Global Task Force on Cholera Control (GTFCC) Working Group on WASH

Role of WASH interventions in cholera control – focus on Zambia

Webinar, 12 April 2021

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Acronyms and abbreviations

AWD	acute watery diarrhoea
CFR	case fatality rate
CIDRZ	Centre for Infectious Disease Research in Zambia
eIDSR	electronic integrated disease surveillance and response
GTFCC	Global Task Force on Cholera Control
IFRC	International Federation of Red Cross and Red Crescent Societies
MCEP	multisectoral cholera elimination plan
MP	member of parliament
NCP	national cholera control plan
OCV	oral cholera vaccine
RCCE	Risk communication and community engagement
RRT	rapid response team
SDGs	sustainable development goals
SOP	standard operating procedure
SWM	solid waste management
US CDC	US Centers for Disease Control and Prevention
WASH	water, sanitation and hygiene
WHO	World Health Organization
ZNPHI	Zambia National Public Health Institute
ZRCS	Zambia Red Cross Society

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Introduction

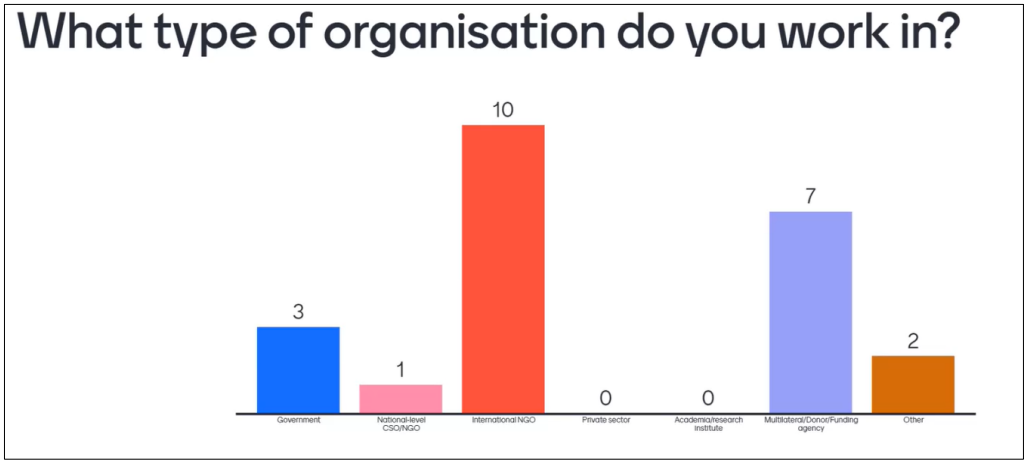
This was the second in a series of four webinars organized by WaterAid upon taking the new chairing role of the WASH Working Group. With support from the GTFCC Secretariat, WaterAid organized this important discussion at different aspects of Water, Sanitation and Hygiene (WASH) interventions and cholera control in the context of the Global Task Force on Cholera Control (GTFCC) strategy, *Ending cholera: a global roadmap to 2030*. Dr. Nurullah Awal, Health Adviser of WaterAid Bangladesh chaired the session.

This was the second in a series of four webinars looking at different aspects of water, sanitation and hygiene (WASH) interventions and cholera control in the context of the Global Task Force on Cholera Control (GTFCC) global roadmap, *Ending cholera: a global roadmap to 2030*.

The first two meetings were country showcases, of Zanzibar and Zambia respectively. The third will be on WASH research within the context of the GTFCC research agenda. The fourth will be on technical aspects of WASH and resource issues.

This webinar focussed on Zambia, and particularly on progress in implementing the WASH pillar of the national multi-sectoral cholera elimination plan (MCEP).

Before the presentations began, participants were invited to fill in a short online survey to provide an idea of the locations of the audience and the organisations for which they worked. The results can be seen in the images below.



NGO support to the implementation of Zambia's NCP

***Pamela Chisanga**, Country Director, WaterAid Zambia*

Zambia is a country with historically low WASH coverage. Areas with cholera cases tend to be those that access drinking water from shallow wells. Many people around the country also use pit latrines. This combination causes high levels of ground water contamination, and therefore good conditions for cholera to spread – an issue compounded by widespread poor hygiene practices.

Zambia has policy and legal frameworks to support cholera interventions. A major cholera outbreak in 2017-18 provided increased impetus for government to work more closely with stakeholders to address the drivers of cholera. Showing leadership in this regard, Zambia, with the support of stakeholders around the country, was one of the lead Member State sponsors of the World Health Assembly Resolution to End Cholera by 2030 (WHA 71.4).

The key framework for the national effort is the multisectoral national cholera elimination plan, or MCEP. Along with others, WaterAid participated in a cross-sectoral national effort to design and develop the plan. Recognising that WASH issues are significant drivers of cholera in the country, the MCEP is about 67% focussed on WASH interventions.

Specific things that WaterAid has done in support of the MCEP have included working with the Ministry of Health to support relevant coordination mechanisms. In the 2017-18 outbreak, WaterAid saw an opportunity to add value by bringing other stakeholders together in a more organized response

to the epidemic. WaterAid is host of the national NGO WASH forum, which provided an opportunity to link NGO work with government responses and strengthen overall coordination in the cholera response, including through the Zambia National Public Health Institute (ZNPHI).

WaterAid also works to lobby members of parliament (MPs) for greater levels of investment in cholera eradication. Investment is currently low, and since (and despite) the finalization of the MCEP, national budgets have not had clear allocations for its implementation. Working with the support of ZNPHI, the Ministry of Health and the Ministry of Water Development, Sanitation and Environmental Protection, WaterAid carried out a political analysis of cholera as a basis on which to engage MPs, highlight existing challenges and help direct investment. A group of cholera "champion" MPs has been put together to assist work under the MCEP, and this analysis has been shared with them to highlight Zambia's needs if national elimination is to be achieved.

Work is also ongoing around hygiene. Recognizing that improved access to WASH will not end cholera if there is still poor hygiene, WaterAid has launched a hygiene campaign with the Ministry of Health, entitled "cleanliness," which has been implemented around country through the ministry and other stakeholders in the WASH and health sectors.

Other activities and collaborations have included work to identify cholera trouble spots, vulnerability assessments, and bringing facilities up to standard so they can provide clean drinking water and adequate sanitation that does not pollute ground water. Further miscellaneous activities and collaborations have taken place around cholera, especially with ZNPHI. WaterAid has emphasized lobbying and advocacy, in the understanding that this work can be particularly hard for ZNPHI and the ministries. ZNPHI and the ministries have shown a great deal of commitment and dedication to try to address components of the MCEP using their own existing budgets, but this work would be hugely facilitated by proper investment and funding of the plan by central government.

Status update on cholera control in Zambia: progress in implementing the multisectoral cholera elimination plan (MCEP)

***Fred Kapaya**, National Cholera Elimination Coordinator*

Zambia has experienced 31 cholera outbreaks since 1977. Between 1999 and 2017, 61 157 cases and 1832 fatalities were reported for a case fatality rate (CFR) of around 3%. The majority of outbreaks occurred in Lusaka, Luapula, Copperbelt, Northern, Central and Southern provinces, with further outbreaks along the borders with the Democratic Republic of Congo, Tanzania and Zimbabwe. Zambia remains threatened by recurrent outbreaks and has committed to eliminating cholera. In 2018 Zambia was one of the countries that proposed the World Health Assembly resolution to end cholera by 2030; national cholera hotspot analysis and mapping has been done; and now a comprehensive, costed national multisectoral cholera elimination plan (MCEP) is in place to provide the basis of an elimination agenda. In May 2019 the MCEP was launched at the World Health Assembly, with the overall aim of eliminating cholera in Zambia by 2025.

Approximately 70% of the MCEP budget is allocated to WASH interventions—an achievement that required the realignment of resources. Identification of hotspots has been done using existing resources. Work is now ongoing to solicit more budget allocation from government and more support from partners.

Zambia has not recorded any cholera outbreak for the past two years.

MCEP progress update

The MCEP, built on principles of strong leadership and coordination, is organized into a number of thematic areas.

1. Leadership and coordination

The MCEP's governance structure is based in the Vice President's office, with coordination structures at two levels. At policy level leadership comes from a council of ministers and national and sub-national authorities. On the technical level, leadership and guidance are provided by a committee of Permanent Secretaries; a Multisectoral National Cholera Elimination Task Force and a number of specific Technical Committees; a National Cholera Elimination Coordinator and Technical Focal points; and a number of operationalized technical working groups. All these structures are now operational.

2 . Improved alert and response

In the area of surveillance and laboratories, a cholera database has been established containing historical data from all districts over the past 10 years; a review of the country's cholera hotspots has been conducted to guide targeted interventions; electronic integrated disease surveillance and response (eIDSR) has been introduced in all districts to capture data on acute watery diarrhoea (AWD); and all of the country's general hospitals in all 10 provinces can now confirm cholera by culture. For case management, a number of infrastructural improvements have taken place, including the establishment of designated isolation facilities in all hotspot districts; the rehabilitation of isolation facilities in certain hotspots; and the allocation of land on which to construct further isolation facilities. Capacity building has been done in several areas, including integrated training of rapid response teams (RRTs) for Ebola, COVID-19 and cholera in all provinces; training of community volunteers in selected hotspots; and production of integrated guidelines and standard operating procedures (SOPs) for cholera management (currently under review). On the logistics front, basic supplies and other consumables have been prepositioned and are replenished regularly, and an inventory of basic equipment has been done.

3. Oral Cholera Vaccine (OCV)

The GTFCC has approved Zambia's request for 5.7 million doses of OCV to vaccinate 11 hotspot districts (with a combined population of 2.9 million people). As of March 2021, 3.57 million doses have been received to vaccinate seven districts (1.7 million people). Successful vaccination campaigns have been carried out in five out of seven districts, with campaigns in the remaining two districts planned for May/June 2021. The goal is to vaccinate all 11 districts by December 2021. A pilot study has been done to generate evidence on the benefits of not using cold chain, and an OCV costing study is also under way. A plan is in place to conduct a seroprevalence study in four hotspot districts with support from the Centre for Infectious Disease Research in Zambia (CIDRZ). This is currently at ethical approval stage.

4. Risk communication and community engagement (RCCE)

A national community engagement plan has been developed and community engagement and sensitization interventions are ongoing. Cholera-specific messages have been developed and adapted to target audiences, and partner mapping and identification for RCCE has been done.

5. WASH

A water supply and investment plan has been developed. Several projects are under way that will benefit 3.5 million people in cholera hotspots. Plans are in place to improve water supply to most parts of Lusaka and the Copper Belt, and to improve WASH in Northern Zambia. Onsite sanitation is in place in sites in all ten provinces, with support from WHO. Modern toilets have been constructed in the slums of Lusaka.

All this work faces challenges. Multi-sectoral coordination is not without difficulty. Full operationalization of the MCEP has been held back by inadequate institutionalization of the plan by some key stakeholders. Inadequate partner support towards the MCEP has also been a problem. Some key line ministries have not given the MCEP enough attention because it must compete with other ministry and organizational priorities.

A comprehensive advocacy and resource mobilization strategy has not yet been not yet been developed, though one is in development. The national budget allocation to the MCEP is inadequate. Zambia does not yet have enough well-equipped cholera treatment centres and units, particularly in hotspots, and there are delays in case confirmations by culture due to the long distances that samples must travel to reference laboratories. There are not yet enough community-based surveillance structures in place, and transport systems – particularly marine transport for sample and patient referral and contact racing – are inadequate. Many areas of the country are hard to reach, with roads impassable in the rainy season.

Zambia is subsidising sanitation in poor communities because it is a common good. Sustainability for sanitation is boosted by payments for services in some contexts – for example user fees and payments for emptying faecal sludge.

What makes any of these achievements possible is having strong political leadership and coordination and working in a multisectoral manner. An effective leadership and coordination structure that brings parties together and shows them what is needed makes planning easier. WASH is prioritized for investment because WASH is an intervention with long term benefits. Involvement of the Ministry of Water is therefore centrally important.

Long term WASH investment for cholera control

***Ulanda Nyirenda**, Ministry of Water Development, Sanitation and Environmental Protection*

In Zambia approximately 3.5 million people live in cholera hotspots, where the main risk factors are lack of access to adequate clean and safe water, poor onsite sanitation, poor hygiene and poor solid waste management (SWM) practices. Inadequate WASH and SWM infrastructure result in open defecation, overcrowding at shared latrines, overflowing latrines, unhygienic conditions, illegal waste dumping and a lack of adequate clean water for handwashing.

To eliminate cholera by 2025, Zambia has several national WASH targets for cholera hotspots. A plan is in place to provide universal access to clean, safe water and adequate sanitation and hygiene services, and a reform process for WASH and SWM has begun. This process includes enacting laws to strengthen the policy and regulatory framework and make it responsive to the sustainable development goals (SDGs) and the need to address public health and environmental and climate change adaptation and mitigation.

A number of WASH interventions have already taken place in cholera hotspots. These include but are not limited to emergency works in periurban hotspots in Lusaka at a cost of $4.5 million, benefiting 95 000 people; the Kafue Bulk Water Supply Project in periurban hotspots in Lusaka ($7 million, 200 000 people); the Mbala water supply and sanitation project ($1.0 million, 80 000 people); construction of reservoirs and booster stations; a water supply project for the Mantapala Refugee Settlement; Borehole rehabilitations in Nchelenge District; sanitation interventions in selected hotspots; and water supply projects in Kaputa, Nchelenge, Chienge and Mpulungu districts. Piped water schemes have been constructed in Nchelenge, Mwense, Nsama and Mpulungu at a cost of $1.0 million. 302 boreholes with hand pumps have been built and 420 further non-functional boreholes have been rehabilitated across the country. 760 institutional sanitation facilities have been built at a cost of $1.39 million. Behaviour change activities focussed on community led total sanitation, sanitation marketing and hygiene interventions have been carried for 700 000 people at a cost of $2.16 million.

Health care facilities are a particular focus for WASH interventions. Baseline data for WASH in health care facilities has been collected and various related resources have been developed, including standards and technical guidelines; a national technical assessment tool; a water quality monitoring protocol; and a water quality monitoring gap analysis. Strong efforts have bene made around collaboration, advocacy and resource mobilization in this area, and a water supply and sanitation policy was launched in 2020. An Open Defecation Strategy was launched in 2018 and is being implemented.

Several challenges remain. A risk profiling exercise for WASH in cholera hotspots is yet to be conducted; the country has seen inadequate levels of investment in WASH and SWM; levels of partner support are insufficient; and the COVID-19 pandemic has had negative impacts across the country, including on work around WASH and SWM. To address these issues, a risk assessment for WASH in all cholera hotspots is recommended, along with continued long-term investment and development of a WASH financing mechanism. Partner coordination for upscaling WASH interventions should be strengthened, and resource mobilization through partner mapping should be strengthened and continued.

In conclusion, a total of $ 32.05 million has been committed to and is being utilized for WASH to date, in service of the overall goal of eliminating cholera in Zambia. This represents 47.2% of the total budgeted amount. A total of 1 485 000 people will benefit once these planned interventions are completed, representing 42.42% of the targeted population.

Zambia Red Cross strategy in preparedness and response to cholera

***Cosmas Sakala**, Deputy Secretary General/Head of Programmes, Zambia Red Cross Society*

The Zambia Red Cross Society (ZRCS) is a humanitarian organization created in 1966 by an Act of Parliament to augment the government's efforts to alleviate suffering among vulnerable people. The ZRCS is a member of the International Federation of the Red Cross and Red Crescent Societies (IFRC). The ZRCS is present in 55 districts across all ten provinces of Zambia, with an estimated volunteer membership of about 5000. This makes the ZRCS well positioned to deliver services to the "last mile" population. The ZRCS has experience in working in cholera preparedness, prevention and control and has worked on this in collaboration with Ministry of Health and other actors.

The ZRCS' cholera preparedness and response work aligns with the work of the GTFCC and has been done alongside partners including the government, the Ministry of Health (at all levels), the ZNPHI, the national Disaster Management and Mitigation Unit, various UN Agencies, the wider Red Cross

Movement and the IFRC, the US Centers for Disease Control and Prevention (US CDC), and a range of donors. The ZRCS volunteer network in communities provides a unique, solid foundation for well-prepared local responses to scattered cases and major outbreaks, ensuring immediate actions when necessary and ongoing coordination with communities and government health staff.

The ZRCS cholera preparedness and response strategy has three parts to it: oral rehydration therapy preparedness at branch and community level, with the aim of saving lives through diagnosis, oral rehydration therapy and referral; establishment of Branch Transmission Intervention Teams, the goal of which is to break disease transmission routes in health facilities, case households, communities and among the most vulnerable; and providing support to OCV campaigns through community sensitization and mobilization.

The ZRCS works closely with government in all these areas. For example, in assisting the government with the district and community health setup, the ZRCS trained 16 volunteers as trainers of trainers in selected cholera hotspots; the network of 5000 ZRCS volunteers was prepositioned for community mobilization and sensitization; the ZRCS developed and adapted oral rehydration point (ORP) Level 1 and 2 training packages for use in Zambia and other countries; 15 staff and 60 volunteers were trained on ORP; and resources including ORP kits, chlorine soap and handwashing stations were prepositioned.

Other WASH achievements include a CDC-supported cholera WASH project that covered ORP training; piloting WASH and hotspot assessment tools in Mpulungu and Nsama (a similar programme was implemented in Malawi at the same time, and feedback from both countries will be used to revise the ZRCS monitoring and evaluation toolkit); community level water treatment training (pending at time of writing); and providing bicycles to enhance the mobility of volunteers and increase their reach.

To support OCV campaigns, the ZRCS has deployed 210 volunteers and staff to community mobilization and sensitization supporting campaigns in in Kabwe District and Nsama. These efforts have reached 19 575 households.

Supporting Hygiene Promotion during the COVID-19 pandemic, the ZRCS has distributed 9680 soap tablets and 148 handwashing stations; carried out community hygiene sensitization using approaches such as door-to-door sensitization and handwashing campaigns in schools and reaching over six million people; rehabilitated 33 boreholes benefiting an estimated 48 633 people; catered for the needs of the people with disabilities by providing hand washing stations for paraplegics in Lusaka and Ndola; trained 180 “Champions” to spearhead community handwashing efforts in 12 districts; implemented hand washing campaigns through Ministry of Health structures and ZRCS volunteers in schools and other public places; and developed behaviour change communication packages targeting youth, with a focus on hand hygiene.

Discussion

A brief period of open discussion touched upon a few themes.

Securing adequate funding for cholera work in Zambia is a chronic problem, especially for resource mobilization when no outbreaks occur. Zambia has worked to bring all actors in the elimination agenda together under a shared vision, securing their buy-in and then producing a calendar of activities. Many of these are aimed at eliminating cholera. Issues around leadership and coordination have been identified and addressed by making the National Task Force the pivot for all cholera activities; once that is done and the necessary groups around the country are operationalized, work can take place

with partners on specific activities without waiting for outbreaks. To implement this approach, support is needed. This is where partners are important.

With a bit more investment it will be possible to eliminate cholera in Zambia. This is already evident from what has been achieved so far. These achievements can used as basis for continued advocacy and lobbying for more resources. With the right advocacy, evidence and resources, and with strategic work to reach out to decision makers, it should be possible to establish and maintain a flow of investment into the cholera space.

The systems established in Zambia are multisectoral. The approach to achieving this multiculturality has been to identify sectors, line ministries and agencies to work with; to develop terms of reference for working groups; and to give specific agencies and ministries responsibility for chairing those working groups. One good example is WASH: this group is chaired by the Ministry of Water, which has a clear relevant mandate. For other areas – risk communication, surveillance, case management, etc. – specific people have been appointed to working groups from different sectors, ministries and/or partners. Meetings take place (currently virtually) to examine the progress of the working groups, and if there are areas of inactivity these are investigated, and the relevant actors engaged.

The MCEP is crucial to all this. It outlines how each working group is meant to function – for example, to manage outbreaks and outbreak response teams, a case management working group has been established with a roadmap of what needs to be put in place, and work has begun to review technical guidelines on cholera control and ensure that teams in the field have the right protocols. Work is ongoing with teams in the health sector, and multisectoral cholera elimination plans have been distributed along with the necessary explanations and support, thereby exposing necessary stakeholders to the protocol and ensuring they are up to date. A multisectoral approach is the backbone of successful implementation of the MCEP. This has been apparent from the beginning. From the zero draft of the plan to its completion, all relevant stakeholders were included in its development and it was clear that they would play a critical role. No issues were foreseen, therefore, with mobilizing these sectors to play their role in implementation of the plan.

Financing remains an issue, including how much central government is ready to allocate from local resources as compared to donor funds. If more financing from local resources can be secured, the sustainability of the plan will be assured and national cholera elimination by 2025 will be a realizable goal.

Closing statement

***Philippe Barboza**, GTFCC*

It is always refreshing to have an illustration of progress accompanied by openness about the things that still need strengthening. Such insights are interesting and useful for others. All of us are learning by doing, and it is important to continue in this way.

There is an opportunity for all of us to document the impact of what has been done, wherever we are working. It is important to show progress, to show the risks that are there. No country is an island. In terms of advocacy and securing continued investment and progress, Zambia is a good example of hard work at several levels. Funding is always an issue and the need for advocacy will never be over, but it is of great importance. WASH is the long-term solution for cholera control.