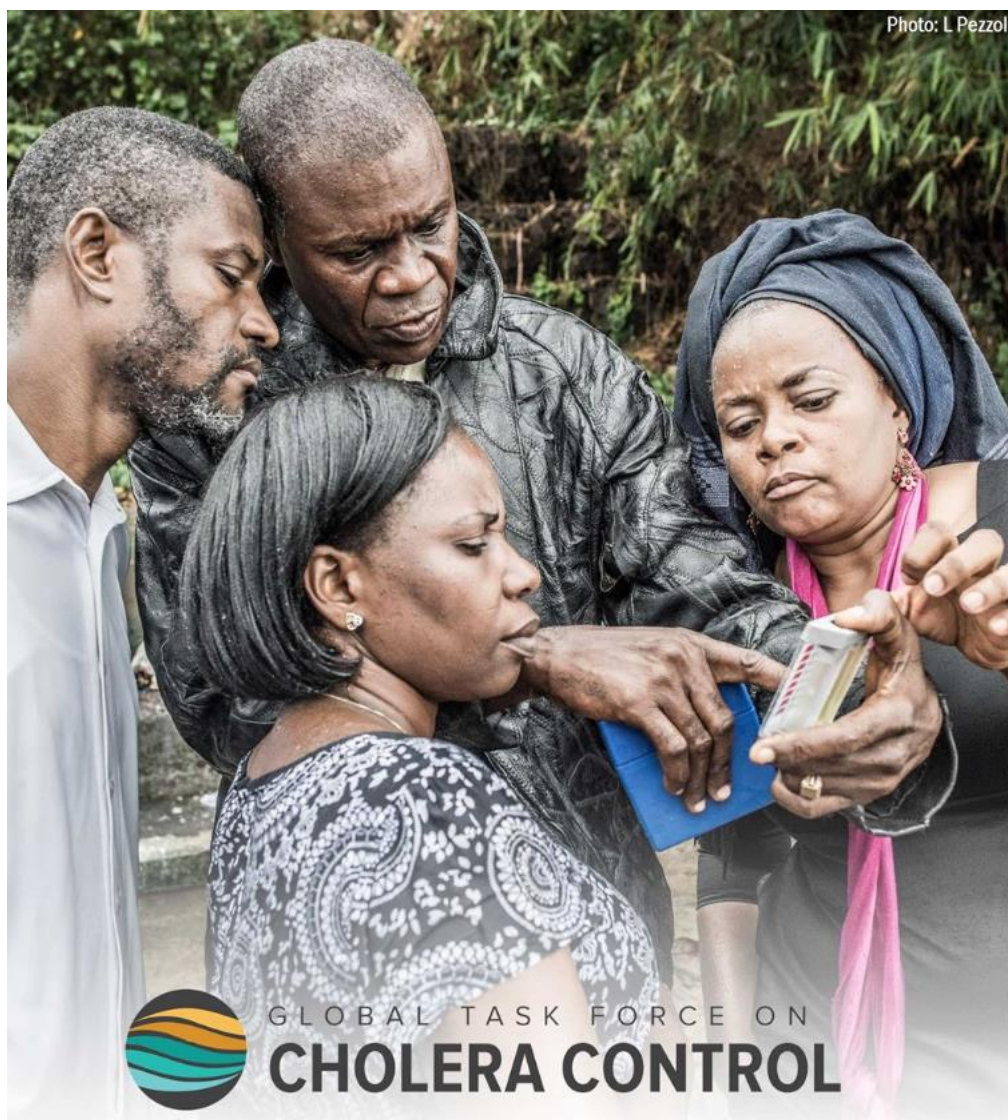


GTFCC World Health Assembly side event

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Online



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Abbreviations

CHoBI7	Cholera Hospital Based Intervention for 7 Days
GTFCC	Global Task Force for Cholera Control
icddr,b	International Centre for Diarrhoeal Disease Research, Bangladesh
ICG	International Coordinating Group
IFRC	International Federation of Red Cross and Red Crescent societies
MSF	Médécins sans Frontières
NCP/NCCP	national cholera control plan
OCV	oral cholera vaccine
ORS	oral rehydration salts
RDT	rapid diagnostic test
SDC	Swiss Agency for Development and Cooperation
SDGs	Sustainable Development Goals
US CDC	US Centers for Disease Control and Prevention
WASH	water, sanitation and hygiene
ZNPHI	Zambia National Public Health Institute

Introduction

The meeting opened with an introduction from the chair of the Global Task Force for Cholera Control (GTFCC), Frew Benson, and a video message from WHO Director-General Dr Tedros Adhanom Ghebreyesus.

The past year has been hard for everyone. COVID-19 has placed a huge strain on financial and human resources and put cholera elimination at risk. In many cholera hotspots the effects of the pandemic have meant a decrease in access to essential health services including oral cholera vaccine (OCV). But the resolve of some ministries, partners and communities to meet the challenges of the pandemic while continuing the fight against cholera has been inspiring. Countries have adapted. Some have managed to carry out COVID-19-safe immunization campaigns in hotspots. Others continue to prioritize safe water, sanitation and hygiene (WASH), helping limit spread of cholera and many other infectious diseases as well.

Like COVID-19, cholera disproportionately impacts marginalized communities. But unlike COVID-19 it has been eliminated in many countries in the global north for 150 years. It is truly a disease of inequity, suffered mainly by those left behind – who are also the majority of the world’s population. While the tools to end cholera exist, progress must be accelerated, improving those tools and how they are deployed, if the targets of the GTFCC roadmap (*Ending cholera: a global roadmap to 2030*¹) are to be met. Accordingly, the theme of this event is “evidence to action.”

The key accomplishment of the past year was the launch of the roadmap research agenda. Developed in an inclusive transparent process involving 177 experts in a variety of roles from all sectors across 30 countries, this agenda will greatly boost work on more effective, efficient and sustainable tools and solutions to help affected communities fight cholera better, faster and at lower cost. With this in mind, multisectoral interventions in hotspots must be a priority for future investment.

Dialogue 1: the critical importance of cholera surveillance as a basis for action

Facilitator: Mark Gestellu-Etchegorry, Epicentre

This discussion looked at how surveillance is foundational to all aspects of cholera control. A great deal of progress has been made in recent years, enabling communities and experts around the world to be more reactive in investigating and confirming outbreaks. No one tool is perfect, so a combination of the right tools and the right timing is needed for sufficiently quick results.

Surveillance strategy is centred on cholera hotspots, which account for 90% of global cholera cases in the world. But there is a need to improve the definition of hotspots. While a greater range of tests might allow the detection of more cases in advance, this is not the only objective in improving surveillance. Better detection allows better targeting of WASH and cholera prevention and immunization strategies, thereby saving lives.

¹ <https://www.gtfcc.org/wp-content/uploads/2019/10/gtfcc-ending-cholera-a-global-roadmap-to-2030.pdf>

Dr. Chikwe Ihekweazu, Nigeria Centre for Disease Control

For years, the Nigeria Centre for Disease Control did cholera surveillance using paper- and Excel-based systems. As a result, surveillance was too slow for effective action. In addition to slow reporting, Nigeria also faced diagnostic challenges, with only a handful of laboratories able to confirm cholera cases. As a result, most cases were unconfirmed or reported late, and resources and information to guide action were limited.

Over the past few years surveillance has been improved using a digital case-based system known as SORMAS, which reduces time between detection and outbreak investigation and response. Event based surveillance has been strengthened using traditional methods, social media and other means. Healthcare workers at facility and local government level have been trained in outbreak investigation and response. Laboratory testing capacity has been improved, strengthening the capacity of healthcare workers to collect samples by training them with videos demonstrating collection, packaging and transportation. A new forecasting system has been put in place to improve procurement. Research has also been improved using a combination of quantitative and qualitative research and systematic reviews. A large cholera outbreak in 2018 was documented and a study done to understand the drivers of transmission, which emphasized the importance of a multisectoral approach to prevention and control. In the northwest of the country a reactive vaccination campaign was carried out, achieving high coverage despite regional conflict and political insecurity.

Despite all these efforts, challenges remain. Collaboration with the environmental and water sectors for prevention could be improved. The global shortage of OCV limits the potential speed of reactive vaccination campaigns when clusters are detected. Finally, there is a continuous need to build up the necessary amount of human resources and capabilities. Nigeria is aware of these challenges and is working hard to meet them.

Myriam Henkens, Médecins sans Frontières (MSF)

Surveillance plays an important role in Médecins sans Frontières' work to operationalize the cholera roadmap.

The Roadmap has three strategic axes: early detection and quick response; a targeted multisectoral approach to prevent recurrence; and coordination of technical support, advocacy, resource mobilization and partnership. Surveillance is needed for all three.

Surveillance based on diagnostic confirmation is currently done in laboratories, and there is still a widespread need for available, affordable, quality-assured rapid diagnostic tests (RDTs) suitable for real field conditions. These could complement the work of laboratories and allow decentralised confirmation of outbreaks. RDTs would also permit fast outbreak detection and facilitate timely response so that the International Coordinating Group (ICG) mechanism could be triggered quicker and more effectively, improving and accelerating delivery of vaccines in comprehensive responses to contain outbreaks as soon as possible.

Surveillance is also key in identifying hotspots, which are often the source of outbreaks in larger cities. Improved surveillance is needed to identify these hotspots and prioritize and quantify their needs, providing the basis for additional analysis to design, adapt and balance other elements of response, such as WASH and OCV campaigns. It is also mandatory as a basis for setting priorities when there are competing needs, ensuring the best use of available resources to end cholera.

Finally, surveillance is key to measure the impact of global strategy. Proper, informed assessments of global and country impact are needed to evaluate interventions so the successful ones can be replicated and cholera is no longer a public health threat.

[Chris Braden, US Centers for Disease Control and Prevention \(US CDC\)](#)

Surveillance is the bedrock of public health. Estimates of burden of disease, outbreak control and metrics of success are all based on surveillance data. US CDC works as a technical support agency alongside WHO, ministries and others to build public health capacity in the global community. Staff in over 60 countries and headquarters work on public health capacity enhancements that start with laboratory and surveillance programmes. There are many ways in which the US CDC invests in laboratory and surveillance systems around the world to support work to end cholera.

In one example, US CDC supported the response to an outbreak of cholera in Haiti in 2000, in which laboratory and surveillance capacity were established that are now used for other things as well. Cholera was controlled, and now the task is cholera elimination – which also requires intense surveillance efforts.

US CDC has helped the response to cholera outbreaks in Latin America in the past few decades, supporting surveillance in affected countries while training unaffected countries in fast detection and confirmation to allow quick response and control. There are important conversations to be had in all countries about investing in preparedness, planning for change and investing in practices to build capacity, train new staff and carry out competency assessments.

US CDC also supports environmental surveillance, which tends to focus on ensuring that drinking water has sufficient chlorine and is free from contamination. This is important in protecting not only against cholera but also other waterborne diseases.

It is impossible to build capacity without workforce development, and so US CDC supports epidemiological and laboratory training programmes in many countries. Training protocols have been established for culture-based identification of *Vibrio cholerae*, microbial susceptibility tests and laboratory quality assurance and best practises. US CDC also routinely includes hands on training for the contextual use of RDTs. Despite their current limitations – such as relatively poor sensitivity and specificity – rapid diagnostics play an important role in surveillance and outbreak detection.

Laboratory networks in surveillance programmes require adaptive data systems, so US CDC has worked with WHO and ministries to invest in the development and enhancement of

health information systems in countries. These systems can provide critical human resources and tools for cholera surveillance and response programmes.

Country spotlight: Democratic Republic of Congo – Resilience in the Face of COVID-19

Hon. Dr. Jean-Jacques Mbugani Mbanda, Minister of Health, Democratic Republic of Congo

Democratic Republic of Congo (DRC) is taking a multisectoral approach to rapid detection and response, identifying cholera hotspots, and establishing a system to mobilize resources. In the last year this has not been easy, but despite the additional strains placed on the health system by the COVID-19 pandemic and concurrent outbreaks of measles and Ebola, DRC has conducted both reactive and preventive oral cholera vaccine campaigns targeting some of the most endemic zones in Africa.

The cholera response is multisectoral and is based on strategic plans elaborated by the Ministry of Health in collaboration with all relevant partners. It has been supported by a legal framework in place since 2015. Weekly meetings provide oversight and analysis of all outbreak and epi- and pandemic issues, and the national cholera plan (NCP) emphasizes the pillars of WASH and immunization. It is a challenge to get these sectors working effectively together. The experiences of DRC underline the importance of putting in place all the services and structures required for a multisectoral approach to work.

The minister thanked Gavi, the Vaccine Alliance and the GTFCC for their work on cholera hotspots in the country. Three of seven provinces have organized OCV campaigns over the past year in which, despite the pressures of the pandemic and other challenges, over six million people were vaccinated in a few months. Two more are about to take place, with over four million doses allocated to preventive campaigns.

Democratic Republic of Congo is seeking to lead by example on cholera, stressing the importance of WASH interventions and pre-emptive immunization in hotspots – and demonstrating the feasibility of the latter even in the context of COVID-19. The work of local communities in strengthening the response has been impressive, with NGOs, local governments and communities working hard in collaboration. Work remains to be done, and the NCP and the multisectoral approach both need further strengthening in order for the country to move towards eliminating cholera.

Dialogue 2: evidence and experience in implementing pre-emptive OCV campaigns

*Facilitator: **Charlie Weller**, Wellcome Trust*

There is robust evidence and country experience demonstrating that preventative OCV campaigns are both effective and cost-effective. While OCV is not a long term solution, it offers a critical window of opportunity to improve WASH services. It takes effect rapidly and

works to prevent cholera for up to three years, effectively bridging emergency response and longer term cholera prevention.

There are currently two WHO approved oral cholera vaccines that are safe, effective, inexpensive and easy to deliver. A person can be fully vaccinated for just five US dollars. With the support of GTFCC partners including the Bill and Melinda Gates Foundation and Gavi, the Vaccine Alliance, the number of delivered doses of OCV increased from just over 200 000 in 2013 to more than 23 million in 2019.

However, even more OCV production is needed to meet the goals of the global roadmap. GTFCC partners are engaging continuously with producers to ensure this critical need is met. In the meantime, there is important work to be done to ensure that the OCV doses that we do currently have are used to best effect. A central part of this task is the use of evidence to inform and adapt vaccination campaigns.

This dialogue was an opportunity for country representatives to share their experiences in implementing preventative campaigns and explore how evidence provides a basis for global action.

[Seth Berkley, Gavi, the Vaccine Alliance](#)

Gavi is engaged in improving global health security in different ways around the world, with the final aim of reducing the global burden of outbreaks. This support includes the financing of the OCV stockpile for emergency response as a means of further decreasing the risks associated with Cholera outbreaks.

In 2018 the Gavi Board approved extended support for preventive vaccine campaigns in hotspots as part of the new vaccine investment strategy. This additional support includes OCV as a key component of the multisectoral approach promoted by the roadmap.

Critical elements that the Gavi board considered when taking this decision included the scientific evidence establishing the safety, efficacy, and cost-effectiveness of oral Cholera vaccines, along with improved understanding of the burden of cholera disease and its geographical distribution and disparities. The power of data and evidence remains fundamental to Gavi's approach to disease control. To strengthen this approach, more evidence is needed to understand how to use OCV for maximum impact – establishing, for example, how often vaccination is required to avoid transmission while WASH interventions are put in place to ensure long lasting control; or how best to integrate OCV with other health interventions, including other immunization activities, to contribute to the overall improvement of the health status and wellbeing of the world's most marginalized and deprived communities.

Gavi is proud to play a central role in the roadmap, and pledges to keep working with countries as they strive to sustain gains towards a healthier future.

Stephen Sosler, Gavi

As already stated, Gavi is working to improve global health security and firmly believes in the power of data and evidence as a foundational principle to define public health priorities; and scientific evidence and data underpinned the Board decision to extend support for preventive OCV in Cholera hotspots.

Current oral cholera vaccines are safe, effective, easy to administer and well accepted by recipient populations, as evidenced by well-designed scientific studies in several locations over the last decade. Well documented experiences from countries that have used OCV are helping to inform and refine the best ways to use it – a fact well reflected by many of the examples in this forum. Gavi’s accumulated knowledge, together with financial and technical support to cholera affected countries, has allowed a steady increase in the use of OCV in past years, with more than 80 million doses administered since the creation of the global stockpile in 2013.

It is important to recognise that despite these achievements, there remain significant challenges in ensuring that OCV is used optimally as part of the road map’s multisectoral approach. These challenges include competing priorities, a problem exacerbated by the COVID-19 pandemic. In some instances this has resulted in a deprioritization of OCV planning, while in others the question is raised as to why standalone OCV campaigns are not better leveraged as a platform for integrated delivery of other essential health interventions, including other lifesaving vaccines.

Gavi’s new strategy, Gavi 5.0, uses equity as an organizing principle, aiming to leave no one behind with immunization. This is a prime opportunity to address some of these challenges, given the expectation that preventive OCV campaigns should benefit from multiyear planning and as such be better suited to integration with other immunization opportunities. Core to the principle of equity and Gavi 5.0 is the imperative to identify and reach persistently missed children and communities. These children are often located in populations that suffer multiple deprivations, including lack of access to safe WASH, and are at risk of exposure to cholera and other diarrhoeal infectious diseases. This is a clear opportunity to align elements of the roadmap with the objectives of Gavi 5.0, bringing more comprehensive approaches to healthcare service delivery with the final aim of improving health outcomes. To achieve this, evidence generated through methodologically robust monitoring and evaluation activities remains key. Such evidence will allow the adjustment and optimization of vaccination policies to ensure appropriate timing of re-vaccination to manage the risk of cholera transmission while continuous gains are made through long lasting WASH improvements.

Gavi reiterates its partnership with countries and the GTFCC to continue coordinated work to counter the threat of cholera to the most marginalized.

Godfrey Bwire, Environmental Health Officer, Uganda Ministry of Health

Between 2013 and 2016 the Uganda Ministry of Health and its partners commissioned a series of studies to guide a five-year NCP, the findings of which identified cholera as a major problem – affecting some communities more than others, with clear hotspots. Affected communities

tended to have low WASH access, and cholera was spreading. In 2017 the NCP was launched, aligned to the GTFCC roadmap, with the participation of national stakeholders across multiple sectors. Following the NCP, in the last three years over three million doses of OCV have been administered in Uganda in both reactive and preventive campaigns. Priority is given to cholera hotspots that are home to vulnerable communities, and these priority districts were determined through hotspot analysis and formalized in a national workshop in January 2018. Preventive OCV campaigns in Uganda followed a 2018 stakeholder meeting to scale up the implementation of the activities in the NCP, in which a three-phase introduction of OCV covering 11 cholera hotspot districts was agreed. All 11 hotspots have now been covered. Vaccine coverage has been high and no cholera outbreaks have been reported in vaccinated areas after the campaigns.

Good results and the lack of outbreaks in vaccinated areas have so far affirmed this strategy. No recent outbreaks have been reported anywhere in the country, even though historical data suggests one should have been expected in April 2021. COVID-19 has affected the response to some extent, but has also provided an opportunity to use WASH interventions to strengthen preparedness.

In 2022 Uganda will develop a second plan for the period to 2030. Many improvements have been made to the national cholera situation since 2017, but more could be achieved if all countries in the region also targeted cholera intervention. Cross border outbreaks and outbreaks among refugees remain an important problem, and additional support is needed from WHO and others to address it. Integrated use of OCV to complement WASH is a good mid-term measure that should be widely promoted in high-risk countries.

Wiseman Chimwaza, Environmental Health Officer, Malawi Ministry of Health

Malawi has been reporting cholera cases yearly. To appreciate how effective OCV has been in targeted areas, it is only necessary to look at data for the last three years. In 2017-18 there were 939 cases in the country; in the following year, 26. In 2019-20 there were three cases, and this year there have been only two. It is five years since there has been a case in the area around Lake Chirwa, where they used to be common, and there have been no cases at all in districts where OCV has been administered – nor have there been any so far in people who have received OCV. This is clear evidence that the vaccine has been effective.

As with Uganda, cross border cases and transmission remain a problem: in most outbreaks, many cases, including index cases, are from neighbouring countries. It is therefore very important to have effective collaboration with neighbouring countries on cholera interventions. OCV campaigns in Malawi should also cover border districts in neighbouring countries – as should other cholera interventions, such as WASH access. If that can be achieved effectively, outbreaks will be contained not only at home but also next door.

Dr. Carole Mable Tevi-Benissan, Immunization Agenda 2030, WHO

The new GTFCC research agenda is trying to expand on what has been learnt so far and ensure that nobody is left behind, whatever their stage of life. The cholera action plan for the past ten years increased the visibility of vaccination, strengthened political will at the highest

levels, and raised awareness of the importance of having good quality data; but it has only partially influenced countries' actions and partner activities, which are not always perfectly coordinated. As a result, every year 20 million babies do not receive a complete series of vaccinations. Among these more than 13 million do not receive any vaccination at all. These groups are disproportionately made up of people in culturally and socially isolated areas, migrants and those affected by conflict.

The Immunization Agenda 2030 envisions a world where every individual, wherever they are, of whatever age, receives the full health and wellbeing benefits of vaccination. Immunization reaches more people than any other health or social service. It benefits individuals, communities and countries, and it is an investment in the future by saving lives, protecting the health of populations, improving the productivity and resilience of countries and ensuring a safer, healthier and more prosperous world.

Extension of vaccination to all age groups will necessitate major changes in vaccination programmes. The agenda 2030 requires adaptability in community services, strategies targeting equity and collaboration with primary healthcare, high vaccination coverage and universal WASH. Reinforcing partnerships is crucial: vaccination is a more and more integrated affair involving collaboration with partners inside and outside the health sector. To support this, WHO has published a number of guides on integrating activities and gaps in vaccination.

[John Rumunu, South Sudan Ministry of Health](#)

Oral cholera vaccine campaigns have been conducted in South Sudan since a year after independence was achieved in 2011, since when South Sudan has deployed over 3.8 million doses of OCV in 45 campaigns covering populations in 23 out of 80 counties. The first OCV campaign in the country was among refugee populations and took place between December 2012 and February 2013, protecting approximately 160 000 people. The majority of the 45 OCV campaigns since the creation of the OCV global stockpile in 2013 have been two dose campaigns. Half of these were carried out in camps for internally displaced populations or refugees, areas with high concentrations of people and a lack of basic services such as water and sanitation, making the risk of cholera infection particularly high. Until 2016, all of South Sudan's requests to access the OCV global stockpile were emergency use requests addressed to the ICG. During 2017 there was an extensive use of OCV, mostly because of a major cholera outbreak across vast areas of the country. OCV is believed to have been a fundamentally important reactive tool in controlling that outbreak.

It was then, in 2017, that South Sudan prepared a more comprehensive plan to control cholera that included pre-emptive use of OCV. A request for 2.1 million doses was addressed to the GTFCC, and those doses were deployed as a preventive measure targeting hotspots throughout the country. The deployment of cholera vaccines alongside other measures contributed a 2019-20 period with no new confirmed cases at all – but most campaigns in hotspots carried out in 2017 and 18 are reaching or have now reached the end of their three years of expected protection, and populations previously protected from outbreaks are now vulnerable again, since underlying risk factors have not been addressed. OCV therefore remains an appropriate intervention in South Sudan.

Charlie Weller, Wellcome Trust

The GTFCC research agenda identifies the most important research questions which, when answered, will have impact significantly on the ability to prevent and control cholera. The Wellcome Trust was pleased to be able to support it. The agenda can be downloaded at gtfcc.org, and all are encouraged to read it in light of how it might best serve different organizations' goals. In the future, the agenda can serve as a cornerstone for research for donors, policymakers and programme implementers alike, maximizing the impact of research investments and helping fight cholera more effectively, faster and at lower cost, bringing us all ever closer to the goal of ending cholera on this earth.

Zambia: a model of multisectoral action

Zambia has been a champion of national cholera control, taking a multisectoral approach through an NCP enacted by the President's office that provides the foundation for cholera control efforts across each relevant sector in the country, and which stands as one of the best current examples of long term community based investment in eliminating cholera.

In 2018 Zambia adopted the goal of eliminating cholera nationally by 2025. National cholera control plans are in line with the global roadmap, with the overall aim of to reducing cholera morbidity and mortality by 90%. To achieve this, the national approach is organized along three axes: quick detection and response to contain outbreaks early; a multisectoral approach to prevent cholera in hotspots; and an effective mechanism of coordination for technical support, resource mobilization and partnership at local and global levels.

A multi-sectoral cholera elimination plan has been launched that provides leadership and coordination for cholera control and step-by-step guidance on how to improve case management. High level political leadership comes from the office of the Vice President, and the President is also heavily involved. A Cholera Case Management Technical Working Group and a technical focal point have been established, and a case management implementation plan has been prepared with a budget, activities and strict timelines.

Following a multisectoral approach to cholera response, health systems have been strengthened to ensure the availability of trained human resources. The Ministry of Health has been given special treasury authority to employ key staff; Rapid Response Teams (RRTs) have been set up at national and subnational levels; cholera case management teams have been formed in each hotspot; and trainings on cholera detection and clinical management have been conducted (and are ongoing) for RRTs at national, provincial and district levels. Measures have been taken to ensure the availability of adequate equipment for effective management of cholera patients, including through a procurement plan and budget for equipment and supplies for cholera treatment centres in all hotspots. Transport—previously a significant barrier—has also been addressed, with plans to provide each cholera hotspot with at least one vehicle and two motorcycles and/or boats for cholera control.

Community cholera case management has been strengthened in a number of ways. These include community participation in case identification and management at household level;

training, onsite mentorship and technical supervision of community health workers on preparation and use of oral rehydration salts (ORS); establishment of “oral rehydration corners” at strategic points in communities; support of community based volunteers by partners including the Churches Health Association of Zambia, OXFAM, the Red Cross and UNICEF; door-to-door outreach work including giving out ORS and sensitizing churches, markets and schools; and health promotion activities to enhance community case management through posters and brochures, TV and radio, and messaging through public addresses, drama, and adverts.

Work has been done to strengthen infrastructure and boost early access to effective patient care, including by planning and designing well-equipped, gender sensitive cholera treatment facilities in all districts in the country; building prefabricated treatment facilities for hotspots; and identifying and renovating existing structures as treatment facilities.

Moves have been made to secure emergency cholera supplies, prepositioning essential medical supplies and other consumables in all hotspots and supplying some with emergency cholera kits; establishing and maintaining buffer stocks of essential supplies at all health facilities at district and provincial levels; ensuring adequate emergency stocks at national level to replenish stocks at lower levels once exhausted; and ensuring that all health facilities have set up oral rehydration points.

Laboratory testing and confirmation have been improved, with all 10 provincial hospitals and other general hospitals now able to do culture for cholera confirmation; laboratory staff trained in cholera culture; microbiology equipment installed; and quarterly technical support supervision provided to hotspot districts. This has been supplemented with improved courier facilities for sample referral to testing sites.

Early detection and reporting of cholera cases have been boosted by improved acute watery diarrhoea (AWD) surveillance, the designation of two surveillance officers per district, and the training of further surveillance officers and community health workers in event- and community-based surveillance.

Despite all these measures and initiatives, challenges remain. Significant among these are the following:

- Inadequate partner support for cholera control
- A lack of transport for sample transportation, especially marine and motor vehicles
- Inadequate human resources
- Myths and misconceptions among members of the public that affect cholera case management, and poor health seeking behaviour
- Inadequate medical supplies for cholera case management
- A lack of transport to bring patients to treatment facilities, exacerbated by a poor road network: many roads are inaccessible by vehicle, especially in the rainy season, and some areas can only be accessed using expensive air or water transport.
-

Pamela Chisanga, Zambia Country Director, WaterAid

WaterAid works closely with the Zambian Ministry of Health and the Zambia National Public Health Institute (ZNPPI) on cholera, contributing to a collective effort that has resulted in a number of national achievements. The reason for the successes that have been achieved is the close collaboration of various stakeholders in the country across different sectors including health, education, water, sanitation and nutrition.

Coordination has been crucial. When the cholera elimination plan was developed, WaterAid worked with ZNPPI and the Minister of Health to coordinate the inputs of various sectors to implement the plan. The Vice President was asked to help establish a coordinating framework for implementation of the NCP. A coordinator was appointed and a coordination platform was established.

Recognising that WASH issues are significant drivers of cholera in the country, the NCP is about 70% focussed on WASH interventions. As a result, the Ministry of Water and other WASH actors have supported implementation in various ways, and there is great interest from other stakeholders to support different components of the plan.

Zambia has now not had an outbreak since 2019. This has been an opportunity to implement key aspects of the NCP. Unfortunately, however, the NCP is not resourced through the national budget. In response, different actors interested in implementing the plan, or seeing it implemented, have engaged ministries and government departments that are part of the coordination mechanism to investigate how to support implementation. Implementation so far has essentially been through different government line departments and ministries that have identified specific interventions that can contribute to the plan and implemented them. Regular meetings are held for different actors to update one another on in order to avoid duplication. ZNPPI has played a key leadership and coordination role, driving implementation of the plan even in absence of a national budget to implement it.

In the future, to ensure that coordination is not just at national level, work is being done to filter the coordination mechanism down to district level and investigate systematic ways of integrating the interventions in the plan. As the country goes through the development of its eighth overall national development plan, the opportunity will be taken to integrate cholera across different relevant sectors. Because the plan has clear indicators, progress on implementation can be clearly tracked.

COVID-19 prevention has been examined to see how aspects of cholera elimination can be integrated into COVID-19 interventions, using different platforms and linking with other structures so that cholera work is not too affected by the pandemic. Having achieved two years without cholera it is important not to lapse. Every opportunity is therefore taken to integrate aspects of cholera with other areas using existing structures, working with schools and integrating cholera in existing work to minimise costs and make it easier to roll out different elements of the plan.

WASH and community engagement in cholera hotspots – bringing evidence to action in households, healthcare facilities and communities

Facilitator: *Firdausi Qadri, International Centre for Diarrhoeal Disease Research, Bangladesh (icddr,b)*

673 million people around the world still practise open defecation, and waterborne diseases are a global problem. Climate change and population growth in many settings are likely to exacerbate it. In this context, it is absolutely essential to sensitize decision makers and continue to advocate for adequate resources to achieve cholera targets in NCPs. Quick intersectoral action is needed at country, regional and global levels to fight cholera. We have lost time due to the COVID-19 pandemic, which has set back vaccination, WASH efforts and other cholera elimination efforts around the world. In Bangladesh, for example, a large vaccination project was unable to administer second doses because of the pandemic. Investment in WASH services, infrastructure supplies and training and innovative tools are needed to meet the goals of the road map and end cholera by 2030.

Tim Wainwright, WaterAid

WaterAid is proud to be part of the GTFCC, and proud to be the new host of the WASH Working Group, a role inherited from UNICEF. Water, sanitation and hygiene is the long term solution to cholera – something that has been known for over 100 years. But global statistics, such as the fact that three billion people are unable to wash their hands at home, illustrate a widespread problem in terms of WASH access. Recent studies also show that the current level of investment in this area is far too low to meet the Sustainable Development Goals (SDGs). Following current trends, SDG6 in particular – “ensure availability and sustainable management of water and sanitation for all” – is nowhere near being met by 2030. Getting sufficient political attention and finances to provide WASH for all, especially in the poorest countries in the world, is a major global problem. More action is needed.

More can be done on cholera, in a targeted way. The work of the GTFCC on hotspots suggests a way of tackling this task in the shorter term. Good targeting provides a better return on investment, allowing far greater cost benefit ratios for WASH interventions. Added to this good news is the crucial role that can be played by OCV. Vaccination is not a long term solution, and it is well known that the long term underlying causes of cholera can only really be tackled through WASH; but OCV can buy time to get those longer term interventions in place. Targeting is key: if targeting is improved, goals become much more affordable.

To make any of this happen, political will is needed. Encouragingly, there have already been several great examples – not least that of Zambia. In many settings, action is being taken. The GTFCC has a roadmap; with targeting, there is a clear pathway for it to succeed.

Simone Carter, UNICEF

UNICEF is working across multiple studies, agencies and actors to use evidence better and reinforce community based programmes. In DRC, for example, multiple actors are working on

different types of cholera studies and data sources. Over the last 6-7 months these stakeholders have worked together to improve the use of data in long term strategies and in real time action. Workshops are held at which stakeholders introduce their tools and approaches to one another, so that when – for example – a household survey is required, it can be contributed to by all relevant parties, ensuring that everybody uses the same tools and data sources for action in real time, and ensuring that data is comparable. The overarching goal is to bring those actors together to improve real time use of data and give that back to communities so they can adapt community based interventions.

UNICEF collects and analyses that data then sends it back to local communities and Ministry of Health actors so they can take action at local level – for example by establishing ORS sites, reinforcing healthcare, identifying areas where communities are unaware that treatment is free, etc.

Another good practice in this approach to operational analytics is that all UNICEF's tools and data are available online via the ministry of health and other actors, free for use to assist in defining interventions.

[Aninda Rahman, National Diarrhoea Control Programme, Bangladesh](#)

The National Diarrhoea Control Programme is relatively new, in existence since 2017. Bangladesh developed and approved its NCP in 2019, with all the relevant stakeholders and experts involved in the preparation process, collecting, analysing and reviewing evidence, research and international guidelines. The plan is now Bangladesh's main tool in the fight against cholera and diarrhoeal diseases. Bangladesh has a long history of successful engagement in cholera outbreaks, and these experiences were used to form a national plan and day to day activities – for example, community engagement was used to respond to an outbreak in April 2021.

Strategies for WASH and community engagement are laid out in this plan. WASH intervention is an important priority, with the targets based on the outcome of a range of studies. Bangladesh still has lots to do in this sector, and the effort will need to take into account people's unique perceptions and cultural practices. There will also be work required to ensure that WASH activities are evidence based and aligned with the work of other agencies active in this area. A nationwide WASH survey was done two years ago and has helped fix priorities, and other research groups active in this area have also been invited to discuss their findings.

WASH in communities is a multisectoral effort, and the work in this programme is coordinated with that of other departments in order to expedite activities. Dr Rahman's team is supervising a project to implement WASH in every hospital setting. This was based on a large survey, an expert review and the drafting of the necessary definitions and standards.

[Christine Marie George, Johns Hopkins Bloomberg School of Public Health](#)

The Johns Hopkins Bloomberg School of Public Health partnered with the International Centre for Diarrhoeal Disease Research, Bangladesh (icddr,b) to develop the Cholera Hospital Based

Intervention for 7 Days, or CHoBI7. This is a healthcare facility-initiated WASH intervention whereby health promoters visit patients' bedsides in healthcare facilities to deliver a WASH communications module on water treatment, handwashing with soap and safe water storage. This is later reinforced through home visits. In a randomized controlled trial of the CHoBI7 programme it was shown to reduce cholera significantly among household members of cholera patients, and to lead to sustained improvements in household stored drinking water quality and handwashing with soap practices 12 months post intervention.

Building on this, a further study partnered with the Bangladesh Ministry of Health and Family Welfare to develop scalable approaches to deliver the CHoBI7 programme across Bangladesh, using funding from the United States Agency for International Development (USAID); this led to the development of the CHoBI7 mobile health (mHealth) programme. Delivery of WASH through mobile health is a promising approach in Bangladesh, where over 150 million mobile phones are registered with the government and 90% of households have at least one active SIM card. The CHoBI7 mHealth programme builds on the previous version of the CHoBI7 programme by removing the need for home visits. This programme is initiated in the healthcare facility, where a health promoter delivers a WASH communication module to the patient and their accompanying family members, and provides them with a hygiene kit. Patient households are then sent weekly reminders of the promoted WASH behaviours by voice and text message over a 12-month period. The cost of delivering weekly mobile messages to patient households in Bangladesh for a year is USD 2. A recent RCT of the CHoBI7 mHealth programme demonstrated this intervention was effective in significantly reducing diarrhoea and improving child growth in patient households over the 12-month programme period. Results showed that mHealth is a promising, very low cost approach for delivering cholera control programmes, and the programme is now being scaled across Bangladesh. A further trial is being conducted on the impact of rapid response teams in hotspots. Work is also being done to evaluate CHoBI7 in a new setting in eastern DRC. A site was established in 2015 and a grant has been received to evaluate evidence based approaches to reduce cholera in hotspots in Bukavu. This includes formative research to develop a WASH intervention and a randomized control trial to assess its effectiveness.

[Emanuele Capobianco, GTFCC Country Support Platform](#)

The International Federation of Red Cross and Red Crescent societies (IFRC) is thrilled to have been selected to host the GTFCC Country Support Platform, or CSP. The CSP will provide multisectoral, technical and operational support as well as the advocacy, coordination and policy guidance required for countries to develop, fund, implement and monitor their NCPs, ensuring consistency and alignment with the global roadmap. The CSP is the new operational arm of the GTFCC, and will strive to provide support directly to cholera affected countries through two mechanisms:

1. Responding to ad hoc requests for support with multisectoral pillars of cholera control
2. Providing longer term country specific and tailored CSP support.

The second approach will require the integration of a CSP Platform Coordinator into countries' NCP structures. This approach will initially be taken in four countries, later expanding to 12.

The CSP has been established with the support of the Bill and Melinda Gates Foundation, through a grant to oversee an initial period of three years. It is important to show appreciation for the positive contributions from a number of different governments, global health organisations, academic bodies, national civil society organisations and others that have brought the CSP to where it is now.

Achieving the goals of the roadmap 2030 is no longer a question of how or if it can be done, but simply a matter of commitment. Great examples of such commitment and evidence informed approaches exist around the world – not least in the work of the panelists at this meeting. Researchers, implementers and funders need to continue working together to build on existing evidence, enabling tailored, multisectoral, multiyear interventions, at scale, to control and eventually eliminate cholera in endemic countries.

The IFRC remains committed to coordinating, advocating, mobilizing resources and generating evidence on cholera together with other GTFCC partners and donors. The IFRC will also continue to call for a prioritization of funding for SDG6 and SDG3 (“Ensure healthy lives and promote well-being for all at all ages”) to increase access to affordable, sustainable WASH and public health services in cholera hotspots as key pillars of the global road map. The IFRC pledges to provide ongoing technical assistance at national level to develop and implement NCPs, strategies and programmes to achieve the GTFCC’s goals to end cholera.

Altaf Musani, WHO

Cholera control is a very important subject, not only in affected areas, but also with regard to global health security. The world is at a critical moment of reflection as it faces the impact of the COVID-19 pandemic while still trying to deal with a range of other global health concerns, and particularly that of cholera.

The newly established Country Support Platform is a vital part of the overall structure of the GTFCC, complementary to the work of the current Secretariat.

The GTFCC itself is critical not only for ensuring that support gets to countries, but also to ensure that that support is coordinated and provides systems for monitoring and evaluation of all implementation of country cholera plans. With this in mind, along with the continued development of NCPs around the world and in response to the calls of cholera affected countries for additional technical assistance, the GTFCC established the CSP in October 2020.

The GTFCC Secretariat is hosted by WHO and plays a central coordinating role, including preparing and proposing strategic priorities, convening global partners, coordinating technical working groups and ensuring the development of guidance and standards to inform and coordinate support to countries in their strategies to fight cholera. The key strengths and added value of the CSP will be in its proximity to countries and its agility. It is designed to complement the Secretariat’s coordinating role to achieve its aims through the increased implementation of evidence based strategies to control cholera. The vision of the GTFCC is a united group of partners and countries efficiently pooling their strengths and resources,

supported by a task force able to respond quickly to countries' needs in order to achieve the common goal of ending cholera.

Duncan Steele, Bill and Melinda Gates Foundation

The resilience of countries in the face of the COVID-19 pandemic is inspiring. Nurses, clinicians, programme staff and community health workers around the world have had to endure great hardship and power throughout. These are the heroes of the hour. They deserve profound gratitude. The worldwide fight against cholera should follow the example of their work against COVID-19.

The Bill and Melinda Gates Foundation has supported efforts to control cholera since its inception approximately 20 years ago, including through investment in the development of vaccines and studies to understand cholera epidemiology.

Cholera vaccines are successful tools that can save lives. They provide a short term opportunity for countries to curtail the impact of cholera while investments in systems and infrastructure are put in place to control waterborne diseases in the long term. The world has made tremendous strides in the use of cholera vaccines: through the GTFCC and the Gavi stockpile, over 100 times more vaccines have been utilized by countries in the last seven or eight years than previously. The CSP is a logical and necessary development of these collective efforts to support cholera control.

COVID-19 has caused millions of deaths and diverted resources, personnel and attention away from essential health services, including cholera vaccination efforts. The CSP has a critical function in the GTFCC partnership. The ancient problem of cholera needs modern, innovative solutions, including flexible mechanisms to support affected countries like the CSP. In the IFRC the world also has a rigorous, sophisticated partner ready to scale up this mechanism to meet the multisectoral needs of cholera affected countries.

Other donors should take advantage of this opportunity and invest in interventions in cholera hotspots through the CSP. WASH offers a long term solution to cholera epidemics. Cholera vaccines can act as a bridge to elimination while the resources for WASH are found and implemented in countries. Investment is also needed to fill significant funding gaps in national surveillance, diagnostic and laboratory capacity.

The CSP has is building its teams and regional hubs, looking forward to a world in which cholera, COVID-19 and all other vaccine preventable diseases are no longer a threat to public health – a world that protects the most vulnerable people and offers renewed opportunities for health and prosperity.

Stuart Vallis, Swiss Agency for Development and Cooperation

The Swiss Agency for Development and Cooperation (SDC) has chosen to support the CSP because it is an innovative, multisectoral model working across that offers a potentially sustainable, comprehensive response to cholera, working with and through government bodies. Importantly, it brings WASH and health interventions closer together, and recognizes

that the environment and environmental health are fundamentally important to the health of populations. These qualities are aligned with the kind of support that the SDC can provide.

The first type of support is as a donor, with the SDC providing financing initially over three years, but with a longer term agreement in place to provide support for ten. The second form of support is through secondments: the SDC has a large group of WASH experts who are available to go on missions, with one such expert already seconded to WHO to assist the GTFCC WASH programme and the possibility of funding for two more to be deployed to field positions. The third kind of support is through the Swiss Federal Institute of Aquatic Science and Technology, which has a great deal of experience in research and innovative WASH approaches for sanitation and solid waste management that will be used to provide technical support to the CSP, including through training for sanitation.

In the last 20 years the field of WASH has changed greatly. Much more work is now required in urban settings, calling for a greater level of technical support. It is no longer the case that WASH is easy to understand; it is now a highly technical environment, in which experts must engage in a range of different fields of expertise to deal with wash issues in urban settings.

Closing: Frew Benson

The GTFCC is ready to support countries as they take bold action to eliminate cholera within their borders. The world is looking to global health actors and WASH owners to bring the necessary resources to bear to eliminate the threat of Cholera. We have seen that it can be done. It has already been done, mostly in the countries of the global north.

Contributions of all sizes are urgently needed in the fight to end Cholera. Donors' contributions could range from funding a Country Support Officer in a new country to funding a country's national cholera elimination plan.

The GTFCC also calls on all Ministers of Finance and national decision makers in all cholera affected countries to allocate domestic resources to this fight. The benefits are clear: investing in WASH in hotspots increases the return in investment from fourfold to tenfold.