



REPORT OF THE

7TH MEETING OF THE GLOBAL TASK FORCE ON CHOLERA CONTROL WORKING GROUP ON WATER, SANITATION & HYGIENE (WASH)

9-10 March 2022 | Online & Les Pensières Conference Centre,
Annecy, France

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Acronyms and abbreviations

ACTQ	Quadrillage technique
AMCOW	African Ministers' Council On Water
CATI	case-area targeted intervention
CE	community engagement
CFR	case fatality rate
CI	confidence interval
CSO	civil society organisation
CSP	GTFCC Country Support Platform
CTC	cholera treatment centre
DRC	Democratic Republic of Congo
EOC	emergency operations centre
FCR	free chlorine residual
GTFCC	Global Task Force on Cholera Control
GTO	German Toilet Organisation
HHWT	household water treatment
icddr'b	International Centre for Diarrhoeal Disease Research, Bangladesh
ICG	International Coordinating Group
IDP	internally displaced people
IDSR	infectious disease surveillance and response
IEC	information, education and communication
IFRC	International Federation of Red Cross and Red Crescent societies
IPC	infection prevention and control
JMP	Joint Monitoring Programme
LSHTM	London School of Hygiene and Tropical Medicine
M&E	monitoring and evaluation
MSF	Médécins Sans Frontières
NCP	national cholera plan
NFI	non-food items
OCV	oral cholera vaccine
ORP	oral rehydration point
ORT	oral rehydration therapy
PCR	polymerase chain reaction
PPS	proportional to size
R&D	research and development
RCCE	risk communication and community engagement
RCRC	Red Cross Red Crescent
RDT	rapid diagnostic test
REGIDESO	DRC National Water Distribution Board
RRT	rapid response teams
SDC-SHA	Swiss Agency for Development and Cooperation – Swiss Humanitarian Aid
SDGs	Sustainable Development Goals
SNHR	DRC national rural hydraulic system
SOPs	standard operating procedures
SORMAS	(Nigeria) a digital case-based surveillance system
SUPSI	Scuola Universitaria Professionale della Svizzera Italiana
SWA	Sanitation and Water for All

TOR	terms of reference
US CDC	US Centers for Disease Control and Prevention
WASH	water, sanitation and hygiene

Executive summary

The seventh meeting of the Global Task Force on Cholera Control (GTFCC) working group on water, sanitation and hygiene (WASH) took place on 9-10 March 2021. Because of the continued difficulties imposed by the COVID-19 pandemic, the meeting was held in a hybrid format, with some attendees meeting in person in Les Pensières, Annecy, France, and others attending virtually for part of the programme.

The objectives of the meeting were to:

- Review, develop and validate the WASH Working Group workplan for 2022 and beyond
- Update participants on the group's 10 workstreams, and discuss working priorities for the coming years
- Showcase activities developed in countries and globally
- Foster the exchange of information
- Identify potential areas of collaboration among working group members and GTFCC partners (for this purpose, two small meeting rooms were held available on demand for participants wanting to set up bilateral discussions during the event).

The first day was given over mainly to a presentation of progress in each of the Working Group's separate workstreams, and to defining the next steps for each. These are listed in this report. A redesign and possible redistribution of these workstreams will be considered in the coming weeks and months – there are obvious further operational linkages to be made, and possible greater efficiency gains to be realised through greater interconnectedness.

The meeting allowed a wide overview of different strategies and approaches. The list of WASH needs, responses, methods and options generated even in just two days of discussion was a long one.

The problems of endemic cholera will never be solved by emergency responses alone, and cholera is not just a health issue – rather, it is a symptom of infrastructural deficiencies. Countries will not be able to continue to respond to outbreak after outbreak with oral cholera vaccine (OCV) because there are not enough doses to keep supplying them. OCV buys time for WASH interventions, and long-term WASH investment is the only sustainable answer to cholera.

Despite the need for more and better data, it remains difficult or impossible to get all the WASH data needed for sustained responses, so the imperative is to start small, documenting outbreaks in discrete areas and gathering the information that is easily available. The GTFCC can play a vital role in gathering and organizing that information for collective use.

Very diverse situations are present in different countries, and there is not – nor is there likely ever to be – a one-size-fits-all solution of any kind. Different strategies will be needed, and to develop them we need proofs of concept. The high level of transparency about difficulties, challenges and complexities witnessed throughout the meeting can only help in this regard. That honesty is something to be admired – and something for which to be grateful.

The meeting closed with a round of thanks to participants, donors and partners for their continued support of work to achieve the goals of the GTFCC core document, *Ending cholera: a global roadmap to 2030*.

Opening session

Nurullah Awal, WaterAid & Working Group Chair; **Philippe Barboza**, Head of GTFCC Secretariat/Cholera Team Lead, GTFCC/WHO; **Tim Wainwright**, CEO, WaterAid UK

In a brief welcoming address, Dr Barboza emphasized the importance of water, sanitation and hygiene (WASH). Properly implemented, WASH could almost control cholera alone; certainly, no long-term progress in cholera elimination can be achieved without it. Barriers remain, and advocacy is needed to convince decision makers – not least because WASH is expensive and difficult while oral cholera vaccine (OCV) is relatively easy, cheap to procure, and generally paid for by someone else. Beyond the wider political questions, though, lies the challenge of how to help people with no choices beyond open defecation and drinking lake water. Collectively, the GTFCC must convince donors and partners of the importance of meeting the basic, essential need for WASH.

Tim Wainwright addressed WaterAid's role as working group Chair and briefly outlined its new ten-year strategy, which aims to achieve sustainable WASH for all through strengthening systems, with focus on the most marginalized. The strategy is organized around four aims, one of which addresses health; and there is no better illustration than cholera of how WASH is relevant to the wider health agenda. WASH progress tends to be slow, and finance is always a problem, but cholera provides clear focus on where WASH investment is most needed.

Workstream 1: WASH data

Justine Haag, WASH Focal Point, GTFCC Secretariat/WHO

WASH data has many uses. It underpins accountability and transparency – not least for cost effectiveness, a crucial measure given the high cost of WASH improvements. It allows the alignment of the Cholera roadmap with relevant frameworks, such as the Agenda 2030, and facilitates monitoring and evaluation of progress. For operations, it allows ranking and prioritization of identified cholera hotspots and greatly facilitates the development, information and costing of WASH pillar national cholera plans (NCPs) and the design of interventions. It provides information for rapid risk assessments in cholera outbreaks and identifies research needs.

The GTFCC currently proposes the use of WASH data tools and methods to feed a WASH database aligned with a data model. It is hoped that this model will lead to outcomes including standardization of WASH data collection; collection of comparable datasets that help prioritize areas for intervention and progress reporting for results-based management; and better impact assessments.

Justine Haag outlined some timed objectives:

- 2022: Architecture of WASH data repository is defined and approved by GTFCC partners; WASH assessment tools are tested and evaluated
- 2023: WASH data repository is available and can be fed with existing data; a plan for collaborative WASH data acquisition is developed and approved by GTFCC partners; and a GTFCC Technical Note on WASH assessments is published
- 2024: WASH data repository is used by GTFCC partners and fed by standardized WASH assessments in cholera affected countries
- Vision 2030: WASH data is readily available to GTFCC partners and used to support planning and implementation of cholera control and elimination activities.

A lot of work on the repository will take place in 2022. This will include the definition of a data model and data catalogue (including metadata) and data protection requirements - particularly important given that the database is likely to contain personal information that could identify individuals. The database will need to be aligned with existing databases, and a feasibility assessment will be done on the geographical disaggregation of existing global datasets. The GTFCC plans to review and collect WASH datasets for various specific settings (e.g. refugee and IDP camps, schools, healthcare facilities, etc.). Relevant data custodians, including national authorities, will be involved, and the existing WASH data inventory will be updated to produce a gap analysis relevant for cholera control needs. WASH data will also be integrated into the GTFCC cholera database.

To generate new data in 2022, the GTFCC plans to test and evaluate WASH assessment tools in various cholera contexts, comparing approaches and identifying lessons and proposals for further development. This data will be assessed for complementarity with datasets produced by others, after which recommendations and plans will be created for 2023 and beyond.

All this work starts with a few key steps: mobilizing existing resources – that is to say, task force brains – to consolidate the draft plan by April 2022; identifying steps and tasks to be outsourced; organizing meetings with custodians of datasets; and informing everyone of problems and progress.

Discussion

A short period of discussion raised a few themes.

- Several participants raised concerns around standardising and harmonising definitions and data formats (with the example of the Joint Monitoring Programme (JMP) as one organisation struggling with definitions issues while integrating data).
- At country level and globally, more coordination and acceptance of common standards would be helpful. Many country actors have their own methods and do not link into national organisations, addressing cholera without coordinated leadership.
- There is a strong need to think beyond global data and prioritise segregated data at district and village level – the type of data most important for control.
- It is important that the database contains cholera-specific data that may be missing from other higher level projects (for example, the JMP has no data on schools or safe food).
- Decisions must be made on whether to capture qualitative data, especially around perceptions and sociocultural issues aspects.
- Coordinating the work of different government and other actors will be crucial – WASH is the responsibility of different departments in different contexts.
- Methods will be needed for capturing outbreak data alongside regular WASH data.
- Serious attention is needed to the question of how to get data that improves very local responses. Vaccine strategies usually plan at micro level, and perhaps countries should have similarly granular WASH information as a preparedness measure. WASH tools are preparedness tools: data collected in pre-identified cholera hotspots can be used to help orient responses.

Immediate next steps

- Initial consultation with institutions developing and/or implementing WASH assessment tools in cholera-affected or at-risk areas
- Make contact with the team working on the GWC WASH Roadmap 2020-2025 component entitled “WASH data repository and decision making processes”
- Consultation with the main custodians of WASH data
- Issue a call to partners/members to provide their data protection policies.

Workstream 2: WASH in National Cholera Plans

Christophe Valingot, WASH and Epidemiology Consultant (IFRC)

This group's work is heavily linked with the activities of other groups, so particular attention has been given to defining its activities as clearly as possible. This workstream is designed to achieve strong engagement of the WASH sector both in emergency responses and for long-term cholera prevention - far preferable to the separate engagement of different actors. It is working to define a common WASH approach for NCPs, to mobilize WASH partners and donors, and to identify needs, implement activities, and measure the progress of interventions over time. The subgroup will help define GTFCC guidance and tools to help the WASH sector identify, prioritize, plan and implement WASH interventions in cholera hotspots.

This workstream will support the following activities:

- Developing methodologies and tools for WASH assessments in cholera hotspots and planning and budgeting for NCPs, advocacy and resource mobilisation
- Developing guidance and standard operating procedures (SOPs) for selecting context-appropriate WASH interventions for NCPs
- Developing monitoring and evaluation (M&E) plans to measure progresses and report on NCP achievements.

The WASH working group has already developed Terms of Reference (TOR) for country working groups to integrate WASH into NCPs and monitor progress (these are in draft stage at the time of the meeting). More detailed activities are already underway or scheduled for discussion. For example: A WASH assessment and planning methodology is needed for NCPs, advocacy and resource mobilization; WASH costing tools are required, including guidance and tools for NCP budgeting and programming interventions in hotspots; and technical guidance and a framework are required for selecting context-appropriate WASH interventions for NCPs. The main challenge affecting all of this is the need to reconcile the group's activities with work that has already been done in countries at different stages of the NCP process.

Looking ahead, there are clear positives – particularly because much work is already done – and several opportunities for synergy with other working groups and workstreams (such as those addressing WASH data and advocacy).

Discussion

- The issue of linking NCPs to national climate change adaptation plans and climate financing was discussed. Each country will have to examine how vertical plans are best integrated at national level. This issue requires wider discussion outside the scope of this working group.
- NCPs need to distinguish between the needs of particular hotspots and the shape of national plans. It is important that governments understand the costs of targeting particular districts versus overall WASH development to prevent cholera. Tufts University is working on a systematic review of appropriate WASH interventions by hotspot type (e.g. in refugee camps, urban vs rural settings, etc.) to establish what varies and the best recommendations per context. The working group has also recently drafted a related document that will be circulated soon.

Immediate next steps

- Finalise terms of reference for in-country WASH working groups to support NCP development
- Continue work on WASH assessment and planning methodologies and costing tools

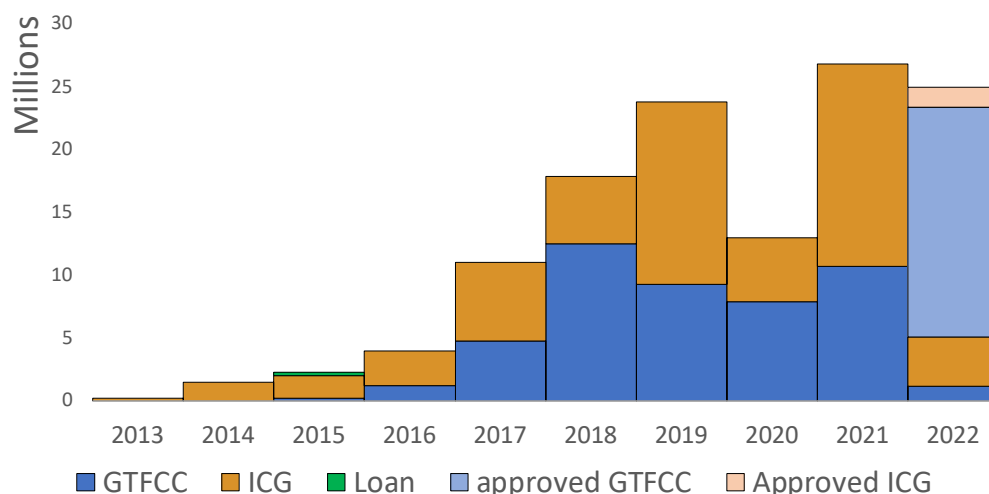
- Continue work on WASH implementation guidelines (technical guidance)
- Reconcile work already done with needs at all stages of the NCP cycle (development, implementation, monitoring and evaluation)
- Identify synergies with other workstreams.

Workstream 3: WASH and oral cholera vaccine (OCV)

Malika Bouhenia, OCV Focal Point (GTFCC - Secretariat/WHO)

Dr Bouhenia started with an overview of oral cholera vaccine (OCV) distribution between 2013 and 2022 (Figure 1).

Figure 1: Global OCV use 2013-2022



The rationale for integrating WASH and OCV is to use OCV as an entry point and catalyst for WASH and community engagement, bridging emergency responses with longer-term WASH interventions in endemic and epidemic settings, and using emergencies as levers to advocate for WASH investment in cholera hotspots.

To date there has been only limited reporting of WASH progress in requests for OCV doses, though some countries highlight links between WASH and OCV as part of their campaigns. Most countries have detailed WASH plans, but there is a lack of systematic approaches across all countries for planning, implementing and monitoring the integration of WASH and OCV. To remedy this, the following actions are proposed:

- Increasing the level of detail for WASH information in the OCV request template
- Conducting joint, systematic reviews of WASH and OCV integration after each OCV campaign
- Ensuring regular reporting of the progress made with detailed WASH plans
- Engaging WASH partners to map WASH interventions in cholera hotspots
- Establishing baselines for WASH access and conditions in all cholera hotspots
- Capitalising on the momentum of OCV campaigns to advocate for WASH investment in hotspots.

This subgroup has set out to develop guidance and/or recommendations on how countries can implement

short- and long-term WASH activities following OCV campaigns. Activities so far can be split into those related to emergency vaccine campaigns; those related to preventive campaigns; and desk reviews.

In the emergency category, initial implementation of GTFCC guidance on WASH interventions during a reactive OCV campaign in Tigray, Ethiopia is under review. Guidelines on a minimum package for WASH and OCV in emergency campaigns is under development. This is likely to include identification of high-risk countries; prepositioning and/or stockpiling of WASH items; ensuring ready funds; establishing the WASH items needed; and providing dedicated logistics staff. A concept note is being developed for a single area with small target population, for which funds will be identified and items prepositioned. A consultant will be deployed for implementation and a report will document the pilot.

In the preventive category, work is planned to develop a structured format for including WASH information and activities in GTFCC OCV requests – a project closely linked to the efforts of the OCV working group to develop more user-friendly packages for OCV requests. ICG requests must include details on risk factors for the extension of the outbreak; capacity to control the outbreak (including whether healthcare facilities have adequate WASH) and an outline of WASH interventions by district. GTFCC requests require data on the percentage of the population of the campaign area with (1) access to improved drinking water sources and (2) access to improved sanitation facilities. Description of medium and long-term plans to implement sustainable WASH interventions in the campaign location is also required. These WASH criteria will be reviewed and proposed changes passed on to the OCV sub-working group. Guidance will be drafted for including WASH activities in OCV reporting, and the WASH coverage survey will be reviewed. A desk review of WASH activities during OCV campaigns is planned, and a consultant may be hired to go through reports and review implemented activities, coverage survey results and WASH data.

Discussion

- Unfortunately many governments still see OCV a silver bullet response to cholera – a counterproductive perception in the context of the expensive, longer-term work required for effective WASH improvements.
- Much work has been done in recent years to address the perception of OCV as a sustainable solution for cholera control. The OCV application structure now encourages countries and governments to plan WASH components and thereby improve planning, evaluation and follow-up of NCPs, but there is still room for improvement in monitoring, indicators, and more. Preventive campaigns require longer applications that identify hotspots, clearly describe WASH activities, and demonstrate prior commencement of work on an NCP. WASH experts review the request, which takes around three weeks.
- WASH questions and reporting have been targeted for improvement, with WASH to be included in the template M&E report, which will define precisely what WASH elements are required. The GTFCC is moving gradually toward more concrete requirements for information and better alignment with country plans in OCV requests.
- Vaccine supply is limited, and the GTFCC is working with countries to encourage, and assist with, multiyear vaccination plans that enable more accurate demand forecasting, and eventual decreased need for vaccination.
- Studies on OCV impact are lacking.
- While OCV use now advocates for and influences WASH, the reverse can also be true and should be acknowledged in the strategy.
- It is crucially important to invest in WASH before outbreaks happen. It will be impossible to revaccinate the same hotspots every three years – there are not enough vaccines. Countries must engage in longer term solutions.

Immediate next steps

- Emergency campaigns: review joint OCV and WASH response in Tigray (2021) and adapt/develop the concept for smaller areas of intervention (including leads for funding, procurement, pre-positioning, human resources support and M&E)
- Preventive campaigns: propose an approach to link OCV multi-year planning with WASH activities in targeted cholera hotspots
- Carry out a desk review of OCV coverage survey and linked WASH reports

Workstream 4: WASH advocacy

Megan Wilson Jones, Senior Policy Analyst Health and Hygiene, WaterAid

This workstream supports wider GTFCC advocacy efforts to drive cholera up the political agenda and increase funding from national governments and donors, with particular focus on increasing funding for long-term WASH in hotspots. The goal is to increase political prioritisation and financing of WASH by persuading leaders to use cholera as an indicator of the highest-priority WASH needs for donors and implementers; to increase WASH investment for cholera control by governments and donors; and to ensure that national policies prioritize WASH and integrate it into other aspects of cholera control. To institutionalize these approaches, GTFCC communications materials need to show how cholera is owned by the WASH sector, and is not just a health issue; how cholera activities can help achieve WASH sector targets for the Sustainable Development Goals (SDGs); and how WASH sector events can be used to get the WASH community to prioritise cholera hotspots.

Activities to increase WASH investment from national governments and donors include GTFCC support for development of country-specific advocacy (starting with the Country Support Platform (CSP) countries). In parallel, the GTFCC can work on engaging civil society organisations (CSOs) and national health and WASH networks. The Task Force can work to ensure that cholera is included in preparatory resources and communications materials for the Sanitation and Water for All (SWA) Sector Ministers meeting and AMCOW initiatives, and can send a GTFCC letter to WASH sector ministers. There is a need for national advocacy, and to clarify what additional resources and messaging can be produced by the working group to have the greatest effect on resource mobilization and advocacy efforts in CSP countries. To ensure that WASH progress is prioritized and integrated into cholera control, improved systems are needed for including WASH information in all stages of OCV requests, and ensuring that up-to-date national WASH data is included in the cholera database.

Discussion

Discussion addressed what activities to prioritise; whether advocacy should be a separate WASH workstream or done through the advocacy task team; and how best to support national advocacy and work with the CSP.

- Sustainability of WASH infrastructure is a huge and under-reported issue. In places where advocacy for investment in infrastructure is successful, pressure must be applied to ensure that what is built is also sustainable. The GTFCC will need to work with governments to drive a systems-strengthening agenda.
- Sustainability can be made more difficult by a lack of ownership in communities. Civil society advocacy can be targeted to make community leaders part of WASH interventions, so that they take responsibility for the maintenance of infrastructure.
- The GTFCC can also work with CSO leaders to pressure governments that are underinvesting in their own countries, both to mobilise domestic resources and to prioritise WASH diplomatically,

from the perspective of development assistance. National and subnational advocacy groups are underutilised: there are major opportunities for the GTFCC and the CSP to provide them with financial, technical, and human capital to strengthen their efforts.

- In some contexts, too much pressure is counterproductive. Collaboration and partnership are important, as is the sharing of stories from around the world that demonstrate what works and how. In Nigeria, for example, the Nigeria Centre for Disease Control (NCDC) makes a point of meeting regularly with Federal Councils to emphasise the need for WASH infrastructure.
- Other governments have the structures but not (yet) the necessary political will. These must be pressured to implement policies that are already in place.
- Advocacy should be properly included in the GTFCC monitoring and evaluation (M&E) framework.

Immediate next steps

- Push for the use of cholera as an indicator for priority areas of intervention for WASH during major events
- Develop advocacy resources for risk management in priority countries
- Engage with relevant in-country civil society networks
- Increase engagement with SWA (Sanitation and Water for All) and AMCOW
- Link advocacy with WASH data and with other pillars.

Workstream 5: WASH research

Daniele Lantagne, Professor of Community Health, Civil and Environmental Engineering, Tufts University; Gupreet Kaur, Research Associate, John Hopkins University; Ruwan Ratnayake, Epidemiologist, LSHTM; Tom Handzel, epidemiologist and WASH Team Lead, US CDC

Several WASH research projects are ongoing. This session provided updates on some of these.

Starting in January 2020, the US Centers for Disease Control and Prevention (US CDC) and UNICEF have run a **performance evaluation of the case area targeted intervention (CATI) model** in Nord-Kivu, Democratic Republic of Congo (DRC). Using secondary analysis of Red Cross monitoring data from DRC, they set out to document CATI performance (examining time to response, size of cordon sanitaire and WASH package delivery) and compare WASH knowledge and practices at households before and after CATIs.

Multisectoral teams from the DRC Red Cross and the Provincial Health Department worked to implement CATIs across four priority health zones (Goma, Karisimbi, Kirotshe, and Nyiragongo) in which case households received a full cholera kit, and surrounding households received water treatment products and soap (all households received disinfection and hygiene promotion measures). 93% of all suspect cases in North Kivu received a CATI visit, 71% with a response time of less than 24 hours and 95% with a response time under 48 hours. Self-reported household water treatment (HHWT) and detectable free chlorine residual (FCR) in stored drinking water increased between baseline and first visit but decreased between first and second visits. Most households had no remaining soap after the first visit, and there was a sharp decrease in Aquatabs remaining after the first visit (with less of a decrease between the first and second visits). Knowledge of WASH practices increased after the interventions.

The next steps are to continue analysing performance evaluation data to estimate the proportion of cases confirmed positive and the cost of CATI implementation per case. A repeat performance evaluation will be done (in DRC or elsewhere) to include improved use of laboratory confirmation, including rapid diagnostic tests (RDTs) and additional in-person field support. A health impact study of CATIs will also be done.

Johns Hopkins Center for Humanitarian Health is overseeing a **multisite study collaboration on the use of CATIs for cholera outbreak response in humanitarian settings and fragile contexts**. This includes a literature review; a review of grey literature and a landscape analysis; publication of retrospective case studies on CATIs for cholera epidemics; and a review of CATI practices and lessons to date. An observational study has been designed to characterize the relationship between CATI activation time and cholera incidence in the target area, documenting implementation procedures and developing recommendations to maximize CATI impact; describing the integration of WASH and health delivered via CATI; characterizing the relationship between CATI completeness and incidence of new cholera cases; estimating CATI effectiveness using secondary parameters; documenting coordination mechanisms between relevant stakeholders; and developing recommendations for coordination in future responses. The main part of data collection is two-phased, with observation of initial implementation in households, then follow-up 7-14 days later. This is supplemented by key informant interviews with CATI team members and NGO leads. To date qualitative interviews have revealed several implementation considerations. The next steps are to clean the data and perform the analyses.

In collaboration with Médecins sans Frontières (MSF)/Epicentre, the London School of Hygiene and Tropical Medicine (LSHTM) is about to start a study looking at the **combination of CATIs with OCV**. Adding vaccination to CATIs is thought to provide better and longer-term protection to the people most at risk. A 2020 scoping review of current evidence found past evaluations indicating that CATIs work, but also identified knowledge gaps: no past CATI evaluations included OCV; they were based on suspected cholera cases; and most existing studies are retrospective, with limited data. Currently, CATI with vaccination is not part of WHO or national plans and recommendations.

In this project MSF will implement CATI with OCV in different countries, evaluating the effectiveness of CATI in rapid containment of case-clusters at the start of outbreaks, and thereby generating evidence to influence policy at all levels. The primary objective is to evaluate the effectiveness of CATI in reducing the incidence of enriched RDT-positive cholera within targeted rings. The secondary objectives are to review population-based coverage, spatiotemporal transmission patterns in outbreaks, effectiveness in reducing household transmission, antimicrobial resistance related to chemoprophylaxis (if used), and the resources and costs required for these interventions. The sample size is 100 CATI rings, and the study is designed to adapt to variations in operational strategies. Challenges include the importance of surveillance for the best use of CATIs, given that national surveillance systems optimized for rapid case detection are so expensive to set up and maintain. Prepositioning of materials (such as the vaccines and RDTs required for the study) is also a challenge, as are the difficulties of communicating with the many parties involved.

Discussion

- There is some suggestion that CATIs may be effective with radii significantly larger than 100m.
- There was discussion of how best to adapt the approaches taken by these studies to local practices and cultures (and other contextual factors). For example, in many affected areas cholera comes in the rainy season, a time of famine when many people move from houses to farms; but the CATI approach is more suitable for people who stay at home. Adapting CATIs to periods of longer displacement from homes (to farms, fishing camps, etc.) is difficult.
- Reinforcing surveillance specifically for CATI makes sense: having extra surveillance that warns when cases are rising and highlights the impact of contextual factors makes an important difference.

Immediate next steps

- Link WASH work with the cholera research agenda developed by the Wellcome Trust
- Support completion and dissemination of current research

- Provide research updates to the WASH working group
- Share research and operational data.

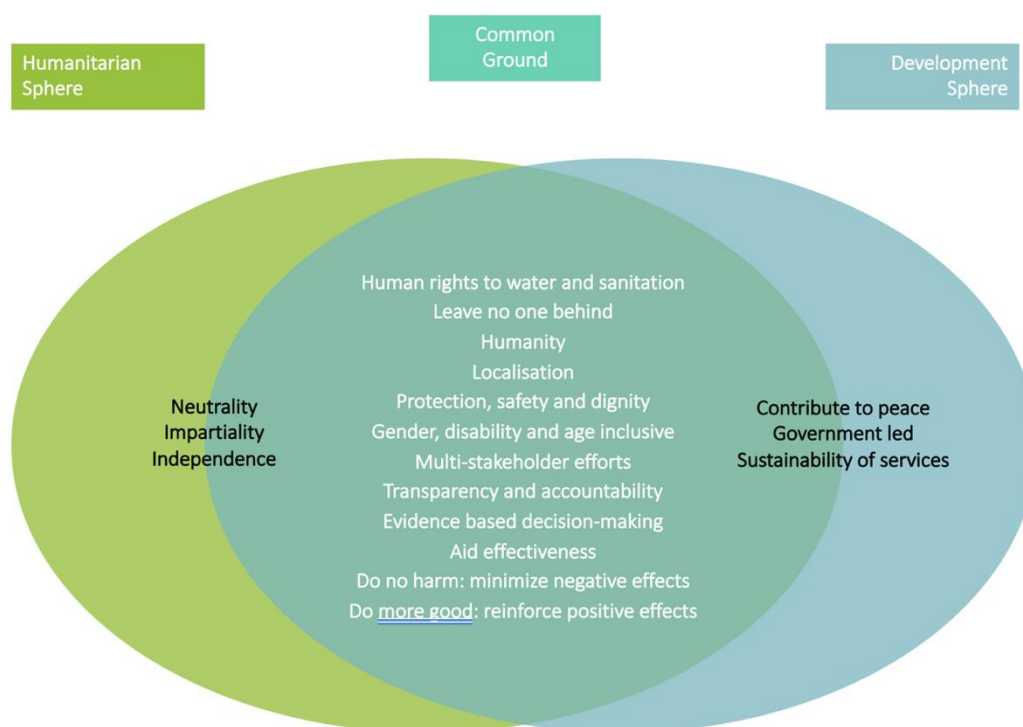
The Triple Nexus in WASH

Marc-André Bünzli, Head of WASH Expert Group, Swiss Agency for Development and Cooperation (SDC-SHA); **Thilo Panzerbieter**, Executive Director, German Toilet Organisation (GTO)

The Triple Nexus is a joint initiative of a group of organisations including UNICEF and the Global WASH Cluster. The nexus concept refers to the inescapable linking of humanitarian, development and peace outcomes: there is no sustainable development – sustainable WASH included – without peace; and no peace without sustainable development. Only through a combination of development cooperation, peacebuilding and humanitarian aid can WASH resilience be achieved.

The key principles of humanitarianism and development are for the most part shared principles (Fig. 2).

Figure 2: Humanitarian and development principles



The triple Nexus' vision for 2030 is “resilient and sustainable WASH service for all, always, everywhere.” The initiative began in 2019 at a meeting on building resilient WASH systems in fragile contexts. A roadmap for 2020-2025 was then developed under the title *Delivering humanitarian WASH at scale anywhere, and any time*, accompanied by an implementation plan; and an online event on the Triple Nexus was held in February 2021. The main product of the initiative will be a joint operational framework, the development of which began in early 2021, that is set for publication in May 2022.

The main goal of this project is to provide global advice and policy recommendations. Related case studies are being collected in collaboration with UNICEF: Dr Panzerbieter presented the example of Haiti as a case

study of a multisectoral approach to cholera elimination that merged humanitarian response and development actions across the WASH and health sectors at all levels of government.

Discussion

There was a period of discussion about how the Triple Nexus might relate to the GTFCC Roadmap and potential opportunities for alignment, synergy and collaboration.

- Among other things, the GTFCC Roadmap is notable because it is designed to get different sectors aligned with one another. A global WASH cluster produced a list of priority areas, leads for each initiative, and template-based objectives and budgets. The Roadmap is an umbrella for mobilising resources to execute those objectives, provide visibility of overall activity, and achieve alignment and the smooth flow of information.
- The Triple Nexus is mainly an advocacy platform, and there is room for shared goals and collaboration with the advocacy sub working group. The first substantial point of contact would be for a GTFCC representative to attend a Nexus meeting, and for the Nexus' case studies to be aligned with the GTFCC case study work.

IFRC preparedness, early detection, and response to contain cholera outbreaks in Africa

Chris Brewer, Africa Cholera Coordinator, International Federation of Red Cross and Red Crescent Societies (IFRC)

The IFRC “One WASH” approach promotes a common, adaptable approach among IFRC National Societies to establishing large-scale, long-term sustainable WASH programmes and broadening their scope to prioritize cholera elimination, nutrition, environmental sanitation and improved hygiene in rural and urban settings.

One WASH focuses on three main actions, all of which align with the GTFCC Roadmap:

- Improving preparedness, early detection, and response to contain cholera outbreaks
- Delivering long-term integrated WASH/health projects to prevent cholera and reduce morbidity and mortality
- Internal and external advocacy, commitment and resource mobilization.

The Red Cross Red Crescent (RCRC) approach to cholera response also has three elements:

- Oral rehydration therapy (ORT) in communities
- Branch WASH Intervention Teams to break transmission in health facilities, households, and communities
- Supporting OCV campaigns through community awareness and mobilization and rumour management.

ORT volunteers in communities diagnose, treat and refer acute watery diarrhoea cases and help their communities prepare for future outbreaks. The prepositioning of Oral Rehydration Point (ORP) kits and the further training of volunteers to Level 2 allow timely scale-up of ORT. Volunteers identify, treat and refer cases based on dehydration level, and alert RCRC branches and district health authorities; if health authorities identify a significant increase in cases, one or more ORPs are deployed. Cases are registered

by volunteers or health facility staff, and registered cases are used by local health authorities and RCRC teams to identify hotspots.

Branch WASH Intervention Teams (WASHIT) visit communities with high case numbers to identify and break transmission routes. In a major outbreak, ORP numbers are increased and Branch WASHIT activities continue. Where OCV is appropriate and the government can acquire doses, RCRC volunteers support the campaign, and sometimes set up and operate vaccination centres. While in many contexts a lack of long-term WASH infrastructure means continuous outbreak risk, a WASHIT can direct prepositioned resources and trained volunteers to reduce transmission at community and household level with early targeted WASH actions using basic equipment. A WASHIT identifies cholera locations, assesses risk, intervenes to interrupt transmission and leaves “protection” in place to reduce the possibility of recurrent outbreaks. The underlying goal is for any emergency response to lift the community to a higher level of prevention and response capacity than before the outbreak. Emergency operations often increase the amount of data on target areas, and they also involve training, awareness raising and access to equipment. All these should be exploited to strengthen capacity and prevention. The end of an outbreak should not mean the end of work, and the RCRC has a distinct advantage through the permanent presence of its branches and volunteers. The longer-term nature of this approach complements the GTFCC strategy and governments’ ongoing health and development programmes.

Rollout plans in 2022 include Zambia, Malawi, Sierra Leone, Niger, Nigeria, Ghana, Kenya, Ethiopia, Tanzania and Mozambique – though the approach is opportunistic, and outbreaks elsewhere will be considered.

Discussion

- WASHITs could be integrated into the CATI process.
- Prepositioning and market availability are important concerns. RCRC branches are required to have prepositioning capacity, and as far as possible to have framework agreements with local suppliers. The RCRC is exploring the possibility of branches making their own chlorine.
- WASH kits should be contextualised for target communities depending on what is locally available. In reality kit contents tend to be based on rough estimations and available funding. WASHITs use both household kits and volunteer kits. Volunteers do household assessments, and not every household automatically receives a kit; many interventions are done by volunteer meeting specific requirements from the volunteer kit. Targeted rather than blanket distribution helps resources go further.
- Open defecation is a widespread and long-term problem best addressed through sensitisation. The RCRC has volunteers in communities who collect long term data and create community priority lists on which WASH assessments are based. If open defecation is the main reason for cholera, volunteers follow up accordingly.
- On the issue of hydration, community ORT volunteers recognise that they are not medical experts. Every ORP set up has a referral mechanism to health facilities. Additionally, ORS is not distributed in houses, but at ORPs, exclusively by trained volunteers.
- The rehydration component has been widely neglected for years. Early rehydration by WASH partners often faces strong opposition from Health Cluster partners and ministries of health. It would be valuable if the GTFCC were to take the position that WASH partners can promote home-made sugar-salt rehydration solutions when safe water is available.
- Community engagement is the RCRC’s main area of expertise. Work is planned to generate an evidence base, and advocacy training for volunteers is being considered.

WASH assessment in cholera hotspots

Thomas Mollet, CSP Coordinator, GTFCC & CSP/IFRC; **Christophe Valingot**, WASH and Epidemiology Consultant, IFRC; **Ryan Schweitzer**, US CDC; **Pierre-Yves Oger**, UNICEF

Identifying priority areas is always necessary in cholera control because cholera does not affect every locality in the same way. WASH assessment is required to understand the baseline situation in cholera hotspots and thereby define and cost the required interventions. Even when NCPs focus on hotspots, WASH costs may still be very high, especially for long term investments, and it may still be necessary to prioritize or phase interventions. Estimating costs based on WASH baseline data can help to do this. The first step is to identify and prioritise hotspots based on epidemiological data and the risk and/or burden of cholera; the second is to prioritize or phase them for investment based on WASH vulnerability. WASH baseline data is gathered (e.g. access to water services, water quality, open defecation, sanitation access, hygiene, etc.); and a methodology is defined to assess WASH vulnerability for diarrhoeal disease/cholera risk. Finally, hotspots are ranked by WASH vulnerability score. For a phased approach, districts can be grouped by vulnerability score.

Estimating the costs of WASH improvements means gathering baseline data for each hotspot; defining an objective for each WASH service (e.g. 80% coverage); then using a formula to estimate the cost of reaching that level of service from the baseline. Tools that could be used include the SDG cost calculator (or any other cost calculator). The required inputs are WASH service coverage baseline level (ideally per disaggregated into urban vs rural, as costs vary according to the context); the population in each hotspot (similarly disaggregated); and the desired WASH service coverage target. WASH baseline data can be gathered from sources including JMP estimates, ministerial figures and others. Obtaining sufficiently granular local data can, however, be challenging, and modelling or further data collection may be required.

The question of WASH vulnerability adds further dimensions. No methodology has yet been developed to quantify it. A WASH severity calculation has been developed by UNICEF and others for crisis contexts and could be linked into revisions of the WASH severity classification scheme, ideally with GTFCC involvement.

A US CDC-funded, UNICEF-run costing project, requested by the GTFCC, has been done to provide cost estimates for different scenarios of increasing WASH service levels to reduce risk of future cholera outbreaks in cholera hotspots in endemic countries. The first phase took place in Goma, DRC (in an urban area) in 2019-2020, but the second pilot was prevented by COVID-19. To aid NCP development, the GTFCC also commissioned four costed WASH studies in, respectively, Zambia (2018); Zimbabwe (2019); South Sudan (2019); and Ethiopia (2020). The conclusions provide some insight into costs of different interventions in a range of contexts.

Different costing approaches can be taken. Costing per individual (as is the case with, for example, the SDG costing tool), generates indicative figures using baseline data and may be most applicable in rural areas. Costing per package, the choice of which is made based on transmission pathways and/or contexts, can be done using GTFCC-commissioned WASH studies as a starting point and examining the list of possible interventions to decide what is best in context. Costing for different WASH infrastructure projects using data from large existing infrastructure projects adds granularity to the package approach, and can be done in urban areas where costing per package may not be specific enough.

Additional considerations arise with this general approach. Costing is part of the NCP process, and the NCP should be embedded in the national WASH strategy. Epidemiologically defined hotspots tend to be large and may not allow WASH actors to cost infrastructure at a local level. Costing WASH needs at hotspot level generates unrealistically high costs that mean some prioritization is required. There is also a need to

differentiate between rural and urban contexts: in urban hotspots line lists can be used to prioritize WASH activities and identify the most affected areas and a mixed costing approach (per project and per package) can be considered. Local experience of past outbreaks is valuable, especially from health staff, and urban areas have lower staff turnover compared to rural areas. Sub-hotspots in urban areas are often informal peri-urban settlements that attract less political interest. Rural hotspots, on the other hand, are more likely to benefit from “classic” WASH interventions like rural water supply and sanitation projects. Costing can be estimated per individual or by from local development plans and UNICEF data (e.g. cost per type of facility).

To develop the methodology further, rural/urban differentiation is required. In rural areas an SDG-type approach coupled with a WASH baseline could provide the necessary information and a “menu” of WASH/cholera packages could be considered on top of basic measures. In urban areas, the best approach would be to review local data and knowledge as a first step, then support this with WASH baselines in limited geographical areas. Interventions would be selected from a menu of standardized, urban-adapted WASH/cholera packages, specific pre-costed WASH access projects and locally-costed projects, offered when possible through in-country WASH partners.

This approach will need to be led by countries, with GTFCC support. A consultant would be embedded with national governance bodies for six months, supported by a GTFCC committee to generate a methodology explaining the dual urban-rural approach for costing. In-country partners would be required to commit to help costing potential projects. A dedicated budget would be needed for WASH baselines in hotspots, with data collection early in the consultancy, after sub-hotspots are identified.

At GTFCC level, the task force will need to assess partner engagement and decide which countries to engage, and how.

Discussion

- Surveillance can do a great deal to refine and streamline costing approaches. Costing data is daunting and expensive and holds back projects, but better data would really help the prioritisation process. Putting resources in locations that drive outbreaks elsewhere will greatly reduce overall costs.

WaterAid programmatic input

Absul-Nashiru Mohammed, Regional Director for West Africa, WaterAid

WaterAid’s approach to cholera focuses on integrating WASH into existing health programming and responses and strengthening NCPs’ WASH components through policy engagement, advocacy and programmatic assistance in hotspots. WaterAid favours a systems-strengthening approach to sustainable, inclusive WASH through evidence-based, behaviour-centred hygiene behaviour change programming, and has worked with the governments of Nigeria, Mozambique, Nepal and Zambia to integrate WASH into national cholera programmes.

NGOs play important roles in cholera control and prevention. They enforce accountability, holding duty bearers to account for treating WASH as a long-term priority; they provide resources to create enabling environments for sustained, climate-resilient WASH infrastructure, supplies and training (particularly in hotspots); they help ensure that relevant government ministers engage in building and executing NCPs and leveraging entry points for integration; and they help ensure the proper use of data to drive action,

embedding and tracking surveillance and WASH data to ensure that WASH solutions are properly targeted as part of cholera prevention. NGOs also address inequalities, advocating for equitable access to sustainable WASH and representing the marginalised. WaterAid oversees mass public health information campaigns tailored to the needs of the most at-risk groups (including people with disabilities) and empowers marginalized at-risk groups to advocate for WASH, directly targeting decision-makers. On the investment front, NGOs drive action to prioritise climate resilient WASH as a critical response to long-term cholera prevention, demonstrating the impact of investment and reaching across other sectors (like vaccines, disease surveillance and financing) to engender like-minded and non-traditional partnerships that bridge emergency response and long-term development. NGOs also support the skilled workforce by building capacities where needed.

Dr Mohammed outlined two case studies – one on hygiene behaviour change through routine immunisation in Nepal and the other on inspiring political will to end cholera and contain COVID-19 in Nigeria – before linking them to WaterAid’s five key WASH asks for any government. These asks are as follows:

1. Ensure sustainable WASH interventions are provided in communities with poor access to WASH services, especially those with endemic trends. Provide facilities in schools, healthcare facilities and public places to create WASH access for all.
2. Scale-up national behaviour change campaigns and embed hygiene behaviour change in the core of immediate response plans.
3. Domesticating national WASH COVID-19 guidelines and implement revised WASH policy and a state WASH action plan.
4. Review state budgets to reflect prevention strategies for infectious diseases such as cholera and COVID-19. Ensure allocated funds are released and implemented accordingly to reduce overdependence on donor agencies.
5. Develop a targeted multisectoral approach to prevent cholera recurrence and ensure coordination and collaboration of resources and plans across the sectors involved. Support consistent meetings to prioritise cholera prevention rather than response.

Discussion

- One government minister underlined the importance of sincerity and honesty in partnerships between governments and NGOs. Skills must be transferred from NGOs to their government counterparts: without this, the departure of NGOs from projects often means that the work ends because governments lack the skills to continue them. Pollination in the other direction is important too: governments often have skills NGOs lack.
- Having plans is only a first step: taking them to scale is the next goal. Strong advocacy is needed to ensure plans are implemented.
- Good things happen when governments are committed and understand the consequences of *not* acting. Depending on the context, however, national governments may be less important than state or local governors who are practically empowered to understand and solve the problems at hand. Development partners can help: where local governments – which must also deal with education, health and other concerns – have limited staffing resources, partners can fill important gaps.

Workstream 6: WASH capacity and training

Claudio Valsangiacomo, Head of the Center for Development and Cooperation, Scuola Universitaria Professionale della Svizzera Italiana and Swiss Agency for Development and Cooperation – Swiss Humanitarian Aid (SUPSI/SDC-SHA)

This workstream was established to identify training needs within the GTFCC, with a focus on training people in the Global South and providing properly certified training based on course examinations rather than certificates of attendance.

WASH training needs and gaps are assessed by looking at WASH activities that need to be implemented before, during and after cholera outbreaks; identifying the competencies required to implement them; working with other GTFCC members to list existing training resources and assessing whether they fill those competency requirements; identifying gaps and sharing them with the GTFCC; and asking partners to support the development of the required trainings. Conventionally, training has often meant knowing how things work rather than how to implement them. But the priority in cholera treatment centres is experience and the type of know-how required to – for example – manage a situation where nurses and doctors are afraid of their cholera patients, or when to dispense antibiotics, or how to chlorinate a given volume of drinking water.

Much of the important information – how to chlorinate, for example, or how to make the chlorine if it is unavailable – is not the traditional preserve of medical or health professionals. Civil engineers have this information – but so should WASH specialists, those who work on engineering in emergencies and – crucially - health workers. There are many things that “cholera experts” should know.

The GTFCC can play an important role in organising and compiling the necessary trainings. The task force encompasses many trainers and many different types of training; but a new focus is needed on training for people really working with cholera, not just talking about it. Training should be short, cheap and available online (though not exclusively online: people need to learn how to do practical things).

Discussion

- Advocacy should be added to the training goals: while some people are technical experts, others have important skills around knowing how to work with governments to get things done, or how to address what is left behind when projects are finished. Success in advocacy is often defined by trust, but that can take years, even decades, to build up. Advocacy is a distinct, very important skillset.
- Basic field knowledge is missing from many policy environments. The wider WASH environment is technical, and it needs the constant support of training.
- The CSP is looking at training to list what exists and how to ensure access. The GTFCC needs a global training strategy that encompasses all sectors, looking at existing resources and requirements and how to meet them, ensuring that all the pieces from all the working groups fit together into something coherent from the field up. Cholera is multisectoral.
- Another important challenge is the sustainable maintenance of knowledge. As cholera control is more successful, countries will be less exposed, and staff turnover and other factors will result in declines in institutional knowledge.
- An ongoing feedback mechanism is required so countries can describe their critical needs at any given time.
- The GTFCC could be a good platform to advocate for guidelines on minimum standards/knowledge, the basics that underpin the training.

- Looking at all the GTFCC time and effort that went into developing a research agenda and finding donors to support it, the same thing is required for capacity building - identifying needs and targeting ways to fulfil it.
- A platform is needed through which to share existing resources so people are inspired to use available tools, duplication is avoided, and public awareness is maintained so people know what to do *before* outbreaks occur.
- Integration is important. Cholera and WASH should be part of the most basic knowledge that professionals are required to have, and part of basic professional development programmes for community health workers.
- Other than structured training, capacity can be built using methods such as placements, secondments, mentoring schemes, coaching, etc.

Immediate next steps

- Review existing training resources and focus on “certification” for cholera control
- Where needed, develop online/face to face/blended training resources that ensure training access in cholera-affected countries, with a focus on field-level needs
- Link this work with the overall training strategy of the GTFCC (e.g. consider advocacy training)
- Explore mentoring, coaching and other approaches to developing capacities
- Consider possibilities for developing training partnerships with outside organisations
- Replicate the approach adopted for cholera research for cholera training.

Workstream 7: Case studies

Christophe Valingot, WASH and Epidemiology Consultant, IFRC

To achieve the goals of the Roadmap strong engagement of the WASH sector is crucial and partners and donors must mobilize to invest in hotspots. It is necessary to be able to show that “WASH works”, and to tell inspiring stories. Case studies are powerful tools for disseminating lessons on implementing GTFCC guidance, sharing the experiences of different partners in the field, synthesizing lessons, and communicating successful approaches. To that end this group is working to define an agreed scope and format for case studies; develop a limited number of initial case studies to test their usefulness; and gather further contributions from GTFCC members.

A first case study has been identified, looking at how WASH interventions and activities have contributed to cholera control in the Americas (primarily Mexico and Peru).

Challenges to this work have included limited participation from GTFCC members – involvement of more is both welcome and needed.

This work will present further opportunities, including synergies with the Advocacy workstream and the likelihood that a collection of properly curated case studies will interest other working groups.

This presentation ended with an invitation for others to join and contribute to the workstream.

Discussion

- There is an argument for clustering subgroups. Having them all separate (e.g. separate groups for advocacy and hygiene promotion) may be inefficient.
- Several important but currently unanswered cholera control questions could well be greatly illuminated by case studies – such as, for example, how to prove when OCV has worked versus

when outbreaks peter out; how to obtain financing to solve small problems or investigate small things; how best to address the needs of small or nomadic populations; and so on. Case studies can help identify small scale initiatives that demonstrate impact and present targets for investment.

- The dynamic of cholera is not the same everywhere. Populations differ, WASH situations differ, and the best solutions differ. Adaptation and practical implementation are crucially important, as is demonstration that that implementation works. This is an easy win that could make a big difference.
- In many professional contexts, however, the people doing the work will not have the time to do the case studies, which can take weeks to develop. Resources are needed to do this project properly. It may be necessary to hire professionals to gather the material. It will be important to avoid duplicating case studies, so a common platform is needed to share them.

Immediate next steps

- Working together with the with advocacy group / task force, agree the objective, scope and format of desired case studies, the best approaches to producing them (e.g. outsourcing), and funding sources
- Call for contributions from GTFCC members, identify relevant stories and develop them to test the approach
- Link with other GTFCC working groups to identify joint case studies and link them with the overall GTFCC advocacy agenda

Workstream 8: Hygiene and food safety

Alex Machado, WASH in Public Health Senior Officer, IFRC

Global Roadmap indicators for hygiene promotion are limited and hard to measure. Only two are currently included in the NCP guidance note: indicators 14 (proportion of people with access to hygiene in hotspots) and 16 (proportion of hotspot population with correct knowledge on cholera prevention in communities). Hygiene promotion is more than disseminating messages or having access to infrastructure or products: it is a key foundation of any successful WASH or cholera prevention and response programme and must be included in NCPs. Through participatory hygiene promotion activities people can change their behaviour and make decisions that improve WASH in their communities, including operation and maintenance of infrastructure and examining and suggesting positive, durable solutions to risky practices. Inclusive discussions and community-led decision-making are a key part of hygiene promotion, strengthening accountability while maintaining links with engineers or technical counterparts to ensure the ongoing suitability of infrastructure and interventions.

It is important to balance “hardware” (infrastructure, resources and supplies) and “software” (promotion, social mobilization, organization, M&E etc.) to achieve the most important outcomes: the right human behaviour and interactions. Without the right “software,” there is no behaviour change; but without the right “hardware,” the ability to act is curtailed. Hygiene promotion is therefore highly culturally and socially sensitive, and must consider factors of all kinds – social, cultural, ethical, spiritual, legal, political, material and more.

Specific areas for hygiene promotion for cholera control include hand washing; food hygiene; sanitation and disposal of excreta; work with food and water vendors; health seeking behaviours; funerals and treating patients; and water sources and water handling – not just the avoidance of risk, but also positive practices and the creation of supportive enabling environments. Done correctly, with all the above

considerations taken properly into account, hygiene promotion can improve the quality and effectiveness of other WASH/cholera interventions (Figure 3).

Figure 3: How hygiene promotion can improve WASH/cholera interventions



There are challenges. This area does not usually provoke intense public interest, and is often done in a perfunctory manner. Simple message dissemination is more common than considered holistic approaches. Hygiene interventions are often not contextualized and make inadequate use of community participation and feedback. The often short-term nature of cholera response initiatives moderates against the longer-term encouragement of sustainable behaviours.

There are clear opportunities to address these issues. Coordination with other GTFCC groups and WASH subgroups could be improved. The forthcoming Hygiene Promotion Compendium (March 2022) will provide further clarity.

The short term workplan of this stream is to map the evidence base for hygiene promotion in cholera, revise the relevant GTFCC documents and review the hygiene promotion indicators. In the medium term (2023-2025), the hygiene promotion components of NCP development plans could be improved, and a guidance note checklist will be published for preparedness, response and prevention. In the long term, the GTFCC will need an advocacy plan for integrating hygiene promotion in all WASH projects on cholera hotspots and linking with relevant broader initiatives.

Discussion

- This work should include in depth analysis of community involvement. Expertise must be permanent, so transferring power to communities is a central consideration. Ensuring that change is systematic may mean refusing to run WASH programmes of less than a year, or those that do not include systematic monitoring of behaviour and infrastructure changes.

- This work must be carefully integrated with government structures and plans. Country and local engagement are needed to generate understanding of the challenges and difficulties that communities and governments face. If country representatives could join the subgroup to help with this, this meeting would be a huge success. Involved people are needed to advocate, and to keep work relevant to countries.
- There is a widespread perception that hygiene promotion is just handwashing; in reality it is a combination of many behaviours often missed out of WASH programming (like water handling in households, food hygiene, etc.) that are done in communities where health services are hard to access and/or not trusted. Working on these in partnership with communities strengthens cholera responses.
- Cholera investigations are often not conducted in ways that identify the source of the infection. Working is needed to identify and document the best ways to do this.
- Other teams need to be involved – for example, communications teams can help with risk behaviour work, community engagement teams can help with hygiene promotion, and so on. There is also a need to improve intergenerational communication in communities, which may require constant communication, sensitisation and awareness raising to address dangerous but stubborn cholera beliefs.

Immediate next steps

- Ensure greater involvement of country /field level representatives in the group
- Improve the definition and M&E of hygiene-related activities, especially in the context of NCP development
- Make linkages with the Community Engagement Pillar of the Cholera Strategy
- Include food hygiene in the approach
- Boost this work using the momentum created by the March 2022 publication of the Hygiene Promotion Compendium.

Workstream 9: Water safety plans and water quality management

Justine Haag, WASH Focal Point, GTFCC Secretariat/WHO

This is a new workstream, and so is relatively undeveloped. Water (and sanitation) safety planning and water quality monitoring are of huge importance during outbreaks because they ensure safe drinking water for populations at risk. They should be linked to water treatment measures at points of distribution and use, and a GTFCC technical note on environmental testing covering those elements will be published in the coming weeks. Operationalisation of these measures remains a challenge.

Frameworks and tools are available to guide this work, based on risk management approaches designed to ensure water protection in the environment. These should cover different settings (e.g. development contexts, emergencies, rural vs urban environments, institutional vs community-based measures, etc.), and can be framed in different ways – for example, they can include sanitation as a major component, or be framed around the need to protect at-risk populations.

At the time of the meeting, both water safety planning and water quality management are well documented and anchored at institutional and global level, but local- and hotspot-level implementation remains difficult. There is an evident divide between concept and practice that needs bridging: know-how and experience are available, but the relevance to cholera control is still to be defined.

This topic should be properly linked to the roadmap. Existing water safety planning and water quality management should be reviewed to identify the elements most directly relevant to cholera control and elimination. Based on the results, the working group will define a 2030 vision and accompanying multiyear objectives (i.e. a full workplan for this stream), identify contributors, develop guidance, and field test it. This work will prioritise operationalization and as far as possible will link with and/or complement other relevant initiatives. The first steps will be a round of consultation with technical experts to define the way ahead, and identification of partners and/or GTFCC members with the knowledge, experience and capacity to contribute. If internal resources prove unavailable, consultants will be hired to outsource the initial steps.

Discussion

- Real sustainable development requires a holistic view of the WASH cycle. If sanitation issues could be solved, most of the danger of water contamination would be gone. Improper sanitation creates risk not just with water supply, but also around tasks like emptying latrine pits and disposing of the content.
- In many contexts, full water supply networks – with piped water, treatment plants, etc. – are not coming any time soon. In the meantime, sanitation cannot be ignored and safety planning is needed.
- Health promotion is also crucial, not only around water supply, but also addressing the fundamentals of what is needed for safe water. If communities are involved and know the risks, those risks can be reduced. There is therefore a need to train local/community WASH departments on the basic parameters for water quality.
- Governments need to enforce the laws and regulations that they already have in place – even though this raises the cost of water production. This means lobbying governments to finance better quality water treatment, and acknowledge the importance of adhering to their laws.

Immediate next steps

- Publish the GTFCC Technical Note on Environmental Testing
- Identify key institutions and focal points with which to work to define the correct scope and framework for GTFCC efforts in this area
- In discussion with country partners and relevant authorities, identify the capacity bottlenecks in implementing water quality management at country and hotspot level
- Define a vision and multi-year objectives for the group.

Workstream 10: WASH and infection prevention & control

Nurullah Awal (*GTFCC WASH Working Group Chair*), *WaterAid*

Infection prevention and control (IPC) measures protect people vulnerable to infections, both in the general community and in healthcare facilities, and have greatly increased in visibility and importance since the start of the COVID-19 pandemic. Evidence-based practices, resources and procedures that prevent or reduce the risk of infection include providing safe water; running water and sanitation; environmental cleaning; correct hand washing behaviours and supporting resources; and safe, dignified burials. Ensuring that the WASH sector is adequately represented in the IPC pillar can support the WASH response during cholera outbreaks.

Challenges to this work include the limited visibility of WASH in public health emergencies; the difficulty of effective governance for multisectoral outbreak response; the fact that the Cluster system only covers parts of countries regularly affected by outbreaks; and the fact that IPC and WASH actors and activities are often siloed (though there are recent positive examples of progressive change around this last issue).

Imminent opportunities include recent interest from the IPC sector in WHO around integrating WASH into IPC activities, especially for cholera readiness and response. Regional cholera platforms already link health and WASH actors and collect cholera data at national and regional levels, and the GTFCC is advocating for strengthened governance that will consider the WASH situation during outbreak responses.

Discussion

- There are many lessons to be identified around how Ebola, cholera and COVID-19 knowledge overlap and reinforce one another.

Immediate next steps

- Include cholera WASH response in the IPC agenda pillar
- Link health and WASH in country-level cluster/sectoral approaches
- Identify relevant lessons from the Ebola and COVID-19 responses.

WASH Working Group workplan 2022: next steps

Justine Haag, WASH Focal Point, GTFCC Secretariat/WHO

At this point in the meeting Justine Haag ran a short recap session presenting the next steps for each of the workstreams. These have been integrated into the respective workstream sections summarised above.

A redesign and possible redistribution of the workstreams will also be considered and proposed for discussion – there are obvious linkages to be made, and greater interconnectedness is required.

The GTFCC is also in a good position for sharing with other technical groups, and where there is a case for it, joint activities will be part of the proposal.

Showcase: Bangladesh

Aninda Rahman & Md. Nazmul Islam, Bangladesh Ministry of Health

Bangladesh is a high burden, cholera endemic country with bi-annual seasonal peaks. There is a diarrhoeal disease reporting system, but a shortage of diagnostic facilities means that cholera is not reported up from subnational levels. A cholera surveillance system is in place, with 16 sentinel sites. Bangladesh is an ORS pioneer and has greatly improved its WASH situation in recent years. Cholera and WASH awareness levels are very good.

National approaches in the coming years will rest on a combination of OCV and WASH. Cholera continues and the patient load is assumed to be high, with many factors (like climate change, urbanization,

population growth, migration, environmental pollution, etc.) sustaining vulnerability. OCV can reduce the cholera burden in the short term, but WASH is the long-term solution. Bangladesh's economic growth and developing infrastructure mean a desire for better quality of life, including better WASH infrastructure and practices for avoiding water- and foodborne diseases.

Bangladesh's National Cholera Control Plan (NCCP) sets the goal of reducing cholera morbidity and mortality by 90% by 2030 (with a 25% reduction by 2021 and a 50% reduction by 2025). Key interventions planned to achieve this are strengthening surveillance and reporting; improving treatment of cholera cases; OCV campaigns; WASH promotion; improving coordination and leadership; and running social mobilization campaigns. From a total budget of USD 3.58 billion, 0.43 billion is set aside for OCV and USD 3.13 billion for WASH (of which 0.68bn is for water, 1.35bn for sanitation and 1.1bn for hygiene promotion). The NCCP calculates that 55% of this budget will come from the government. WASH activities will be split between ensuring safely managed drinking water, improving accessibility to better sanitation, and improving hygiene practices, with phased targets in each area for 2025 and 2030.

Bangladesh takes pride in its WASH achievements to date, but recognises that there is still much to be done to achieve the relevant SDGs. Following the most recent figures, national coverage of access to basic water facilities at household level was 99.5%; for sanitation the figure was 60.7%; and for hygiene, 56.3%. Combined access to all three components stood at 40.2%.

There have been many cholera control activities and achievements in recent years, including OCV campaigns, distribution of 10 million water purifying tablets; ongoing public awareness campaigns during high-risk seasons and outbreaks; meetings with local administrations, water sanitation authorities and city corporations to improve WASH; an update of the National WASH Strategy; a new WASH strategy for healthcare facilities, formation of a national WASH cell for healthcare facilities, strengthening of IPC in those facilities and training of healthcare staff to strengthen case management and harmonize treatments; cholera advocacy to senior government level; and the provision of grants for cholera research from the government budget (for the first time in many years).

All this work faces challenges, many of which will be familiar to others: a lack of trained human resources; a loss of focus due to COVID-19 (with unfortunate timing, as the pandemic hit shortly after the endorsement of the NCCP); a lack of sustainable financing; difficulty ensuring multisectoral coordination; climate change and natural disasters hampering sustainable WASH improvements; weaknesses in case reporting and surveillance; and a lack of impact data that makes arguing government funding even more difficult.

Bangladesh's requirements from the GTFCC are as follows. There is a need for long term technical support via the CSP, including help in the following areas: strengthening surveillance systems, including through establishing a central cholera reference laboratory; establishing RDT-based diagnostic facilities at peripheral health facilities; and establishing culture/PCR-based diagnostic facilities at medical college hospitals. As the country continues to implement the NCCP, assistance will be needed to develop training and technical capacity. OCV doses will be needed for vaccination campaigns, and support for WASH and for implementation research will be required.

Bangladesh enjoys consensus on the importance of WASH and diarrhoeal disease control activities among policy makers and has a clear strategy to prioritize WASH in national food- and water-borne disease control strategies. This support will come at a crucial time for national cholera control, with the government-financed 5th National Health Sector Programme 2024-2028 coming soon.

Showcase: Cameroon

Kamsouloum Elhadji Hachimi, Cameroon Ministry of Health

Like most countries, Cameroon faces problems of access to drinking water and hygiene and sanitation infrastructure. Waterborne diseases such as cholera and typhoid are a problem, particularly for the most disadvantaged and vulnerable populations.

As part of the fight against cholera, and in line with the SDGs, Cameroon has undertaken several actions. With the goal of national cholera eradication, the Ministry of Public Health has established structures and tools for prevention, monitoring, care and control. These include an integrated disease surveillance and response system; national, regional and local rapid intervention and response teams; a national laboratories network; and a national contingency plan for the prevention and fight against cholera. This plan is based on anticipating any manifestation of cholera to minimize potential human consequences through preparation, prompt responses and efficient, coordinated action. As well as the national response plan, Cameroon intends to implement and monitor the actions of the GTFCC Roadmap. The country also has a public health emergency operations centre (PHEOC); a Health emergency preparedness and response plan; a national fund for epidemic response; a plan to strengthen the national early warning system; and WASH-specific support from humanitarian partners.

Cholera control activities undertaken so far include the following: work to identify likely sources of contamination; measures to prohibit the use of contaminated water points; promotion of Aquatab use in villages, with sensitisation around chlorination and boiling of water and public awareness work on hygiene and sanitation measures; household disinfections; a district fact-finding mission; installation of village cholera treatment centres; weekly meetings of the Regional Epidemic Management Committee and redeployments of cholera agents where required; review and maintenance of the stock of medicines and consumables; prepositioning of key supplies before the rainy season; public campaigns to popularize cholera guidelines and raise awareness; and provision of ENIR support to investigate outbreak sources.

Challenges to this work include insufficient or unavailable funds (including epidemic management funds that should be available when needed at any time); a lack of qualified human resources, particularly for sanitary engineering; lack or breakdown of safe water points (boreholes, etc.); and continued difficulty accessing certain areas, particularly those that are very isolated, during the rainy season.

Immediate awareness raising needs include further advocacy for healthy environments, based on the communication for behaviour change (C4D) approach; and advocacy for access to drinking water for communities in rural areas.

Showcase: Democratic Republic of Congo (DRC)

Benjamin Kwengani Mavard (Ministry of Health, PNECHOL)

The Democratic Republic of Congo is a complicated cholera context. A very large country with an estimated at 100 million inhabitants, it has a dense network of waterways and lakes, but drinking water supply is estimated at only 27%. The country continues suffers several ongoing conflicts, with displaced and affected populations exposed to precarious WASH conditions and heightened cholera risk. The National Water Distribution Board (REGIDESO) has 96 operating centres, located mainly in large cities, but infrastructure is dilapidated. The National Rural Hydraulic System (SNHR) has drilled boreholes in some sites, but its drilling strategy has not taken the health situation into account.

Since 2017, DRC has seen a fall in notifications of cholera cases every year, from 54,779 in 2017 (with a case fatality rate/CFR of 2.1%) to 2,929 in 2022 (with a CFR of 1.3%).

The cholera control strategy is carried out in seven strategic areas:

1. strengthening global surveillance;
2. curative case management;
3. implementing interventions related to drinking water, hygiene and sanitation in areas affected by cholera epidemics;
4. implementing sustainable interventions to improve access to drinking water in hotspots;
5. vaccination;
6. research; and
7. coordination and communication for behaviour change and advocacy.

A national strategy for responses in outbreaks and/or cluster areas has been developed using the Quadrillage Technique (ACTQ). ACTQ is based on identifying sources of persistent transmission; identifying the spaces in which transmission is persistent (the "grid sites"); and identifying activities or behaviours contributing to transmission risk inside and outside households. Fixed and mobile chlorination points are set up at drawing-off points; Aquatabs are distributed in hotspots and affected zones and households disinfected where necessary (supported by several partner organizations including the IFRC, UNICEF, WHO and others); and communication and sensitization on hygiene and sanitation are done for affected populations. A three-phase approach is used: the preparation phase consists of localised planning (minimum one week of work); a field implementation phase lasts 14 days; and the mop-up phase (i.e. reaching zero cases in epidemic areas or returning to normal case numbers in endemic areas) lasts for seven days.

WASH-specific interventions in DRC have included organising secure burials in provinces and hotspot areas; building hygiene capacity for household disinfection and management in several provinces (with partner support); and implementing CATIs in some provinces, in partnership with UNICEF.

DRC has also received GTFCC and the ICG support to organize both emergency and preventive vaccination campaigns.

Showcase: Mozambique

Gianluca Guidotti, Humanitarian Coordinator, SDC; Gaoussou Diakité, SolidarMed/Helvetas Swiss Intercooperation

Mozambique has so many actors in different sectors addressing cholera that coordination is a fundamental priority. Not only are WASH and health actors involved, but others too, including those working on development, protection of displaced populations, risk mapping, flood prevention and other areas. Organised effective leadership is crucial and buy-in from state institutions and the international community is essential.

Cholera outbreaks usually occur in hotspots but are clearly predominantly development issues: ensuring the sustainable operation of infrastructure and maintaining behaviours that mitigate cholera risk are huge challenges. After cyclone Kenneth in April 2019 the risk of waterborne diseases increased greatly, and armed conflict since 2019 has also led to increased numbers of internally displaced persons (IDP). A 2020 cholera epidemic caused 1 483 cases and seven deaths in two districts of Cabo Delgado Province.

The UNICEF/SADC/AI Switzerland Solidarity response to the 2019 cyclone and the 2020 outbreak was multifaceted. Work was done to prepare the health system for further cholera epidemics, with a focus on case management and secondary prevention; to ensure access to drinking water, construct latrines and promote individual and collective hygiene; and to ensure coordination through health and WASH cluster meetings at Provincial level and multisectoral meetings in districts. Through these efforts, water points were rehabilitated and new boreholes constructed; latrines were built or rebuilt; families received food and supplies to treat drinking water; hygiene information campaigns reached thousands of families; hygiene and dignity kits were given out; and three cholera treatment centre (CTC) kits were distributed (containing beds, tents, consumables, PPE, etc.) and patients treated for cholera at the CTCs.

This intense period of work revealed several lessons. Epidemics were slow to be reported, often for political reasons. Data was lacking or incomplete, and the means for effective diagnostics – medical equipment and consumables – were lacking. Training was needed on epidemic and CTC management: cases were not properly followed up, and there were cultural issues around the correct management of the bodies of people who died of cholera.

A regional cholera eradication project is now in preparation across 16 of Mozambique's 32 cholera-endemic districts. In these areas 15 to 20% of villages are considered hotspots (with a combined population of 1.5 million) and the average cholera CFR is 3.04%. The principal objective of this project is to protect the people of Cabo Delgado and Nampula Provinces from cholera and other diarrhoeal diseases, through the following actions: helping families in cholera-prone areas implement good practices to prevent diarrhoeal diseases; establishing a surveillance and alert system; and ensuring that the health system is prepared and equipped to respond rapidly to cholera outbreaks and contain them, thereby efficiently managing epidemics.

Showcase: Nigeria

Hassan Muntari, Nigeria Centre for Disease Control; Olu-Daniels Ibiyemi, Nigeria Ministry of Health

Though cholera is endemic and seasonal in Nigeria, in 2021 the country experienced its worst cholera outbreak in 30 years, in which 111 062 suspected cases caused 3 604 deaths at a CFR of 3.2%. Thirty-four of 37 States were affected, with 53% of suspected cases reported in just four: Bauchi, Jigawa, Kano and Zamfara. Major risk factors and vulnerabilities include poor WASH conditions (inadequate access to and management of water services and pipelines; consumption of contaminated water; high rates of open defecation; inadequate sewage and waste disposal systems/open drains; and poor hand and food hygiene practices). These are further complicated by conflict and insecurity in the Northeast, Northwest and Northcentral regions causing displacements and leading to a significant number of IDP camps across the country. Drought and flooding affect different parts of the country (28 states were at risk of flooding in 2021; the national poverty rate is high; and there are issues of malnutrition in the north.

The national WASH Sector cholera response in 2021 was to target 3.6 million people across all states in which WASH partners are active (to date 1.6 million have been reached by partners with sustained and improved access to water). 418 000 people gained new access to safe water and/or new and rehabilitated latrines; 1 639 000 people had sustained access to safe water; 181 000 people gained new access to gender and disability friendly sanitation services via new and rehabilitated latrines; 697 000 people had sustained access to clean, disinfected and desludged latrines; and 2 100 000 people were reached with hygiene promotion and social mobilization messages and/or provided with WASH non-food interventions (NFIs) or cash for NFIs. In 2021-22 this work continues, with numbers mounting.

The national multisectoral cholera working group coordinates the national response and deploys rapid response teams (RRT) during outbreaks. The subnational response is ongoing with partner support.

Surveillance has been strengthened with the use of infectious disease surveillance and response (IDSR) and a digital case-based system known as SORMAS, which reduces time between detection and outbreak investigation and response. Training has been provided to strengthen State cholera outbreak response teams. Subnational coordination of emergency operations centres (EOCs) has been strengthened, and laboratories optimised for cholera testing. State governments have been targeted with advocacy campaigns, their states supported with case management commodities and risk communications, and state WASH infrastructure has been strengthened. Hotspot mapping has been done and cholera case management guidelines and SOPs have been developed. An after action review was done for the 2021 outbreak.

National cholera preparedness, prevention and response plans have been developed or updated, accompanied by coordination and institutional strengthening for cholera prevention, preparedness and response. Regular meetings of the WASH in Emergencies Technical Working Group are held with the involvement of all stakeholders and there is ongoing collaboration with the NCDC on a cholera EOC.

All this work faces familiar challenges: inadequate planning and response capacity; weak multisectoral collaboration and poor reporting by partners; challenges with the quality and the coverage of water supply; continued open defecation in around 90% of local authorities; poorly protected water sources (streams and dug wells); insecurity; poor hygiene practices; and poor environmental sanitation and waste management.

The way forward for Nigeria is along the same lines. Activities in the near future will include work to finalise and implement the multisectoral cholera control plan; water adequacy and safety planning; addressing open defecation by enforcing existing policies; more awareness raising and health education activities in communities; further strengthening of state preparedness and readiness; improvements to subnational WASH structures; and strengthening multisectoral collaboration within and between technical working groups and EOCs at national and subnational levels. Further improvements will be made to the electronic IDSR system, and advocacy will be undertaken to the Federal Council to help ensure that State governments make the necessary investments in WASH infrastructure.

Showcase: Togo

Ouyi Tante, Togo Ministry of Health

Togo's has a climate favourable for vectors of diseases with epidemic potential but is also home to the WHO cholera hub. The country has seen two recent cholera epidemics, in 2020 and 2021; the first consisted of 68 cases and two deaths (a CFR of 3%), and the second of 39 cases and five deaths. Epidemics still occur in rural and peri-urban areas, mainly due to non-compliance with hygiene measures linked to the lack of water and sanitation infrastructure, and with moments of especially high risk during customary events and social gatherings (particularly when health personnel are not involved in organizing those gatherings). The main risk factors include inadequate management of drinking water, unsafe household practices, unsuitable food preservation methods, a lack of general and environmental hygiene, and large numbers of people in precarious living conditions in areas of high population density.

Environmental studies in the Great Lakes districts and Grand Lomé regions have shown that cases in the former were probably imported, but that Greater Lomé is a cholera reservoir, with water from wells, drinking water and toilets containing samples of *Vibrio* O1-Ogawa.

National cholera control activities to date have included appointing national cholera focal points; risk assessment and mapping; development of strategic emergency preparedness and response plans for cholera epidemics; establishing RRTs for field investigations and risk assessment; establishing

multisectoral national and subnational coordination mechanisms and partners; mapping cholera hotspots in affected areas; and documenting challenges and lessons for use in decision-making. National examples of good practice have included the use of GPS in outbreak investigations; environmental studies in high-risk areas; the ongoing reconstruction of the national cholera database; and implementation of the bouclier-coup de poing strategy for managing epidemics.

Activities planned but not yet carried out or completed include identifying monitoring and performance indicators and defining quality control mechanisms for interventions (originally planned for 2019); establishing sufficient capacity for the management of cholera cases (2020); developing a comprehensive strategy for social mobilization and community interventions (2020); developing investment cases for the fight against cholera in collaboration with WHO (2020); mobilizing technical and financial resources for cholera control at all levels (2022); and establishing or strengthening epidemiological and laboratory surveillance systems (2022).

Challenges to all this work (and related opportunities) have included difficulties with surveillance; an insufficiency of trained human resources; poor availability of RDTs; poor collaboration and coordination of local community and health authorities; the need for better cross-border collaboration; the need for more environmental surveillance; and the need for partner mapping. WASH-specific challenges also include training needs; poor quality drinking water and a lack of household chlorine; low accessibility of improved low-cost water and sanitation infrastructure; the need to construct and/or rehabilitate (and promote use of) latrines; poor water quality monitoring; the need to promote food safety; and the need to strengthen local production of bleach, particularly in the most vulnerable districts.

Togo has a number of support and collaboration needs, including in the following areas: OCV campaigns; improving diagnostics and increasing RDT use; improving drinking water supply through household chlorination, installation of solar boreholes and rehabilitation of water points; monitoring drinking water quality; raising awareness of cholera prevention; increasing water and food safety; improving vector control; conducting environmental studies; and constructing or rehabilitating latrines, particularly in schools and public places.

Togo has strong political commitment to addressing recurrent cholera outbreaks, with resources and response plans in place and a focus on good practice and quick containment. The various challenges to this work must be addressed with a few core themes in mind: strengthening preparedness and response capacities, particularly in surveillance and WASH; involving communities and community stakeholders such as women's associations, young people, mayors, school parents' associations, etc.; and effective, efficient intersectoral and cross-border collaboration.

WASH baseline in cholera hotspots: the Zanzibar experience

Tom Handzel, *Epidemiologist and WASH Team Lead (US CDC)*

WASH baselines in cholera hotspots are used to measure progress over time as WASH infrastructure is developed, to leverage resources, and to demonstrate progress meeting the goals of NCP roadmaps. They can be linked to other activities and surveys such as OCV coverage surveys, or be done as standalone initiatives.

This methodology described in this presentation follows a few core assumptions. Cholera hotspots are predefined by country authorities using five-year data, and WASH interventions are planned for the hotspot; representative random or cluster sampling is carried out (no convenience sampling); standard

JMP WASH questions are used to facilitate comparing across surveys and over time; and a standardized methodology is applied and powered for comparison of surveys over time (i.e. baseline, midline, and endline).

This methodology was piloted in Zanzibar to create WASH Baseline estimates for cholera hotspots that were targeted for OCV campaigns. A WASH questionnaire was included in the multi-stage OCV coverage cluster survey, with the sample size sufficiently powered to make WASH coverage estimates by area. Also included were FRC water quality testing of household stored water and the microbiological testing of source waters.

Zanzibar consists of two islands with a combined population of around 1.6 million. An OCV campaign in July-August 2021 targeted 349 478 persons, and a coverage survey was run jointly by the ministry of health, WHO, and the US CDC in November-December of the same year. In the first step of planning this WASH baseline survey the ministry identified hotspots targeted by the OCV campaign. National hotspot prioritisation methods were then used to determine areas where WASH Baseline estimates are a priority (step 2), and the sample size needed to be able to estimate WASH coverage in each hotspot was determined (step 3). This allowed the calculation of how many WASH baseline estimates might be financially or logistically feasible (step 4).

Sample size options for step 3 were (a) one OCV coverage estimate for both islands combined, versus (b) two OCV coverage estimates, one per island. Estimates were to be created in a multi-stage cluster survey using mobile data collection, with clusters selected using probability proportional to size (PPS). Option (b) proved cost prohibitive, so WASH oversampling was done in three districts on Unguja island. Different WASH results were sorted into categories ranging from “safely managed” at best down to “unimproved” or “surface water” depending on the WASH value being measured. For example, for the measurement of “primary drinking water source,” the categories were as follows:

- *Safely managed*: drinking water from an improved water source accessible on premises, available when needed and free from faecal and priority chemical contamination
- *Basic +*: an improved source within 30 minutes round trip collection time and water treatment
- *Basic*: drinking water from an improved source, provided collection time is not more than 30 minutes for a roundtrip including queuing
- *Limited*: drinking water from an improved source for which collection time exceeds 30 minutes for a roundtrip including queuing
- *Unimproved*: unprotected dug wells, unprotected springs
- *Surface water*: surface water.

Overall WASH coverage for Zanzibar proved to be relatively high: access to “basic+” or “safely managed” water stood at 36.7%, and access to “basic” water was 56.3%, though access to treated water was low. 74.6% of respondents had access to basic sanitation, access to basic handwashing facilities was at 54.6%.

This project shows that a WASH coverage survey can be easily and economically grafted to a planned OCV coverage survey by simply adding WASH-specific questions and water quality testing. Oversampling can provide district level estimates not generated by the OCV survey alone – in Zanzibar, increasing the sample size from 1200 to 1900 allowed three district level estimates in addition to the overall estimate of WASH coverage.

There are challenges, though. Data collection areas are predetermined by the target population for the OCV campaign, potentially rendering oversampling essential, and timing is dependent on the timing of the OCV coverage survey. Oversampling can also be complicated if hotspot sizes are small.

Future considerations to examine will include whether a WASH baseline is needed for each hotspot, or whether nearby hotspots can be merged for baselines; whether general WASH estimates can be used to

prioritize specific interventions in particular cholera hotspots; and whether such baseline results can be used for costed WASH plans.

The next steps are to pilot a stand-alone baseline (without an OCV survey), then one more baseline combined with an OCV survey. The methodology for the standalone survey will be for cholera hotspots with no planned campaigns, using a standard WASH questionnaire, testing stored household water for FRC and taking water quality samples from a proportion of households and water sources of those households for microbiological testing. Representative sampling methodologies will be applied. In smaller hotspots, simple random sampling will assume 80% power, 95% confidence intervals (CI), a 10% non-response rate and a proportion of 50%. A sample size of 430 households is powered to make an estimate and detect at least a 10% difference between survey rounds. In larger hotspots, multistage cluster surveys will assume a default design effect of 1.5, 80% power, 95% CIs, a 10% non-response rate and a proportion of 50%. A sample size of 698 households will be powered to make an estimate and detect at least a 10% difference between survey rounds.

Closing statement

Philippe Barboza, *Head of GTFCC Secretariat/Cholera Team Lead, GTFCC/WHO*

This meeting produced a wide overview of different packages and strategies. The list of needs, responses, methods and options is long, but the work define the tasks ahead is necessary. Prioritisation will come later.

For most countries, WASH work is a mixture of crisis and initiatives. The problems of endemic cholera will never be solved by emergency responses alone, and cholera is not just a health issue – rather, it is a symptom of infrastructural deficiencies. Unless countries have very good reasons for repeated outbreaks in the same areas, they will not keep being given supplies of OCV. OCV buys time for WASH; and long-term WASH investment is the only sustainable answer.

Water quality testing and monitoring is not optional, it is a necessity – and a useful advocacy tool, including for governments that need to prove when the water used by populations is unsafe.

Despite the need for more and better data, it remains difficult or impossible to get all that is needed, so the imperative is to start small, documenting small outbreaks in small areas and gathering the information that is relatively easily available. Rather than generating additional work, the GTFCC can play a role in putting different pieces of information together so it can be used collectively.

Very diverse situations are present in different countries, and there is not – nor is there likely ever to be – a one-size-fits-all solution of any kind. Different strategies will be needed, and to develop them we need proofs of concept. The high level of transparency about difficulties, challenges and complexities witnessed throughout the meeting can only help in this regard. That honesty is something to be admired – and something for which to be grateful.

Annex 1: Agenda

8th of March 2022



Hybrid meeting of the Global Task Force on Cholera Control (GTFCC) Working Group on Water, Sanitation and Hygiene (WASH)

WASH-WG meeting #07 (9th-10th of March 2022)

Objectives of the WG meeting

- Review, further develop and validate the WASH Working Group workplan 2022+
- Update members of the WG on the 10 workstreams, and discuss the priority areas of work which members want to prioritise in the next years
- Showcase relevant activities developed in countries as well as at global level
- Foster exchange of information and identification of potential areas of collaboration among the WG members and GTFCC partners (two small meeting rooms will be available on demand for participants wanting to set up bilateral discussions during the event)

Hybrid meeting on Wednesday 9th of March 9:00 – 17:00 CET (Geneva Time)

Time	Topic
09:00 – 09:10	Opening and welcome – Dr Philippe Barboza , Head of GTFCC-Secretariat Cholera Team Lead (GTFCC/WHO)
09.10 – 09.20	WaterAid opening and role as GTFCC WASH WG chair– Tim Wainwright , CEO WaterAid UK
09.20 – 09.30	Introduction of the meeting – Dr. Nurullah Awal , GTFCC WASH WG Chair (WaterAid)
09.30-10.00	WASH WG WP 2022, work stream 1: WASH data – Justine Haag , WASH Focal Point (GTFCC - Secretariat/WHO)
10.00-10.30	WASH WG WP 2022, work stream 2: WASH in NCPs – Christophe Valingot , WASH and Epidemiology Consultant (IFRC)
10.30-11.00	Tea break
11.00-11.30	WASH WG WP 2022, work stream 3: WASH and OCV – Malika Bouhenia , OCV Focal Point (GTFCC - Secretariat/WHO)

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11.30-12.00	WASH WG WP 2022, work stream 4: WASH Advocacy – Megan Wilson Jones , Senior Policy Analyst Health and Hygiene (WaterAid)
12.00-12.30	WASH WG WP 2022, work stream 5: WASH Research – Dr. Daniele Lantagne , Professor of Community Health, Civil and Environmental Engineering (Tufts University), Dr. Gupreet Kaur , Research Associate (John Hopkins University) and Ruwan Ratnayake , Epidemiologist (LSHTM), Tom Handzel , Epidemiologist and WASH Team Lead (US CDC)
12.30-13.30	Lunch break
13.30-14.00	Humanitarian Development Nexus and WASH Roadmap – Marc-André Bünzli , Head of WASH Expert Group (SDC-SHA) and Thilo Panzerbieter , Executive Director (GTO)
14.00-14.45	IFRC preparedness, early detection, and response to contain cholera outbreaks in Africa – Chris Brewer , Africa Cholera Coordinator (IFRC)
14.45-15.30	Coffee break
15.30-16.00	WASH assessment in cholera hotspots to support the development of NCPs: development of FACET tool – Thomas Mollet , CSP Coordinator (GTFCC - CSP/IFRC), Christophe Valingot , WASH and Epidemiology Consultant (IFRC), Ryan Schweitzer (US CDC), Pierre-Yves Oger (UNICEF)
16.00-16.30	WaterAid programmatic input – Absul-Nashiru Mohammed , Regional Director for West Africa (WaterAid)
16.30-17.00	Closing day 1 – Dr Philippe Barboza , Head of GTFCC-Secretariat Cholera Team Lead (GTFCC/WHO)

Hybrid meeting on Thursday 10th of March 9:00 – 17:00 CEST (Geneva Time)

Time	Topic
09:00 – 09:15	Opening and welcome – Dr. Nurullah Awal , GTFCC WASH WG Chair (WaterAid)
09.15 – 9.45	WASH WG WP 2022, work stream 6: WASH capacity and training – Dr. Claudio Valsangiacomo , Head of the Center for Development and Cooperation (SUPSI/SDC-SHA)
9.45-10.15	WASH WG WP 2022, work stream 7: Case studies – Christophe Valingot , WASH and Epidemiology Consultant (IFRC)
10.15-10.45	Tea break
10.45-11.15	WASH WG WP 2022, work stream 8: Hygiene and food safety – Alex Machado , WASH in Public Health Senior Officer (IFRC)

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11.15-11.45	WASH WG WP 2022, work stream 9: Water Safety Plans and Water Quality Management – Justine Haag , WASH Focal Point (GTFCC - Secretariat/WHO)
11.45-12.15	WASH WG WP 2022, work stream 10: WASH and IPC – Dr. Nurullah Awai , GTFCC WASH WG Chair (WaterAid)
12.15 – 12.30	Recap WS1-10 - Justine Haag , WASH Focal Point (GTFCC - Secretariat/WHO)
12.30-13.30	Lunch break
13.30-14.00	Validation of the 2022 WP WASH WG - Justine Haag , WASH Focal Point (GTFCC - Secretariat/WHO)
14.00-14.20	Showcase of WASH activities implemented in Bangladesh to support cholera control – Dr. Aninda Rahman and Dr. Md. Nazmul Islam (Ministry of Health)
14.20-14.40	Showcase of WASH activities implemented in Cameroun to support cholera control – TBC Kamsou-loum Elhadji Hachimi (Ministry of Health)
14.40-15.00	Showcase of WASH activities implemented in DRC to support cholera control – Benjamin Kwengani Mavard (Ministry of Health, PNECHOL)
15.00-15.30	Coffee break
15.30-15.50	Showcase of WASH activities implemented in Mozambique to support cholera control – Gianluca Guidotti , Humanitarian Coordinator (SDC), Gaoussou Diakit� (SolidarMed / Helvetas Swiss Intercooperation)
15.50-16.10	Showcase of WASH activities implemented in Nigeria to support cholera control – Dr. Hassan Muntari (NCDC) and Olu-Daniels Ibiyemi (MoH)
16.10-16.30	Showcase of WASH activities implemented in Togo to support cholera control – Ouyi Tante (MoH)
16.30-16.50	Baseline WASH assessments in cholera hotspots in Zanzibar – Tom Handzel , Epidemiologist and WASH Team Lead (US CDC)
16.50-17.00	Closing day 2 – Dr Philippe Barboza , Head of GTFCC-Secretariat Cholera Team Lead (GTFCC/WHO)