Guidance Note on the Use of Oral Cholera Vaccines

International Medical Corps (IMC)
& International Rescue Committee (IRC)

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CONTENTS

ACRONYM LIST

AEFI	Adverse events following immunization
CDC	Centers for Disease Control (U.S.)
CFR	Case fatality rate
DOVE	Delivering Oral Vaccines Effectively (project)
DR Congo	Democratic Republic of Congo
EPI	Expanded Programme on Immunization
GAVI	Global Alliance for Vaccines and Immunization
GTFCC	Global Task Force for Cholera Control
ICG	International Coordinating Group
IDP	Internally-displaced person
IMC	International Medical Corps
IRC	International Rescue Committee
KAP	Knowledge, attitudes and practice (surveys)
M&E	Monitoring and evaluation
MOH	Ministry of Health
MSF	Médecins Sans Frontières
NGO	Non-governmental organization
OCV	Oral cholera vaccine
OPV	Oral polio vaccine
UNICEF	United Nations Children Fund
WASH	Water, sanitation and hygiene
WC	Whole-cell (vaccine)
WC-rBS	Whole-cell vaccine with recombinant B subunit of the cholera toxin
WCA	West and Central Africa (UNICEF region)
WHO	World Health Organization

SUMMARY

Oral cholera vaccines are increasingly being used in cholera-affected countries as an additional tool to prevent and control the disease, along with water and sanitation improvements and hygiene education. This increase is due in large part to the development of a lower-cost killed whole-cell vaccine designed for use in developing countries and pre-qualified by WHO in 2011, and the establishment of a global emergency cholera vaccine stockpile in 2013. A non-emergency vaccine reserve – managed by the Global Task Force for Cholera Control – has also recently been established to assist countries in controlling endemic disease in cholera "hotspots". OCV has been used in recent years to pre-empt outbreaks in endemic areas following natural or man-made disasters (e.g., in refugee camps), to stop outbreaks from spreading (reactive vaccination), and to control endemic disease (preventive vaccination). Cholera vaccination differs from many others in that it usually targets specific high-risk areas or populations; all ages one year and above are vaccinated in most situations; the vaccine is delivered through mass vaccination campaigns (not through routine vaccination sessions); and two rounds are required (one for each dose), separated by two or more weeks.

The recent experiences with OCV use – including those gained by IMC and IRC in implementing the pilot OCV project – have generated a series of lessons learned on how to approach governments about the use of OCVs and incorporate them in their cholera control and outbreak response strategies, deciding if and when to conduct OCV campaigns, and how best to plan for and conduct campaigns that achieve high coverage and that integrate OCV with other cholera control and health interventions. There now exists a number of tools and other resources to assist NGOs and their host countries with decision-making and risk assessments, planning, implementing and evaluating the use of OCVs.

PURPOSE OF THIS DOCUMENT

The aim of this guidance note is to provide a basic orientation to technical staff and managers in IMC and IRC offices in cholera-affected countries about oral cholera vaccines (OCVs), their use, and key resources and tools to assist them and their counterparts in health ministries in making decisions about planning and implementing OCV campaigns as part of an integrated approach towards cholera prevention and control. This is not a comprehensive "how-to" guide (links are given to these and other tools), but rather a summary of the lessons learned from the experiences of IMC and IRC in implementing a pilot OCV project with UNICEF in four West and Central African countries (see box), as well as other field experiences with OCV. This note focuses on what is unique about planning and implementing cholera vaccination campaigns as compared to other vaccinations.

This document comes at a critical time when the availability of and access to oral cholera vaccines is increasing – including through a global emergency vaccine stockpile. Cholera outbreaks appear to be increasing in frequency, intensity and duration; and more and more countries are expressing interest in using the vaccine as part of their cholera control efforts.

BACKGROUND

The disease

Cholera is a dehydrating diarrheal disease usually caused by ingesting water or food contaminated with one of two serogroups (O1 and O139) of the bacterium, *Vibrio cholerae*. While most infections are asymptomatic or mild, around 20% of cases suffer from watery diarrhea and vomiting, which in severe cases (around 5%) can lead to death from severe dehydration in as little as four hours from the onset of symptoms, if untreated. Appropriate case management – consisting of rehydration with IV fluids or oral rehydration solution, along with antibiotic therapy in severe cases – can reduce the case fatality rate (CFR) from 30-50% to less than 1%. However, CFRs of 4-7% are still often seen, especially in Africa and especially during outbreaks [1].

THE UNICEF/IMC/IRC PROJECT: "Piloting the use of oral cholera vaccines in emergency settings through an integrated strategy"

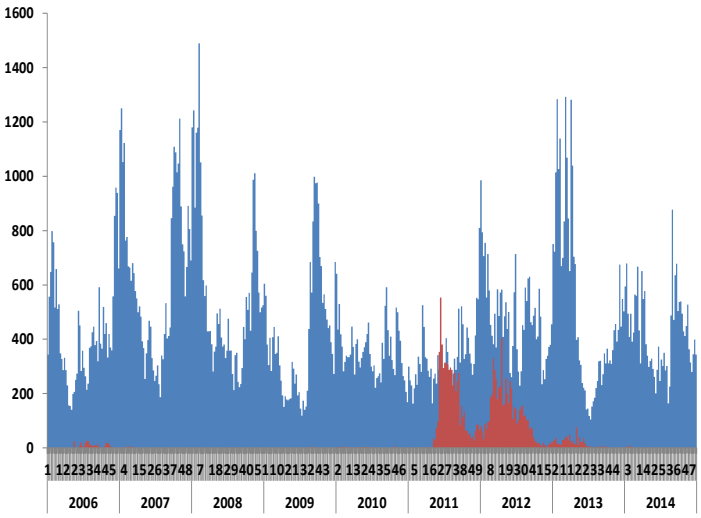
This project, funded by the Bill & Melinda Gates Foundation, was implemented in four African countries – the Democratic Republic of Congo ("DR Congo"), Cameroon (both led by IMC), Chad and Niger (both led by IRC) from November 2013 to December 2015. Its objectives were to: 1) build country capacity related to cholera vaccination; 2) support emergency vaccination campaigns, as appropriate; and 3) document lessons learned and results to expand the evidence base regarding OCV use in an integrated approach. During the 25 months of implementation, the project:

- Increased awareness and knowledge of OCVs among ministries of health and other key policymakers and stakeholders in the four countries;
- Assisted three countries in revising their national or provincial cholera response strategies and plans to incorporate the use of OCVs;
- Assisted three countries in conducting cholera risk assessments in endemic areas and during outbreaks;
- Helped three countries with all or parts of the process of applying for vaccine from the global emergency stockpile and with planning all aspects of a vaccination campaign;
- Led the social mobilization campaigns for an OCV campaign implemented in a refugee setting;
- Developed or adapted a series of tools to assist in planning, training for, implementing and evaluating OCV campaigns.

Cholera is a disease of poverty, with much of the disease burden concentrated in two regions of the world – South Asia and Sub-Saharan Africa – and more recently in Haiti. Entire countries are rarely affected; instead the disease proliferates in high-risk areas where water and sanitation systems and general living conditions are poor. A recent analysis estimates that, on average, there are 2.9 million clinical cases of cholera and around 95,000 deaths per year [2]. There are distinct patterns of cholera epidemiology. In some "hotspots", including Bangladesh, parts of India and Eastern DR Congo, cholera is ever present, but has predictable annual or semi-annual peaks in incidence. In other countries, including much of Africa, it occurs in unpredictable cycles of 2-5 or more years, with few cases between these epidemic periods (see Figure 1).

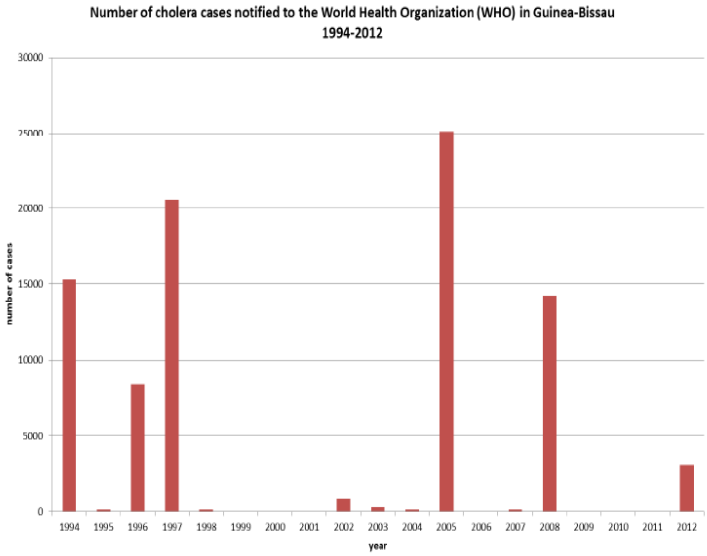
Figure 1. Contrasting patterns of cholera epidemiology

Endemic cholera with seasonal peaks, Goma, DR Congo



Source: DRC Ministry of Health, WHO

Intermittent pattern of cholera incidence, Guinea-Bissau, 1994-2012

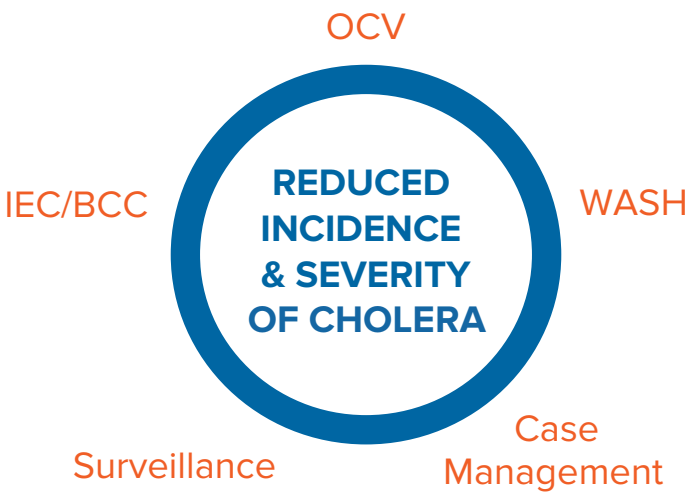


Preventing and controlling cholera

The main means of preventing cholera – and how it was eliminated in developed countries – is by building water purification and sanitation systems. Areas prone to cholera are those where people use contaminated surface water and where sanitation systems are inadequate (e.g., open defecation is practiced) or have broken down (e.g., during floods or conflicts) – thus contributing to contamination of drinking water sources. The mainstays of cholera prevention, including during outbreaks, are improving access to safe drinking water (e.g., by distributing water from safe sources or water purification tablets) and sanitation (e.g., by building pit latrines) and promoting good health and hygiene practices (e.g., handwashing with soap, boiling or treating water). These strategies are commonly referred to as "WASH" (water, sanitation and hygiene).

Some WASH experts and proponents have viewed vaccination against cholera negatively, believing it will detract from and compete with WASH interventions for attention and funding, as well as reduce communities' interest in WASH improvements. Increasingly, however, policymakers are viewing vaccination as an additional, shorter-term measure that is part of a comprehensive approach towards cholera control that also includes improving access to clean water and adequate sanitation, good case management, enhanced disease surveillance and health education. Instead of reducing good hygiene practices, vaccination campaigns (See Figure 2) and accompanying social mobilization and communications efforts – if done well – can actually increase knowledge about preventing cholera and improve hygiene practices, as shown in a study conducted in Haiti [3].

Figure 2. Integrated approach towards cholera control



Oral cholera vaccines

There are two main types of oral cholera vaccines currently available. The first is a two-dose vaccine made up of killed whole cells of different strains of *V. cholerae* O1, plus a recombinant component (B subunit) of the cholera toxin (WC-rBS), sold under the name, Dukoral®. This vaccine, first

licensed in 1991 and pre-qualified by WHO in 2001, is used mainly as a travelers' vaccine for people from Europe and other industrialized countries. It is relatively expensive (US $5-7/dose to public sector agencies) and requires mixing with a buffer and clean water (due to the cholera toxin B subunit). This makes it challenging to use in cholera-affected countries under field conditions.

The second type of cholera vaccine was developed specifically for use in cholera-affected countries. It consists of killed whole cells of both O1 and O139 serogroups, but without the cholera toxin component, making it less expensive to manufacture and considerably easier to use, since no buffer solution is needed for administration. The first bivalent whole-cell only (WC) vaccine was licensed in India in 2009 under the name, Shanchol™ and pre-qualified by WHO in 2011. The second vaccine of this type – identical in composition to Shanchol™ – was licensed in Korea under the name Euvichol® and pre-qualified by WHO in 2015. Because of their ease-of-use under field conditions and their lower prices, developing countries have exclusively used this vaccine since Shanchol™ was pre-qualified. This document thus focuses on the use of the bivalent WC vaccine.

The bivalent WC vaccine requires two doses, separated by two or more weeks, for full protection, and can be given to all ages one year and above (see Table 1). The vaccine has a strong safety profile – with about 2% of vaccinees in past studies reporting mild to moderate symptoms (diarrhea, nausea, upset stomach) that lasted only a few hours and did not require hospitalization [4-7]. It provides around 87% direct protection at six months [8], 67% over two years [9], and 65% over five years [10], and is thus considered to last for at least five years.

The impact of the vaccine is greater, however, since it has been shown in studies to confer substantial herd protection (to those not vaccinated) if a certain proportion of the target population (e.g., 50%) is vaccinated [11-12]. Thus, the vaccine both protects the individual who receives it and reduces transmission, thereby protecting the overall community. The impact of vaccination was clearly shown in Juba, South Sudan, where an outbreak occurred in 2015. Pre-emptive vaccination had taken place in 2014 in U.N. camps of internally-displaced persons (IDPs), but not in the surrounding community. As shown in Figure 3, the camps experienced few cholera cases during the outbreak, as compared to the rest of Juba. In contrast, the attack rate in a non-vaccinated camp in another area of the country was especially high [13].

Besides the need for two vaccination rounds, a key operational issue in using this vaccine is the relatively large volume of cold storage required, since both Shanchol™ and Euvichol® are available only in single-dose vials. Shanchol™, for instance, takes up 16.8 cm^3 of space per dose, as compared to 2 cm3 per dose for multi-dose vials of OPV and 2.5 cm3 per dose for multi-dose vials of measles vaccine. Another issue is the fact that OCV cannot be given within two weeks of oral polio vaccination until studies show no interference in immune responses between the two vaccines.

Table 1. Characteristics of the bivalent, whole-cell only oral cholera vaccine (Shanchol™ and Euvichol®)

Contents	Five strains of killed whole cells of *V. cholerae* (4 strains of O1 and O139)
Producer: Shanchol™ Euvichol®	 Shantha Biotechnics, India (now a subsidiary of Sanofi Pasteur) EuBiological Co., Ltd
Pre-qualified by WHO?	Yes
Eligible ages	1 year old and above
Number of doses and schedule	2 doses given 2 weeks apart for all age groups (or longer if necessary)
Dose size and formulation	1.5 ml liquid vaccine
Efficacy	65% over 5 years for >5 year olds 43% over 5 years for 1–5 year olds
Duration of protection	At least 5 years
Time required for protection after 2nd dose	7-10 days
Buffer required?	No
Presentation and packaging: Shanchol™ Euvichol®	 Single-dose vials. 35 vials to a box. Requires pliers or forceps to remove aluminum cap Single-dose vials. 10 vials to a box. Tear-off lid
Cold storage volume per dose	16.8 cm^3 (Shanchol)
Cold chain requirements	2° - 8° C
VVM type	14 days
Shelf life: Shanchol™ Euvichol®	 30 months 24 months

Figure 3. Suspected cholera cases in Juba, South Sudan in 2014 following OCV campaigns in IDP camps

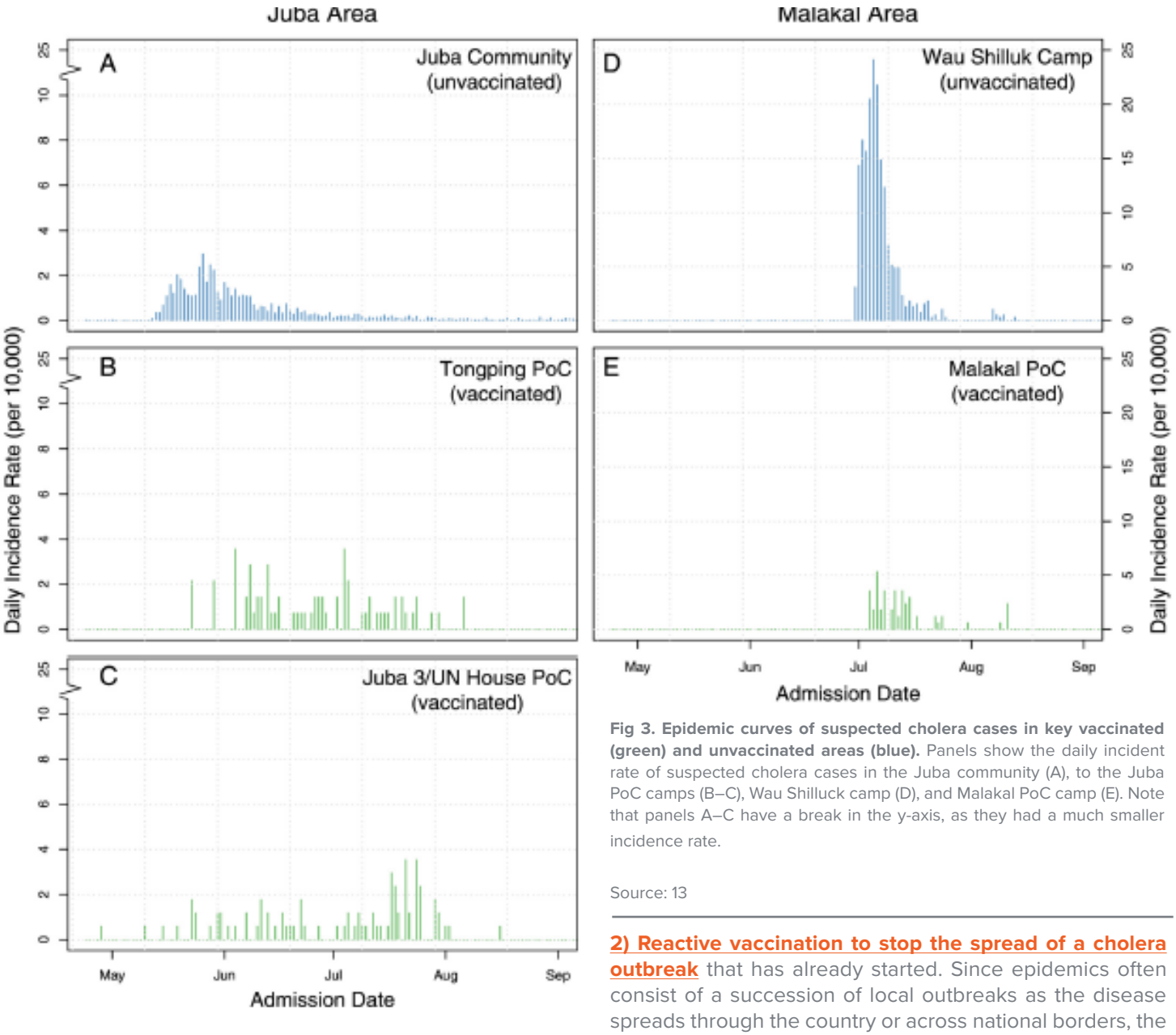


Fig 3. Epidemic curves of suspected cholera cases in key vaccinated (green) and unvaccinated areas (blue). Panels show the daily incident rate of suspected cholera cases in the Juba community (A), to the Juba PoC camps (B–C), Wau Shilluck camp (D), and Malakal PoC camp (E). Note that panels A–C have a break in the y-axis, as they had a much smaller incidence rate.

Source: 13

USES OF ORAL CHOLERA VACCINES

When to consider using OCV

There are three main uses of cholera vaccine in cholera-affected countries:

1) Pre-emptive vaccination to prevent cholera from occurring during an emergency caused by natural disasters (floods, earthquakes) or man-made crises, such as armed conflict. In these situations, cholera cases have not yet occurred, but the area has had cholera in the past and the population is living in conditions that put them at high risk of getting the disease. In addition, the health system in these settings has often collapsed or deteriorated. The target population is often refugees or internally-displaced persons (IDPs) living in newly-established camps where water and sanitation systems are not yet in place, as well as the surrounding (host) communities.

2) Reactive vaccination to stop the spread of a cholera outbreak that has already started. Since epidemics often consist of a succession of local outbreaks as the disease spreads through the country or across national borders, the goal of reactive vaccination is to limit its spread to new areas, including across borders. Areas targeted for vaccination are those where few cases have occurred but which are considered at high-risk (e.g., with poor water and sanitation conditions, where outbreaks have occurred in the past, or where there has been considerable population movement). It usually is not effective to vaccinate in areas where the outbreak has already taken its toll, since most residents will have already become infected (Replace what's in the parentheses with (often with few or no symptoms).

3) Preventive vaccination to control the regular occurrence of cholera in endemic areas. WHO defines an endemic area, such as a region or district, as one where the transmission of cholera diarrhea ***has taken place in three out of the past five years.*** Typical endemic areas or "hotspots" are coastal areas or regions bordering lakes with poor water and sanitation (such as the Lakes region of East Africa and the Lake Chad basin), and urban slums.

Since 2012, a series of OCV campaigns using Shanchol™ have taken place. These include pre-emptive vaccination during humanitarian crises (S. Sudan, Ethiopia), reactive vaccination during cholera outbreaks (Guinea in 2012, Nepal, Tanzania, Malawi and Iraq), and campaigns to reduce endemic disease (in the DR Congo, Haiti and Guinea in 2014).

Table 1. Main situations in which OCV is used

Situation	Humanitarian crisis due to man-made or natural disaster (e.g., floods)	Outbreak has begun in one or a few areas of the country or just across the border	Cholera-endemic areas (hotspots) with annual peaks/outbreaks)
Type of OCV campaign	Preemptive	Reactive	Preventive
Target Populations	Refugees, IDPs in camps and host communities (ages 1+)	Residents in areas at risk of spread of outbreak (ages 1+)	People living in hotspots (all ages 1+ or children (e.g., 1-14) only if resources limited)
Vaccine source	ICG stockpile	ICG stockpile	Few cases to date in targeted areas, but cholera known to occur in the past
Circumstances/ conditions most appropriate for vaccination	Area is cholera-endemic and water and sanitation conditions are very poor. No cholera cases have yet occurred	Few cases to date in targeted areas, but cholera known to occur in the past	Poor water and sanitation infrastructure. Vaccination should occur before cholera season.

Where and who to target for vaccination

Cholera vaccination should target only geographic areas that are considered at high-risk, such as new refugee and IDP camps; urban slums and other communities lacking access to safe water, sanitation and health services. Any use of the vaccine requires a thorough analysis of cholera risk to determine if vaccination is warranted and to identify areas and populations to target. Vaccinating an entire country will hardly ever be warranted and will constitute a waste of vaccine and other resources.

Key aspects of cholera vaccination using bivalent WC vaccine

- Limited to high-risk areas and populations – rarely entire countries
- Both children (>1 year) and adults are targeted
- Requires 2 rounds (for 2 doses) separated by 2 or more weeks
- Protects for at least 5 years
- Confers direct and indirect (herd) protection
- Cannot be given at the same time as or within two weeks of administration of oral polio vaccine

For reactive and preemptive vaccination, all persons one year and older are normally targeted in order to reduce the number of vulnerable people as quickly as possible, and – in the case of an outbreak – to rapidly cut the transmission rate. For control of endemic cholera, WHO recommends that specific groups considered the most vulnerable to severe disease or death, such as children, pregnant women and HIV+ persons, can be targeted if resources are limited [14].

Cholera vaccine is usually delivered through mass vaccination campaigns in order to reach both adults and children and to ensure rapid delivery of the vaccine. In endemic settings, school-based campaigns targeting children could be considered.

KEY RESOURCES FOR CHOLERA VACCINE AND TECHNICAL ASSISTANCE

The global OCV emergency stockpile

This stockpile, created in 2013 in response to the cholera epidemic in Haiti. It is managed by the OCV International Coordinating Group (ICG), consisting of representatives from MSF, the International Federation of the Red Cross (IFRC), UNICEF and WHO (which serves as the Secretariat). The stockpile – a two-million dose reserve procured through UNICEF and kept by the producer – allows countries experiencing an outbreak or humanitarian crisis to procure vaccine in a matter of days after submitting a request, instead of the many weeks that it would normally take countries to obtain financing for and procure the vaccine. The ICG makes a decision within 48 hours of receiving the request, based on: 1) an assessment of the potential severity and growth of the outbreak; 2) the potential impact of vaccination; 3) the country's ability to contain the outbreak through traditional means (e.g., WASH interventions); 4) the feasibility of the country to conduct a successful immunization campaign; and 5) the availability of vaccine.

The application requires countries to provide detailed information on cholera epidemiology and laboratory confirmation (in the case of an outbreak), a thorough risk assessment of an outbreak and its growth, and a detailed vaccination plan. The form also provides spreadsheets to calculate the vaccine needs for the proposed vaccination campaign, the costs of the campaign, and cold chain storage and transport requirements. The vaccine is provided for free to GAVI-eligible countries (other countries must reimburse the stockpile), but all countries must find funding for the operational costs of the vaccination campaigns. The application form, annexes consisting of templates and forms, and guidelines for completing the application can be found at

the stockpile Website (http://www.who.int/cholera/vaccines/ocv_stockpile_2013/en/). The Website also includes a series of guidelines and generic protocols for different monitoring and evaluation studies.

The Global Task Force for Cholera Control (GTFCC)

This task force, revitalized in 2014, serves as a global forum for technical exchange, coordination and the development of strategies to improve countries' capacity to control cholera. It is the main resource countries often turn to for assistance in identifying and controlling cholera outbreaks. The GTFCC is made up of several organizations involved in cholera control (WHO, UNICEF, Médecins sans Frontières (MSF), Johns Hopkins University, U.S. Centers for Disease Control and Prevention (CDC), GAVI, among others) and has its Secretariat at WHO/Geneva. The Task Force has several Working Groups focusing on specific aspects of cholera control, including Epidemiology and Surveillance, Water and Sanitation, OCV, Advocacy and Social Mobilization. Relevant websites are http://who.int/cholera/vaccines/en/ and http://www.who.int/cholera/task_force/en/.

The non-emergency OCV reserve

The purpose of this reserve stock, created in 2015, is to help countries accelerate the reduction of cholera in hotspots, along with longer-term improvements, such as WASH, improved cholera surveillance and improved case management. Decisions about the use of this reserve are made by the OCV Working Group of the GTFCC, with coordination by the GTFCC Secretariat. The first use of the reserve has taken place in Haiti. Information about the non-emergency reserve can be obtained from the GTFCC.[1]

Regional cholera projects and platforms in Africa

As part of its WASH programming, UNICEF's West and Central Africa (WCA) regional office has included cholera prevention and control as one of its priorities for the 15 at-risk countries in the region. One initiative is the development and implementation of the 'Sword and Shield' strategy, consisting of cholera prevention activities (such as surveillance and WASH) (the "shield") and outbreak response (the "sword") (see Annex 2). It also publishes weekly cholera updates as well as country-specific factsheets on Cholera Epidemiology and Response (see: www.unicef.org/wcaro/english). A WCA Cholera Platform – coordinated by UNICEF and consisting of many aid agencies and NGOs – was created in 2012 as a coordinating mechanism for partners responding to cholera outbreaks using a multi-sectoral approach. The Cholera Platform also serves as a forum for advocacy for better preparedness and response to cholera outbreaks; and as a means of sharing resources for training, information and tools. Work is currently underway to re-establish a similar platform for East and Southern Africa.

1 At: cholera@who.int.

KEY LESSONS LEARNED AND RESOURCES FOR DECISION-MAKING, PLANNING, IMPLEMENTING AND EVALUATING OCV CAMPAIGNS

This section provides key pointers and lessons learned from the UNICEF/IMC/IRC OCV project and other field experiences in planning and implementing OCV campaigns. It does not cover all steps or aspects involved in each stage of the process; refer to the guides and other tools listed (with links) in each sub-section. A summary of the lessons learned is shown in Annex 1.

Decision-making about the use of OCV and coordination with key stakeholders

Developing national cholera control plans

The use of cholera vaccines should always be part of a comprehensive strategy of preventing and controlling cholera. Providing vaccine while doing nothing to prevent the continual contamination of drinking water sources either in the short- or long-term is less likely to have the support of governments or the population. It will also be less effective in controlling the disease, since WASH and vaccination act synergistically to reduce disease incidence [15]. Plans for the use of OCV should therefore be part of national cholera control plans and not stand-alone documents. The plans should be prepared with representatives of key sectors– such as ministries involved with water and sanitation infrastructure improvements, planning, education – in addition to the health sector, to ensure a truly integrated approach.

Ownership by the government (e.g., the Ministry of Health) in developing or revising a national cholera control plan to include OCV is critical to ensure that the plan is completed and approved at the highest levels of the ministry. This sense of ownership was accomplished in Cameroon through the establishment of a multisector working group – consisting of government representatives from health, WASH, communications/health promotion and education sectors – which revised the National Cholera Contingency Plan during two workshops.[2] Countries with national cholera control plans that include well-defined plans for OCV use are more likely to submit a stockpile request in a timely manner and to implement OCV campaigns.

Engaging key stakeholders

A successful strategy of cholera control that includes vaccination requires the buy-in of and collaboration with a broad set of actors both within and outside of the Ministry of Health. This can best be accomplished by conducting a stakeholder analysis or mapping exercise to identify all persons involved in making or influencing decisions or possibly derailing them (see box on the next page). One

2 The revised plan is now awaiting the endorsement of an inter-ministerial committee.

can start by determining if a National Cholera Task Force or Cholera Coordinating Committee exists and approaching its officers.

Country representatives from WHO and UNICEF should be involved in efforts to include OCV in controlling cholera and be invited to all key meetings. The participation and approval of these highly-regarded organizations can be critical in influencing the political leaders of the MOH regarding the use of OCV.

The importance of identifying all key stakeholders and defining their roles in OCV-related decision-making

Conducting a thorough stakeholder mapping exercise early on in the process of discussing the inclusion of OCV into a national cholera control plan or as part of a response to a cholera outbreak can be critical to the successful introduction of OCV. This is true even if IMC or IRC has a presence in country and thinks they are familiar with the key stakeholders. This exercise should be conducted jointly with – and preferably led by – the MOH to ensure that all key groups and staff members that make or influence decisions regarding cholera control and vaccination are identified.

Such an analysis also helps the government to assign specific roles and responsibilities early on in the planning process to different partners interested in supporting OCV campaigns. This is critical since many partners will not commit to a specific contribution until the MOH clarifies its needs and the contribution of the various partners and requests their help. It also avoids last minute MOH requests to fill in gaps in funding or technical assistance.

The Ministry of Health should lead – and be perceived as leading – the entire process, starting with the decision on whether or not to vaccinate. Campaigns that are purely NGO-driven, with little involvement of the MOH, are less likely to be successfully executed or to lead to the further use of the vaccine. An OCV campaign in the refugee camp that was implemented by an international NGO, that submitted an application for use of the stockpile and managed the campaign funds and budget, was nearly derailed by the MOH, since it had little ownership in the activity. This lack of local ownership and perception of an externally-driven process can occur if, for example, external partners draft the risk analysis and other required documents for the stockpile application (in an effort to speed up the process) and only then meet with the MOH and other partners to finalize the application. Thus, engaging key government stakeholders from the very beginning – that is, at the stage of detecting cases – is essential. Proceeding with a stockpile application or otherwise planning the use of OCV before there is evidence of a strong commitment on the part of MOH decision-makers is less likely to result in government approval and can even be counterproductive. If donors require that funds be managed by the NGO, being as transparent as possible in developing the budget and in accounting for expenditures can help increase government cooperation and reduce its resistance.

Achieving local ownership in decision-making about the use of OCV as part of an integrated approach towards cholera control can be a gradual process that requires convincing data and numerous meetings with different stakeholders. Participation in regular disease surveillance meetings has been shown to be one way to effectively increase awareness within the MOH about cholera and OCV (see box).

Putting cholera in the disease control agenda

A best practice is to engage a national-level surveillance committee or group, such as an Epidemic Prevention and Response Technical Committee or the MOH Department of Disease Control, to introduce discussions of cholera and OCV. Putting cholera on the agenda of the routine (often weekly) surveillance meetings, which review data on all diseases, can help build awareness and support for OCV as part of overall cholera response. This can also ensure that cholera is considered in the context of other disease outbreaks and responses, and in planning other vaccination campaigns.

Within the MOH, departments of disease control and surveillance are normally the lead group responsible for detecting and responding to cholera outbreaks. NGOs and aid agencies often approach them first to discuss a potential or ongoing cholera outbreak, the possibility of conducting an OCV campaign and applying for vaccine from the global emergency stockpile. Experience shows, however, that other relevant departments – especially the immunization program, but also WASH and behavioral change communications units – need to be brought into the process early on. Not doing so can slow down the decision-making and require additional sets of meetings with these departments. This occurred in one country where the vaccination sub-directorate was brought into the stockpile application process quite late, slowing down the process. The end result was that the application was not submitted to the ICG in time to catch the cholera season.

The stakeholder analysis should also identify how decisions within the government and the MOH are made and by whom, especially regarding the introduction of new vaccines. In some countries, it may be important to approach top

echelons of the MOH – including the Health Minister – early in the process, to avoid major delays in decisions about using OCV and applying for the vaccine from the emergency stockpile or non-emergency reserve. In one country, top policymakers were not approached until quite late in the process of preparing the ICG application form, which was done with technical staff within the ministry, under the assumption that they would convey the information to higher-ups. This communication did not occur and the result was a delay in approval of the planned OCV campaign and its eventual cancellation.

Who will fund the OCV campaigns?

The emergency cholera stockpile run by the ICG covers the cost of vaccine for all GAVI-eligible countries, but not the operational costs of planning and implementing a vaccination campaign. In some countries, decisions not to use OCV during outbreaks have been due in part to MOH concerns about how to pay for these costs. Thus, the issue of financing should be raised upfront during discussions about the potential use of OCV. Possible funding sources for OCV campaigns are external donors, such as ECHO (European Commission's Humanitarian Aid and Civil Protection Department) and CERF (the U.N. Central Emergency Response Fund), and the MOH budget. In some cases, the MOH will be reluctant to fund OCV from its annual budget since in many countries an outbreak is not certain to occur in any given year. However, most MOHs have an emergency funding envelope set aside annually that could be a possible source of funding for an OCV campaign.

Determining the need for vaccination

Decisions about whether to use OCV – either in emergency or non-emergency situations – should always be based upon a thorough analysis of the risk of a cholera outbreak occurring or expanding (for pre-emptive or reactive vaccination) or the continual risk of endemic disease (for preventive campaigns in known hotspots). This in turn requires solid epidemiological data, including laboratory confirmation of cholera. NGOs and other partners have proven to be critical in helping countries conduct cholera risk assessments in many countries. The ICG stockpile application contains forms for conducting a risk analysis, along with instructions, for both reactive and pre-emptive vaccination.

The timing of a campaign can also be a critical factor in deciding whether to go ahead with plans to vaccinate and whether a request to the ICG will be accepted. If during an outbreak the number of cases is already decreasing, the outbreak may be waning and thus vaccination could have little impact. For reactive vaccination to be effective, countries must be able to complete an ICG application form and plan a campaign in three or four weeks after starting the risk assessment. Countries that already have in place contingency plans and procedures for OCV vaccination will be in a stronger position to successfully mount a campaign than those that do not. After floods caused a cholera outbreak in a region of Africa, one country that had already made plans for preventive OCV campaigns, was able to rapidly submit and receive approval for a request for use of the emergency stockpile. However, a neighboring country also affected by the floods, but which was unfamiliar about the new OCVs, was not able to prepare a request until the outbreak was already waning, and its request was denied.

In setting the dates of the two vaccination rounds, the schedule for other major health activities should be considered. Some OCV campaigns can possibly be integrated or incorporated into other health events, such as Child Health Days, tetanus toxoid or measles vaccination campaigns taking place in targeted areas, which could boost coverage of the vaccine. However, as noted above, OCV cannot be given within two weeks of administration of OPV, until studies have taken place that show no interference in immune response for either vaccine.

Tools and other resources for decision-making

- OCV request form for ICG support, annexes and guidance document found at: http://www.who.int/cholera/vaccines/ocv_stockpile_2013/en/ (includes guidance and forms for conducting a risk assessment)
- Risk assessment resources:
  - Deen J. et al. The scenario approach for countries considering the addition of oral cholera vaccination in cholera preparedness and control plan. Lancet Infect Dis 2015 (available at: http://www.thelancet.com/pdfs/journals/laninf/PIIS1473-3099(15)00298-4.pdf).
  - Sample risk assessment reports (in French):

    Chad

    North Kivu Province of DR Congo

- WHO cholera vaccine website – GFTCC is placing documents (tools, guides, recommendations, videos, etc...) on this site found at: http://who.int/cholera/vaccines/en/.
- Vaccine Introduction Cost-Effectiveness Calculator (VICE) (factsheet, Excel tool and user's manual) (found at: https://www.stopcholera.org/resources/vaccine-introduction-cost-effectiveness-vice-calculator).
- Factsheet on examining the feasibility of an OCV campaign (found in Module 3 of the stopcholera toolkit https://www.stopcholera.org/toolkits/stopcholera-toolkit)

Planning and implementing mass OCV campaigns

Many of the steps involved in planning and implementing OCV campaigns are similar to those required for other vaccination campaigns (e.g., polio, measles, rubella, meningitis) and other vaccine introductions. Therefore, many of the existing strategies and tools used for other vaccines can be adapted for OCV. Modifications are needed to account for the broad age range targeted by most OCV campaigns, the need for two vaccination rounds, and the desired integration of OCV with other cholera control measures or maternal and child health interventions.

Efforts to ensure high immunization coverage

OCV campaigns have typically achieved overall coverage rates of around 50-75% for the second vaccine dose, though coverage as high as 93% (in refugee camps) has been achieved. The rates are often dragged down by low coverage among adults, especially men, who are not used to getting vaccinations and often need to miss work to attend a vaccination session. Often, they may be willing to miss one day or part of a day of work, but not two, so their drop-out rates (between doses) are especially high. Program planners therefore need to be creative in finding ways to provide the vaccination at times and venues convenient for working adults, that is, beyond the typical weekday morning and early afternoon sessions held at health facilities and other fixed sites that are used for infant vaccinations. Once the campaign is underway, it is also important to monitor and then adjust the strategies – for example, by setting up new vaccine sites in under-served areas or additional sites in the same areas – in order to achieve as high coverage as possible.

In addition to making the vaccination more convenient for adults, drop-out rates can be reduced by emphasizing the need for the second dose to vaccinees and providing them with clear instructions on when and where to go for the second round. In some places, the unpleasant taste of the vaccine may have contributed to some people not returning for the second dose. Providing clean drinking water, biscuits or candy to vaccinees after the vaccination is a strategy that several campaigns have used to address this issue.

Integrating OCV with other cholera control and health interventions

Combining cholera vaccination with other strategies to prevent and control cholera – such as providing hygiene education during social mobilization campaigns and vaccination sessions and distributing soap and chlorine tablets to treat water – can both boost vaccination coverage and help reduce cholera transmission. The distribution of soap has been found to be a strong incentive in getting vaccinated in some places, especially in refugee and IDP camps where soap can be a rare commodity. However, it may also have unintentional consequences, such as providing an incentive for people to get themselves or their children revaccinated to obtain additional soap.

OCV planners have creatively used the opportunity of OCV campaigns to provide other maternal and child health services at the vaccination sites. In one campaign targeting refugees, tetanus toxoid vaccination of women and malnutrition screening of children were also provided, along with soap distribution. In another campaign, OCV was combined with the distribution of deworming medicine and vaccination against measles and meningitis.

Decisions to be made at the country level

Clear global guidance is lacking on certain issues in implementing OCV campaigns. Decisions about these issues should be made in collaboration with in-county policymakers and cholera vaccine experts. These issues include:

- ***Whether to include pregnant women in OCV campaigns.*** Vaccine product inserts state that the vaccine is not recommended during pregnancy (though pregnancy is not contra-indicated), due to a lack of clinical data on its safety in pregnant women. A recent study from Guinea has shown no increased risk of pregnancy loss or fetal malformation from pregnant women taking the vaccine, and additional studies are underway [16]. Countries are increasingly including pregnant women in campaigns due to their greater vulnerability to severe disease and the lack of evidence of any harm caused by OCVs in pregnant women. It is important that country-specific guidelines or training manuals for OCV campaigns clearly state whether pregnant women are eligible to take the vaccine and why or why not.

Vaccine delivery strategies used to maximize vaccination coverage in past OCV campaigns

- Extend hours to include evenings and early mornings
- Include vaccination sessions on weekends
- Set up vaccination sites at workplaces, motor taxi stands, fishing villages, marketplaces, food distribution centers (in refugee camps) and other places where adults can be easily found
- Provide the vaccine door-to-door at homes and/or shops
- Provide clear information about the need for the second dose, when and where to obtain it, and the need to BRING THEIR VACCINATION CARD WITH THEM to the second round
- To reduce drop-out rates between doses:
- Continue social mobilization/communication activities after the first round

Tools and other resources for planning and implementing OCV campaigns

- *Oral cholera vaccines in mass immunization campaigns: Guidance for planning and use*, WHO 2010, and addendum ("Specificities of mass immunization campaigns when using Shanchol™ OCV"): WHO's guidance document on OCVs (available at: http://apps.who.int/iris/bitstream/10665/44448/1/9789241500432_eng.pdf and on the OCV stockpile website)
- Ciglanecki I et al. Feasibility of Mass Vaccination Campaign with Oral Cholera Vaccines in Response to an Outbreak in Guinea. *PLoS Medicine 2013* (available at: http://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1001512.
- Sample planning document: *Plan for mass OCV campaigns in Maban County in the refugee camps and host populations in the direct surroundings of the camp,* MSF 2012-2013*
- *Report on Mass vaccination campaign using OCVs during an outbreak in Guinea – Boffa and Forecariah*, 2012, MSF/Switzerland*
- *Manual for oral cholera vaccination campaigns* (for training health care workers), DOVE project, Johns Hopkins University School of Public Health, https://www.stopcholera.org/toolkits/stopcholera-toolkit
- Series of data collection and other forms adapted for OCV:

  Tally sheet

  Summary data forms for different levels of the health system

  Supervisor checklists

  AEFI reporting forms

*Need to request from MSF

- ***Whether to exclude people in Round 2 who have not received the first dose.*** While persons who did not received OCV in the first round have been excluded from Round 2 in some campaigns (especially pilot studies), other campaigns have included them and have made the second dose available at health centers after the campaigns.

Social mobilization and communications for OCV campaigns

As with any vaccination campaign, mass OCV campaigns require a well-designed communication and social mobilization component, developed in close collaboration with community leaders and other local partners familiar with the local culture, political structure and languages. This is usually conducted by the MOH department responsible for health promotion and communications, in collaboration with local-level community representatives. UNICEF has developed a communication guide specifically for OCV campaigns (*Framework for Developing an Integrated Communication Strategy for the Introduction of Oral Cholera Vaccine in Cholera Prevention and Control Programmes*)[3] to assist program managers in planning all aspects of a communication strategy.

A comprehensive approach toward social mobilization for an OCV campaign in IDP camps in Juba, South Sudan

To ensure high vaccination coverage during an OCV campaign conducted in three IDP camps in South Sudan in 2015, a four-pronged approach was used to raise awareness about the campaign:

- **A series of meetings with community leaders** that started weeks before the campaign and continued during and between each round. The meetings were used to sensitize them about the benefits of the vaccine and importance of mass participation, to answer their questions, and to encourage them to inform residents in their respective areas of the camp. The meetings held during the campaign also provided an opportunity to update the leaders about the campaign and its progress.
- **Use of community radio**. Public service announcements in the local Nuer language about the OCV campaign and the benefits and importance of the vaccine were broadcast on a camp radio station for an entire week prior to each vaccination round.
- **Deployment of community health promoters.** Starting one week before the first round, 35 IMC health promoters, along with promoters employed by other partner organizations working in the camps on WASH and other activities, used megaphones and went door-to-door to inform residents about the campaign, the benefits of being vaccinated and cholera prevention measures. This work continued throughout and between both vaccination rounds.
- **Mobilization by the vaccination teams.** The designated community mobilizer on each vaccination team also announced the campaign while it was underway by megaphone and through door-to-door visits in his or her respective area of responsibility.

Vaccination coverage in the camps for two doses was 84%, as determined by a post-vaccination coverage survey.

Conducting a rapid assessment of the attitudes, beliefs and practices of the target communities regarding cholera,

3 Found at: www.unicef.org/cbsc/images/ICS_for_Oral_Cholera_Vaccine in_Cholera_Prevention.pdf

diarrhea and immunization; effective communications channels; and enabling factors and barriers to people getting vaccinated can help to develop effective messages and communication strategies. This does not necessarily require a population-representative knowledge, attitude and practices (KAP) survey, which can entail considerable time, expense and expertise, but instead this information can be obtained by reviewing existing data from other relevant surveys or conducting several interviews or focus group discussions with community leaders, health workers and community members. An analysis of the barriers to vaccination has been found to be especially helpful in anticipating and addressing potential problems, such as rumors and misinformation about the vaccination. Well-trained social mobilizers can also serve as "ears on the ground" to detect and report such misinformation, so that it can be quickly dealt with.

All communications activities and materials about the OCV campaign, including health promotion conducted during the vaccination sessions, should include information on how to prevent cholera and where and when to seek treatment. One innovation is to include educational messages with pictures on the back of the vaccination card handed out during the first round.

It should be noted that the optimal channels of communication to inform the public about an OCV campaign may differ from that of other vaccination campaigns or health interventions. In particular, mass media – such as television, radio and mass SMS messaging – may not always be appropriate, since most OCV campaigns target a specific population or area, such as an urban slum or a part of a district. Unless messages via these media can be limited to the particular target population, they may draw people from non-targeted areas to get the vaccine, potentially leading to vaccine shortages, lower coverage of the target population, and reduced impact of the campaign.

Training

As with any new vaccine, all those involved in the OCV campaigns should receive direct training on the vaccine and campaign, including vaccinators, program managers, supervisors, social mobilizers and logisticians. The training – typically one-day long – should cover the topics of cholera disease, cholera prevention and control strategies, OCVs and strategies for using them, justification for the OCV campaign, how to plan and conduct OCV campaigns, handling and administration of the vaccine (including the cold chain), communicating key messages with the public and vaccinees about the disease and vaccination, AEFI reporting, and data collection. Planners may want to consider a separate training for social mobilizers. Training that is participatory and hands-

Tools and other resources for social mobilization and communications

- *Framework for Developing an Integrated Communication Strategy for the Introduction of Oral Cholera Vaccine in Cholera Prevention and Control Programmes*, UNICEF: includes guidance, tools and sample IEC materials. Found at: http://www.unicef.org/cbsc/files/Cholera-FrameworkBookV2.pdf.
- Materials developed by IRC and IMC

Sample key messages from prior campaigns (in French)

Sample vaccination card with educational messages on back

Sample Leaflet About Cholera for OCV Campaigns (French)

Hands-on training for OCV campaigns in Juba, South Sudan, 2015

Trainees received practice in:

- Setting up a mock vaccination site and practicing patient flow (through role playing)
- Opening up the Shanchol™ vials (requires pliers or forceps)
- Administering the vaccine – all trainees were vaccinated during the mock vaccination session
- Filling out the vaccination cards, tally sheets and other data collection forms
- Handling potential AEFIs (through role playing in communicating with vaccinees or their parents about the possibility of side effects, referring patients to a health facility and arranging transportation)
- Waste disposal

Tools and other resources for training

- Manual for oral cholera vaccination campaigns for training health care workers), DOVE project, Johns Hopkins University School of Public Health, https://www.stopcholera.org/toolkits/stopcholera-toolkit
- Materials developed by IRC and IMC

Sample curriculum for training of social mobilizers (from Chad)

Guide de formation des acteurs (from Chad) (Training guide in French)

Job aid on OCV and training presentations from S. Sudan (in English) and Chad (in French)

on is considered to be most effective for adult learners (see box).

Although there are usually only two or so weeks between the two vaccination rounds, several persons who have experience with OCV campaigns recommend a short refresher training a few days before the second round. The refresher training provides an opportunity for vaccinators and other staff to discuss lessons learned from the first round (e.g., what strategies for finding people and delivering the vaccine worked and didn't work), to suggest changes, and to discuss remaining issues and questions.

Data collection, monitoring and evaluation (M&E) and research

All M&E and research activities need to be planned in detail during the preparation stage of the campaigns. As for any vaccination campaigns, a minimum set of information should be collected for OCV campaigns, as outlined by the ICG (see "Minimum M&E information" on the stockpile Website) (Figure 4). These include routine data on the logistics of the campaign (e.g., number of vaccination sites and teams, dates of arrival of vaccine and of each round, resources used and total costs) and AEFI monitoring and reporting. To measure immunization coverage and the impact of vaccination, it is also critical to collect administrative coverage data for each dose and cholera surveillance data in vaccinated and surrounding areas. If time, expertise and resources are available, a population-representative vaccination coverage survey is also recommended, since population data used to estimate administrative coverage are often inaccurate, especially in areas with considerable population movement.

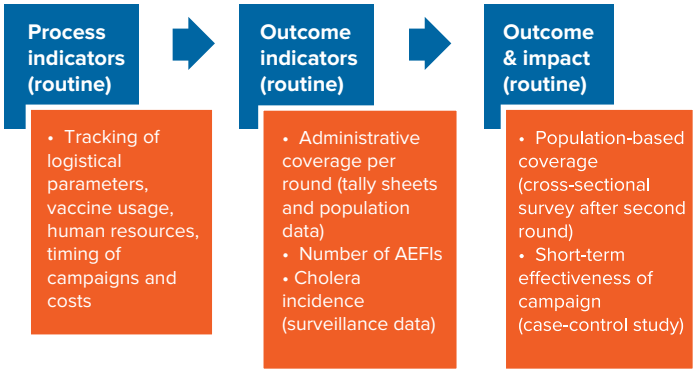


Figure 4. Information to be collected to monitor and evaluate OCV mass vaccination campaigns

Source: "Minimum M&E Information" document from the global cholera vaccine stockpile (http://www.who.int/cholera/vaccines/ocv_stockpile_2013/en/).

The use of OCV in cholera-affected countries is still relatively new and thus additional research is still needed on such aspects as the effectiveness and cost-effectiveness of vaccination in different settings and using different targeting and delivery strategies; the impact of vaccination on community attitudes and practices related to hygiene and other cholera control practices; and the impact of one vs. two vaccine doses during an outbreak. Vaccine effectiveness can be estimated through a case-control study, which compares the odds of having been fully vaccinated against cholera between cholera cases and non-infected controls.

A number of partners – both in-country and external – are available to assist with the design and execution of M&E research activities. These include the technical units of IMC and IRC, WHO, Africhol, U.S. CDC, Johns Hopkins University School of Public Health, and MSF/Epicentre. The GTFCC coordinates country assistance for M&E activities related to the use of OCV. Several guidelines and protocols for different studies have been developed by partners and are available on the cholera stockpile Website (see in box below). These include guides for KAP surveys, vaccination coverage surveys, cholera surveillance, and vaccine effectiveness studies using a case-control design.

Tools and other resources for M&E and research

- *Information to be collected for the purpose of Monitoring & Evaluation of the OCV mass vaccination campaign* ("Minimum M&E information" table on the cholera stockpile Website (http://www.who.int/cholera/vaccines/ocv_stockpile_2013/en/)
- Series of M&E guidelines and generic protocols developed for the cholera vaccine stockpile (available at http://www.who.int/cholera/vaccines/ocv_stockpile_2013/en/), including:
  - KAP Surveys during cholera vaccination campaigns
  - Monitoring and evaluation of AEFI during OCV mass vaccination campaigns
  - Cholera surveillance to inform OCV vaccination campaigns
  - Generic protocol for vaccine coverage post implementation of a mass vaccination campaign with oral cholera vaccine
  - Generic protocol for vaccine effectiveness post implementation of a reactive mass vaccination campaign with oral cholera vaccine

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USEFUL WEBSITES

16. **World Health Organization main cholera Website** (http://www.who.int/topics/cholera/en/): provides information on the disease, cholera prevention and control, cholera vaccines, cholera outbreaks and statistics and updates on outbreaks, and diarrheal disease treatment.
17. **WHO cholera vaccine website** http://who.int/cholera/vaccines/en/: provides tools, guides, recommendations, and videos.
18. **The global cholera vaccine stockpile Website** (http://www.who.int/cholera/vaccines/ocv_stockpile_2013/en/): provides application form and annexes and guidance document for accessing vaccine from the stockpile
19. **The UNICEF cholera Website** (http://www.unicef.org/cholera/): provides information and resources concerning cholera control and the UNICEF Cholera Toolkit, case management, WASH, vaccines, communications for development, and information from the WCA region, including country-specific cholera factsheets and weekly cholera epidemiological updates for the region.
20. **The Global Task Force for Cholera Control Website** (http://www.who.int/cholera/task_force/en/): Provides information on the task force and meeting reports
21. **The U.S. Centers for Disease Control and Prevention** (CDC) Cholera Webpage (http://www.cdc.gov/cholera/index.html): A key resource for information concerning the disease; diagnosis, detection and treatment; prevention and control, including vaccines; policies and recommendations; and cholera data and references by region (and country in the case of Africa). Provides materials and resources concerning health promotion, cholera outbreak response, and training and education.
22. **Stopcholera.org** (Website of the Delivering Oral Vaccines Effectively (DOVE) project of the Johns Hopkins University School of Public Health. Includes information, resources and tools on cholera and cholera epidemiology, cholera prevention, and cholera vaccines, including a Stopcholera toolkit for use of OCV.
23. **MSF/Doctors without Borders Cholera page** (http://www.msf.org/diseases/cholera): provides information on the disease, diagnosis and treatment and updates on cholera outbreaks and MSF's work.
24. **Africhol Website** (African Cholera Surveillance Network) (http://africhol.org/): a project implemented by Agence de Médecine Préventive (AMP) to enhance laboratory-based cholera surveillance in 11 African countries through a consortium of national and international partners.

ANNEX 1. SUMMARY OF LESSONS LEARNED FROM EXPERIENCES WITH INTEGRATING ORAL CHOLERA VACCINATION INTO CHOLERA PREVENTION AND RESPONSE PROGRAMMING IN AFRICA

Who to involve in advocacy and decision-making about the use of oral cholera vaccines:

- Identify all key stakeholders from the very beginning – ideally by conducting a stakeholder mapping exercise – and engage them from the start in developing or adapting an existing cholera control plan and in decision-making about the use of OCV in response to an outbreak or humanitarian crisis;
- The Ministry of Health should lead the process of decision-making, planning and organizing an OCV campaign, which should not be viewed as NGO-led. If funding for the campaign is controlled by an NGO, the NGO should be as transparent as possible with the MOH about the budget, costs and expenditures;
- While the department responding to cholera outbreaks is usually the disease control unit of the health ministry, be sure to involve the immunization program (or EPI) from the very beginning to ensure a well-planned and executed vaccination campaign;
- Approach top health officials and policymakers from the beginning – and not just technical staff – to ensure their buy-in and support, and do not assume that information within the MOH will flow upwards or downwards;
- Groups involved in cholera and diarrheal disease control outside of the MOH, such as the ministry responsible for water and sanitation improvements and the education ministry, are also key stakeholders that should be engaged in making decisions about, planning and implementing OCV campaigns using an integrated approach.

Development of national cholera control plans:

- Plans for the use of OCV should be incorporated into national cholera control plans – and not written as separate documents – to encourage the integration of cholera vaccination within the country's overall strategy for controlling cholera and the incorporation of other cholera control and health interventions in OCV campaigns.

Assessing the risk of cholera:

- Approval for use of the ICG emergency stockpile, as well as the development of a well-conceived vaccination plan, depends on an analysis of the risk of cholera in a country or area of a country, which in turn is based on solid epidemiological data and appropriate laboratory confirmation;
- Technical assistance from partners has been critical in conducting cholera risk assessments in a number of African countries that have requested vaccine from the stockpile or have developed national cholera control plans that include the use of cholera vaccines.

Planning and implementing OCV campaigns:

- Reactive vaccination to stop the spread of a cholera outbreak requires acting quickly before the outbreak begins to wane or move elsewhere in the country. Countries that have already prepared a strategy or action plan for the use of the vaccine are more likely to be in a position to successfully apply for vaccine through the stockpile and to mount a successful campaign than those that do not already have such plans;
- When scheduling a campaign, be aware of other major health activities or other community events that may interfere with the two OCV rounds. OCV campaigns cannot be held within two weeks of oral polio vaccination campaigns until studies show no interference with the immune responses of these two oral vaccines.
- To achieve high vaccination coverage rates for two doses, especially among men, program planners should adapt vaccine delivery strategies designed for infant vaccinations and think "outside of the box". Examples include extending vaccination hours and days, and setting up vaccination sites at workplaces and other outreach sites where adults congregate;
- Having clear lines of communications and reporting and seeking feedback from vaccination teams before and during the campaigns can pre-empt or address problems as they arise;
- Distributing commodities, such as soap, during vaccination sessions can provide a strong incentive for community members to obtain the vaccination (especially in refugee camps where soap is scarce), while also promoting good hygiene. However, it may also have unintentional consequences, such as encouraging people to try to get themselves or their children revaccinated.

Communications and social mobilization:

- Discussing the upcoming campaign with community leaders and members and conducting a rapid communications assessment is essential to develop effective communication messages and social mobilization strategies; identify the best channels of communication to use; and identify barriers and other unanticipated problems that can potentially derail a campaign as well as provide possible solutions.
- Well-trained social mobilizers can serve as “ears on the ground” to detect and report any rumors or misinformation about the vaccination, which need to be dealt with promptly;
- Since OCV campaigns usually target a specific, limited population (e.g., one area of a city or a few sub-districts of a province), be careful to select channels of communication that could draw large numbers of non-targeted people to the vaccination campaign. Thus, broadcast media, such as radio or mass SMS messages, may not always be an optimal means of informing the public about the OCV campaign.
- Training:
- To ensure smooth implementation of vaccination sessions, training of campaign workers should be as hands-on as possible, to include, for example, setting up a mock vaccination site, practicing control of patient flow, opening up the vaccine vials, and filling out the data collection forms.

ANNEX 2. FACTSHEET ON THE SWORD AND SHIELD APPROACH TO CHOLERA

The 'Sword and Shield' Approach to Cholera:

Key Actions for Cholera Prevention and Response

UNICEF West and Central Africa Regional Office, Dakar, June 2012

Summary:

Based on best practice in the region, the recommended approach for managing Cholera is the "Sword and Shield". This approach highlights the need for ongoing, cross-sectorial activities throughout the year, as opposed to sectorial approaches that are implemented once the caseload starts to go up, which is too late.

The Sword and Shield is characterized by its targeting both on inter epidemic and epidemic periods respectively similar to a shield (prevention, containment and protection of population) and sword (attacking and breaking the spread of the epidemic). It focuses on individual practices and collective events, in rural or urban cholera high-risk spaces with pools of standing water, epicenters or corridors of propagation. In line with this approach, UNICEF response should incorporate WASH, Health and C4D sectors for effective results for children. Principles of the approach are *Preparedness* (action needs to be taken *before* cholera cases are reported), *Knowledge* (of the disease's patterns and vulnerable locations), *Mobility* (in prevention and response), *Anticipation and Reactivity* (towards suspected outbreaks and spread of the disease), and continuous *Targeting and Realignment* of the response.

ACTIONS TO BE TAKEN BEFORE THE OUTBREAK

- Emergency Programme Cooperation Agreements: Allow for rapidity and flexibility in geographical targeting and nature of activities (see UNICEF Intranet).
- Standby/dormant Agreements: at signature, they are $1 agreements which allow you to preposition items with partners, agree on rapid assessment and supply distribution modalities and can trigger activities automatically when humanitarian situations occur. (see WCARO intranet)
- Meet with key partners, and update the Cholera contingency plan. Make sure everybody is familiar with the plan, replenishing and pre-positioning stocks and relevant refresher training undertaken.

Prepare and implement the Shield (Primary prevention)

- Where: Endemic, diarrheal and high-risk areas.
- When: Inter season, but can also be done flexibly during epidemic season aiming for mid + long term
- Who: Starting with the most vulnerable, high-risk populations, then moving to the entire population
- What: Support improved surveillance system/ Improve WASH coverage through CLTS, HWTS, hand washing promotion, and information on how to prevent cholera transmission/ Support procurement and storage of contingency stocks of cholera related WASH and health supplies/Identify suitable and trained Human resources (WASH, C4D and Health)
- How: Identification and implementation of priorities in terms of risk and feasibilities

➔ **Sustainable interventions outside epidemic periods/in high-risk but not yet affected areas.**

Prepare the Sword (Secondary prevention)

- Where: CTC – Community propagation axis (neighborhoods, health areas, households)
- When: During the epidemic season

- Who: Starting with the affected population, and progressively including the whole population
- What: Set-up a disease early warning system for acute water diarrhea in affected areas and areas at risk that is directly linked to integrated response/ Procure, distribute or pre-position supplies/ Train staff on early detection, active case finding, case management, management of CTC/CTU/ORPs and data collection/ Support case management in facilities and communities/ WASH Cholera package, depending on assessment of practices and events: HWTS, Disinfection, Key messages, community mobilization /Develop and support effective M&E systems in affected areas.
- How: Preparation and mobilization of communities through health district intervention teams

➔ **Prepared beforehand, a powerful response that is implemented once the first cases of Diarrhea +Vomiting (D+V) are reported.**

ACTIONS TO BE TAKEN ONCE CASES OF CHOLERA OR D+V ARE REPORTED

Information gathering and analysis

- Timely identification of areas with outbreaks of cholera or D+V. Quick response is key.
- Identify neighboring areas or areas where the disease is likely to spread. Include these areas in the Shield response.
- Inform neighboring districts, **countries** and the Regional Office of Cholera/D+V outbreaks, even if cholera is not confirmed. Spreading the message save lives.
- Visit the outbreak areas and make a rapid assessment of disease-spread patterns and anomalies on cholera cases investigation: Are men, women or children more at risk? If yes, why? Take into consideration local practices regarding food, hygiene, gatherings such as funerals, markets etc. Rapid assessments are very effective and time-efficient, as they can be done in 2 hours' time.

Example 1: If locals report that a high proportion of cholera cases are children (or women), this might be due to eating habits, with children finishing the adult's plates, processing of fresh fish, etc.

- **Highlight or adjust these causes in easy to understand C4D messages.**

Example 2: If many cholera patients indicate having eaten at the same place, or the same food (e.g. fish), this might equally be an important indication to inform hygiene campaigns and WASH interventions.

- **Find out what is the likely source of cholera transmission.**
- **Use common sense.**
- **Contact your Regional Office to discuss findings.**

Trans-border information sharing

- Weekly transmission of epidemiological reporting and analysis to Regional Office and neighboring countries
- Where the epidemic is sub-regional, participate in cross-border conference calls with WCARO as required

Request Regional Office assistance if needed

The Regional Office Cholera Team is happy to assist, remotely or through country missions.

- Focal Point WCARO: Selassie Atadika (satadika@unicef.org)
- Health: Marie-Reine Jibidar (mrjibidar@unicef.org), Remy Mwamba (rmwamba@unicef.org)
- C4D: Maria Bardolet (mbardolet@unicef.org)
- WASH: Francois Bellet (fbellet@unicef.org), Daniel Spalthoff (dspalthoff@unicef.org)

Évaluation de risque et l'utilité de vaccination avant la déclaration d'une épidémie en Aout, 2014 au Tchad

Le risque de choléra par temps, lieu et sévérité est difficile à prévoir. Donc, cette évaluation des risques doit être mise à jour avec l'information nouvelle sur la déclaration des cas et les facteurs des risques (i.e., mouvement des populations, les inondations, etc.) dans les différentes localités au fur et à mesure qu'elles surviennent.

Dans le contexte d'une épidémie émergente, les considérations clés pour évaluer si une campagne sera efficace pour interrompre la transmission sont :

- Le nombre de cas de choléra attendu, basé sur les données épidémiologiques historiques (nombre de cas et létalité au cours des années précédentes).
- L'état de l'eau, hygiène et assainissement
- Les avantages pour la protection jusqu'aux 5 ans)
- L'intégration avec les autres interventions clés (interventions dans les domaines de l'eau, de l'hygiène et de l'assainissement, la prise en charge des cas, la surveillance épidémiologique et les interventions de mobilisation sociale)
- Les coûts de la campagne
- La probabilité de l'extension spatiale de l'épidémie (mouvement de la population, axe routière important)

1. Les Scenarios pour les épidémies basés sur l'épidémiologie des années précédentes

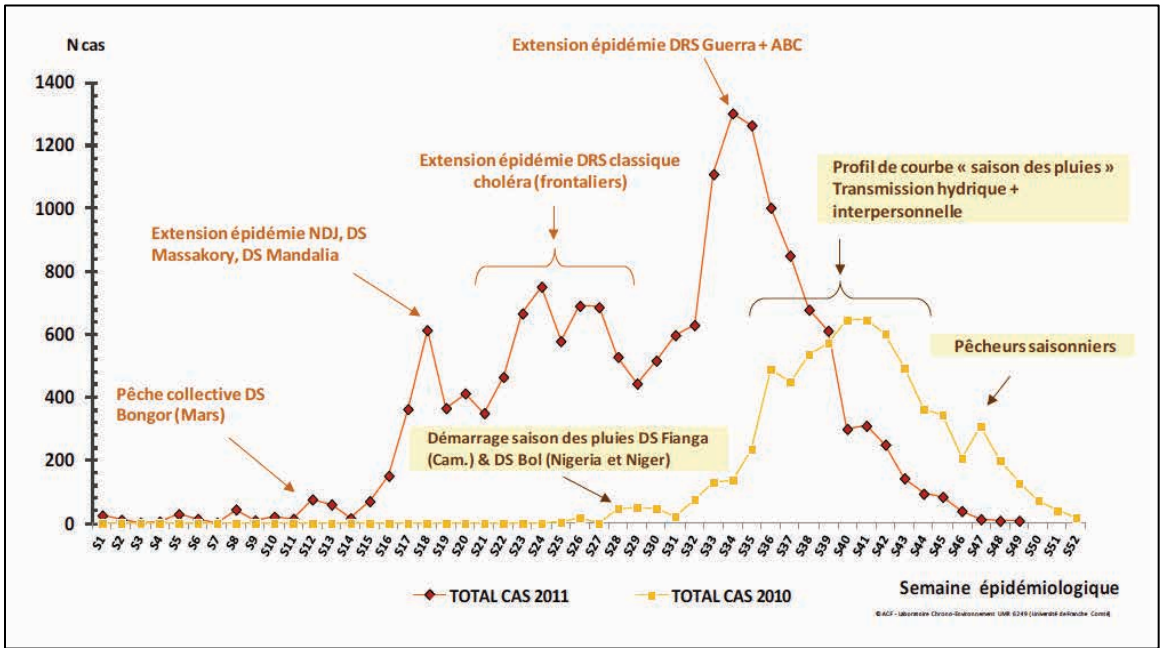
C'est utile d'examiner les tendances du choléra au Tchad au cours des cinq dernières années (2009-2014) pour comprendre les districts sanitaires et populations à risque par leurs susceptibilités à l'infection et leurs vulnérabilités de décès. Aucun cas n'a été signalé de 2006 à 2009, 2012 à 2013 et jusqu'au aout 2014. Les scénarios ci-dessous et les données utilisés sont basés sur l'analyse des épidémies de 2010 et 2011 effectuée par d'Action Contre La Faim et L'Université de Franche-Comté[1].

Tableau 1 : Épidémiologie des épidémies de choléra, Tchad, 2010-2011

	2010	**2011**
Nombre des cas	6,395	17,267
Décès (Létalité)	175 (2.7%)	458 (2.7%)
Transmission (majeur)	Hydrique, Interpersonnel	Interpersonnel, Hydrique
Temps		
Duration (semaines)	24	41
Début	Semaine 28 (saison de pluie)	Semaine 8 (saison sèche)
Fin	Semaine 52	Semaine 49
Extension spatiale	Lake Chad basin, Western border	Lake Chad, N'Djamena, Centre, East
Régions affectées	S25-31: Bol, Mayo-Kebi S32-43: Western border areas S37-43: N'Djamena, Bongor S44-52: N'Djamena, Pala, Mandalia	S9-14: pécheurs en Bongor et Lai S15-21: persistance à N'Djamena; transmission à Logone Ghana, Mandelia, Massakory S22-29: régions à l'ouest S30-38: régions Centre et Est (Guera, Abèche)

[1] Action Contre la Faim France et l'Université de Franche-Comté. Le choléra du Tchad en 2011 et les stratégies d'intervention associées. Avril 2012.

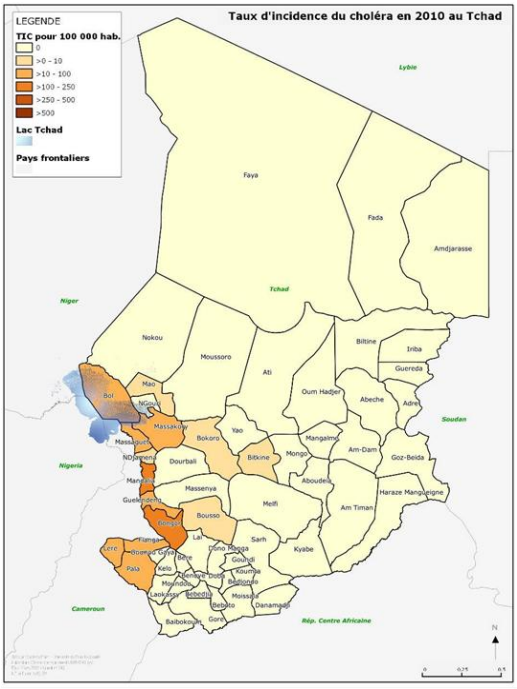
Figure 1 : Courbe épidémiologique des épidémies au Tchad, 2010-2011



Tendance des épidémies précédentes : Les analyses des épidémies depuis 1991 montrent que l'étendue du début est entre la fin de mars et fin de juillet (le début de la saison de pluie). La durée est typiquement 32 semaines et les zones affectées sont les régions d'Ouest de N'Djamena, Lac, Chari-Baguirmi et Mayo-Kebi.

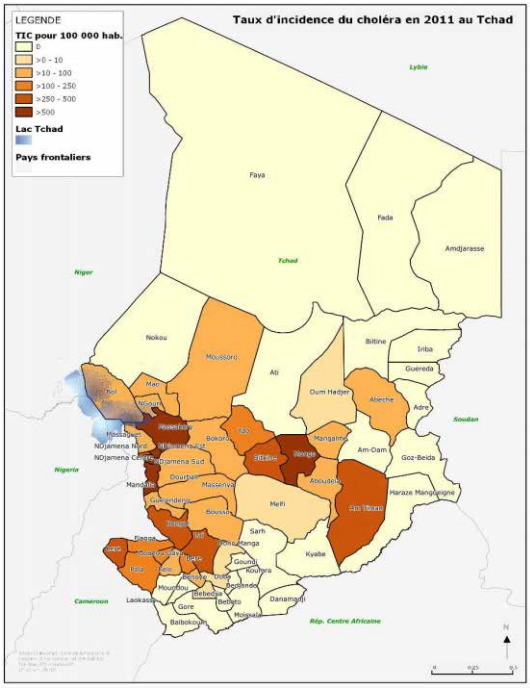
Les deux scénarios les plus probables sont :

Scénario 1 suivi la tendance d'épidémie en 2010. L'épidémie a commencé au début de la saison des pluies et l'inondation en mi-juillet. Le pic seul était en octobre et la fin était en novembre et décembre au début de la saison froide.
L'épidémie a été disséminée par la transmission hydrique et secondairement, la transmission interpersonnelle. L'épidémie a traversé la région frontalière du Lac Tchad (Logone Chari, Mayo-Kébi) puis, Hadjer Lamis et Ndjamena. Il n'y pas eu des cas à l'Est de Tchad.



Scénario 2 suivi la tendance d'épidémie en 2011. Il y avait un début très tôt avec la saison sèche à la fin de mars. Le groupe à risque était les pêcheurs à Bongor. Avec le début de la saison de pluie, l'épidémie traversée Lac Tchad. Il persiste au le centre urbain de N'Djamena parmi la saison sèche avec le résultat de l'accent sur la transmission interpersonnelle et ensuite, l'extension spatiale vers est aux Abéché et Salamat. La durée était 41 semaines et l'extension spatiale était importante.

Quand on compare les épidémies de 2010 et 2011, il y a deux observations notables :



- En 2011, le début tôt de l'épidémie en 2011 à la saison sèche était accompagné par une persistance de l'épidémie à Ndjamena pour six semaines via la transmission interpersonnelle dans le période sèche. Ensuite, il y avait plus de cas à comparer avec 2010.

- Considéré le nombre des cas plus bas au S8-S16 et la concentration des cas au Bongor, l'intervention tôt avec la vaccination et les autres interventions aurait pu une stratégie importante pour prévenir l'extension spatiale. Le groupe à risque dans cette situation était les pécheurs au Bongor et les quartiers pauvres à Ndjamena.

2. <u>Les groupes à risque</u>

Tandis qu'il n'y a pas des cas déclarés en 2013 et 2014 au Tchad (jusqu'au aout 2014), il y a des épidémies importantes aux frontières du Cameroun et du Nigéria. Pour cette raison, c'est important d'identifier les groupes à risque, et les groupes en particulières ou la vaccination pourrait avoir un impact importante (voir le Tableaux 2).

Les guides d'OMS identifient les groupes suivants comme vulnérable:

- Les camps de réfugiés, personnes déplacées, ou des quartiers pauvres
- Des régions avec des mouvements de populations (sur les frontières)
- Les régions avec accès de l'eau, assainissement et soins sous-standard

3. <u>Districts sanitaires à risque, par la vulnérabilité et la susceptibilité des districts</u>

L'OMS a souligné les considérations épidémiologiques et démographiques pour l'utilisation du vaccin contre les épidémies. Les considérations concernent l'immunité de la population conférée par l'exposition précédente au choléra. La classification donne une référence au niveau de risque ambiant pour la population quand on considéré le risque aux groupes en particulière.

Susceptibilité :
- Démontré par un taux d'incidence augmenté (plus ou égale de 1 cas par 1000) dans l'épidémique précédente dans les 2-3 ans précédents
- Démontré par moins des cas dans la dernière 2-3 ans qui démontré l'immunité basse

Vulnérabilité :
- Démontré par une létalité élevée (plus ou égale de 2.0%) dans l'épidémique précédente dans les 2-3 ans précédents

4. Les considérations essentielles pour une utilisation efficace du vaccin

En plus de la susceptibilité et la vulnérabilité de la population, il y a des autres considérations clés pour assurer l'impact meilleur de la campagne dans la population vaccinée et pour prévenir la transmission aux autres régions.

1. **Confirmation de *V. cholérae*** : pour aider en interrompre une épidémie en progrès, le Groupe Internationale de Coordination va considérer une demande de vaccin en cas d'épidémie seulement s'il y a des cas confirmés par culture (pas par test diagnostique rapide).

2. **Les conditions de la population : densité, mouvement de la population, l'accès aux soins primaires et la condition du système d'approvisionnement en eau et assainissent pour la population sous considération :** En général, une évaluation rapide sur la population sous considération doit être faite pour comprendre le besoin de protection de la population. Probablement, il n'y a pas des données exactes au niveau de la population; néanmoins, on peut utiliser le MICS au niveau du district pour donner une idée de la situation (ex. % de la population avec accès à une source de l'eau améliorée; % de la population avec accès aux assainissements améliorés)

3. **Assurer que les autres interventions clés pour la lutte contre le choléra sont en place pour équilibrer la réponse. La vaccination ne peut pas détourner les ressources des interventions clés. Assurer que les interventions qui suivent sont en place ou prévue, par le MSP et/ou les partenaires (MSF, ACF, IRC, ALIMA, etc.) :**
    i. La prise en charge des cas de choléra
    ii. Les interventions pour améliorer l'eau et assainissement
    iii. La promotion d'hygiène et la mobilisation sociale

4. **Risque d'extension spatiale d'épidémie** : le vaccin peut aider à interrompre la transmission et ensuite, l'extension de l'épidémie aux autres régions. Il est important de considérer les conditions pour la population à vacciner et la population dans les régions voisines.

5. **La fiabilité de la campagne (le micro-plan et la chaine de froid) :** Comme le VOC est délivré en deux doses, la capacité de la chaine de froid et la capacité de lancer une campagne dans les quartiers éloignés est importante à considérer. La méthodologie pour évaluer les besoins de la chaine de froid et pour le transport est décrit dans le lien suivant :

   http://www.who.int/entity/cholera/vaccines/Annexes_OCV_ICG_Requestv9Oct2013.xls?ua=1

Tableaux 2 : Groupes à risque en Tchad				
Groupes à risque et raisons	**Lieu et taille de la population**	**Facteurs de risque**	**Risque/lieu d'extension spatiale**	**Accès au l'eau et assainissement**
Les pécheurs de Lac Tchad *Le péché collectif en Bongor a été impliqué dans le début d'épidémie en mars, 2011	Basin de Lac Tchad	Mobilité Pauvre l'eau et assainissement	Mobilité sur Rivière Chari et Logone	Pauvre; à cause de mobilité
Populations dans le bassin Logone-Chari	Basin de Logone-Chari	Inondations Pauvre L&A	Sur Rivière Chari et Logone	Pauvre
Populations dans le bassin de Mayo-Kébi	Basin de Mayo-Kébi	Inondations Pauvre l'eau et assainissement	Inondations ont causé une connexion avec le fleuve Logone	Pauvre
Personnes déplacées de RCA (les retournées et les réfugiées) *Il y a eu des cas suspects (pas confirmé; les tests laboratoires ont été négatifs)	110,000 personne dans sept camps au Sud (Sido, Gore, Doyaba, M'bitoye, Moundou,Doba, Belom, Dosseye, Gondje Amboko Moyo) et N'Djamena	Densité de population Pauvre l'eau et assainissement Provenance d'un pays endémique	Mobilité entre les camps Proche de frontière sud	Pauvre; pas des solutions permanentes
Quartiers pauvres de N'Djamena		Densité de population Pauvre l'eau et assainissement	Lieu pour maintenir la persistance de transmission entre l'ouest et Tchad Centrale	Pauvre
Réfugiées déplacées de Soudan	230,000 personnes aux 10 camps à l'est (Oure Cassoni, Iridimi, Touloum, Am-Nabak, Mile, Kounoungou, Gaga, Treguine, Bredjing, Farchana, Djabai, Goz Amir, Abgadam)	Densité de population Pauvre l'eau et assainissement Provenance d'un pays endémique	Mobilité	Pauvre; pas des solutions permanentes

	Deux critères sont remplis (Taux d'attaque supérieur ou égal à 1 pour 1000 **ET** Létalité supérieure ou égale à 2%)
	Un critère est rempli (Taux d'attaque supérieur ou égale à 1 pour 1000 **OU** Létalité supérieure ou égale à 2%)
	Aucun critère remplis

Région	District sanitaire	Population	Cas	Taux d'attaque /1000	Décés	Durée (semaines)	Léthalité	Semaine à commencé
Centre Tchad	Bitkine	115089	480	4.2	14	17	2.9	33
Centre Tchad	Bokoro	114050	95	0.8	8	5	8.4	24
Centre Tchad	Mangalme	33267	90	2.7	4	9	4.4	33
Centre Tchad	Melfi	43840	3	0.1	1	1	33.3	36
Centre Tchad	Mongo	73434	1181	16.1	23	12	1.9	32
Centre Tchad	Yao	91507	200	2.2	11	7	5.5	38

Région	District sanitaire	Population	Cas	Taux d'attaque /1000	Décés	Durée (semaines)	Léthalité	Semaine à commencé
Logone and Chari	Mandalia	49177	1311	26.7	25	31	1.9	18
Logone and Chari	Bongor	69787	956	13.7	31	40	3.2	1
Logone and Chari	Lai	94695	1066	11.3	72	29	6.8	12
Logone and Chari	Bere	63870	161	2.5	8	17	5	23
Logone and Chari	Kelo	74793	164	2.2	10	19	6.1	24
Logone and Chari	Guelendeng	37242	74	2.0	3	16	4.1	21
Logone and Chari	Gounou Gaya	112842	185	1.6	13	23	7	15
Logone and Chari	Dourbali	77787	90	1.2	15	13	16.7	29
Logone and Chari	Bousso	58096	28	0.5	5	9	17.9	1
Logone and Chari	Massenya	97398	17	0.2	1	2	5.9	33
Logone and Chari	Dono Manga	62446	1	0.0	0	1	0	27

Région	District sanitaire	Population	Cas	Taux d'attaque /1000	Décés	Durée (semaines)	Léthalité	Semaine à commencé
Lac Tchad	Massakory	111934	2539	22.7	66	28	2.6	18
Lac Tchad	Massaguet	52776	123	2.3	4	16	3.3	31
Lac Tchad	Mao	112270	147	1.3	8	13	5.4	17
Lac Tchad	Bol	112490	126	1.1	8	10	6.3	30
Lac Tchad	Ngouri	106977	85	0.8	14	3	16.5	31
Lac Tchad	Moussoro	80209	31	0.4	0	6	0	31

Région	District sanitaire	Population	Cas	Taux d'attaque /1000	Décés	Durée (semaines)	Léthalité	Semaine à commencé
Est Tchad	Abéché	138684	256	1.8	9	15	3.5	31
Est Tchad	Aboudeia	27034	41	1.5	3	5	7.3	34
Est Tchad	Am Timan	75216	733	9.7	5	15	0.7	22
Est Tchad	Oum Hadjer	101017	2	0.0	0	1	0	35

Région	District sanitaire	Population	Cas	Taux d'attaque /1000	Décés	Durée (semaines)	Léthalité	Semaine à commencé
N'Djamena	N'Djamena Centre	N/A	808	N/A	2	26	0.2	21
N'Djamena	N'Djamena Est	N/A	1841	N/A	8	29	0.4	19
N'Djamena	N'Djamena Nord	N/A	247	N/A	1	23	0.4	21
N'Djamena	N'Djamena Sud	N/A	1873	N/A	20	35	1.1	15

Région	District sanitaire	Population	Cas	Taux d'attaque /1000	Décés	Durée (semaines)	Léthalité	Semaine à commencé
Sud Tchad	Bebedija	42335	2	0.0	0	1	0	23
Sud Tchad	Benoye	63296	52	0.8	6	3	11.5	33
Sud Tchad	Doba	106403	1	0.0	0	1	0	28

REPUBLIQUE DEMOCRATIQUE DU CONGO
PROVINCE DU NORD KIVU

DIVISION PROVINCIALE DE LA SANTE
BP : 32 Goma

Rapport synthèse

ATELIER D'ANALYSE DES RISQUES DE PROPAGATION DU CHOLERA DANS LA PROVINCE DU NORD KIVU.

Goma, du 19 au 21 juin 2015.

Avec l'appui technique et financier d'

- Juin 2015 –

1. CONTEXTE

Le choléra est resté parmi les maladies endémo-épidémiques à l'Est de la République Démocratique du Congo (RDC) principalement en Province Orientale, au Katanga, au Nord-Kivu et au Sud-Kivu. Chaque année, sont dénombrés des milliers de cas de choléra et de centaines des décès.

Depuis 2007, le pays s'est engagé dans un processus d'élimination du choléra comme problème de santé publique. Ainsi, un plan multisectoriel d'élimination du choléra (PMSEC) pour la période de 2013 à 2017 a été élaboré ; contrairement au premier plan d'élimination 2008-2012 qui considérait le choléra comme un problème purement biomédical.

Le PMSEC 2013-2017 prend en compte cinq axes stratégiques suivants (i) la surveillance épidémiologique globale, recherche opérationnelle et circulation de l'information, (ii) la prévention, (iii) la mise en place des interventions liées à l'eau potable, l'hygiène et l'assainissement, (iv) la prise en charge des cas et (v) la coordination.

Cependant, après une année de mise en œuvre du PMSEC 2013-2017, l'évaluation a relevé certaines faiblesses notamment l'absence de plans opérationnels, de plans de suivi et évaluation et de structures de coordination.

Pour mieux rendre opérationnel le PMSEC 2013-2017 en 2015, la direction de lutte contre la maladie (DLM) en partenariat avec Unicef, organise dans les différentes provinces endémo-épidémiques au choléra des ateliers d'où sortiront des plans d'actions opérationnels qui contribueront à l'élaboration du plan opérationnel national. Dans ces plans, la composante vaccination contre le choléra (OCV) sera prise en compte au niveau de l'axe prévention. Il s'agit d'une innovation qu'apporte le PMSEC 2013-2017.

Considérant le contexte endémo-épidémique du choléra en province du Nord Kivu, International Medical Corps (IMC) a mobilisé des ressources importantes pour appuyer la lutte contre le choléra en intégrant la vaccination anticholérique. Pour y arriver, des concertations entre partenaires ont été menées sous l'égide de la division provinciale de la santé (DPS) afin d'étudier à fond la question ; et au terme desquelles, il a été recommandé de mettre en place une commission technique pour analyser le risque de propagation du choléra et de déterminer les zones et aires de santé qui pourront intégrer la VCO.

Dans ce cadre, bénéficiant de l'appui technique et financier d'IMC et avec la participation active de l'Unicef et l'OMS, la DPS vient d'organiser un atelier de trois jours à l'hôtel Ishango de Goma du 19 au 21 juin 2015.

Le présent rapport détaille l'approche méthodologique utilisée, les résultats obtenus ainsi que les prochaines étapes.

2. OBJECTIFS DE L'ATELIER

2.1. OBJECTIF GENERAL

L'objectif général de cet atelier était contribué à l'élimination du choléra dans la province du Nord Kivu.

2.2. OBJECTIFS SPECIFIQUES

- Analyser le risque de propagation de choléra dans les zones et aires de santé de la province du Nord Kivu ;
- Déterminer les zones et aires de santé potentielles à bénéficier d'une campagne de vaccination contre le choléra ;
- Elaborer un rapport de cette analyse de risque du choléra qui sera partagé à tous les acteurs.

3. APPROCHES METHODOLOGIQUES

Un groupe de travail composé des chefs des bureaux Appui technique aux zones de santé, Information, communication et recherche et Hygiène et salubrité publique, du chef de service surveillance épidémiologique de la DPS, du chef de sous bureau OMS Nord Kivu, de la spécialiste chargée des urgences au bureau Unicef Zone Est et des cadres de l'IMC, s'est réuni dans un atelier de trois jours, soit du 19 au 21 Mai 2015 inclusivement, pour faire une analyse des risques de propagation du choléra dans les zones et aires de santé et ainsi mettre à la disposition de la province celles susceptibles d'intégrer l'utilisation de la vaccination orale cholera au Nord Kivu en 2015 comme approche complémentaire dans la lutte contre le choléra.

Au cours de cet atelier, ont été exploitées les bases des données épidémiologiques de choléra de la DPS de 2010 à 2014. Selon les cas, les seuils épidémiques (moyenne hebdomadaire sur cinq ans), les taux de présence du choléra (pourcentage sur cinq ans des semaines où des cas de choléra ont été enregistrés), les taux d'incidence (total des cas sur la population moyenne sur cinq ans) et la présence des facteurs environnementaux favorables au choléra ont permis la classification des zones et aires de santé.

Pour la catégorisation des zones de santé, les critères ci-dessous pourront les départager :

- Type A : zones de santé endémiques de choléra où le seuil épidémique est supérieur ou égal à 10 cas, le taux de présence est supérieur à 50 % et où les facteurs environnementaux sont favorables au choléra. Ces zones de santé ont un taux d'incidence supérieur ou égal à 750 cas pour 100.000 habitants ;
- Type B : zones de santé épidémiques de choléra où le seuil épidémique est inférieur à 10 cas et le taux de présence est inférieur à 50 %. Ces zones de santé ont un taux d'incidence compris entre 450 et 749 cas pour 100.000 habitants ;
- Type C : zones de santé épidémiques de choléra (zones de santé à risque significatif) où au moins une épidémie du choléra a été notée au cours de cinq dernières années et ont enregistré plus de 100 cas en cinq ans. Ces zones de santé ont un taux d'incidence compris entre 70 et 449 cas pour 100.000 habitants ;
- Type D : zones de santé épidémiques de choléra où au moins une épidémie du choléra a été notée au cours de cinq dernières années et ont enregistré moins de 100 cas en cinq ans. Ces zones de santé ont un taux d'incidence inférieur à 70 cas pour 100.000 habitants.

Pour ce qui est de la classification des aires de santé, les critères ci-dessous pourront les départager :

- Aires de santé avec priorité 1 : taux d'incidence est supérieur ou égal à 100 cas pour 10.000 habitants ;
- Aires de santé avec priorité 2 : taux d'incidence est compris entre 50 et 99 cas pour 10.000 habitants ;
- Aires de santé avec priorité 3 : présence d'au moins un cas et taux d'incidence est inférieur à 50 cas pour 10.000 habitants.

Par ailleurs, pour affiner les analyses, des contacts téléphoniques et des échanges des courriels avec les équipes cadres des zones de santé à risque ont été mis à contribution.

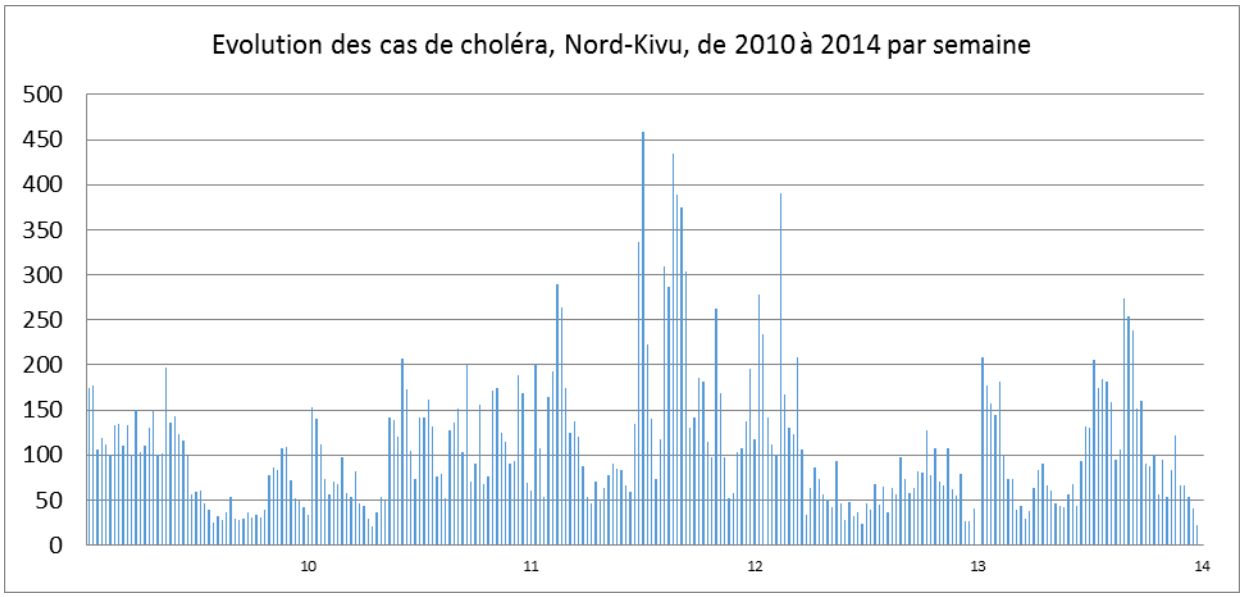
4. RESULTATS ATTEINTS

4.1. Répartition des cas et décès de choléra par zone de santé de 2010 à 2014

N°	Zones Santé	2010		2011		2012		2013		2014		Total	
		Cas	Décès	Cas	Décès	Cas	Décès	Cas	Décès	Cas	Décès	Cas	Décès
1	Birambizo	61	1	317	3	143	5	10	0	508	8	1039	17
2	Goma	1012	3	817	1	1522	5	1357	2	80	0	4788	11
3	Karisimbi	297	0	215	4	2407	9	497	5	281	3	3697	21
4	Katwa	0	0	4	0	14	4	0	0	0	0	18	4
5	Kirotshe	1019	3	762	12	969	13	1206	5	974	0	4930	33
6	Kyondo	105	4	228	8	42	5	0	0	782	24	1157	41
7	Lubero	270	6	164	5	0	0	0	0	107	0	541	11
8	Masereka	36	2	4	0	0	0	0	0	0	0	40	2
9	Masisi	212	2	48	0	241	13	656	13	937	8	2094	36
10	Mutwanga	72	0	41	1	369	9	49	0	39	0	570	10
11	Mweso	551	1	1697	1	908	0	378	0	732	1	4266	3
12	Pinga	255	4	473	3	47	0			6	0	781	7
13	Rutshuru	31	0	260	0	272	2	192	0	769	2	1524	4
14	Rwanguba	208	1	75	0	1088	7	0	0	11	0	1382	8
15	Vuhovi	0	0	223	14	1	0	0	0	0	0	224	14
16	Walikale	0	0	103	5	0	0	0	0	0	0	103	5
17	Alimbongo	0	0	0	0	0	0	0	0	71	4	71	4
18	Bambo	0	0	0	0	0	0	62	13	45	0	107	13
19	Kayna	0	0	0	0	0	0	0	0	163	3	163	3
20	Musienene	0	0	0	0	0	0	0	0	14	0	14	0
21	Beni	0	0	0	0	1	0	0	0	0	0	1	0
22	Binza	20	0	0	0	144	1	0	0	0	0	164	1
23	Itebero	0	0	0	0	131	19	0	0	0	0	131	19
24	Kamango	0	0	0	0	91	3	0	0	0	0	91	3
25	Oicha	0	0	0	0	0	0	11	0	0	0	11	0
26	Butembo	0	0	0	0	3	0	0	0	0	0	3	0
Total		4.149	27	5.431	57	8.390	95	4.418	38	5.519	53	27.910	270

Ce tableau nous renseigne notamment que (i) 27.910 cas et 270 décès ont été enregistrés au cours de cinq dernières années soit un taux de létalité de 0.9 % et (ii) 26 zones de santé sont à risque du choléra soit 86,6 % (n=30 zones de santé en 2014). L'année 2012 a enregistré plus des cas soit 30 % du total des cas de cinq dernières années. Une recrudescence des violences armées dans la province était enregistrée durant cette année entrainant ainsi un mouvement pendulaire des populations.

4.2. Dynamique temporelle



Il ressort de ce graphique que le choléra sévissait de manière quasi permanente au cours de cinq dernières années avec nombreuses flambées.

4.3. Zones de santé à risque du choléra de 2010 à 2014

L'exploitation des bases des données de surveillance épidémiologique ont permis le calcul, pour chaque zone de santé à risque, des taux d'incidence, des seuils épidémiques hebdomadaires et des taux de présence du choléra. Ces indicateurs sont représentés dans le tableau ci-dessous.

N°	Zones de santé	Taux d'incidence/100.000 hab.	Seuils épidémiques hebdomadaires (Cas)	Taux de présence (%)
1	Binza	93	1	1
2	Birambizo	221	4	35
3	Goma	2390	20	80
4	Karisimbi	753	15	75
5	Kirotshe	1273	19	94
6	Kyondo	498	4	27
7	Lubero	191	2	8
8	Masereka	24	0	3
9	Masisi	24	0	54

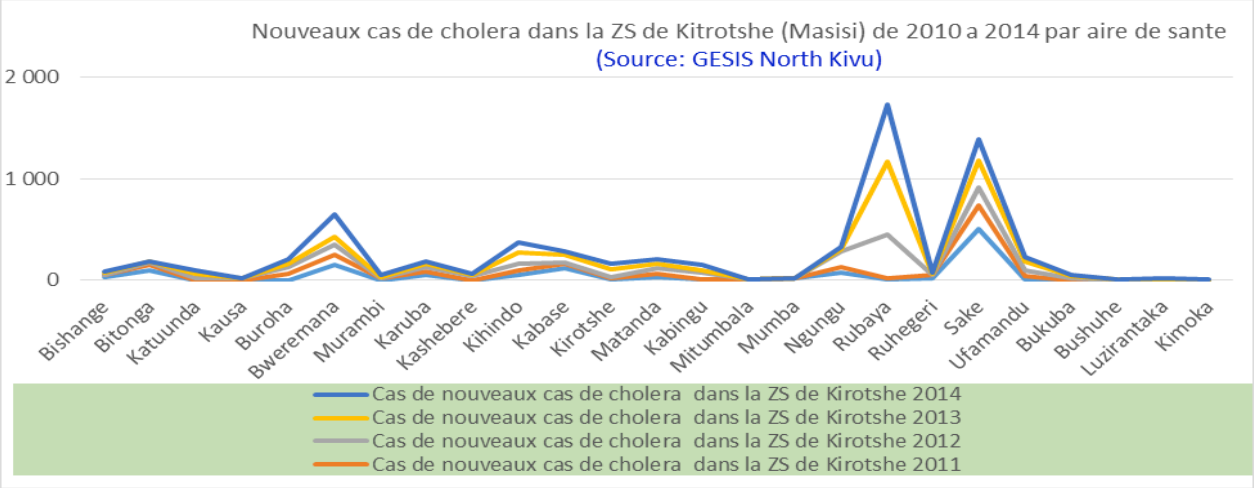
10	Mutwanga	219	2	29
11	Mweso	1274	16	81
12	Pinga	519	3	18
13	Rutshuru	569	6	61
14	Rwanguba	623	6	25
15	Bambo	73	0	3
16	Musienene	6	0	2
17	Oicha	3	0	0
18	Alimbongo	34	0	2
19	Vuhovi	197	1	4
20	Walikale	51	0	3
21	Kayna	48	1	2
22	Beni	0	0	0
23	Itebero	78	1	5
24	Kamango	92	0	7
25	Katwa	5	0	2
26	Butembo	1	0	1

Le tableau ci-dessus nous renseigne notamment que (i) les zones de santé les plus touchées sont principalement ***Goma, Karisimbi, Kirotshe***, ***Mweso*** Masisi, Birambizo, Kyondo, Rwanguba et Rutshuru et (ii) les seuils épidémiques varient de 1 à 20 cas par semaine dépassant le seuil épidémique de référence de 1 cas par semaine.

Nouveaux cas de cholera dans la ZS de Kirotshe pour 5 années 2010-2014

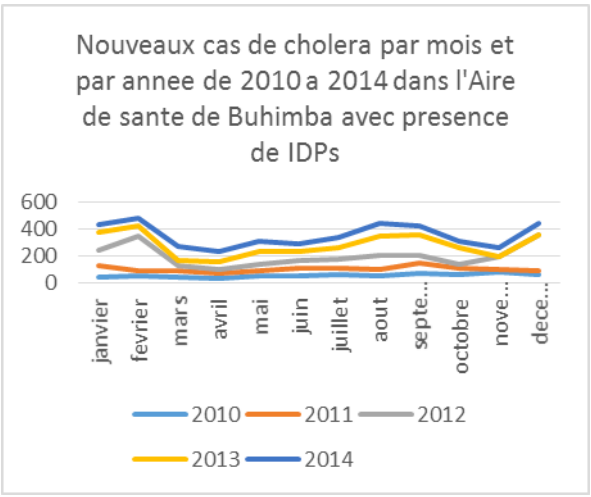
Pour rappel cette ZS était déjà classifiée avant cet atelier d'analyse approfondie comme étant une zone à haut risque. L'analyse ici se portera à l'échelle des aires de sante en utilisant les mêmes critères pour identifier les Aires de sante à haut risque.

Parmi les aires de sante de Kirotshe on voit dans ce graphique ici a droite que malgré l'endémicité de ces zones avec le cholera, il y a Bweremana, Rubaya et sake qui se font remarque chaque annee. Mais malgré le nombre de cas élevé a Sake chaque année, cette aire de sante n'avais pas été retenue du fait de l'absence des sites de déplacés comme facteur favorisant (Par exemple les camps ou sites temporaires des déplacés). C'est pourquoi la priorité a été accordée à Bweremana et Rubaya dans cette ZS de Kirotshe qui se trouve sur le territoire de Massisi.



BUHIMBA

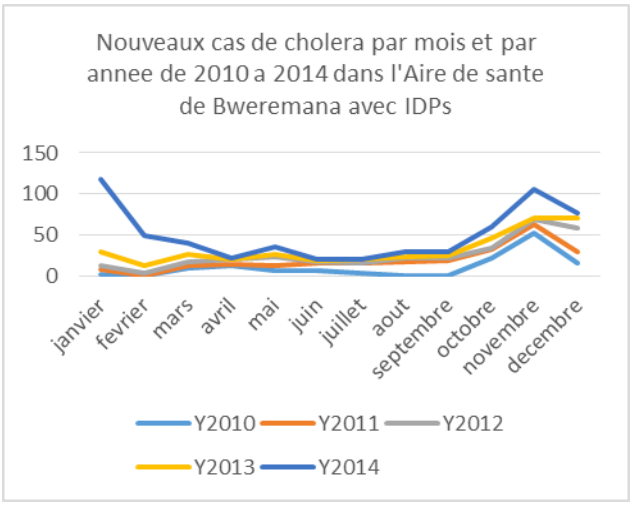
	2010	2011	2012	2013	2014	Total
janvier	40	87	119	127	63	436
fevrier	49	40	254	81	58	482
mars	42	46	36	46	99	269
avril	36	39	26	56	80	237
mai	47	39	56	89	77	308
juin	52	56	62	63	58	291
juillet	64	49	65	81	82	341
aout	49	51	100	148	91	439
septembre	71	73	60	155	64	423
octobre	62	44	35	116	52	309
novembre	77	27	89	0	68	261
decembre	63	29	269	0	80	441
	652	580	1171	962	872	4237



Commentaires:
L'allure de courbe dans la figure de Buhimba montre que chaque annee y a une augmentation du nombre de nouveaux cas entre Janvier et fevrier pour diminuer et se stabilizer entre avril jusqu'au juillet. Les pics recommencent en fin Juillet et se maintiennent jusqu'au debut octobre. Cette oberservation est evidente a partir du graphique de Buhimba. Donc cette periode est encore propice pour organizer une campagne vaccinale contre le cholera si les moyens permettaient.

ANALYSE A L'ECHELLE DE L'AIRE DE SANTE DE BWEREMANA

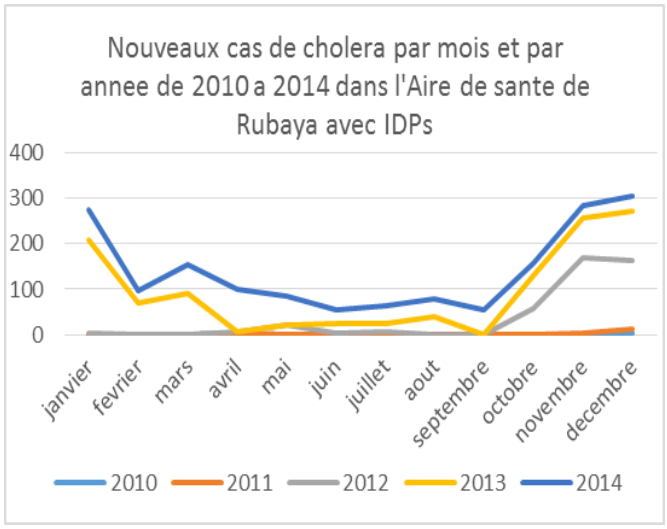
	2010	2011	2012	2013	2014	Total
janvier	2	6	4	17	89	118
fevrier	0	0	4	8	37	49
mars	10	2	5	10	13	40
avril	12	2	6	0	2	22
mai	6	6	12	3	9	36
juin	7	9	1	1	2	20
juillet	4	12	0	4	0	20
aout	0	17	4	2	6	29
septembre	1	17	3	4	4	29
octobre	22	10	2	12	14	60
novembre	52	11	6	2	34	105
decembre	16	13	30	12	5	76
	132	105	77	75	215	604



Commentaires
A Bweremana on constate que la période qui semble propice pour organiser une campagne vaccinale contre le choléra serait vers la fin de septembre jusqu'au début Janvier de chaque année. Les analyses ici n'ont pas pu être faites par semaine et par aire car les données au niveau provinciale ne sont désagrégées par semaine jusqu'au niveau des Aires. Cependant les données y sont agrégées plutôt par mois et par aire de sante.

ANALYSE A L'ECHELLE DE L'AIRE DE SANTE DE RUBAYA

	2010	2011	2012	2013	2014	Total
janvier	0	0	4	206	66	276
fevrier	0	0	1	70	27	98
mars	0	0	0	92	62	154
avril	2	0	4	0	94	100
mai	0	0	20	0	66	86
juin	0	0	3	20	31	54
juillet	0	0	5	18	41	64
aout	0	0	0	41	38	79
septembre	0	0	0	0	55	55
octobre	0	0	58	71	28	157
novembre	0	2	166	88	29	285
decembre	2	9	152	110	33	306
	4	11	413	716	570	1714



Commentaires

Etant donne que Rubaya et Bweremana sont dans la même zone de sante de Kirotshe sur le territoire de Masisi, il n'y a pas de différence constatées dans l'allure des courbes de tendance mensuelle en termes du nombre de nouveaux cas rapportes. Les courbe suivent exactement la même allure mensuelle.

4.4. Facteurs des risques

Plusieurs facteurs de risque ont été répertoriés dans les zones et aires de santé qui connaissent le choléra. Ils sont présentés dans le tableau ci-dessous par rapport aux domaines de l'eau, de l'hygiène et de l'assainissement.

Domaines	Principaux facteurs de risque
Eau	- Faible couverture en eau potable avec la consommation de l'eau non potable (cas des rivières Lubiriya (zone de sané Mutwanga), Mweso (zone de santé de Pinga), Kabidi (zone de santé de Lubero) ; - Faible profondeur de la nappe phréatique (80 cm) (zones de santé de Kirotshe et Mweso) - Insuffisance des sources d'eau aménagées, puits d'eau et réservoirs mal entretenus ; - Accès facile aux eaux des lacs par rapport à l'eau de Regideso (zones de santé de Kyongo, Kirotshe, Goma, Karisimbi, Binza, Lubero et Mweso).

Hygiène	- Présence des camps des déplacés et des retournés avec mauvaises conditions d'hygiène ; - Ignorance des facteurs de risque de choléra ; certaines formations sanitaires privées ; - Faible application des mesures d'hygiènes individuelles et collectives ; - Faible connaissance sur les mesures de prévention et contamination du choléra ; - Manipulation inadéquate des malades et des cadavres par la communauté sans mesure de protection ; - Transport non sécurisé des malades ; - Promiscuité dans les camps militaires et dans les prisons ; - Présence des campements des pêcheurs autour du lac (zone de santé de Kirotshe).
Assainissement	- Faible application des mesures d'hygiènes individuelles et collectives ; - Pas de latrine pour la plupart des ménages ; - Défécation à l'aire libre ; - Mauvaise gestion des déchets.
Autres	- Intense échanges avec des zones de santé endémiques ; - Recherche des terres pour l'agriculture dans les zones endémiques ; - Mauvaise conception du choléra considérée comme de la sorcellerie.

L'analyse de ce tableau nous montre que le choléra est associé principalement aux mouvements des populations (les déplacés), à l'écosystème, à la disponibilité des ouvrages d'eau, aux mauvaises conditions d'hygiène et assainissement et aux us et coutumes.

4.5. Populations à risque

Les principales populations à risque suivantes sont identifiés : les déplacés, les prestataires des soins, les groupes armés et les militaires en opération, les voyageurs, les trafiquants/commerçants, les pêcheurs, les cultivateurs, les prisonniers, la population des aires de santé à risque tous âges confondus (membres de famille des victimes).

Quant aux mécanismes de propagation, l'on note principalement : la consommation de l'eau et des aliments contaminés et le contact interhumain et avec des cadavres.

4.6. Catégorisation des zones de santé

La combinaison des seuils épidémiques hebdomadaires, les taux de présence de choléra, les taux d'incidences et la présence des facteurs favorables au choléra ont permis la classification des zones de santé en quatre catégories résumés dans le tableau ci-dessous (voir critérium au point 3).

Catégories	Zones de santé
Zones de santé endémiques. Type A.	Goma, Karisimbi, Mweso et Kirotshe.
Zones de santé épidémique, Type B.	Birambizo, Kyondo, Masisi, Mutwanga, Pinga, Rutshuru et Rwanguba.

Zones de santé épidémiques, Type C.	Binza, Lubero, Vuhovi, Walikale, Kayna, Itebero et Bambo.
Zones de santé épidémiques type D	Masereka, Musienene, Oicha, Alimbongo, Beni, Kamango, Katwa et Butembo.

A la lecture de ce tableau, nous constatons que la province du Nord Kivu compte quatre zones de santé endémiques de type A, sept zones de santé épidermiques de type B, sept zones de santé épidermiques de type C et huit zones de santé épidémiques de type D.

4.7. Analyse des risques dans les aires de santé

L'exploitation des bases des données nous a permis le calcul des taux d'incidence dans les aires de santé des zones de santé des types A et B. Trois catégories d'aires de santé selon que le taux d'incidence pour 10.000 habitants est supérieur à 100 cas pour la priorité 1, entre 50 et 100 cas pour la priorité 2 et moins de 50 cas pour la priorité 3. Le tableau suivant résume (les détails se retrouvent en annexe) la liste des aires de santé par en fonction de leur priorité.

Zones de santé	Type	Aires de santé		
		Priorité 1	Priorité 2	Priorité 3
Goma	A	CCLK et Buhimba	Keshero	Casop, Mapendo, Katindo et Carmel.
Karisimbi	A	Kanyaruchinya, Kiziba,	Majengo	Kahembe, Mabanga, Mugunga, Murara, Ndosho, Virunga, Katoyi, Kibumba, Lubango, Amani, Muungano résurection, Muungano solidarité, Hébron et Kingarame
Mweso	A	Tambi, Kashuga, Bibwe, St Bénoit,	Rugarama, Kamonyi, Busumba, Kabarizo,	Burungu, Mokoto, JTN, Bukama, Kivuye, Kalembe, Nyarubande, Bweru, Lwama, Katuna, Luhanga et Yopa
Kirotshe	A	Bitonga, Buroha, Bweremana, Karuba, Kihindo, Kabase, Rubaya, Sake et Ufamandu	Bishange, Katuunda, Kashebere, Kirtoshe, Matanda, Kabingu, Ngungu et Ruhegeri,	Kausa, Murambi, Mitumbala et Mumba.
Kyondo	B	Néant	Kalivuli et Mbungwe,	Kyalumba, Kyondo, Kivuya, Kyavinyonge, Burusi, Kasisi, Kitolu, Kalengehya, Vayana, Kirindera, Vusorongi, Vutumbi et Kyangendi

Rwanguba	B	Néant	Néant	Matebe, Kabaya, Kabonero, Bunagana, Nyarukwangara, Shangi, Shinda, Ntmugenga, Kazuba, Rwaguba, Bugusa et Tchengerero
Pinga	B	Néant	Néant	Pety, Kaseke, Mashuta, Bukonde, Rungoma, Misau, Oninga, Besse, Buhimba, Rusamambu, Munsanga, Mutongo, Kailenge et Nkimba,
Mutwanga	B	Néant	Néant	Lume, Kabalwa, Kudi III, Kalembo, Lubiriha, Loulo et Halungupa
Masisi	B	Néant	Néant	Kitsule, Kibabi, Machumbi, Lukweti, Kibati, Bukumbirire, Mahanga, Buabo, Kaniro, Lwibo, Kibua, Bihambwe, Miandja, Luke, Katoyi, Nyakariba, Kanyatsi, Kimua, Ngomashi,et Mbitsi
Rutshuru	B	Néant	Néant	Vitshumbi, Buturande, Umoja, Rutshuru, Rubare, Katale, Murambi et Kinyandonyi,
Birambizo	B	Néant	Néant	CBCA/Bambo, Kibirizi, Tongo, Butare, Katsiru, Nyanzale, Kibingo, Ngoholo, Kabati, Faraja, et CEBCE/Bambo.

4.8. Analyse de la saisonnalité des épidémies

La présentation des données de surveillance par semaine nous a permis d'identifier les périodes où surviennent le plus souvent des flambées épidémiques comme le démontre le graphique ci-dessous.

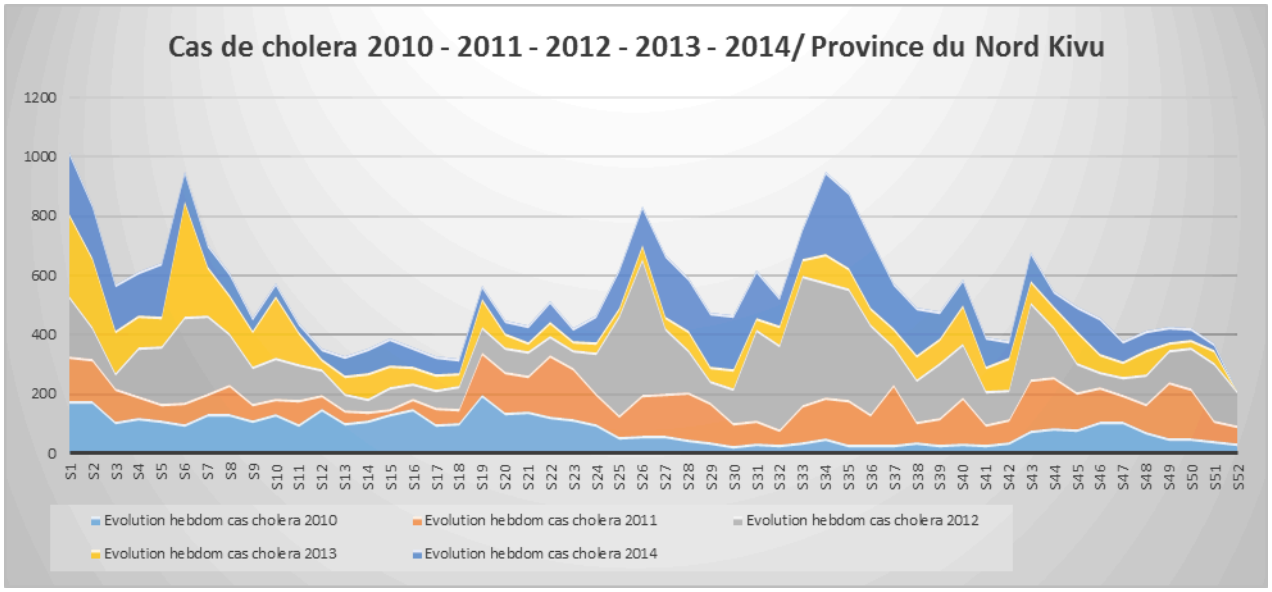


Figure Evolution hebdomadaire des cas de choléra dans la province du Nord Kivu 2010 – 2014

De cette figure, nous notons au début de chaque année des flambées qui baissent progressivement jusqu'à se stabiliser de la douzième semaine à la dix-huitième. Une autre flambée s'observe dès la dix-neuvième semaine et se maintient jusqu' à la trente cinquième semaine épidémiologique. Visiblement, c'est la période propice pour organiser une campagne réactive.

5. LECONS APPRISES

A l'issue de cette analyse, plusieurs leçons viennent d'être tirées notamment :

- L'analyse de risque du choléra décentralisée a l'échelle des zones et aires de sante a permis d'identifier avec précision les sites a risque susceptibles de manière à rationaliser les interventions et l'utilisations des ressources efficacement
- Les seuils épidémiques calcules et actualisés viennent de nouveau confirme toutes les zones de sante déjà connues comme à risque depuis 2010, afin d'améliorer le système de surveillance du choléra dans la province, zones et aires de sante;
- Grace à cet exercice d'analyse de risque dans le domaine spécifique du choléra vis-à-vis de l'organisation d'une campagne OCV, la période et l'approche de vaccination semblent être connues entre les trois approches à savoir Réactive, Humanitaire (Pre-emptive) ou en dans *une zone endémique, cette dernière qui semble correspondre à notre situation ici au Nord Kivu;*

6. PROCHAINES ETAPES

Au regard de ce qui est présenté ci haut, nous envisageons :

- Organiser un atelier de planification de la campagne de vaccination anticholérique. Cet atelier réunira les médecins chef des zones de santé, les infirmiers superviseurs, les cadres de la DPS, l'équipe du niveau central et les partenaires d'appui. L'objet de l'atelier étant le briefing des équipes des zones et la production d'un micro plan ;
- Réaliser une micro planification à la base avec les infirmiers titulaires des aires de santé ;
- Produire une feuille de route à soumettre au niveau central et interagir pour s'assurer du respect des procédures amenant à l'organisation d'une campagne anticholérique dans la province ;
- Organiser une campagne de vaccination anticholérique.

Fait à Goma, le 09 Juin 2015

TALLY SHEET FOR CHOLERA VACCINATION

Team: .... **Location:** ....……..

Date: ....

N°of vials opened = ...

Vaccine utilization rate = number of doses administered x 100 = ...%

number of doses used

1ST DOSE						2ND DOSE					
1 – 4 years		5-15 years		Over 15		1- 4 years		5 -15 years		Over 15	
Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO	OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO	OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO	OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO	OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO	OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO	OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO	OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO	OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO	OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO	OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO	OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO OOOOO
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Total=	Total=	Total=	Total=	Total=	Total=	Total=	Total=	Total=	Total=	Total=	Total=

Tick one circle for each dose ***One large square = 100 doses***

Grand Total =

REPUBLIQUE DU TCHAD
MINISTERE DE LA SANTÉ PUBLIQUE
DE L'ACTION SOCIALE ET DE LA SOLIDARITE NATIONALE
DIVISION DE LA VACCINATION

UNITE-TRAVAIL-PROGRES

Fiche de pointage des vaccinations anticholérique - Sédentaires

Nom Responsable de l'Equipe: ..... …… **District Sanitaire:** ……

Date: _____//_____//2015..... …… ……**ZR/:** ……

Site de vaccination: .....

Nbre de flacons reçus =.....

Age	Homme		Femme
1-4 ans	**00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000**		**00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000**
	Sous-Total 1 (H1) =		Sous-Total 1 (F1) =
5-14 ans	**00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000**		**00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000**
	Sous-Total 2 (H2) =		Sous-Total 2 (F2) =
≥ 15 ans	**00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000**		**00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000**
	Sous-Total 3 (H3) =		Sous-Total 3 (F3) =
Total Homme (H1+H2+H3)=			**Total Femme (F1+F2+F3) =**

Nb. de flacons utilisés : ☐ Nb de flacons restants : *Bon état ☐ **Mauvais état ☐

Bon état : Stades 1 et 2 de la PCV **** Mauvais état : Stades 3 et 4 de la PCV**

Total vaccinés **(Total Homme +Total Femme) :**	

Signature : _____

REPUBLIQUE DU TCHAD
MINISTERE DE LA SANTÉ PUBLIQUE
DE L'ACTION SOCIALE ET DE LA SOLIDARITE NATIONALE
DIVISION DE LA VACCINATION

UNITE-TRAVAIL-PROGRES

Fiche de pointage des vaccinations anticholérique - Nomades

Nom Responsable de l'Equipe: ..... …… **District Sanitaire:** ……

Date: _____//_____//2015…….. ……**ZR/:** ……..

Site de vaccination: .....

Nbre de flacons reçus =.....

Age	Homme		Femme
1-4 ans	**00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000**		**00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000**
	Sous-Total 1 (H1) =		Sous-Total 1 (F1) =
5-14 ans	**00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000**		**00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000**
	Sous-Total 2 (H2) =		Sous-Total 2 (F2) =
≥ 15 ans	**00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000**		**00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000** **00000 00000 00000 00000**
	Sous-Total 3 (H3) =		Sous-Total 3 (F3) =
Total Homme (H1+H2+H3)=			**Total Femme (F1+F2+F3) =**

Nb. de flacons utilisés : ☐ ; Nb de flacons restants : Bon état ☐ Mauvais état ☐

Bon état : Stades 1 et 2 de la PCV **** Mauvais état : Stades 3 et 4 de la PCV**

Total vaccinés (Total Homme +Total Femme) :	

Signature : _____

OCV Campaign in Malawi Daily Reporting Form

Round_____

Health facility Name	Vaccination site Name					Vaccination status above one year children and adults			Cholera Vaccine	
		Date	Fixed site	Mobile team	Additional site	Target	Total vaccinated	%	Number of Vials used	Wastage rate

Vaccinators Name_____ Signature _____Date_____

REPUBLIC OF SOUTH SUDAN
OCV CAMPAIGN
OVERALL SUPERVISOR SUMMARY SHEET - ROUND I

Name of Team Supervisor	Date	Number of Persons Receiving Oral Cholera Vaccine									Daily Inventory					
		Males				Females				Total	OCV doses			OCV Vaccination cards		
		1-4 Yrs	5-14 Yrs	15 Yrs +	Total Males	1-4 Yrs	5-14 Yrs	15 Yrs +	Total Females		Recived	Used	Returned	Recived	Used	Returned
TOTAL																

Team Supervisor Name & Signature:_____ **MoH Supervisor Name & Signature:**_____

REPUBLIC OF SOUTH SUDAN
OCV CAMPAIGN
OVERALL SUPERVISOR SUMMARY SHEET - ROUND II

Name of Team Supervisor	Date	Number of Persons Receiving Oral Cholera Vaccine																	Daily Inventory					
		Total vaccinated									Zore OCV doses									OCV doses			OCV		
		Males				Females					Males				Females										
		1-4 Yrs	5-14 Yrs	15 Yrs +	Total Males	1-4 Yrs	5-14 Yrs	15 Yrs +	Total Females	Total	1-4 Yrs	5-14 Yrs	15 Yrs +	Total Males	1-4 Yrs	5-14 Yrs	15 Yrs +		Total zero doses	Recived	Used	Returned	Recived	Used	Returned
TOTAL																									

Team Supervisor Name & Signature:_____ **MoH Supervisor Name & Signature:**_____

REPUBLIC OF SOUTH SUDAN

OCV CAMPAIGN

DAILY TEAM SUPERVISOR SUMMARY SHEET - ROUND I

Team #:	Location	Date	Number of Persons Receiving Oral Cholera Vaccine									Daily Inventory					
			Males				Females				Total	OCV doses			OCV Vaccination cards		
			1-4 Yrs	5-14 Yrs	15 Yrs +	Total Males	1-4 Yrs	5-14 Yrs	15 Yrs +	Total Females		Recived	Used	Returned	Recived	Used	Returned
TOTAL																	

Team Supervisor Name & Signature:_____

MoH Supervisor Name & Signature:_____

REPUBLIC OF SOUTH SUDAN
OCV CAMPAIGN
DAILY TEAM SUPERVISOR SUMMARY SHEET - ROUND II

Team #:	Location	Date	Number of Persons Receiving Oral Cholera Vaccine																	Daily Inventory					
			Total vaccinated									Zore OCV doses											OCV doses			OCV		
			Males				Females					Males				Females												
			1-4 Yrs	5-14 Yrs	15 Yrs +	Total Males	1-4 Yrs	5-14 Yrs	15 Yrs +	Total Females	Total	1-4 Yrs	5-14 Yrs	15 Yrs +	Total Males	1-4 Yrs	5-14 Yrs	15 Yrs +		Total zero doses	Recived	Used	Returned	Recived	Used	Returned
TOTAL																										

Team Supervisor Name & Signature:_____ **MoH Supervisor Name & Signature:**_____

CHECKLIST FOR IMMUNIZATION CAMPAIGN ACTIVITIES AT THE DISTRICT LEVEL

ACTIVITIES TO CHECK	YES	NO

PLANNING AND PREPARATION

Phase 1 of Preparationn

— Prepare for initial planning meeting: census data, maps, list of communities, inventory of cold-chain equipment
— Attend national meeting
— Undertake a situation assessment of cholera surveillance system
— Assess waste-disposal possibilities
— Establish district vaccination coordinating meeting
— Define the number of immunization points and assess feasibility at field level in collaboration with the national level
— Start filling in logistic forms
— Organize national-level meeting to complete logistic forms
— Establish a district social mobilization subcommittee
— Identify staff
— Assess training needs

Phase 2 of Preparation

— Receive logistic materials
— Meet sub district and local vaccination coordinators
— Distribute schedule and task lists
— Distribute vaccination guides to subdistrict and local coordinators
— Verify accuracy of district calculations

Final phase of preparation

— Train immunization teams Supervisors and vaccinators
— Ensure immunization and other waste-disposal measures have all been completed

2 weeks before

— Receive vaccines from central level according to storage implementation availability
— Transfer forms and materials to immunization post teams
— Organize supervisory visits to post coordinators, solve local problems
— Initiate activities for difficult-to-reach areas and special populations
— Intensify social mobilization activities at community level

1 week before

— Visit and support selected subdistricts and post implementation coordinators
— Make supervisory visits to all team coordination posts and assess preparation

IMPLEMENTATION

1 day before (depending the geographical area) it can be completed to 2 days if necessary

— Transfer the vaccines to all immunization points/sites

Day 1

Check list prepared by Dr Sekou CONDE, International Medical Corps
Source: WHO: Oral cholera vaccines in mass immunization campaigns guidance for planning and use

— Conduct opening ceremonies

Daily during

— Daily meeting to revise field events and outcome of 1st dose activities at all levels

— Daily collection of summary reports (data + logistics) and analysis performing quality-control checks, ensuring that all aspects of field activities are being implemented as well as possible. They should note whether:

- ✓ plans are adequate and estimates are correct;
- ✓ maps of the area to be supervised, listing posts and communities in the related catchment area, are available and being used;
- ✓ vaccine is stored in the proper way (maintaining an uninterrupted cold chain) and is well administered (correct mixture for buffer solution1 and correct amount of buffer solution liquid with respect to the age range);
- ✓ waste is collected.

— During their visits, supervisors should monitor implementation of activities by:

- ✓ completing a supervisory checklist;
- ✓ verifying that logistic forms are complete and updating significant changes;
- ✓ verifying that vaccination staff at various levels understand their tasks
- ✓ correctly;

Between 2 rounds

— Meeting between supervisors and team leaders to:

- ✓ review logistic setting (waste management, cold chain, etc.) at all levels
- ✓ review vaccination coverage and fine-tune
- ✓ prepare the 2nd round

— Maintain vaccine in strict cold chain

— Maintain social mobilization to recall that 2 doses are needed to be vaccinated

Daily during

— Daily meeting to revise field events and outcome of 2nd dose activities at all levels

— Daily collection of summary reports (data + logistics) and analysis

POST-VACCINATION

2–3 days after

— Send vaccine back to central level in the appropriate cold chain

— Meet all sub-district coordinators in districts

— Implement national recommendations for waste management

1 week after

— Estimate vaccination coverage and waste in districts

— Review supervision checklists

— Attend national-level review meeting

— Submit campaign results

CHECKLIST FOR IMMUNIZATION CAMPAIGN ACTIVITIES AT NATIONAL OR REGIONAL/PROVINCIAL LEVEL

ACTIVITIES TO CHECK	YES	NO
1. Planning and supervision		
✓ Selection of target population		
✓ Selection of target area		
✓ Definition and designation of roles and responsibilities of senior staff		
✓ Resource mobilization		
✓ Planning of activities		
✓ Timing estimate (duration, best timing for immunization open days and hours, etc.)		
✓ Security		
✓ Overall practical information (geography, roads, etc.).		
2. Communication, social mobilization, community involvement and health education		
✓ Decision-makers, general public, community leaders, etc.		
✓ Definition of communication means		
✓ Advocacy campaign		
✓ Identification of community leaders (religious leaders, political leader, women's groups, schoolteachers, etc.)		
✓ Group meeting with leaders (acceptance, target population census, etc.)		
✓ Definition of key messages for social mobilization		
✓ Adaptation of health education message		
✓ Definition of best timing (time of day/day of week, working and social habits, etc.)		
✓ Production of social mobilization and health education material		
✓ Recruitment of volunteers within the community.		
3. Human resources		
✓ Identify staff		
✓ Recruit extra personnel		
✓ Oral cholera vaccines in mass immunization campaigns: guidance or planning and use		
✓ Detail and designate the roles and responsibilities at different levels		
✓ Adapt training materials/guidelines and other documents to the local context		
✓ Carry out training of trainers		

Check list prepared by Dr Sekou CONDE, International Medical Corps, June 11, 2015.

Source: WHO: Oral cholera vaccines in mass immunization campaigns guidance for planning and use.

✓ Organize training at local level.		

4. Logistics

✓ Procure vaccines and other supplies		
✓ Arrange international transport		
✓ Organize customs clearance		
✓ Develop tally sheets and daily summary report		
✓ Check availability of sufficient clean water on site		
✓ Review warehousing facilities at all levels, including assessment of cold-chain facilities		
✓ Assess waste management and recycling facilities		
✓ Plan distribution of vaccine, supplies and other campaign materials to peripheral levels.		

5. Budget

✓ Staff costs (salaries, per diem, etc.)		
✓ Vaccines and other material costs		
✓ Transport of vaccines, materials and logistic staff		
✓ Warehousing		
✓ Training		
✓ Social mobilization and communication cost.		

Check list prepared by Dr Sekou CONDE, International Medical Corps, June 11, 2015.

Source: WHO: Oral cholera vaccines in mass immunization campaigns guidance for planning and use.

OCV AE FOLLOWING IMMUNISATION REPORTING FORM

Date of report:

Patient's Name : **Age:** **M / F**

< 1 year old: yes/no **Pregnant: yes/no** **Immune compromised: yes/no**

POC: **Zone:** **Block:**

Vaccination site:

Dates of vaccines **First:** **Second:**

Lot nr vaccine: **Expiry date:**

Date AEFI started: **Onset interval:**

History / Complaints:		**How many times?**	**Other complaints?**
Nausea	Yes / No		
Vomiting	Yes / No		
Diarrhoea	Yes / No		
Abdominal pain	Yes / No		
Fever	Yes / No		
Other:			
Duration:			

On examination: Temp: BP: PR: RR:

Other findings:

Conclusion:

Outcome:

Recovered:	Yes / No
Hospitalized:	Yes / No
Died:	Yes / No

A l'attention des populations

1. Rappel sur le rôle du mobilisateur communautaire

2. Le Cholera et la Vaccination

Qu'est-ce que le choléra ?

- Le choléra est une diarrhée grave
- Il peut entraîner la mort par perte d'eau dans le corps en quelques heures s'il n'est pas soigné rapidement

Comment attrape-t-on le choléra ?

- On attrape le choléra par manque d'hygiène :
  - Si on ne se lave pas les mains après être allé aux toilettes
  - Si on serre la main de quelqu'un qui ne s'est pas lavé les mains
  - Si on ne se lave pas les mains avant de préparer la nourriture
  - Si on mange les légumes et fruits crus sans les laver
  - Si on boit de l'eau contaminée.

Que faire si on attrape le Choléra ?

- Si vous avez de diarrhées ou des vomissements, allez directement au centre de santé le plus proche.
- Il faut beaucoup boire. Même en allant au centre de santé, il faut boire!

Vaccination contre le choléra

- Le vaccin est pour tout le monde dès l'âge de 1 an
- Le vaccin se prend par la bouche
- Il faut le prendre 2 fois: une fois aujourd'hui et une fois dans 2 semaines au moins pour qu'il soit efficace
- Prendre 2 fois la même journée n'est pas bon
- Nous passerons distribuer le 2ème dans 2 à 3 semaines
- Gardez la carte que nous vous donnons pour recevoir le 2ème vaccin
- Celui qui n'aura pas la carte, ne recevra pas le 2ème vaccin
- Même les 2 prises ne protègent pas complètement. Les règles d'hygiène doivent être suivies ! Si vous avez de diarrhées ou des vomissements, allez directement au centre de santé

Hygiène : 3 messages clés

1. Utilisez **les latrines** pour faire les selles. NE PAS FAIRE LES SELLES A L'AIR LIBRE.
2. **Lavez-vous les mains avec du savon**
   a. après chaque selle
   b. avant de manipuler de la nourriture (cuisiner, manger, pour nourrir les enfants aussi)
   c. Les mères qui allaitent doivent se laver les mains et les seins avec du savon et de l'eau avant de nourrir l'enfant.

3. Utilisez de **l'eau traitée disponible au niveau des différents points d'approvisionnement en eau (forages, bladder) ou de l'Aquatab (pour traiter l'eau des sources)**.
4. Nettoyez très bien les aliments, les ustensiles avant de préparer la nourriture :
    a. Utilisez des bidons propres pour garder l'eau de boisson traitée avec l'Aquatab.
    b. Lavez le récipient à boire immédiatement après usage avec du savon.

Programme for training of community mobilizers for the Oral Cholera Vaccine Project in Chad

Training materials and other items required

- Venue at the local site (for 30-40 people), including catering for tea breaks and lunch
- Flipcharts, pens, notebooks, - 430 pens, 215 notebooks
- F diagram pieces – to show disease transmission – these will be printed and given to the social mobilizers for hygiene promotion
- Bucket with jug and water – for proper hand washing demonstration
- Soap
- Loud speaker and batteries
- Clean water, salt, sugar, spoon, jar (for making salt sugar solution)
- Reporting sheets for social mobilizers
- Attendance sheets

Training Agenda

Topic/Activity	Description
Day 1	
Overview of the OCV campaign and the role of mobilizers	Explanation of the cholera outbreak, the vaccination campaign and their role in educating the community about cholera, its prevention and treatment, and informing them about the OCV campaign
Introductions	Say your name, location, and something you know about any disease
Definition and impact of cholera	Basic understanding of causes and symptoms
Impact of cholera in a community	Death and disability
Case studies	From either Chad or other countries
Community diagnosis – key practices, beliefs and attitudes that cause cholera	Group work – participants discuss what they see in their communities that they think causes cholera, what people say and do that exposes them to cholera
Tea break	
Presentation by one group (other groups contribute)	Ensure the discussion is lively and everyone understands the transmission routes. Trainer summarizes the discussion by presenting what the participants said are common harmful practices. This is not the time to talk about prevention yet.

Topic/Activity	Description
How can cholera be prevented	Use F diagram pictures, ask the participants to connect the pictures as they discuss the transmission and prevention routes. This session will reinforce their understanding of how to improve what they presented above.
Presentation by one group	Other groups contribute
Demonstrations	
Demo 1	Call someone in front and ask him or her to wash their hands. Ask the participants whether they think the person washed them correctly Demonstrate correct hand washing.
Importance of correct hand washing	Trainer speaks of how hand washing prevents diarrhoea and many other diseases. There is a specific Global Hand Washing D to promote hand washing. The public health community has recognized hand washing to be the cheapest way of preventing diseases. **Question to the participants: if hand washing is so important, why do people not wash their hands?**
Critical times for hand washing	Ask participants, then give them the correct answers. **When you go to your community, what will be the key messages regarding hand washing**?
Lunch	
Importance of rehydration	Cholera kills due to rapid dehydration. If this is prevented at home before the patient arrives at health centre, many lives would be saved. Ask participants what people do when they have diarrhoea, and when it is cholera. Note all answers down.
Demo 2	Making Salt Sugar Solution (ORS): They must all get it right. Summarize the importance of rehydration (of course using clean water) and discourage any harmful practice mentioned above. Emphasize the importance of continuing to breastfeed a child even when the child has diarrhoea. **When you go to your community, what will be your key message about rehydration?**
Sanitation	Talk about open defecation, use of latrines and disposal of children's faeces, cleaning the environment and disposing garbage correctly.

Topic/Activity	Description
	When you go to your community, what messages will you spread about sanitation?
Break	
Safe Water	Topics to discuss: ▪ Sources of safe water in the community ▪ Sources of unsafe water ▪ Collecting water in clean containers ▪ Correct water storage at home ▪ Correct water fetching at home ▪ How to prevent water contamination at source and at home ▪ How to treat water at home – various methods **When you go back to the community what messages will you tell them about safe water?**
End of day 1	Homework Find out how people communicate messages in your community. Come back with at least 5 methods of communication.
DAY 2	
Recap Day 1	
How to conduct Hygiene Promotion	Participants report on the various methods of communication in their communities. List the most popular, popular and least popular. **Group Work:** Mapping of the community – show schools, religious places, health centres, markets, water points, shops, rivers where people wash clothes, lakes, administrators offices, places where youth gather, etc. Use these as places to communicate hygiene messages.
Communication Methods (using IEC materials)	Go through each one of the materials and show the participants how to use them effectively: **What, where and how to communicate messages** House to house – distribution of pamphlets, one-on-one discussions with families **Health Centres** – Posters and talks with patients and their families, distribution of pamphlets **Schools** – Teachers give hygiene messages to pupils in classes and during parades and request administration to give you time to speak to pupils during parade. Distribute pamphlets and hang posters in classes and on common boards.

Topic/Activity	Description
	Religious centres – request religious centre leaders to pass hygiene messages to congregation, hang posters and distribute pamphlets. **Markets** – hang posters, use megaphones to pass messages. **Water points** (lakes and pumps): use megaphone to pass messages. **Village centres:** role plays, songs, dramas, education sessions, etc.
Lunch Break	
Role plays, drama, songs, poems	Divide participants in groups: a) to compose a song, b) to do a drama/role play, c) compose a poem (everyone must be involved) **Drama:** A mother goes to the lake to wash dishes, fetches water there, then comes home to cook, feeds the children, children fall sick… **Role play:** A community mobilizer visits a household and finds the family relaxing under a tree after lunch. Show what you do to share hygiene promotion messages.
Characteristics of a good community mobilizer	Discuss and list with participants: ▪ Must be clean and presentable. Must be a role model. If you are talking to people about hygiene, you must be clean yourself and must practice what you teach. ▪ Knows the community and the area ▪ Speaks the local language ▪ Is well respected ▪ Is not forceful ▪ Approaches people with respect and answers questions with respect ▪ Educates people by discussing the pros and cons of bad practices ▪ Is passionate in what he/she does ▪ Is confident in what he/she knows and says ▪ Consults others when he/she does not know the answer ▪ Does not expose people to risk
Dos and don'ts of social mobilization	Discuss and list with participants: **Do's:** ▪ Know your community well ▪ Inform them of your work

Topic/Activity	Description
	▪ Know your key messages very well ▪ Inform them of the dangers of diseases around them ▪ Provide them with all the information they need whenever possible ▪ Know the best time to meet people ▪ Always introduce yourself first ▪ Wear your identification card all the time ▪ Know the leaders and their titles **Don'ts:** ▪ Don't promise gifts ▪ Don't force people to meet ▪ Don't introduce yourself as a nurse or doctor ▪ Do not give wrong messages – always have the correct message
Reporting sheet	Show the participants how to report their daily activities. They must work in pairs, does not matter the gender. Report to be submitted every end of week to the Hygiene Promotion Officer
Human resources issues	Work Schedule – review (see below) Payment – how much and when payment will be made (payment will be made on the basis on work done, after verification of reporting sheets).
Announcements:	All participants to come back for a half-day vaccination campaign meeting. Date to be announced later

Work Schedule: All community mobilizers are expected to work 4 days a week Monday to Thursday, 4 hours a day from 10th November to January 30th 2015. This will be a total of 48 days. A week before the vaccination, the community mobilizers will intensify their mobilization activities to remind people of the dates and venue for vaccination.

Social mobilization plan

Target areas for the vaccination campaign and social mobilization

Health district/ zones	Sub-district, town, ward (indicate if a residential area or refugee camp)	Total Population	Number of Relais Comm	Population
Bol	Fitime	7,055	10	1,411
Bol	Kinassaurum	9,061	14	1,294
Bol	Kangaloum	8,250	12	1,375
Bol	Meleah	18,846	24	1,571
Massakory	Massakory	24,435	30	1,629
Massakory	Baltram	13,625	16	1,703
Massakory	Karal	16,994	20	1,699
Massaguet	Guite	15,163	18	1,685
Lere	Gegou	9,915	14	1,416
Lere	Bipare	9,610	14	1,373
Lere	Binder	14,202	18	1,578
Lere	Zahguere	14,835	18	1,648
Total			207	

Mobilizers will work in pairs and will use various communication methods to reach the population. Hygiene Promotion Officers will allocate and assign community mobilizers in the villages. Collaboration with other actors on the ground is very important. Hygiene Promotion Officers, supported by the Hygiene Promotion Manager (based in Ndjamena), will attend coordination meetings on the ground and present IRC activities.

Preliminary work before social mobilization begins

- Mapping of who is doing what in which village and any gaps identified in BoL, Léré and Massakory
- Introduction of our work to UNICEF/WASH coordination body/WASH cluster in order to find our place in the targeted areas
- Find out from Ministry of Health how we can identify existing or new social mobilizers on the ground in each location
- Obtain all training materials needed – from MOH, UNICEF and other partners
- Recruit Health Promotion Manager, Health Promotion Officers (1 in each location) and agree on where they will be located. I recommend recruiting people who live in these

locations. Find an office for them at either the Ministry of Health or hotel or request an NGO to house them for the time they are there.

Duration of operation

Staff	Duration
Hygiene Promotion Manager (1)	4 months from 1 November to end Feb 2015
Hygiene promotion officers (3)	3 months from 1 November to end January 2015
Social Mobilizers	48 days from 10th November to end January working 4 days a week.

IRC staff support

IRC does not have any projects in the affected areas. We have requested our country program officer to support the project for two weeks, during which he will:

a) Interview candidates for Hygiene Promotion Manager and Hygiene Promotion Officers;
b) Orient the recruited manager and officers;
c) Ensure that he Hygiene Promotion Officers are well settled in their sites of operation – at MOH offices/Hotel/Partner offices in the field;
d) Develop reporting formats;
e) Orient trainers who will train the social mobilizers – staff from MOH Sanitation and Hygiene Promotion Department;
f) Train social mobilizers a week before the OCV vaccination for intensive community mobilization.

Job descriptions for Hygiene Promotion Manager, Hygiene Promotion Officers and Social Mobilizers are available.

Technical Advisor's support

- Penninah Mathenge – Technical Advisor for Sanitation and Hygiene – will help in the initial planning of the project (i.e., meeting with partners in the field, meetings with MOH, discussions with IRC senior management on the social mobilization strategy);
- Liaise with UNICEF on C4D activities (e.g., high-level advocacy meetings, social mobilization materials, hygiene promotion materials);
- Remote support from Nairobi as required;
- Visit to Chad before the vaccination week to ensure all social mobilization activities are in place;
- Report to Justine Landegger on all issues requiring budgetary attention. Weekly meetings with Justine and Ruwan on progress of the project.

Sample vaccination card with cholera preventive messages on back

REPUBLIQUE DU TCHAD

N° 000001

Carte vaccination contre le choléra

District Sanitaire: Région:

Nom et prénoms:

Village/Quartier: N° de téléphone:

Age Sexe

Dose	Dose 1	Dose 2
Date		
Site de vaccination		
N° du lot		

N'oubliez pas de revenir pour votre deuxième dose. Même si vous êtes vaccinés, observez les bonnes pratiques d'hygiène!

Meme si vous etes vaccine, observer les bonnes pratiques suivant

Evitez de loin le cholera en lavant vos mains avec du savon ou la cendre avant de manger et après l'usage de latrines

Evitez de loin le Cholera en utilisant toujours vos latrines

Evitez de loin le cholera en buvant toujours de l'eau provenant des sources protégées

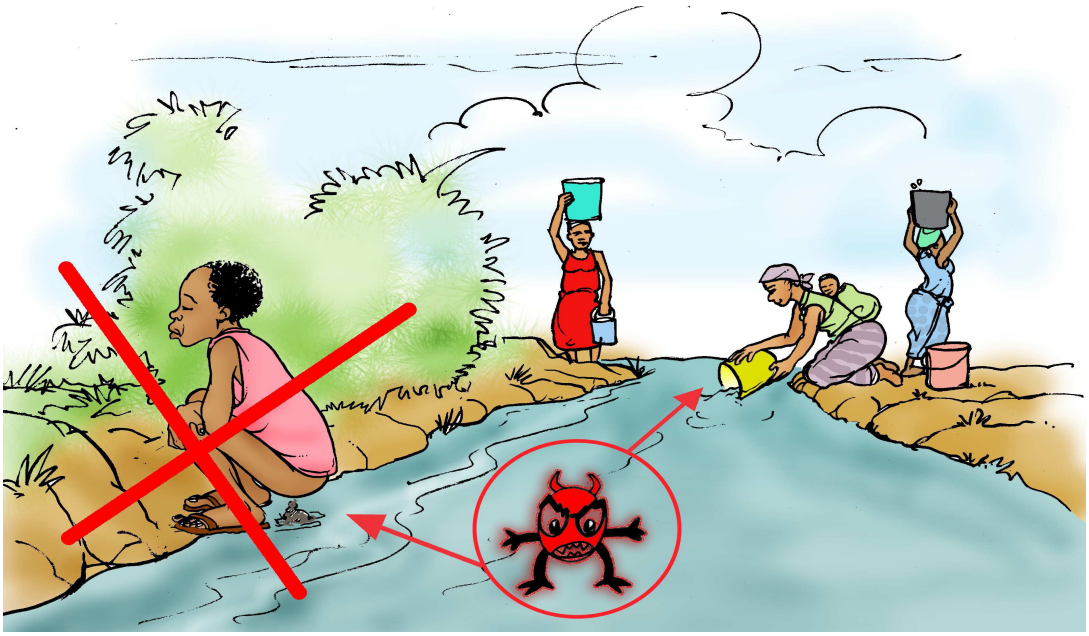
Qu’est-ce que le Cholera ?

Le choléra est une maladie caractérisée par une diarrhée aqueuse sévère et des vomissements. Elle est causée par une bactérie appelée Vibro choléra, qui se transmet par voie fécale-orale directe soit par l’ingestion d'aliments et / ou d’eau contaminés.

⇨Si ce n'est pas bien traité, cela peut être très grave, peut conduire à une déshydratation et à la mort.

Comment attrape-t-on le choléra?

Les bactéries peuvent passer des mains salles d’une personne à une autre personne en se serrant la main. On attrape le cholera en ingérant des bactéries contenues dans des aliments ou de l’eau contaminée. Le choléra se propage lorsque les conditions d’hygiène sont mauvaises : si on ne se lave pas les mains après être allé aux toilettes, après avoir été en contacte avec d’autres personnes, avant de préparer de la nourriture, si on ne nettoie pas les aliments ou que l’eau de boisson est contaminée.



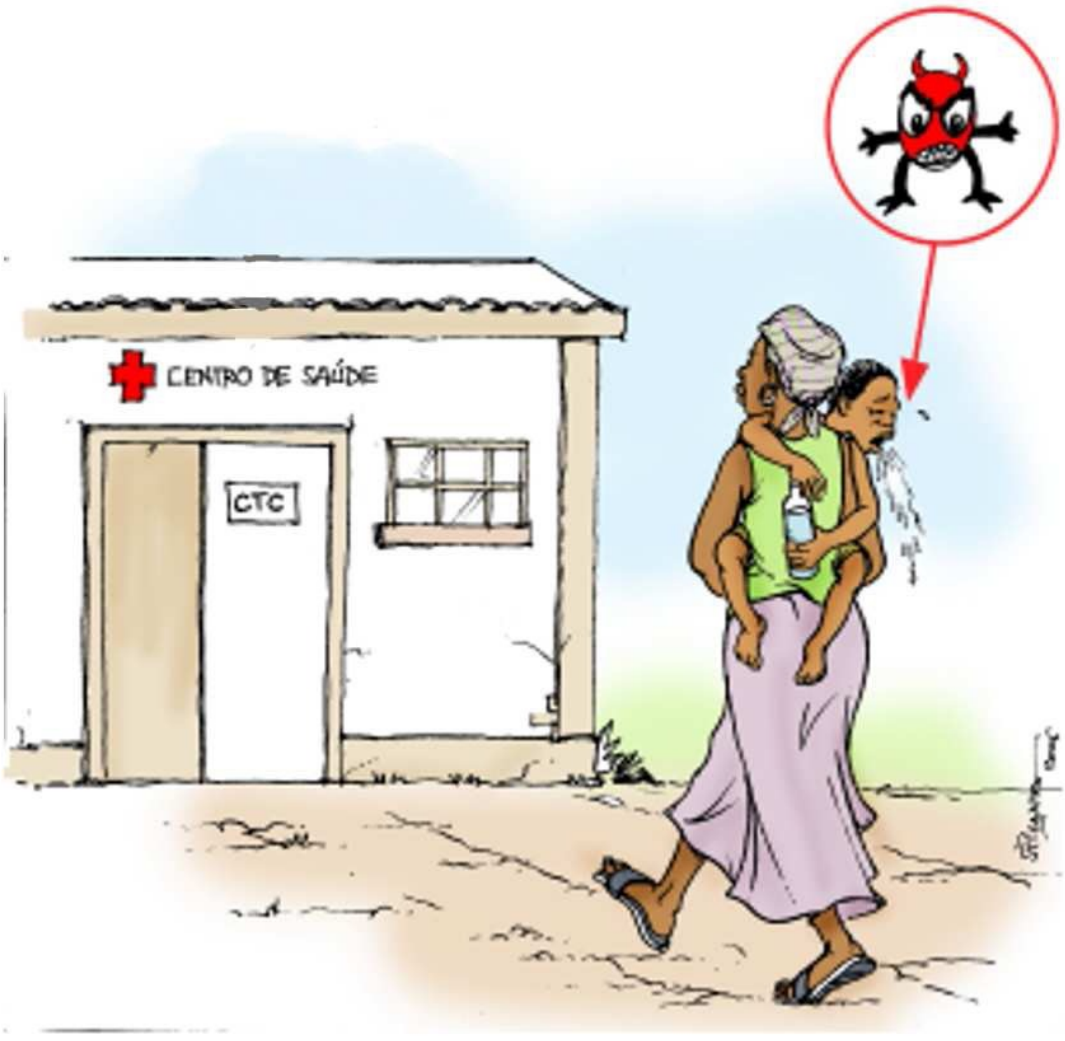
La bactérie de choléra est présente dans les selles pendant sept à quatorze jours et est donc évacué et propagée dans l'environnement par les matières fécales, qui risquent alors de contaminer d'autres personnes.

Dès les premiers signes de Choléra :

Dès qu'une personne fait des diarrhées sévère ayant un aspect « d'eau de Riz » et des vomissements, elle doit se rende au plus vite dans la structure de santé la plus proche, et boire beaucoup d'eau dès les premiers symptômes sur le chemin vers le centre de santé.

Si les symptômes commencent, la personne devrait immédiatement commencer à boire autant de liquide qu'ils perdent avec la diarrhée.

Buvez du SRO (Sels de réhydratation oraux) pour prévenir la déshydratation. Vous pouvez obtenir des sachets de SRO à partir de votre centre de santé le plus proche. Si vous n'avez pas de SRO, mélanger six cuillères à café de sucre et ½ de sel dans un litre d'eau propre et buvez le plus possible.



Quatre messages clés très importants à retenir:

Importance du mot hygiène

1. **Lavez-vous les mains avec du savon** après chaque défécation, avant de manipuler de la nourriture (cuisiner, manger, nourrir les enfants aussi), après le nettoyage d'un patient.
2. Utilisez **des latrines** pour déféquer.
3. Utiliser de **l'eau potable**, nettoyez très bien les aliments, les ustensiles et la vaiselle avant de préparer la nourriture.
    a. Les mères qui allaitent doivent se laver les mains et les seins avec du savon et de l'eau avant de nourrir l'enfant.
    b. Faire bouillir l'eau à gros bouillon pendant 2 minutes avant de la boire ou utiliser du chlore pour traiter l'eau de boisson , verser l'eau depuis le récipient de réserve dans la tasse pour boire, ne pas tremper la tasse ou les mains dans l'eau. Laver le récipient à boire immédiatement après usage avec du savon.
4. **La vaccination contre le choléra est une protection supplémentaire.**

Information sur le vaccin:

⇨ Le vaccin anticholérique est administré à toute personne ayant plus de 1 ans, et n'étant pas encore extrêmement malade.

⇨ Le vaccin apporte une protection contre la maladie, mais une bonne hygiène reste très importante sans quoi le risque existe toujours.

⇨Le vaccin ne protège pas contre d'autres maladies diarrhéiques.

Message Clé:

⇨ Le vaccin n'est efficace qu'après la deuxième dose. Les deux doses sont pris entre un à six semaines d'intervalle. Il est important de respecter un intervalle d'au moins une semaine entre les deux doses.

⇨ Au cours de la mise en œuvre de la deuxième ronde de la vaccination, les personnes qui demandent à être vaccinés sans avoir eu une première dose doivent être refusées.

⇨ L'administration d'une seconde dose ne peut être assurée pour eux, et une dose ne suffit pas à avoir une efficacité suffisante.

Information for Health Personnel
USE OF ORAL CHOLERA VACCINE IN MASS VACCINATION CAMPAIGNS

Oral cholera vaccine is a safe, effective vaccine that prevents cholera. It is given to all persons one year and older in mass vaccination campaigns in high-risk areas. Always use it according to the following instructions:

How to STORE AND TRANSPORT this vaccine

- Store vaccine at +2 to +8 degrees C.
- ***Never freeze the vaccine***. To prevent freezing:
  - Store vaccine in the center of the refrigerator, away from the freezing element.
  - Use freeze watch monitors to detect periods of freezing.
  - Pre-condition vaccine carriers for transporting vaccine:
    - ✓ Place icepacks inside vaccine carriers for at least one hour to pre-chill them.
    - ✓ Remove all icepacks and keep at room temperature until beads of water cover their surface and you can hear water sloshing when you shake them (core of icepack has risen to 0°C) This may take around 15 minutes.
    - ✓ Then fill the vaccine carrier with the conditioned icepacks.

How to ADMINISTER this vaccine

- Screen the person to be vaccinated to make sure that they are one year old or older and do not have an acute gastro-intestinal illness or high fever (minor illnesses are OK).
- Check the VVM and discard any vials with a VVM at Stage 3 or 4.
- Make sure the expiry data hasn't expired.
- Shake the vial vigorously to mix the contents well and make sure it's homogenous.
- Remove the aluminum cap of the vial with forceps or pliers.
- Shake the vial again carefully to be sure that sediment hasn't formed at the bottom, but be sure not to spill out the contents.
- Give vial to recipient and make sure they drink and swallow the entire contents (give vial to caregiver to administer vaccine for children 12 and younger).
- Throw empty vials in safety boxes without capping. Discard caps and empty vaccine cartons in trash bin or bag.

HOW TO TALK TO VACCINEES ABOUT CHOLERA AND OCV

Explain to vaccinees (and parents of vaccinated children) that:

- The vaccine will protect against cholera, but not other diarrhea diseases.
- Even if you get vaccinated, it is important to practice good hygiene to prevent cholera and other diarrhea diseases (e.g., hand washing with soap, boiling or treating water)
- A second dose is needed for full protection.
- When the second round will take place and the need to bring their vaccination cards.
- If they or other family members fell sick after the vaccination, they should go to the health center.

Formation des Formateurs Sur le Vaccin Oral contre le cholera au Tchad

Objectif générale

Renforcer les capacités des formateurs sur les outils de formations des relais communautaires et des vaccinateurs afin d'assurer efficacement la mobilisation communautaire sur le vaccin oral contre le cholera et les bonnes pratiques de l'hygiène au sein de la communauté cible, puis établir des liens avec la communauté et organiser des activités de communication pour le changement social et de comportement

Objectifs Spécifiques

1. Outiller les formateurs sur les modules de formation des relais communautaire et des vaccinateurs
2. Informer les relais communautaires sur les messages clés pour la campagne VCO

Résultats attendus

- Une campagne OCV intégrée en collaboration avec les partenaires pour une réponse réactive et preventive contre l' épidémie de cholera.

- Mise en œuvre des jours de vaccinations bien assistées par la cible provenant dans les zones affectées

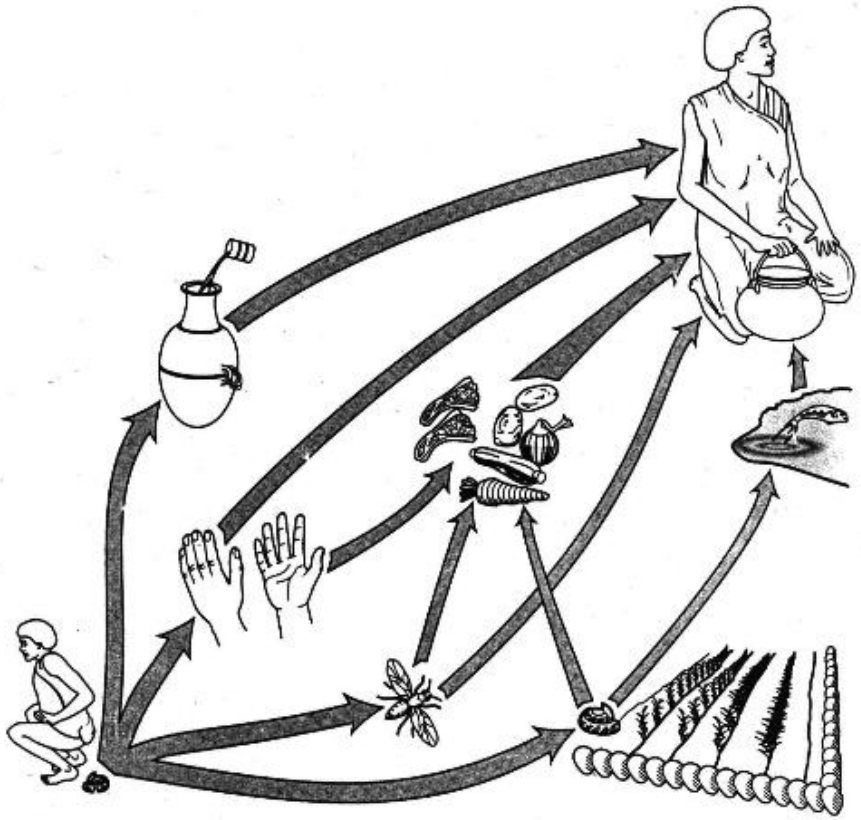
Qu’est-ce que est le choléra?

- le choléra est une diarrhée aqueuse aiguë, parfois accompagnées de vomissements
- Si il n’est pas traitée rapidement, il peut entraîner la mort en quelques heures d’une personne auparavant en bonne santé
- Il affecte les adultes comme les enfants
- Le contact avec de personne malade peut contaminer beaucoup d'autres

Comment attraper le choléra?

- Par manque d'hygiène
- Non lavage des mains après l'utilisation des latrines
- Non lavage des mains et/ou des des aliments avant de les manger
- non preparation et ou mauvaise préparation de la nourriture
- En serrant la main de quelqu'un qui ne s’est pas lavé les mains
- Par consommation de l'eau d’une source non protégée/ contaminée

Comment attraper le choléra?



Comment pouvez-vous éviter le choléra?

Comment pouvez-vous éviter le choléra?

Comment éviter le cholera?

- ❑ Consommer de l'eau potable de boisson
- ❑Couvrir les aliments après cuisson
- ❑Bien couvrir la nourriture bien cuite
- ❑Se laver les mains avec de l'eau et du savon après usage latrines, avant de préparer la nourriture et avant de manger
- ❑Utiliser des latrines
- ❑Se faire vacciné contre le cholera

Quel est le vaccin du choléra?

- Le vaccin contre le cholera est Appelé Shanchol
- Le vaccin est oral (volume: 1.5ml)
- Nécessite deux doses a intervalle d'au moins deux semaines
- Seulement une dose est partiellement efficace.
- 1 flacon est pour une personne
- La personne a besoin de boire tout le contenu du flacon
- Le flacon contient une petite quantité de liquide

Le vaccin est sécurisé?

- Il assure la prévention, pas le traitement
- Sauve la vie
- Assure la protection, mais toujours possible d'obtenir le choléra ou d'autres maladies diarrhéique
- Autres mesures de prévention sont encore importantes pour le choléra et d'autres maladies. Des effets secondaires minimes, certaines diarrhées, mais vous pouvez venir à la clinique pour le traitement gratuit si vous vous sentez malade après la vaccination

Qui peut obtenir ce vaccin?

- Toute personne de plus de 1 an
- Chaque personne doit recevoir deux doses 2 semaines d'intervalle pour une protection complète!
- Non pour les personnes très malades
- Le vaccin est pour tout le monde, sauf pour les enfants âgés de <1 année
- Si quelqu'un se sent malade après avoir pris le vaccin, signaler à l'hôpital ou au centre de santé

Qui peut obtenir ce vaccin?

- Le vaccin goût très amer: il est normal, ne vous inquiétez pas, informer la personne sur le mauvais goût
- Comme tous les vaccins, OCV peut avoir des effets secondaires.
- Les effets secondaires sont généralement bénins: douleurs abdominales, vomissements, diarrhée
- Si des effets secondaires, envoyer la personne l'hôpital

Où est la vaccination aura t-elle lieu?

- Postes fixes:
  Centres de santé, écoles , mosquées , églises et sites aménagés
- Postes avancés:
  Les ménages ou sites aménagés

Quand aura lieu la vaccination

1er Passage: 2015

2e Passage : 2015

Dans les districts de:

DS Lere: Bipare, Binder ,Gegou et Zahguere

DS Massakory : Massakory , Karal et Baltram

DS Massaguet : Guite

DS Bol: Kinasseirom, Gangalam,Meleah et Fitimeh

Comment disséminer les messages à la communauté ?

a) Visites a domicile – les relais communataires vont visiter au moins 8-10 maisons par jour
b) Utilisation de megaphones pour passer les messages dans les endroits publique e.g. les marches
c) Dans les ecoles

Comment disséminer les messages à la communauté ?

d) Afficher les posters dans les ecoles, marches/markets, centre de sante; et distribution des pamplets/fliers
e) Reunion/séance educative
f)) Radio and TV spots

THE END

نهاية

ORAL CHOLERA VACCINE CAMPAIGN IN SOUTH SUDAN TRAINING FIELD GUIDE

International Medical Corps

magna CHILDREN AT RISK

unicef

World Health Organization

June 2015

Session1: Background on Cholera and the Campaign Intervention

Objectives:

By the end of the session participants will be able to:

- Clearly identify the intervention and its importance.
- Briefly describe the transmission, symptoms, treatment and prevention of cholera

INTRODUCTION

- Cholera is a severe bacterial disease of the intestines that causes lots of watery stools, vomiting, & rapid dehydration
- Common sources of infection are:
  - **Drinking contaminated water**
  - Food contaminated during or after preparation
  - Fruit and vegetables
- Symptoms may start within 2hrs of exposure & death may follow within 6hrs of symptom on set
- Only 20% of cholera patients show disease symptoms

Clinical

- If not promptly and adequately treated, this can lead to severe dehydration and death within hours.
- The case-fatality rate in untreated cases may reach 30–50%.
- Treatment is rehydration and, if applied appropriately, should keep the case-fatality rate below 1%.

Cholera is caused by poverty, lack of sanitation and clean water

- Cholera as an issue of equity
  - Lack of clean water
  - Lack of sanitation
  - Lack of access to treatment
- High risk groups include:
  - Young children
  - Pregnant women
- Those most vulnerable can be provided with vaccines

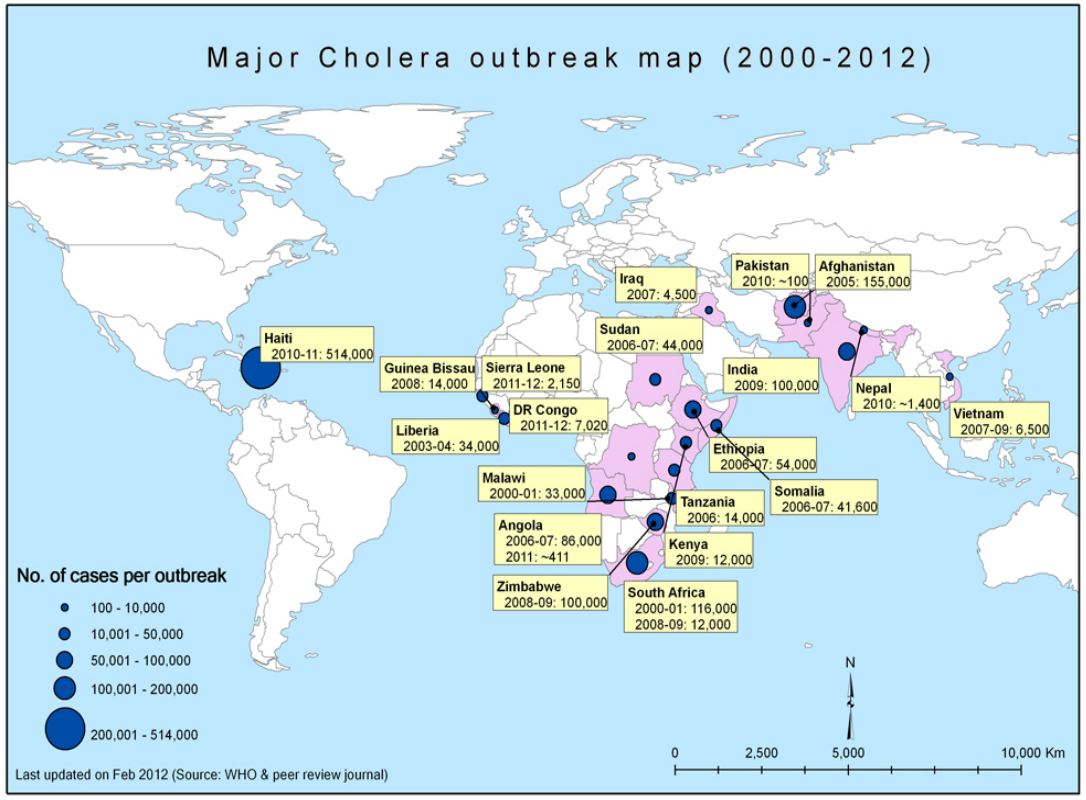
PREVENTING CHOLERA

- **Ensure a safe water supply**
  - For drinking, food preparation and hand washing
  - Methods of making water safe:
    - Boiling
    - Chlorination
- **Environmental sanitation**
  - Proper use of latrines
  - Provide adequate hand washing facilities
- **Food safety**
  - Avoid eating raw food
  - Cook food thoroughly
  - Eat food while it is still hot
  - Thorough drying of cooking utensils
  - Separate cooked food from uncooked
  - Thorough hand washing
- **Vaccination**
  - Oral cholera vaccination

Epidemiology

- Cholera is spread mainly by faecal contamination of water and food and closely linked to poor sanitation and lack of clean drinking water

- Expected Global burden
  - 3 to 5 million cases
  - 120,000 deaths
  - ~50% cases occur in children under 5 yrs

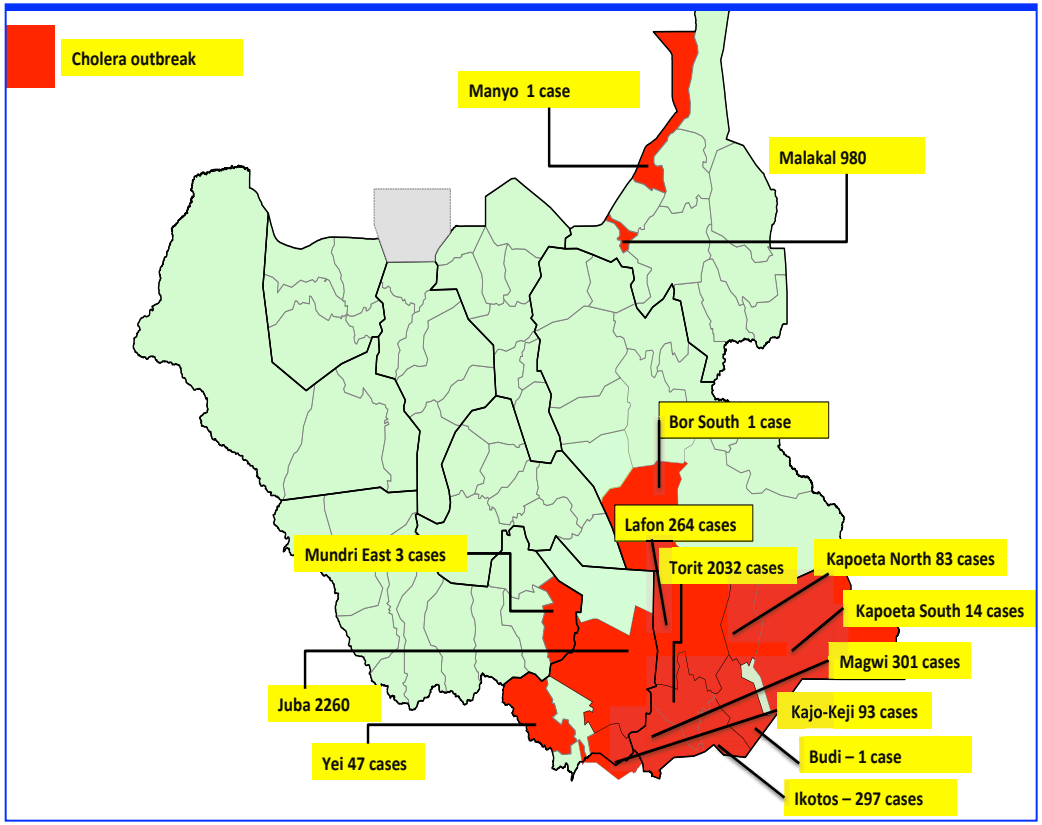


History of Cholera Outbreaks in South Sudan

Year	Cholera		
	Cases n	Death n	CFR (%)
2006	19,277	588	2.9
2007	22,412	411	1.8
2008	27,017	154	0.57
2009	48,035	60	0.13
2014	6,421	167	2.6

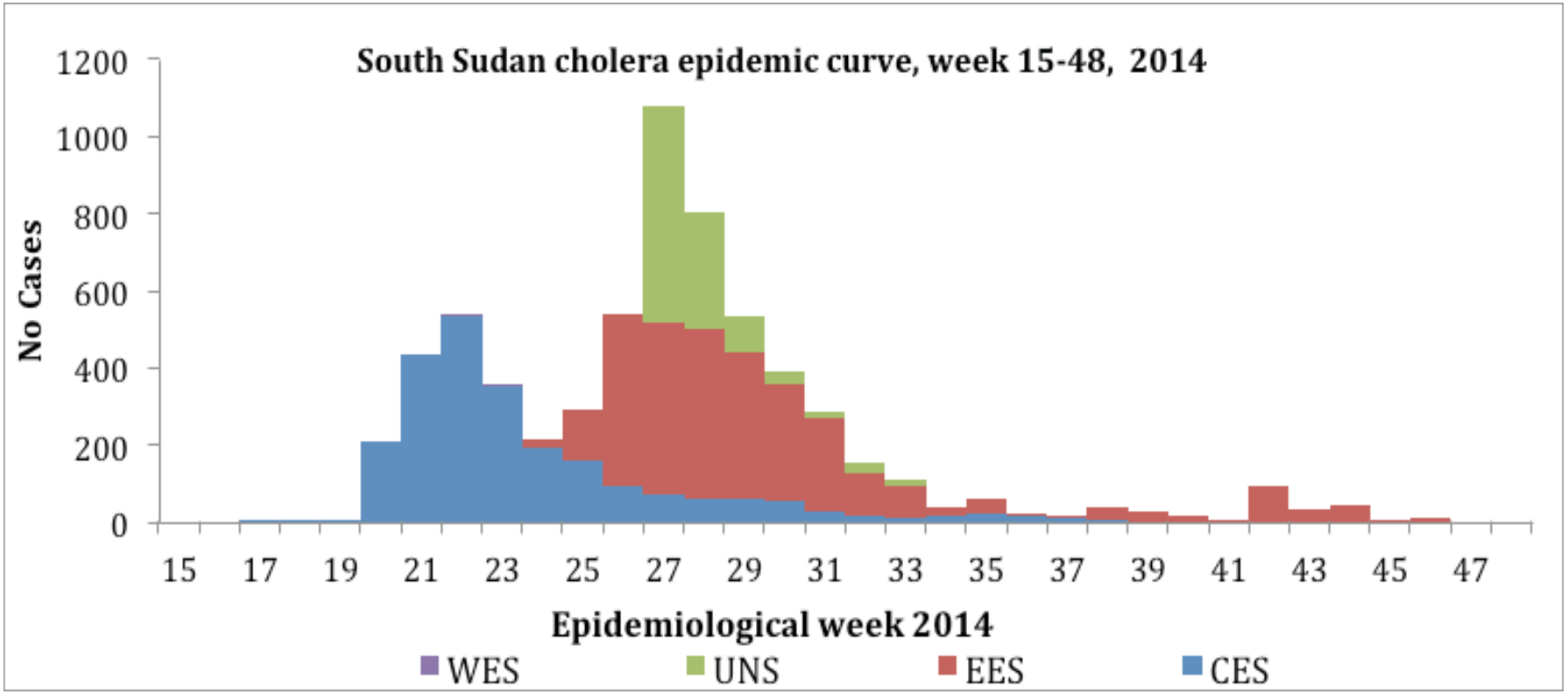
- Five major cholera outbreaks in South Sudan since the CPA
- The most recent was in 2014 with
  - 6,421 cases including
  - 167 deaths (CFR 2.60%) from
  - Five states and 16 counties

2014 Cholera Outbreak in South Sudan



- Five states and 16 counties affected

2014 Cholera Outbreak in South Sudan



Epidemic trend from week 17-46, 2014

Risk Factors

Historical background

- To support efforts in prevention and control of cholera, World Health Organization (WHO), UNICEF, International Medical Corps (IMC), Magna, and other partners will conduct a mass vaccination campaign of Oral Cholera Vaccine (OCV) in UN House PoC

The campaign in UN House PoC

- The campaign plans to vaccinate 33,565 people aged one year and above against cholera using Shanchol™

- **Objectives:**
  - 90 % coverage of target population aged one year and above
- **To evaluate:**
  - Feasibility, acceptability, and cost of vaccine delivery
  - Adverse event monitoring and vaccine effectiveness
- **Priority**
  - Conducting a high quality vaccination campaign with other control measures in response to the current crisis, and in the process prevent further spread of the outbreak

Campaign Dates UN House PoC

1st Round:

- **Monday, June 22, 2015 - Friday, June 26, 2015**

2nd Round:

- **Monday, July 13 – Friday, July 17, 2015**

Reservoir

- The reservoir is mainly human.
- asymptomatic (healthy) carriers and patients carry huge quantities of vibrio in feces and in vomit.
- up to 100,000,000 bacteria can be found in1 ml of cholera liquid.

CASE DEFINITION: CHOLERA

Suspected cholera case:

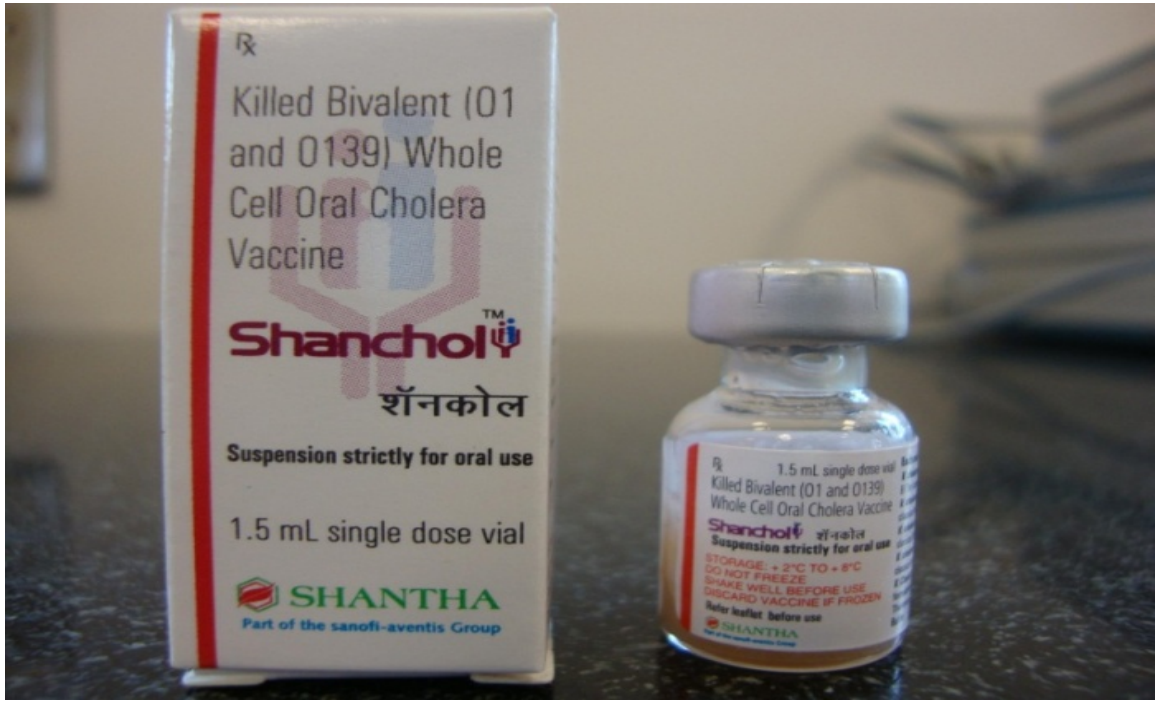
In an area without a cholera epidemic

- A patient aged 5 years or more develops severe dehydration or dies from acute watery diarrhoea;

In an area with a cholera epidemic

- A patient aged 2 years or more develops acute watery diarrhoea, with or without vomiting.

The Oral Cholera Vaccine (Shanchol™)



Oral Cholera Vaccine (Shanchol™)

- Killed whole cell only vaccine; no cholera toxin
- No buffer required
- Vaccine efficacy of 65% sustained for 5 years
- Price to public sector is $1.85/dose
- 2 doses for age 1+
- Kept at 2-8 degrees Celsius
- WHO pre-qualification for Shanchol in 2011

Vaccine Instructions

Dosage & Administration

- Shanchol™ Cholera vaccine must be administered orally; it should never be given parentally. It is packed in a glass bottle of 1.5ml.
- The vaccine is given in two doses spaced between 2 to 6 week

Vaccine Storage and Transport

Should be kept and transported at 2-8^{0}C but shown to be stable at ambient temperatures

Vaccine Strategies

Objectives:

By the end of the session, participants' will be able to understand

- The Vaccination strategies
- Types of Vaccination sites

The Vaccination strategies

- Routine
- National/Local Immunization Days
- Supplementary Immunization Activities
- Catch up campaigns

Types of Vaccination sites 1

Static Immunization sites

- These sites are located at permanent health facilities.
- Immunization will be provided at the health facilities the whole day for the five days during the campaign.
- These sites will also serve as depots for storage and distribution of vaccine to temporary and mobile sites

Types of Vaccination sites 2

Temporary - Immunization sites

- These posts are located at camps, schools, churches, health posts, district health office, and market areas.
- Immunization will be provided at these sites for either the duration of the campaign or partially depending on the population size.

Types of Vaccination sites 3

Mobile - Immunization sites.

- These sites will be located at the existing vaccination posts used for routine and supplementary immunization.

Vaccination sites for Cholera vaccination

- A total of 16 teams distributed across PoC 1, 2, & 3 according to the population size
  - **PoC 1 – six teams**
    - 1 fixed and 5 mobile teams
  - **PoC 2 –** 1 team with special strategy tailored to suit the Muslim community in Ramadan
  - **PoC 3** – nine teams
    - 2 fixed and 7 mobile teams

Social Mobilization

Objectives:

- By the end of the session participants will be able to know the :
- Social mobilization activities during the campaign
- Key messages

Social Mobilization

- The goal of successful social mobilization is to immunize people above one year of age.
- In order to achieve this, the people must know:
- **Why** immunize?
- **Who** must be immunized?
- **When/Where** to go for vaccination and follow up?

Alert and involve!

- Make regular contact with the camp leaders, religious groups, NGOs and other relevant organizations.
- Involve them in planning and implementing the campaign.
- Clarify the roles of each partner.

Meeting places to be used

- Use the common meeting places for spreading the information about the campaign.
- By choosing the right timing, the message reaches many people at once.
- Inform school children through headmasters and teachers about the dates, target groups and sites of the campaign.
- Parents will, besides other channels, be informed through their children.

- Cholera is a dangerous disease which kills all age groups

- Cholera is a disease caused by a germ. The signs include a severe diarrhea and vomiting

- Patients with Cholera must be taken to the health clinic immediately. If not treated, a person with Cholera can develop severe dehydration, leading to death.

- **Cholera can be prevented by giving oral cholera vaccine, along with using clean water and proper hand washing. People need to receive two doses for effective protection.**

- All community members should be vaccinated against Cholera between
    - 22 to 26 June 2015 - for the first round
    - 13 to 17 July 2015 – for the second round

Immunization sites organization

- **Objectives:**

  By the end of the session, participants will be able to understand how to:
- Organize site for campaign
- Know clearly the roles and responsibilities of each member of the team

Immunization site organization

Sites should be:

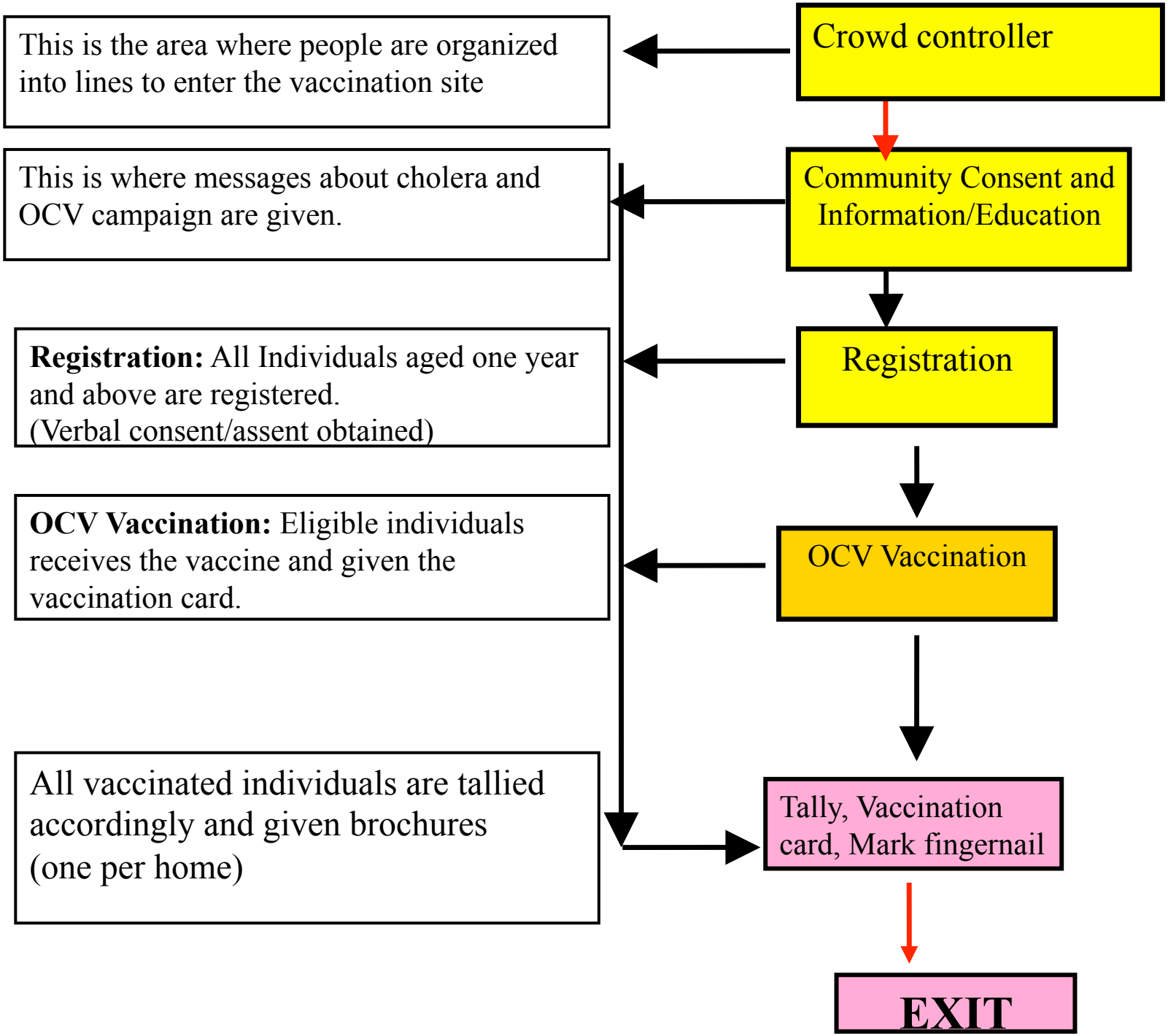
- Easily accessible to the community with adequate space for crowds e.g. health facilities, schools, community centers, and local public event places in a building or a verandah or under a good shade or an outreach site located in a clean environment

Furniture and equipment

- Table
- chairs
- Other seating e.g. benches, mats to be used by the caretakers /children
- Containers with water, basin and soap for hand washing and drinking
- Banner/ poster to identify site
- Safety box (for sharps)
- Forceps
- Marker for fingernail marking

The immunization site

- Must be designed to ensure efficient client flow, avoiding bottlenecks, excess crowding, long queues and confusion
- Must have a designated entry and exit with a one way flow to prevent backtracking through the crowd. (see map)
- Should immunize on “first come, first served” basis.
- Should be opened from 8 am to at least 4 pm (flexibility to a particular site demand should be considered over daily closing time).
- Must have good crowd control


This is the area where people are organized into lines to enter the vaccination site
Crowd controller
This is where messages about cholera and OCV campaign are given.
Community Consent and Information/Education
Registration: All Individuals aged one year and above are registered. (Verbal consent/assent obtained)
Registration
OCV Vaccination: Eligible individuals receives the vaccine and given the vaccination card.
OCV Vaccination
All vaccinated individuals are tallied accordingly and given brochures (one per home)
Tally, Vaccination card, Mark fingernail
EXIT

Staffing and roles

Staffing

Each site has a core team of four members, including:

- 1 information sharer/crowd control
- 1 registers (eligibility screening, registration)
- 1 vaccinator
- 1 registers (tally sheet, vaccination card, marking fingers)
- A team of xx supervisors will monitor all sites

Staffing and roles

Site Supervisor

- Ensures the post is well organized
- Supervises support staff and ensures they are clear on their roles
- Ensures all required materials are in place each day of the campaign
- Ensure Vaccine (Shanchol™) for the day use is ready
- Ensures cold chain is maintained

Staffing and Roles

Site supervisor…….

- Answer questions from the waiting clients
- Ensures that tally sheets are complete at the end of the session
- Calculates daily vaccine wastage and coverage
- Ensures all equipment, tally sheets, vaccination cards, registers and balance of vaccines are returned to the distribution centre
- Ensures used safety boxes are transported to designated disposal site
- Monitoring local health facilities for AEFIs

Staffing and Roles

Recorders

- Checks age
- Ensures that all clients are registered correctly
- Ensures that all clients are tallied
- Ensure that the vaccine card is filled in and given to the client
- Marks fingernail of 5^{th} digit on left hand (1^{st} round) and right hand (2^{nd} round) Helps to limit redosing and more importantly assist with AEFI surveillance

Staffing and Roles

Vaccinator

- Double checks age
- Prepares and administers the vaccine or provide to those who can take unassisted .
- Ensures cold chain is maintained
- Dispose used vaccine bottles

Staffing and Roles

Social Mobilizer/Crowd controller

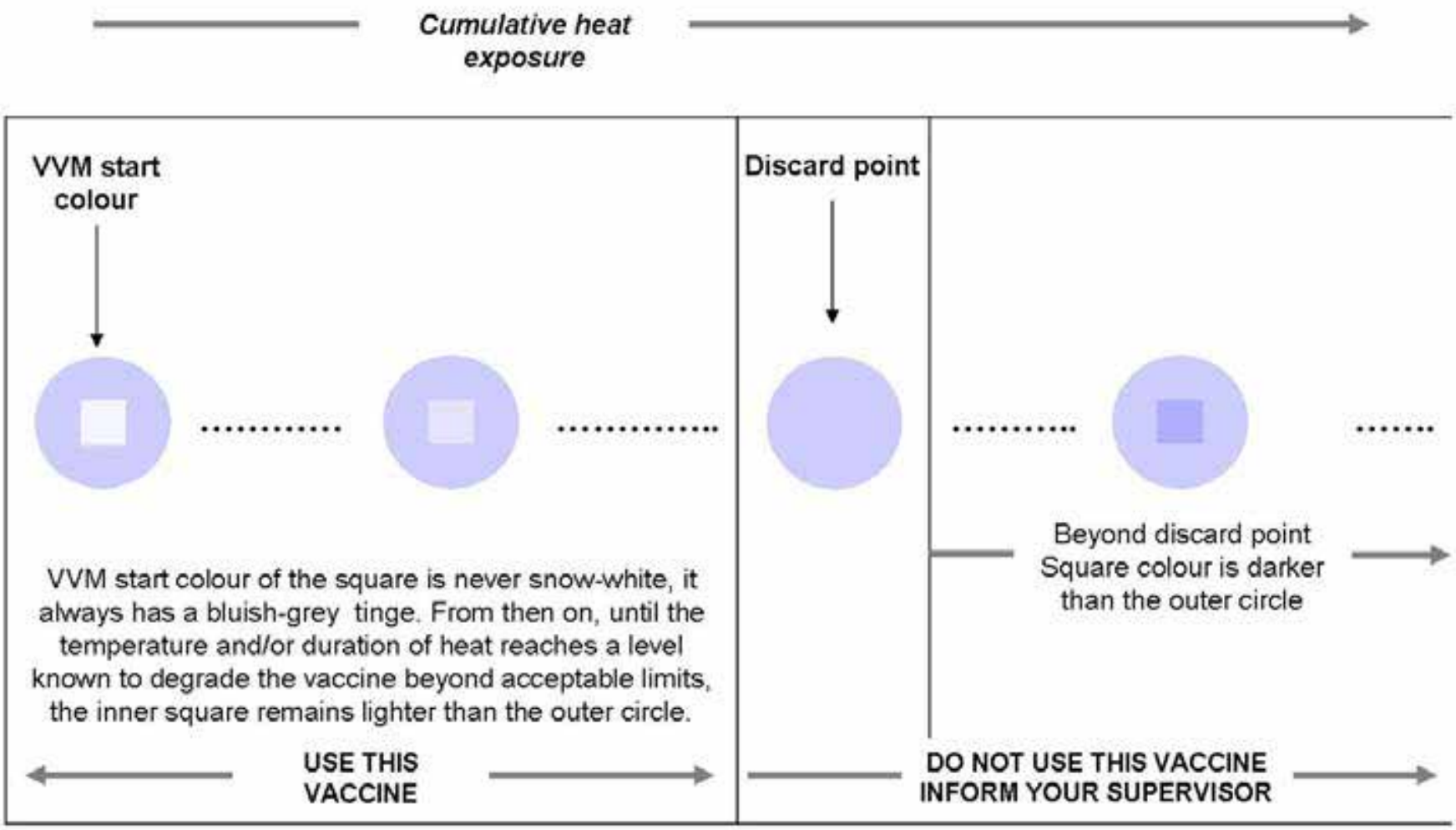
- Health education core messages
  - Wash your hands
  - Use latrine for defacation
  - Use clean water and food
- Key community messages
  - Vaccines can complement clean water and hygiene and the need for two doses for a complete regimen
  - Though OCV has been shown to be safe, all community members should know to return to vaccination or health posts for any adverse events following immunization.
- Ensure that the site is well organized

Cholera Vaccine Administration

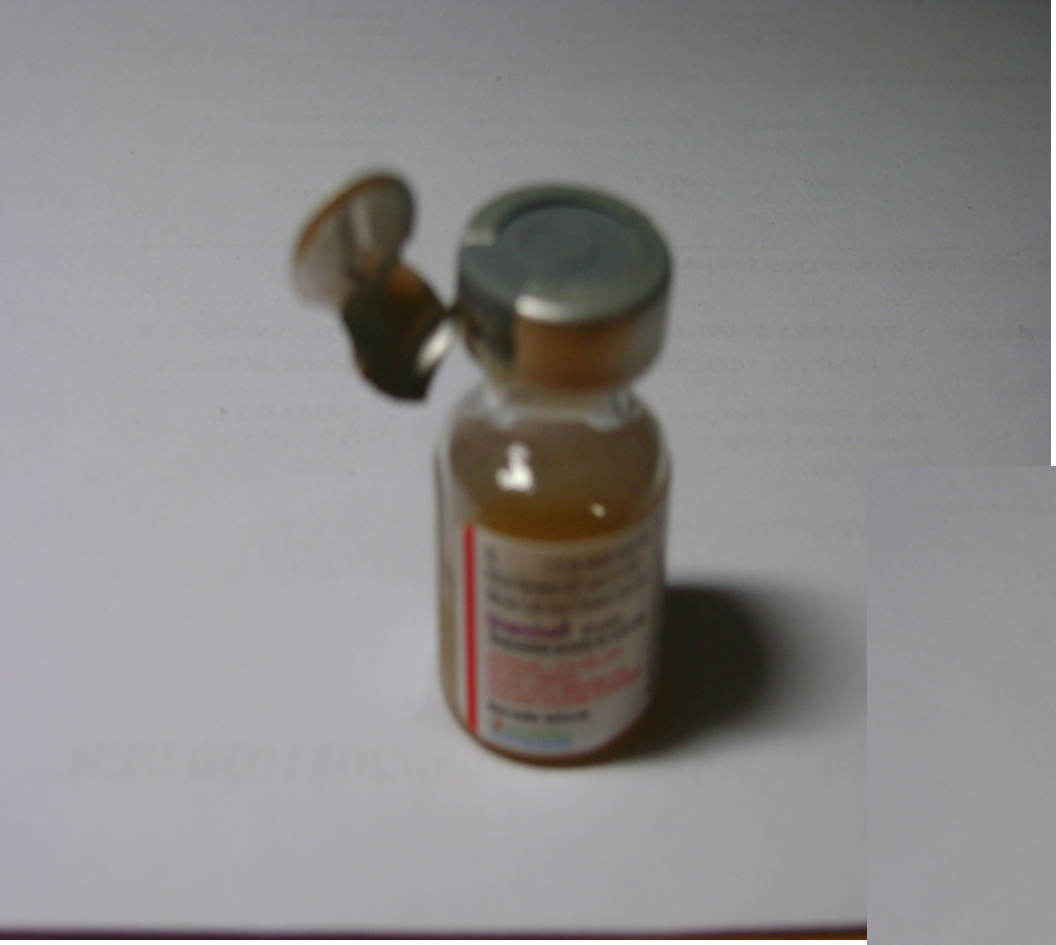
- **Objectives:**
- By the end of the session, participants will be trained on:
  - Administration of cholera vaccine
  - Waste disposal

Cholera Vaccine Administration

- Vaccine vial should be placed on the cool pack.
- Check age
- For child age less than 5 ensure mother/care taker makes child cooperative
- Remove the cap of the vial with clean forceps and give for self-administration for all aged 12 and above. Ages less than 12 need assistance


Cumulative heat exposure
VVM start colour
Discard point
VVM start colour of the square is never snow-white, it always has a bluish-grey tinge. From then on, until the temperature and/or duration of heat reaches a level known to degrade the vaccine beyond acceptable limits, the inner square remains lighter than the outer circle.
Beyond discard point
Square colour is darker than the outer circle
USE THIS VACCINE
DO NOT USE THIS VACCINE
INFORM YOUR SUPERVISOR

SHAKE THE VIAL!!



Registration

- Ensure recording and finger nail marking after vaccination
- Inform participant/caretaker to return for evaluation of any AEFIs at vaccination site or regular health center.
- Remind caretaker and individual to come for the second dose

Ensuring Proper Waste Disposal

- The Cholera vaccine vials must be disposed without capping.
- Safety boxes must be transported to the facilities identified and designated for proper and safe disposal.
- The boxes should be burnt on the day they arrive at the site, using an incinerator or drum or pit.

Monitoring Adverse Events Following Immunization (AEFI)

- **Objectives:**
- By the end of the session participants will be able to:

- Appreciate that cholera vaccine is safe
- AEFI

Reaction

- Cholera vaccine is generally safe. It is important to stress that the rate of serious adverse events following immunization is quite minimal. Possible adverse events following cholera vaccination are listed below:
  - Nausea - Vomiting
  - Diarrhea -Abdominal pain
  - Fever

Adverse Events (AE)

- Any untoward medical occurrence in a subject to whom a vaccine has been administered

- Does not necessarily have a causal relationship with the vaccine or vaccination

- Possible adverse events include
  - an exacerbation of a pre-existing condition
  - any illness happening following the administration period of either dose
  - any drug interaction
  - any event related to a concomitant medication

Serious Adverse Events

Serious adverse events are those which result in:

1.Death

2.Hospitalization

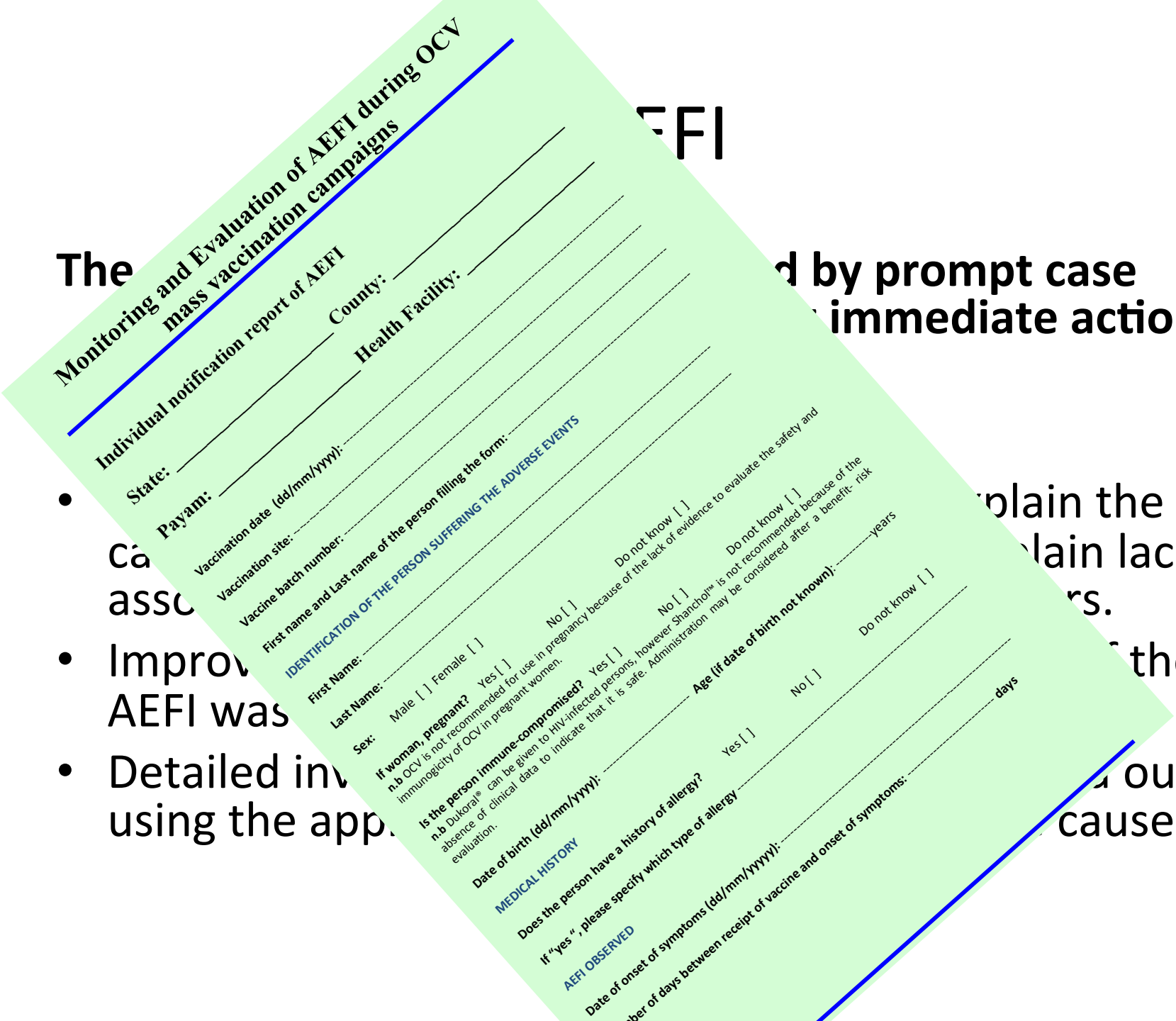
3.Persistent or permanent disability

4.Other medically important condition that required intervention to prevent one of the above criteria.

The [illegible]EFI

The [illegible]d by prompt case [illegible] immediate action:

- [illegible]plain the ca[illegible]lain lack of asso[illegible]rs.
- Improv[illegible] the AEFI was
- Detailed inv[illegible] out, using the app[illegible] cause.



Monitoring and Evaluation of AEFI during OCV mass vaccination campaigns

Individual notification report of AEFI

State: _____ **County:** _____

Payam: _____ **Health Facility:** _____

Vaccination date (dd/mm/yyyy): _____

Vaccination site: _____

Vaccine batch number: _____

First name and Last name of the person filling the form: _____

IDENTIFICATION OF THE PERSON SUFFERING THE ADVERSE EVENTS

First Name: _____

Last Name: _____

Sex: Male [ ] Female [ ]

If woman, pregnant? Yes [ ] No [ ] Do not know [ ]
n.b OCV is not recommended for use in pregnancy because of the lack of evidence to evaluate the safety and immunogicity of OCV in pregnant women.

Is the person immune-compromised? Yes [ ] No [ ] Do not know [ ]
n.b Dukoral® can be given to HIV-infected persons, however Shanchol™ is not recommended because of the absence of clinical data to indicate that it is safe. Administration may be considered after a benefit- risk evaluation.

Date of birth (dd/mm/yyyy): _____ **Age (if date of birth not known):** _____years

MEDICAL HISTORY

Does the person have a history of allergy? Yes [ ] No [ ] Do not know [ ]

If "yes ", please specify which type of allergy _____

AEFI OBSERVED

Date of onset of symptoms (dd/mm/yyyy): _____

Number of days between receipt of vaccine and onset of symptoms: _____ **days**

AEFI Surveillance plan

- Detection of AEFI: 1st day of campaign to 2 wks after completion
- **Passive Surveillance**
  - Anyone with AEFI should return to the vaccination sites to report their signs. If the onset of symptoms is after the last day of vaccination, they should to go to the nearest health facility
  - All AEFIs are to be recorded on the designated form.
- **Active Surveillance**
  - A designated AEFI officer will visit area health centers for AEFI monitoring support of local health care providers
- **Classification into serious vs non-serious**
- **AEFI monitoring in high risk groups followed until recovery**
  - infants < 1 year
  - HIV positive persons
  - Pregnant women: outcomes for both mother and baby are followed

Supervision

- **Objectives:**

By the end of the session participants will be able to know a:

- Good Supervisor
- Facilitation skill for supervisors

Tasks expected from the area supervisors

- Use supervision checklist
- Have a list of immunization sites for an area..
- Collect the expected target age group population
- Observe implementation of immunization activities at each site.

Daily Reporting Form

Health facility Name	Vaccination site Name					Vaccination status above one year children and adults			Cholera Vaccine	
		Date	Fixed site	Mobile team	Additional site	Target	Total vaccinated	%	Number of Vials used	Wastage rate

Vaccinators Name_____ Signature _____Date _____

Supervision checklist

Supervision Checklist

Name of Site: _____ _____ _____ _____ _____

	1st site		2nd site		3rd site		4th site		5th site	
	yes	no	yes	no	yes	no	yes	no	yes	no
Community participation										
People are gathered at the site										
Site Organization										
Site is identified by banner										
Full vaccination team at site										
Sufficient vaccine supply at site										
One-way crowd flow is established at site										
Vaccine get from a vial taken out of carrier										
Vaccinator shakes the vial gently before opening										
All the vaccine in the vial is fed										
Vaccinator is informing second dose date										
Are new tally sheets available and being used?										
CCV registers available and being used										
CCV registers being used correctly?										
Are CCV registration cards available?										
Cold Chain										
Is there functioning cold chain available (cold box/refrigerator)?										
Vaccine are kept in cold box/refrigerator										
Ice packs are in cold box										
Adequate vaccine and supplies available										
Random check vial indicates freezing (If yes, report immediately to higher level to investigate).										

- Supervision checklist

LOGISTIC SUPPLY AND RETURN FORM

APPENDIX 3. Logistic supply and return form

District:_____ Health Facility:_____

Name of site:_____ Type of site:_____

Vaccination Date_____

	Cholera Vaccine Vials	Cold box	Vaccine carrier	Waste Bag	Sharps container	Forceps	Marker	Pen	Table	Chair	Banner
No. Supply received											
No.Used											
No.Returned											

Signature of Vaccinator_____

Vaccination Register

APPENDIX 2. VACCINATION REGISTER

NAME OF DISTRICT:…… NAME OF HEALTH FACILITY:……

NAME OF SITE:…… TYPE OF SITE:……

No.	Name	Village	Sex	Age	For F>15 y, Missed period? (y/n)	1st Dose	For F≥15y, Missed period (y/n)	2nd Dose	Remark
1									
2									
3									

Tally sheet cholera vaccination

Tally sheet cholera vaccination

Team nr ………………………………… Village: ……………………………………………

Date: ……………………………………… Site: ……………………………………………

VVM 12PM ……………………………………………………… VVM 5PM :…………………………………

Nr of used vials = ……………………………………………………………………………

Age			
	Male		Female
1-4 years	00000 00000 00000 00000		00000 00000 00000 00000
	00000 00000 00000 00000		00000 00000 00000 00000
	00000 00000 00000 00000		00000 00000 00000 00000
	00000 00000 00000 00000		00000 00000 00000 00000
	00000 00000 00000 00000		00000 00000 00000 00000
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	00000 00000 00000 00000		00000 00000 00000 00000
	00000 00000 00000 00000		00000 00000 00000 00000
	00000 00000 00000 00000		00000 00000 00000 00000
	Total =		Total =
5-14 years	00000 00000 00000 00000		00000 00000 00000 00000
	00000 00000 00000 00000		00000 00000 00000 00000
	00000 00000 00000 00000		00000 00000 00000 00000
	00000 00000 00000 00000		00000 00000 00000 00000
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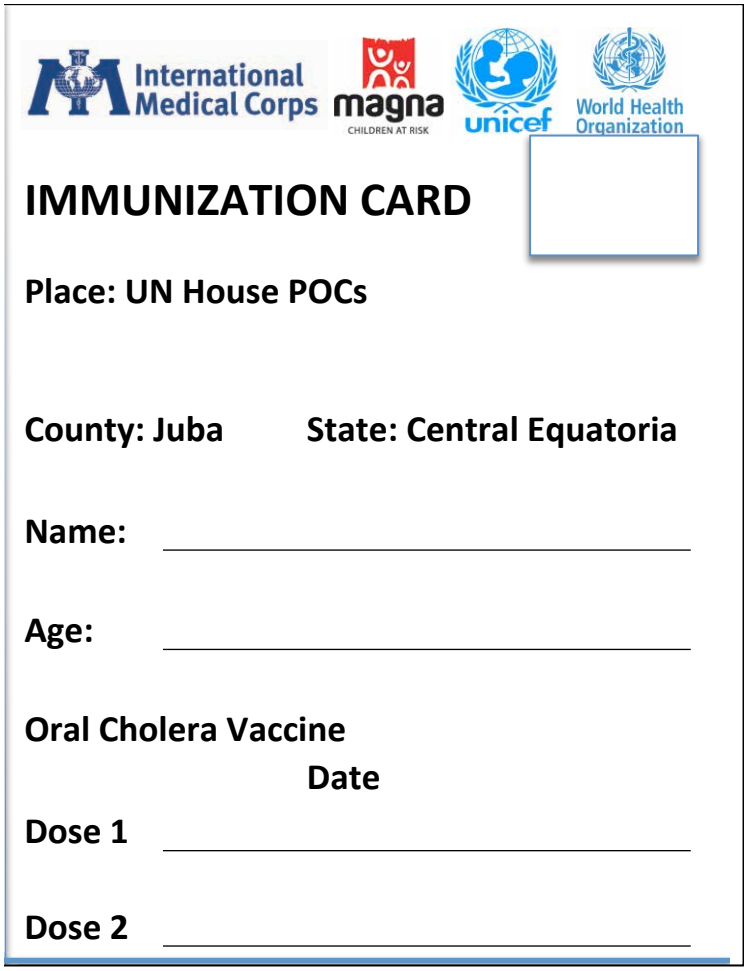
	00000 00000 00000 00000		00000 00000 00000 00000
	00000 00000 00000 00000		00000 00000 00000 00000
	00000 00000 00000 00000		00000 00000 00000 00000
	Total =		Total =

Vaccination Card



AEFI form

OCV AE FOLLOWING IMMUNISATION REPORTING FORM

Date of report:

Patient's name : Age: M / F

< 1 year old: yes/no Pregnant: yes/no Immune compromised: yes/ no

District: Village: Section:

Vaccination site:

Dates of vaccines First: Second:

Lot nr vaccine: Expiry date:

Date AEFI started: Onset interval:

AEFI form

History / Complaints:		How many times?	Other complaints?
Nausea	Yes / No		
Vomiting	Yes / No		
Diarrhoea	Yes / No		
Abdominal pain	Yes / No		
Fever	Yes / No		
Other:			
Duration:			

On examination:	Temp:	BP:	PR:	RR:
Other findings:				

Conclusion:

Outcome:	
Recovered:	Yes / No
Hospitalized:	Yes / No
Died:	Yes / No

Tasks expected from the area supervisors

- Find out any rumors that are circulating
- Provide solutions or advise to problems being experienced Motivate the team members
- Re-evaluate “bottle neck” areas
- Shift the site to other place in case of need
- Interview the community about the OCV campaign

Role of supervisor (facilitator) during training

- Be familiar with the local situation and use the training manual for team members.
- Create a relaxed and comfortable atmosphere with free flow of discussions
- Avoid ready prescription of Ideas that will make all other Ideas “wrong”.
- Encourage learners to explore alternative solutions that suit their experience.

Logistic Tasks

- Review existing calculations of all material requirements as per micro-plan. Determine shortfalls and develop specific and practical solutions in conjunction with the EPI coordinators (transport, carriers, ice packs)
- Review the available cold chain inventory. If inventory is not available assess the number and working status of refrigerators and freezers.

Logistic Tasks

- Map out transport and vaccine distribution modalities; ensure that persons involved are aware of their responsibility.
- Plan for collection of left over vaccines and other supplies at the end of the campaign for return to district health office.
- Participate in daily review meetings during the campaign and post campaign review meeting with your teams

Shukran!