,7%) et Lemba : 122 cas (6,7%). Le sexe ratio H/F était de 2 (quelque chose qui m'qnaue ici) ; la tranche d'âge de 15 à 29 ans représentait 46,1% (839/1819) des cas ; la proportion de la séroprévalence au VIH était la plus élevée en 2018 avec 14,8% des cas ; les effets indésirables aux antituberculeux les plus fréquents étaient la surdité chez 37,5% (682/1819) des cas et les acouphènes chez 12,5% (227/1819) des cas. La proportion des perdus de vue était de 6,4% (116/1819).

Conclusions: Cette étude a montré que la TB-MR affecte plus les jeunes avec une léthalité élevée. Le suivi rapproché des cas de tuberculose, toutes formes confondues et la sensibilisation de la population, en ciblant les jeunes, pourraient améliorer la surveillance de cette maladie.

Mots-clés: Tuberculose Multi Résistante, Epidémiologie, Kinshasa, République Démocratique du Congo.

Abstract ID: PP503

Epidemiological Investigation of a Dengue Fever Outbreak in Hodan District, Benadir Region, Somalia

Ahmed Mohamed Fidhow¹, Kasim Sultan Mahdi², Saido Abdirahman Gedi³

¹World Health Organization (WHO), Garissa, Kenya

²African Field Epidemiology Network, Mogadishu, Somalia

³Public Health Emergency Operations Centre (PHEOC), Mogadishu, Somalia

&Corresponding author: Saido Abdirahman Gedi, Public Health Emergency Operations Centre (PHEOC), Mogadishu, Somalia, Email: (saido.gedi@nih.gov.so)

Introduction: Dengue fever first emerged in Somalia in 2011. The Emergency Department of Federal Ministry of Health was notified of a death case of dengue and two confirmed cases in the Benadir region, Somalia on October 18, 2022. The first case of dengue fever was confirmed in Ladnaan Hospital, Hodan District, Banadir Region, on September 15, 2022. An investigation was launched to confirm the existence of the outbreak.

Methods: We conducted a descriptive, retrospective medical record review using the World Health Organization (WHO) case definition to identify cases from the facility records in Hodan District from September 11, 2022, to December 18, 2022. Blood samples were tested with Dengue NS1 (Rapid Diagnostic Test) to detect the dengue virus at the National Reference Laboratory. We also explored potential risk factors by visiting few households. Data were analyzed using Ms. Excel software, and frequencies for categorical and numerical variables were computed.

Results: We identified 147 suspected cases, 14 cases tested positive. The overall attack rate was 89/100,000 with a zero-case fatality rate.

The number of cases was higher among males (57%), with the age group above 14 years being most affected (39%). All cases presented with fever (100%) and least common was hemorrhagic manifestations (1%). Majority (53%) of the cases were reported from the Ka'aa subsection of Hodan District.

Conclusions: The dengue fever outbreak in Hodan District was confirmed. Stagnant water bodies, empty tires around visited households, and household members not using ITNs and mosquito repellents were observed to be potential risk factors for dengue outbreak. Community health education was undertaken by distributing risk communication messages on dengue fever to the public.

Health workers were sensitized on case definition for dengue and copies of dengue case definition were distributed to the health facilities. To prevent future outbreaks, we recommend controlling mosquito breeding sites.

Keywords: Dengue Fever, Outbreak, Somalia, Descriptive Study

Abstract ID: PP512

Mortality trend and associated factors among HIV clients on antiretroviral therapy in Tanzania from 2018-2020

Albert Paschal^{1,&}, Hamad Nnimbo¹, Omary Nassoro¹, Fidelis Hmtunzi Prosper Njau³, Loveness Urio Ally Husein¹, Rogath Kishimba^{1,2}, prof Elias Mmbaga¹,
¹Department of Epidemiology and Biostatistics, Muhimbili University of health and allied science , Dar es Salaam, Tanzania

²Epidemiology section of Tanzania Ministry of Health, Dodoma, Tanzania

³Head of Strategic information Unit National AIDS Control Program, Tanzania Ministry of Health, Dodoma, Tanzania

&Corresponding author: Albert Paschal, 1Department of Epidemiology and Biostatistics, Muhimbili University of health and allied science Tanzania Email: paschalalbert54@yahoo.com

Introduction: Despite the significant reduction in mortality among HIV clients on antiretroviral therapy (ART) in Africa, there is a lack of comprehensive information on mortality trends and associated factors in Tanzania. This study aims to assess the mortality trends and identify predictors of mortality among HIV-infected patients receiving ART in 26 regions of Tanzania.

Methods: This study conducted an observational analysis of data from HIV-positive patients receiving care and treatment at healthcare facilities in Tanzania. Mortality data between January 2018 and December 2020 were reviewed. Proportional mortality was analyzed by age, sex, ART program year, marital status, WHO clinical stage, and region using cross-tabulation and Pearson's chi-squared test. Logistic regression was employed to determine independent predictors of mortality at both bivariate and multivariate levels.

Results: The study included 29,982 randomly selected participants from each program year (2018-2020), Resulting in a total of 89,946 participants. The annual specific mortality rates showed a decreasing trend, with rates of 5.9% in 2018, 4.3% in 2019, and 3.14% in 2020.

Mortality was significantly associated with factors such as malnutrition (adjusted odds ratio [AOR] = 2.1, 95% confidence interval [CI]: 1.4-3.1), male gender (AOR = 2.0, 95% CI: 1.6-3.9), active tuberculosis or history of TB treatment (AOR = 1.7, 95% CI: 1.4-6.6), advanced WHO clinical stages (stage 3: AOR = 2.2, 95% CI: 1.5-3.3; stage 4: AOR = 7.3, 95% CI: 3.9-13.7), and CD4 count less than 200 cells/ μ l (AOR = 1.7, 95% CI: 1.31-2.3).

Conclusions: The study findings indicate a decreasing trend in mortality among HIV clients in Tanzania from 2018 to 2020. However, certain high-risk groups, including male patients, those with advanced diseases, TB coinfection, low CD4 counts, and malnutrition, still experience higher mortality rates. To further reduce mortality, it is crucial to enhance TB screening and treatment, provide nutritional support, and promote early diagnosis and treatment of HIV infection.

Keywords: Mortality, HIV clients, antiretroviral therapy, Tanzania

Abstract ID: PP514

Reporting System Evaluation for HIV Counseling and Testing, Sana'a city, Yemen 2022

Fathi Ahmed Abdullah^{1,&}, Mohammed Abdullah Al Dawla², Abdulhafedh Hasan

Al Ward², Mohammed Abdullah Al Amad¹.

¹Field Epidemiology Training Program, Ministry of Public Health & Population, Sana'a, Yemen.

2National AIDS Control Program, Ministry of Public Health & Population, Sana'a, Yemen

&Corresponding author: Fathi Ahmed Abdullah. Yemen Field Epidemiology Training Program, Ministry of Public Health & Population, Email: (Fathimasouad@gmail.com).

Introduction: The human immunodeficiency virus (HIV) is still a global public health problem. HIV counseling and testing (HCT) is the gateway to HIV prevention, treatment, and care support. In Yemen, the HCT services have been established in 2007 and since its launch, the HCT reporting system had never been evaluated. This study aimed to assess the usefulness and performance of HCT reporting system in terms of its attributes.

Methods: A descriptive evaluation of the system attributes based on the updated Centers for Disease Control and Prevention guidelines was performed. Related HCT documents and reports were reviewed. Dual methods for collecting data were used; A semi-structured questionnaire through face-to-face interviews with stakeholders at the central level, and self-administered questionnaires for stakeholders at governorate and health facility levels. A scoring system for the performance indicators of each attribute was used. The attributes of the system were ranked based on the percentage of gained scores; > 80% as good, between 60% and 80% as average, and < 60% as poor. The analysis was by Excel and Epi Info version 7.2

Results: HCT reporting system had 96% usefulness scores. The percentage of all attribute scores was 74%. The higher 99% and 80% were for the attributes of data quality and flexibility, followed by 78%, 72%, and 71%, for timeliness, acceptability, and simplicity, respectively. The lower percentages 60%, and 56% were for representativeness and stability due to a lack of regular staff training and convenient governmental funds, respectively.

Conclusions: The reporting system of HTC was useful. The overall performance was average and varied by each attribute; good performance in data quality, and flexibility; average in simplicity, acceptability, representativeness, timeliness, and poor performance in stability. To improve the system's performance; securing governmental funds, introducing an electronic system, and regular refresher training for health staff are strongly recommended.

Keywords: HIV, Counseling and Testing, Evaluation

Abstract ID: PP518

SARS-CoV-2 positivity test and associated factors in Karongi district, Rwanda: A cross-sectional study

Jean Paul Niyomugabo^{1&}, Emmanuel Nshimiyimana², Semakura muhammed³, Joseph Ntaganira¹, Vedaste Ndahindwa¹

¹School of Public Health, University of Rwanda, PO BOX 4285 Kigali-Rwanda

²African Field Epidemiology Network, Kigali, Rwanda

³Rwanda Biomedical Center, Research and Data Science Department, Kigali, Rwanda

&Corresponding author: Jean Paul Niyomugabo, School of Public Health, University of Rwanda, Kigali. Email: niyopaul55@gmail.com

Introduction: The SARS-CoV-2 infections in Rwanda had been decreasing nationally in 2021, However case numbers appeared to increase in Karongi district. The objective of this retrospective cross-sectional study was to assess the positivity rate and sociodemographic factors associated with SARS-CoV-2 infection in Karongi District.

Methods: The study population comprised all individuals who were tested for SARS-CoV-2 infection at health facilities and testing centers using a rapid antigen test and Results captured from January to December 2021.

Electronic medical data including demographic and clinical information were obtained from the Health Management Information System. All analyses were conducted using STATA V.16. Multivariable logistic regression analyses were performed to identify factors independently associated with testing positive. The findings were presented as adjusted odds ratios (aORs) with 95% confidence intervals (CIs).

Results: A total of 41,602 individuals were tested for SARS-CoV-2, with 6,355 confirmed positive infections (15.3%). Significant factors independently associated with SARS-CoV-2 positivity were age > 4 years, male sex (aOR 1.2, 95% CI 1.1 to 1.3), being a health care worker (aORs 1.2, 95% CI 1.1 to 1.4), refugee status (aOR 3.2, 95% CI 2.4 To 4.2), residing in an urban environment

(aOR 1.3, 95% CI 1.2 to 1.4), and attending secondary school (aOR 7.0, 95% CI 4.0-12.0). The odds of a positive test were higher among those who did not receive any COVID-19 vaccine doses (aOR 2.4, 95% CI 2.1 to 2.7).

Conclusions: The positivity rate from January-December 2021 in Karongi district was 15.3% among all patients. Age > 4 years, male gender, residing in an urban area, being a health care worker, being a refugee, and not receiving COVID-19 vaccination are at higher risk for SARS-CoV-2 and may benefit from public health measures.

Keywords: COVID19, Positivity rate, factors, Karongi.

Abstract ID : PP521

Investigation d'une flambée de lésions cutanéomuqueuses suspectes de leishmaniose dans la sous-préfecture de Grimari en RCA, janvier 2023.

Auguste Odilon Kpahina^{1,2,&}, Ernest Kalthan², Félicité Emma Yagata², Davy Romeo Takpando^{1,3}, Miguel Gbandi⁴, Larsen Didier Goyango⁴, Patrick Mavungu Ngoma⁵

¹Cameroon Field Epidemiology Training Program, Yaoundé, Cameroun.

²Direction de la surveillance épidémiologique et de gestion d'urgences en santé publique, Bangui, République Centrafricaine.

³Service de lutte contre le paludisme, Bangui République Centrafricaine.. ⁴District sanitaire de Kouango-Grimari, Grimari, République Centrafricaine.

⁵AFENET Bangui, République Centrafricaine.

&Auteur correspondant: Auguste Odilon Kpahina, Direction de la surveillance épidémiologique et de gestion d'urgences en santé publique, Bangui, République Centrafricaine.
Email : odilonauguste@gmail.com. Téléphone : +23672027651

Introduction: En octobre 2022, 62 cas suspects de leishmaniose étaient notifiés par le district sanitaire de Grimari. Une investigation approfondie a été menée pour déterminer l'ampleur de l'épidémie, identifier les facteurs de risque associés, prendre des mesures de contrôle et de prévention.

Méthodes: Une étude cas-témoins a été réalisée du 18 au 24 janvier 2023. Cas suspect: toute personne ayant séjourné dans la sous-préfecture de Grimari du 1er juin 2022 au 24 janvier 2023, présentant des lésions cutanées nodulaires croûteux, ulcère-croûteuse non prurigineuses sur les parties découvertes du corps. Témoin : personne de même ménage ou ménage voisin d'un cas, sans lésions cutanées. Les caractéristiques sociodémographiques et les facteurs des risques ont été étudiés. Proportions, âge moyen et écart-type, taux d'attaque (TA) et Odds Ratio ont été calculés avec Epi info 7.4.

Résultats: Au total, 176 cas suspects étaient recensés. Le TA était de 105 cas pour 100.000 habitants et l'âge moyen de 12 (+/-8) ans. La tranche d'âge de 10-14 ans a regroupé 93 (52,8%) cas. Les élèves 141 (80%) cas étaient les plus représentés. Grimari centre était le plus touché avec un TA de 260/100000 habitants. La forme ulcéreuse était retrouvée chez 147 (83,5%) cas, ulcère-croûteuse chez 15 (8,5%) et noduleuses chez 14 (8%). La notion de voyage (OR: 11,6 ; IC95: 2,2-61) et l'absence d'un système de gestion de déchet (OR: 3 ; IC95 1,02-9,2) étaient les facteurs de risque. Des prélèvements sanguins et frottis étaient réalisés, les tests sont en cours.

Conclusions: L'investigation a renforcée la suspicion d'une épidémie de leishmaniose cutanée sans confirmation faute des résultats de laboratoire. Une sensibilisation sur l'hygiène du milieu a été réalisée. Une enquête entomologique pour identifier le réservoir de la maladie et le renforcement des capacités des laboratoires permettra de mieux asseoir le diagnostic en améliorant la lutte contre cette maladie.

Mots clés: Epidémie, leishmaniose, lésions cutanéomuqueuses, RCA

Abstract ID: PP522

Neonatal mortality and associated factors at the Western Province Hospital in Rwanda; A facility based cross-sectional study, 2019-2021.

Christophe Nkundabaza^{1,&}, Dr Judith Mukamurigo², Mr Gilbert Rukundo³, Dr Jean d'Amour Sinayobye⁴,

Prof Joseph Ntaganira²

¹Field Epidemiology Training Program (FETP),
University of Rwanda, Kigali, Rwanda

²University of Rwanda College of Medicine and Health
Sciences/School of Public Health_ Kigali, Rwanda.

³Data scientist at Rwanda Biomedical Center, Kigali,
Rwanda

⁴AFENET, Kigali, Rwanda

&Corresponding author: Christophe
Nkundabaza, University of Rwanda, Kigali, Rwanda
E-mail/Phone: nkundabazacgmail.com/+250783103040

Introduction: Ne

onatal mortality remains a public health challenge globally and in Rwanda. A higher mortality rates is seen in Rwandan rural areas compared to urban areas.

Bushenge as one of rural hospitals receives a big number of neonates admitted for different reasons, but little is known about neonatal mortality and associated factors. This study aimed to assess the prevalence and factors associated with neonatal mortality at Bushenge Provincial Hospital.

Methods: A cross-sectional study was used. Medical files and deaths audits from January 2019 to December 2021 were reviewed to obtain neonates and maternal information.

Data were extracted using a form created in Epi Info 7.0. Data analysis was done using STATA V.16. Bivariate and multivariable logistic regression analyses were computed with corresponding 95% confidence intervals (95% CI) to assess associations between neonatal mortality and factors.

Results: Of 1,483 medical records were reviewed, the prevalence of neonatal mortality was 8.9% (n=132/1483). Neonatal mortality was significantly associated with extreme low birth weight (adjusted odds ratio [AOR]: 14.4, 95% CI 6.6 – 31.8), length of hospital stay (AOR: 12.7, 95% CI 6.7 – 24.5), malformation (AOR:11.7, 95% CI 4.8 – 28.7), Apgar score \leq 6 (AOR: 8.1, 95% C.I 3.6 – 18.4), prematurity (AOR: 6.1, 95% CI 3.4 – 11.1), very low birth weight (AOR: 5.6, 95% CI 2.6 – 12.3), asphyxia (AOR: 5.3, 95% C.I 2.6 – 11.0), neonatal infection (AOR: 3.8, 95% CI 1.9 – 7.6), infants aged \leq 7 days (AOR: 3.5, 95% C.I 1.6 – 8.0),and caesarean section (AOR:1.6,95% C.I 1.0 – 2.8).

Conclusions: This study revealed a lower

prevalence at Bushenge Provincial Hospital than other rural hospitals in Rwanda.

Most factors associated with neonatal mortality are avoidable; hence preventive measures such as enhancing the utilization of antenatal care services, early identification and referral of high-risk pregnancy and neonates could reduce the neonatal deaths.

Keywords: Prevalence, factors, neonate, mortality.

Abstract ID: PP528

Cholera outbreak among internally displaced people in Bentiu Camp, Unity State, South Sudan, March-October 2022

Agnes Jokudu Nathaniel¹. David Kabba Kargbo², Wilbrod Mwanje², Gildo Okure^{2&}, Joseph Lasu¹, Michael Lasuba³, John Pasquale Rumunu¹

¹Public Health Emergency Operations Center, Ministry of Health, Juba, South Sudan

²African Field Epidemiology Network, Field Epidemiology Training Program, Juba, South Sudan

³National Public Health Laboratory, Ministry of Health, Juba, South Sudan

&Corresponding author: Gildo Okure; AFENET; Juba, South Sudan; gokure@afenet.net;

Introduction: Cholera remains a global public health threat and an indicator of inequity and lack of social development. On 14th April 2022, South Sudan National Public Health Laboratory (NPHL) isolated *Vibrio cholerae* from stool sample of an internally displaced person (IDP) in Bentiu Camp, Rubkona County, Unity State, following unprecedented floods. We investigated to characterize the outbreak, determine the magnitude, identify the source and implement control and prevention measures.

Methods: A suspected cholera case was any resident of Bentiu IDP camp with onset of three or more loose stools within 24 hours or dying from acute watery diarrhea from March 1- October 31, 2022.

Confirmed case was a suspected case with *Vibrio cholerae* infection confirmed by culture. We tested stool samples using rapid diagnostic test (RDT) and transported positive samples for confirmation at the NPHL.

We conducted active case search in the IDP camp, reviewed medical records and line-listed cases. We tested household drinking water for coliform bacteria and inspected toilet facilities. We calculated frequencies, proportions and case-fatality rate (CFR)

Results: We identified 424 case-patients including one death (CFR=0.2%). The median age of the case-patients was 10 (range: <1-76) years. Majority 62.5% (265/424) of the case-patients were females. Of the 51 RDT-positive stool samples, 29.4% (15/51) were confirmed with *Vibrio cholerae* by culture. About 39% (18/46) of household drinking water tested positive for total coliforms. Only 2,642 functional latrines served 108,456 persons in the IDP Camp, below the WHO standard of one functional latrine per 20 persons.

Conclusions: Cholera outbreak occurred among IDPs in Bentiu camp affecting mostly children and could have been due to drinking contaminated household water and inadequate toilet facilities.

We implemented water sanitation and hygiene interventions, provided supportive treatment to case-patients and administered two rounds of oral cholera vaccines (OCV) to control the outbreak.

Keywords: Outbreak, oral cholera vaccines (OCV), internally displaced people, Bentiu, South Sudan

Abstract ID : PP529

Référence des cas de paludisme grave et facteurs associés à la létalité chez les enfants de moins de cinq ans dans les hôpitaux du Mono, du 01 avril au 31 octobre 2022

Edouard Hountohotègbè^{1&}, Rodrigue Codjo Kohoun², Nestor Dénakpo Noudèkè³, Mathilde Adjoavi Houssou³

¹Ministère de la Santé ; Lokossa, Bénin

²Ministère de la Santé, Cotonou, Bénin

³AFENET Bénin, Cotonou, Bénin

&Auteur correspondant: Edouard Hountohotègbè, Ministère de la Santé ; Lokossa, Bénin, hountedo2@yahoo.fr ou hountedo2@gmail.com

Introduction: Le paludisme est une maladie parasitaire fébrile mortelle due à un Plasmodium. Il sévit sous deux formes dont la forme grave se retrouve plus chez les enfants de moins de cinq ans. La région africaine de l'OMS continue de payer le plus lourd tribut au paludisme ; en 2020, 228 millions de cas et 602 000 décès.

Cette étude se propose d'évaluer la référence des cas graves du paludisme et les facteurs associés à la létalité chez les enfants de moins de 5 ans dans le département du Mono du 1er avril au 31 octobre 2022.

Méthodes: Une étude transversale analytique a été menée auprès des enfants de 12 à 36 mois. L'échantillonnage a été fait de façon aléatoire avec le logiciel Open-Epi.

Les données ont été collectées avec Kobocollect par dépouillement des dossiers médicaux dans 3 hôpitaux publics, et analysées avec le logiciel Epi Info 7.2. Des fréquences et Odds ratios ont été calculés.

Résultats: Au total, 394 cas avaient été inclus dans l'étude dont 205 de sexe féminin soit 52,03%. La majorité des cas se retrouvait dans la tranche d'âge de 12 à 36 mois soit 55,84%.

La létalité était de 4,57%. La majorité des enfants était référée soit 57,11%. Parmi ces référés, 48,44% ont pu bénéficier de la première dose d'artésunate et l'ambulance a été utilisée pour 41,18%.

Les manifestations cliniques les plus associées au décès étaient le faible taux d'hémoglobine (≤ 5 g/dl, OR=9,39 ; IC à 95% : [3,00-27,10]) et la durée hospitalisation (< 4 jours, R=5,49 ; IC à 95% : [1,53-35,0]).

Conclusions: La létalité hospitalière du paludisme grave est encore élevée. Peu de cas référés bénéficient du traitement de pré-référence. La prise en compte des facteurs associés au décès lors de la prise en charge améliorerait cette létalité.

Mots-clés: Létalité, Paludisme grave, Référence, Etude transversale, Benin

Abstract ID: PP53 I

Causes and trends of stillbirth deliveries, Aberdeen Women's Centre, Freetown, Sierra Leone, 2017-2020: A case study of a health facility

Lilian Kumba Admire-Taylor^{1,2}, Joel Mansaray^{1,2}, Solomon Aiah Sogbeh^{1,2}, Philip Gevao², Binta Bah^{1,2}, Mohamed Babah Jalloh^{1,2}, Aminata Tididankay Koroma¹, Joseph Sam Kanu¹, James Sylvester Squire¹, Adel Elduma Abdalla², Mohamed Vandil¹, Gebrekrstos Negash Gebru^{2,3}

¹Ministry of Health and Sanitation, Freetown, Sierra Leone

²Field Epidemiology Training Program, Freetown, Sierra Leone

³African Field Epidemiology Network, Freetown, Sierra Leone

&Corresponding authors: Lilian Kumba Admire-Taylor, Ministry of Health and Sanitation, Freetown, Sierra Leone, Email: admiretaylor@gmail.com

Introduction: In 2014, the World Health Assembly endorsed a target of below 12 stillbirths per 1000 total births in all countries by 2030. In Sierra Leone, the stillbirth rate is 32.6 per 1000 live births in 2020. Despite the frequent occurrence of stillbirth, there is little information available on the causes of stillbirth. We analyzed secondary data to assess stillbirth deliveries, causes, and trends at Aberdeen Women's Centre, Freetown, Sierra Leone.

Methods: Descriptive secondary data analysis was conducted. Data were extracted from Aberdeen Women's Centre (AWC) delivery registers and patient clinical charts from January 2017 to December 2020. We reviewed delivery registers and maternal clinical charts.

We collected data on the age of mothers, gravidity, gestational age, fetal sex, and possible causes of stillbirth. Data were cleaned, analyzed by person, place, and time. We calculated proportions, ratios, and rates.

Results: Out of 10,730 deliveries, 167(1.6%) were stillbirths (15.6 per 1000 births). Median age of mothers who delivered stillbirths was 28 years (range:

15 - 42 years). Of the 167 stillbirths, 96(57%) were male fetuses, 142(85%) were antepartum, and 100 (60%) were macerated. Late stillbirths accounted for 98(59%). Of the total stillbirths, 115(69%) were vaginal deliveries, 153(91%) were of cephalic presentation, and the birth defects were ten (5.9%). Causes of stillbirth were preeclampsia 27(16.2%), placental abruption 22(13.2%), ruptured uterus 19(11.4%), HIV/AIDs 14 (8.4%) antepartum haemorrhage 12(7.2%), placenta Previa 6 (3.6%), others 24(14.4%) and some with no identifiable cause 43(25.7%). The yearly trend of the stillbirth rate was 14.7, 17.0, 18.7, and 11.9 per 1000 births from 2017 to 2020, respectively.

Conclusions: Stillbirth rates in AWC were lower than the national rate with more women within the age group 26-35 years and high antepartum deliveries. However, we recommend women with complicated maternal complications be carefully monitored and sensitized on early health care-seeking behaviours.

Keywords: Stillbirth deliveries, Aberdeen Women's Centre, Freetown, Sierra Leone

Abstract ID: PP533

Prevalence and predictors of detectable viral-load among HIV clients on Ant-retroviral therapy in Kagera region Tanzania

Albert Paschal^{1,&}, Nicholaus Tarimo², Prosper Njau³, Loveness Urio¹, Ally Husein Rogath Kishimba¹, Elias Mmbaga^{1,4}

¹Department of Epidemiology and Biostatistics, Muhimbili University of health and allied science, Dar es Salaam, Tanzania

²Project manager MDH- Geita

³Head of Strategic information Unit National AIDS Control Program, Tanzania Ministry of Health

⁴Epidemiology section of Tanzania Ministry of Health, Dodoma, Tanzania

&Corresponding author: Albert Paschal, 1Department of Epidemiology and Biostatistics, Muhimbili University of health and allied science Tanzania Email: paschalalbert54@yahoo.com

Introduction: HIV remains a significant public health concern in developing countries, including Tanzania. Detectable viral load among clients on

antiretroviral therapy (ART) increases the risk of HIV transmission. However, there is limited information on the prevalence and predictors of detectable viral load in specific regions, such as Kagera. This study aimed to determine the prevalence of detectable viral load and identify predictors among HIV clients on ART in Kagera region, Tanzania.

Methods: This cross-sectional study included 309 HIV clients who had been on ART for at least 6 months in Kagera. The participants were selected through a systematic sampling Methods from healthcare facilities in the region. Data were collected using a structured questionnaire and from patient records between September 2020 and September 2021. Descriptive statistics were used to summarize the data, and logistic regression analysis was performed to identify predictors of detectable viral load.

Results: Among the participants, the prevalence of detectable viral load (>50 copies/ml) was 18.9%. Of those with detectable viral load, 54.2% were females. Additionally, 10.3% had viral load levels above 1000 copies/ml, and again, the majority (53.1%) were females. The predictors of detectable viral load included being young (0-17 years) (Adjusted Odds Ratio [AOR] 2.1, 95% Confidence Interval [CI]: 1.2-2.5), being divorced (AOR 1.4, 95% CI: 1.2-6.2), history of treatment interruption (AOR 2.8, 95% CI: 1.3-6.2), having a mobile occupation (AOR 2.6, 95% CI: 1.1-4.1), and lacking knowledge about the meaning and impact of detectable viral load on HIV transmission risk (AOR 1.3, 95% CI: 1.1-4.1). On the other hand, HIV disclosure to spouse and community was found to be a significant protective factor (AOR 0.3, 95% CI: 0.09-0.9).

Conclusions: The study found a high prevalence of detectable viral load among HIV clients on ART in Kagera Region, Tanzania. Females were more likely to have detectable viral load. Several predictors, including age, marital status, treatment interruption, occupation, and knowledge level, were associated with detectable viral load.

To address this issue, targeted interventions are needed to improve treatment adherence, provide education on HIV management, and promote HIV disclosure within communities.

Keywords: Prevalence, predictors, detectable viral load, antiretroviral therapy, Tanzania

Abstract ID: PP539

Cutaneous human anthrax outbreak investigation in Gogrial West County, Warrap State, South Sudan, April-December 2022

John Akol Akol¹, Gildo Okure^{2&}, David Kargbo Kabba², Wilbrod Mwanje², Joseph Lasu³, Thomas Ujjiga¹, John Pasquale Rumunu³

¹State Ministry of Health, Kuajok, Warrap State, South Sudan.

²African Field Epidemiology Network, Field Epidemiology Training Program, Juba, South Sudan.

³National Ministry of Health, Juba, South Sudan

&Corresponding author: Gildo Okure; AFENET; Juba, South Sudan; gokure@afenet.net ;

Introduction: Anthrax

is a highly contagious zoonotic disease caused by *Bacillus anthracis*. Following an increase in the number of patients presenting with skin lesions at Kuajok Hospital between February and March 2022; on 2 April 2022 Gogrial West County (GWC) surveillance unit carried out an investigation and collected skin lesion swabs from 18 patients. On 11 April 2022, eight samples were confirmed positive for *Bacillus anthracis* by polymerase chain reaction (PCR) leading to declaration of human anthrax outbreak. We investigated to characterize the outbreak, determine the magnitude, and identified exposures to guide control and prevention measures.

Methods: We defined a suspected cutaneous anthrax case as onset of skin lesions (papule, vesicle, or eschar) in a person residing in GWC, Warrap State from 1st January to 31 December 2022. A confirmed case was a suspected case with PCR-positivity for *Bacillus anthracis*.

We identified cases by reviewing medical records at Kuajok Hospital, conducted active case search in affected communities and line-listed the cases. We calculated frequencies, proportions, attack and case-fatality rates.

Results: We identified 148 case-patients (8 confirmed, 140 suspected) of whom 5 (CFR=3.4%) died. All the case-patients presented with skin lesions (itching, swelling or ulcer).

Most 84 (57%) of the case-patients were females and 81(55%) were ≤10 years old. Median age of case-patients was 9 (range: 0.25-70) years.

Of the nine affected payams (sub-counties), Waralel had the highest attack rate (130.9/100,000 population). Most 126 (85%) of the case-patients were from households keeping livestock and 134 (91%) reported eating meat of dead livestock. None of the owned livestock were vaccinated.

Conclusions: The process of slaughtering and handling of meat from dead livestock for cooking could have been the possible source of cutaneous anthrax outbreak in GWC. We recommended public education about safe disposal of livestock that die suddenly and mass vaccination of livestock to prevent future outbreaks.

Keywords: Anthrax, outbreak, Zoonotic disease, Gogrial West County, Warrap State, South Sudan

Abstract ID : PP544

Profil épidémiologique de la paralysie flasque aiguë, département des Collines, Bénin, 1er janvier 2016- 04 juillet 2022.

Richard Sèfounon^{1&}, Lydie Monloto Dèdèwanou², Nestor Dénakpo Noudèkè³, Mathilde Adjoavi Houssou³,
¹Ministère de la santé, Dassa, Bénin
²Ministère de la santé, Tchaourou, Bénin
³AFENET, Cotonou, Bénin

&Auteur correspondant: Richard Sèfounon, Ministère de la santé, Dassa, Bénin, Email : sefounonrd@gmail.com

Introduction: La poliomyélite est une maladie très contagieuse causée par des entérovirus humains. Des cas persistants continuent d'être détectés malgré l'initiative mondiale d'éradication de la maladie et le Bénin n'est pas du reste.

Le département des Collines a enregistré deux cas de poliovirus dérivé de souche vaccinale en 2019 et 2021. L'objectif de cette étude est de déterminer le profil épidémiologique des cas de la paralysie flasque aiguë (PFA) dans le département des Collines.

Méthodes: Une étude descriptive a été réalisée sur les cas de PFA de la base de surveillance épidémiologique du département des Collines du 1er janvier 2016 au 4 juillet 2022.

Le logiciel Epi Info 7.2.0.1 a été utilisé pour les analyses statistiques descriptives à 95% d'intervalle de confiance. Les variables tels que Sexe, âge, statut vaccinal, milieu de vie, résultats de laboratoire, milieu de provenance ont été étudié.

Résultats: Au total, 104 cas de PFA avec fièvre et paralysie ou boiterie dont 1 décès (létalité 0,96%) ont été enregistrés ; 90 cas soit 86,5 % [IC 95% : 78,67-91,81%] ont bénéficiés des prélèvements ; 2 ont été confirmés positifs au poliovirus dérivé de la souche vaccinale (2, 2% de positivité).

Les cas provenaient des 06 communes, majoritairement du milieu rural (84) soit 80,76% [IC 95% : 72,16-87,19]. La tranche d'âge de 1 à 4 ans était la plus touchée, 71 cas soit 68,26% [IC 95% : 58,81-76,43] et le sexe ratio H/F était de 1,26.

L'incidence la plus élevée a été observée en 2019 soit 3 cas pour 100 000 enfants [IC 95% : 4,72-151,5] et 80 cas soit 76,92% [IC 95% : 67,96-83,97] étaient vaccinés.

Conclusions: Le renforcement de la surveillance des cas pourrait aider à la détection précoce des cas de PFA positifs au poliovirus dans le département des Collines.

Mots clés: Profil épidémiologique, Paralysie flasque aiguë (PFA), Département des Collines du 1er janvier 2016 au 4 juillet 2022.

Abstract ID: PP549

Food Poisoning Outbreak Investigation at Ecole Agricole et Veterinaire (EAV) Kabutare High School, Huye District of Rwanda - June 2022

Albert Busumbigabo^{1&}, Theogene Ndahayo¹, Herve Sheja Maniragaba¹, Innocent Itangishaka¹, Jean Claude Niyoyita², Emmanuel Nshimiyimana²
¹University Teaching Hospital of Butare (CHUB), Huye, Rwanda. ²African Field Epidemiology Network (AFENET), Kigali, Rwanda.

&Corresponding Author: Albert Busumbigabo, University Teaching Hospital of Butare, CHUB, Huye, Rwanda, Email: busumbigabo@gmail.com

Introduction: Food poisoning refers to an event when two or more people epidemiologically linked get the same illness after consumption of the same contaminated food or drinks.

On 16th June 2022, an increased number of students from EAV Kabutare high school in Huye district were admitted at CHUB. An investigation was conducted to establish the existence of an outbreak, identify the source and causative agent, and set up appropriate control and preventive measures.

Methods: This was an outbreak investigation conducted using descriptive study design. We reviewed medical records to collect epidemiological information. Sample from suspected food were sent and analyzed at LADAMET while stool samples were taken and analyzed at CHUB laboratory.

A case was defined as any student from EAV Kabutare who presented with at least one of the following symptoms: vomiting, diarrhea, nausea, abdominal pain, headache and muscle pain between the 15th and 17th of June, 22.

Results: A total of 70 students from senior six performing laboratory practice ate a meat-based food called Jambo on 16th June 2022 whereby 43 (61.4% Attack rate) with an average age of 20 years old got sick and were admitted at CHUB. Among them 91% were female.

Common symptoms were headache 74%, abdominal pain (60%), vomiting (27%), and diarrhea (4%). The onset of symptoms started one hour after ingestion and all cases occurred within two hours. The sample taken from Jambo revealed the presence of Silver Nitrate while 70 stool samples taken were negative.

Conclusions: A food poisoning outbreak occurred in EAV Kabutare high school in June 2022 due to the consumption of Jambo mixed by mistake with silver nitrate and has affected only some students from senior six who were in laboratory practices. Proper labeling of all ingredients, vigilance, and avoidance of eating in the laboratory were recommended.

Keywords: Food poisoning, Outbreak investigation, Jambo, Silver Nitrate

Abstract ID: PP55 I

Evaluation of Rotavirus Surveillance System at Kilifi County Hospital-Kenya, 2017-2021.

Ednah Salat^{1,&}, Ahmed Abade¹, David Kareko², Charles Mwithero³, Emmanuel Okunga²

¹Field Epidemiology and Training Program, Nairobi, Kenya,

²Division of Disease Surveillance and Response, Ministry of Health, Nairobi, Kenya,

³World Health Organization, Nairobi, Kenya,

&Corresponding author: Ednah Salat, 1Field Epidemiology and Training Program, Nairobi, Kenya, Email: ednatonui38@gmail.com

Introduction: Rotavirus is one of the causes of acute diarrhea among children under five years.

Diarrhea causes 9.9% of the 6.9 million deaths worldwide among children in this age group. The rotavirus surveillance system is aimed at determining the disease burden, and epidemiology of the virus, and monitoring the impact of vaccination.

The rotavirus surveillance system was piloted at Kilifi county hospital in 2009 and has been active to date. The system at this site has never been evaluated. We sought to evaluate its performance.

Methods: We reviewed records for children under five years admitted to the hospital. We collected data on sociodemographic and clinical information. We developed a semi-structured questionnaire and interviewed stakeholders, from both national and facility levels, to assess the system attributes using updated CDC MMWR guidelines.

The qualitative attributes were evaluated using the five-point Likert Scale, while the descriptive attributes and other variables were described in terms of proportions and percentages. For ranking and scoring: poor (<60%) average (60% to <80%) and good (≥80%).

Results: We reviewed 1,184 records of suspected cases from the database. Males were 690 (58.7%) and those below the age of 12 months accounted for 647 (54.7%). Altered level of consciousness contributed to 598(51%) of presenting symptoms among suspected cases.

For the attribute, the usefulness of the system was rated average (74%), flexible (67%), stable (61%) simple (75%), acceptable (78%), Timely (95%), sensitive (11.5%) and data quality (completeness) (41%)

Conclusions: The surveillance system is useful. The sensitivity was poor which could be a Results of the poor quality of data. We recommend regular data quality audits at the facility, and mentorship on data entry.

Keywords: Rotavirus, Surveillance system, Vaccination

Abstract ID: PP575

Risk Factors associated with delivering Low Birth Weight Infants at Oshakati Intermediate Hospital, Oshana region, Namibia - September to November 2020

Roswitha Mukanga Ndjengwa^{1,8}, Penehafo Angula², Hendrik Camphor³, Emmy Else Ndevaetela¹, Alex Siremo Kampanza¹

¹ Namibia Field Epidemiology and Laboratory Training Program, Windhoek -Namibia

²University of Namibia, Oshakati – Namibia

³Australian Government Department of Health & Aged Care, Sydney, New South Wales – Australia

&Corresponding Author: Roswitha Mukanga Ndjengwa, Namibia Field Epidemiology & Laboratory Training Program, Windhoek – Namibia. Email address: nroswitha@yahoo.com / tjn2@cdc.gov

Introduction: Low Birth Weight (LBW) is a preventable public health concern. The World Health Organization estimates that about 30 million LBW babies are born annually. By 2020, the global prevalence of LBW was estimated at 14.7%.

The 2013 Namibia Demographic Health Survey recorded a 13% LBW prevalence, with Oshana region leading by 16%. LBW is coupled with serious health problems e.g., impaired mental development and increased risk of morbidity and mortality.

We investigated maternal and sociodemographic factors associated with LBW new-borns in Intermediate Hospital Oshakati, to develop recommendations aimed at reducing LBW.

Methods: We conducted an unmatched 1:2 case-control study between September and November 2020. Cases were mothers who delivered singleton full term babies weighing less than 2500g. Controls were mothers who delivered singleton full term babies weighing 2500g or more.

An interviewer administered structured questionnaire was used for data collection. We reviewed maternal records for clinical information. We used multivariable logistic regression to identify risk factors of LBW and reported odd ratios with 95% Confidence Intervals (CI).

Results: A total of 103 cases and 206 controls were interviewed. The mean age of mothers was 27.13 ±7.23 years and the mean birth weight of babies was 2875.13±570.88g.

Independent risk factors for delivering LBW new-borns were gestation age <38 weeks (aOR 4.1, 95%-CI 1.86-9.35); history of LBW or prematurity (aOR 2.4, 95%-CI 1.12-5.43) as well as rural residence (aOR 2.5, 95%-CI 1.44 – 4.57).

Conclusions: LBW is more associated with some socio demographic and obstetric factors than socio-economic and nutritional factors.

Expecting mothers with known risk factors (e.g., history of prematurity or LBW) need close monitoring during Ante Natal Care (ANC). Maternal health services in rural areas needs strengthening in terms of skilled personnel, equipment, and awareness creation at community level.

Key words: Low Birth Weight, cases, controls, risk factors

Abstract ID: PP576

Retrospective Analysis of the Incidence of Leptospirosis in the Five Regional Hospitals in Mauritius from 2017 - 2022

Nilesh Gopaul^{1,2,8}, Magalutcheemee Ramuth², Harena Rasamoelina-Andriamanivo^{1,4}, Lovena P. Veerapa-Mangroo^{1,4}, Hari Mathur^{1,3}

¹Surveillance Epidemiologiques et Gestion des Alertes (SEGA) One Health Network, Indian Ocean Commission, Ebene, Mauritius, ²Department of Virology, Central Health Laboratory, Ministry of Health

and Wellness, Victoria Hospital, Candos, Quatre Bornes, Mauritius, ³Department of Molecular Biology, Central Health Laboratory, Ministry of Health and Wellness, Victoria Hospital, Candos, Quatre Bornes, Mauritius, ⁴Epidemic Surveillance and Response Unit, Indian Ocean Commission, Ebene, Mauritius.

&Corresponding author: Nilesh Gopaul, Surveillance Epidemiologiques et Gestion des Alertes (SEGA) One Health Network, Indian Ocean Commission, Ebene, Mauritius. nileshgopaul@outlook.com

Introduction: Leptospirosis is an endemic disease which directly associates with the environment and animal reservoir. Seasonal rainfall in tropical regions, floods, contaminated waters and rodent population may trigger an outbreak or high incidence.

Mauritius, being a tropical island, records on average 40 positive cases of leptospirosis per year. The aim of this field work is to analyze retrospectively the incidence of leptospirosis in Mauritius by determining its distribution by gender, age, season and region. Hence, establishing an effective surveillance system with a one-health approach for prevention and control of leptospirosis.

Methods: Data was collected from 2017- 2022 from the leptospirosis database in Virology department at the Central Health Laboratory in Mauritius. Variables were filtered based on time, place and person for data analysis. Positive leptospirosis cases were our sample population (n=221). Data analysis included incidence of leptospirosis, positivity rate and percentages to determine its distribution in five regional hospitals in Mauritius.

Results: Positive cases of leptospirosis were found to be prominent in males (76%) than females (34%). The affected age group were patient between 30 – 79yrs with highest incidence in patient 50 – 59yrs (2.72/10000 inhabitants).

The highest number of positive cases of leptospirosis was recorded in Jawaharlal Nehru hospital (South region, n=57) with increased incidence of leptospirosis in January, April, May and July which is indicative to an outbreak during these months. In 2021, number of positive cases were highest (n=51) and lowest in 2018 (n=25). In 2020, the incidence rate shows drop in the number of positive cases which is suggestive to a problem in this year (COVID-19).

Conclusions: High number of cases in January, April and May hypothesizes that leptospirosis is seasonal due to heavy rainfall and cyclones. The rodent population should be monitored in South region and population aged 30-59yrs should be targeted for awareness and control.

Keywords: leptospirosis, Mauritius, seasonal, control

Abstract ID: PP577

Assessment of Preparedness for Ebola Virus Disease outbreak at Points of Entry and Isolation Sites in western Kenya Counties, 2022.

Stephen Okumu Opiyo¹, Josephine Nyambura Githaiga¹, Morris Omondi Owiny¹, Ahmed Abade Mohamed¹, Caren Ndeta¹, Francis Nyaika Muoka¹, Osborne Otieno Olago¹, Jacob Owitti Odipo¹, Fredrick Odhiambo¹,

¹Kenya Field Epidemiology and Laboratory Training program, Nairobi, Kenya

&Corresponding author: Stephen Okumu Opiyo, 1Kenya Field Epidemiology and Laboratory Training program, Nairobi, Kenya, Email: steveokumu@gmail.com FELTP-K

Introduction. Viral hemorrhagic fevers (VHF) are diseases of public health concern. Ebola Virus Disease (EVD) is a VHF that affects humans and other primates. In September 2022, Uganda announced an outbreak of EVD caused by Sudan virus disease. The three counties of Homabay, Migori, and Kisumu border Uganda with active cross-border trade. The study aimed to evaluate the capacity of POEs to detect and respond to EVD cases and assess isolation centers for EVD preparedness.

Methods: This was an observational study. A standard EVD preparedness checklist was used to assess the capacity of POE and the preparedness of isolation centers. Areas assessed the POE were, Rapid Response Teams (RRT), passenger screening, personnel training, disease notification, isolation and referral, Infection Prevention and Control (IPC), and contact tracing.

At the isolation centers coordination, RRT, case management, laboratory specimen management, and IPC. data were analyzed using Excel and presented in percentage scores.

Results: The study assessed a total of five POEs and three isolation centres. The findings indicated the preparedness at POEs scored 50% for RRTs, 20% for personnel training, 39% for passenger screening, 42% for disease notification, 49% for isolation and referral, 60% for IPC, and 47% for contact tracing, based on the assessment tool. In the isolation centres, the evaluation scored coordination at 78%, RRTs at 30%, case management at 8%, laboratory specimen management at 44%, IPC at 71%, hand hygiene scored at 48%, PPE scored at 52%, waste management scored 61% and environmental hygiene scored 92%.

Conclusions: We conclude that there is a need for the Ministry of Health to strengthen the preparedness and response capacity of POEs and County departments of health to equip and train staff in isolation sites to ensure the detection of cases and case management to prevent the spread of EVD and other VHF.

Keywords: Airports Hemorrhagic Fever, Ebola, Disease Outbreaks, Personal Protective Equipment

Abstract ID: PP579

Assessment of timeliness and completeness of reporting, Serowe, Botswana, January 2023

Dziidzo Doreen Leshiba^{1,*}, Onkgopotse Kgomoitso Oduetse¹, Nesredin Jami Oumer², Uzoma Ogbonna²,
¹Serowe District Health Management Team, Serowe, Botswana

²African Field Epidemiology Network, Field Epidemiology Training Program, Gaborone, Botswana

&Corresponding author: Dziidzo Doreen Leshiba, Serowe District Health Management Team, Serowe, Botswana. Email: ldziidzo79@gmail.com

Introduction: Public health surveillance provides data for action, supporting informed decision-making. Botswana adopted the Integrated Disease Surveillance and Response System (IDSR) in 2002.

Data on reportable diseases are required to be submitted from health facilities (HF) to the district, which collates these and submits a weekly surveillance summary report (WSSR) to the national level.

However, we do not know the timeliness and completeness of these WSSR, in addition to diseases commonly reported. Therefore, we summarized the WSSR to describe the notifiable diseases, assess monitoring indicators and identify reasons for poor performance.

Methods: WSSR from 30 district HF were reviewed for a period of 52 weeks (week 1 – 52, 2022). We assessed timeliness and completeness of reporting for the HF. Timeliness was defined as submission of weekly report before 12 noon on Mondays. Cumulatively, timeliness was classified as good ($\geq 80\%$), fair ($50\% - < 80\%$) or poor ($< 50\%$). Completeness was defined as whether surveillance reports arrived at the district level, regardless of whether on time or late. Cumulatively, completeness was classified as good if it met the national average of 80%. Data on notifiable diseases were reviewed. We conducted a telephone survey for poorly performing HF.

Results: In 2022, the district median timeliness was 68% (range: 0 – 87%). Cumulatively, 8(27%) facilities were categorized as good, 15(50%) fair, and 7(23%) facilities poor. The district median completeness was 100% (range: 93 – 100%).

Cumulatively, 29(97%) HF scored at least 80% completeness. Influenza like illnesses and diarrhea were the commonly reported illnesses. No surveillance focal officer, competing priorities, and public holidays were identified as reasons for late or no reporting. Furthermore, private facilities did not prioritize reporting.

Conclusions: Timeliness of reporting is suboptimal. We sensitized staff on reporting requirements, advocated for the designation of surveillance focal officers in health facilities and sensitized staff on reporting requirements.

Keywords: Timeliness, completeness, monitoring indicators, Serowe, Botswana

Abstract ID : PP580

Référence des cas de paludisme grave et facteurs associés à la létalité chez les enfants de 0 à 59 mois dans les hôpitaux publics de l'Ouémé au Bénin en 2022

Augusta Akouènon Adanve^{1&}, Bernard Aniwanou², Nestor Denakpo Noudeke³, Matilde Adjoavi Houssou³

¹Ministère de la Santé, Porto-Novo, Bénin

²Ministère de la Santé, Cotonou, Bénin

³African Field Epidemiology Network, Cotonou, Bénin

&Auteur correspondant: Augusta Akouènon Adanve, 1Ministère de la Santé, Porto-Novo, Bénin Email; adanva00@gmail.com

Introduction: Le paludisme est une infection parasitaire fébrile évoluant sous deux formes cliniques, il demeure un problème de santé publique en Afrique et représente 24% des décès au Nigéria.

En 2021, au Bénin, la forme grave a constitué la première cause de décès avec une incidence de 19,8% et 2,1% dans l'Ouémé chez les enfants de moins de cinq ans. Cette étude visait à évaluer la référence et facteurs associés à la létalité des cas graves chez les enfants.

Méthodes: Une étude transversale analytique a porté sur les enfants de 0-59 mois admis dans les hôpitaux du 1er avril au 31 octobre 2022. L'échantillonnage a été aléatoire simple après calcul de la taille de l'échantillon par la formule de SCHARWITZ.

Les données collectées par dépouillement des dossiers médicaux ont été analysées avec Epi Info7.2 pour le calcul des fréquences et odds ratios bruts.

Résultats: Sur 384 dossiers médicaux de paludisme grave étudiés, la tranche d'âge la plus touchée est de 12-36 mois soit 57,8% ; 62,5% provenaient du milieu rural et 53,13% étaient de sexe masculin. Les signes de gravité les plus fréquents sont : l'anémie (91,9%), les vomissements incoercibles (79,2%) et les convulsions (78,9%).

La létalité était de 7,81%. Parmi nos cas 74,5% ont été référés vers les hôpitaux et 3,2% ont été référés par l'ambulance ; 88,8% des référés ont bénéficié d'au moins

un traitement de pré-référence. Les facteurs associés à la létalité étaient : l'incapacité de se nourrir (OR=4,1 ; IC à 95% [1,22-13,83]) et les difficultés respiratoires (OR =5,9 ; IC à 95% [2,24-16,01]).

Conclusions: La mortalité due au paludisme grave reste encore élevée. Les enfants présentant une incapacité de se nourrir et des difficultés respiratoires doivent faire l'objet d'une attention particulière dans la prise en charge.

Mots-clés: Paludisme grave, Référence, Etude transversale, Bénin

Abstract ID: PP582

Maternal Mortality Surveillance System Evaluation, The Gambia, 2022

Peter Adewuyi¹, Mary Grey-Johnson¹, Maimuna Badjie², Lamin Saidyfyaye², Abdoulie Sonko^{1,2,&}

¹Gambia Field Epidemiology and Laboratory Training Program, Banjul, The Gambia

²Ministry of Health and Social Welfare, Banjul, The Gambia

&Corresponding author: Abdoulie Sonko, Ministry of Health, Banjul, The Gambia, soncolley88@gmail.com

Introduction: The global estimate of maternal deaths in 2017 was 295,000 with Sub-Saharan Africa accounting for approximately 66%. Surveillance is key in monitoring maternal deaths. We therefore evaluated the Maternal Mortality Surveillance System in The Gambia to determine its usefulness, flexibility, stability, completeness of reporting, timeliness and representativeness.

Methods: A standardized questionnaire and checklist were utilized to collect data from registers, patient folders, and interviews, in accordance with the CDC's updated guideline for surveillance system evaluation. We recruited 25 stakeholders from The Gambia's maternal mortality surveillance system from various regions and levels of health care delivery. Observations and record reviews were also conducted. The data was analyzed using Epi Info version 7. Maternal Death Surveillance System attributes indicators reviewed were graded as "1" when adequately replied and "0" when findings did not support attribute. The sum of the

scores for each attribute was divided by the total number of questions and multiplied by 100%. Excellent (90-100%), good (70-89%), fair (50-69%), and poor (50%).

Results: The median age of the 25 surveillance officers interviewed was 37 (26-47) years, and 52% (13/25) were between the ages of 31 and 40. Fifty-two percent (13/25) received no FETP training, whereas 20% (5/25) graduated from FETP Frontline. The maternal mortality surveillance system was useful (82%), fairly flexible (60%), fairly timely (51%), fairly representative (55%), and relatively stable (68%), but data quality and completeness were poor (37%).

Conclusions: The Gambia's maternal mortality surveillance system was considered useful, stable, flexible, and timely. However, it is not representative and is of poor data quality. The system detected and reported maternal deaths timely, however, they were not evaluated and investigated timely, Resulting in report timeliness falling short of the national standard. We recommend that health staff investigate maternal deaths timely and adequately fill registers and patient folders to make informed judgments.

Keywords: Maternal Mortality, Evaluation, attributes, surveillance System

Abstract ID: PP585 Evaluation of Multidrug Resistance Tuberculosis Surveillance System: Sierra Leone, 2020 – 2022

Samuel Sao Bailor^{1,2}, Anna Jammeh³, Kadijatu Nabie Kamara^{1,2}, Gebrekrstos Negash Gebru^{1,3,&}, Adel Hussein Elduma^{1,3}, Amara Alhaji Sheriff^{1,2,3}, Solomon Aiah Sogbeh^{1,2,3}, Umaru Sesay^{1,2,3}

¹Sierra Leone Field Epidemiology Training Program, Freetown, Sierra Leone,

²Ministry of Health and Sanitation, Freetown, Sierra Leone,

³Africa Field Epidemiology Network, Freetown, Sierra Leone

&Corresponding Authors: Gebrekrstos Negash Gebru, Sierra Leone Field Epidemiology Training Program, Freetown, Sierra Leone, Email: ggebru@afenet.net

Introduction: Multi-drug resistant TB (MDR-TB), a complex infectious disease that has posed threat to global health including Tuberculosis control programs. Globally an estimated 630,000 TB patients have MDR at any one time. Sierra Leone is among the world's 30 most affected countries, accounting for 87% of the global infection rate. The Tuberculosis surveillance system is part of the general framework of the Integrated Disease Surveillance and Response.

We evaluate the system to determine its performance, assess its key attributes and make appropriate recommendations to improve the system.

Methods: A retrospective cross-sectional study was carried out in 4 out of the 16 sites providing GeneXpert tests. Updated guidelines for evaluating surveillance systems from Centers for Disease Control and Prevention were used to assess the attributes. Data was extracted from treatment and laboratory registers, 2021-2022. Participants were interviewed based on their involvement with multi-drug resistant tuberculosis surveillance activities. Content analysis was performed on the responses of key informants, and data analyzed using MS-Excel.

Results: 24 healthcare workers interviewed, and 299 MDR-TB cases were reported during the period. The age groups 15–54 constitute about 80% of the cases and the average confirmation time of a suspected case was 48-72hrs of which registration and treatment commences immediately.

The system was found to be simple and flexible (97.5% and 94.5%) with a case detection rate (Sensitivity) of 24% (299/1255).95% of reported data were completely and correctly filled and 76% Flexible. 100% Positive Predictive Value was found during the study. Private facilities involvement in TB surveillance was lacking and the program is solely donor dependent with 14.4% representativeness of services nationally.

Conclusions: Sierra Leone's MDR-TB surveillance system is useful, however it been donor dependent pose threats to the stability of the system. We therefore recommend Ministry of Health to allocate resources for Tuberculosis surveillance activities.

Keywords: Multi –drug, Resistant, Tuberculosis, data, surveillance, system

Abstract ID: PP586

Occurrence of Extended Spectrum Beta-Lactamase-Producing Enterobacteriaceae Isolated from Clinical Samples at Edward Francis Small Teaching Hospital, 2022: A Hospital Based Study.

Ebrima Barrow^{1,4,&}, Abou Kebbeh^{2,4}, Haddy Bah¹, Abdoulie Badjan¹, Sainey Ceesay², Kalipha Sanneh Darboe³, Baba Fofana², Peter Adewuyi⁴

¹Edward Francis Small Teaching Hospital, Microbiology Laboratory, Ministry of Health, Banjul, The Gambia

²National Public Health Laboratories, Ministry of Health, Banjul, The Gambia

³American International University, West Africa, Banjul, The Gambia

⁴Gambia Field Epidemiology and Laboratory Training Program, Banjul, The Gambia

&Corresponding author: Ebrima Barrow, 1Edward Francis Small Teaching Hospital, Microbiology Laboratory, Ministry of Health, Banjul, The Gambia, E-mail: ebrimabarrows@yahoo.com

Introduction: Extended spectrum beta-lactamases (ESBL) producer bacteria are increasing in both hospital and community settings posing a major public health problem worldwide. In The Gambia, published data on the occurrence of ESBL producing bacteria in local setting is limited. We determined the occurrence of ESBL-producing organism from clinical bacterial isolates at the main tertiary hospital, ESFTH.

Methods: During December 2021 to August 2022, 173 banked clinical isolates were analysed using standard bacteriological Methods at the microbiology laboratory, EFSTH. Isolates identification were conducted using biochemical tests.

Antibiotic susceptibility was conducted using disk diffusion Methods according to Clinical and Laboratory Standard Institute (CLSI) guidelines.

Phenotypic ESBL-producing bacteria were confirmed using double-disk synergy Methods. Data on demographic characteristics, ward and sample type was collected from laboratory register. Data was analysed descriptively using Epi info 7.5.

Results: A total of 173 single clinical isolates were analysed. ESBL-PE frequency was 35 (28.46%) among the 123 Enterobacteriaceae isolates identified. Majority of the ESBL isolates were from gynae ward, 14(40%) followed by surgical ward, 11(31.43%). *E. coli* was dominant 21(60%) followed by *Klebsiella pneumonia* 10(28.57%). High resistance rate was observed against Cephalosporins [(Ceftazidime 34(97.14%), Cefotaxime 29(93.55%), Ceftriaxone 33(94.29%)], Cotrimoxazole 33(94.29%) and Gentamycin 32(91.43%). Low resistance rate of ESBL-producers against Nitrofurantoin 8(36.36%) was observed. However, all the ESBL isolates were sensitive to Imipenem antibiotic. Multi-drug resistant isolates were more prevalent among the ESBLs producers 33(94.29%) than non-producers 2 (5.71%) ($p = <0.0001$)

Conclusions: Our study shows ESBL producing Enterobacteriaceae from the banked clinical isolates in which *E. coli* and *Klebsiella pneumonia* are the predominant organisms. ESBL producing organisms shows a high resistance rate to cephalosporins. We recommend for the hospital management to institute effective infection prevention and control measures within gynae and surgical wards to prevent spread of ESBL-producers and nosocomial infections.

Keywords: ESBL, antibiotic, resistant, Enterobacteriaceae, The Gambia

Abstract ID: PP587

Knowledge regarding measles vaccination among caregivers in Montserrado County, Liberia, 2022

Bode Ireti Shobayo^{1,6,&}, Chukwuma David Umeokonkwo², Ralph Jetoh¹, Nikolas Blidi³, Julius Gilayeneh¹, Godwin Akpan⁴, Maame Amo-Addae⁴, Jane Macauley¹, Rachel Idowu⁴

¹National Public Health Institute of Liberia, Monrovia, Liberia

²African Field Epidemiology Network, Kampala, Uganda

³Expanded Program on Immunization, Ministry of Health, Monrovia, Liberia

⁴African Field Epidemiology Network - AFENET Liberia, Monrovia, Liberia

⁵U. S. Centers for Disease Control and Prevention (CDC) Liberia Office, Monrovia, Liberia

⁶Karolinska Intitutet, Solna, Stockolm, Sweden

&Corresponding author: Bode Ireti Shobayo, National Public Health Institute of Liberia, Monrovia, Liberia, bode.shobayo@nphil.gov.lr; bodeishobayo@gmail.com

Introduction: Liberia has not met their annual national target for measles vaccination and reports recurrent measles outbreaks. Knowledge of caregivers concerning measles infection and vaccination contributes to their practice towards measles infection and vaccination uptake.

We assessed caregivers' knowledge regarding measles and its vaccination to inform outbreak response efforts.

Methods: We conducted a cross-sectional study among 552 caregivers of children under five years selected using a multi-stage sampling technique in September 2022. We explored caregivers' knowledge about measles disease and measles vaccines, using a pre-tested questionnaire. A combination of ten questions was used to assess knowledge. Caregivers who scored at least six out of ten possible scores were categorized as having good knowledge. Data were cleaned and analyzed using R version 4.2.0, and the relationship between the caregivers' level of knowledge and the sociodemographic characteristics were explored using chi-square and logistic regression.

Results: The median age of the caregivers was 30 (IQR:24-37) years. Most [373 (71.5%)] caregivers were mothers, only 68 (13.0%) had attained tertiary education and 124 (23.8%) were employed. A total of 500 (95.8%) were aware of the measles disease, and 485 (92.9%) had heard of the measles vaccine. The three most common sources of information on measles disease and on vaccination were friends, health workers, and radio. Some of the caregivers 137 (26.2%) have poor knowledge of the measles disease and its vaccination. Age 45-54 years [aOR (adjusted odds ratio): 8.1; 95%CI: 2.7-30.7, $p < 0.001$], attaining tertiary education (aOR: 3.7; 95%CI: 1.6-9.6, $p = 0.004$) and being employed (aOR: 2.0; 95%CI: 1.2-3.9, $p = 0.017$) predicted good knowledge of measles disease and its vaccination.

Conclusions: The study reveals some knowledge gaps among caregivers in urban settings in Liberia. The relevant agencies and partners should work on improving caregivers' knowledge of measles and its vaccination.

Keywords: knowledge, attitude, practice, measles vaccination

Abstract ID: PP590

Incidence of Snakebite, North Bank West Region, The Gambia, 2017 – 2021

Modou Kebba Omar Njie^{1,*}, Abou Kebbeh², Modou Lamin Fofana¹, Peter Adewuyi³, Chukwuma David Umeokonkwo³, Mustapha Bittaye⁴, Amadou Woury Jallow⁵

¹Ministry of Health, Regional Health Directorate, North Bank West Region, Essau, The Gambia

²Ministry of Health, National Public Health Laboratory, Kotu, The Gambia

³African Field Epidemiology Network, Banjul, The Gambia. ⁴Ministry of Health, The Quadrangle, Banjul, The Gambia. ⁵Ministry of Health, Epidemiology and Disease Control Unit, Kotu, The Gambia

&Corresponding author: Modou Kebba Omar Njie, Ministry of Health, Regional Health Directorate, North Bank West Region, Essau, The Gambia, Email: mnjie1299@gmail.com (+220 7731654)

Introduction: Snakebites affect about 5.4 million people worldwide resulting in over 137,880 deaths per year. In Sub-Saharan Africa, the incidence of snakebite cases is generally underestimated despite the adverse effect of snakebite when it occurs. We therefore conducted this study to describe the incidence of snakebites in the North Bank West Region of the Gambia.

Methods: We reviewed snakebite surveillance data from 2017 to 2021 recorded in health facilities registers in North Bank West Region, The Gambia. Variables extracted were age, sex, date reported, health facility name, district of residence, and case outcome. We summarized the data by person, place, and time and Results were presented using frequencies and proportions in tables, charts, graphs and maps.

Results: A total of 197 cases were reported, the median age was 20 (IQR:13-30) years, and males were 69.0% (136/197). Thirty-five percent (69/197) of snakebite victims were in the age group 10-19 years. The 5-year incidence rate was 3.1 snakebite cases per 10,000 population with a case fatality ratio of 4.1%. Jokadou District recorded the highest number of incidences (14 cases per 10,000) in 2017. Seventy-two percent, (143/197) of the snakebite cases occurred during the

rainy season (June-October). With 5.9 snakebite cases per 10,000 population, the year 2020 recorded the highest incidence of snakebites in the region.

Conclusions: The high incidence of snakebite cases in this study requires that the Ministry of Health, Directorate of Health Promotion and Education office to strengthen communication activities on snakebite prevention and early health seeking behavior. Regional Health Directorate should work with health facilities to regularly organize health education activities for the communities, especially prior to the start of the rainy season.

Keywords: Snakebites, Incidence, Surveillance Data, Gambia, Regional

Abstract ID: PP593

Schistosomiasis outbreak among learners at Omindamba Combined school, Outapi district, Omusati region, Namibia, August 2022

Gebhard Panduleni Ndyaleka^{1,&}, Padelia Ndeutala Ngenokesho¹

¹Ministry of Health Social Services, NAMFELTP, Windhoek, Namibia

&Corresponding author: Gebhard Panduleni Ndyaleka, 1Ministry of Health Social Services, NAMFELTP, Windhoek, Namibia, Email: gndyaleka@gmail.com

Introduction: Schistosomiasis is neglected tropical diseases caused by parasite flatworms of the genus *Schistosoma*. It is water borne disease that affects the human urogenital system.

On 15 August 2022, suspected Schistosomiasis cases were reported from Omindamba Combined School in Outapi district. The investigation was done to establish the existence of an outbreak and find contributing factors.

Methods: A quantitative study was conducted. We defined a suspected case as any learner residing at Omindamba Comined school presenting with visible blood in urine, with or without dysuria and abdominal pain from the 15to 22 of August 2022.

And a confirmed case as a learner residing at Omindamba Combined school with positive reagent strip for hematuria or laboratory urine confirmed with visualization of ova of schistosomiasis haematobium. We developed the line list using Microsoft excel and EPI-INFO 7, to generate P-value ≥ 0.5 at 95% CI.

Results: Totals of 93 urine samples of learners were collected. A total of 77 (83%) samples were tested with urine dipstick of which 41(53%) indicated the present of blood, while 16 (17%) sample were sent for laboratory confirmation and 13 (81%) samples were found to have ova.of *S. haematobium*. Most (72%) cases were male.

The affected age group ranged from 6 -20 years, with a median age of 13 years. About 40 (74%) learners indicated using Etaka pond water as a source of drinking water with P-value = 0.02 while 16 (30%) have indicated that they swim in Etaka Pond with P.value=0.03.

Conclusions: The schistosomiasis outbreak was caused by schistosomiasis hematobium. Drinking and swimming in the Etaka pond were the contributing factor. The learners were treated using praziquantel and health education was given. We therefore recommend the Ministry of Agriculture, Water and Land Reform to supply portable water.

Keywords: Adolescent, Schistosomia haematobium, Praziquantel, Drinking Water, Dysuria, Waterborne Diseases

Abstract ID: PP594

A confirmed human dracunculiasis case in Lafon County, Eastern Equatoria State, South Sudan, August 2022

William Jenaro Okere¹, David Kabba Kargbo², Gildo Okure^{2,&}, Wilbrod Mwanje², Joseph Hickson Lasu³, Samuel Yibi Makoy³, Sara Ijang³, Jim Niquette⁴, Loro Joseph⁴, John Pasquale Rumunu³

¹State Ministry of Health, Eastern Equatoria State, Torit, South Sudan

²African Field Epidemiology Network, Field Epidemiology Training Program, Juba, South Sudan

³Public Health Emergency Operations Center, Ministry of Health, Juba, South Sudan

⁴The Carter Center – Juba, South Sudan

&Corresponding author: Gildo Okure; AFENET; Juba, South Sudan; gokure@afenet.net;

Introduction: Dracunculiasis (Guinea worm), a parasitic disease caused by *Dracunculus medinensis*, is targeted for eradication, globally. In South Sudan, the last reported confirmed case was in 2007.

On August 5, 2022, Lafon County surveillance unit received an alert of a suspected dracunculiasis case at Lafon Primary Health Care Centre (PHCC). We investigated to confirm the diagnosis, identify exposures and implement prevention and control measures.

Methods: We defined a suspected Guinea worm case as any person presenting a skin lesion with itching or blister with emergence of a worm. We filled case investigation form, interviewed the case-patient and extracted part of the worm on the 7th August 2022 at the Lafon PHCC and shipped the sample to United States Centers for Disease Prevention and Control (U.S CDC) for laboratory confirmation. We conducted active search for additional cases, assessed water sources and conducted risk communication in the community.

Results: We identified one case-patient. An 18-year old male farmer/hunter/fisherman admitted at Lafon PHCC on August 3, 2022 with symptoms of fever, intense localized itching and burning skin lesion on the right posterior knee joint.

The case-patient repeatedly drank water from stagnant surface water sources for more than a year before onset of symptoms on July 13, 2022. He reported an emergence of part of the worm at home on July 27, 2022 before visiting Lafon PHCC on August 3, 2022. We observed several community drinking water sources to be contaminated with water fleas. The worm sample measuring 8-10cm was confirmed positive for *Dracunculus medinensis* (CDC accession number PDB 22-92) by U.S CDC.

Conclusions: We confirmed a case of human dracunculiasis in Lafon County, South Sudan, 15 years since the last case in 2007. We intensified active surveillance, conducted health education in the community, distributed water filters, and treated water sources with temephos (abate).

Keyword: Investigation, Dracunculiasis, Lafon County, South Sudan,

Abstract ID: PP599

Evaluation of early infant diagnosis surveillance system in Otjozondjupa region, Namibia 2017- 2021

Maria Nuusiku Angala^{1,2,&}, Dianah Ewaga^{1,3}

¹Namibia Field Epidemiology and Laboratory Training Program, Windhoek, Namibia

²Ministry of Health and Social Services, Walvis Bay, Namibia

³University of Namibia, Oshakati, Namibia

&Corresponding author: Maria Nuusiku Angala, Namibia Field Epidemiology and Laboratory Training Program, Windhoek, Namibia, Email: angalamarian@gmail.com

Introduction: The Early Infant Diagnosis (EID) program aims to early diagnose HIV in infants and subsequent initiation of Antiretroviral Therapy (ART). Evaluation of the EID system is vital in ensuring that the purpose of the surveillance system is being met. This evaluation aimed to assess the usefulness and performance of the EID surveillance system in Otjozondjupa region, Namibia, 2017- 2021, identify gaps, and also provide appropriate recommendations.

Methods: A quantitative and qualitative evaluation was conducted to assess the performance of the EID surveillance system using the Centers for Disease Control and Prevention's (CDC) guidelines. Key informant interviews were conducted using self-administered structured questionnaires. All participants were interviewed based on their involvement with key aspects of EID surveillance activities. Quantitative data were analyzed using Microsoft Excel while qualitative data was thematically analyzed.

Results: The evaluation revealed that the EID surveillance system is functional and operates a passive type of surveillance using the bottom-to-top approach in data transmission.

The surveillance data collected for the period of 2017 to 2022 revealed HIV prevalence rates among HEIs of 2.5% (2017), 1.3% (2018), 1.4% (2019), 1.4% (2020), and 0.5% (2021).

The system was found to be useful, simple, flexible, acceptable, and sensitive by detecting 3298 HEIs

tested for HIV with 45 (1,4%) HIV confirmed positive. However, it lacks stability, and representativeness is limited by the non-inclusion of private health facilities.

Conclusions: EID surveillance evaluation in the Otjozondjupa region is useful in identifying and monitoring the trends of HIV among HEIs. The procurement of enough testing reagents may enhance the stability of the system. Private health facilities should be included in the EID surveillance system to achieve better representativeness of EID surveillance data.

Keywords: Evaluation, surveillance system, Early infant diagnosis, Otjozondjupa, Namibia

Abstract ID: PP605

Survival and predictors of mortality among multidrug resistant Tuberculosis patients after decentralization of services in Tanzania from 2017-2019

George Mrema^{1,2,&}, Ally Hussein^{1,2}, Welema Magoge³, Gideon Kwesigabo¹, ¹Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania

²Tanzania Field Epidemiology and Laboratory Training Program, Dar es Salaam, Tanzania

³Ministry of Health, Dodoma, Tanzania

&Corresponding author: George Mrema, Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania, Email: drgeorgemrema@gmail.com

Introduction: Every year, about 20% of multidrug resistance tuberculosis (MDR-TB) patients worldwide who begin therapy die during the course of their treatment. To combat the challenges World Health Organization (WHO) recommends decentralization of services which has shown encouraging success. To abide by WHO recommendations, Tanzania decentralized MDR TB services in late 2016. Therefore, this study aimed at determining the survival probability and predictors of mortality among MDR TB patients after decentralization of services in Tanzania from 2017 to 2019.

Methods: This was a retrospective cohort study involving all MDR TB patients enrolled in second-line treatment in all 31 regions in Tanzania from 2017 to 2019. The overall mortality rate among MDR-TB patients was calculated using the incidence rate while the survival probability was computed using the Kaplan-Meier estimator. Additionally, independent factors of MDR TB mortality were determined using multivariable cox proportional hazards models.

Results: The study found a crude mortality rate of 8.55 per 1000 person-months (95% Confidence Interval (CI) of 5.91-12.39) before decentralization and 11.27 per 1000 person-months (95% CI of 9.61-13.22) after decentralization.

Moreover, specific mortality rates were 17.74, 7.90, and 6.70 per 1000 person-months at 6, 12, and 24 months respectively after decentralization. Patient with low Body Mass Index (BMI) (adjusted hazard ratio [aHR] 2.99; 95% CI, 2.11-4.21) and comorbidity (aHR 2.12; 95% CI, 1.53-2.95) had a higher risk of mortality during follow-up.

Conclusions: Overall mortality rate of MDR TB patients was found to be higher after decentralization of services. MDR-TB patients have the highest mortality rate during the first six months of treatment. Low BMI and comorbidity were identified as significant predictors of mortality. To reduce mortality, it is important to closely monitor patients during the first six months of treatment, particularly those who are malnourished or co-infected with HIV, and provide them with appropriate and timely care.

Keywords: survival, mortality, multidrug-resistant tuberculosis, HIV, decentralization

Abstract: PP613

“Prevalence and predictors of hypertension among screened population in Rwanda: A cross-sectional study, 2021 to 2022”

Isabelle Teta Batanage^{1,2}, Vedaste Ndahindwa¹, Michael Habtu¹, Samuel Rwunganira³, Joseph Ntaganira¹

¹University of Rwanda, College of Medicine and Health Sciences, Kigali, Rwanda

²Ministry of Health, Rwanda Biomedical Centre, Kigali, Rwanda

³African Field Epidemiology Network, Kigali, Rwanda

&Corresponding Author: Isabelle Teta Batanage, Ministry of Health, Rwanda Biomedical Centre, Kigali, Rwanda, Email : tetaisabelle@gmail.com

Introduction: Hypertension is one of the five leading causes of mortality in the world and a major risk factor associated with more than 40% of deaths related to cardiovascular and renal diseases. In Rwanda, hypertension affects 15% of the population. This study therefore aimed to determine the prevalence of hypertension and to identify its risk factors in a screened population countrywide compared with the general population.

Methods: This was a cross-sectional study among population screened for hypertension and registered in the national NCD database from April 2021 to April 2022, in all number public health facilities. Hypertension was defined as systolic blood pressure ≥ 140 mmHg and/or diastolic blood pressure ≥ 90 mmHg. Bivariate and multivariate logistic regression were used to determine factors independently associated with hypertension. Odds ratio (OR), 95% confidence interval (CI), and p-value < 0.05 were reported.

Results: The prevalence of hypertension was 23.2%. Of the 7,467 participants screened 59.2% were females. The mean age was 46 ± 14.3 years old. Multivariate logistic regression analysis revealed that age group of 45-64 years (AOR=1.7, 95% CI:1.4-1.9) and 65 years and above (AOR=2.4, 95% CI: 2.0-3.0); residences such as living in Kigali City (AOR=2.0, 95% CI:1.6-2.7), living in the Northern Province (AOR=1.9, 95% CI:1.3-2.8), living in the Southern Province (AOR=1.4, 95% CI:1.0-1.9), living in the Western Province (AOR=3.7, 95% CI:2.9-4.6); being in the 2nd economic status (AOR=1.4, 95% CI:1.1-1.8), being diabetic (AOR=3.6, 95% CI:2.4-5.5), overweight (AOR=1.3, 95% CI:1.1-1.6), and obesity (AOR=1.5, 95% CI:1.1-2.0) were identified as independent factors significantly associated with hypertension.

Conclusions: We found that the proportion of hypertension among Non-Communicable Disease screened population was higher than the national estimates. Older age, being diabetic, high BMI are predictors of hypertension in the screened population. Community-based interventions aiming to enhance promotion of hypertension prevention activities are highly recommended.

Keywords: Hypertension, Risk factor, Rwanda, Non-Communicable disease

Abstract ID: PP620 Pilot Serological and Molecular Survey for Dengue and other Arboviruses' Infection in Acute Febrile Patients in Yenagoa Bayelsa State, Nigeria.

Dayo Olufemi Akanbi^{8,1,2,3}, Bio Belu Abaye^{1,2}, Francisco Averhoff⁴, Muazzam Nasrullah⁵, Lawan Kabiru⁶, Junaidu Kabiru⁶, Lara Pereira⁷, Geoff Beckett⁸

¹Nigeria Field Epidemiology and Laboratory Training Program, Abuja, Nigeria

²Epidemiology Unit, Bayelsa State Ministry of Health, Yenagoa, State Secretariat, Yenagoa, Bayelsa state, Nigeria

³Nigerian Correctional Service, K9 Unit, Minna, Niger state, Nigeria

⁴Abbott Diagnostics, Abbott Park, IL, USA

⁵New Vaccines & Infectious Diseases, Merck North Wales, Pennsylvania, USA

⁶Department of Veterinary Public Health and Preventive Medicine, Ahmadu Bello University, Zaria, Nigeria

⁷The Task Force for Global Health, Tephinet Secretariat, Decatur, GA, 30030, USA

⁸Division of Viral Hepatitis, Center for Disease Control and Prevention, Atlanta, Georgia, USA

&Corresponding author: Dayo Olufemi Akanbi, Epidemiology Unit, Bayelsa State Ministry of Health, Yenagoa, State Secretariat, Yenagoa, Bayelsa state, Nigeria, Email:dayodfa@gmail.com, Telephone number: +2348036093198

Introduction/Introduction: Dengue Fever (DF) is caused by a flavivirus known as dengue virus (DENV). DF is mainly transmitted through the bite of infected Aedes mosquitoes. It is globally recognized as the most important mosquito-transmitted arboviral disease.

DF is epidemic-prone and requires immediate reporting, however, no existing DF surveillance or prevalence study had hitherto been conducted in Bayelsa state, Nigeria, despite the vector presence.

The aim of this study was to carry out a pilot serological and molecular survey of DF among febrile patients in four referral hospitals in Yenagoa, Bayelsa state.

Methods: Using multi-stage sampling, a cross-sectional study of 443 consenting febrile participants with body temperature $\geq 37.5^{\circ}\text{C}$ was done in four referral health facilities. Data tool was administered, and venous blood was collected for malarial microscopy, lateral-flow immuno-assay and multiplex real-time serotyping/Flavivirus PCR assays. Data was analyzed for frequencies, proportions and odds ratios.

Results: Mean age of participants was 29.43 ± 19.07 years and 273 (61.6%) were females. Seroprevalence of dengue was 31.8%, while malaria was 42.4%, and the co-infection rate of malaria and DF was 14.4%. Prevalence ratio of Malaria to DF was 1.33. Participants ≥ 31 years old were more than twice less likely to have DF than those < 31 years old (OR: 0.38, 95% CI: 0.24 – 0.60). The Multiplex PCR serotyping assay confirmed the presence of serotypes 1 (4.3%), 2 (8.7%), and 3 (87%). Multiplex PCR flavivirus assay revealed a single positive Results for Chikungunya virus, with negative Results for Zika or West-Nile virus.

Conclusions: Study shows high seroprevalence of DF. Co-infection of malaria and DF and co-circulation of multiple DENV serotypes (hyperendemicity) have public health implications such as increased disease severity and transmission, complicated diagnosis and treatment, poses challenge to vaccine development and vector control. An established surveillance will provide valuable data to assess burden and guide public health interventions.

Keywords: Dengue fever, Seroprevalence, Co-infection, Flavivirus, Malaria

Abstract ID: PP625

Establishing a Mortality Surveillance System to Boost an End to End Process of Case Identification during Sudan Virus Disease Outbreak in Masaka City, Uganda, November 10th to 25th 2022.

Maureen Katusiime^{1,2&}, Samuel Karungi³, Alice Namale¹, Allan Muruta², David Musoke¹, Evelyn Akello¹, Anatoli Mawanda⁴, Edgar Kansiime¹, Bernard Lubwama², Martha Nalweyiso², Faith Nakiyimba⁵, Rhoda Wanyenze¹, Henry Kyobe Bosa^{2,4}

¹Makerere University School of Public Health, Kampala, Uganda

²Ministry of Health, Kampala, Uganda

³Mulago National Referral Hospital, Kampala, Uganda

⁴Uganda People's Defence Forces, Bombo, Uganda

⁵Masaka District Local Government, Masaka, Uganda

&Corresponding author: Maureen Katusiime, Makerere University School of Public Health, Kampala, Uganda, Email: mkatusiime@musph.ac.ug.

Introduction: On November 1st 2022, Masaka City registered a case of Sudan Virus Disease (SUVD), six weeks into outbreak response in Uganda. We established a mortality surveillance system to identify all deaths irrespective of cause to identify silent transmission and not missing any case.

We document experiences in implementing mortality surveillance in an outbreak and epidemiological characteristics of deaths in Masaka.

Methods: We established networks for death reporting at health facility and community level. We oriented Village Health Teams, parish coordinators, funeral homes, police and security organs, village chairpersons, media stations.

Reviewed facility records and activated an alert desk. Upon receiving a death alert, we dispatched teams (laboratory, surveillance officers and morticians) to verify and collect samples from cadavers (arterial blood and/or buccal swab) for SUVD testing.

Populated a death-linelist by sociodemographics, place of death, date of death, source of alert, test Results. We conducted a descriptive analysis of death data.

Results: Of 105 deaths identified, 86% had samples collected and all tested negative for SUVD (0% test positivity). Males 62 (59%) were more affected than females. Children < 18 years were less affected (20%) than adults ≥ 18 years (80%).

Masaka registered highest deaths (59%, 17.8 per 100,000) followed by Kalungu (8.6%, 4.6 per 100,000) and Bukomansibi districts (4.8%, 3.2 per 100,000). Major source of death alerts was community (39, 63%) followed by health facility (16, 27%) and police (4, 6%).

Age-group 50+ (68 per 100,000) were more affected followed by 30-39 yrs (13 per 100,000). Most (96%)

deaths were due to natural causes. However, determining actual cause remains a challenge with community deaths.

Conclusions: Having zero positivity suggests no detected secondary transmission in Masaka. Processes in establishing mortality surveillance system have been documented. Strengthening mortality surveillance contributes to real-time detection of deaths and informs quick response during outbreaks.

Keywords: Global Health Security, Ebola outbreak, Mortality surveillance, Uganda

Abstract ID: PP627

Factors associated with Malaria in regions implementing case-based surveillance in Tanzania from August 2021 to May 2022.

Hillary Raphael Sebukoto^{1,*}, Sijenunu Aaron², Loveness Urrio³, Billy Ngasala⁴

¹Tanzania Field Epidemiology and Laboratory Training Program, Dar es Salaam - Tanzania

²National Malaria Control Program (NMCP), Dodoma - Tanzania

³Tanzania Field Epidemiology and Laboratory Training Program, Dar es Salaam - Tanzania

⁴Muhimbili University of Health and Allied Sciences, Dar es Salaam – Tanzania

&Corresponding author: Hillary Raphael Sebukoto, Tanzania Field Epidemiology and Laboratory Training Program, Dar es Salaam - Tanzania Email: hsebukoto@gmail.com

Introduction: Malaria burden has consistently been reported to be very low (< 1%) in Kilimanjaro, Arusha, and Manyara regions in Tanzania. Case-based surveillance was introduced as an intervention to disease elimination by year 2030.

Since system initiation, no data has been analyzed to address factors contributing to malaria transmission in the regions. To determine factors associated with Malaria in regions implementing case-based surveillance in Tanzania from August 2021 to May 2022.

Methods: Malaria case-based surveillance data from August 2021 to May 2022 was used. Permission was

obtained from the National Malaria Control Program. Malaria cases were classified as either Imported or Local. The local cases were sub-classified as either indigenous or local introduced.

Only data for local cases were used in the analysis. Data was extracted from malaria case registers and active case detection forms. Stata (Version 15) was used for data cleaning and analysis.

Poisson regression analysis was done to determine factors associated with malaria. Statistical significance was tested using a 95% CI and p value of 0.05.

Results: About 949 index malaria cases were reported and 642 household members tested for malaria from August 2021 to May 2022. Only 4% of tested members were mRDT positive, 58% of whom were local introduced cases. Individuals with no history of fever three days prior were associated with 96% lower odds of testing mRDT positive (aOR = 0.04; 95% CI: 0.01–0.15). Individuals with no history of contact with known malaria case in past 4 weeks had 99% lower odds of testing positive for malaria (aOR= 0.01; 95% CI: 0.004 – 0.04).

Conclusions: Staying with fever at home without seeking for medical care alarms for poor health seeking behavior, suggesting that health education and promotion on early hospital should be advocated to reduce local cases and facilitate disease elimination.

Keywords: Malaria, Case Based Surveillance, Tanzania

Abstract ID : PP632

Etats des lieux du Programme de Formation en Epidémiologie et Laboratoire de Terrain du Burkina et Perspectives, Afrique de l'Ouest, 2010-2022.

Pauline Kiswendsida Yanogo^{1,2,*}, Hermann Yoda¹, Djibril Barry¹, Nicolas MEDA^{1,2}

¹Burkina Field Epidemiology and Laboratory Training Program (BFELTP), Université Joseph KI ZERBO, Ouagadougou, Burkina Faso

²Unité de de formation et de recherche en science de la santé (UFR/SDS), Université de Ouaga 1 Joseph KI ZERBO, Ouagadougou, Burkina Faso

&Auteur correspondant: Pauline Kiswendsida Yanogo, BFELTP, UFR/SDS, Université Joseph KI ZERBO, Ouagadougou, Burkina Faso, Email : yanogo.pauline@yahoo.fr

Introduction: L'émergence et la réémergence des épidémies durant les dernières décennies ont confirmé l'impérieuse nécessité de renforcement des systèmes nationaux de surveillance des maladies afin de prévenir et de lutter efficacement contre les urgences de santé publique. C'est dans cette optique que travaille le FELTP régional du Burkina depuis 2010.

L'objectif de cette étude est de faire l'état des lieux de ce Programme unique afin d'ouvrir des perspectives après une décennie d'activités.

Methods: Nous avons conduit une étude transversale descriptive sur la période du 1er Janvier 2010 au 31 décembre 2022. Les données ont été collectées par des formulaires, par entretien auprès des alumni, des membres de l'équipe de coordination et par revue documentaire.

L'analyse descriptive par Excel a porté sur le devenir des cadres inscrits au programme et les réalisations assorties de taux et de proportions.

Results: Au total 188 cadres répartis sur 8 cohortes sont inscrits de 2010 à 2022. Le sex ratio hommes/femmes était de 2,5. Les agents de la santé animale et ceux de la santé environnementale ont représenté respectivement 14% (n=27) et 9% (n=16). Sept sur les dix pays participants ont contribué à financer la formation de leurs agents.

Les alumni restés dans leurs ministères de tutelle et ceux ayant rejoint les Organisations Non Gouvernementales représentaient respectivement 88% et 12%.

Les alumni ont produits 139 rapports d'investigation, 134 rapports d'analyse de bases de données, 133 rapports d'évaluation de système de surveillance, 174 abstracts présentés en conférences scientifiques et 36 articles publiés.

Conclusions: Au total 188 cadres répartis sur 8 cohortes sont inscrits de 2010 à 2022. Le sex ratio hommes/femmes était de 2,5.

Les agents de la santé animale et ceux de la santé environnementale ont représenté respectivement 14% (n=27) et 9% (n=16). Sept sur les dix pays participants

ont contribué à financer la formation de leurs agents. Les alumni restés dans leurs ministères de tutelle et ceux ayant rejoint les Organisations Non Gouvernementales représentaient respectivement 88% et 12%.

Les alumni ont produits 139 rapports d'investigation, 134 rapports d'analyse de bases de données, 133 rapports d'évaluation de système de surveillance, 174 abstracts présentés en conférences scientifiques et 36 articles publiés.

Keywords: BFELTP, bilan, Burkina Faso, 2022

Abstract ID: PP637

Epidemiology of COVID-19 deaths reported at Rundu Intermediate hospital, Kavango East region, Namibia, March 2021 - March 2023

Annety Kabuba Likando^{1,2,&}, Petrus Sitareni Haita^{1,2}

¹Namibia Field Epidemiology and Laboratory Training Program, Windhoek, Namibia

²Ministry of Health and Social Services, Rundu, Namibia

&Corresponding author: Namibia Field Epidemiology and Laboratory Training Program, Windhoek, Namibia

Introduction: COVID-19 is caused by severe acute respiratory syndrome coronavirus 2. The global pandemic started in December 2019. By February 2023, there were over 6.8 million deaths globally, although Africa reported the least cases, Namibia was among the top 18 countries with the most COVID-19 cases by September 2020.

Namibia reported the first COVID-19 cases on the 13th of March 2020, with the first death reported 116 days later. The deaths escalated to 4049 by March 2023. Kavango East region accounted for 6% of the cases, out of which 56% were reported by Rundu intermediate hospital. It is mandatory in Namibia to report every death into the system. The study was conducted to describe the cases by person, place and time.

Methods: We conducted a secondary data analysis of all COVID-19 deaths reported at Rundu Intermediate hospital during the period of study. We summarized surveillance data; surveillance line list and case report data into frequencies and percentages.

Results: A total of 130 COVID-19 death were reported, mostly (59%) males. The ages ranged from 21 to 111 years. Majority of cases (54%) were 70 and above years. Almost all (92%) cases were reported in 2021, a significant number of cases (45%) died at home. A total of 48% had co-morbidities ranging from High blood pressure, diabetes and Asthma among others, whilst 38% had unknown co-morbidity statuses. Only 1% was known to have been vaccinated. There was a significant association between dying at home and residing in town (P-value 0.001).

Conclusions: COVID-19 deaths in Rundu intermediate hospital mostly affected the elderly due to compromised immunity. Most cases were reported in 2021 during the Delta variant wave. Those who resided in town were more likely to die at home. There is still a need to continue educating the public on early health-seeking behavior.

Keywords: Epidemiology, COVID-19, Death, Co-morbidity

Abstract ID: PP64 I

Evaluation of Dodoma cervical cancer population based surveillance system at Dodoma Tanzania, January to December 2022.

Godbless Henry Mfuru^{1&}, Asha Mohamed Gembe², George Cosmas Kauki³, Khadija Yahya Malima⁴

¹Muhimbili University of Health and Allied Sciences, School of Public Health and Social Sciences, Department of Epidemiology and Biostatistics, Dar es Salaam, Tanzania

²Ministry of Health, Non Communicable Diseases section, Dodoma, Tanzania

³Tanzania Field Epidemiology and Laboratory Training Program (TFELP), Dar es Salaam, Tanzania

⁴Muhimbili University of Health and Allied Sciences, School of Nursing, Department of Nursing Management

&Corresponding author: Godbless Henry Mfuru, 1Muhimbili University of Health and Allied Sciences, School of Public Health and Social Sciences, Department of Epidemiology and Biostatistics, Dar es Salaam, Tanzania, Email: mfurugodbless725@gmail.com

Introduction: Cancer has been noted as one of major life-threatening Non-communicable Diseases globally. It is fourth most frequent cancer among women with estimated 604 000 new cases in 2020.

In Tanzania it's the leading cause of cancer- related deaths, with incidence of 625 cases per 1000000 women per year. Cervical cancer surveillance is essential component in cancer control and prevention.

However the performance of this system in Tanzania is not known. We conducted evaluation to assess usefulness and performance of cervical cancer surveillance system in order to identify areas for improvement.

Methodsology: We evaluated Dodoma population based cervical cancer surveillance system from January 2022 to December 2022. Using United States Centre for Disease Control and prevention guideline for evaluating public health surveillance system, eight attributes were evaluated.

For each attribute indicators were developed and described using quantitative or qualitative Methods. Scores for each indicator were categorized <60%; 60–79%; and >80% as weak, moderate, and good performance respectively.

Documents review and interviews were conducted to collect relevant data on system performance. Data were analyzed by Epi info 7.

Results: From January to December 2022, 123 cases of cervical cancer were captured by system. Of 76 (62%) cases were reported from Makey pathology laboratory. Of 109 (89%) cases were Squamous cell carcinomas, 25 (20%) of cases were below 45 years of age. Simplicity, timeliness, acceptability and usefulness had good performance. Representativeness, data quality and stability showed moderate performance.

Conclusions: Overall system performance was satisfactory with moderate to good performance. Data have been useful on guiding resources allocation, as well as formation of strategic guidelines on prevention of cervical cancer. Data on risk factors for cervical cancer were lacking. This information could be useful in planning for preventive interventions.

Keywords: Cervical cancer, Non communicable diseases, Population based cancer registry, Dodoma

Abstract ID : PP642

Profil Epidémiologique des animaux mordeurs, mis en observation pour suspicion de Rage, Régions de Nouakchott, 2022

Abdi.Sidi^{1,&}, Navaa Abd El Wehab², Sidi Mohamed. Hama², Ahmed. Bezeid. Elmamy⁴, Yahya.Barry², Abdellahi Ghassim², Hamet.Ba³, Moktar. Abbad³, Hamadou Pedwindé Seogo³

¹Délégation Régionale de l'Élevage de Nouakchott

²Office National de Recherches et de Développement de l'Élevage et de Pastoralisme (ONARDEP)

³Programme de Formation en Epidémiologie de Terrain en Mauritanie

⁴Institut Supérieur d'Enseignement Technologique de Rosso

&Auteur correspondant: Dr Abdi.

Sidi : Délégation Régionale de l'Élevage de Nouakchott, Leksar, Nouakchott, Mauritanie, Mail : abdisidi85@gmail.com

Introduction: La rage est une anthroponose due aux Lyssavirus, transmise à l'homme par un animal porteur du virus rabique. Endémique en Mauritanie. L'objectif était d'étudier le profil épidémiologique des animaux mis en observation pour suspicion de rage à la clinique vétérinaire de Nouakchott en 2022, qu'est l'unique dédiée à cette tâche.

Méthodes: Il s'agit d'une étude transversale descriptive de la base des données des animaux mis en observation, pour suspicion de rage au niveau de Nouakchott, entre le 1er janvier au 31 décembre 2022. Était considéré comme cas suspect tout animal mammifère, présentant des changements comportementaux soudains et/ou une paralysie progressive entraînant la mort pendant la période d'étude et cas confirmé tout animal suspect dont le laboratoire a confirmé la rage. Les données sont collectées avec une fiche de saisie et analysée statistiquement avec Epi-Info.

Résultats: Au total 119 animaux ont été mis en observation, dont 95 (80%) avaient des informations exploitables. Parmi ces 95, quatre prélèvements (3%) ont été envoyés au laboratoire, dont un cas était positif à la rage. La moyenne par mois était de 10 cas \pm 3.

Les mois de février :12 cas (12,63%), mai :11 cas (11,58%), mars et avril avec 9 cas (9,47%) chacun ont enregistré plus de cas.

A Nouakchott, les animaux mordeurs provenaient plus des départements de Toujounine avec 25 cas (26,32 %), Dar Naim avec 20 cas (21,05 %) et Riyad avec 13 cas (13,68 %). Ils étaient des chiens avec 91 cas (96%), ânes et singes, chacun avec 2 cas (2%).

Conclusions: Le chien est le principal animal de suspicion de la rage, la majorité de suspicions provenait des départements périphériques et populaires de Nouakchott. Nous recommandons une étude de caractérisation des souches circulants dans le cadre de la stratégie de prophylaxie de la rage en Mauritanie.

Mots Clés: Rage, Chien, Surveillance, Nouakchott, ONARDEP, Mauritanie.

Abstract ID: PP645

Investigation of Measles Outbreak - Chief Albert Luthuli (CAL) sub-district, Mpumalanga Province, South Africa, March 2023

Sizwe Nkosinathi Khumalo^{1,2}, Zeblon Mandla Zwane³, Hluphi Doreen Mpangane³, Maria Sizakele Mahlalela³, Gugulethu Euginia Mashabane³, Pertunia Bhiya³, Thembekile Sinenhlanhla Shange², Moses Musandiwa Tharaga², Innocentia Nomaswazi Mahlaba², Ntombifuthi Sangweni⁴, Nomsa Samaria Mabasa², Perseverance Makhushu², Naume Tebeila⁵, Lethukuthula Zondi^{1,&} Khuliso Ravhuhali^{1,&}

¹South African Field Epidemiology Training Programme, National Institute for Communicable Diseases, a Division of the National Health Laboratory Service, Johannesburg, South Africa.

²Department of Health, Gert Sibande District Municipality, Chief Albert Luthuli Sub-District, Elukwatini, South Africa

³Mpumalanga Provincial Department of Health, Public Health Directorate, Mbombela, South Africa

⁴National Health Laboratory Services, National Institute for Communicable Disease, Johannesburg, South Africa

⁵Provincial Epidemiology Team, Division of Public Health Surveillance and Response, National Institute for Communicable Disease, Johannesburg, South Africa

&Corresponding author: Khuliso Ravhuhali, National Institute for Communicable Diseases, Johannesburg, South Africa, Email: khulisor@nicd.ac.za

Introduction: Measles primarily affects children ≤ 5 years and it can spread rapidly amongst unvaccinated individuals. On 22nd November 2022, we investigated suspected cases reported in Chief Albert Luthuli sub-district. We investigated to confirm the existence of an outbreak, source and implement control and preventative measures.

Methods: We conducted a descriptive cross-sectional study. We reviewed health facility registers and conducted contact tracing in the community and schools. Face-to-face interviews were conducted to obtain vaccination and travel history as well as possible linkage to a confirmed case. A confirmed case was any person with a laboratory-confirmed measles IgM in the sub-district, from the 8th of November 2022 - 31 March 2023. We collected 73 serum samples for IgM antibody detection by enzyme-linked immunosorbent assay (ELISA). We calculated descriptive statistics and attack rates.

Results: Thirty-two cases were identified with no deaths. Only 14/32 (44%) cases were epidemiological-linked to a confirmed index case and 21/32 (66%) cases were females. The median age was 8 years (IQR: 4 - 12). Dundonald area had 13/32 (41%) cases. The index case was a 13 years old female living with her parents and sibling. She is a learner with no travel history and her father is employed on a plantation in a nearby community. The attack rate of measles was 17.72 per 100 000 persons in the sub-district. The vaccination status was unknown or undocumented for 27/32 (84%) cases.

Conclusions: We confirmed a measles outbreak in the sub-district from November 2022 to date. This outbreak could be due to a large number of unvaccinated children. Outbreak response immunization was conducted among contacts and mass campaign of measles immunization was initiated from 15 December 2022. We recommend mass catch-up measles campaigns among children ≤ 15 years in the sub-district.

Key words: Measles, Outbreak, Chief Albert Luthuli, Mpumalanga, Vaccination

Abstract ID : PP649

Investigation autour d'un Cas Confirmé de Fièvre Jaune dans le District Sanitaire de Mbaiki, Préfecture de la Lobaye, République Centrafricaine, Decembre 2022

&Ghislain Alain Tiburce GREWA¹, Ernest KALTHAN¹, Patrick MAVUGU NGOMA², Thomas d'Aquin Koyazegbe³, Roger DETOL⁴

¹Ministère de la Santé et de la Population, Bangui, République centrafricaine (RCA),

²African Field Epidemiology Network, Programme de Formation, Bangui, RCA,

³Organisation Mondiale de la Santé, Bangui, RCA,

⁴Institut Pasteur de Bangui, RCA,

&Auteur correspondant: GREWA Ghislain Alain Tiburce, Ministère de la Santé et de la Population, Bangui, République centrafricaine (RCA), E-mail : grewaghislain@yahoo.fr, Téléphone : +236 75 56 77 71

Introduction: Depuis 2021, 12 pays Afro de l'OMS étaient classés à risque très élevé de fièvre jaune, dont la RCA. D'octobre 2021 à juin 2022, la RCA a notifié 23 cas de fièvre jaune avec 17% de létalité. Le 24/11/2022, dans la localité de Bossongo à Mbaiki, un nouveau cas a été confirmé par séroneutralisation. Décrire la situation entomo-épidémiologique autour du cas, permet d'évaluer l'ampleur de l'épidémie et proposer des mesures de contrôle.

Méthodes: Une étude descriptive transversale a été réalisée du 15 au 21 décembre 2022 à Mbaïki. Une revue a été faite dans les FOSA ainsi que la recherche active dans la communauté sur base des définitions des cas de fièvre jaune (Guide SIMR, 3e édition) et enquête entomologique. Les proportions, âge médian [étendue], taux d'attaque, et létalité ont été calculées pour les variables sociodémographiques et cliniques à l'aide d'Epi Info 7.2 et Excel 2016.

Résultats: Quatre nouveaux cas suspects notifiés, 2 (50%) de sexe masculin, d'âge médian de 55 [5 - 78] ans, et 3 (75%) cultivateurs. Tous présentaient (100%) fièvre, ictère, fatigue et céphalée. Trois (75%) provenaient de la localité de Mbata et 1 (25%) de Béréngo. Trois (75%) étaient non vaccinés contre la fièvre jaune. L'enquête rapide de couverture vaccinale anti-marielle dans les

211 ménages comprenant 1.216 personnes a montré que 7% à Bossongo, 10% à Bérengo et 12% à Mbata ont été vaccinés. Le taux d'attaque était de 7 cas de fièvre jaune pour 100.000 habitants à Bossongo. Les tests de laboratoire des échantillons étaient tous négatifs. La prospection larvaire réalisée dans trois sites a identifié 756 moustiques du genre Culex (59%), Mansonia (40%) et Anophèles (1%).

Conclusions: Le risque de fièvre jaune reste élevé à cause de faible couverture vaccinale. Atteindre toutes les cibles vaccinales et communiquer sur les risques pourraient contrôler l'épidémie.

Mots-clés: Fièvre jaune, Aèdes, Investigation, Mbaiki, RCA.

Abstract ID: PP65 I Review of Teenage Pregnancy in Erongo Region, Namibia 2013 – 2018: A Descriptive Study

Ndeshihafela Sakaria^{1,2}, Ipyana Frank Mwandelile¹

¹Namibia Field Epidemiology and Laboratory Training Programme, Windhoek, Namibia

²University of Namibia, Faculty of Health Sciences and Veterinary Medicine, School of Nursing and Public Health, Oshakati, Namibia

&Corresponding Author: Ndeshihafela Penehafo Elina Sakaria, ndeshihafela36@gmail.com, +264817491304

Introduction: Pregnancy in adolescence is a major public health problem worldwide, especially in low and middle income countries where 95 % of these deliveries occur. In Sub-Saharan African countries, one in five adolescent females gives births each year. In 2019, Namibia was reported to have birth rate of 82 per 1000 women among adolescents 15 to 19 years, higher than the global average. This study aimed to describe the epidemiology and determine the trend of teenage pregnancy from 2013 to 2018 in Erongo Region.

Methods: We conducted Secondary data analysis of teenagers who were pregnant in Erongo Region from 2013 to 2018. A teenager was defined as being of the age group 15 to 19 years. Data were filtered and extracted from the District Health Information System (DHIS2) and analysis was done using Epi Info and Excel.

Variables including age group, time and district were used to describe the cases in frequencies and proportions.

Chi-Square for trend was calculated and the p-value of < 0.05 was considered significant. Ethical clearance was granted by the Ministry of Health and Social Services, Erongo Regional Health Directorate.

Results: There was a 15519 pregnancy, 2243 (14.5%) were teenage pregnancies. More than half of teenage pregnancies were from Swakopmund district 1182 (52.7%). The year 2018 had highest number of teenage pregnancy and the overall trend was increasing with a 401 (8%). The trend was statistically significant with a Chi-square of 22.9 and a p-value of 0.00.

Conclusions: This study observed an overall increase of teenage pregnancy in Erongo region. Factors leading to this increase may need further studies. Meanwhile deliberate efforts should focus on educating teenagers on the risk of early pregnancy.

Keywords: Erongo, teenage, proportional, pregnancy

Abstract ID: PP654 Descriptive Analysis of Neonatal Tetanus Surveillance System in Central Region of Ghana, 2022.

Selassie Kennedy Kofitse^{1,&}, Rita Asante Kusi², Joseph Frimpong², Samuel Sackey²

¹Regional Health Directorate, Ghana Health Service, Cape Coast, Ghana

²Ghana Field Epidemiology and Laboratory Training Programme, Accra, Ghana

&Corresponding author: Selassie Kennedy Kofitse; Regional Health Directorate, Ghana Health Service, Cape Coast, Ghana, Email: selaseken@gmail.com

Introduction: Globally, there has been an 85% decrease in Neonatal Tetanus (NNT) deaths from 170,829 in 2000 to 25,000 in 2018. However, NNT deaths in Ghana increased from 53% to 71% between 1990 and 2014. Between 2016-2021, 291 cases and 179 fatalities of NNT in Ghana, Central Region accounted for 6.9% cases and 3.4% deaths. We evaluated the NNT

surveillance system in the Central Region to assess if its objectives were being met, assessed the systems attributes and usefulness.

Methods: A secondary data analysis of NNT was conducted in the Central region of Ghana using data from DHIMS2 from 2016 to 2021.

Case based forms and registers were reviewed to assess accuracy of data captured. Frequencies and proportions were used to analyze data and Results presented as chart and tables.

Results: The region recorded 20 NNT cases with 6 deaths (CFR = 30%). Majority, 30.0% (6/20) NNT cases was recorded in both 2018 and 2019 with 2021 recording 50.0% (3/6) of deaths. Vaccination coverage increased from 54.8% in 2016 to 60.7% in 2018. About 81.8% (18/22) health facilities displayed case definition for easy disease identification.

Weekly IDSR was submitted by 95.0% (641/676) facilities in 40.9% (9/22) districts within the region. Timeliness of reporting was 94.5% (30,711/ 33,332) with 100% completeness of weekly IDSR reports. The case base forms for 2 facilities visited could not be verified in DHIMS coupled with missing facility register.

Conclusions: The burden of NNT has increased in the region. Records management was generally poor and some of the registers could be traced. Report submission at the district level was low, thereby compromising the completeness and quality of data consolidated at the regional level.

Central Regional Health Directorate should train surveillance staff on efficient record management. Neonatal health sensitization should be conducted regularly across the region.

Keywords: Surveillance, Neonatal Tetanus, Deaths, DHIMS2, Central Region

Abstract ID: PP656

Evaluation of comprehensive post-abortion services surveillance system at Dodoma region, Tanzania from January to March 2023

Jonhas Masatu Malija^{1,&}, Rogath Saika Kishimba², Ismail Habib³, Rose Mpembeni⁴

¹Muhimbili University of Health and Allied Sciences, School of Public Health and Social Sciences, Department of Epidemiology and Biostatistics, Dar es salaam, Tanzania.

²Tanzania Field Epidemiology and Laboratory Training Program (TFELTP), Dar es salaam, Tanzania.

³Reproductive and Child Health Directorate, Ministry of Health, Dodoma, Tanzania.

⁴Muhimbili University of Health and Allied Sciences, School of Public Health and Social Sciences, Department of Epidemiology and Biostatistics, Dar es salaam, Tanzania.

&Corresponding author: Jonhas Masatu Malija, Department of Epidemiology and Biostatistics, Muhimbili University of Health and Allied Sciences (MUHAS), P.O. Box 65001, Dar es Salaam, Tanzania. E-mail: masatu.jm@gmail.com (JM)

Introduction: Abortions and complications remain maternal public health problem since 18% of maternal deaths are caused by abortions globally. Tanzania abortions and their complications account for 10% of maternal death every year.

Tanzania's abortion rate is 36 per 1000 for women aged 15 to 49 due to low uptake of modern family Methods. We aimed to evaluate performance of Tanzania's comprehensive Post Abortion Services Surveillance(cPASS) in capturing abortion cases and their complications from January to March 2023.

Methodsology: We conducted a descriptive cross section study design from January to March 2023. A Sample of 5 health facilities, 3districts in Dodoma region and 22 key-informants were selected by simple randomly sampling. Data were collected using semi structured questionnaire and updated CDC MMWR of 2001 guideline used to evaluate the cPASS.

Results: The 36,203 abortions cases captured by cPASS, Dar es salaam region reported highest number of abortion cases of 7673/36,203 (21%), and Njombe region lowest cases of 303/36,203(1%) year 2022. In 5 health facilities, 273/492(57%) cases were reported by Dodoma referral hospital, and 13(3%) lowest reported by Kikuyu dispensary.

Women aged 20 to 29 years old (335/492(68%)) were more reported. The 379/492(77%) abortions cases were below 12 weeks Gestation Age (GA) and 113/492(23%) were above 12 weeks GA. The 20/22(91%) of participants can use cPASS due to its simplicity, flexibility, acceptability, stability, and timeliness.

Conclusions: cPASS provides a good estimation of abortion burden, trends, causes, and integrated services. It is robust in usefulness, simplicity, flexibility, acceptability, stability, and timeliness. Challenges observed on data quality, representativeness, case definition, sensitivity, and predictive values are positive, these need to be addressed to make a system meet its objectives.

Keywords: Surveillance System, maternal mortality, pregnancy, family planning, post abortion services

Abstract ID : PP658

Investigation d'un cluster de cas suspects de Variole de singe dans la maison carcérale de Mbaïki, dans la sous-préfecture de Mbaïki, préfecture de la Lobaye, République Centrafricaine, octobre 2022

^{1,&}Paulette Rose Josephat Mbay Yamotende, ¹Noëlla Packo, ¹Bernard Bambou, ¹Hugues Désiré Ouamatchi, ¹Yvette Wango Ngbolo, ¹Emilie Djoumele, ¹Aurelie Mbembe, ¹Dieu-béni Rawango, ¹Raphael Mbailao, ¹Patrick Mavungu. ¹Programme de formation en épidémiologie de terrain, Bangui, République centrafricaine

& Auteur correspondant: Paulette Rose Josephat Mbay Yamotende, MD, MPH, Coordonnatrice d'accès aux ARV, Programme National de Lutte contre Le SIDA, Ministère de la Santé, Bangui, RCA.

Contact : +236/ 75047488 et 72859417 Email : paulembaye@yahoo.fr

Introduction: En juillet 2022, l'OMS avait déclaré la Variole de singe, une urgence de santé publique de portée internationale. En cette période, la République Centrafricaine (RCA), avait enregistré 09 cas en cinq flambées.

Le 20 octobre 2022, un nouveau cas de variole de singe a été confirmé à Mbaïki dont la recherche active autour, avait permis de découvrir un cluster de cas suspects dans la maison carcérale. Une investigation approfondie a été menée afin de déterminer l'ampleur de l'épidémie et cordonner la réponse.

Méthodes: Une étude transversale descriptive était réalisée. Les définitions des cas de variole de singe de l'OMS étaient utilisées. Les détenus, travailleurs et visiteurs de la prison durant la période constituait notre population d'étude.

Les données sur les cas et contacts étaient directement collectées sur des fiches individuelles de notification des cas et de recherche actives. Les variables sociodémographiques et cliniques ont été décrites. Les proportions, âge médian [étendue], taux d'attaque, létalité, ont été calculées à l'aide du logiciel Epi Info 7.2.

Résultats: 121 personnes ayant fréquenté la prison, 8 détenus étaient suspects, soit un taux d'attaque de 7%, tous (100%) masculin avec un âge médian de 28 [21 – 57] ans. Les signes les plus fréquents étaient, fièvre 8 (100%), toux 7 (88%), éruptions cutanées 5 (62%) et ganglions 2 (25%). Aucun décès (létalité 0%) et 69 contacts pré-listés.

Aucun (0%) échantillon des cas suspects n'était confirmé positif à la variole de singe au Laboratoire mais tous (100%) positifs pour la varicelle. La promiscuité était le principal facteur de contamination.

Conclusions: Il s'agit d'une flambée de varicelle dans une maison carcérale pendant une épidémie de la variole de singe. Tous les cas ont été pris en charge, une communication de risque était faite et recommandons d'améliorer les conditions d'incarcération à Mbaïki.

Mots clés: Variole de singe, Monkeypox, Varicelle, Investigation, Mbaïki, RCA.

Abstract ID : PP660

Profil épidémiologique du paludisme à Betafo, région Vakinankaratra, Madagascar, 2022

Lina Zafindraibe Herisoanjanahary¹, Basile Randriamihamisoa², Berthe Raoliarisoa², Patrick Dely^{1*}, Bonodong Zongnukuu Guri¹

¹madagascar Field Epidemiology Training Program, Antananarivo, Madagascar,

²service De District De La Santé Publique, Betafo, Vakinankaratra, Madagascar

&Auteur correspondant: Patrick Dely, Madagascar Field Epidemiology Training Program, Antananarivo, Madagascar, pdely@afenet.net

Introduction: Le paludisme, un problème de santé publique à Madagascar avec une incidence générale de 38/1000 habitants en 2018 et de 14/1000 habitants en 2022 dans le district de Betafo. La surveillance du paludisme permet de repérer, d'étudier et d'éliminer les foyers de transmission, prévenir et soigner les infections. Cette étude vise à caractériser les tendances épidémiologiques du paludisme à Betafo en 2022.

Méthodes: Analyse transversale descriptive des bases de données de surveillance du paludisme extraites de DHIS2, RSH, de 27 formations sanitaires (FS), de janvier à décembre 2022. Les données des FS avec le plus grand nombre de cas enregistrés, les variables démographiques, le taux de positivité de paludisme simple et grave, et la tendance épidémiologique ont été considérées dans cette étude.

Résultats: 4962 cas enregistrés dans 27 FS dont (98,7%, 4899/4962), cas présumés de paludisme simple, (1,3%, 63/4962) cas de paludisme grave, (58,64%, 2910/4962) du sexe masculin. Quatre FS présentaient la majorité de cas : Andrembesoa (29,5%, 1464/4962), Maditsaka (22,4%, 1112/4962), Ambohimanambola (13,8%, 683/4962), Alarobia-Bemaha (10,5%, 520/4962). Le taux de positivité par rapport aux tests RDT était de 42,02% pour Andrembesoa; Maditsaka 56,79%; Ambohimanambola 19,46%, Alarobia-Bemaha 24,19%. Le taux d'incidence selon l'âge était 111/1000 habitants à Andrembesoa, 230/1000 habitants à Maditsaka pour les 5-14 ans.

Ambohimanambola et Alarobia-Bemaha, nous avons 31/1000 habitants et 43/1000 habitants pour les ≥25 ans et 15-24 ans respectivement. Plus de cas sont observés en S7 (207) et S13 (304) avec l'incidence relativement élevée en février et juin.

Conclusions: L'analyse montre que le paludisme, endémique à Betafo, présente des foyers résiduels, avec des taux de positivité et d'incidence élevés dans quatre FS, particulièrement dans le groupe d'âge (5- 14) ans, avec deux pics. Il a été recommandé de renforcer la sensibilisation sur les mesures de prévention contre le paludisme et la distribution de moustiquaire imprégnée d'insecticides de routine.

Mots-clés: paludisme, surveillance, base de données, endémie, taux de positivité. Paludisme, Surveillance, Base de données, Analyse, Betafo, Madagascar

Abstract ID: PP664

Rotavirus Surveillance System Evaluation in Children Under Five, Dar Es Salaam July 2020 -July 2021.

Mariam Mbwana Ramadhani^{1,2}, Frank Mbulinyingi Msafiri¹, Nelson Edwin Malugu², Richard Charles Magodi³

¹Muhimbili University of Health and Allied Sciences, Department of Epidemiology and Biostatistics, Dar es Salaam, Tanzania.

²Tanzania Field Epidemiology and Laboratory Training Programme (TFELTP), Ministry of Health Tanzania, Dar es Salaam, Tanzania.

³Immunization and Vaccine Disease Program (IVD), Ministry of Health, Dar es Salaam, Tanzania.

&Corresponding author: Mariam Mbwana Ramadhani, Department of Epidemiology and Biostatistics, Muhimbili University of Health and Allied Sciences, P.O.Box 65001, Dar es Salaam, Tanzania. Email: mariammbwana83@gmail.com.

Introduction: Rotavirus Results in 2 million hospitalizations and 453,000 under-five deaths yearly prior to the global recommendation on the inclusion of rotavirus vaccine in national immunization programs, 95% of these deaths took place in low-income counties.

The Rotavirus Surveillance System in Tanzania was launched in 2013, currently sentinel sites were nine with the aim of monitoring the impact of the vaccine on RV morbidity and mortality. We evaluated the performance of the system by assessing the attributes of rotavirus surveillance and its usefulness.

Methods: The morbidity and mortality weekly report questionnaire and data review were used to evaluate the surveillance system's performance by rating it for each attribute.

Through questionnaires given to stakeholders at the sentinel site, qualitative factors like usefulness, flexibility, stability, simplicity, and acceptability were evaluated. By examining the lab Results and case report forms, quantitative indicators including sensitivity, positive predictive value, data quality, and timeliness are evaluated.

According to a 2019 study by Pélégie Babakazo in the Democratic Republic of the Congo, the Results for the indicators were given as low (60%), average (60% to 80%), and good (>80%).

Results: During July 2020 –July 2021, 374 patients were enrolled and tested with Rotavirus from two sentinel sites in Dar Es Salaam, 22 (5.8%) patients tested positive for rotavirus.

Data quality for assessed indicator was (92%), Flexibility was scored 100%, stability scored (80%), simplicity and acceptability were scored (83%, 83%) respectively.

The proportion of Results meet TAT 50 out of 86 (58%) report on time and representativeness was scored 2 (40%). The overall usefulness score of the system was 75%,

Conclusions: The Rotavirus Surveillance system in Tanzania needs improvements in timeliness, representativeness, and Positive Predictive Value. It should increase site numbers, provide timely feedback, train health workers, and broaden surveillance to detect additional intestinal infections.

Keywords: Rotavirus, Surveillance System, Evaluation, Tanzania

Abstract ID: PP666

Evaluation of the Diarrheal Disease Surveillance System, Nampula-Mozambique, 2019-2020

Beatriz Felicidade Nhantumbo^{1,&}; Dionísia Alfredo Balate¹; Cídia Amélia Francisco^{1,2}; Felisberto Muteca³; Cristolde Atanasio Salomão¹; Cynthia Semá Baltazar¹

¹Field Epidemiology Training Program, National Institute of Health, Maputo, Mozambique; ²Faculty of Sciences at Eduardo Mondlane University ³National Institute of Health, Nampula, Mozambique

&Correspondence author: Beatriz Felicidade Nhantumbo. Field Epidemiology and Laboratory Training Program, National Institute of Health, Maputo, Mozambique, Emails: beatrizfnhantumbo@gmail.com

Introduction: The World Health Organization estimates that annually almost 1.6 million people died from diarrheal diseases globally. In Mozambique, it is considered the fourth leading cause of mortality and the north region of the country has a seasonal occurrence of outbreaks. The study aims to evaluate the surveillance system of diarrheal diseases in Nampula Province, 2019-2020.

Methods: The Centers for Disease Control and Prevention guideline was used to evaluate the surveillance system for diarrheal diseases. Sources of information included the logbooks and investigation forms of six health facility in Nampula Province, from January 2019 to December 2020. The attributes' simplicity, data quality, representativeness, stability, timeliness, and positive predictive value were evaluated.

Results: Diarrheal disease surveillance system is simple. The data collection tool has 12 variables. The information flows at four levels: health facility, district, provincial, and central via online system. The disease logbooks have 12 variables. The completeness of the fields was 89.6%.

A total of 1,356 cases were reported, and 50.3% were female. There were 14.7% cases reported in males from 1 to 4 years and 14.3% in females from 1 to 4 years. Timely Results are received with an average of 3 days, however,

92.6% did not have information on data collection and from those that have, 75.0% collected the sample within 24 hours. There was no system interruption in all districts. The positive predictive value for cholera suspected cases was 61.9% (13/21).

Conclusions: The diarrheal disease surveillance system is simple because of the use of the online system and quickly facilitates the dissemination of information. However, it has weaknesses in data quality and the predictive value w.

There is a need to raise awareness among professionals on the importance of these investigation data for timely decision-making.

Keywords: Sentinel Surveillance, Diarrhea, Public Health Surveillance, Mozambique.

Abstract ID : PP667 **Investigation d'un épisode d'intoxication alimentaire collective, district Miandrivazo, Région Menabe, Madagascar 2023**

Mahafaly Zafitiana Harijaona¹, Holifidy Rakotomanana-Razafintsalama², Bonodong Zongnukuu Guri¹, Patrick Dely^{1&}

¹Madagascar Field Epidemiology Training Program, Antananarivo, Madagascar,

²Institut Nationale de la Santé Publique et Communautaire, Ministère de la Santé Publique, Antananarivo, Madagascar

&Auteur correspondant: Patrick DELY, Madagascar Field Epidemiology Training Program, Antananarivo, Madagascar, pdely@afenet.net

Introduction: Le 10 janvier 2023, le médecin de garde du Centre Hospitalier de Référence du district de Miandrivazo a alerté l'arrivée de trois patients inconscients provenant d'une même famille.

Une investigation a été immédiatement enclenchée pour déterminer l'ampleur de la situation, l'agent causal ou facteurs contributifs et adopter des mesures de contrôles et de préventions.

Méthodes: Une étude descriptive a été menée. Un questionnaire préalablement élaboré a été appliqué aux personnels de garde, famille et voisins des malades. La recherche d'autres cas similaires a été effectuée dans la communauté. Un cas a été défini : Toute personne présentant un des troubles de conscience, et/ou délires, vertiges, crises convulsives, le 10 et 11 janvier 2023 dans le quartier Tsarafidy, Miandrivazo, Madagascar.

Résultats: Trois hommes sur cinq membres d'une même famille, âgés de 36, 13, et 6 ans, ont présenté une heure après leur petit déjeuner, (100%, 3/3) des troubles de conscience, délire, vertige, crises convulsives, (67%, 2/3) des vomissements et (33%, 1/3) des mictions fréquentes et ont été hospitalisés. Tous auraient consommé du riz et de la brède morelle mêlée à une plante hautement toxique appelée « Anatsifotsy » pouvant être confondue avec la brède morelle. Le taux d'attaque était de 100% : tous ceux qui l'ont mangé tombaient malade. La brède est incriminée, car les autres membres de la famille qui n'en avaient pas mangé, n'ont présenté aucun malaise. D'autres études publiées confirment l'existence des plantes similaires mortelles de la famille des solanacées, telle la morelle noire ou *Solanum nigrum*. Aucun décès n'a été enregistré.

Conclusions: Les résultats de l'investigation indiquent qu'il s'agit d'une intoxication alimentaire collective (IAC) due probablement à l'ingestion de la morelle noire. Pour empêcher d'autres expositions, les autorités ont été avisées et la population sensibilisée sur le danger que représente la morelle noire apparentant aux brèdes comestibles.

Mots clés: Investigation, IAC, morelle noire, Miandrivazo, Madagascar

Abstract ID: PP673 **Contribution of Community Health Workers to the Poliomyelitis Surveillance in Insecurity Settings in four Sub-Saharan Africa countries: Cameroon, Chad, Democratic Republic of Congo and Niger, August 2020 – July 2022**

Agballa Mébiny-Esoh Tchalla Abalo^{1,&}, Kevin Mugenyi², Joseph Magoola², Jean Paul Six Moke¹, Ernest

Njukang Nkem³, Hamani Samba⁴, Saleh Abdoulaye Seid⁵, Mumeh Cletus Fumbi³, Charles Daniel Apollo¹, Aba Frankline Asanj³, Achille Conyanbyalgo Zabré⁵, Ali Harouna Aboubacar⁴, Nicholas Ayebazibwe², Ditu Kazambou², Rebecca Babirye², Simon Antara², Corey Peak⁶, Kim Porter⁶

¹African Field Epidemiology Network, Bureau Régional de l'Afrique Centrale et de l'Océan Indien, Avenue Pierre Mulélé, Immeuble Infinity Center, Porte 204.

²African Field Epidemiology Network, AFENET Secretariat, Kampala, Uganda

³African Field Epidemiology Network, Unité de Coordination du Projet de Renforcement de la Surveillance à Base Communautaire de la Poliomyélite en Afrique, bureau de Maroua, Cameroun.

⁴African Field Epidemiology Network, Unité de Coordination du Projet de Renforcement de la Surveillance à Base Communautaire de la Poliomyélite en Afrique, bureau de Niamey, Niger.

⁵African Field Epidemiology Network, Unité de Coordination du Projet de Renforcement de la Surveillance à Base Communautaire de la Poliomyélite en Afrique, bureau du Tchad, Maroua.

⁶Bill and Melinda Gates Foundation (BMGF), Seattle, United States of America

&Corresponding author: Agballa Mébiny – Essoh Tchalla Abalo, African Field Epidemiology Network, Bureau Régional de l'Afrique Centrale et de l'Océan Indien, Avenue Pierre Mulélé, Immeuble Infinity Center, Porte 204.; E-mail : tabalo@afenet.net, tchanaldinio@yahoo.fr.

Introduction: Insecurity is a threat to the poliomyelitis surveillance by the traditional public health system, however community-based surveillance could be a strengthening strategy. Community Health Workers (CHWs) were enrolled to conduct Acute Flaccid Paralysis (AFP) surveillance in insecurity zones in four Sub-Saharan Africa countries since August 2020. The objective is to describe the CHWs' contribution in AFP case notification and investigation over the implementation period.

Methods: We conducted a cross-sectional study that included all AFP cases reported by the 71 districts of the enhanced Community-Based Surveillance (CBS) of poliomyelitis in Africa project (Cameroon: 10, Chad: 18, DR-Congo: 35, Niger: 08) from August 2020 to July 2022.

Data were extracted from the national surveillance databases and compiled for descriptive analysis.

Studied variables were alerts and AFP cases reported, notification's timelines and stool samples collected within 14 days after paralysis onset.

Résultats: Over the period, 17%(2,769/16,382) of alerts emitted by CHWs were validated as AFP cases; Cameroon: 52%(196/379), Chad: 36%(338/929), DR-Congo: 78%(1,905/2430), Niger: 3%(330/12544). Cases CHWs notified represented 76%(149/196) in Cameroon, Chad: 95%(321/338), DR-Congo: 86%(1,645/1,905), Niger: 92%(302/330). Silent districts were 1/60 (Chad) in 2020 and 0/71 in 2022. AFP cases notified within seven days after paralysis onset were 38%(75/196) in Cameroon, Chad: 68%(231/338), DR-Congo: 86%(1,644/1,905), Niger: 70%(231/330). The stool samples collected within 14 days after paralysis onset were 83%(162/196) in Cameroon, Chad: 94%(317/338), DR-Congo: 95%(1,815/1,905), Niger: 94%(309/330). cVDPV outbreak was detected in each country. CHWs notified also alerts on Yellow Fever, Measles, Meningitis, neonatal tetanus, cholera and COVID-19.

Conclusions: Despite the low notification of alerts, CBS in insecurity settings contributed to the early notification of the majority of AFP cases, increased surveillance sensitivity, outbreaks detection and reporting of other Vaccine Preventable Diseases. It requires continuous staff capacity building and scaling up to achieve polio eradication and control of other diseases and public health events.

Keywords: Community-Based Surveillance, Acute Flaccid Paralysis

Abstract ID: PP675

Evaluation du système de surveillance de la rougeole/rubéole dans les régions sanitaires d'Abidjan 1,2 et Grands ponts en Côte d'Ivoire de Janvier à novembre 2022

Boris Kévin Oki^{1,8}, Zolou Marie Tia², Issaka Tiembré³, Pierre Wilnique⁴, Joseph Otshudidjenka⁴, Joseph Vroh Béné Bi³

¹Field Epidemiology Training Program, Abidjan, Côte d'Ivoire

²Direction de Coordination du Programme Elargi de Vaccination (DCPEV), Abidjan, Côte d'Ivoire

³Institut National d'Hygiène Publique (INHP), Abidjan, Côte d'Ivoire

⁴African Field Epidemiology Network, Abidjan, Côte d'Ivoire

&Auteur correspondant: Boris Kévin Okié, 1Field Epidemiology Training Program, Abidjan, Côte d'Ivoire, Email : okieboris@gmail.com

Introduction: La rougeole est l'une des maladies immuno- contrôlable les plus contagieuses. Elle touchait 9 000 000 d'enfants dans le monde en 2021 selon l'OMS. En Côte d'Ivoire, la surveillance de la rougeole/rubéole (RR) a permis de détecter 1496 cas positifs de RR, 75 flambées épidémiques et aucun décès en 2022. Le manque de données sur l'évaluation du système de la RR dans les régions sanitaires d'Abidjan et Grands ponts a motivée la conduite de cette étude.

Méthodes: Une étude descriptive a été effectuée en utilisant le guide d'évaluation de l'OMS et du CDC. La simplicité, l'acceptabilité, la sensibilité, la promptitude et la stabilité ont été évaluées. Les outils de surveillance ont été revus et les acteurs ont été interviewés. Les attributs ont été jugés non satisfaisants si le score obtenu <80% et satisfaisants si score ≥ 80%. Les données ont été saisies et analysées sur Epi info 7.2[®] et les mesures de fréquences ont été calculées.

Résultats: 51 personnes ont été interrogées dans 15 institutions sanitaires. La simplicité : l'utilisation de la fiche de notification est simple pour 80 % des acteurs. L'acceptabilité : le personnel impliqué est satisfait du remplissage des fiches dans 92% des cas. La collecte des données se fait dans 98% des cas et l'analyse des données dans 92% des cas. La sensibilité : le taux des cas rejetés est de 16/100 000 habitants (≥2/100000) avec un taux de positivité des cas de rougeole à 14% (<10%).

La promptitude : 100% des cas suspects de RR ont été notifiés, prélevés et acheminés au laboratoire en 72h. La stabilité : la grève des agents de la poste a eu pour conséquence, le non-acheminement des prélèvements et des prélèvements hors délai acheminé au laboratoire dans 49% des cas. L'utilité : c'est un dispositif utile pour d'autres ministères en dehors du ministère de la santé dans 90% des cas.

Conclusions: Le système de surveillance de la rougeole/rubéole dans les régions d'Abidjan et Grands ponts était acceptable, simple, sensible, prompt, utile,

mais non stable. L'identification d'un second opérateur pourrait palier à cette instabilité et améliorer les performances du système.

Mots-clés: Rougeole ; Rubéole ; Evaluation ; Surveillance, Abidjan, Grands Ponts.

Abstract : PP677

Analyse des données de surveillance des urgences sanitaires d'origine environnementale notifiées au Centre Ivoirien antipollution, Côte d'Ivoire, 2018-2022

Tana Pélagie Adon^{1,&}, Affou Séraphin Wognin¹, Pierre Wilnique², Joseph Otshudiandjeka², Issiaka Tiembre³, Ossey Bernard Yapou¹, Joseph Benie Bi³

¹Centre Ivoirien Antipollution, Abidjan, Côte d'Ivoire (CIAPOL)

²African Field Epidemiology Network (AFENET), Abidjan, Côte d'Ivoire

³Institut National d'Hygiène Publique, Abidjan, Côte d'Ivoire (INHP)

&Auteur correspondant: Tana Pélagie ADON, Centre Ivoirien Antipollution, Abidjan, Côte d'Ivoire (CIAPOL), Email : pelaadon@gmail.com

Introduction: Une urgence sanitaire d'origine environnementale est toute situation subite qui menace la qualité des matrices environnementales et/ou la santé des populations. Depuis quelques années, la Côte d'Ivoire (CIV) est confrontée à plusieurs urgences environnementales notamment le déversement des déchets toxiques issus du Probo koala en 2006 occasionnant 17 décès et plus de 100.000 personnes intoxiquées. Cette étude a été menée pour décrire la fréquence et les types des événements d'origine environnementale (EOE) survenus sur le territoire ivoirien.

Méthodes: Une étude transversale descriptive a été réalisée sur la période d'août à octobre 2022 portant sur les données des urgences environnementales notifiées au Centre Ivoirien Antipollution (CIAPOL) de 2018 à 2022. Un échantillonnage exhaustif des données collectées avec la fiche de notification des EOE a été effectué. L'étude a concerné tout EOE pouvant avoir

un impact sur la santé et le bien-être des populations : incendies, déversements chimiques, explosions, mortalités de poissons, changements de couleurs d'eau et pollution atmosphérique. L'analyse des données est faite avec EPI info 7.2.

Résultats: La qualité des données calculée à partir de la complétude et la validité est de 96,4%. Sur 35 EOE notifiés, 09 (25,71%) ont concerné les déversements chimiques et la pollution atmosphérique. Aussi, 7 cas d'incendies ont été notifiés soit 20% et 6 cas de mortalités de poissons soit (17,14%). Plus d'événements notifiés ont été en 2019, 15 (42,86%). Les régions des Lagunes et San Pedro présentent les proportions les plus élevées d'EOE avec des proportions respectives de 38% et 16%.

Conclusions: Les déversements chimiques et la pollution atmosphérique ont été les événements les plus fréquents au cours de la période d'étude. Une sensibilisation des industriels au respect de la réglementation environnementale en vigueur en CIV s'avère nécessaire pour préserver la qualité de l'environnement et la santé des populations.

Mots-clés: Urgence environnementale, Pollution, CIAPOL, Côte d'Ivoire

Abstract ID: PP679

Monitoring and improving turn-around time of HIV molecular testing in Angola

Ana Sofia Pinheiro^{1*}, Jandira Maria Gambôa¹, Euzália Botelho Tomé¹, Reledria Castelo Branco¹, Madalena Paulina Vasco¹, Emiliana Diamantino dos Santos¹, Davis Ashaba², Bárbara Pocongo³, Yolanda Rebello Cardoso⁴

¹African Field Epidemiology Network – Luanda, Angola

²African Field Epidemiology Network – Kampala, Uganda

³Instituto Nacional de Luta Contra a SIDA – Luanda, Angola

⁴Centers for Disease Control and Prevention – Luanda, Angola

&Corresponding Author: Ana Sofia Pinheiro, African Field Epidemiology Network – Luanda, Angola, email: apinheiro@afenet.net

Introduction: AFENET, as CDC implementing partner, has been providing technical assistance to Angola Ministry of Health for the expansion of HIV Viral Load (VL) testing to monitor efficacy of HIV antiretroviral treatment, and Early diagnosis of HIV (EID) in children born to HIV-positive mothers.

While taking the first steps on point-of-care testing, most tests are performed in high-throughput equipment at centralized laboratories, the VL/EID samples collected in DBS cards at clinical sites & transported to referral laboratories by car. AFENET was pioneer to start monitoring turn-around-time (TAT) of VL/EID Results to optimize the sample referral system, which leads to faster clinical actions such as treatment initiation or regimen switch.

Methods: PEPFAR supported sites in Benguela, Huambo and Cunene provinces were trained and supervised in VL/EID sample collection & referral to Benguela Regional Laboratory. Samples and Results information was inserted into logbooks at sites by laboratory technicians.

AFENET Mentors made periodic reviews of logbooks and uploaded data into an online tool, to allow tracking of missing Results and automatically calculated TAT between sample collection and Results return at clinical sites.

Results: The regular TAT data monitoring allowed AFENET mentors to conduct targeted activities at clinical sites, sample transport system and testing laboratory to improve the referral system.

Between October 2021 and September 2022, Results showed a reduction in the number of VL/EID Results missing (9% in Oct'21 to 3% in Sep'22) and the average TAT of Results improved from 46 to 18 days in Benguela, 53 to 26 days in Huambo and 39 to 31 days in Cunene sites.

Conclusions: This study constituted an innovative approach to perform M&E of VL/EID referral processes, allowing to identify gaps and provide quicker remediation actions. The Results showed an impact on TAT which ultimately improves the diagnosis & care of people living with HIV.

Keywords: HIV Viral Load, Early Infant Diagnosis, Turn-around-time, M&E

Abstract ID: PP681

Quality assessment of SARS-CoV-2 testing in key Angola laboratories by an external quality assurance program in 2021-2022

Aracelli Asunción Acevedo^{1&}, Ana Sofia Pinheiro¹, Jandira Maria Gambôa¹, Euzália Botelho Tomé¹, Reledria Castelo Branco¹, Madalena Paulina Vasco¹, Domingos Delgado Agostinho¹, Davis Ashaba², Joana Paula Paixão³, Joana Morais³, Yolanda Rebelo Cardoso⁴

¹African Field Epidemiology Network – Luanda, Angola

²African Field Epidemiology Network – Kampala, Uganda

³Instituto Nacional de Investigação em Saúde – Luanda, Angola

⁴Centers for Disease Control and Prevention – Luanda, Angola

&Corresponding Author: Aracelli Acevedo, African Field Epidemiology Network – Luanda, Angola, email: aacevedo@afenet.net

Introduction: In response to the COVID-19 pandemic and growing number of testing laboratories in Angola, AFENET, with funding from CDC - International Task Force, enrolled various laboratories in an External Quality Assurance (EQA) program provided by SmartSpot Quality with the objective of assessing the quality of SARS-CoV-2 testing according to international guidelines.

AFENET support included laboratory enrollment, panel acquisition and distribution, training and troubleshooting.

Methods: Ten Ministry of Health laboratories in four Angola provinces, equipped with twelve molecular testing platforms (Abbott m200, BGI, and Bioer), and five GeneXpert systems, participated in the annual EQA programs of 2021 and 2022.

SmartSpot program utilized inactivated biomimetic material and negative controls to produce Dried Culture Spots (DCS) and the annual EQA program consisted of three submission cycles, with four DCS samples assessed in each cycle.

The assessment criteria were as follows: 100% (Pass), 87.5% (Acceptable), 75% (Concern), and $\leq 62.5\%$ (Unacceptable).

Results: In the first two cycles of 2021 all laboratories/equipment submitted Results, although in the following cycles there was a progressive decline in Results submission showing only 18% submission in the last cycle of 2022. This outcome was linked to reagent stock-outs and the cessation of SARS-CoV-2 testing by many laboratories.

Along 2021 program there was a notable improvement in the number of platforms meeting the approval criteria ($>80\%$), with all 15 submissions receiving an approved score by the final cycle. In 2022 program all submissions during Cycles 1 and 3 achieved a score of 100%. However, in Cycle 2, half of the submissions received a concerning score of 75%.

Conclusions: The EQA Results allowed us to identify the testing laboratories which met the quality standards. However, the program faced significant challenges, which lead to a decline in submissions and a potential impact on the quality of testing.

Keywords: SARS-CoV-2, COVID-19 testing, Angola, Laboratories, COVID-19 diagnostic testing

Abstract ID: PP682

Suspected Waterborne Illness Outbreak in Chief Albert Luthuli sub-district, Mpumalanga Province, South Africa, December 2022 - February 2023.

Lethukuthula Zondi^{1,2}, Sizwe Nkosinathi Khumalo⁴, Naume Tebeila³, Maria Sizeka Mahlalela⁴, Euginia Gugulethu Mashabane⁴, Petunia Bhiya⁴, Zithelo Zikalala⁴, Ephordia Thabane⁴, Hluphi Doreen Mpangane⁴, Mandla Zeblon Zwane⁴, Khuliso Ravhuhali^{1,&}

¹South African Field Epidemiology Training Programme, National Institute for Communicable Diseases, a Division of the National Health Laboratory Service, Johannesburg, South Africa.

²University of Witwatersrand, School of Public Health, Johannesburg, South Africa.

³Division of Public Health Surveillance and Response, National Institute for Communicable Diseases, a Division of the National Health Laboratory Service, Johannesburg, South Africa.

⁴Mpumalanga Provincial Department of Health, Public Health Directorate, Mbombela, South Africa.

&Corresponding Author: Khuliso Ravhuhali, National Institute for Communicable Diseases, Johannesburg, South Africa. Email: khulisor@nicd.ac.za

Introduction: In January 2023, the Mpumalanga Communicable Disease Prevention and Control unit received an alert of an increase in gastroenteritis cases at a district hospital. We investigated to identify the source and risk factors associated with admission due to gastroenteritis as well as recommend and institute control and preventive measures.

Methods: We conducted a cross-sectional study. A case was defined as anyone experiencing diarrhoea, abdominal cramps, fever, nausea or vomiting who presented at a health facility in the sub-district from 26 December 2022. We reviewed clinical records and collected stool and water samples.

We performed multivariable logistic regression analysis with a reported 95% confidence interval and a p-value to identify factors associated with admission.

Results: A total of 549 suspected cases were identified with 0.7% case fatality. Children ≤5 years accounted for 40.8% of the cases. Sixty-seven (12%) cases Resulted in hospital admissions.

Eighty-seven percent of cases reported using tap water. Multiple pathogens including rotavirus, shigella spp. and norovirus GII were detected from 14 (37.8%) stool samples.

Water sample Results detected E. coli and coliform species at healthcare facilities and the purification plant. Investigations revealed the water purification plant was experiencing power outages. Factors associated with admission were <1 year (AOR: 6.89, CI:1.79- 26.60, p=0.005), 1-5 years (AOR:4.21, CI:1.07- 16.51, p=0.039), ≥65 years (AOR:7.86, CI:1.69- 36.39, p=0.008), residing in Armburg (AOR:16.75, CI:1.65-170.43, p=0.017) loose diarrhoea (AOR:6.74, CI:2.24- 20.51, p=0.001), nausea & vomiting (AOR:1.95, CI:1.03- 3.70, p=0.042), antibiotics administration (AOR:4.49 CI:1.82- 11.06, p=0.001).

Conclusions: Inadequate chlorination due to power outages may have caused the outbreak. Chlorine dosing was increased at the purification plant and community members were educated on at-home water purification Methods as public health responses. We recommended an alternative power source in purification plants such as a generator.

Keywords: Diarrhoea, Gastroenteritis, Waterborne illness, Outbreak, Mpumalanga Province

Abstract ID: PP684 **External Quality Assurance of HIV rapid testing in PEPFAR supported sites in Angola**

Euzália Botelho Tomé¹, Janete António³, Jandira Maria Gambôa¹, Reledria Castelo Branco¹, Domingos Delgado Agostinho¹, Ana Sofia Pinheiro^{1,8}, Davis Ashaba², Joana Paula Paixão³, Bárbara Pocongo⁴, Yolanda Rebelo Cardoso⁵

¹African Field Epidemiology Network – Luanda, Angola

²African Field Epidemiology Network – Kampala, Uganda

³Instituto Nacional de Investigação em Saúde – Luanda, Angola

⁴Instituto Nacional de Luta Contra a SIDA – Luanda, Angola

⁵Centers for Disease Control and Prevention – Luanda, Angola

&Corresponding Author: Ana Sofia Pinheiro, African Field Epidemiology Network – Luanda, Angola, email: apinheiro@afenet.net

Introduction: In Angola, rapid diagnostic tests are the point of entry into the HIV care and treatment cascade and given the negative impacts of a false diagnosis it is important to ensure the testing quality. Since 2012, AFENET has provided technical assistance to Ministry of Health (MoH) Reference Laboratories to develop a national external quality assurance program (HIV-EQA) to assess and improve the quality of HIV rapid testing.

Methods: The HIV-EQA program started with the enrolment and training of selected HIV testing points ranging from clinical and community in PEPFAR supported testing sites. Then it encompassed the preparation and distribution of Dry Tube Specimens

panels (HIV-positive and negative samples) to the testing sites. After Results submission the testing proficiency was evaluated, and reports issued to sites. AFENET mentors conducted support supervision to HIV testing sites scoring under 80% to provide training as needed to improve the quality of testing. In the present study, we present a comparative analysis between the last two HIV-EQA assessments conducted in 2021 and 2022.

Results: Analysing the PEPFAR supported HIV testing points, which included MoH, military and community sites, the number of sites enrolled increased from 114 to 125 between 2021 and 2022 assessments. We also reported an increase in participation (109 to 123 sites) and increase in the number of sites achieving a passing score higher than 80% (95 to 113 sites).

The detailed analysis of proficiency testing scores also showed an important improvement between the two assessments: full proficiency (100% score) sites increased from 16% to 41% and the sites needing improvements (under 80%) decreased from 13% to 8%.

Conclusions: The HIV-EQA program in Angola provided direct evidence of the quality of testing and promoted for remediation actions to ensure reliability of rapid testing Results.

Keywords: HIV-EQA, HIV rapid testing, quality improvement

Abstract ID: PP685

Assessing infection prevention and control governance structures and financing options in Rachuonyo North sub county health facilities, Homa Bay County, Kenya

Gabriel Kotewas^{1,&}, Calvins Odhiambo¹, Gerald Mbuta¹, Francis Onyango², Mercy Njeru³, George Agogo³, Linus Ndegwa³

¹Homa Bay County Department of Health, Homa Bay, Kenya

²LVCT Health Vukisha 95

³U.S Centre for Disease Control & Prevention (CDC), Nairobi, Kenya

&Corresponding Author: Gabriel Kotewas, 1Homa Bay County Department of Health, Homa Bay, Kenya, Email: gkotewas01@gmail.com

Introduction: Effective infection prevention and control (IPC) is crucial towards preventing hospital acquired infections, and is integral to safe, effective, high quality health service delivery. The success and effectiveness of such a program requires adequate financing coupled to an effective governance system. We assessed the health financing and governance structures for IPC implementation in health facilities within Rachuonyo North sub county, Homa Bay.

Methods: This cross-sectional study was implemented between December 2022 to January 2023 in both public and faith-based health facilities in Rachuonyo North Sub County.

A questionnaire was developed to collect data on demographics, IPC health financing (with focus on funding sources) and IPC governance (with focus on existence of IPC program and policy guidelines), we targeted IPC focal persons in all the 52 facilities. We described the data using frequencies and percentages.

Results: Of the 52 facilities targeted, 47(90%) responded: 45 were government and 2 Faith-based facilities. Among respondents, 26(55%) were males and 26(55%) aged between 31-40 years. The cadre of IPC focal persons were: laboratory officers were 12(26%), clinical officers 10(21%), nursing officers 9(19%), others 16(34%). IPC programs existed in 41(87%) facilities, of which 43(91%) had IPC policy guidelines and 34(72%) had various IPC job aids. For financing, 25(53%) had IPC program in their annual work plan, 13(28%) had budgetary allocation for IPC, 26(55%) had donations and partner support as the main source of funding for IPC activities and 5(11%) relying on facility improvement fund (FIF), and 16(34%) had mixed sources of funding.

Conclusions: Most facilities had an IPC program and relied on budgetary allocation and partner support for funding. For sustainability of a robust IPC program, more facility driven finance resourcing through FIF will be of vital importance especially in this era of declining donor support.

Keywords: IPC, Governance, Financing.

Abstract ID: PP686

Assessing the Impact of Africa Field Epidemiology Network Training on Intermediate data analysis and weekly surveillance bulletin, Sierra Leone, 2023: Mixed Methods study

Sortie Bundu Conteh¹, Umaru Sesay^{1,2}, Solomon Sorgbeh^{1,2}, Adel Hussein Elduma^{1&}, Bridget Magoba¹, Gebrekrstos Negash Gebre¹

¹Africa Field Epidemiology Network, Freetown, Sierra Leone. ²Ministry of Health and Sanitation, Sierra Leone.

&Corresponding author: Adel Hussein Elduma; Africa Field Epidemiology Network, Freetown, Sierra Leone; ahussein@afenet.net

Introduction: Timely data analysis and weekly surveillance bulletin production are major public health challenges in many low and middle-income countries. In December 2022, the Africa Field Epidemiology Network (AFENET) trained district-level surveillance officers on data analysis and weekly surveillance bulletin production in Sierra Leone. This study aimed to determine the impact of training district surveillance officers on data analysis and weekly bulletin production.

Methods: This was an observational, mixed-Methods study, conducted in March 2023. We compared data before the training (from August to November 2022) and after the training (from December 2022 to March 2023); extracted from the AFENET SharePoint database. We conducted key informant interviews with 6 stakeholders within the Ministry of Health and Sanitation using a checklist to explore the level of information sharing and data analysis.

Results: Nationally, the weekly surveillance bulletin production increased from 24 (before the training) to 84 (after the training). Bombali District increased the most (from 4 to 14); followed by Kailahun (from 2 to 10) and Karene (from 5 to 10) districts respectively. From the semi-structured key-informant interview, the majority of the stakeholders affirmed that the surveillance officers were analyzing surveillance data and disseminating findings.

They further stated that surveillance data analyses posters on disease conditions were displayed at the districts and national surveillance offices, after the training. From the personal observation of the lead author, the training has impacted surveillance officers' data analysis skills and weekly production of bulletins, as most of the districts are now reporting on time.

Conclusions: Production of the weekly surveillance bulletins and data analysis have improved across all districts. The trained district surveillance officers were conducting data analysis and sharing their findings with relevant stakeholders for action. We recommend regular supportive supervision, mentorship for district surveillance officers, and review of bulletin reports to enhance quality.

Keywords: African Field Epidemiology Network, Observational study, data analysis, Sierra Leone

Abstract ID: OP688

Monitoring Progress towards achieving UHC in Machakos County, Kenya

Ian Were^{1,&}, Rhoda Pola¹, Robert Kuria¹, Robert Too², Patrick Kere Maelo², Ruth Muthama³, Maurice Owiny¹

¹Field Epidemiology and Laboratory Training Program (FELTP)-Nairobi, Kenya, ²Moi University-Eldoret, Kenya, ³Department of Health, Machakos- Kenya

&Corresponding author: Ian Were, Field Epidemiology and Laboratory Training Program (FELTP)-Nairobi, Kenya, wereian12@gmail.com

Introduction: Universal Healthcare Coverage (UHC) calls for all persons to receive health services without suffering financial hardship. Kenya's UHC model needs monitoring through an objective summary measure that is currently non-existent. The objectives of this study were to assess the progress of UHC implementation between 2018 – 2020 through measuring the annual service coverage in Machakos County- Kenya for FY 2019/2020.

Methods: A household /facility based cross sectional descriptive study was conducted in Yatta, Mavoko/Athi River and Machakos Central sub-counties where 383 proportionately sampled household provided

indicator data collected through questionnaires. Using WHO/WB framework for monitoring UHC, and Wagstaff et al proposals of actualizing the framework, service coverage (SC) was established through geometric means of indicators of essential service provision (weighted preventive/promotive and weighted, treatment score), whilst financial risk protection (FRP) established through geometric means (weighted score) of incidence of catastrophic healthcare spending and the population that was impoverished by out-of-pocket healthcare expenditure. A geometric mean of SC and FRP was then calculated to give the UHC index.

Results: Overall, UHC index was 41%. Weighted preventive/promotive score for Machakos was 44.50%, while weighted treatment score was 11.92% giving the annual summary score for service coverage as 17%, well below the targeted 100%. Most households had little protection from catastrophic expenditure-(99.5%) and all respondents reported being impoverished after spending money seeking healthcare services (100%). Financial Risk Protection conferred was <1% as 99.76% lacked financial protection in health.

Conclusions: Machakos's UHC index of 40.64% indicates existence of weaknesses in provision of preventive/promotive and treatment services. Adoption of the proposed UHC index as it simply scientifically quantifies service coverage and financial risk protection. Further, the government should increase investment towards amenities offered in preventive/promotive and treatment services to reduce the costs borne by the service seekers.

Keywords: Universal Health Coverage, Indicators, Households, Kenya

Abstract ID : PP689

Investigation d'une flambée de Toxi-Infection Alimentaire Collective à Aniansué, District sanitaire d'Abengourou, Côte d'Ivoire, février 2023.

Pacôme Adoni^{1,8}, Gaoussou Toure², Gérard Mangoua³, Wilnique Pierre⁴, Joseph Otshudiandjeka⁴, Issaka Tiembre⁵, Vroh Joseph Benie Bi⁵

¹Chargé de Surveillance Epidémiologique, Abengourou, Côte d'Ivoire.

²Directeur de District, Ministère de la Santé de l'Hygiène

Publique, Abengourou, Côte d'Ivoire.

³Directeur de District, Ministère de la Santé de l'Hygiène Publique, Bondoukou, Côte d'Ivoire.

⁴AFENET, Abidjan, Côte d'Ivoire.

⁵Institut National d'Hygiène Publique (INHP), Abidjan, Côte d'Ivoire

&Auteur correspondant: Pacôme Adoni, Chargé de Surveillance Epidémiologique, Abengourou, Côte d'Ivoire. pacomeadoni@mail.com

Introduction: 13 février 2023, le Centre Hospitalier Régional d'Abengourou a informé le district sanitaire de l'admission de 6 personnes pour des signes de gastroentérite après consommation d'un repas familial.

Une investigation a été réalisée pour identifier la source de cette flambée, déterminer la cause et mettre en place des mesures de prévention et de contrôle.

Méthodes: Une étude descriptive de cas a été menée. Un cas est défini comme toute personne vivant à Aniansué et ayant consommé la nourriture familiale servie le 12 février 2023 et présentant deux signes de gastroentérite. Cas confirmé : Isolement de germe sur les échantillons prélevés ou test toxicologique positif.

Variables sociodémographiques et cliniques ont été collectées. Echantillons de selles, de vomissement, de reste d'aliments et denrées alimentaires ont été prélevés.

Les données ont été analysées sur Excel et Epi-Info 7.2, en calculant les mesures de tendances centrales et de fréquences.

Résultats: Six (06) ont pris ensemble le repas du soir, parmi eux cinq (05) ont été admis à l'hôpital, soit un taux d'attaque de 83% (5/6). Cinq personnes hospitalisées sont décédées soit un taux de létalité de 100% (5/5). L'âge médian est de 12 ans, avec une étendue (9-20) ans. Le sex-ratio est de 1 homme pour 5 femmes.

Les signes présentés étaient : vomissements 100% soit (6/6), diarrhée 60% (3/5), convulsion 40% (2/5) et douleurs abdominales 20% (1/5). Suivant la nourriture consommée : Sauce graine+riz 0% de cas et Sauce graine+Cabato, 100% (5/5) de cas. La période d'incubation était de 6 à 24 heures. Les résultats des prélèvements confirment une intoxication par Pesticide.

Conclusions: Létalité très élevée, les jeunes filles sont les plus affectés. Le cabato est l'aliment incriminé. Le pesticide comme substance toxique. Respect des bonnes pratiques d'hygiène lors de la manipulation et de la préparation des aliments.

Mots clés: Investigation, flambée, Toxi-Infection Alimentaire, Abengourou, Côte d'Ivoire

Abstract ID: PP690

Surveillance Data Analysis of Uncomplicated Malaria in Pregnancy in Ablekuma North Private Health Facilities, Ghana 2017- 2021

Thelma Teley Aphour^{1,&}, Isaac Baffoe-Nyarko¹, Jessica Asante², Yaa Danquah Akuamoah-Boateng³, Wilson Asare Oyiadjo³, Delia Bandoh¹, Charles Noora¹, Ernest Kenu¹

¹Ghana Field Epidemiology and Laboratory Training Programme, University of Ghana, School of Public Health, Accra, Ghana. ²IQVIA/World Health Organization, Accra, Ghana. ³Ablekuma North Municipal Health Directorate, Accra, Ghana

&Corresponding author: Thelma Teley Aphour; Ghana Field Epidemiology and Laboratory Training Program, University of Ghana School of Public Health, Accra, Ghana; thelmaaphour@gmail.com

Introduction: Pregnant women remain vulnerable to malaria morbidity and mortality. In Ghana, 16.8% of admissions among pregnant women and 3.4% of maternal deaths are attributed to malaria in spite of interventions in place. Malaria in pregnancy is related to negative birth outcomes in both the mother and child. We described the trend and distribution of malaria during pregnancy and malaria intervention coverages in the Ablekuma North Municipality to guide interventions.

Methods: We conducted a secondary data analysis. We extracted district-level data on uncomplicated malaria in pregnancy from DHIMS 2, as well as proportions of pregnant women receiving at least three doses of intermittent preventive therapy (IPT3) and long-lasting insecticide-treated net for the period 2017 to 2021.

Frequencies and category-specific proportions were computed. We used choropleth maps to show the geographical distribution and performed CUSUM2 (C2) threshold analysis to determine temporal clusters.

Results: A total of 463 were confirmed positive for malaria out of 841 pregnant women suspected between 2017 and 2021. The highest proportion (32%, (148/463) in 2018 and the lowest proportion (8.9%, 41/463) in 2017 with incidence proportions of 21 per 1000 and 6 per 1000 respectively. About 74.3% (249/463) were aged 20-34 years.

Darkuman sub-district recorded the most cases 91% (422/463). Malaria during pregnancy showed seasonal variation with temporal clusters detected in March 2018 and December 2018. The coverages for IPT3 (55%, 848/1542) and LLIN (93%, 1434/1542) were highest in 2021.

Conclusions: Malaria during pregnancy declined while uptake of malaria interventions increased slightly over the period. Pregnant women aged 20-34 years or residing in Darkuman sub-district form the majority affected by malaria. Antenatal clinics were engaged and trained on measures to increase IPT3 and LLIN coverages to further reduce the disease burden.

Keywords: Malaria, pregnancy, data analysis, Accra, Ghana

Abstract ID: PP693

Needle-stick and sharps-related injuries among healthcare workers at Kingharman Road Hospital, Sierra Leone, 2023

Edward Ellie^{1,2}, Amara Alhaji Sheriff^{1,2,3}, Munis Jeneba Grace Lebbie¹, Adel Hussein Elduma^{2,3}, Solomon Sogbeh², Umaru Sesay², Anna Jammeh², Yusuf Ibrahim², Mohamed Vandi^{1,2}, Gebrekrstos Negash Gebru^{2,3}

¹Ministry of Health and Sanitation, Freetown, Sierra Leone; ²Field Epidemiology Training Program, Freetown, Sierra Leone; ³African Field Epidemiology Network, Freetown, Sierra Leone

&Corresponding author: Gebrekrstos Negash Gebru, African Field Epidemiology Network, Freetown, Sierra Leone, Email: ggebru@afenet.net

Introduction: Healthcare workers are at high risk of exposure to pathogen infection from needle-stick and sharp-related injuries. Limited information exists on the prevalence and associated factors of needle-stick and sharps-related injuries among healthcare workers in Sierra Leone. We aimed to determine the prevalence and risk factors associated with needle-stick and sharp-related injuries among healthcare workers.

Methods: We conducted a cross-sectional survey among healthcare workers, from 10 to 13 January 2023, at Kingharman Road Hospital in Freetown, Sierra Leone. A structured pre-tested questionnaire was used to collect data on needle-stick and sharp-related injuries. We interviewed all health workers found on duty during the study period. Multiple logistic regression was used to report the adjusted odds ratio (aOR) and the 95% confidence interval (CI) to identify factors associated with needle-stick and sharp-related injuries.

Results: A total of 82 healthcare workers were interviewed, with a median age of 31 (range:25–50 years). More than half of the respondents, 54% (44,) experienced sharps-related injuries, 82% (67/82) were needle-stick injuries, and 18% (15/82) were other sharps-related injuries.

Of those who experienced sharps-related injuries, 77% (34/44) reported more than one injury, Fifty-two percent (23/44) of needle-stick injuries occurred during recapping; and only 25% (11/44) took post-exposure prophylaxis. Women were more likely to expose to needle-stick and sharp injuries (aOR=1.4, CI: 0.44, 4.39), health workers with more than 3 years work were 3 times to experience stick and sharp injuries (aOR=3.3, CI: 0.93, 11.66) and training in the use of safety devices reduced exposure to needle-sticks and sharp injuries (aOR=0.4, CI: 0.11, 1.44), but these variables were not statistically significant.

Conclusions: The prevalence of needle-stick injuries was high among healthcare workers. We have educated healthcare workers about the standard biosafety precautions. We recommend healthcare authorities intensify infection, prevention, and control measures in health facilities.

Keywords: Healthcare workers, Needle-stick, sharp injury, vaccination, Sierra Leone

Abstract ID : PP695

Investigation D'un Cas De Paralysie Flasque Aigue Confirme Cvdpv2 Dans Le District Sanitaire De Bangui 2, Republique Centrafricaine, Decembre 2022

Aubin Ngbéadégo-Soukoudoupou^{&,1}, Augustin Balékouzou, ²Christian Maucler Pamatika¹, Augustin Vakondoko¹, Samuel Nzalapan³, Thierry Béhoundé¹, Arthur Mazitchi⁴, Berthe Adama³, Patrick Natégwendé Tassebedo³, Moussa Simporé⁵, Florence Balla Foulou¹, Felix Dounia¹, Jean Méthodes Moyen¹, Patrick Mavungu NGOMA⁶.

¹Ministère de la Santé et de la Population, Bangui, République centrafricaine (RCA).

²Coordination du Comité National de Lutte contre le SIDA, Bangui, RCA.

³Organisation Mondiale de la Santé, Bangui, RCA.

⁴Institut Pasteur de Bangui, RCA.

⁵Organisation des Nations Unies pour l'Enfance, Bangui, RCA.

⁶African Field Epidémiologie Network, Programme de Formation, Bangui, RCA.

&Auteur correspondant: Aubin Ngbéadégo-Soukoudoupou, Ministère de la Santé et de la Population, Bangui, République centrafricaine. Email: ngbeadego@gmail.com; Tél : +23672294655.

Introduction: Après détection d'un cas de paralysie flasque aigüe chez un nourrisson au CHU Pédiatrique de Bangui le 22 juillet 2022, deux échantillons de selles ont été prélevés et acheminés à l'Institut Pasteur de Bangui (IPB) qui a suspecté la présence de poliovirus. Le 26 septembre 2022, l'Institut Pasteur de Paris confirme par séquençage, un poliovirus dérivé de la souche vaccinale de type 2 circulant (cVDPV2) dans le District de Bangui 2. Une investigation a été conduite afin de décrire le cas, évaluer la circulation du virus chez les contacts et proposer des mesures de prévention.

Méthodes: Une étude descriptive transversale a été menée dans le District de Bangui 2 du 07 au 12 novembre 2022. La recherche des cas, la collecte des selles chez les contacts et l'enquête rapide de couverture

vaccinale (CV) ont été réalisées. Chez chaque contact, seul un échantillon de selle matinal a été prélevé et acheminé à l'IPB. Les données sociodémographiques, cliniques ont été collectées à partir de formulaires standards et analysées avec Epi Info 7. La couverture vaccinale a été calculée.

Résultats: Garçon de 14 mois vu pour paralysie brutale de la jambe gauche installée le 22 juillet 2022, sans notion de voyage. Il a reçu deux doses de vaccin antipoliomyélitique oral (VPO) et aucune dose de vaccin antipoliomyélitique injectable (VPI). L'examen clinique a retrouvé la paralysie de la jambe gauche. Aucun cas suspect n'a été retrouvé. Chez trente-deux enfants enquêtés, l'immunisation complète au VPO était de 62,5% (20/32) et au VPI de 72% (23/32). Trente-cinq échantillons de selles chez les contacts ont été analysés et le virus n'a pas été isolé. Un plan de riposte locale a été proposé.

Conclusions: La vaccination de routine reste un problème dans le District. L'intensification du rattrapage des enfants incomplètement immunisés s'avère nécessaire.

Mots-clés: Investigation, Paralysie Flasque Aigue, cVDPV2, Bangui 2, Centrafrique.

Abstract ID: PP699 **Analyse des données de surveillance épidémiologique du VIH/SIDA en Guinée-Bissau, de 2014 à 2021.**

Mendes Dias Bawolenca Mariana^{1,&}, Null Gomes Nivreanes Tchern², Djibril Barry¹, Yoda Hernan¹, Yanogo Pauline Kiswendsida¹, Meda Nicolas¹

¹Programme de formation en épidémiologie de terrain et laboratoire du Burkina/ Université Joseph Ki Zerbo, Ouagadougou, Burkina Faso

²Institut National de Santé Publique, Programme de entraînement d'épidémiologie de terrain, Bissau, Guinée-Bissau

&Auteur correspondant: Mendes Dias Bawolenca Mariana, Programme de formation en épidémiologie de terrain et laboratoire du Burkina/ Université Joseph Ki Zerbo, Ouagadougou, Burkina Faso email : bawolenca@gmail.com

Introduction: Le VIH/SIDA est un problème de santé publique en Guinée-Bissau. Malgré une prévalence en baisse ces dernières années, le nombre significatif de cas et les difficultés d'accès aux médicaments antirétroviraux dans certaines régions du pays constituant des défis majeurs dans la lutte contre cette endémie. Pour mieux orienter les décisions des autorités sanitaires, nous avons initié cette étude afin d'analyser les données récentes de la surveillance du VIH/SIDA de 2014 à 2021.

Méthodes: Nous avons mené une étude descriptive en temps lieu et personne des cas de HIV/ SIDA enregistrés dans la base DHIS2 sur la période du 1 er janvier 2014 au 31 décembre 2021. L'analyse a été faite par Epi info 7.2.5.0* et Excel*2016. Nous avons calculé des proportions et des taux. Nos résultats ont été présentés sous forme de tableaux et graphiques.

Résultat: Au total, 20107 cas de VIH/SIDA confirmés sur les registres de 2014 à 2021 dont 13451 (66,9%) de sexe féminin, et 6653 (33,09%) de sexe masculin. L'année 2015 a enregistré plus de cas (14,79%). La tranche d'âge 30-39 ans est la plus touchée avec 5757 (28,63%). Les mariés ont représenté 51,36% dont, 5042 (25,08%) étaient monogames. Les régions de SAB et Biombo, ont respectivement enregistré 11160 (55,50%) cas et 5050 (25,12%).

Conclusions: Le VIH est endémique en Guinée-Bissau avec un accès limité au traitement ARV et la réalisation de la charge virale. Nous recommandons de réaliser plus de sensibilisation continue et systématique pour toute la population sur le VIH/SIDA principalement dans l'âge de reproduction, réalisation systématique de dépistage de la population à risque.

Mots clé: VIH/SIDA, analyse, données, Guinée-Bissau, 2022.

Abstract ID: PP700 **Achieving Viral Load Suppression Coverage in Rural Eastern Uganda, Kamuli District: an experimental study.**

Tendo Rosette Nalugwa^{1,&}, Richard Asiimwe², Patrick Mbaziira²

¹Rural Eastern Uganda, Kamuli District, Uganda

²Holistic Initiative to Community Development HOLD, Gulu University Kamuli, Eastern Region, Uganda

&Corresponding author: Tendo Rosette Nalugwa, Rural Eastern Uganda, Kamuli District, Uganda, Email: tendorossette2020@gmail.com

Introduction: Viral Load (VL) suppression is fundamental for PLHIV through treatment monitoring in order to reduce HIV transmission and mortality. In line with the 95-95-95 WHO targets, routine VL testing for PLHIV and intensified intensive adherence counselling for all non-suppressed clients is recommended to achieve VL suppression. Although many studies have evaluated factors leading to VL suppression, few have assessed interventions adequate to improving Viral Load Suppression.

Methods: An experimental study was conducted using the Six Sigma Methodology within 30 days (1-30 September 2022). Within 8 days, each health worker bled 4-8 clients per day for 8 days per facility. A short-term evaluation of one day was done to determine the number of clients that were bled and a long-term evaluation of 21 days to assess the viral load results. Tools (Excel and DHIS2) were used to present results. Interventions included: Home visits, telephone calls and intensified initiation on IAC. • Implemented the Modified CCLAD to improve adherence. • Improved data use through VL line listing while triangulating primary data sources and the audit tools.

Results: With a combined total of a TX_Curr of 10500 clients in seven high volume sites within September 2022 (PY2), 56 Home Visits, 2 Health Education sessions per Clinic, 85% OVC initiation and VL line list extraction per outreach were done. Out of 1500 VL due, 1400 were bled. (93% bled) in comparison to 48% average VL bleeding in Aug 2022.

Of the 1400 VL bled, 1386 viral load results were returned, of these, 314 (non-suppressed) and 100 % (initiated IAC) and 95% suppressed after repeat VL, in comparison to 63% suppression (August 2022). A 32% increase was achieved while measuring TX_PVLS..

Conclusions: The implementation of a package of interventions has contributed to an improved VL suppression among eligible patients. The package has expanded from seven to 75% of Eastern Region Sites (500 > TX_Curr).

Keywords: People Living with HIV, Community Client Led ART Delivery Model, Distributed Service Delivery Models, Intensive Adherence Counselling.

Abstract ID: PP70 I

An investigation of an outbreak of multidrug-resistant Acinetobacter baumannii infections in a neonatal intensive care unit at a regional hospital in KwaZulu-Natal, August 2022

Andani Ronel Marumo^{1,2,3,8}, Maxwell Mabona^{1,2,4}, Poncho Bapela^{4,5}, Liliwe Shuping³, Ruth Mogokotleng³, Sabelle Jallow³, Reshma Misra⁴, Husna. Ismail³, Nelesh. Govender^{3,5}, Olga. Perovic^{3,5}

¹South African Field Epidemiology Training Programme (SAFETP), National Institute for Communicable Diseases (NICD), Johannesburg, South Africa

²School of Public Health, Faculty of Health Sciences, University of Witwatersrand, Johannesburg

³Centre for Healthcare-Associated Infections, Antimicrobial Resistance and Mycoses (CHARM), National Institute for Communicable Diseases, Johannesburg, South Africa

⁴KwaZulu-Natal Provincial Department of Health, Pietermaritzburg, South Africa

⁵Division of Public Health Surveillance, National Institute for Communicable Diseases, Johannesburg, South Africa

&Corresponding author: Andani Ronel Marumo, 1South African Field Epidemiology Training Programme (SAFETP), National Institute for Communicable Diseases (NICD), Johannesburg, South Africa, Email: AndaniM@nicd.ac.za

Introduction: Multidrug-Resistant Acinetobacter baumannii (MDR-AB) is a leading cause of healthcare-associated infections, with fatality rate ranging from 33%-60%. On 16 August 2022, the National Institute for Communicable Diseases (NICD) was notified of five neonates infected with MDR-AB being admitted to a neonatal intensive care unit (NICU) of a regional hospital in KwaZulu-Natal Province. We report findings from the outbreak investigation.

Methods: We conducted a cross-sectional study. A case was defined as any patient admitted to the NICU

with *A. baumannii* cultured from blood or cerebrospinal fluid (CSF).

Cases were described using diagnostic laboratory data from the NICU between January 2022 and 16 August 2022 extracted from the NICD surveillance data warehouse.

Clinical characteristics of the five neonates with reported infections were assessed and whole genome sequencing (WGS) performed to determine genetic relatedness of the isolates.

An observational assessment of the NICU was conducted on 18 August 2022 to investigate possible sources of MDR-AB transmission.

Results: We identified 16 culture-confirmed cases of MDR-AB with an apparent increase in August 2022. Of the five cases reported in the cluster, MDR-AB was cultured from CSF (n=3), blood culture (n=1) and endotracheal aspirate (n=1).

Cases had a median age of 21 days (IQR:14–35 days), median birthweight of 1170 grams (IQR:1000–1530 grams). All five cases had predisposing conditions, including low birthweight (n=4).

The case fatality rate was 80% (4/5). All three CSF specimens were bloodstained indicating possible contamination from blood. All five isolates were phenotypically resistant to most of the tested antibiotics, but susceptible to tigecycline and colistin.

WGS analysis identified one major cluster of four closely related isolates with sequence type 2. Observational assessment highlighted exceeding bed occupancy, equipment shortage and sub-optimal staffing norms.

Conclusions: Our findings indicate a propagated transmission from person-to-person. Infection control measures included disinfection of equipment and strengthening of surveillance in the unit.

Keywords: Multidrug-resistant *Acinetobacter baumannii*, blood culture, cerebrospinal fluid, neonatal intensive care unit, whole genome sequencing.

Abstract ID: PP704

Why do mothers die during maternal delivery and pregnancy-related complications? Secondary analysis of maternal death data from Falaba District, Sierra Leone, 2018 to 2022

Jusu Musa^{1,2}, Umaru Sesay^{1,2,3}, Adel Hussein Elduma Abdulla^{2,3}, Gebrekrestos Negash Gebru^{2,3,&}

¹Ministry of Health and Sanitation, Freetown City, Sierra Leone

²Sierra Leone Field Epidemiology Training Program, Freetown City, Sierra Leone

³African Field Epidemiology Network, Freetown City, Sierra Leone

&Corresponding author: Gebrekrestos Negash Gebru; Sierra Leone Field Epidemiology Training Program, Sierra Leone; ggebru@afenet.net

Introduction: In 2019, Sierra Leone was ranked as one of the three countries out of 186, with the highest maternal mortality ratio at 717 per 100,000 live births. In Falaba district, there is a paucity of information on maternal mortality.

Here, we reported the epidemiological trend, distribution, and causes of maternal deaths in the Falaba district, Sierra Leone.

Methods: We conducted a descriptive study using retrospective secondary data (from 2018 to 2022); extracted from the district maternal deaths surveillance review line list.

We obtained variables including age (years), gravida, parity, number of Antenatal Care (ANC) visits, place of delivery, mode of delivery, occupation, and marital status, among others.

Results: A total of 51 maternal deaths were recorded, of which 53% (27) were farmers, and the median age was 27 years (range: 13 - 41 years). For the period under study, the death rate decreased from 14 per 100,000 live births in 2018 to 7 per 100,000 live births in 2022.

More than half of the deaths occurred in the community with 55% (28/51); 29% (15/51) did not attend ANC, and 71% (36/51) attending at least one ANC. Women with gravida three and above accounted for 35% (18/51) of deaths, followed by gravida one to two with 31% (16/51).

The leading cause of death was Postpartum hemorrhage accounting for the highest number of deaths with 37% (19/51), followed by antepartum hemorrhage with 33% (17/51).

Conclusions: There was a significant decrease, by 50% in maternal mortality from 2018 to date. More than half of the total deaths were recorded at the community level. Postpartum hemorrhage was the leading cause of death.

We recommend the Ministry of Health and Sanitation raise community awareness of the benefits of hospital delivery for pregnant mothers, implement bylaws prohibiting home delivery, and fine violators.

Keywords: Maternal Death, Retrospective, Postpartum Haemorrhage, Live births, Sierra Leone

Abstract ID: PP707

Delivery Outcome among Women who delivered in Regional Hospitals, January 2021 to December 2022 Sierra Leone

Musu Rachael Cole^{1,2,&}, Binta Bah^{1,2}, Tom Sesay¹, Abibatu Kamara¹, Philip Pelema Gevao², Joel Francis Mansaray^{1,2}, Paul Santigie Mansary^{1,2}, Mohamed Alex Vandi¹, James Sylvester Squire¹, Joseph Sam Kanu¹, Adel Hussein Elduma Abdalla^{2,3}, Gebrekrstos Negash Gebru^{2,3}

¹Ministry of Health and Sanitation, Freetown, Sierra Leone

²Field Epidemiology Training Program, Freetown, Sierra Leone

³Africa Field Epidemiology Network, Freetown, Sierra Leone

&Corresponding author: Musu Rachael Cole, 1Ministry of Health and Sanitation, Freetown, Sierra Leone, Email: musucole67@yahoo.com

Introduction: Childbirth, though a normal physiological process, has been associated with risks, which sometimes lead to loss of life.

Even though delivery outcomes have improved in developed nations, it remains a challenge in developing countries. Sierra Leone mostly underperforms in pregnancy and childbirth indicators.

This study aimed to determine the outcome of deliveries among women who delivered in the four regional hospitals in Sierra Leone.

Methods: We conducted a descriptive secondary data analysis (from January 2021 to December 2022) using the maternal and perinatal deaths surveillance line list.

We collected variables including the outcome of delivery, mode of delivery, birth weight, and neonatal and maternal death in four regional hospitals (Ola during Children's and Princess Christian Maternity Hospital (PCMH), Bo, Kenema, and Makeni).

Results: A total of 31,809 babies were delivered during the 2-year period. Of the total babies delivered, 48.5% (15413) were in 2021. Among the four hospitals, PCMH had the highest number of deliveries with 49% (14,448/31,809) babies. A total of 1,987 stillbirths were recorded, of which 49.4% (981) were reported in 2021; 64% (1277) were macerated.

The stillbirth rate was 62.5 per 1,000 births. Normal virginal delivery accounted for the majority with 63% (19,349/30,757) and caesarian section; with 34% (10,466/30,757). Of the live births (29,822), 13% (3798) were pre-terms and 14.5% (4,314) were low birth.

Neonatal deaths accounted for 3% (915/29,822); 90% (820) of these deaths were reported during the first week of life. A total of 344 maternal deaths were recorded; Bo regional hospital accounted for 40% (136). The maternal mortality ratio was 1154 per 100,000 livebirths.

Conclusions: Delivery outcomes remain poor in Sierra Leone, with high stillbirths, neonatal deaths, and maternal mortality. We recommended early detection and management of these preventable causes to reduce stillbirths and neonatal and maternal deaths.

Keywords: Stillbirth, Neonatal mortality, maternal mortality, Sierra Leone

Abstract ID: PP710

Association between SARS-CoV-2 gene specific Ct values and clinical outcomes

Mpho Lerato Sikhosana^{1&}, Richard Welch², Alfred Musekiwa³, Zinhle Makatini¹, Joy Ebonwu², Lucille Blumberg², Waasila Jassat²

¹National Health Laboratory Service, Johannesburg, South Africa

²National Institute for Communicable Diseases, Johannesburg, South Africa

³School of Health Systems and Public Health, University of Pretoria, Pretoria, South Africa

&Corresponding author: Mpho Lerato Sikhosana, National Health Laboratory Service, Johannesburg, South Africa, lsikhosana@gmail.com

Introduction: There are currently no specific SARS-CoV-2 prognostic viral biomarkers for predicting disease outcomes, thus there has been interest in using polymerase chain reaction (PCR) cycle-threshold (Ct) values of SARS-CoV-2 gene targets to predict disease outcomes.

This study assessed the association between COVID-19-related in-hospital mortality and Ct-values of gene targets specific to SARS-CoV-2.

Methods: Clinical data of hospitalized COVID-19 cases from Gauteng Province recorded between April 2020-July 2022 in the national surveillance system were linked to laboratory Ct-value data from the national laboratory service's data repository. The study period was divided into pandemic four waves: Asp614Gly/wave1 (7 June-22 Aug 2020); beta/wave2 (15 Nov 2020-6 Feb 2021); delta/wave3 (9 May-18 Sept 2021) and omicron/wave4 (21 Nov 2021-22 Jan 2022). Ct-value data of SARS-CoV-2-specific genes according to testing platforms (Roche-ORF gene; GeneXpert-N2 gene; Abbott-RdRp gene) were categorized as low (Ct<20), mid (Ct 20-30) or high (Ct>30). After conducting descriptive statistics, multivariable logistic regression was used to assess the association between Ct-values and COVID-19-related in-hospital mortality.

Results: There were 1205 recorded cases overall: 836(69.4%; wave1), 122(10.1%; wave2), 21(1.7%; wave3) and 11(0.9%; wave4). The cases' mean

age(+SD) was 49 years (+18), while 662(54.9%) cases were female. There were 296(24.6%) deaths recorded overall: 241(81.4%; wave1), 27(9.1%; wave2), 6(2%; wave3), and 2(0.7%; wave4) (p<0.001). The median (interquartile range [IQR]) Ct-values according to testing platform were Roche 26(22-30); GeneXpert 38(36-40); Abbott 21(16-24). After adjusting for sex, age and presence of a comorbidity, the odds of COVID-19 associated death were high amongst patients with Ct-values 20-30 (adjusted Odds Ratio [aOR] 2.25;95% confidence interval [CI] 1.60-3.18) and highest amongst cases with Ct values <20 (aOR 3.18; 95%CI 1.92-5.27), compared to cases with Ct values>30.

Conclusions: Although the odds of COVID-19-related death were high amongst cases with Ct-values <30, Ct-values were not comparable across different testing platforms.

Thus the use of Ct-values in informing decisions about disease severity and prognosis is cautioned.

Keywords: SARS-CoV-2; Ct-values; clinical outcomes; PCR; Gauteng Province

Abstract ID: PP711

Analysis of a surge of Mumps Suspected cases in Okahao District, Omusati region, Namibia, January - February 2023: A case for Mumps vaccination

Emmy-Else Ndevaetela^{1,3}, Ndahambelela Komawe Sheetekela^{1,2,3}, Meameno Twafindana Nghinamwaami^{1,2,&}

¹Namibia Field Epidemiology and Laboratory Training Program (NamFELTP), Windhoek, Namibia.

²Department of Public Health, School of Nursing & Public Health, University of Namibia, Oshakati, Namibia.

³Ministry of Health and Social Services, Windhoek, Namibia

&Corresponding author: Meameno Twafindana Nghinamwaami, Namibia Field Epidemiology and Laboratory Training Program NamFELTP, Outapi, Namibia, Email: tangienghinamwaami@gmail.com

Introduction: Mumps is slightly neglected compared to other infectious diseases. A vaccine-preventable disease causes inflammation of salivary glands and may cause life-threatening complications (encephalitis, deafness and orchitis). Mumps vaccine is not included in Namibia state Expanded Programme on Immunization (EPI) and no published vaccination data in private health sector. Globally, 224 805 cases were reported in 2021. Africa, including Namibia, has major share of these cases. A peak of mumps suspected cases were reported in Okahao District, from January – February 2023. We analysed mumps surveillance data to characterize mumps cases by person, place, and time.

Methods: We conducted a secondary data analysis for mumps surveillance records reported from January- February 2023 and field investigations in Okahao district. We retrieved records from Integrated Disease Surveillance Report line-list with variables: age, sex, epidemiological weeks, vaccination status. Data was analysed using Epi Info 7.0 and presented in tables and graphs.

Results: A total of 67 cases were recorded with mean age 3.04 years (SD \pm 0.96). Most cases were among age group of 6-10 years. Index case was a learner hence, 55 cases (82%) were learners. Majority (65.7%) of cases were reported from 1 clinic and none were vaccinated. Of 67 suspected cases, 12 samples were laboratory analysed for presence of mumps immunoglobulin. Of 12 tested, 11 (92%) were laboratory confirmed, whilst one (8%) had pending Results. Most (36%) of confirmed cases were from 1 school.

Conclusions: Findings confirmed ongoing spread of mumps mostly among learners. Health education was given to pupils, teachers and parents. The district was encouraged to educate and sensitize health facilities and community.

We recommended the region to strengthen mumps surveillance to ensure sufficient data and evidence to support need for introduction of mumps vaccine in EPI. Proposed Ministry of Health to incorporate Measles-Mumps-Rubella in EPI to prevent outbreaks.

Keywords: Mumps; pupil; immunization; Namibia

Abstract ID : PP714

Facteurs associés à la survenue des épidémies de rougeole dans le district sanitaire de Keur Massar (Sénégal) en 2022

Amady BA^{&1}, Jerlie Loko Roka², Mbouna. Ndiaye³, Mamadou Sarifou BA³

¹District sanitaire de Keur Massar, ministère de la Santé et de l'Action Sociale, rue Aimée Césaire, Dakar Centre, Senegal

²Center for Diseases Control (CDC), Dakar, Sénégal,

³ Programme de Formation en Epidémiologie de Terrain Pratique (FETP) Sénégal

&Auteur correspondant: Amady BA, District sanitaire de Keur Massar, ministère de la Santé et de l'Action Sociale, rue Aimée Césaire, Dakar Centre, Senegal, (Téléphone : 775414880 Mail : bamady1@yahoo.fr,)

Introduction: La rougeole demeure encore un problème de santé publique (5 épidémies entre 2018 et 2022). L'objectif de cette étude était d'identifier les facteurs associés à la survenue des épidémies de rougeole dans le district.

Méthodologie: Nous avons réalisé une étude transversale à visée analytique. Elle portait sur un échantillon de 300 enfants, âgés de 9 à 59 mois, vivant dans le district durant la période du 19 au 21 novembre 2022. L'échantillonnage était en grappes au niveau de 30 quartiers.

Les données ont été collectées à domicile à l'aide d'un questionnaire lors d'un entretien individuel après consentement éclairé des mères et gardiennes d'enfants. Les données ont été saisies et analysées avec le logiciel EPI INFO version 7. 2. 5. 0

Résultats: L'âge moyen des enfants était de 25 \pm 13 mois avec des proportions de 14,67%(n=44) chez les moins de 12mois, 33,67% (n=101) chez les 12-23mois et 51,66% (n=155) chez les plus de 23 mois, le sexe ratio M/F était de 1,08. Leurs mères avaient une moyenne d'âge de 29 \pm 6,7 ans, majoritairement mariées à 97,7%(n= 293), Pauci pares à 44,67% (n= 134 et instruites à 66,33% (n= 199). Toutes les mères qui connaissaient les jours de vaccination ont respecté leur rendez-vous et leurs enfants sont à jour selon l'âge.

La couverture vaccinale dans l'échantillon était de 92,33% pour le RR et 80,33% des enfants étaient à jour selon le calendrier vaccinal. Les facteurs liés à la non-vaccination des enfants étaient le niveau de connaissance de la mère sur les maladies cibles du PEV ($P=0,0322$) sans oublier le déplacement du tuteur ou de la gardienne de l'enfant.

Conclusions: La non-vaccination contre la rougeole exposant à la maladie est liée au manque de connaissance de la mère sur les maladies cibles du PEV ainsi que les déplacements des tuteurs ou gardiennes d'enfants lors des rendez-vous. Un accent particulier devra être mis sur la recherche systématique des irréguliers associée à une sensibilisation à tous les niveaux en impliquant les acteurs communautaires.

Mots clés: Facteurs associés, épidémie, Keur Massar

Abstract ID: PP720 **Clusters of mumps cases in schools in Omaruru District, Erongo Region Namibia, February 2023**

Carenn Inotila Megameno Shekudja^{1,2,&}, Selma Gerhard², Johanness Malapi², George Peelo²
1Namibia Field Epidemiology and Laboratory Training Program, Windhoek, Namibia 2Ministry of Health and Social Services, Erongo, Namibia

&Corresponding author: Carenn Inotila Megameno Shekudja, 1Namibia Field Epidemiology and Laboratory Training Program, Windhoek, Namibia, Email: carennshekudja@gmail.com, 0814658375.

Introduction: Mumps is a neglected tropical disease not under surveillance in Namibia. It is not part of routine immunization scheduled of children. Omaruru District reported cases since August 2022, after an index case identified through active case search. From 27 January 2023 an increase in cases was reported from schools. We investigated this upsurge of cases to identify the burden of the disease, apply control measure and interrupt transmission.

Methods: We conducted active case search at Five schools. Samples were collected to confirm the diagnosis.

A line-list was used to collect demographic, clinical data, risk factors, and vaccination status. Interviews were conducted to assess learner's knowledge of the disease. We define a mumps case as any person with unilateral or bilateral swelling parotoid salivary gland. Microsoft excel was used to analysis data.

We calculated frequencies and proportions and presented finding in charts and graphs. Environmental assessment was conducted.

Results: Total of 113 mumps cases were recorded from August 2022 to February 2023. Of 101 cases reported in 2023, 98(87%) cases were from schools. Okongue school account for 29(34%) cases, Pahee school 32(39%) cases, Walfrieden school 22(27%) cases. The 67(59%) were male, mean age 8 years, ranging 6 to 14 years. All cases had lymphadenopathy, 30% ear pain, 58% sore throat and 11% headaches. Four blood samples tested positive for IGM, Accounting for 100% positivity rate. None of the cases were vaccinated. The 61% of learner didn't have knowledge regarding mumps.

Conclusions: The mumps outbreak in Omaruru District predominantly affects schools. Symptomatic cases were treated and isolated. Health education was conducted. Overcrowding in hostels Is hindering implementation of control measures.

We recommend Ministry of health to introduce Measles, Mumps and Rubella vaccines (MMR). We further recommend printing and distribution of IEC materials by national level to enhance knowledge on the disease.

Keywords: Mumps, outbreak

Abstract ID : PP723 **Evaluation du Système de Surveillance de la Fièvre Jaune dans la région de Niamey, Niger 2022.**

Moussa Ahamadou^{1&}, Djibril Barry¹, Alkassoum Salifou Ibrahim², Yoda Hermann¹, Tassiou Ibrahim³, Amadou Idé³, Pauline Yanogo¹, Nicolas Meda¹

¹Burkina Field Epidemiology and Laboratory Training Program (BFELTP), Université Joseph Ki Zerbo, Ouagadougou, Burkina Faso

²Faculté de Médecine, Université Abdou Moumouni, Niamey, Niger

³Ministère de la Santé Publique Niger, Niamey

&Auteur correspondant: Moussa Ahamadou, 1Burkina Field Epidemiology and Laboratory Training Program (BFELTP), University Joseph KI ZERBO, Ouagadougou, Burkina Faso, Email: dmousame@gmail.com

Introduction: La fièvre jaune (FJ) est une maladie infectieuse hémorragique grave due au virus Amaril, transmis à l'Homme par des moustiques infectés. Les zones à forte concentration humaine insuffisamment vaccinées sont plus exposées. Le Niger est classé pays à haut risque d'épidémie de FJ. L'objectif était d'évaluer le système de surveillance (SS) de la FJ dans la région de Niamey (la capitale).

Méthodes: L'étude était transversale descriptive du 1er janvier au 31 décembre 2022. Les grilles d'évaluation de la surveillance FJ OMS 2021 et de CDC sur l'évaluation des systèmes de surveillance 2001 ont été utilisées pour vérifier le niveau d'atteinte des objectifs et les attributs (simplicité, acceptabilité, réactivité, sensibilité et représentativité). Un score d'appréciation a permis de juger les attributs: Peu ($\leq 50\%$), moyen]50-75%] et bon ($>75\%$). Nous avons calculé des proportions avec Excel® 2016

Résultats: Le SS de la FJ est fidèlement mis en œuvre dans la région de Niamey, il est performant à 80%. Le système a été trouvé simple (100%), acceptable (85-100%) et sensible (30 cas notifiés en 2022) Il est aussi représentatif de tous les districts sanitaires (100% des DS ont notifié des cas) et toutes les populations (60% ≤ 18 ans, 40% ≥ 19 ans, 56.67% sont vaccinés et 26.67% non vaccinés).

Cependant il est peu réactif (33.33% des prélèvements transmis des Districts au laboratoire dans un délai de 3 jours).

Conclusions: Le SS de la FJ dans la région de Niamey a été trouvé performant, simple, acceptable, sensible et représentatif. Néanmoins il est peu réactif. Des efforts supplémentaires sont nécessaires pour réduire le retard dans la transmission des échantillons des Districts vers le laboratoire national de référence.

Mots clés: Evaluation_ Surveillance_ Fièvre jaune_Niamey_2022

Abstract ID: PP730

Use of community dialogue in malaria control social behavior change intervention among women of Mambai community unit, Vihiga County, Kenya

Mercy Lodendwa^{1,*}, Gibson Aberu¹

¹Ministry of Health, Vihiga County, Vihiga, Kenya

&Corresponding author: Mercy Lodendwa, 1Ministry of Health, Vihiga County, Vihiga, Kenya, Email: mlodendwa@gmail.com

Introduction: Community dialogues bring together key members of a locality to discuss the issues that concern them and devise solutions to the problems raised.

Mambai Community Unit (C.U) was experiencing high incidents of malaria especially to children under the age of five. The community employed the use of dialogue between April and September 2022 to get solutions to their problems.

Methods: In April 2022, the Community Health Officer began community dialogue sessions targeting women to promote health-seeking behaviors; Importance of proper use of Long-Lasting Insecticide treated Nets (LLIN), Prompt referral of suspected malaria cases and the use of health products and health services in Mambai C.U.

The dialogues also focused on the cause of the community's high incidence of malaria, such as misuse of LLINs, stagnant water, and bushes around the houses. Follow ups were done to check on the outcome.

Results: By September, 13 community dialogue sessions were held, reaching out to a total of 2691 people and 1551 households. Women were 73%(n=1,979) and men 27%(n=712). Follow ups visits showed reduction in misuse of LLINs from 197 to 11 households who were found to be still using the net for fencing. Malaria cases reduced from 24% reported in quarter 2 of 2022 to 10% in quarter 3 after the intervention. Net use in households increased to 98%(n=1520) from 57%(n=884) after being demonstrated to on how to modify rectangular net to circular for ease of tying in the local houses.

Conclusions: Community dialogues have proven to be an effective way to reach large numbers of community members. The benefits of the sessions lie not only with the expansive reach of the dialogues, but also in their generation of referrals to health services and also a powerful tool in community social behavior change towards a health intervention.

Abstract ID: PP733

Measles in Ogun State; a five-year review of case-based surveillance data, 2016-2020

Saheed Olalekan Akinbowale^{1,2,*}, Hakeem Abiola Yusuff²

¹Nigeria Field Epidemiology and Laboratory Training Program, Abuja, Nigeria

²Ogun State Ministry of Health, Abeokuta, Nigeria.

&Corresponding author: Saheed Olalekan Akinbowale, Ogun State Ministry of Health, Abeokuta, Nigeria. Email: akinbowalesaheed@gmail.com

Introduction: Measles is a highly contagious viral disease with outbreaks reported in many countries. Despite the high infectivity, it is a vaccine preventable disease. States in Nigeria have reported improvement in routine immunization but continue to report outbreaks that strain thinned out resources. We described the trend of measles cases in Ogun state from 2016-2020 to evaluate present status and guide future interventions.

Methods: We retrieved and analyzed line-list of measles cases in Ogun State for a 5-year period, 2016-2020. Data was retrieved in excel spreadsheet from the Epidemiology unit of Ogun State Ministry of Health.

We cleaned and validated the data before summarizing using proportions and frequencies. Microsoft excel 2016 was used for data cleaning while Epi-info7 was used for descriptive analysis.

Results: A total of 2078 measles cases were reported from 2016-2020 with a peak of 611 in 2017 and a sustained decrease to 297 in 2020. Proportion of U-5 measles cases declined steadily from 66% in 2016 to 46% in 2019 but returned to 66% in 2020. Similarly, measles cases in people >5years increased from 2016-2019.

Every LGA report measles case(s) annually for the 5-year period. Distribution of measles cases in both gender was ratio 1:1. Measles cases peaked around March, specifically in 2017, 2019 and 2020. Most of the cases from 2016-2020 have had at least one valid dose of measles vaccine; 98%, 99%, 99%, 73% and 98% respectively.

Conclusions: There is a sustained decline in measles cases in Ogun State although outbreak is still a major public health concern in all LGAs. Older age groups (>5years) are becoming more vulnerable to measles infection.

There is need to intensify routine immunization activities including measles-2 doses and conduct supplementary immunization activities to increase the herd immunity in Ogun State.

Keywords: Measles, Ogun State, surveillance, Trend

Abstract ID: PP737

Factors Associated with the Uptake of COVID-19 Vaccines in the Adult Population, Asante Akim South, North and Central Municipality, Ashanti Region, Ghana, 2023

Abdul Gafaru Mohammed^{2,*}, Harriet Bonful¹, Georgia Ghartey¹, Alice Adams², Charles Lwanga Noora^{1,2}, Delia Bandoh², Donne Kofi Ameme², Ernest Kenu^{1,2}

¹Department of Epidemiology and Disease Control, University of Ghana, Accra, Ghana

²Ghana Field Epidemiology and Laboratory Training Programme, Accra, Ghana

&Corresponding author: Abdul Gafaru Mohammed; Ghana Field Epidemiology and Laboratory Training Programme, Accra, Ghana; Email: mohammedabdulgafaru46@gmail.com

Introduction: The effectiveness of a vaccination program depends on optimal vaccine uptake, even for high-efficacy vaccines. Despite the full-scale implementation of COVID-19 vaccination exercise by health directorates in the three Asante Akim municipalities, less than 50% of the adult population had been vaccinated by October 2022.

In an attempt to increase coverage, it is important to understand the various factors that affect the uptake. This study assessed the factors associated with the uptake of COVID-19 vaccines in the Asante Akim municipalities of the Ashanti Region.

Methods: We conducted a community-based cross-sectional study from January – March 2023. A total of 344 adults were selected by multi-staged sampling to assess the uptake of COVID-19 vaccination.

A semi-structured questionnaire was used to collect information on the uptake of the COVID-19 vaccines and participant characteristics. The proportion of vaccine uptake was estimated and a logistic regression model used to determine the factors (sociodemographic and community-level factors) that influence the uptake of the vaccine at a 5% significance level

Results: Out of the 344 adults, 75.0% (258) were fully vaccinated against COVID-19. The average age of participants was 32.7 years (SD=10.2). Being married (aOR=2.6, 95%CI:1.04-6.53), history of COVID-19 (aOR=3.4, 95%CI:1.18-9.78), having an underlying condition (aOR=3.5, 95%CI:1.60-7.89), previous contact with a COVID-19 patient (aOR=3.8, 95%CI:2.12–7.08), being aware of the ongoing vaccination campaign (aOR=4.2, 95%CI:2.51–7.06), having a vaccinated relative (aOR=2.9, 95%CI:1.40–6.04) and positive community belief of vaccine safety (aOR=8.0, 95%CI:4.32–14.97) were associated with increased odds of receiving the COVID-19 vaccine.

Conclusions: More than 70% of the adults studied were vaccinated. The study revealed multiple predictors of COVID-19 vaccine uptake.

The research team collaborated with the municipal health directorate to organize COVID-19 vaccination awareness outreach in the area. We recommend the EPI develop measures to demystify the negative community perceptions.

Keywords: COVID-19, SAR-CoV-2, Vaccination, Asante Akim, Immunization, Ghana

Abstract ID: PP740

Surveillance data analysis of under-5-year malaria cases amidst malaria Control interventions in the Tamale Metropolis, 2017-2021.

Shahadu Shembla Sayibu^{1,*}, Basil Benduri Kaburi¹, Richard Wodah-Seme², Charles Lwanga Noora¹, Abdul Gafaru Mohammed¹, Francis Ganya³, Mutawakil Fuseini³, Hilarius Awisome Kosi Abiwu³, Ernest Kenu¹.

¹Ghana Field Epidemiology and Laboratory Training Program, Accra, Ghana

²Upper West Regional Health Directorate, Wa., Ghana

³Tamale Metropolitan Health Directorate, Ghana Health Service, Tamale, Ghana

***Corresponding author:** Shahadu Shembla Sayibu; Ghana Field Epidemiology and Laboratory Training Program, University of Ghana, School of Public Health, Accra, Ghana; Email: drshembla@yahoo.co.uk

Introduction: Tamale Metropolis recorded an increase in malaria cases despite introduction of long-lasting insecticidal-nets (LLIN) and seasonal malaria chemoprevention (SMC) in 2016 and 2019 respectively.

We described the distribution and analyzed trends of malaria cases amidst SMC and LLIN coverage among children under-5-years-old, to guide malaria control efforts.

Methods: We extracted data from District Health Information Management System II at the Tamale Metropolis from 2017 to 2021. Variables extracted included number of under-5-year-old (U-5yr) malaria cases, number of LLIN distributed to U-5yr and number of SMC doses distributed.

We computed percentages, constructed CUSUM thresholds to compare and analyze trends, SMC and LLIN distribution coverages were estimated, adding data from population and housing census 2010 and 2021 to obtain percentages of children with access to an LLIN in a household; and of children under-5-years who received SMC per cycle during transmission season. We compared findings with set WHO targets.

Results: Total malaria cases were 50,538. U-5yr accounted for 74.59% (37697/50538). Test-positivity rates were 14.56% (2515/17272) in 2017, increasing to 76.18% (6453/8471) in 2021.

Presumptively treated cases were 79.28% (13694/17272) in 2017, decreasing to 10.33% (875/8471) in 2021. Trends showed total malaria cases from 2,300 in January 2017 to 800 mid-period, rising to 1000 from July 2020; seasonal (July-November) peaks followed similar trends. Median LLIN coverage was 21.92%, while median SMC coverage for at least one cycle was 103.28%.

Conclusions: Malaria cases declined till 2020 and increased afterwards. SMC coverage was good. Though test-positivity rates increased, and presumptive treatments decreased none met the WHO target. LLIN coverage was poor, suggestive of why malaria cases are beginning to rise. Findings informed facilitation of health workers' discussion forum on adherence to the WHO's test, treat and track strategy and boosting of LLIN coverage for the district.

Keywords: Malaria; Surveillance; Data Analysis; Malaria control interventions; Seasonal malaria chemoprevention (SMC); Long-lasting insecticidal nets (ITN); Tamale Metropolis.

Abstract ID: PP74 I Trends in Malaria reports from the Malaria Parasite Sentinel Surveillance in Nigeria, January 2017- May 2018

Wudi Natasha Tanko^{1,&}, Shekarau David Emmanuel¹, Hashim Abdulmumuni Bala¹

¹Nigerian Field Epidemiology and Laboratory Training Program, Abuja, Nigeria

&Corresponding author: Wudi Natasha Tanko, ¹Nigerian Field Epidemiology and Laboratory Training Program, Abuja, Nigeria, Email: natashatanko@yahoo.com 07087955562

Introduction: Malaria is a parasitic disease endemic in developing countries. In 2020, about 95% of malaria deaths globally were in 31 countries where Nigeria accounts for 23%.

The Malaria Parasite Sentinel Surveillance was established by the National Malaria Elimination Programme (NMEP) across the country to monitor the clinical, laboratory and follow-up data from individuals diagnosed with malaria and being managed with antimalarial medicines. It generates data to detect resistance signals and measures the impact of malaria interventions. We evaluated the system to determine if it is meeting its objectives.

Methods: We retrieved the MS Excel spreadsheet from the NMEP and conducted a descriptive analysis of the surveillance data from 38 out of the 41 sites in the country between 2017 and 2018. We summarized the test positivity rates by RDT and microscopy (day 0), and the (Day 3) reports by using proportions and frequencies.

Results: A total of 116,940 cases of malaria were reported from 38 sites out of the 41 centres in the country between January 2017 and May 2018. The average reporting rate was 68% and 63% in 2017 and 2018 respectively. Only 50% of the sites reported timely. The malaria positivity rate from RDTs and microscopy in 2017 was 35% and 34% respectively while the malaria positivity rate from RDTs and microscopy in 2018 was 40% and 49% respectively. Day 3 positivity rate in 2017 was 0% while Day 3 reports for 2018 was 14.27%.

Conclusions: There is consistency in malaria cases being reported in Nigeria. Low turnout for Day 3 could mean that we are missing the actual resistance signals. The non-completion of antimalarial medicines, as well as the poor return of clients, likely led to low reporting for day 3. We recommend Government funding for incentives needed for patients to return for Day 3 diagnosis.

Keywords: Malaria, MPSS, Positivity Rate, Nigeria

Abstract ID: PP747 Determinants of COVID-19 vaccine acceptance among eligible residents of Ilorin metropolis: a community-based cluster survey

Abiodun Ebenezer Kolapo^{&,1,2}, Olufunmilayo Ibitola Fawole³, Joshua Odunayo Akinyemi³, Magbagbeola

David Dairo³, Muhammad Shakir Balogun^{1,4}

¹Nigeria Field Epidemiology and Laboratory Training Programme, Abuja, Nigeria

²Kwara State Primary Health Care Development Agency

³Department of Epidemiology and Medical Statistics, Faculty of Public Health, College of Medicine, University of Ibadan, Nigeria

⁴African Field Epidemiology Network, Abuja, Nigeria

&Corresponding author: Abiodun Ebenezer Kolapo, Kwara State Primary Health Care Development Agency, Ilorin, Nigeria. Email: abkolapo@gmail.com

Introduction: At least 70% of the eligible population in Nigeria must be vaccinated for the country to achieve herd immunity against COVID-19. Suboptimal vaccine acceptance could delay the timely achievement of this objective. We investigated to determine the prevalence of COVID-19 acceptance, the factors influencing COVID-19 vaccine acceptance, and the current levels of vaccination readiness among residents of Ilorin metropolis, Nigeria.

Methods: Adopting a community-based cluster design, we collected data from a representative sample of 861 respondents in 30 enumeration areas of Ilorin metropolis selected proportionally to their estimated population. We used a questionnaire adapted from the 7C vaccination readiness scale.

We reported descriptive statistics using frequency and percentages for categorical variables; mean and standard deviations for continuous variables.

We used the chi-square test to evaluate associations between dependent and independent variables and conducted multivariate logistic regression to predict acceptance of a COVID-19 vaccine at a P-value of < 0.05.

Results: COVID-19 acceptance was 61% (n = 524). Of these, 339 (67.3%) had been completely vaccinated. Seventy-eight percent (n = 395) willingly decided to get vaccinated.

The most common reason for incomplete vaccination was non-availability of vaccine (32%). Level of readiness to be vaccinated was 60% (Mean score: 38 ± 8.6). Only about 20% of the unvaccinated respondents were willing to be vaccinated.

Acceptance of COVID-19 vaccine was associated with higher levels of confidence (aOR: 0.78, 95% CI: 0.72-0.85) and collective responsibility (aOR: 0.73, 95% CI:

0.60-0.85); low levels of complacency (aOR: 1.43, 95% CI: 1.26-1.61) and calculation (aOR: 0.88, 95% CI: 0.80-0.96).

Conclusions: The prevalence of COVID-19 vaccine acceptance was sub-optimal. We recommend that interventions targeted towards optimising acceptance of COVID-19 vaccine should focus more on improving confidence in the vaccine's safety and effectiveness, sponsoring programmes that address community benefits of the vaccine, countering misinformation, and making vaccines readily available and accessible.

Keywords: COVID-19, COVID-19 vaccine, vaccination readiness, vaccine acceptance, 7C Vaccination readiness scale

Abstract ID: PP748

A qualitative analysis of factors associated with vaccine hesitancy among selected college of health sciences and technology students in the Southwestern part of Nigeria, December 2022.

Olumuyiwa Peter Oluyide^{1,2,&}, Magbagbeola. David. Dairo³, Oluwabusayo Odunola. Oluyide⁴, Funmilola Folasade Oyinlola⁵, Adeniyi Francis Fagbamigbe³, Oluwaseun Omotola Omoye⁶

¹Nigeria Field Epidemiology and Laboratory Training Programme, Abuja, Nigeria

²UNIOSUN Teaching Hospital, Osogbo, Nigeria

³University of Ibadan, Ibadan, Nigeria.

⁴Ekiti State College of Health Sciences and Technology, Ijero-Ekiti, Nigeria.

⁵Obafemi Awolowo University, Ile-Ife, Nigeria.

⁶Osun State University, Osogbo, Nigeria.

&Corresponding author: Olumuyiwa Peter Oluyide, Nigeria Field Epidemiology and Laboratory Training Programme Abuja, Nigeria, Email: oluyidepeter@gmail.com

Introduction: The outbreak of COVID-19 posed significant threats to international health. Students in tertiary institutions are generally susceptible to the virus. Vaccines remain one of the key public

health strategies for the prevention and control of infections. However, the success of the COVID-19 vaccination program will depend on people's attitudes toward the vaccine.

We, therefore, explored the factors associated with vaccine hesitancy among selected students of the College of health sciences and Technology in Ijero-Ekiti, Southwestern part of Nigeria.

Methods: We employed a qualitative research design in this study. Three main sessions of Focus Group Discussions (FGDs) of purposively selected 8 students who had not taken the COVID-19 vaccine were conducted.

The FGDs were audio-recorded and transcribed into readable transcripts. The transcripts were read and re-read to gain familiarity with and insight into the data as well as identify emerging codes and categories.

From a deductive position, a codebook was developed with cues from the research questions and analyzed using NVivo software.

Results: Five main themes emerged from our analysis: vaccine calculation, confidence, complacency, convenience, and collective responsibility for vaccine hesitancy determinants.

We found that the students had vaccine hesitancy because of the vaccine calculation as explored by misinformation and myths as regards the COVID-19 vaccine. Another germane determinant of vaccine hesitancy was vaccine confidence: we found that trust in the safety, effectiveness, the system that produces the vaccine, and in the policymakers affected the vaccine uptake.

Also, vaccine convenience was another determinant as the factors explored availability, accessibility, and introduction of fees can cause vaccine hesitancy.

Conclusions: Vaccines should be made readily available, and accessible with no cost attached. Also, information, education, and communication strategies should be adequately employed by policymakers to counter the effects of misinformation and myth.

Keywords: COVID-19, Vaccine hesitancy, Vaccine convenience, Vaccine calculation, Vaccine confidence

Abstract ID: PP749

Cholera in the era of COVID-19-Pandemic: A Positive Trend in Volta Region 2017-2022, Ghana

Wisdom Kwame Klenyuie^{1&}, Ignatius Aklikpe¹, Senanu Kwesi Djokoto¹, Dora Dadzie², Donne Ameme³, Ernest Kenu³

¹Volta Regional Health Directorate, Ho, Ghana

²Cape Coast Teaching Hospital, Cape Coast, Ghana

³Ghana Field Epidemiology and Laboratory Training Program, University of Ghana School of Public Health, Accra, Ghana

&Corresponding author: Wisdom Kwame Klenyuie; Volta Regional Health Directorate, Ho, Ghana; Email: wklenyuie@yahoo.com

Introduction: Cholera remains a public health threat in Ghana with over 20,000 cases and 243 deaths recorded in the most recent countrywide cholera outbreak in 2014. Before the COVID-19 pandemic, Volta region was noted for its consistent reporting of suspected and confirmed cases. We noticed that there was decline in zero reporting of these cases when COVID-19 was confirmed in the region. We evaluated the cholera trends in Volta Region, prior to, and during the COVID-19 Pandemic to understand the trends in cholera in relation to COVID-19.

Methods: A descriptive cross-sectional study was conducted. We abstracted 2017 – 2022 data on suspected and confirmed cholera data from monthly OPD morbidity returns and monthly IDSR summary reports. We observation handwashing practices, adherence to COVID-19 protocols in the health facilities in the region during the COVID-19 period using a checklist. Frequencies of cases were generated by month to determine the trend of cholera cases and observational checklists were reported via text.

Results: We found that from 2017-2019, 2,456 cholera cases were suspected with 2 confirmed. For the period of 2020-2022, there were no suspected and confirmed cholera cases reported. We observed adherence to COVID-19 protocols; hand washing, use of hand sanitizers and intensification of health education at the community level. It was also observed that clients washed their hands before services were provided in the communities.

Conclusions: The decrease in cholera cases in the region may be attributed to the adherence to COVID-19 protocols, regular hand washing, use of hand sanitizers and intensification of health education. We recommended to the region to enforce the continuous use of COVID-19 protocols i.e; hand washing, sanitizers and education in communities through the health promotion unit.

Keywords: COVID-19, OPD, Morbidity, IDSR, Pandemic

Abstract ID: PP756

Outbreak of Influenza (H3N2) in two senior high schools in the Eastern Region, Ghana, 2022

Doris Aboagyewaa Edu-Quansah^{1&}, Garcondoe Burgess Gbelee Jr¹, Sarja Jarjusey¹, Anthony Baffour Appiah¹, George Akowuah¹, Paul Dsane-Aidoo¹, Charles Lwanga Noora¹, Donne Kofi Ameme¹, Ernest Kenu¹

¹Ghana Field Epidemiology and Laboratory Training Program, University of Ghana School of Public Health, Accra, Ghana

&Corresponding author: Doris Aboagyewaa Edu-Quansah; ¹Ghana Field Epidemiology and Laboratory Training Program, University of Ghana School of Public Health, Accra, Ghana, Email: dorisduke23@gmail.com

Introduction: H3N2, a highly contagious influenza virus, spreads quickly in enclosed communities. On 11th May 2022, students from two Senior High Schools in Eastern Region reported to their schools' infirmary with symptoms of chest pain, fever, sore throat, headache, and cough.

We investigated the outbreak to determine the cause, identified associated factors and implemented preventive measures.

Methods: We employed a cross-sectional study design. Teachers, health workers and students from the two schools were interviewed, and cases records reviewed. A case was defined as any person with fever (>38), and either cough or sore throat from 1st May-10th June 2022 from the schools.

We actively searched for cases and collected nasopharyngeal samples of some suspected cases for testing. A line-list was developed with sociodemographic, laboratory and risk factor variables. We conducted descriptive analysis and estimated attack rates.

Results: Out of 4,061 students from the two schools, 167 suspected cases were identified (Overall AR=4.1%). Only 56% (94/167) were sampled, of which 32% (30/94) were H3N2 positive. School-specific attack rates were 5% (75/1536) for school A, and 4% (92/2525) in school B. Mean age of confirmed cases in both schools was 16+2 years. Form 1 students constituted the highest positivity in both schools, 90% (27/30).

The index case was from school B, a 17-year-old male without travel history. Dormitories were congested and with poor ventilation. Suspected cases in both schools were quarantined for seven days and treated according to standard guidelines. There was only one functional handwashing facility in school A.

Conclusions: The cause of the outbreak was H3N2. Overcrowding and poor ventilation in dormitories were associated factors. Effective quarantine of all suspected cases and prompt case management helped control the outbreak in both schools. We recommended decongestion of dormitories and the provision of hand washing facilities.

Keywords: Influenza, H3N2, Outbreak, School, Investigation

Abstract ID: PP761

Epidemiology of Measles cases and preliminary review of surveillance and response activities, October – December 2022

Rixongile Malomane^{1, 2, 3, &}, Tsakani Johanah Mnisi⁴, Jack Manamela⁵, Tshilidzi Emelda Ramutshila¹, Genevieve Ntshoe^{3,6}, Tembeka Semenya⁷, Freda Ngobeni⁷, Tumiso Malatji⁷, Unarine Makugo^{6,7}

¹South African Field Epidemiology Training Programme (SAFETP), National Institute for Communicable Diseases (NICD), Johannesburg, South Africa

²Centre for Respiratory Diseases and Meningitis, National Institute for Communicable Diseases (NICD), Johannesburg, South Africa

³School of Health Systems and Public Health, Faculty of Health Sciences, University of Pretoria, Pretoria, South Africa

⁴Health Special Programs, Mopani Department of Health, Giyani, South Africa

⁵Centre for Vaccines and Immunology, National Institute for Communicable Diseases, Johannesburg, South Africa

⁶Division of Public Health Surveillance and Response, National Institute for Communicable Diseases, Johannesburg, South Africa

⁷Public Health Directorate, Health Special Programs, Limpopo Department of Health, Polokwane, South Africa

&Corresponding author: Rixongile Malomane, South African Field Epidemiology Training Programme (SAFETP), National Institute for Communicable Diseases (NICD), Johannesburg, South Africa, Email: RixongileM@nicd.ac.za

Introduction: Measles is a vaccine-preventable disease, and it is recommended to have 95% measles vaccination coverage to prevent transmission. The national measles coverage in the past five years was 80%, while Mopani District had an average measles vaccine coverage of 89%. We aimed to describe the epidemiology of measles cases and to review the surveillance and response activities during the measles outbreak period.

Methods: We conducted a descriptive cross-sectional study. Measles suspected case was defined as a person with rash, fever, and or cough, conjunctivitis, and a runny nose; or any person who the clinician suspected of measles infection in Mopani District from 13 October to 31 December 2022.

The case investigation form was used to collect demographic and clinical data on cases in healthcare facilities. Blood samples were collected, and measles IgM test was performed. Measles surveillance data and public health interventions implemented during the outbreak period were reviewed. Microsoft Excel was used for data management and analysis, and descriptive statistics were used to summarise data.

Results: Two hundred and eight suspected measles cases were identified, and 22% (45) were measles IgM positive. Twenty-five (65%) of the measles cases were males. The overall attack rate (AR) was 4/100 000 population, 48% of measles infections were 5-9 years old with an AR of 13/100 000 population.

Thirty-four (76%) measles cases had unknown measles vaccination status, seven (16%) were unvaccinated, and four (8%) received two measles doses. A measles vaccination campaign was implemented targeting children 6-59 months old in Mopani District, and the vaccination campaign coverage was 69%.

Conclusions: The low measles vaccine coverage might be the cause of the sporadic outbreaks observed. To interrupt measles transmission, strategies to improve measles vaccination should be strengthened. Further studies are required to investigate factors associated with low vaccine coverage in the district.

Keywords: Measles, outbreaks, vaccine coverage, surveillance

Abstract ID: PP764

Prevalence and risk factors of Hepatitis B Virus Infection among women attending Antenatal Clinic in tertiary health facilities; Adamawa State, Nigeria August 2022-February 2023

Adamu Ali Bukar^{1,2,&}, Muhammad Sani Ibrahim³, Muhammad Shakir Balogun¹, Elizabeth Adedire¹, Hauwa Muhammad Lawan⁴

¹Nigeria Field Epidemiology and Laboratory Training Program, Abuja, Nigeria

²Taraba State Ministry of Health, Jalingo, Nigeria

³Department of Community Medicine, Ahmadu Bello University Zaria, Nigeria

⁴Department of Hematology, University of Maiduguri Teaching Hospital, Maiduguri, Nigeria

&Corresponding author: Adamu Ali Bukar, Nigeria Field Epidemiology and Laboratory Training Program, Abuja, Nigeria, Email: dadali2014@yahoo.com, dadali201414@gmail.com Phone number; +2348063234356

Introduction: Hepatitis B virus (HBV) infection is a vaccine-preventable disease transmitted through infected blood, semen, and other body fluids. About 100 million persons in the WHO African region. Countries in the region have intermediate or high prevalence of chronic HBV infection.

Nigeria is one of the HBV-endemic countries with a national prevalence of 11%. We determined the prevalence and predictors of hepatitis B infection among women attending antenatal clinics in tertiary health facilities in Adamawa State.

Methods: We conducted a cross-sectional descriptive study among 352 consenting pregnant women attending antenatal care at the Federal Medical Center and Adamawa State Specialist Hospital in Yola.

We collected socio-demographic and obstetrics history data from the pregnant women using a semi-structured interviewer-administered questionnaire.

We scored the knowledge questions with a maximum score of 32 points and a minimum of zero. A knowledge score of $\leq 50\%$ was regarded as poor knowledge while a score of 50-69.9% was regarded as fair and a score of $\geq 70\%$ was regarded as good knowledge.

We collected blood samples and tested for HBV using Hepatitis B surface antigen (HBsAg) rapid diagnostic test kits. We analyzed data using proportions, odds ratios (OR), and confidence intervals (CI), with the P-value at ≤ 0.05 .

Results: The mean age of the respondents was 26.9 years. Fourteen (3.98%) were HBsAg positive. Only 71 (20.2%) had good knowledge of viral hepatitis infection. Being employed (AOR 3.7, 95% CI: 1.1-12.7) was the only predictor of the infection.

Conclusions: The prevalence of HBV among pregnant women in Adamawa was low. Because of poor knowledge of viral hepatitis. We recommend enhanced awareness on HBV among pregnant women especially the employed.

Targeted screening for HBV should be conducted for all pregnant women as part of the routine ANC investigations.

Keywords: Hepatitis B virus infection, pregnant women, risk factors, Adamawa State

Abstract ID: PP766

Foodborne disease outbreak investigation at a community hall in Soweto, Gauteng Province, South Africa, October 2022

Naledi Mapitja^{1,2,3,&}, Nchucheko Makhubele^{1,2,4}, Phuti Sekwadi³, Hellen Kgatla¹, Linda Erasmus³, Juno Thomas³

¹South African Field Epidemiology Training Program (SAFETP) of the National Institute for Communicable Diseases, Johannesburg, South Africa

²University of Pretoria, Pretoria, South Africa

³Centre for Enteric Diseases (CED) of the National Institute for Communicable Diseases, Johannesburg, South Africa

⁴Gauteng Department of Health (GDoH), Johannesburg, South Africa

&Corresponding author: Naledi Mapitja, South African Field Epidemiology Training Program, Johannesburg, South Africa, naledima@nicd.ac.za

Introduction: Foodborne disease (FBD) outbreaks are of public health concern in low-income countries, affecting 92 million people and leading to 137 000 deaths annually. On 12 October 2022 a suspected FBD outbreak affecting residents sheltered in a community hall in Soweto, Gauteng Province, following the destruction of their homes in a fire, was notified. We investigated to confirm the outbreak and determine the magnitude and the cause.

Methods: A retrospective cohort study was conducted using standardised FBD outbreak questionnaire to interview people who were available at the time of interview and resided/ate at the hall between 10-12 October 2022.

Rectal swabs were collected to test for enteric pathogens on multiplex PCR. Univariate analysis and a multivariable model were used to determine the meals associated with illness.

Results: Approximately 70 people resided and/or consumed food at the hall. Twenty-two people were interviewed and 18/22 (82%) reported gastrointestinal illness.

The median age for cases was 22 years (range 0-44 years) and 12/18(67%) were female. Common symptoms included diarrhoea 15/18(84%), abdominal cramps 9/18(50%) and nausea 4/18(22%).

Twenty-two rectal swabs were collected and all tested negative for enteric pathogens. Toxins were not tested. The supper served on 11 October 2022 showed the highest risk of illness in those who ate (aOR=15; 95%CI:1.14-198.04; p=0.040).

There were no refrigerators in the hall, and meals were not all consumed immediately after preparation. Food samples were not available for testing.

Conclusions: This FBD outbreak was likely due to contamination of food with toxin-producing bacteria such as *Bacillus cereus*, with short incubation periods (8-16 hours).

Unsafe storage of cooked rice has been associated with growth of toxin-producing bacteria. Food safety practices including proper preparation and storage of cooked food must be prioritized in mass catering settings.

Keywords: foodborne, outbreak, food-poisoning, diarrhoea

Abstract ID: PP769

Quality of Management for Adult Hypertensives Attending Rural and Urban Primary Health Centers in Oyo State, Nigeria, July 2021: A Comparative Study.

Olugbenga Adeola Odukanmi^{1,2,&}, Oluwafemi Akinyele Popoola³, Adenike Degun³, Babatunde Makinde Gbadebo⁴, Muhammad Shakir Balogun^{2,5}, Olufunmilayo Fawole⁴.

¹Department of Physiology, University of Ibadan, Ibadan, Nigeria

²Nigeria Field Epidemiology and Laboratory Training Program, Abuja, Nigeria

³Department of Community Medicine, University of Ibadan, Nigeria

⁴Department of Epidemiology and Medical Statistics, University of Ibadan, Ibadan, Nigeria

⁵African Field Epidemiology Network, Abuja, Nigeria

&Corresponding author: Olugbenga Adeola Odukanmi, Nigeria Field Epidemiology and Laboratory Training Program, Abuja, Nigeria, Email: odukanmi2@gmail.com

Introduction: The role of primary healthcare centers (PHCs) in the management of hypertension is important. Rural-urban differentials underlie many health attributes and health outcomes that favour urban settings. We compared the quality of hypertension management between the rural and urban PHCs in Oyo State.

Methods: We conducted a comparative cross-sectional study across 10 Local Government Areas of Oyo State through multi-stage sampling. We surveyed the presence of treatment equipment, adequacy of the number of healthcare workers (HCWs), and the perception of patients about the quality of care received. We collected data from heads of facilities, patients, and HCWs using three study tools deployed electronically. Data were summarized as proportions, some analysed by chi-square and student independent t-tests. P-values ≤ 0.05 were significant.

Results: 460 healthcare workers, 460 patients, and 100 PHCs coordinators were engaged for the study. HCWs distribution has urban-51.3% to rural-48.7%.

All urban PHC have at least 1 sphygmomanometer, stethoscope and weighing scale, 82% of the rural PHC has a sphygmomanometer. HCWs in the rural 24 (10.4%) had more training compared to the urban 17 (7.4%) PHCs. 430 (95.7%) patients get clear instructions from the HCWs without rural-urban dichotomies. 55.2% of the respondents demonstrated good knowledge of hypertension, and 31.1% of these are urban patients.

Patient-counseling and education were more in the rural PHC (53.3%), (P-value=0.04). Urban HCWs (49.5%) correctly responded to expected blood pressure compared to rural (40.5%). Blood pressure values of rural and urban patients were insignificant. 2 out of 100 PHC in the urban centres showed evidence of community engagement in hypertension care and none in the rural settings.

Conclusions: Training of HCWs in both strata of PHCs should be reinforced while treatment devices relevant to the management of hypertension are made available.

Facility heads were counseled on the importance of community engagements and education in patient management.

Keywords: Hypertension, Management, Quality, Primary Health Centers, Rural, Urban

Abstract ID: PP778 **Characterization of adult HIV cases in Maragua Sub County Hospital, Murang'a County, Kenya in 2021 -A cross sectional retrospective study.**

David Gitau^{1,&}, Moses Njiru¹, Maurice Owinry²

¹County Government of Murang'a, Kenya

²Field Epidemiology Laboratory Program, Ministry of Health, Nairobi, Kenya,

&Corresponding author: David Gitau, County Government of Murang'a, Kenya, Email: gitaudavid47@yahoo.com

Introduction: The HIV/AIDS epidemic remains the greatest global public health issue of concern. Around 1.5 million people became newly infected in 2020. Worldwide, Eastern and South Africa carries the highest burden. Kenya is ranked fourth in Africa in terms of HIV burden and recorded 32,027 new HIV infections in 2020.

Methods: The study was a cross sectional and retrospective involving review of records from the HIV testing register. The study was conducted in Maragua Sub County Hospital. There were 119 HIV cases recorded from January through December 2021. Only adults (above 20 years) were eligible for the study. Patient records were abstracted from the register and entered electronically into an excel sheet. Key variables were demographic and clinical characteristics. The descriptive statistics analysed using Microsoft word. Study approvals were obtained from the County government.

Results: The mean age for the HIV cases was 40 (SD±14) years, most were female 70 (59%). Thirty-four percent (41) of the cases were aged between 33–42 years and 67% (33) of the HIV cases were in a monogamous

relationship while 25% (11) were either divorced or widowed. Seventy-five percent of all the cases were identified from the outpatient department and 86% of the couples were concordant positive, whereas 14% of them were in a discordant relationship. Fifty-four percent (65) of the HIV cases were first time testers while 46% (54) of the cases were repeat testers and only 86% (98) of the cases were linked into care.

Conclusions: HIV cases were higher among women, married couples and individuals aged between 33–42 years who presented themselves in the outpatient department with more than half of them being first time testers.

There is a need to scale up targeted testing among these populations and scale up partner testing.

Key words: HIV infections; HIV testing; Adult; AIDS; Kenya

Abstract ID: PP781 **Descriptive Epidemiology of Monkeypox in Imo State: Outbreak Investigation and Response-2022, Southeastern Nigeria.**

Hyacinth Chukwuebuka Egbuna^{1,&}, Austine Chidiebere Okeji¹, Leonard Ogueri Ihedioha¹

¹Imo State Ministry of Health, Owerri, Nigeria

&Corresponding author: Hyacinth Chukwuebuka Egbuna, Imo State Ministry of Health, Owerri, Nigeria, Email: egbuhyacinth@gmail.com

Introduction: Mpox is a zoonotic disease caused by Mpox virus, which is a member of the Orthopoxvirus family and can cause a severe illness that may mimic smallpox and or chickenpox in humans. In Imo State, the first case was recorded in 2018 with death. The 2022 outbreak started on 6th January 2022 with an increasing number of cases. We investigated the magnitude of Mpox outbreak in the state.

Methods: We searched for cases across the 27 local government areas (LGAs) in the state using the adopted standard case definition for Mpox as person with acute illness with fever >38.3 °C, intense headache,

lymphadenopathy, back pain, and rashes progressing all over the body including soles of feet and palm of the hands.

We collected sociodemographic and clinical data and generated a line list. We collected swabs and blood samples for laboratory confirmation using reverse transcription polymerase chain reaction (RT-PCR). We calculated rates and proportions.

Results: From January to November 2022, 133 suspected cases were identified and investigated; with the highest proportion aged 0-5 years (32.3%), male (54.9%), rural residences 62.4%, family members as contacts 49.2% and Isu LGA (16.2%) as highest recorded cases. There were 37 laboratory-confirmed cases including the index case and 1 death with a case fatality rate of 2.7%, and positivity rate of 27.8%. All 37 cases experienced fever, rashes on the face, palm, soles of the feet and pustules.

Conclusions: We enhanced surveillance during the response to drive active case search which led to the identification of more cases. There is need to heighten the level of awareness of the disease and its risk factors for high levels of index suspicion in order to promote early diagnosis and case management. We recommend introduction of vaccination against Mpox viral infection in Nigeria most especially among under-5 children.

Keywords: Mpox, Outbreak, Mpox Virus, Response, Rashes, Fever

Abstract ID: PP784

The Impact of Neglected Tropical Diseases Expenditure on Onchocerciasis Treatment Outcomes in Nigeria, 2000-2021

Bernsah Damian Lawong^{1,&} and Diltokka Gideon Kevin²
¹Department of Economics, Ahmadu Bello University Business School, Ahmadu Bello University (ABU), Zaria, Nigeria. ²Distance Learning Center, Ahmadu Bello University (ABU), Zaria, Nigeria

&Corresponding author: Bernsah Damian Lawong, Department of Economics, Ahmadu Bello University Business School, Ahmadu Bello University (ABU), Zaria, Nigeria, Phone: +2348065694285 & +2348171295482, Email: lawongd@yahoo.com and lawongdamian@gmail.com

Introduction: Despite counterpart funding for Neglected Tropical Diseases (NTD) programme, the inadequacy of funds had made NTD programme donor-driven in Nigeria. Although onchocerciasis has been eliminated in a few states, the risk of reinfection is likely as the environment is unfriendly and other states require treatment. Funds are needed for elimination. Therefore, assessing funding sources to ensure adequate funding is useful. The study examined the impact of various expenditures on onchocerciasis treatment outcomes.

Methods: This was a secondary data study that adapted Health Production Function approach, which posits that health expenditure is introduced as inputs into healthcare production function.

Data was collected from Global Health Expenditure database, Global Health Observatory database and Central Bank of Nigeria Statistical databases, 2000-2021, while missing data was forecasted. A model was built, variables used in the model were number of people treated for onchocerciasis (OCHTM) as dependent variable, expenditure on onchocerciasis (external expenditure (EE), domestic private expenditure (DPE) and domestic government expenditure (DGE). Control variables were used to control for effect of OCHTM: government expenditure (GE), educational expenditure (EDE), inflation (INF) and exchange rate (ER).

Stochastic properties of the data and Augmented Dickey Fuller test were conducting. Least Square regression was used to estimate the model, while residual diagnostic test used for validation.

Results: With reference to the onchocerciasis expenditure variables EE reduced onchocerciasis cases by 17.5% (Prob.-value=0.02), DPE reduced it by 131.1% (Prob.-value=0.05), while DGE had no effect. This suggests that EE and DPE significantly improve onchocerciasis health outcomes. With regards to control variable GE reduced reported cases by 88% (Prob.-value=0.064) and ER increased it by 2.1% (Prob.-value=0.044), while EDE and INF had no effect. This submits that GE significantly improves onchocerciasis health outcomes, while ER didn't.

Conclusions: EE and DPE improved onchocerciasis health outcomes, while DGE didn't. Therefore, external sources and domestic private sources should be promoted, while domestic government sources should be intensified.

Keywords: Key words: Neglected Tropical Diseases (NTD), onchocerciasis, health expenditure, control variables, and Least Square Regression.

Abstract ID: PP787

Cholera outbreak investigation in Malakal County, Upper Nile State, South Sudan, February-March 2023

Joesph Hickson Lasu¹, Samuel Shukwan Chol², Wilbrod Mwanje³, Gildo Okure^{3&}, David Kargbo³, John Pasquale Rumunu¹

¹Public Health Emergency Operations Center, Ministry of Health, Juba, South Sudan

²State Ministry of Health, Upper Nile State, Malakal, South Sudan

³African Field Epidemiology Network, Field Epidemiology Training Program, Juba, South Sudan

&Corresponding author: Gildo Okure; AFENET; Juba, South Sudan; gokure@afenet.net

Introduction: Cholera is an acute diarrhoeal disease transmitted by ingestion of food or water contaminated with bacterium *Vibrio cholerae*. On February 22, 2023, South Sudan Ministry of Health was alerted of a suspected cholera outbreak in Malakal County after two patients with acute watery diarrhoea (AWD) tested positive for *Vibrio cholerae* using rapid diagnostic tests (RDTs). We conducted further investigations to confirm the outbreak, characterize and identify risk factors to inform control and prevention measures.

Methods: We conducted active case search in health facilities and communities, interviewed and line-listed case-patients, filled case investigation forms and collected stool samples for RDTs. We sent RDT positive stool samples to National Public Health Laboratory (NPHL) for confirmation using culture or polymerase chain reaction (PCR).

A suspected cholera case was any resident of Malakal presenting with or dying from AWD from February 1, 2023. A confirmed case was a suspected case with *Vibrio Cholerae* 01 or 0139 infection confirmed by culture or PCR. We analysed preliminary outbreak data by computing frequencies, proportions, attack rates (AR) and case-fatality rate (CFR), and plotting epidemic curve.

Results: Results are preliminary since investigations are still going on. Two out of 9 stool samples sent to NPHL were PCR-positive for *Vibrio cholerae*.

As of March 27th, 2023, a total 511 case-patients were identified, most of whom 54% (275) were males and two died (CFR=0.4%). The median age was 1 (range: <1-75) years. Most case-patients 61% (311) were 1-4 years old. Of the two affected payams (sub-counties), Malakal Town had the highest AR (140/10,000 persons).

Cholera vaccination status was unknown for 505 (99%) case-patients. The epidemic curve showed that cases are increasing.

Conclusions: Cholera outbreak was confirmed in Malakal affecting mostly children under five years, half of whom are less than one year. Investigations and response including oral cholera vaccination are still ongoing.

Keywords: Outbreak, *Vibrio Cholerae*, Oral Cholera Vaccination, Malakal County, South Sudan

Abstract ID: PP788

Effect of high impact videos/targeted communication on blood donation awareness and practices

Angela Nakanwagi Kisakye^{1,2&}, Suzanne Kiwanuka¹, Martha Akulume¹, Florence Nankya¹,

¹Makerere University, School of Public Health, Department of Health Policy Planning and Management, Kampala Uganda

²African Field Epidemiology Network, Kampala Uganda

&Corresponding author: Angela N. Kisakye, Makerere University, School of Public Health, Department of Health Policy Planning and Management and African Field Epidemiology Network, Kampala Uganda Email: akisakye@musph.ac.ug

Introduction: In Uganda, secondary school students are the biggest contributors yielding about 95% of blood donated in the country.

This population is available, less mobile and mostly healthy as required of a blood donor. However, inadequate knowledge about the eligibility for donating blood, the importance and use of donated blood have continued to compromise blood supplies obtained.

Ultimately blood stock outs are a frequent occurrence in Uganda. Every year the Ministry of health experiences stock outs and calls upon Ugandans to donate.

Unfortunately, it is only able to generate 40 per cent of the required blood donor recruits. Moreover, the inadequate funding of UBTS continues to undermine efforts to generate adequate supplies due to lack of resources for public sensitization.

We evaluated the effect of using high impact communication strategies such as videos, blogs, fact sheets to increase awareness and blood donation practices among secondary school students in Uganda.

Methods: We conducted a before and after study to assess the effectiveness of a multi-pronged communication strategy on students' knowledge, willingness and intention to donate blood.

As part of the intervention, we developed and shared context and age-appropriate IEC materials (videos, fact sheets) on the different aspects of blood donation with the students. We included only S.3 and S.4 students for the baseline and endline survey. For both the baseline and endline survey, census sampling was used to recruit the students..

Results: There was a statistically significant increase in proportion of students who were knowledgeable about blood donation, 28.3% to 42.9% . Factors that were significantly associated with blood donation included; being 18 years and above, having access to internet and studying from a school located in urban area.

Conclusions: Using contextually high impact communication strategies to create awareness about blood donation in secondary schools across the country can boost blood quantities donated.

Keywords: Blood donation awareness, Uganda

Abstract ID: PP789

Prevalence and Factors Associated With Non-Adherence to Diabetes Treatment among Adult Patients in Care at Jinja Regional Referral Hospital

Enock Kukiriza¹, Roy William Mayega^{2,*}, Cissie Namanda³

¹School of Public Health, Makerere University Kampala, Uganda;

²Department of Epidemiology and Bio-Statistics, School of Public Health, Makerere University, Kampala, Uganda;

³Department of Epidemiology and Bio-Statistics, School of Public Health, Makerere University, Kampala, Uganda.

&Corresponding author: Roy William Mayega, Department of Epidemiology and Bio-Statistics, School of Public Health, Makerere University, Kampala, Uganda, Tel: +256772412455, Email: rmayega@musph.ac.ug/rmayega@ranlab.org

Introduction: Non-adherence is key challenge in the management of diabetes mellitus, a serious public health burden affecting millions of people. The study assessed the prevalence and factors associated with non-adherence to diabetes treatment among adult patients in care at JRRH.

Methods: A hospital-based cross-sectional mixed study was conducted at JRRH, between August and November 2018. The study participants involved 297 adult patients in care, and 6 healthcare providers who were systematically and purposively sample respectively. Quantitative data from adult patients was gathered using a structured questionnaire, based on Morisky Medication Adherence Scale.

Data entry was done using SPSS-version 16, and analysis was done using STATA-version 14. Prevalence Ratios were used to report the association between non-adherence to diabetic treatment and the associated factors. Qualitative data was analysed using thematic analysis technique.

Results: More than half (51.2%) of diabetic adult patients in care were non-adhering to diabetes treatment.

Non-adherence was 0.3 times higher in male patients compared to females [APR 0.32, 95%CI (0.08–0.55), P=0.008]; Type 2 diabetes patients were 0.15 times less likely to be non-adhering compared to Type 1 diabetes [APR -.15, 95%CI (-.38–0.08), P=0.004]; patients with no difficulties consulting healthcare providers were 0.26 times less likely to be non-adhering [APR -.26, 95%CI (-.48– -.04), P=0.022]; patients waiting for drugs at the hospital were 0.45 more likely not to adhere compared to those buying in times of shortage [APR 0.45, 95%CI (0.06–0.82), P=0.023]; long waiting time in the hospital were [APR 0.25, 95%CI (-.47– 0.40).

Conclusions: Diabetes treatment non-adherence was present among adult patients receiving care at JRRH. Increase the number of medical staff at the facility would not only reduce patient overload and lengthy wait times, but also motivate patients to keep their visits and adhere to their treatment.

Key words: Adherence, non-adherence, diabetes, diabetes patient.

Abstract ID: PP796

Understanding newborn care practiced by mothers in Mukono district Uganda, 2022

Annet Mary Namusisi^{1&}, John Ssenkusu¹, Peter Waiswa¹,
¹School of Public Health, College of Health Sciences, Makerere University, Kampala, Uganda

&Corresponding author: Annet Mary Namusisi, School of Public Health, College of Health Sciences, Makerere University, Kampala, Uganda, Email: ann4christ21@gmail.com

Introduction: Neonatal mortality remains high in Uganda accounting for 27-29 deaths/1000 live births partly attributed to poor newborn care. We assessed newborn care practices of mothers in Mukono district so as guide design of interventions geared at reducing neonatal mortality in Uganda.

Methods: A cross-sectional study was conducted among 348 mothers from six public health facilities in Mukono district, during March to June 2020.

Simple random sampling Methods was used to select mothers and interviewed using semi structured questionnaires. Data were analyzed using STATA v.14.0 and maternal knowledge level of newborn care and practices were measured as composite scores based on the summation of all the correct responses.

Modified Poisson Regression was used to measure the strength of association between the independent variables and practice of newborn care among mothers.

Results: Overall, 348 mothers were enrolled, with a mean age of 25 years (SD = 4.6). Of these, more than three quarters 91.1% were married, 90.8% attended PNC, 71.7% attended ANC, and 65.8% resided in rural areas. Less than a third, 22.1% had good knowledge about newborn care while 19.2% practiced good newborn care.

About, 17%, 63.5%, 33.9%, and 7.2% practiced poor thermal care, cord care, neonatal feeding and eye care respectively. At bivariate analysis, being single (CPR=0.85; 95% CI 0.76-0.95), rural residence (CPR=0.84; 95%CI 0.74-0.96), and ≤4 ANC visits (CPR=0.90; 95% CI 0.81-0.99) were associated with good new-born care practices.

At multivariate analysis, the factors associated with good newborn care were age 25-34 years (APR=1.11; 95% CI 1.01- 1.23), rural residence (APR=0.84; 95%CI 0.74-0.95) and being single (APR=0.87; 95% CI 0.76- 0.99).

Conclusions: Newborn care practices among mothers was sub-optimal. There is need to intensify neonatal health education during ANC and PNC to all age groups.

Keywords: Newborn care practices, maternal health, Uganda

Abstract ID: PP800

Factors Associated with Depression Symptoms among pregnant Adolescent Girls and Young Women at Kawempe National Referral Hospital, Uganda

Henry Kiiza^{1,2,&}, Christine Kayemba Nalwadda², Gertrude Kalema Namazzi³

¹Mulago Specialised Women and Neonatal hospital, Kampala, Uganda

²Department of Community Health and Behavioural Sciences, School of Public Health Makerere University, Kampala, Uganda. ³Department of Health Policy Planning and Management, School of Public Health Makerere University, Kampala, Uganda

&Corresponding author: Henry Kiiza, Mulago Specialised Women and Neonatal Hospital/ Department of Community Health and Behavioural Sciences, Makerere University School of Public Health, Email: heniskyza@gmail.com

Introduction: Depression symptoms are a prevalent mental health problem that occurs during pregnancy, affecting about one in four women worldwide. It is a public health concern, yet often undiagnosed and untreated among pregnant Adolescent Girls and Young Women (AGYW). Persistent physical and psychosocial stress during pregnancy are implicated with limited evidence, and negatively impacts pregnancy outcomes and childhood development. Thus, the study aimed to determine the prevalence and factors associated with depression symptoms among pregnant AGYW attending antenatal clinics.

Methods: A cross-sectional study was conducted at Kawempe National Referral Hospital, Kampala antenatal clinics for a period of two months. Quantitative study approaches were employed among pregnant women aged 15 – 24 years. Patient Health Questionnaire-9 (PHQ-9) was used to measure depression symptoms; a score of ≥ 8 indicated presence of depression symptoms. A total of 366 participants were selected using systematic random sampling. Multivariate modified poisson regression analysis was used to determine associated factors at $p\text{-value} \leq 0.05$.

Results: The prevalence of depression symptoms was 19.1% and factors associated included; gravidity ≥ 3 (PrR 1.9, 95% CI [1.19-3.32]), low partner support (PrR 2.2, 95% CI [1.27-3.98]), Intimate partner violence (IPV) (PrR 2.8, 95% CI [1.55-4.93]) and having suffered from clinical COVID-19 symptoms (PrR 2.3, 95% CI [1.37-3.89]).

The prevalence rate of depression symptoms was low among pregnant AGYW house-wives and those self-employed compared to those in formal employment (PrR 0.5, 95% CI [0.26-0.87]) and (PrR 0.4, 95% CI [0.21-0.80]) respectively.

Conclusions: Depression symptoms are common among pregnant AGYW attending antenatal clinics; and being self-employed or a housewife was found to be protective. The factors that were significantly associated with depression symptoms among pregnant AGYW included; being pregnant for the third or more times, low partner support, experiencing IPV and history of suffering from clinical symptoms of COVID-19.

Keywords: Depression Symptoms among pregnant Adolescent Girls and Young Women

Abstract ID: PP801

Descriptive Epidemiology of COVID-19 - Ayawaso West Municipal, Greater Accra, 2022

Jennifer Nai-Dowetin^{1&}, George Akowuah¹, Samuel Sackey¹, Edwin Andrew Afari¹, Ernest Kenu¹
¹Ghana Field Epidemiology and Laboratory Training Programme, School of Public Health, University of Ghana

&Corresponding author: Jennifer Nai-Dowetin; Ghana Field Epidemiology and Laboratory Training Program, University of Ghana, School of Public Health, Accra, Ghana: naidowetin@gmail.com

Introduction: By February 2022, over 56,900 cases of COVID-19 Resultsing in 1,400 deaths had been confirmed in Ghana. Due to the novelty of COVID-19, little was known about the epidemiology of the disease in the Ghanaian context. With increasing morbidity and mortality, it was critical to conduct a study to determine the distribution of disease in the population.

We therefore established the incidence and distribution of COVID-19 in Ayawaso West Municipality, Greater Accra Region, Ghana to inform policy direction.

Methods: We performed a secondary analysis using COVID-19 surveillance data obtained from the district line-list from March 2020 – November 2021. We used Microsoft Excel 365 in data cleaning. The age, sex, geographical and monthly distributions, occupation, outcome of lab Results, and outcome of infection of cases were extracted and expressed as frequencies, proportions and rates using Epi info 7.

Results: A total of 8,502 cases were recorded from the year 2020 to 2021. The incidence rate over the period was 1129 cases per 10,000 population with a case fatality rate of 0.53% (45/8,502). The incidence for the year 2020 was 812.4 cases per 10,000 population. Higher proportion 57.3% (2,252/3,931) of cases were among age group 25 to 44 years. The majority of cases were recorded among males 59.7% (4,667/8,502). Trends revealed high incidence of cases in the 1st and 2nd quarters of the year with peaks following festive seasons.

More than two-thirds (76.8%) of cases were inhabitants of the Ayawaso West Municipality.

Conclusions: Cases recorded were mostly among age group between 25-44 and among the males. The trend of cases tends to increase after festive occasions. About one-third of cases were residents of other districts. It is recommended that continuous adherence to COVID-19 protocols, active contact tracing and mandatory vaccination were be strictly enforced as this can help control the pandemic.

Keywords: Coronavirus, SARS-CoV-2, epidemiology, Ayawaso West, Ghana

Abstract ID: PP803

Investigation of Measles Deaths, Dandum Sanitary Area, Gabu Region-Guinea Bissau, 2022

Carlota Martinho Sá^{1,2,3,&}, Alberto Luís Papiqui¹, Paul Henry Dsane-Aidoo², Magdalene Akos Odikro², Delia Akosua Bandoh², Samuel Oko Sackey²

¹Guinea Bissau Field Epidemiology Training Program, Bissau, Guinea Bissau

²Ghana Field Epidemiology & Laboratory Training Program, Accra, Ghana

³National Institute of Public Health Bissau, Guinea-Bissau

⁴World Health Organization, Bissau, Guinea-Bissau

&Corresponding author: Carlota Martinho Sá; Guinea Bissau Field Epidemiology Training Program, Bissau, Guinea Bissau: Email: cileyde@yahoo.com

Introduction: On March 17 2022, there were media reports of multiple deaths of unknown cause among children in the Dandum Sanitary Area (DSA). Affected children were reported to have had a febrile and rash. The National Institute of Health (INASA/CESC) was notified. We investigated the incident to identify the cause to implement control measures.

Methods: A cross-sectional design was used within affected villages in DSA. We interviewed guardians of deceased, health staff, reviewed clinical notes of reported deaths, and interviewed. A suspected case was defined as any child with either fever, cough, coryza and conjunctivitis, with maculopapular rash in DSA from March 04-19 2022. We searched for suspected cases in the community, took their blood samples for testing, and generated a line-list of socio-demographic variables, symptoms, laboratory Results and measles vaccination status. We conducted descriptive analysis and estimated proportions.

Results: Forty-six suspected measles cases were identified in four villages in DSA, of which 58.7% (27/46) were females. Median age was 14 months (range=11-54). Overall case fatality rate (CFR) was 8.7% (4/46). Sex-specific CFR was 22.2% (6/27) for females. Place-specific CFR was highest in Misside Busra 50% (2/4). Test positivity rate was 65% (26/40). Mortalities occurred between March 16th and 19th 2022 before outbreak investigation commenced. Only 8.7% (4/46) of affected children had received measles vaccination. Rash, fever and cough were symptoms reported among all suspected cases.

Conclusions: Measles was the cause of the unknown deaths in the DSA. There was low vaccination uptake among affected children. We conducted measles mop-up vaccination for children under 5 years in the community and educated community members on measles.

Keywords: Measles, vaccination, Guinea-Bissau

Abstract ID: PP806

Spatial Distribution and Risk Factors associated with Buruli Ulcer Disease in Four Endemic Districts of Ghana, 2022

Mawuli Gohoho^{1,3&}, Samuel Adolf Bosoka^{1,3}, Christian Atsu Gohoho³, Isaac Annobil³, Rita Wurapa³, Emily Amponsah Osman³, Nana Owusu Ensaw³, Augustine Ankuvie³, Fortress Yayra Aku², Livingstone Asem², Nana Konama Kotey³, John Owusu Gyapong²

¹Ghana Field Epidemiology and Laboratory Training Programme, University of Ghana School of Public Health, Accra, Ghana

²University of Health and Allied Sciences, Ho, Ghana

³Ghana Health Service, Ministry of Health, Ghana

&Corresponding author: Mawuli Gohoho; Jasikan Municipal Health Directorate, Ghana Health Service, Jasikan, Ghana: mawuli.gohoho@ghs.gov.gh

Introduction: Buruli ulcer disease (BUD) is a neglected tropical disease characterized by chronic skin ulcerations. Although Ghana has seen a decline in BUD incidence from 630 cases in 2018 to 52 cases in 2021, it remains a significant public health challenge. This study focused on four endemic districts in Ghana to explore the spatial distribution and risk factors associated with BUD.

Methods: Spatial analysis techniques including average nearest neighbor and buffer proximity analysis, were applied to 263 BUD records from 2017 to 2020.

A community-based matched case-control study was conducted from July 2021 to March 2022. Additionally, 70 BUD cases were sampled using systematic random sampling and matched to 140 community controls by age, sex, and residence.

Conditional multiple logistic regression was used to determine factors associated with BUD. Statistical significance was determined at $p < 0.05$.

Results: BUD cases demonstrated significant clustering in two geographical areas: Akwapim North-Okere (AKN-O) and Akwapim South (AKS), as well

as Jasikan (JAS) and Biakoye (BIA). JAS-BIA area had a higher proportion of cases [23 (30.7%) of 75] within a 1000m buffer around rivers/streams compared to AKN-O-AKS [16 (8.5%) of 188].

Risk factors for BUD include farming with less protective clothing (AOR:11.67, 95%CI:3.33-40.92) and presence of waterbodies in immediate surroundings (AOR:5.18, 95%CI:1.41-19.01).

Conversely, being married (AOR:0.37, 95%CI:0.15-0.93), farming away from waterbodies (AOR:0.16, 95%CI:0.04-0.66), managing injuries with soap and water (AOR:0.19, 95%CI:0.04-0.81), and cleansing injuries with alcohol (AOR:0.16, 95%CI:0.03-0.82) were protective factors.

Conclusions: BUD cases are clustered, with few cases located around waterbodies. Farming with less protective clothing and residing near waterbodies were risk factors, whereas being married, farming away from waterbodies, injury management with soap and water, and alcohol were protective factors.

Community members were educated on wearing more protective clothing during farming and proper injury management to support BUD control efforts in endemic areas.

Keywords: Spatial analysis, Injury management, Protective clothing, Endemic, Buruli ulcer, Ghana

Abstract ID : PP807

Le Profil Epidémiologique de Fièvre de la Vallée du Rift (FVR) chez les animaux, en Mauritanie, Août 2022

Mohamed Saleck Amar¹, Navaa Abd El Wehab², Sidi. Mohamed. Hama², Ahmed. Bezeid. Elmamy⁴, Yahya. Barry², A.Djambar. Beutt², Eukaterina. Isselmou², Mariem. Khayar², Abdellahi Ghassem², Hamet. Ba³, Moctar Abbad³, Hamadou Pedwindé Seogo³

¹Délégation Régionale de l'Elevage de Tagant – Mauritanie

²Office National de Recherches et de Développement de l'Elevage et de Pastoralisme (ONARDEP), Mauritanie

³Programme de Formation en Epidémiologie de Terrain en Mauritanie. ⁴Institut Supérieur d'Enseignement Technologique de Rosso, Mauritanie

&Auteur correspondant: Mohamed Saleck Amar, Délégation Régionale de l'Élevage dans la Région du Tagant, Mauritanie, Mail : meitty71@yahoo.fr

Introduction: La fièvre de la Vallée du Rift (FVR) est une zoonose virale émergente touchant les animaux et l'homme. Elle est transmise par les moustiques avec de graves répercussions négatives sur la santé humaine, animale et sur l'économie. Le virus responsable de la FVR appartient au genre Phlebo virus, de la famille des Bunyaviridae, la FVR est endémique en Mauritanie. L'objectif était d'étudier le profil épidémiologique de la FVR en Mauritanie d'août à octobre 2022.

Méthodes: Nous avons mené une étude transversale descriptive, dont tous les échantillons suspects de la FVR étaient analysés par les techniques d'Elisa et PCR entre août à octobre 2022 à L'Office National de Recherches et de Développement de l'Élevage et de Pastoralisme (ONARDEP, l'analyse statistique et le traitement ont été effectuées à l'aide de l'Epi Info 7 et Excel.

Résultats: Durant la période d'août à octobre 2022, 1541 prélèvements animaux suspects ont été reçus au laboratoire de ONARDEP de Mauritanie dont 900 (58,0%) petits ruminants, 494 (32,0%) Camelins, 134 (8,9%) bovins, 7 (0,6%) Equine et 6 (0,5%) Antilopes. Parmi ces cas, 256 cas sont révélés positifs (16.36%) Parmi les 1541 prélèvements, 256 s'étaient révélés positif à la FVR. Les males représentaient 186 (72,6 %) soit un sexe ratio (M/F) de 2.65. La tranche d'âge de (5-7ans) étaient la plus touchée.

Les régions Hodh Gharbi 481cas (27.33%), Guidimagha 190 cas (16.85%) et Grogol 139 cas (12.57 %) étaient les plus touchées. La semaine 35 de l'année 2022 avait enregistré le plus de cas 512 (33%).

Conclusions: La FVR reste endémique en Mauritanie, surtout dans les régions de Hodh Gharbi et Guidimagha.

Des actions prises en santé publique, ont été menées sur tout le territoire de Mauritanie, Une étude plus poussée sur la FVR permettrait d'identifier les facteurs de risque à Mauritanie.

Mots Clés: FVR ; Fièvre Vallée du Rift, FETP, One Health, ONARDEP, Mauritanie

Abstract ID : PP808

Profil épidémiologique des décès maternels à la Maternité de référence Dar-El Hanan, Djibouti, 2012-2018

Sahra Moussa Bouh^{1,4,&}, Seogo Pedwindé Hamadou^{1,3}, Ilunga Kelebwe Prosper^{1,3}, Ahmed Robleh Abdilleh⁴, Tatek Anbessie Bogale⁵, Herbert Kazoora Brian⁶, Houssein Youssouf Darar^{1,2,4}

¹Djibouti Program Field Epidemiology Training-Frontline

²Institut National de Santé Publique de Djibouti, Djibouti, Djibouti

³African Field Epidemiology Network de Djibouti, Djibouti, Djibouti

⁴Ministère de la Santé de Djibouti, Djibouti, Djibouti

⁵African Field Epidemiology Network, Addis Ababa, Ethiopie

⁶African Field Epidemiology Network, Kampala, Ouganda

&Auteur correspondant: Sahra Moussa Bouh, Ministère de la Santé de Djibouti, Djibouti, Djibouti E-mail : Saharamousa62@yahoo.com

Introduction: Le décès maternel (DM) demeure un problème majeur de santé publique à Djibouti.

Le ratio de mortalité maternelle (MM) est passé de 740 pour 100.000 naissances vivantes (NV) en 1990 à 383 en 2015. Ce ratio est resté au-delà de l'objectif de 2015 qui était de 187.

L'objectif de cette étude était de déterminer le profil épidémiologique des décès maternels à Dar-El Hanan afin de contribuer à la lutte contre cette tragédie.

Méthodes: Nous avons mené une étude descriptive allant du 1er janvier 2012 au 31 décembre 2019. Nous avons utilisé la définition des cas de l'OMS pour recruter tous les décès survenus à la maternité durant cette période.

Les données ont été collectées sur une fiche à partir des comptes rendus d'audits et des dossiers des parturientes par une revue documentaire. L'analyse a été réalisée avec Excel et Epi-info. Des médianes, des proportions, ratios ont été calculés.

Résultats: Nous avons colligé 151 DM durant notre étude avec 58270 naissances vivantes soit un ratio MM de 259 pour 100000 NV. L'âge médian était de 28,5 ans (15-46 ans). Les pauci-pares représentaient (50(33,1%)) suivi des nullipares (46 (30,5%)) et des multipares (31(20,5%)).

Le mode d'accouchement était la césarienne dans 61(40,4%), suivi de l'accouchement par voie basse (48(31,9%)). Ils ont eu lieu en salle de réanimation dans (107(70,9%)). Les décès s'étaient produits dans (108(71,5%)) des cas en post partum, 40 (26,5%) en pré partum et 3 (2,0%) en post abortum.

Le DM était dû à des causes directes dans 124(82,3%). Les décès s'étaient produits dans 88(58,5%) durant les heures de gardes. Les DM étaient évitables dans (103 (68,2%)) des cas.

Conclusions: La plupart des DM étaient évitables. Ils se produisaient en majorité durant la période de la garde et en post partum. Nous recommandons une surveillance rigoureuse des femmes en post partum.

Mot clés: Décès maternel, Naissances vivantes, Dar-El Hanan, Djibouti

Abstract ID: PP810

Investigation de cas de Rougeole à la Polyclinique Arhiba au Quartier 4, Djibouti, Octobre 2022

Ibiro Mohamed Hassan^{1,2,&}, Abdoukader Mohamed Ali³, Seogo Pedwindé Hamadou^{1,5}, Ilunga Kelebwe Prosper^{1,5}, Zahra Moussa Bouh^{1,6}, Ahmed Robleh Abdilleh⁶, Tatek Anbessie Bogale⁷, Herbert Kazoora Brian⁸, Houssein Youssouf Darar^{1,4,6}

¹Djibouti Program Field Epidemiology Training-Frontline, Djibouti, Djibouti

²Polyclinique Arhiba, Djibouti, Djibouti

³Hospital Cheiko de Balbala, Djibouti, Djibouti

⁴Institut National de Santé Publique de Djibouti, Djibouti, Djibouti

⁵African Field Epidemiology Network de Djibouti, Djibouti, Djibouti

⁶Ministère de la Santé de Djibouti, Djibouti, Djibouti

⁷African Field Epidemiology Network, Addis Ababa, Ethiopie

⁸African Field Epidemiology Network, Kampala, Uganda

&Auteur correspondant: Ibiro Mohamed Hassan, Polyclinique Arhiba, Djibouti, Djibouti, E-mail : ibirotamhassan@gmail.com

Introduction: À la 42^{ème} semaine épidémiologique 2022 (17 au 23 octobre), la Polyclinique Arhiba a enregistré son premier cas suspect de rougeole chez un enfant. Le prélèvement effectué s'était révélé positif à la rougeole. Nous avons mené une investigation pour rechercher des cas supplémentaires et prendre des mesures de contrôle.

Méthodes: Nous avons réalisé une étude descriptive du 1^{er} au 31 octobre 2022 au Quartier 4. Un cas suspect était défini comme toute personne avec fièvre et éruptions maculo-papillaires généralisées associées à la toux ou rhume ou conjonctivite durant la période précitée et un cas confirmé était un cas suspect confirmé par le laboratoire ou ayant un lien épidémiologique avec un cas confirmé.

Les données ont été collectées par la revue documentaire et l'entretien avec un questionnaire. Des médianes, proportions et taux ont été calculés. La couverture vaccinale a été évaluée.

Résultats: Le cas index était une fille de 3 ans, non vaccinée qui a consulté le 18 octobre 2022 pour fièvre, éruption généralisée, conjonctivite sans notion de voyage.

Au total 14 nouveaux cas suspects ont été retrouvés à la recherche active en communauté. Parmi les cas suspects, 9 cas se sont révélés rougeole IgM positifs. Quatre (44%) étaient de sexe masculin. L'âge moyen était de 16 mois, 67 % (6/9) avaient plus d'un an. 44% (4/9) cas étaient non vaccinés. Aucun nouveau cas n'a été trouvé à la polyclinique. Le taux d'attaque était de 2,3 (9/39732) cas pour 100 000 habitants. La couverture vaccinale contre la rougeole de l'aire sanitaire était de 37,8% en 2021.

Conclusions: L'investigation a permis de retrouver de cas supplémentaires de rougeole en communauté touchant plus les enfants non vaccinés. Nous recommandons de redynamiser la surveillance à base communautaire et une vaccination réactive des enfants.

Mots clés: Investigation, Riposte, Rougeole, Polyclinique Arhiba, Quartier 4, Djibouti, 2022

Abstract ID : PP812

Profil sanitaire des élèves des écoles primaires de régions sanitaires, Djibouti, Décembre 2021 - Mai 2022

Ahmed Said Salem^{1,2,4,&}, Abdourhaman Djama Guedi^{1,2,4}, Seogo Pedwindé Hamadou^{1,3}, Ilunga Kelebwe Prosper^{1,3}, Sahra Moussa Bouh^{1,4}, Moustapha Omar Harred^{1,2,4}, Ali Youssef Mohamoud^{1,2,4}, Fathia Abdillah Osman^{1,5}, Isra Abdi Guirreh^{1,6}, Idriss Elmi Aden^{1,7}, Ahmed Robleh Abdilleh⁴, Tatek Anbessie Bogale⁸, Herbert Kazoora Brian⁹, Houssein Youssef Darar^{1,2,4}

¹Djibouti Program Field Epidemiology Training-Frontline, Djibouti, Djibouti

²Institut National de Santé Publique de Djibouti, Djibouti, Djibouti

³African Field Epidemiology Network de Djibouti, Djibouti, Djibouti

⁴Ministère de la Santé de Djibouti, Djibouti, Djibouti

⁵Hôpital Garde Républicaine, Djibouti, Djibouti

⁶Caisse Nationale de Sécurité Sociale, Djibouti, Djibouti

⁷Hôpital Militaire, Djibouti, Djibouti

⁸African Field Epidemiology Network, Addis Ababa, Ethiopie

⁹African Field Epidemiology Network, Kampala, Ouganda

& Auteur correspondant: Ahmed Said Salem, Institut National de Santé Publique de Djibouti, Djibouti, Djibouti E-mail : ahmedinspd@gmail.com

Introduction: La santé et l'éducation sont étroitement liées et convergent vers la réussite de l'élève. L'enquête nutritionnelle réalisée en 2019 montrait une prédominance des malnutritions. En 2021, des absences liées à la maladie ont été constatées dans plusieurs écoles de régions. Cependant aucune étude approfondie n'a été entreprise sur l'état de santé des élèves. Cette étude avait pour objectif de déterminer le profil sanitaire des écoliers des régions.

Méthodes: Nous avons mené une étude descriptive du 19 Décembre 2021 au 21 Mai 2022 dans les écoles primaires de régions de Djibouti. Nous avons réalisé un échantillonnage à trois degrés. Au 1er degré nous avons tiré de façon aléatoire une école par région, au deuxième degré, une classe par école et au troisième degré, 10 élèves par classe. Chaque élève choisi faisait l'objet d'une fiche pour commémoratifs, d'un prélèvement sanguin pour le diagnostic de dengue et

paludisme (TDR), et une numération formule sanguine. Les données sociodémographiques, anthropométriques et cliniques ont été collectées. Elles ont été analysées avec SPSS. Des proportions, la médiane et le ratio ont été calculés.

Résultats: Au total 494 élèves ont été inclus. L'âge médian était de 9 ans (4-15 ans). Le sexe masculin représentait 66 % d'élèves. L'angine (18%), la toux (17%), la diarrhée/douleurs abdominale (11%), les céphalées (8%) et les brûlures mictionnelles 23(4%) étaient les principaux symptômes identifiés. L'anémie (139 cas) et la dengue (13 cas) étaient les principales pathologies. Sur le plan anthropométrique, 40 % des enquêtés avait un état nutritionnel maigre, 57 % normal et 3 % en surpoids.

Conclusions: Notre enquête a pu identifier l'anémie et la dengue comme principales pathologies et un grand nombre d'élèves avec une insuffisance pondérale (maigre). Nous recommandons la réalisation d'une étude approfondie sur le profil sanitaire des écoliers des régions à Djibouti.

Mots-clés : Enquête, Absentéisme, Profil sanitaire, Elèves, Ecoles primaires des régions, Djibouti

Abstract ID : PP814

Investigation de cas de COVID-19, Région Sanitaire de Tadjourah, Djibouti, Janvier 2022

Adake Mohamed Adake^{1,2,&}, Seogo Pedwinde Hamadou^{1,4}, Ilunga Kelebwe Prosper^{1,4}, Sahra Moussa Bouh^{1,5}, Mohamed Houmed Bourhan^{1,5}, Ibrahim Mohamed Dimbio², Ahmed Robleh Abdilleh⁵, Tatek Anbessie Bogale⁶, Herbert Kazoora Brian⁷, Houssein Youssef Darar^{1,3,5}

¹Djibouti Field Epidemiology Training Program (DJI-FETP), Djibouti.

²Centre Médico- Hospitalier de Tadjourah, Tadjourah, Djibouti

³Institut National de Santé Publique de Djibouti, Djibouti, Djibouti

⁴African Field Epidemiology Network de Djibouti, Djibouti, Djibouti

⁵Ministère de la Santé de Djibouti, Djibouti, Djibouti

⁶African Field Epidemiology Network, Addis Ababa, Ethiopie

⁷African Field Epidemiology Network, Kampala, Ouganda

&Auteur correspondant: Adake Mohamed Adake, Centre Médico- Hospitalier de Tadjourah, Tadjourah, Djibouti, Tel: + 253 77621373, E-mail: houkoube@hotmail.fr

Introduction: Le 9 janvier 2022, une femme âgée de 30 ans sans antécédent travaillant au Conseil Régional de Tadjourah (CRT) s'était présentée au Centre Médico-Hospitalier de Tadjourah (CMHT) pour consultation avec fièvre, toux et difficulté respiratoire. Son prélèvement était confirmé positif au test de diagnostic rapide (TDR) de COVID-19.

Une investigation a été menée afin de lister les contacts, rechercher le cas source et mener des actions de santé publique.

Méthodes: Nous avons réalisé une étude descriptive du 1 au 25 janvier 2022 à Tadjourah. Les définitions cas de l'OMS ont été utilisés dans la recherche active.

La collecte des données a été réalisée par la revue documentaire au CMHT et l'entretien dans la communauté. Le TDR COVID-19 a été utilisé chez les contacts et la biologie moléculaire chez les cas confirmés TDR positif. Les moyennes, proportion et ratio ont été calculés. La couverture vaccinale COVID-19 a été évaluée.

Résultats: Au total 24 contacts ont été listés et prélevés. L'âge moyen de contacts était de 40 ans. Treize (54,2%) étaient de sexe masculin avec un sexe ratio (H/F) de 1,18. Sur 24 tests réalisés, un (4%) était revenu positif à la COVID-19. Parmi les contacts 71% (17/24) avaient reçu leurs vaccins anti COVID-19. Le cas index était une jeune femme non vaccinée contre la COVID-19 œuvrant au CRT. Le cas index et le cas supplémentaire ont été isolés. Un suivi de 14 jours a été organisé pour le reste de contacts.

Conclusions: L'investigation nous a permis de lister les contacts et trouver un cas supplémentaire dans la communauté. Des actions de santé publique ont été entreprises : l'isolement de cas positifs et la désinfection de lieu et l'organisation de séances de sensibilisation sur la COVID-19.

Mots-clés: COVID-19, Investigation, Région de Tadjourah, Djibouti, Janvier 2022

Abstract ID : PP817

Profil épidémiologique du choléra dans le département de l'Atlantique de 2017-2021, Bénin.

Balikissou Méyissehoue Gnonlonfin^{1&}, Rodrigue Kokou Kohoun², Mathilde Adjoavi Houssou³, Nestor Noudékè³.

¹Direction départementale de la santé de l'Atlantique, Abomey Calavi, Bénin.

²Ministère de la Santé, Cotonou, Bénin.

³AFENET, Cotonou, Bénin

&Auteur correspondant: Direction départementale de la santé de l'Atlantique, Abomey Calavi, Bénin. Email : gnonlonfin@yahoo.fr

Introduction: Le choléra est une maladie hydrique caractérisée par des diarrhées liquides profuses, provoquée par les sérogroupes O1 ou O139 de *Vibrio cholerae*. Chaque année, il touche 1,3 à 4 millions de personnes à travers le monde, avec entre 21000 et 143000 décès. Il demeure un problème de santé publique particulièrement en Afrique subsaharienne et au Bénin. Le département de l'Atlantique fait partie des zones souvent touchées.

L'objectif de notre étude était de décrire le profil épidémiologique des cas de choléra dans l'Atlantique de 2017 à 2021.

Méthod: Il s'est agi d'une étude transversale descriptive des cas de choléra du département de l'Atlantique de 2017 à 2021.

Les données ont été extraites de la base de la surveillance et apurées, puis l'analyse a été faite avec Epi Info 7.2. Les fréquences absolues et relatives ont été calculées. La cartographie a été faite avec QGIS.

Résultats: Au total, 153 cas de choléra ont été enregistrés dans le département de 2017 à 2021 avec 0 décès et 20 cas confirmés sur 135 prélevés soit 14,81% (IC : 9,8-21,78). La majorité des cas, 83%, provenaient des milieux ruraux. La tranche d'âge de 1 à 15 ans est la plus atteinte avec 40,52% (IC : 33,07-48,44). Le sex-ratio H/F est de 1,59 (IC : 1,29-1,94). Des épidémies sont enregistrées avec une tendance saisonnière au troisième trimestre de chaque année.

Une épidémie de grande ampleur a été observée au premier trimestre de 2021 et a atteint un pic de 95 cas. Toutes les communes sont touchées sauf Tori-Bossito et la commune lacustre de Sô-Ava a enregistré le plus de cas (105).

Conclusions: Le choléra sévit dans le département de l'Atlantique et souvent au troisième trimestre de l'année. Une intensification des activités de prévention dans les milieux ruraux pourrait réduire son incidence.

Mots-clés: Cholera, Epidémie, Maladie hydrique, Vibrio cholerae, Bénin.

Abstract ID : PP819

Profil épidémiologique de la méningite dans le département de l'Alibori, Bénin du 1er janvier 2017 au 31 décembre 2021

Zoubérou Bio Béri^{1,*}, Virgile Hounkpè², Nestor Dénakpo Noudèkè³, Mathilde Adjoavi Houssou³

¹Direction Départementale de la santé, Kandi ; Bénin;

²Direction Départementale de la Santé; Parakou ; Bénin ;

³AFENET ; Cotonou, Bénin

&Auteur correspondant: Zoubérou Bio Béri, Direction Départementale de la santé, Kandi ; Bénin, Email : bioberizoubérou@yahoo.fr

Introduction: La méningite est une inflammation des méninges. Elle reste une maladie prioritaire de santé publique de par son potentiel épidémique élevé. Sa létalité dans les pays africains de la ceinture méningitique est de 5 à 14 % depuis 2010. Elle est de 17% au Bénin et 10,6% dans l'Alibori en 2020. L'analyse des données est faite pour décrire le profil épidémiologique afin d'orienter les actions dans l'Alibori.

Méthodes: Une étude transversale descriptive a été réalisée et a porté sur 425 cas enregistrés dans la base du 1er janvier 2017 au 31 décembre 2021. Les données ont été analysées à l'aide d'Epi Info 7.2 pour les analyses statistiques et des fréquences ont été calculées.

Résultats: Au total 425 cas avec une incidence annuelle moyenne de 8,45 pour 100 000 habitants et une létalité de 8,27%. L'incidence était la plus faible en

2021 avec 2,39 pour 100 000 habitants et le plus élevé en 2017 avec 14,15 pour 100 000 habitants. L'âge médian était de 9 ans [0-45 ans], le sex ratio (H/F) de 1,28.

La tranche d'âge de 5-9 ans était la plus touchée (36%). Sur l'ensemble des cas, 402 soit 94,6% ont été confirmés et les germes mis en cause étaient le *Neisseria meningitidis* C (46%), le *Streptococcus Pneumoniae* (33%) et le *Neisseria meningitidis* X (15%).

La commune de Malanville a enregistré la plus forte incidence soit 46,76 pour 100.000 habitants en 2017 suivi de Kandi soit 27,71 pour 100.000 habitants en 2019. L'incidence la plus faible est notée en 2021 à Banikoara soit 0,97 pour 100.000 habitants.

Conclusions: la méningite sévit dans l'Alibori surtout chez les enfants de 5 à 9 ans. La vaccination et le recours précoce aux soins pourraient réduire son incidence.

Mots-clés: Méningite, Incidence, *Neisseria meningitidis*, Bénin.

Abstract ID: PP826

Etude des Caractéristiques épidémiologiques des cas de paludisme grave chez les enfants de moins de 5 ans référés des centres de santé vers les hôpitaux publics du Bénin du 1er avril au 31 octobre 2022.

Tognissè Edgar Raoul Assogbakpè^{1,*}, Modeste Houéménou², Nestor Noudèkè³, Mathilde Adjoavi Houssou³

¹Direction Départementale de la santé, Abomey, Bénin,

²irection Départementale de la santé, Nikki, Bénin,

³African Field Epidemiology Network, Cotonou, Bénin

&Auteur correspondant: Tognissè Edgar Raoul Assogbakpè, 1Direction Départementale de la santé, Abomey, Bénin, Email : raoulassogbakpe@gmail.com

Introduction: Le paludisme est une maladie parasitaire fébrile. Il demeure un problème majeur de santé publique dans le monde. En 2017, l'OMS estimait que 3,2 milliards de personnes étaient exposées au risque de contracter la maladie. En 2020, l'Afrique était touchée

avec 228 millions de cas dont 602000 décès. 80% des cas étaient les enfants de moins de 5 ans. La forme grave constitue l'une des principales causes d'hospitalisation et de décès. Au Bénin, cette tendance est la même. Notre étude a pour but de déterminer les caractéristiques des cas référés du paludisme grave.

Méthodes: Il s'agit d'une étude transversale descriptive sur les cas référés de paludisme grave enregistrés dans 35 hôpitaux publics du Bénin du 1er avril au 31 octobre 2022. La base des données constituée et apurée après la saisie dans Kobocollect des dossiers sélectionnés de façon aléatoire. L'analyse avec Epi info7.2 pour le calcul des proportions.

Résultats: Sur 5884 dossiers, 1730 soit 29,4% étaient référés. Le sexe ratio H/F était de 1,03. 60,8% des cas référés avaient l'âge de 12 à 36 mois et 78% parmi eux provenaient du milieu rural. La létalité était de 6,13% et la majorité présentait la forme anémique soit 71,85%. Dans cette référence, 58,5% avaient pu bénéficier du traitement de préférence dont 56,35% de la première dose d'artésunate et 73,81% d'un abord veineux. L'ambulance n'était utilisée que pour 11,63% des références et la majorité soit 90,86% des cas étaient référés des formations sanitaires publiques et 95,78% étaient admis à l'hôpital dans les 24 heures suivant la référence.

Conclusions: Le paludisme grave sévit avec une létalité non négligeable chez les enfants de moins de 5 ans. Les insuffisances dans la référence y contribueraient. La capacité des agents de santé devrait être renforcée sur les directives de la référence des cas de paludisme grave.

Mots-clés: Paludisme, Référence, Etude transversale, Bénin.

Abstract ID : PP828

Caractéristique épidémiologique des décès maternels de janvier 2018 à juin 2022 dans le département du Couffo, Bénin

Nestor Sossoukpè¹*, Rosette Koufèdè², Nestor Dénakpo Noudèkè³, Mathilde Adjoavi Houssou³

¹Ministère de la santé, Aplahoué, Bénin,

²Ministère de la Santé, Parakou, Bénin

³AFENET Bénin, Cotonou, Bénin

***Auteur correspondant:** Nestor Sossoukpè, 1Ministère de la santé, Aplahoué, Bénin, sossoukpe@gmail.com

Introduction: Le paludisme demeure un problème de santé publique dans le monde. La forme grave constitue l'une des principales causes d'hospitalisation et de décès. A

u Bénin, l'incidence du paludisme grave était de 3,4% avec une létalité de 19,8% chez les enfants de moins de cinq ans en 2021.

L'objectif était d'identifier les facteurs associés à la létalité due au paludisme grave chez les enfants de moins de 5 ans dans les hôpitaux publics du Bénin

Méthodes: Une étude transversale analytique qui a porté sur les cas de paludisme grave confirmés biologiquement dans 35 hôpitaux publics du Bénin du 1er Avril 2022 au 31 Octobre 2022.

Un échantillonnage aléatoire simple a été réalisé avec le logiciel Open Epi. Les données ont été analysées avec Epi Info 7.2. Les fréquences et odds ratios ont été calculés.

Résultats: Des 5884 cas collectés, la majorité était dans la tranche d'âge de 12 à 36 mois soit 61,6%. Le sex ratio H/F est de 1,1. Les cas provenaient plus du milieu rural soit 72% et 29,4% avaient été référés. La létalité était de 7%.

Les enfants ayant un trouble de la conscience OR=2,2 : IC 95% [1,79-2,71], une convulsion OR=1,56 : IC 95% [1,3-1,95], des troubles respiratoires OR=2,15 : IC 95% [1,74-2,65] ; un OAP, OR=2,46 : IC 95% [1,33-4,3], une incapacité de se nourrir, OR=2 : IC 95% [1,6-2,48] et ceux pour qui le protocole de prise en charge n'est pas respecté OR=3,56 : IC 95% [2,49-5,07], avaient plus de risque de mourir.

Conclusions: La létalité du paludisme grave est liée à la présence d'affections respiratoires et de trouble de la conscience.

La sensibilisation des agents sanitaires sur le respect du protocole de prise en charge et les supervisions formatives pourraient réduire cette létalité.

Mots-clés: Paludisme grave, Conscience, Convulsion, Etude transversale, Bénin

Abstract ID: PP833

Analysis of the Integrated Influenza-Like Illness/Severe Acute Respiratory Infection and COVID-19 Surveillance Data in Ghana, 2022

Martha Kotey^{1,*}, Samuel Dapaa¹, Joseph Asamoah Frimpong¹, Magdalene Akos Odikro¹, Samuel Oko Sackey¹, Ernest Kenu¹

¹Ghana Field Epidemiology & Laboratory Training Programme, University of Ghana School of Public Health, Accra, Ghana

&Corresponding Author: Martha Kotey; Ghana Field Epidemiology and Laboratory Training Program, University of Ghana School of Public Health, Accra, Ghana; Email: koteymarthaarkaa@gmail.com

Introduction: Globally, the annual estimate of influenza-associated deaths is 650,000. As of 23rd January 2022, 5,584,374 COVID-19 deaths had been reported globally, with 1442 of the deaths occurring in Ghana. COVID-19 surveillance was integrated into the ILI/SARI surveillance system in 2021. However, data from the integrated system has not been adequately analysed since the integration. We assessed the distribution of cases from the integrated ILI/SARI and COVID-19 surveillance system.

Methods: A secondary data analysis was conducted using national repository data collected by the integrated system from March 2021 to February 2022 at the National Influenza Centre (NIC). We extracted data into a Microsoft Excel template. We assessed case distributions by age, sex, regions and months and presented the Results in tables and charts using Microsoft Excel 365 and QGIS 3.8.

Results: About 10% (421/4,052) and 22% (874/4,052) cases were confirmed for influenza and COVID-19 respectively. The median age of influenza and COVID-19 was 24 years (1month – 81 years) and 31 years (1 month – 91 years) respectively. About 47% (198/421) of influenza and 45% (397/874) of COVID-19 cases were female.

The highest proportion of influenza, 18% (77/421) and COVID-19 cases, 29% (257/874), were reported from the Greater Accra region. The highest proportion of influenza, 25% (104/421), was recorded in July 2021, while the highest number of COVID-19 cases, 28% (236/874), was recorded in December 2021. Sixteen cases had coinfections of Influenza and COVID-19. Data on treatment outcome was not available in the NIC.

Conclusions: The young and elderly were the most infected with influenza. The middle age group were most infected with COVID-19. Greater-Accra was the epicentre for influenza and COVID-19.

The Results of the analysis were presented to the NIC, and it was recommended to the centre to improve data quality by including treatment outcomes.

Keywords: Influenza, COVID-19, ILI, SARI, Analysis, Ghana

Abstract ID: PP834

A post-outbreak assessment: Predictors of full measles vaccination among children aged 24 to 59 months, Atebubu-Amantin District, Ghana, 2020

Eunice Baiden Laryea^{1,2,*}, Priscilla Nortey², Ben Gyan³, Lawrence Henry Ofori-Appiah⁴, Paul Dsane-Aidoo¹, Joseph Asamoah Frimpong¹, Donne Ameme¹, Samuel Sackey^{1,2}, Ernest Kenu^{1,2}

¹Ghana Field Epidemiology and Laboratory Training Program

²Department of Applied Epidemiology and Disease Control, School of Public Health, University of Ghana, Legon

³Noguchi Memorial Institute of Medical Research, Immunology Department, University of Ghana, Legon

⁴National Public Health and Reference Laboratory, Accra, Ghana.

&Corresponding author: Eunice Baiden Laryea; Ghana Field Epidemiology and Laboratory Training Program, University of Ghana School of Public Health, Accra, Ghana; Email: eunicenasbaiden@gmail.com

Introduction: Introduction of measles vaccines led to a 73% decreased mortality between 2000 and 2018 globally. However, about 169,000,000 children missed the first dose, leading to an estimated 140,000 deaths in 2018 worldwide. In Ghana, Atebubu-Amantin District experienced focal measles outbreaks since 2016 and a major outbreak in 2018. Given that measles herd immunity is achieved as 95% vaccination coverage, we conducted this study to determine measles vaccination coverage (MVC) and factors influencing vaccination uptake in the district.

Methods: A cross-sectional study was conducted, using quantitative and qualitative Methods from December 2019 to August 2020. We performed a two-stage cluster sampling and interviewed caregivers of 400 children aged 24-59 months in the community, using a structured questionnaire. Caregiver's knowledge was assessed based on 10 questions on measles characteristics and vaccination schedule. In-depth interviews were conducted among health staff to assess health system factors influencing MVC. We estimated MVC and performed regression analyses to determine significant associations at $p < 0.05$. Qualitative data was analyzed thematically and triangulated.

Results: Among the 400 children, MVC for first dose was 91.0%(364/400), while second dose was 80.0%(320/400). Caregivers in slums had 68%(AOR=0.32, 95% CI:0.11–0.91, $p=0.033$) reduced odds of completing their child's measles vaccination compared to those in the capital. Children of traders had 96%(AOR=0.04, 95%CI:0.01–0.10, $p < 0.001$) reduced odds of completing measles vaccination compared to that of farmers. For every percentage increase in a caregiver's knowledge, the odds of completing their child's measles vaccination increased by 6%(AOR=1.06, 95%CI:1.04–1.08, $p < 0.001$). Vaccine shortages impaired vaccination coverages while defaulter tracing and health education boosted coverages.

Conclusions: Measles vaccination coverage in Atebubu-Amantin District was below herd immunity threshold. There was inequitable access to measles vaccination among children in slums. We conducted mop-up vaccinations in the district and recommended education of caregivers on measles vaccination.

Keywords: Measles, Vaccination, Children, Atebubu-Amantin District, Ghana

Abstract ID: PP838

Hand hygiene practices among staff and students of School of Public Health, University of Ghana, Accra, 2022

Doris Aboagyewaa Edu-Quansah¹&, Danny Kalala Mukandila¹, Bakalilu Kijera¹, Seth Baffoe¹, Amara Stevens Ngegbai¹, Anthony Baffour Appiah¹, Delia Akosua Bandoh¹, Donne Kofi Ameme¹, Charles Lwanga Noora¹, Ernest Kenu¹

¹Ghana Field Epidemiology and Laboratory Training Program, University of Ghana School of Public Health, Accra, Ghana

&Corresponding author: Doris Aboagyewaa Edu-Quansah; Email address: dorisduke23@gmail.com

Introduction: Due to the drop of COVID-19 cases (42% from January to March, 2022), hand hygiene has seemingly dropped in institutions. Hence, informed this study assessing hand hygiene practices, knowledge and attitude among students and staff of the School of Public Health (SPH), University of Ghana (UG), Accra, for policy review.

Methods: We conducted analytical cross-sectional study among randomly sampled staff and students of SPH, UG, Accra, on the 29th of April 2022. A pretested paper-based structured questionnaire and observational checklist were used to assess knowledge, attitude, and hand hygiene practices. A category score of $>60\%$ was considered good while $<60\%$, poor. Data was summarized into frequencies and proportions. Logistic regression at a p -value of <0.05 was used to determine associations.

Results: Out of 106 participants interviewed, 78.3% (83/106) were students. Females were 55% (58/106), and median age was 33 years (range: 20-65) years. Staff had 2.8 odds of good knowledge (95%CI: 1.05-7.37) and 1.84 odds to hand hygiene practices (95%CI: 0.69-4.94) compared to students. However, students, 76% (63/83) had 1.4 odds towards good attitude compared to staff, 70% (16/23), (95%CI: 0.497-3.825). About 19% (20/106) of the respondents indicated non-adherence to handwashing, due to hand washing stations not strategically positioned 65% (13/20) and dirty water 5% (1/20). A total of 145 participants were observed for

direct handwashing of which 97% (105/108) students and staff 97% (29/30) did not wash their hands. Out of the total observed participants, 1% (1/145) student used alcohol-based sanitizer. Only one handwashing station was operational, and no hand hygiene posters observed at the stations.

Conclusions: Staff had more knowledge and practices whereas students demonstrated good attitude towards hand hygiene. We educated interviewees and recommended to the management of SPH to sensitize both staff and students on hand hygiene, while installing hand hygiene facilities at vantage points.

Keywords: Hand hygiene, Alcohol-based sanitizer, Handwashing.

Abstract ID: PP840

Descriptive Characterization of Yellow Fever Cases in Upper East Region, Ghana, 2022

Simon Effah Adjei^{1,&}, Rita Agyekumwah Asante², Samuel Oko Sackey², Jehosaphat Nyuzaghl¹

¹Ghana Health Service, Upper East, Ghana

²Ghana Field Epidemiology and Laboratory Training Program, University of Ghana School of Public Health, Accra, Ghana

&Corresponding author: Simon Effah Adjei; Ghana Health Service, Upper East, Ghana; Email: adjeisimon2@gmail.com

Introduction: Globally, an estimated 200,000 cases of Yellow Fever (YF) are recorded yearly. YF is endemic in Ghana and is associated with severe disease in approximately 15% of cases with a high case fatality. Periodic analysis of surveillance data is key to evaluate the impact of interventions needed to develop strategies to prevent future outbreaks.

We described the epidemiological characteristic of yellow fever cases from 2017 to 2021 to inform interventions in the Upper East Region of Ghana.

Methods: We conducted secondary data analysis of YF surveillance data spanning from 2017 to 2021. Data was extracted from Upper East Regional YF line list.

Descriptive measures such as frequencies, median, range and proportions and incidence rate were analyzed using Microsoft Excel 2019. This was presented in tables and graphs. Quantum Geographic Information System (QGIS) was also used to generate map to depict distribution of cases in the region.

Results: A total of 546 suspected cases were reported with 0.4% (2) being positive. YF outbreaks occurred in August and October in 2018 and 2021 respectively.

The trend of incidence rate increased from 59.2/1,000,000 population in 2017 to 128.3 per 1,000,000 in 2021. About 60.8% (332/546) male were affected with 32.2% (176/546) of age group 0-4 years mostly affected.

Majority, 20.7% (113/546) of the cases was recorded in Pusiga district. YF vaccination coverage was 71.4% (34,750/48,667) in 2017 and 86.0% (44,747/52,049) in 2021, below the 95% National Expanded Programme on Immunization (EPI) target.

Conclusions: There was an increasing trend of YF cases from 2017 to 2021. Majority of cases were males, and the most affected age group was children aged, 0-4 years. Pusiga district had the highest cases with the Upper East Regional YF vaccination coverage below target.

We recommend periodic EPI mop-ups on YF to improve vaccination coverage especially in districts with low coverage.

Keywords: Yellow Fever, Upper East Region, Surveillanc

Abstract ID: PP84 I

Toxi-infection alimentaire collective à Bondoukou, Côte d'Ivoire, Janvier 2023

Abissey Charles Abolou¹, Raphael Amani², Wilnique Pierre³, Joseph Otshudiandjeka³, André Tia¹, Issiaka Tiembre^{2,4,&} Joseph Bénie Bi^{2,4}

¹Direction régionale de la santé, de l'hygiène publique et de la couverture maladie universelle du Gontougo, Bondoukou, Côte d'Ivoire

²Institut National d'Hygiène Publique, INHP, Abidjan, Côte d'Ivoire

³Réseau Africain des Epidémiologistes de Terrain, AFENET-Côte d'Ivoire

⁴Unité de formation et de recherche des sciences médicales, Université Félix Houphouët Boigny Cocody, Abidjan, Côte d'Ivoire

&Auteur correspondant: Abissey Charles ABLOU, chef de service action sanitaire à la direction régionale de la santé de l'hygiène publique et de la couverture maladie universelle du Gontougo, Bondoukou, Côte d'Ivoire, Email : charleslandryabolou@gmail.com

Introduction: Une Toxi-Infection Alimentaire Collective (TIAC) est l'apparition, rapprochée de symptômes, plus souvent digestifs, sur au moins deux personnes ayant consommé un repas identique.

Le 30 janvier 2023, le district sanitaire de Bondoukou a été alerté par le Centre Hospitalier Régional, d'un cas de TIAC. Une équipe du district et de la région ont mené une investigation afin de décrire la situation, identifier l'agent causal et proposer des mesures de prévention et de contrôle.

Méthodes: Une Etude descriptive a été menée. Les définitions de cas ont été adaptées de la surveillance intégrée des maladies et riposte (SIMR). Les données recueillies dans les registres des centres de santé de Bondoukou et dans la résidence familiale des cas.

Les variables sociodémographiques et cliniques collectés. Des échantillons de selles et de sang prélevés. Les données ont été saisies et analysées sur Excel et Epi-Info 7.2.

Résultats: Au total 10 personnes ont pris un repas, quatre ont présenté symptômes, taux d'attaque 40% (4/10). Un décès avec taux de létalité 25% (1/4). L'âge médian de 32 ans (13-47). Le sexe ratio est de 3 (3 hommes pour une femme). La personne décédée, homme de 47 ans. La durée médiane d'incubation est de 2 jours.

Les symptômes présentés étaient douleurs abdominales 100% (4/4), vomissements 75% (3/4), fièvre, diarrhées et déshydratation 50% chacun, soit (2/4).

Les cas habitaient la même cour. L'examen cytot bactériologique des selles a mise en évidence la présence d'Escherichia Coli. Aucun reste d'aliments n'a été trouvé pour prélever.

Conclusions: Aucune source de contamination n'a été trouvée, malgré la forte suspicion du repas servi. Confirmation d'Escherichia. Coli comme cause de la TIAC.

Adoption d'une bonne hygiène des produits alimentaires, bonne préparation et conservation des aliments. Conduire d'une étude supplémentaire sur les facteurs de risque et préparer les équipes aux prochaines situations.

Mots-clés: Investigation, Toxi-infection, Bondoukou, Cote d'Ivoire

Abstract ID: PP847
Evaluation of anaemia in pregnancy surveillance system, Central Region, Ghana - 2022.

Emma Delali Forley^{1&}, Rita Agyekumwah Asante Kusi^{2,3}, Magdalene Akos Odikro², Joseph Asamoah Frimpong², Samuel Oko Sackey², Ernest Kenu²

¹Ghana Health Service, Central Region, Cape Coast, Ghana

²Ghana Field Epidemiology and Laboratory Training Programme, University of Ghana, School of Public Health, Accra, Ghana

³Food and Drugs Authority, Accra, Ghana

&Corresponding author: Emma Delali Forley; Ghana Health Service, Central Region, Cape Coast, Ghana; Email: emforley@gmail.com

Introduction: Anaemia in pregnancy is associated with adverse health outcomes such as miscarriages and maternal mortality. In 2020, national prevalence of anaemia among antenatal registrants in Ghana was 35% with Central region recording 43%. We evaluated the anaemia in pregnancy surveillance system in the Central Region to determine if its objectives of detecting anaemia among pregnant women and providing information that guides actions to eliminate it were being met, assess the attributes and usefulness.

Methods: A descriptive cross-sectional study was employed adapting the updated CDC Guidelines for Surveillance System Evaluation for 2017 to 2021. Data was collected through records review, observations

and face-face interviews of key stakeholders using a semi-structured questionnaire. Data was analyzed as frequencies and proportions and Results presented as chart and table. The attributes were rated poor if 50% indicators were met.

Results: Across the 22 districts in the region, 434,106 pregnant women were registered. Of these 90.9% (394,615/434,106) and 87.7% (176,085/200,876) were screened for Hb at registration and 36-weeks' gestation respectively. Anaemia prevalence was 42.2% (166,605/434,106) for first time registrants and 38.9% (68,582/176085) for women at 36-weeks' gestation. The system allowed addition of new variables though inadequate resource was observed for its operation. All 22 district reports were completed and sent to the next level before 25th of the ensuing month. Reported data reviewed had inconsistencies 14.1% (694/4,920). The system prompted health education and nutrition counseling interventions.

Conclusions: The anaemia in pregnancy surveillance system in the Central region was useful and meeting its objectives. The system was timely, acceptable, representative, sensitive, fairly flexible, with poor data quality. Findings were shared with the Central Regional Health Directorate and we recommended a training of staff involved in the anaemia in pregnancy surveillance system to enhance data quality.

Keywords: Anaemia, Pregnancy, Surveillance, Central Region

Abstract ID : PP850

Profil épidémiologique de la COVID-19, district sanitaire de Boké, 29 Mars 2020 au 31 Décembre 2021

Lanciné Keita¹, Claude Ngoma Mandro³, Abdoulaye Sadio Baldé¹, Nouonan Gbamou², Jolie Kasongo Kayembe³, & Salomon Corvil³, Fodé Amara Traoré^{2,1} Ministère de la santé et de l'hygiène publique, Boké, Guinée, ²Ministère de la santé et de l'hygiène publique, Conakry, Guinée, ³Le réseau africain d'épidémiologie de terrain (AFENET), Conakry, Guinée.

&Auteur correspondant: Kasongo Kayembe Jolie, Le réseau africain d'épidémiologie de terrain (AFENET), Conakry, Guinée, jkayembe@afenet.net

Introduction: Des 31 641 cas confirmés de COVID-19 et 691 décès notifiés en Guinée, Boké a notifié 1 042 cas confirmés dont 6 décès. Pour déterminer chez qui et où prédominent les cas ainsi que les personnes les plus à risque de mourir de COVID-19, cette analyse est faite afin d'orienter la vaccination.

Méthodes: Une étude descriptive d'incidence a été réalisée. Les bases de données DHIS2. Les définitions de cas de l'OMS ont été adoptées. Les caractéristiques sociodémographiques, cliniques et les facteurs de risques ont été décrites. Fréquence, taux d'attaque, taux de létalité (TL), médiane et étendue ont été calculées avec Epi info7.2.

Résultats: Au total 1 042 cas confirmés COVID-19 notifiés dont 6 décès (TL : 0,57%). Des 1 042 cas, 323 (37,6%) étaient symptomatiques dont 273 (84,5%) étaient des cas légers, 28 sévères (8,7%) et 21 (6,5%) modérés. L'âge médian : 34 ans (1-102) et tranche d'âge 30 à 39 ans était la plus touchée 589/100 000. Des 6 décès, 5 (2,44%) étaient de 50 ans et plus et 3 (50%) diabétiques.

Le TL était de 2,44% chez les 50 ans et plus contre 0,63 % chez < 50 ans faisant un risque de 3,9 fois plus élevé chez les 50 ans et plus. Le TL était de 23% chez les personnes ayant une comorbidité contre 0,29% chez les non comorbides pour un risque de 79 fois plus. La sous-préfecture de Tanènè était la plus touchée 428/100 000.

Conclusions: La majorité des cas présentait des symptômes légers. Les adultes jeunes et les hommes étaient les plus touchés tandis la létalité était élevée chez les 50 ans et plus et les diabétiques. La sous-préfecture de Tanènè était la plus touchée. Prioriser la vaccination chez les 50 ans et plus ainsi que chez les personnes avec comorbidité.

Mots-clés: Profil, épidémiologique, COVID-19, Boké.

Abstract ID : PP851

Investigation de cluster de COVID-19 à l'hôpital préfectoral de Fria, Guinée, Janvier 2022

Abdourahmane Balde¹, Claude Ngona Mandro⁴, Sékou Sidate Sylla², Nouonan Gbamou³, Jolie Kasongo Kayembe⁴, & Salomon Corvil⁴, Fodé Amara Traoré³.

¹Ministère de la santé et de l'hygiène publique, Fria, Guinée,

²Ministère de la santé et de l'hygiène publique, Dalaba, Guinée,

³Ministère de la santé et de l'hygiène publique, Conakry, Guinée,

⁴Le réseau africain d'épidémiologie de terrain (AFENET), Conakry, Guinée.

&Auteur correspondant: Kasongo Kayembe Jolie, Le réseau africain d'épidémiologie de terrain (AFENET), Conakry, Guinée, jkayembe@afenet.net

Introduction: A la date du 28/12/2021, une infirmière de l'hôpital préfectoral de Fria a été testée positive par test rapide à la COVID-19. Sachant que 80% des cas de COVID-19 sont asymptomatiques, une investigation approfondie a été menée pour déterminer l'ampleur de la flambée afin de mettre en place des mesures de prévention et contrôle.

Méthodes: Une étude de série de cas a été réalisée du 05 au 12 janvier 2022. Les définitions standards du guide technique de surveillance de COVID-19 de Guinée ont été utilisées. Les caractéristiques cliniques et sociodémographiques ont été collectées. Epi Info 7.2 a permis de calculer : médiane, étendue, proportion.

Résultats: Sur les 36 cas, 20 (55.6%) étaient symptomatiques dont 11 (55%) avaient des symptômes légers et neuf (45%) des symptômes modérés. La toux 13(36%), céphalées 12 (33%), écoulement nasal 12 (33%) et douleur musculaire 11(31%) étaient les principaux symptômes. L'âge médian était de 27,5 ans (18 - 56 ans). La tranche d'âge de 21 à 30 ans, 20 (55,6%) et le sexe féminin 26 (72,2 %) étaient les plus fréquents. Les infirmiers 16 (44.4%) étaient les catégories professionnelles les plus représentées. Au total 23 (64%) cas étaient complètement vaccinés et 6 (17%) non vaccinés. Parmi les cas modérés, 6 (66,6%) n'étaient pas vaccinés.

Conclusions: Plus de la moitié des cas était symptomatique et la toux était le principal symptôme. Le sexe féminin et la tranche d'âge de 21-30 ans étaient les plus représentés. Les infirmiers étaient majoritaires parmi les cas. Plus des deux-tiers des cas étaient complètement vaccinés. Tous les cas confirmés étaient isolés et les contacts vaccinés. Plus de la moitié des cas modérés n'étaient pas vaccinés.

Nous recommandons la vaccination de tout le personnel, le respect des mesures barrières, et la prévention et contrôle des infections.

Mots-clés: Cluster, COVID-19, Fria

Abstract ID : PP853

Evaluation du système de surveillance des morsures et de la rage, Direction Préfectorale de l'Elevage de Pita, 2019-2021

Mamadou Aliou² BAH1, Nouonan Gbamou², Jolie Kasongo Kayembe^{3,4}, Salomon Corvil³, Mamadou Alpha BAH¹, Fodé Amara Traoré²

¹Ministère de l'Agriculture et l'Elevage, Pita, Guinée,

²Ministère de la santé et de l'hygiène publique, Conakry, Guinée, ³ Le réseau africain d'épidémiologie de terrain (AFENET), Conakry, Guinée.

&Auteur correspondant: Kasongo Kayembe Jolie, Le réseau africain d'épidémiologie de terrain (AFENET), Conakry, Guinée, jkayembe@afenet.net

Introduction: En 2018, un plan stratégique d'élimination de la rage à l'horizon 2030 a été validé et la surveillance de la rage a été renforcée dont les objectifs étaient de détecter à temps les cas de morsures et faire la prophylaxie post expositionnelle (PPE). Cette évaluation consiste à déterminer si les objectifs fixés sont atteints.

Méthodes: Les guides d'évaluation de CDC 2021 et les directives de l'OMS ont été utilisés. Un questionnaire a été administré au personnel impliqué dans la surveillance pour évaluer la simplicité et l'acceptabilité alors que la représentativité, la promptitude, la qualité des données ont été évaluées à travers l'analyse de la base de données et l'utilité, selon l'atteinte des objectifs.

Résultats: Simplicité : sur 14 interviewées, 100% disposaient la définition de cas mais 71% la maîtrisaient et 57% estimaient facile le remplissage de la fiche de notification. Acceptabilité 86% des prestataires trouvent que la surveillance de la rage est une tâche supplémentaire et 43% de postes d'élevages notifiaient des cas de morsure.

Promptitude : 100% des cas investigués dans les 48 h. Qualité des données : fiches bien remplies : 66%. Représentativité description en temps et personne et des 12 sous-préfectures 8(67%) sont restées silencieuses en 2021. Utilité : 100% des morsures détectées ont été investiguées dont 57% ont bénéficié PPE.

Conclusions: Le système de surveillance était simple pour la disponibilité de la définition de cas de rage mais complexe sur le remplissage. Le système est inacceptable. Il est représentatif en termes de personne et temps mais non représentatif en termes de lieu et a été jugé peu utile.

Des activités comme la formation des agents sur le remplissage des fiches de notification ont permis de passer la qualité des données de 66% à 80%.

Mots-clés: Evaluation, surveillance, morsures, rage, Pita

Abstract ID: PP855

Evaluation of malaria outbreak detection Methods, Uganda, 2022

Marie Gorreti Zalwango^{1,*}, Daniel Kadobera¹, Jane Frances Zalwango¹, Lilian Bulage¹, Bosco Bekiita Agaba², Mathias Kasule Mulyazawo², Richard Migisha¹, Benon Kwesiga¹, Jimmy Opigo², Alex Riolexus Ario¹
¹Uganda Public Health Fellowship Program-Uganda National Institute of Public Health, Kampala, Uganda
²National Malaria Control Division, Ministry of Health, Kampala, Uganda

&Correspondence author: Marie Gorreti Zalwango, Uganda Public Health Fellowship Program-Uganda National Institute of Public Health, Kampala, Uganda, Email: mzalwango@musph.ac.ug, Tel: +256752610802

Introduction: Uganda adopted the 75th percentile Methods for malaria 'outbreaks' detection from the three World Health Organization-recommended Methods [the 75th percentile or mean+2 standard deviations (2SD) (for high-transmission areas), and cumulative sum (C-SUM) Methods (for low-transmission areas)]. However, the 75th percentile and mean+2SD Methods are used interchangeably by districts.

We evaluated these approaches to compare their outbreak-signaling outputs in Uganda for improved malaria outbreak detection and response.

Methods: We calculated thresholds for the three recommended Methods using historic data from the health management information system (HMIS) weekly reports (2017-2021).

Sixteen (16) districts with reporting rates above 80% were selected from 4 malaria transmission zones. We further applied the recommended adjustments of 85th percentile and C-SUM+2SD to notice any differences from the unadjusted Methods.

STATA software was used to obtain statistical significance using chi-square for the difference in weeks detected between Methods.

Results: The number of outbreak weeks varied by Methods. For all regions in the various malaria transmission levels, there was a difference in outbreak weeks detected by the 75th percentile and mean+2SD Methods (p-value=<0.001). Outbreak weeks detected by the very sensitive C-SUM were not statistically significant 75th percentile in 69% of the districts.

Outbreaks detected by the adjusted 85th percentile had no statistically significant difference from the 75th percentile in 63% of the districts. The adjusted C-SUM+2SD detected outbreak weeks equivalent to the mean+2SD (p=1) for all districts in the various transmission intensities.

Conclusions: The 75th percentile and C-SUM approaches were equally sensitive in most districts evaluated. This questions the appropriateness of the 75th percentile for medium and high-malaria transmission areas.

The use of mean+2SD and C-SUM+2SD Methods for epidemic detection in medium to high-transmission areas and the use of 75th percentile and C-SUM Methods for pre-epidemic warning could provide better malaria outbreak detection in high malaria transmission countries.

Key words: Malaria epidemic, surveillance, epidemic thresholds, Uganda

Abstract ID: PP865

Adoption of eHealth for community monitoring of HIV/TB services and its predictors among NGO staff in Kampala Uganda.

Isabella Wanadi Kisa^{1&}, Simon Kasasa², Simon Peter Sebina Kibira³

¹Makerere University School of Public Health, College of Health Sciences, Makerere University, Kampala, Uganda. ²Department of Epidemiology & Biostatistics, School of Public Health, College of Health Sciences, Makerere University, Kampala, Uganda.

³Department of Community Health and Behavioural Sciences, School of Public Health, College of Health Sciences, Makerere University, Kampala, Uganda.

&Corresponding author: Isabella Wanadi Kisa, Makerere University School of Public Health, Kampala, Uganda. Email: isbellakisa@gmail.com

Introduction: The use of digital health technologies improves healthcare outcomes, through augmenting diagnosis, prescription/treatment, and patient-centered care. The WHO global strategy on digital health (2020-2025) fronts the use of eHealth as important in achieving health goals. However, the challenge is that of low adoption and use. This study sought to assess the extent of adoption and use of eHealth for community monitoring of HIV/TB services and its predictors among NGO staff in Kampala.

Methods: A mixed Methods study was carried out in nine NGOs providing HIV/TB services in Kampala, from August-December 2022. Questionnaires were administered to 110 eHealth users, and Key Informant Interviews with 10 staff. Quantitative data were analyzed using logistic regression (bivariable and multivariable) reporting odds ratios to determine factors associated with adoption at 95% CI, while qualitative data were analyzed thematically.

Results: Adoption was defined as achieving a state in which electronic systems are being used as intended, and to their fullest extent. Much as the different systems have been integrated to facilitate community programming, the usage reported is still low. 45.5% participants reported digress from system use.

Age, computer literacy, and interoperability were factors associated with adoption and use of eHealth. Those most likely to adopt were staff (25-34) years (AOR=2.9, CI 1.21-7.16), the computer literate (AOR=3.4, CI 1.05-11.58) and non-interoperable systems were less likely to be adopted (AOR=0.6, CI 0.40-0.88). Other facilitators from qualitative findings included gender, readiness to use technology, user-friendliness, data accuracy, customized features, training, and real-time support.

Key challenges were: limited technology infrastructure, system slowness, double entry burden, and slow technical support.

Conclusions: This study provides insights into extent of and predictors of adoption and use of eHealth at community level for HIV/TB service delivery. Availing technology infrastructure, building interoperable and systems that work offline, routine refresher trainings and real-time technical support are recommended.

Keywords: E-Health, Adoption, Community Monitoring, Hiv/Tb.

Abstract ID: PP870

Improving HIV oral pre-exposure prophylaxis (PrEP) initiation among high-risk pregnant and breastfeeding women using continuous quality improvement approach at Katakwi General Hospital, Eastern Uganda, May-October, 2022

Sarah Elayeete^{1,&} Edirisa Juniour Nsubuga¹, Gerald Pande², Benon Kwesiga¹, Steven Kabwama¹, Alex Rioplex Ario^{1,2}

¹Uganda Public Health Fellowship Program, Kampala, Uganda, ²Ministry of Health, Kampala, Uganda.

&Corresponding author: Sarah Elayeete, 1Uganda Public Health Fellowship Program, Kampala, Uganda, 2Ministry of Health, Kampala, Uganda, Email: selayeete@musph.ac.ug

Introduction: In 2020, the Uganda Ministry of Health rolled out HIV oral pre-exposure prophylaxis

(PrEP) among pregnant and breastfeeding women at substantial risk of HIV acquisition ('high-risk') as part of a comprehensive prevention strategy.

However, review of PrEP registers at Katakwi General Hospital from January 2020 to April 2022 indicated that few high-risk women were initiated on PrEP. We conducted a continuous quality improvement project to increase PrEP initiation among high-risk pregnant and breastfeeding women at Katakwi General Hospital.

Methods: We defined 'baseline' as January-April 2022, 'midline' as May-July 2022 and 'endline' as August-October 2022. We reviewed PrEP registers at baseline to establish the number of high-risk pregnant and breastfeeding women initiated on PrEP.

A quality improvement team was formed and trained on the Plan-Do-Study-Act approach. Together with the team, we analysed the root causes of low PrEP initiation among high-risk women using fishbone analysis and implemented interventions.

To evaluate the intervention success, we reviewed PrEP data for high-risk pregnant and breastfeeding women at midline and endline and assessed changes from baseline as proportions of targeted women who were initiated on PrEP using chi-square test.

Results: Fishbone analysis identified reasons for low PrEP initiation as lack of healthcare worker training, screening, and facility-based PrEP sensitization. Training of healthcare providers offering PrEP and facility-based PrEP sensitizations were conducted.

At baseline, only 20/109 (18%) high-risk pregnant women and 12/78 (15%) high-risk breastfeeding women were initiated on PrEP.

Among high-risk pregnant women, PrEP initiation rate increased to 125/220 (57%) at midline ($p < 0.0001$) and to 264/265 (99.6%) at endline ($p < 0.001$). Among high-risk breastfeeding women, PrEP initiation rate increased to 120/182 (67%) at midline ($p < 0.0001$) and to 202/203 (99.5%) at endline ($p < 0.0001$).

Conclusions: Targeted training of healthcare providers enabled increases in PrEP initiation among at risk pregnant and breastfeeding women. Regular facility-based sensitizations and trainings could encourage continued engagement in PrEP initiation at Katakwi General Hospital.

Keywords: Pre-exposure prophylaxis, pregnant, breastfeeding, increased risk for HIV acquisition.

Abstract ID: PP872

A comparison of hospitalised and non-hospitalised patients in 3 waves of COVID-19, from March 2020 to March 2022 in Uganda

Petranilla Nakamya^{1,*}, Rose Nampeera¹, Stella Martha Migamba¹, Hildah Tendo Nansikombi¹, Sarah Elayeete¹, Benon Kwesiga¹, Daniel Kadobera (MSc)¹, Felix Ocom MSc² Alex Ario Rioplexus¹, Julie Harris³

¹Uganda Public Health Fellowship Program, Kampala, Uganda

²Ministry of Health, Public Health Emergency Operations Center, Kampala, Uganda

³US Centers for Disease Control and Prevention, Kampala, Uganda

&Corresponding author: Petranilla Nakamya, Uganda Public Health Fellowship Program, Kampala, Uganda, Email: nakamyapetra@musph.ac.ug, Tel:+256.773464431 / +256.740913480

Introduction: Uganda experienced three major waves of COVID-19 from March 2020 to March 2022. We compared the epidemiology of cases across the three waves to inform decision-making in pandemic control.

Methods: We compared Wave-3 (W3) cases to previously published Results for Wave-1 (W1) and Wave-2 (W2) cases in Uganda and used the same Methods. We collected medical records for 200 PCR-confirmed hospitalized patients (HP) from Entebbe and Mulago Referral Hospitals during W3. We interviewed 200 randomly selected, PCR-confirmed non-hospitalized patients (NHPs) in W3 identified from lab records. Data on demographics, clinical characteristics, and vaccination status were collected.

Results: There was no difference in median age between patients in any wave. Among HP, the proportions female in W1, W2, and W3 were 27%, 46%, and 36%, respectively; all significantly different ($p < 0.05$). Among NHP, the proportions female in W1, W2, and W3 were 42%, 48%, and 43%, respectively, none significantly different.

The commonest comorbidity in all 3 waves was

hypertension. W1, W2, and W3 had 18%, 28%, and 17% of HP with hypertension (significantly different between W3 and W2 ($p=0.009$) but not W3 and W1 ($p=0.79$)).

There were no differences in the proportion of NHP with hypertension between any of the waves. Among HP, more were fully vaccinated in W3 than W2 (46% vs 1%, $p<0.001$). Among HP, 6%, 26%, and 11% died in W1, W2, and W3, respectively, with W3 having significantly lower proportions of HP dying than W2 ($p<0.001$), unlike W1 ($p=0.073$).

Conclusions: The characteristics of COVID-19 patients were modestly different in three waves in Uganda. W3 cases were somewhat more similar to those in W1 than W2. However, disease appeared to be less severe in W3 and W1 than W2. As the SARS-CoV-2 pandemic continues to evolve, monitoring waves and new variants should remain a priority to inform response.

Keywords: COVID-19, Waves, Hospitalised, Non-hospitalised, Delta, Omicron, Uganda

Abstract ID: PP873 **COVID-19 Vaccine Uptake and Coverage in Uganda, March 2021 - June 2022**

Patrick King^{1&}, Mercy Wendy Wanyana¹, Richard Migisha¹, Daniel Kadobera¹, Benon Kwesiga¹, Biribawa Claire², Michael Baganizi² and Alfred Driwale², Alex Riolexus Ario¹

¹Uganda Public Health Fellowship Program, Uganda National Institute of Public Health, Kampala, Uganda

²The Uganda National Expanded Program on Immunization (UNEPI), Ministry of Health, Kampala, Uganda.

&Corresponding author: Patrick King, 1Uganda Public Health Fellowship Program, Uganda National Institute of Public Health, Kampala, Uganda, Email: kingp@uniph.go.ug, +256775432193,

Introduction: The WHO Global strategy on COVID-19 vaccination targeted national coverage of 70% by June 2022 to reduce COVID-19 associated

morbidity and mortality in member states.

We assessed COVID-19 vaccination uptake and coverage in Uganda during March 2021 through June 2022 to evaluate progress towards targets and identify gaps for evidence-based recommendations.

Methods: We used secondary data from the national COVID-19 vaccination database from March 2021 through June 2022. Vaccine uptake was defined as the proportion of the population vaccinated with ≥ 1 COVID-19 vaccine dose. Coverage was the proportion of persons who had received the full number of doses ('schedule') of the relevant vaccine. For single-dose vaccines, uptake equalled coverage. We calculated uptake and coverage at national, regional and district levels and analyzed by sex and age groups. We used chi-square test to assess differences between categories.

Results: In total, 17,369,476 (46%) individuals received ≥ 1 COVID-19 vaccine dose, and 11,833,911 (32%) individuals had received the full schedule by June 2022. National uptake was 6% in September (Q3) 2021, 42% in December (Q4) 2021 and 63% by June (Q2) 2022.

Coverage (2% in Q3 2021, 16% in Q4, 2021, and 42% in Q2 2022) was below WHO targets. Western region (33.2%) had significantly higher coverage than eastern (31.4%), Central (22.4%) and northern regions (21.6%) ($p<0.001$).

Females (10.6%) had higher coverage than males (8.6%) ($p<0.001$). Persons >50 years of age had higher coverage (24.9%) than persons aged 40-49 (21.8%), 30-39 (19.0%), 18-29 (4.7%) and 12-17 (2.9%) years ($p<0.001$).

Conclusions: COVID-19 vaccine coverage and uptake were below WHO targets in Uganda by June 2022.

The Uganda National Expanded Program for Immunization (UNEPI) should carry out targeted vaccination campaigns to improve vaccine uptake and coverage, particularly among males and individuals below 18 years.

Key Words: COVID-19 Vaccine, COVID-19 Vaccine Uptake and Coverage

Abstract ID: PP876

Improving Timeliness and Completeness of Reporting of weekly surveillance data, Mbarara Di Sherifah Nabikande strict, Uganda, Weeks 22 to 34, 2022

Sylvia Ayebare¹, Agatha Nshabohurira¹
¹Mbarara District, Uganda

&Corresponding author: Sylvia Ayebare, Mbarara District, Uganda, Email: nshabohurira@gmail.com

Introduction: Accurate and timely surveillance informs evidence-based decision-making at all levels. All health facilities in Uganda are mandated to submit weekly reports on Monday of the next week into the mTrac system. The Ministry of Health set a reporting rate target of 80%. We evaluated the completeness and timeliness of reporting and initiated a project to improve weekly surveillance reporting for Mbarara District from 27% to 80% between week 22 to week 34, 2022.

Methods: We extracted health facility data from DHIS2 on completeness and timeliness in reporting for 13 weeks. Interventions like; Weekly SMS reminders-early on Mondays, SMS appreciation messages to facilities reporting on time and registering more health workers in the system, and Phone calls to none reporting facilities. We analyzed reporting rates per health facility for a period of six weeks before the intervention and seven weeks during the intervention.

Results: At week 22, reporting was 27% completeness and 12% timeliness against 80% recommended rate for the Ministry of Health respectively. Generally, there was an increase in completeness and timeliness in 10/12 (83%) of the weeks.

There was a drop in week 32 to 50% due to system challenges. By week 34, reporting was 89% completeness and 85% timeliness

Conclusions: Weekly reminders and phone calls to health workers increased reporting rates both timeliness and completeness.

We recommended Ministry of Health to stabilize the system, continuous monitoring, and mentorship to improve the quality of data.

Keywords: Disease surveillance, Weekly Surveillance, Data Reporting, Completeness, Timeliness, Uganda

Abstract ID: PP880

Descriptive Analysis of Malaria cases, Masaka Region, Uganda, January - December 2022

Gertrude Abbo^{1,&}, Doreen Gonahasa², Hildah Tendo Nansikombi², Allan Komakech², Irene Byakatonda Kyamwine²

¹Masaka Regional Referral Hospital, Masaka, Uganda
²Uganda National Institute of Public Health, Kampala, Uganda

&Corresponding author: Gertrude Abbo, Masaka Regional Referral Hospital, Masaka, Uganda, +256773237156, gertrudeduku93@gmail.com

Introduction: Uganda has one of the highest global burden of malaria cases contributing to 30 - 50% of outpatient visits and 15 - 20% of hospital admissions. For many years, malaria has been the leading cause of outpatient department (OPD) attendance in the Masaka Region.

According to the Uganda Malaria Action Program for Districts' report of 2021, malaria was responsible for 32% of all OPD visits in Masaka region. We described the incidence of malaria in Masaka region from January to December 2022.

Methods: We conducted a descriptive analysis of monthly malaria cases reported by the 13 districts in Masaka Region, from January–December 2022. We abstracted data on age, sex and district reporting malaria cases from the District Health Information System version 2 (DHIS2). We determined frequencies and proportions of each variable. We developed malaria channels for most affected districts in the region using malaria cases reported in DHIS2 for the past 5 years.

Results: Overall, the region reported 809,670 cases with an incidence of 312 cases/1,000 population from January–December 2022.

Females were more affected (342 cases/1,000). Cases aged 10-19 years were most affected (406 cases/1,000) while those aged ≥ 20 years were least affected (228 cases/1,000). Rakai District was the most affected with 542 cases/1,000 population while Masaka District registered lowest incidence of 159 cases/1,000 population. The malaria channels indicated an upsurge in the region in most parts of the year 2022.

Conclusions: Rakai, Kyotera and Butambala districts were most affected reporting the highest malaria incidence $>400/1,000$ population. There is need to implement effective malaria prevention programs such as capacity building and technical support to district health teams in support of the national malaria control strategy by targeting most affected districts in the Masaka Region.

Keywords: Malaria, Malaria incidence, Uganda

Abstract ID: PP884 **Trends in HIV Differentiated Service Delivery Model utilization among children and adolescents in Uganda, 2020-2022**

Rebecca Akunzirwe^{1,*}, Richard Migisha¹, Eleanor Magongo², Miriam Nakanwagi², Ivan Arinaitwe², Daniel Kadobera¹

¹Uganda Public Health Fellowship Program, Kampala, Uganda

²AIDS Control Program, Kampala, Uganda

&Corresponding author: Rebecca Akunzirwe, 1Uganda Public Health Fellowship Program, Kampala, Uganda. Email: rakunzirwe@musph.ac.ug

Introduction: HIV programs struggle to provide care to children and adolescents living with HIV (CALHIV). Differentiated service delivery models (DSDM) aim to make HIV care more client-centered and improve care and treatment. DSDM in Uganda comprise two community-based models [community-client-led ART distribution (CCLAD) and community drug distribution points (CDDP)] and three facility-based models [facility-based individual management (FBIM), facility-based group management (FBGM), and fast-track drug refill (FTDR)]. They are also classified by level of follow-up as ‘intensive’

(FBGM and FBIM) or ‘less intensive’ (community-based models and FTDR). All CALHIV in Uganda were initially assigned to intensive DSDM. Recently, less intensive DSDM have been expanded to include CALHIV. We assessed DSDM utilization by CALHIV in Uganda from January 2020 to December 2022.

Methods: This was a secondary analysis of data from District Health Information System for DSDM used by CALHIV (aged 0-19 years) during the study period. We calculated the proportion of CALHIV enrolled on ART by DSDM each quarter and assessed trend significance using the chi-square test for trends.

Results: Among 89,409 CALHIV on ART during October-December, 2022, 69% were <15 years and 31% were 15-19 years; 53% were female. Of those with data (74-99% by quarter), almost all (96-100%) enrolled in facility-based models. Utilization of the less intensive facility-based model (FTDR) ranged from 15-28% by quarter; utilization of intensive facility-based models ranged from 72-85%. FTDR utilization over the 12 quarters increased from 0% to 12% among children aged <10 years, 14% to 29% among ages 10-14 years, and 19% to 32% among ages 15-19 years ($p<0.001$).

Conclusions: Expansion of DSDM options for CALHIV led to an increase in CALHIV utilization of less intensive models. However, community DSDM enrolments remained low. Studies to address this gap may enable improved enrolment in and continuity of HIV care and treatment for CALHIV.

Keywords: DSDM, children, Uganda

Abstract ID: PP886 **Assessing late presentation for HIV care among men living with HIV enrolled on Antiretroviral Therapy in Eastern Uganda, 2020**

Sherifah Nabikande^{1,*}, Juliana Namutundu¹, Steven Ndugwana Kabwama^{1,2}, Anne Ruhweza Katahoire³

¹School of Public Health, College of Health Sciences, Makerere University, Kampala, Uganda, ²Uganda Public Health Fellowship Program, Field Epidemiology Track, Ministry of Health, Kampala, Uganda,

³Child Health and Development Centre, College of Health Sciences, Makerere University, Kampala, Uganda

&Corresponding author: Sherifah Nabikande, School of Public Health, College of Health Sciences, Makerere University, Kampala, Uganda. Email: nabikandesharifah@live.com

Introduction: Immediate initiation on antiretroviral therapy (ART) after HIV diagnosis has significant benefits of reducing viral load and risk of mortality; enhancing retention in care; and improving quality of life among people with HIV. However, late presentation for HIV care remains prevalent in Africa among men between 35.7% to 90.1%. We assessed prevalence and factors associated with late presentation for HIV care among men in Uganda.

Methods: We conducted a cross sectional study between October and November 2020, among adult men aged 18 years and above living with HIV and enrolled on ART at a large volume HIV-care facility in Eastern Uganda. We used systematic sampling to recruit 394 participants who were interviewed using structured questionnaires to assess patient characteristics at initial ART enrolment and each patient's medical record abstracted to record initial CD4 cell count. Participants with a CD4 cell count less than 350, at ART initiation were categorised as late presenters. Descriptive statistics and modified Poisson regression analysis were conducted to determine the prevalence and factors associated with late presentation for HIV care.

Results: Overall, 313/394 (79.4%) of the participants had presented late for HIV care. Men aged (25-34) [adjusted prevalence ratio (aPR)=0.13; 95%CI: 0.03-0.60] and (35-49) years [aPR= 0.47; 95%CI: 0.24-0.91] at initial ART enrolment were less likely to present late compared to those aged (18-24) years. Late presentation was also lower among men who had received social support after HIV diagnosis [aPR=0.36; 95%CI: 0.18-0.73] compared to men who reported not receiving social support from their families.

Conclusions: Late presentation for HIV care was high especially among younger men. Strategies to improve early presentation for HIV care should target young men (18-24 years). Involving family members to ensure provision of social support to newly diagnosed HIV positive individuals could also potentially improve early enrolment.

Keywords: Antiretroviral Therapy, late presentation, HIV care, men, Uganda



8th AFENET Scientific Conference

- | | |
|----------------------------------|--------------------------------------|
| 1. Addmore Chadambuka | 33. Christine Kihembo |
| 2. Dr Adefisoye Adewole | 34. Chukwuma David Umeokonkwo |
| 3. Adel Elduma | 35. Cristolde Salomao |
| 4. Aime Lulebo | 36. Dr Cynthia Cema Baltazar |
| 5. Aisha Sadiq | 37. Dany Bakoly Ranoaritiaana |
| 6. Dr Aishat Bukula Usman | 38. Davis Ashaba |
| 7. Dr Alain Magazani | 39. Delia Bando |
| 8. Dr Alex Ario Riolerus | 40. Dennis Okethwangu |
| 9. Dr Ally Hussein | 41. Dennis Yelbeogo |
| 10. Dr Amadou Jallow | 42. Dr Ditu Kazambu |
| 11. Amelework Alene | 43. Dr Djibo Issifou |
| 12. Amina Umar | 44. Dr Donne Kofi Ameme |
| 13. Amir Juya | 45. Dr Edson Rwagasore |
| 14. Andre Misombo Kalabela | 46. Elijah Paa Edu-Quansah |
| 15. Andrew Tusubira | 47. Dr Elizabeth Adedire |
| 16. Angela Kisakye | 48. Emelda Ramutshila |
| 17. Asamoah Joseph Frimpong | 49. Eric Musalu Mafuta |
| 18. Dr Atama Nnomzie | 50. Ernest Kateule |
| 19. Aubin Soukoudoupou Ngbeadego | 51. Prof Olufunmilayo Ibitola Fawole |
| 20. Augusto Lopez | 52. Felicite Yagata Moussa |
| 21. Dr Azuka Adeke | 53. Fhatuwani Gavhi |
| 22. Ba Mamadou Sarifou | 54. Dr Frank Ipyana |
| 23. Dr Bamidele Onatola | 55. Dr Fredrick Odhiambo |
| 24. Banda Jezreel Dabwitso | 56. Gauthier Mubenga |
| 25. Barry Djibril | 57. Dr Gebru Negash |
| 26. Belinda Malasi Ayumuna | 58. Gemechu Chemedo |
| 27. Dr Ben Masiira | 59. Gerald Shambira |
| 28. Dr Benon Kwesiga | 60. Godfrey Kayita |
| 29. Bonodong Zongnukuu Guri | 61. Hanine Keita |
| 30. Caren Ndeta | 62. Hellen Kgatla |
| 31. Celestine Ameh | 63. Hetani Mdose |
| 32. Dr Chidinma Ihuoma Amuzie | 64. Irene Kyamwine Byakatonda |

List of Reviewers for the 8th AFENET Scientific Conference



8th AFENET Scientific Conference

65. Jacob Bibohere

66. Jean d'Amour Sinayobye

67. John Kamulegeya

68. John Kennedy Matovu

69. Jolie Kayembe Kasongo

70. Joseph Magoola

71. Dr Joseph Otshudiandjeka

72. Kenneth Kayembe

73. Kevin Mugenyi

74. Khuliso Ravhuhali

75. Leocardia Kwagonza

76. Leonard Hakizimana

77. Lilian Bulage

78. Linda Matadi Basadia

79. Luke Nyakarahuka

80. Lwanga Noora

81. Dr Maame Amo-Addae

82. Dr Mable Aworh

83. Dr Mahmood Dalhat

84. Maria Nunga

85. Maurice Owiny Omondi

86. Dr Mohammed Shakir Balogun

87. Munekayi Padingani

88. Naltiana Rakotondrabe

89. Ndiaye Mouna

90. Nestor Denakpo Noudeke

91. Nestor Ndakala

92. Dr Nicholas Ayebazibwe

93. Dr Notion Gombe

94. Nsiande Lema

95. Dr Nyambe Sinyange

96. Dr Obafemi Babalola

97. Dr Oladipo Ogunbode

98. Dr Olawunmi Adeoye

99. Olivia Nakwafila

100. Dr Olivia Namusisi

101. Dr Patrick Dely

102. Dr Patrick Ngoma Mavungu

103. Dr Peter Adewuyi

104. Dr Rebecca Kinde

105. Robert Majwala

106. Rogath Kishimba

107. Dr Saheed Gidado

108. Salomon Corvil

109. Dr Seogo Hamadou

110. Dr Sophia Usuwa

111. Soungalo Diakite

112. Sow Hyacinthe

113. Stephen Olayinka

114. Tariku Tekele

115. Dr Tatek Bogale

116. Dr Tchalla Abalo

117. Traore Bouyagui

118. Tsitsi Juru

119. Tyakaray Ibrahim Visa

120. Dr Uzoma Ugbonna

121. Vincent Mutabazi

122. Wilbrod Mwanje

123. Wilnique Pierre

124. Yassa Djakani

125. Yaya Ballayira

126. Yaya Ballayira

127. Zoungrana Noelie

List of 8th AFENET Scientific Conference Planning Committees

| SCIENTIFIC COMMITTEE | | | |
|---|------------------------|--------------------------------|---------------------|
| No. | Name | Organization | Position |
| 1 | Dr Josephine Githaiga | Kenya MOH | Chairperson |
| 2 | Dr Ditu Kazambu | AFENET Secretariat | Vice Chairperson |
| 3 | Dr Christine Kihembo | AFENET, Secretariat | Secretary |
| 4 | Dr Chukwuma Umeokonkwo | AFENET Secretariat | Deputy Secretary |
| 5 | Dr Olivia Namusisi | AFENET, Secretariat | Member |
| 6 | Mr Humphrey Kabugo | AFENET, Secretariat | Member |
| 7 | Dr Ben Masira | AFENET, Secretariat | Member |
| 8 | Dr Kevin Mugenyi | AFENET, Secretariat | Member |
| 9 | Dr Herbert Kazoora | AFENET, Secretariat | Member |
| 10 | Dr Yaya Ballayira | AFENET, Secretariat | Member |
| 11 | Mr Joseph Magoola | AFENET, Secretariat | Member |
| 12 | Dr Godfrey Kayita | AFENET, Secretariat | Member |
| 13 | Mr Davis Ashaba | AFENET, Secretariat | Member |
| 14 | Dr John Kamulegeya | AFENET, Secretariat | Member |
| 15 | Dr. Patrick Nguku | AFENET- Nigeria | Member |
| 16 | Dr Tatek Bogale | AFENET – RTC/HOA | Member |
| 17 | Dr Notion Gombe | AFENET – RTC/SA | Member |
| 18 | Dr Done Ameme | AFENET – RTC/WA | Member |
| 19 | Dr Alain Magazani | AFENET – RTC/ Central Africa | Member |
| 20 | Dr Nicholas Ayebaziwe | AFENET Secretariat | Member |
| 21 | Jacob Biboheire | AFENET Secretariat | Member |
| 22 | Maurice Owiny O | Kenya/Scientific Writer | Member |
| 23 | Adel Elduma | Sierra Leone/Scientific Writer | Member |
| 24 | Elizabeth Adedire | Nigeria/Scientific Writer | Member |
| 25 | Delia Bandoh | Ghana/Scientific Writer | Member |
| 26 | Emelda Ramutshila | South Africa/Scientific Writer | Member |
| 27 | Lilian Bulage | Uganda PHFP/Scientific Writer | Member |
| 28 | Angela Kisakye | Uganda MPH/Scientific Writer | Member |
| 29 | Allan Mwesiga | AFENET Secretariat | Member |
| 30 | Ernest Liurta | AFENET Secretariat | Member |
| 31 | Kennedy Matovu | AFENET Secretariat | Member |
| 32 | Dr Seogo Hamadou | RTC Franchophone W.Africa | Member |
| 33 | Addmore Chadambuka | Zimbabwe/Scientific Writer | Member |
| ADVOCACY, FINANCE & RESOURCE MOBILIZATION | | | |
| No. | Name | Organization | Position |
| 1 | Dr Patrick Nguku | AFENET W/Africa | Chairperson |
| 2 | Agnes Kiggundu | AFENET, Secretariat | Vice Chairperson |
| 3 | Jemima Angira | AFENET, Secretariat | Focal person |
| 4 | Dr Ahmed Abade | AFENET, Kenya | Member |

List of 8th AFENET Scientific Conference Planning Committees

| No. | Name | Organization | Position |
|-----|--------------------------|----------------------|----------|
| 5 | Beatrice Masika | AFENET, Secretariat | Member |
| 6 | Gebrekrstos Negash Gebru | AFENET, Sierra Leone | Member |
| 7 | Dr Herbert Kazooro | AFENET, Secretariat | Member |
| 8 | Lilian Bulyaba | AFENET, Secretariat | Member |
| 9 | Dr Godfrey Kayita | AFENET Secretariat | Member |
| 10 | Marion Mwangi | AFENET, Kenya | Member |
| 11 | Brian Kaganzi | AFENET, Secretariat | Member |
| 12 | Maria Amanya | AFENET, Secretariat | Member |
| 13 | Dr Rebecca Babirye | AFENET, Secretariat | Member |
| 14 | Gerald Kahwa | AFENET, Secretariat | Member |
| 15 | Moreen Kamateeka | AFENET, Nigeria | Member |
| 16 | Halima Golo Galgalu | AFENET, Kenya | Member |
| 17 | Ayub Kakaire Kirunda | AFENET Secretariat | Member |
| 18 | Racheal Chelimo | AFENET Secretariat | Member |
| 19 | Edgar Ampaire | AFENET Secretariat | Member |
| 20 | Dr Endie Waziri | AFENET, Nigeria | Member |

INFORMATION AND COMMUNICATION TECHNOLOGY COMMITTEE

| S/No | Name | Organization | Position |
|------|----------------------|---------------------|-------------|
| 1 | Emmanuel Omus | AFENET, Secretariat | Chairperson |
| 2 | Michael Nkanika | AFENET, Secretariat | Secretary |
| 3 | Fridah Kathuku | AFENET, Kenya | Member |
| 4 | Godwin Akpan | AFENET, Liberia | Member |
| 5 | James Orevba | AFENET, Nigeria | Member |
| 6 | Kakaire Ayub Kirunda | AFENET, Secretariat | Member |
| 7 | Edgar Ampaire | AFENET, Secretariat | Member |
| 8 | Racheal Chelimo | AFENET, Secretariat | Member |
| 9 | Margeret Wisdom | AFENET, Nigeria | Member |
| 10 | Oladimeji Amal | AFENET, Nigeria | Member |

LOGISTICS COMMITTEE

| No | Name | Organization | Position |
|----|----------------------|--------------------|----------------------------|
| 1 | Christopher K. Tanui | AFENET Secretariat | Chairperson |
| 2 | Chinyere, Gana | AFENET Nigeria | Lead, Admin & Logistics |
| 3 | Amanya, Maria | AFENET Secretariat | Focal Person |
| 4 | Diallo mamadou Diawo | AFENET Guinea | Member |
| 5 | Francis Xavier Bbosa | AFENET Secretariat | Member |
| 6 | Eyatu, Kenneth | AFENET Secretariat | Lead, Transport & Protocol |
| 7 | Charles Kamuli | AFENET Secretariat | Member |
| 8 | Marion Mwangi | AFENET Kenya | Member |
| 9 | Galgalu Golu | AFENET Kenya | Member |
| 10 | Kamugumya, Patrick | AFENET Tanzania | Member |

List of 8th AFENET Scientific Conference Planning Committees

| No. | Name | Organization | Position |
|-----|----------------------------|---------------------|---|
| 11 | Victoria Nasera | AFENET South Sudan | Member |
| 12 | Ida Nduwayo | AFENET Rwanda | Member |
| 13 | Andrew Sitati | AFENET Sierra Leone | Lead, Ceremonies & Educational Tours |
| 14 | Gladys Antwi | AFENET Ghana | Member |
| 15 | Stella Yani | AFENET Nigeria | Member |
| 16 | Gloria Okara | AFENET Nigeria | Member |
| 17 | Sindy Zagre | AFENET Burkina Faso | Member |
| 18 | Natacha D'Almeida | AFENET Benin | Member |
| 19 | Helga Hedwig Hoaes | AFENET Namibia | Member |
| 20 | Melita Helena Santos Panzo | AFENET Angola | Member |
| 21 | Oladimeji Amal | AFENET Nigeria | Member |
| 22 | Margeret Wisdom | AFENET Nigeria | Member |
| 23 | Jackline Kaitale | AFENET Secretariat | Member |
| 24 | Lilian Namboze Kironde | AFENET Secretariat | Member |
| 25 | Mariah Namuwanga | AFENET Secretariat | Member |
| 26 | Sanyu Nattimba | AFENET Secretariat | Member |
| 27 | Angela Namuli | AFENET Secretariat | Member |
| 28 | Martin Ronald Manzi | AFENET Secretariat | Member |
| 29 | Stephen Kyambadde | AFENET Secretariat | Member |
| 30 | Omus Emmanuel | AFENET Secretariat | Lead, ICT |
| 31 | Michael Nkanika | AFENET Secretariat | Member |
| 32 | Bonfance K. Omalla | AFENET Secretariat | Security |

NATIONAL PLANNING COMMITTEE

| S/N | Name | Organization | Position |
|-----|-------------------------|---|-------------|
| 1 | Dr Sultani Matendechero | Deputy Director General, State Department for Public Health and Professional Standards, Ministry of Health | Chairperson |
| 2 | Dr Josephine Githaiga | Head, FELTP Kenya | Secretary |
| 3 | Dr Daniel Langat | Head, Division of Disease Surveillance and Response, Ministry of Health | Member |
| 4 | Dr. Swabaha Ahmed Omar | CEC Health, Mombasa County | Member |
| 5 | Dr Athman Mwatondo | Zoonotic Disease Unit Division of Disease Surveillance and Response, Ministry of Health | Member |
| 6 | Dr Samuel Kadivane | Division of Disease Surveillance and Response, Ministry of Health | Member |
| 7 | Dr Ian Were | Office of the Director General, State Department for Public Health and Professional Standards, Ministry of Health | Member |

List of 8th AFENET Scientific Conference Planning Committees

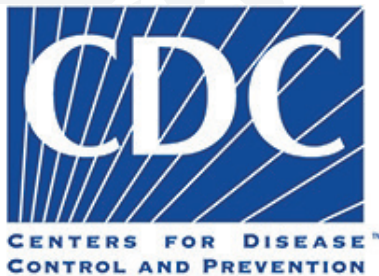
| S/N | Name | Organization | Position |
|-----|---------------------------|--|----------|
| 8 | Ms. Jennifer Karimi Njiru | Director Foreign Service Administration State Dept of Foreign Affairs Ministry of Foreign and Diaspora Affairs | Member |
| 9 | Linda Karuru | Film Crew in Africa | Member |
| 10 | Peter Karanja | Under Secretary/Security State Dept for Internal Security and National Administration Ministry of Interior and National Administration | Member |
| 11 | Peter Mwanzo | Designation - CP National Police Service, Internal security & National Administration Ministry of Interior and National Administration | Member |
| 12 | Dr. Eunice Omondi | Vet Epidemiologist & Economist, Department of Veterinary Services, Ministry of Agriculture, Livestock, Fisheries and Co-operatives | Member |
| 13 | Dr Cecilia Mbae | Senior Research Scientist at KEMRI & Chair of KASH Conference Kenya Medical Research Institute (KEMRI) | Member |
| 14 | Dr. Kerre Patrick | Dean, School of Public Health Moi University | Member |
| 15 | Dr Kibor Keitany | National Malaria Program Ministry of Health | Member |
| 16 | Vivian Mboga | Senior Assistant Secretary Ministry of Health | Member |
| 17 | Veronica Aswani | Head, Disease Surveillance Unit, Port Health at Jomo Kenyatta International Airport Ministry of Health | Member |
| 18 | Fridah Kathuku | ICT Officer, AFENET Kenya | Member |
| 19 | Dr Maria Nunga | Field Epidemiologist FELTP Kenya Ministry of Health | Member |
| 20 | Fredrick Odhiambo | Deputy Head & Field Epidemiologist FELTP Kenya Ministry of Health | Member |
| 21 | Dr Caren Ndeta | Field Epidemiologist FELTP Kenya Ministry of Health | Member |
| 22 | Dr David Soti | Office of the Director General, State Department for Public Health and Professional Standards, Ministry of Health | Member |
| 23 | Dr Joyce Wamicwe | Head, Division of Policy and Research Ministry of Health | Member |



Member States



OUR SPONSORS





th
8 AFENET
Scientific Conference

“Strengthening Public Health Systems in Africa Towards Enhanced Global Health Security. The Role of Field Epidemiology and Laboratory Training Programs.”



th
8 AFENET
Scientific Conference