

Global strategic preparedness, readiness and response plan for cholera

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Abbreviations

AWD	acute watery diarrhoea
CFR	case-fatality ratio
CTC	cholera treatment centre
CTU	cholera treatment unit
EWARS	Early Warning, Alert and Response System
GTFCC	Global Task Force on Cholera Control
HCF	health care facility
HCW	health care worker
ICG	International Coordinating Group
IDSR	Integrated Diseases Surveillance and Response
IFRC	International Federation of Red Cross and Red Crescent Societies
IHR	International Health Regulations (2005)
IPC	infection prevention and control
KPI	key performance indicators
NCP	National Cholera Plan
PCR	polymerase chain reaction
PPE	Personal Protective Equipment
OCV	oral cholera vaccine
ORP	oral rehydration point
ORS	oral rehydration solution
OSL	operational support and logistics
PRSEAH	Prevention and Responding to Sexual Exploitation, Abuse and Harassment
RCCE	risk communication and community engagement
RDT	rapid diagnostic test
SOP	Standard Operating Procedure
SPRRP	Strategic Preparedness, Readiness and Response Plan
UNDSS	United Nations Department for Safety and Security
UNICEF	United Nations Children's Fund
WASH	water, sanitation and hygiene
WGS	whole-genome sequencing
WHO	World Health Organization

Introduction

Cholera is a major health risk in many parts of the world, affecting millions of people every year. Since mid-2021, the world has been facing an acute upsurge of the seventh cholera pandemic, which is characterized by the number, size and concurrence of multiple outbreaks, the spread to areas that had been free of cholera for decades and alarmingly high mortality rates. The mortality associated with these outbreaks is of particular concern as many countries have reported higher case-fatality ratios (CFR) than in previous years. The average cholera CFR reported globally in 2021 was 1.9% (2.9% in Africa), a significant increase above the acceptable rate (<1%) and the highest recorded in over a decade. Preliminary data suggests similar trend for 2022 and 2023. The progression of several cholera outbreaks, compounded in countries with fragile health systems and facing complex humanitarian crises that are aggravated by climate change poses challenges to outbreak response and risks further spreading of the disease to other countries. The overall capacity to respond to the multiple and simultaneous outbreaks continues to be strained due to the global lack of resources, including the oral cholera vaccine (OCV) and other critical supplies, and overstretched public health and medical personnel, who are dealing with multiple emergencies at the same time. Based on the current situation, including the increasing number of outbreaks and their geographical expansion, as well as a lack of vaccines and other resources, WHO assesses the risk at the global level as very high.

Global Strategic Preparedness, Readiness and Response Plan

The Global Strategic Preparedness, Readiness and Response Plan (SPRRP) 2023-2024 outlines priorities to prevent, prepare and respond to ongoing cholera outbreaks on a global scale, as well as the resources required by WHO to implement priorities. The SPRRP provides guidance to strategically align preparedness, readiness and response actions across the three levels of the Organization with clear objectives and recommended activities. These activities are intended to cover the period of April 2023 to April 2024 and are focused on immediate emergency preparedness, readiness and response activities. The activities outlined in the SPRRP do not replace existing Global Task Force on Cholera Control (GTFCC) objectives and activities.

Global Task Force on Cholera Control (GTFCC) and Global Roadmap 2030

The Global Task Force on Cholera Control (GTFCC), created in 1992 is a partnership of more than 50 institutions, including NGOs, academic institutions, and UN agencies, all working together to end cholera. This network is committed to supporting cholera-affected countries in the global movement to end cholera. It supports the development and implementation of multi-sectoral national cholera plans (NCPs) that are country-focused and country-led. The GTFCC Secretariat sits in WHO, within the cholera programme. It convenes the partners, establishes norms and standards and proposes strategic orientations to the GTFCC Steering Committee. The Country Support Platform is the GTFCC's operational arm, which was established in 2020 to enhance multisectoral support provided to cholera-affected countries for the implementation of their National Cholera Plans, under the guidance of the Secretariat.

In 2017, partners signed onto the Ending Cholera declaration, promising to commit their organization's resources and to act with urgency to realize a world free from the threat of cholera. That same year, the GTFCC's new global strategy for cholera control *Ending cholera – a global roadmap to 2030* was launched. Focusing on the 47 countries affected by cholera at that time, the strategy targets a 90% reduction in cholera deaths by 2030, and elimination of cholera in 20 countries.

The global roadmap focuses on three priority areas.

1. The first is early detection and rapid response, based on intervention such as robust community engagement, strengthening early warning surveillance and laboratory capacities, health systems and supply readiness, and establishing rapid response teams.
2. Second, a targeted multi-sectoral approach to prevent cholera recurrence is called for. The strategy urges countries and partners to focus on cholera “hotspots”, the relatively small areas most heavily affected by cholera. Cholera transmission can be stopped in these areas through measures including improved WASH and use of OCV.
3. The third is an effective mechanism of coordination for technical support, advocacy, resource mobilization, and partnership at local and global levels.

Cholera: background and key control measures

Modes of transmission

Cholera is a diarrheal disease transmitted through the ingestion of contaminated food or water. Although 200 serogroups of *V. cholerae* exist, only two serogroups, *V. cholerae* O1 and O139, cause epidemics. The individual infectious dose varies widely and generally ranges from 10^4 to 10^8 organisms, depending on host factors. Ingestion can occur directly due to lack of personal or domestic hygiene (mainly hand washing) or through the consumption of water or food contaminated with the faeces of a symptomatic or asymptotically infected person. Humanitarian crises have often been associated with a higher risk of cholera outbreaks due to disruption of water and sanitation systems, and congregation of large populations displaced into temporary, often overcrowded camps without adequate water and sanitation systems.

Clinical presentation

Cholera is an extremely virulent disease that can cause severe acute watery diarrhoea (AWD). It takes between 12 hours and 5 days for a person to show symptoms after ingesting contaminated food or water. Cholera affects both children and adults, and severe forms of the disease can kill within hours if untreated.

Most people infected with *V. cholerae* do not develop any symptoms, although the bacteria are present in their faeces for 1 to 10 days after infection and are shed back into the environment, potentially infecting other people.

Among people who develop symptoms, the majority have mild or moderate symptoms, while a minority (5%) develop AWD with severe dehydration. This can lead to death if left untreated.

Laboratory diagnosis

Treatment of cholera does not rely on laboratory confirmation of cases. However, timely, accurate, and reliable laboratory results are essential to confirm cholera outbreaks, to discard suspected cases or detect probable cholera outbreaks, and to identify the end of an outbreak. Strategic testing of a representative portion of suspect cases is also needed to monitor incidence of true cholera during outbreaks, to monitor antibiotic susceptibility and to characterize circulating strains. Identification of *V. cholerae* O1/O139 in stool samples using culture and seroagglutination remains the gold standard for laboratory diagnosis of cholera and monitoring of antimicrobial resistance. Other methods including polymerase chain reaction (PCR) may be used, but confirmation of species, serogroup and, in certain cases, toxigenicity should be upheld. Rapid diagnostic tests (RDT) are used primarily at health care level for surveillance purposes and can greatly speed up detection of probable outbreaks and monitoring of incidence trends of true cholera

during ongoing outbreaks. They represent a useful tool for triaging samples to be further tested in laboratories. Antimicrobial susceptibility testing is to be performed regularly to inform management of any changes in strain antibiotic susceptibility profiles. Whole-genome sequencing (WGS), as well as other advanced genotyping methods, can provide additional information including but not limited to establishing a relationship between outbreaks, or tracking the genetic evolution of strains. These methods, however, are of limited value in the context of acute outbreaks.

Coordination with field surveillance teams and health facility personnel performing RDTs and sample collection, effective sample referral and transport mechanisms, and availability of quality testing in strategically located laboratories are critical to ensure laboratory functions and ultimately guide response and surveillance activities.

Case management

The treatment of cholera is focused on rapid rehydration. Cholera patients should be evaluated and treated quickly. Rapid and adequate treatment has been shown to reduce the CFR to below 1%. The majority of people can be treated successfully through prompt administration of oral rehydration solution (ORS). Severely dehydrated patients require the rapid administration of intravenous fluids, preferably Ringer's lactate solution. Antibiotics can be given in severe cases to diminish the duration of diarrhoea: reduce the volume of rehydration fluids needed and shorten the amount and duration of *V. cholerae* excretion in stool. Early case detection with well-guided case management will contribute significantly to reduced case fatality and support the prevention of transmission. Community engagement is critical to ensuring that rehydration begins at home as soon as symptoms begin to appear, and that additional care is rapidly sought. Oral rehydration should be available in communities, including at specific Oral Rehydration Points (ORPs), in addition to larger treatment centres that can provide intravenous fluids and 24-hour care. Zinc is an important adjunctive therapy for children under 5. It reduces the duration of diarrhoea and may prevent future episodes of AWD arising from other causes. Breastfeeding should be promoted.

Case reporting

Under the International Health Regulations 2005 (IHR 2005), notification of all cases of cholera is not mandatory. However, public health events involving cholera must always be assessed against the criteria provided in the regulations to determine whether there is a need for official notification. Daily reporting is required where cholera is confirmed. In a surveillance unit (for example a district, or province) where there is no ongoing confirmed cholera outbreak, any person infected with *V. cholerae* O1 or O139 identified by presumptive identification (culture/seroagglutination) or PCR is considered a confirmed case. The strain should also be tested for toxigenicity (by PCR) if there is no concomitant confirmed cholera outbreak in other surveillance unit(s) of the country and if there is no established epidemiological link to a confirmed cholera case/ source of exposure in another country. Reports should include the number of new cases and deaths since the previous report and the cumulative totals for the current year or since start of the outbreak, if the outbreak continues across several years. If available, information on the location of the cases should be provided at the first and second administrative units, at minimum. Whatever the source of the information, when suspected cholera cases are detected or reported in a previously unaffected area, a cholera alert should be triggered, and immediate field investigation should be conducted to verify the alert and confirm the outbreak. Once the presence of cholera in an area has been confirmed, it is not necessary to confirm all subsequent suspected cases.

Prevention, preparedness, readiness and control

Prevention and preparedness for cholera require a coordinated multidisciplinary approach. Measures for the prevention of cholera mainly consist of providing proper access to sanitation and safe water to populations who do not have access to essential services. Communities should be engaged in the planning and implementation of all aspects of readiness and response for cholera outbreaks to support the creation of an enabling environment for the adoption of protective and preventative behaviours. These include hand hygiene (especially after contact with faeces), food safety, using safe water for cooking and drinking, getting vaccinated (if available), rapid rehydration and care seeking for cholera cases, and careful management of dead bodies.

In addition, strengthening surveillance and early warning are key to more rapidly detect the first cases and to put adequate control measures in place. Once an outbreak is detected, the usual intervention strategy aims to reduce the CFR below 1% by ensuring access to treatment and controlling the spread of disease. The main control methods are:

- early detection and confirmation of cases;
- effective, timely and safe case management in CTC/CTU/ORP, facilitated by specific training for proper case management, including implementation of appropriate IPC measures;
- sufficient pre-positioned supplies for case management, including IPC supplies;
- improved access to safe drinking-water, safe excreta disposal and proper waste management;
- enhanced hygiene and food safety practices, such as safe food handling, preparation and storage;
- customized context specific RCCE and public information for behaviour change.

Oral cholera vaccine (OCV)

The oral cholera vaccine (OCV) should be used in selected cholera hotspots and during cholera outbreaks. OCV should always be used in conjunction with other cholera prevention and control strategies (such as case management and emergency WASH).

Since 2013, the International Coordinating Group (ICG) has managed the global stockpile of OCV which was created as an additional tool to help control cholera epidemics. The ICG is an international group that manages and coordinates the provision of emergency vaccine supplies and antibiotics to countries during major disease outbreaks. The group is composed of members of WHO, Médecins Sans Frontières, UNICEF and the IFRC. Since the establishment of the cholera vaccine stockpile in 2013, 140 million doses of OCV have been shipped to 26 countries, of which 94 million (66%) have been approved for use in emergency responses. Since January 2022, nearly 39 million vaccine doses have been shipped to 15 countries.

The global surge in cholera cases has put a strain on the ICG OCV stockpile, and dose supply is not sufficient to meet demand. The strained global supply of cholera vaccines obliged the ICG to make the decision in October 2022 to temporarily suspend the standard two-dose vaccination regimen in cholera outbreak response campaigns, using instead a single-dose approach, and to cease preventative campaigns in at risk cholera hotspots.

Global cholera situation overview

As of 10 May 2023, 24 countries were reporting cases of cholera. Since the beginning of 2023, outbreaks have spread further in south-east Africa. The widespread and extended outbreaks in Malawi and Mozambique remain active, although weekly reported cases and deaths have continued to decrease in the past weeks. Additional outbreaks have been reported in Eswatini, South Africa, the United Republic of Tanzania, Zambia and Zimbabwe since the start of 2023.

In the Greater Horn of Africa, the epidemiological situations in Ethiopia, Kenya and Somalia remain a growing concern with increasing number of reported cases and further spreads to new areas. The outbreak is especially concentrated in the region where borders of all three affected countries meet and population movement across borders drives transmission between countries.

For the latest situation overview, consult the monthly WHO Global Cholera Situation Report [here](#).

Prioritization of countries and areas

The SPRRP has been developed and structured in accordance with country risk level, attributed by the repeated and dynamic prioritization process described below. The prioritization is evidence-based and will help decisions to allocate support based on repeated dynamic risk evaluation which relies on epidemiology, context and capacity to respond. Therefore, cholera affected, and at-risk countries, areas and communities are grouped into three categories: acute crisis, active outbreak, preparedness/readiness. Epidemiological indicators include the historical trends of cholera in a given country or area. The size of the current outbreak is based on the number of reported cases; geographical spread; the severity based on the CFR; and trends of all epidemiological indicators listed. Response indicators include the availability of functional CTCs/CTUs/OPRs and the local capacity to contain, control and stop transmission of cholera. Contextual indicators consider seasonality, access to safe water sources, and risk factors such as conflict, the presence of internally displaced people, bordering an ongoing cholera outbreak and natural catastrophes. Fig. 1 below shows the map of prioritization of countries and areas as of 10 May 2023, which is detailed in Table 1.

Acute crisis

Acute crisis status corresponds to a situation where an epidemic is rapidly growing in space and/or time and threatening to overwhelm public health capacity within a matter of weeks. This category includes countries or areas with new epidemics, or endemic countries where the epidemiological situation is worsening due to internal or external factors, and response capacity is overstretched. These countries and areas should be prioritized for immediate support for the management and control of the outbreak.

Active outbreak

Active outbreak status corresponds to situations with an ongoing but managed cholera outbreak, with no immediate challenge to public health control efforts and sufficient capacity of the local health system to manage the outbreak.

Preparedness/readiness

Preparedness/readiness status corresponds to situations where there is no known active cholera outbreak, but where the risk of large cholera outbreaks is substantial, given previous circulation/outbreaks, proximity to countries or areas with ongoing outbreaks, and given the contextual assessment of health systems in the country or area.

Fig. 1. Map of prioritization of countries and areas as of 10 May 2023

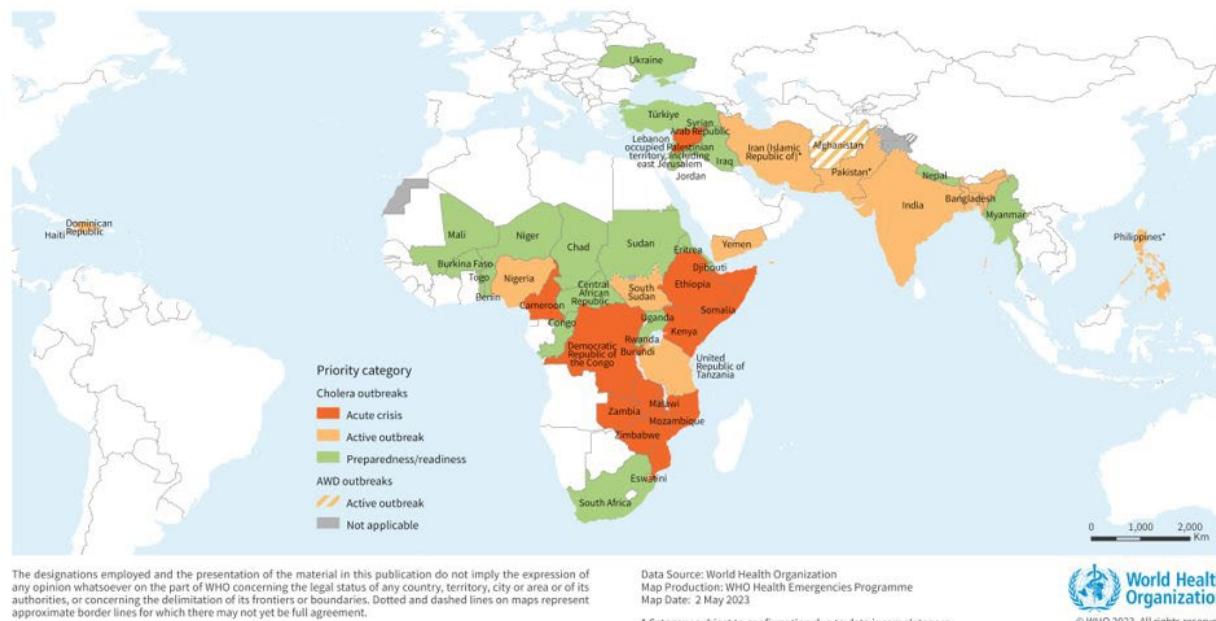


Table 1: Table of prioritization of countries and areas as of 10 May 2023

Country or area	Priority category
WHO African Region	
Benin	Preparedness / Readiness
Burkina Faso	Preparedness / Readiness
Burundi	Acute crisis
Cameroon	Acute crisis
Central African Republic	Preparedness / Readiness
Chad	Preparedness / Readiness
Congo	Preparedness / Readiness
Democratic Republic of the Congo	Acute crisis
Eswatini	Active outbreak
Eritrea	Preparedness / Readiness
Ethiopia	Acute crisis
Kenya	Acute crisis
Malawi	Acute crisis
Mali	Preparedness / Readiness
Mozambique	Acute crisis
Niger	Preparedness / Readiness
Nigeria	Active outbreak
Rwanda	Preparedness / Readiness
South Africa	Preparedness / Readiness
South Sudan	Active outbreak
United Republic of Tanzania	Active outbreak
Togo	Preparedness / Readiness

Country or area	Priority category
Uganda	Preparedness / Readiness
Zambia	Acute crisis
Zimbabwe	Acute crisis
WHO Region of the Americas	
Dominican Republic	Active outbreak
Haiti	Active outbreak
WHO South-East Asia Region	
Bangladesh	Active outbreak
India	Active outbreak
Myanmar	Preparedness / Readiness
Nepal	Preparedness / Readiness
WHO European Region	
Türkiye	Preparedness / Readiness
Ukraine	Preparedness / Readiness
WHO Eastern Mediterranean Region	
Afghanistan	Active outbreak
Djibouti	Preparedness / Readiness
	Active outbreak
Iran (Islamic Republic of)	
Iraq	Preparedness / Readiness
Jordan	Preparedness / Readiness
Lebanon	Preparedness / Readiness
occupied Palestinian territory, including east Jerusalem	Preparedness / Readiness
Pakistan	Active outbreak
Somalia	Acute crisis
Sudan	Preparedness / Readiness
Syrian Arab Republic	Acute crisis
Yemen	Active outbreak
WHO Western Pacific Region	
Philippines	Active outbreak

Strategic objective and specific objectives

Strategic objective

Reduce cholera-related mortality, by containing and preventing major outbreaks, and minimize the impact of cholera epidemics on communities while maintaining continuity of essential health and social services.

Specific objectives

- Improve prevention, preparedness and timely response to cholera outbreaks.
- Strengthen planning, preparedness, capacity-building, surveillance, detection, case management and monitoring of interventions.
- Engage and empower communities to drive and sustain readiness and response to cholera outbreaks, and to adopt and sustain preventative, protective and care-seeking behaviours
- Enhance multi-partner and multi-sector coordination, including in partnership with governments, nongovernmental organizations, civil society, other United Nations agencies, donors and other partners, to deliver a coordinated public health response.

SPRRP pillars and alignment with core components of WHO's Global Health Architecture for Health Emergency Preparedness, Response and Resilience

To achieve the outlined objectives, the interventions must be implemented in a coordinated manner through a multidisciplinary response structure. This response structure consists of 10 inter-related pillars.

Pillar 1: Leadership, coordination, planning and monitoring

Pillar 2: Risk communication and community engagement (RCCE)

Pillar 3: Surveillance and outbreak investigation

Pillar 4: Water, sanitation and hygiene (WASH)

Pillar 5: Laboratory diagnostics and testing

Pillar 6: Infection prevention and control (IPC)

Pillar 7: Case management

Pillar 8: Operational support and logistics

Pillar 9: Continuity of essential health and social services

Pillar 10: Vaccination

Table 2 below aligns the 10 pillars with the five core components of the WHO's Strengthening the Global Architecture for Health Emergency Preparedness, Response and Resilience. The global cholera strategy outlined in the SPRRP will need to be further contextualized at regional levels to take into consideration local context, capacities and challenges.

Table 2: Alignment of the Global Cholera SPRRP 2023-2024 pillars with the five Core Components of the proposed Global Health Architecture

<u>Core Components of WHO's Global Architecture for Health Emergency Preparedness, Response and Resilience</u>	Pillars of the Global cholera strategic preparedness, readiness and response plan
Coordination	Pillar 1 Leadership, coordination, planning and monitoring
Collaborative surveillance	Pillar 3 Surveillance and outbreak investigation Pillar 5 Laboratory diagnostics and testing
Community protection	Pillar 2 Risk communication and community engagement (RCCE) Pillar 4 Water, sanitation and hygiene (WASH) Pillar 10 Vaccination
Safe and scalable care	Pillar 6 Infection prevention and control Pillar 7 Case management Pillar 9 Continuity of essential health and social services
Countermeasures and research	Pillar 8 Operational support and logistics



PILLAR 1: Leadership, coordination, planning and monitoring

Effective leadership and coordinated management are essential to ensure rapid and effective preparedness, readiness and response to cholera outbreaks, including incident management systems, emergency operations centres and multisectoral and multidisciplinary coordination.

Risk Level	Activity
Acute crisis	- Establish coordination structures at all levels (national, provincial, district and health facilities), with activation of emergency operations centre. - Established multidisciplinary team(s) should be mobilized and sent to investigate, assess risk, identify priority actions and implement initial control measures - All relevant stakeholders develop a comprehensive response plan. - Enhance resource mobilization to ensure adequate resources for the response - Coordinate production of information products to update various audiences on situation and response (e.g. situation reports, donor reports, etc.) - Provide adequate human resources for all IMS pillars to support optimal response

Risk Level	Activity
	- In coordination with Inter-Agency Prevention of Sexual Exploitation and Abuse (PSEA) mechanism where existing, engage in: i) mass information campaigns in affected areas on acceptable and unacceptable behaviours by humanitarian personnel; ii) training on Preventing and Responding to Sexual Exploitation, Abuse and Harassment (PRSEAH) core principles for all medical staff and in-depth training for personnel in close contact with beneficiaries, including volunteers; and iii) awareness raising on existing reporting channels. - In countries with limited or non-existing Inter-Agency PSEA mechanism, support with: i) rapid risk assessment; ii) mapping of gender-based violence (GBV), child protection and mental health and psychosocial support (MHPSS) service providers; iii) mass information campaigns and staff and volunteer training; and iv) advocacy with WHO and UN senior leadership.
Active Outbreak	- Establish coordination structures at all levels (national, provincial, district and health facilities), with activation of emergency operations centre. - Develop a comprehensive response plan by all relevant stakeholders. - Enhance resource mobilization to ensure adequate resources for the response - Coordinate production of situation reports, donor reports, newsletters etc - Identify human resources gaps and needs, followed by provision of adequate human resources to the response across all IMS pillars - In coordination with Inter-Agency Prevention of Sexual Exploitation and Abuse (PSEA) mechanism where existing, engage in: i) mass information campaigns in affected areas on acceptable and unacceptable behaviours by humanitarian personnel; ii) training on PRSEAH core principles for medical staff including volunteers; and iii) Awareness raising on existing reporting channels. - In countries with limited or non-existing Inter-Agency PSEA mechanism, support with: i) rapid risk assessment; ii) mapping of GBV, child protection and MHPSS service providers; iii) capacity building and training of staff and volunteers.
Preparedness / Readiness	- Engage with national cholera stakeholders through existing partner coordination mechanisms. - Inform and prepare stakeholders on PRSEAH measures, by i) conducting an SEAH rapid or comprehensive Risk Assessment and planning based on the results of the assessment; ii) increasing advocacy with WHO and UN Senior management on PRSEAH concerns and activities; and iii) mapping of GBV, child protection and MHPSS services. - Strengthen preparedness, readiness and response platforms at national and subnational level

PILLAR 2: Risk communication and community engagement (RCCE)

Ensure appropriate RCCE planning, resourcing, coordination, management and listening structures are established at national and local levels to ensure affected and at-risk communities are engaged, informed and included in planning and implementation of all relevant components of outbreak readiness and response. Create an enabling environment and disseminate risk communication and community engagement messaging in a timely and appropriate manner through trusted channels to encourage uptake of preventative, protective and care-seeking behaviours. Respond to rumours and misinformation through appropriate channels that are accessible and trusted by at-risk communities. Ensure that RCCE and other response pillar activities are informed by iterative and timely socio-behavioural data.

Risk Level	Activity
Acute crisis	- Establish or activate RCCE coordination mechanisms, mapping partners, identifying at risk communities and trusted channels/influencers, - Conduct a rapid assessment of community knowledge, attitudes, perceptions, behaviours, structural barriers, drivers, levels of trust and social norms that could impact AWD/cholera transmission and draw on existing sources of data from previous surveys. Gather data continuously over time and use to realign strategies and plans as needed. - Strengthen two-way community listening and feedback mechanisms (online and offline) and ensure feedback is provided to communities on changes made - Distribute risk communication materials and messages through trusted channels and trusted, influential voices to at-risk communities on preventative, protective and care-seeking behaviours. - Engage and empower communities to participate in planning and implementation of response activities, including household and community-based WASH interventions, case management, community-based surveillance, and vaccination campaigns etc. - Engage in continuous capacity development of the community health workforce, including frontline workers, volunteers, community leaders and community/social mobilizers from civil society organizations, faith-based organizations, local women and youth groups, empowering them and allowing issues to be adjusted locally. - Engage and collaborate with media, influencers and stakeholders who can listen, advocate, educate, address rumours and misinformation, and build health literacy. - Monitor implementation and impact of RCCE activities.
Active Outbreak	- Establish or activate RCCE coordination mechanisms, map partners and identify at-risk communities and trusted channels/influencers. - Ensure RCCE is included in national and local cholera outbreak readiness and response plans.

Risk Level	Activity
	- Conduct a rapid assessment of community knowledge, attitudes, perceptions, behaviours structural barriers, drivers, levels of trust and social norms that could impact AWD/cholera transmission, and draw on existing sources of data from previous surveys. Gather data continuously over time and use to realign strategies and plans as needed. - Strengthen two-way community listening and feedback mechanisms and ensure feedback is provided to communities on changes made. - Distribute risk communication materials and messages through trusted channels and trusted, influential voices to at-risk communities on preventative, protective and care-seeking behaviours. - Engage and empower communities to participate in planning and implementation of response activities, including WASH, case management, community-based surveillance, and vaccination campaigns etc. - Engage in continuous capacity development of the community health workforce, including frontline workers, volunteers, community leaders and community/social mobilizers from civil society organizations, faith-based organizations, local women and youth groups, empowering them and allowing issues to be adjusted locally. - Engage and collaborate with media, influencers and stakeholders who can listen, advocate, educate, address rumours and misinformation, and build health literacy. - Monitor implementation and impact of RCCE activities.
Preparedness / Readiness	- Adapt all-hazard RCCE plan for cholera readiness and outbreak response, including the role of RCCE in supporting other technical response pillars (WASH, vaccination campaigns, case management, community-based surveillance etc.). Ensure RCCE is included in national and local cholera outbreak readiness and response plans. - Map risk communication and community engagement partners, capacities and networks - Conduct a rapid assessment of community knowledge, attitudes, perceptions, behaviours, structural barriers, drivers, levels of trust and social norms that could impact AWD/cholera transmission, and draw on existing sources of data from previous surveys. Gather data continuously over time and use to realign strategies and plans as needed - Identify trusted, accessible communication and feedback channels used by at-risk communities (including mass media, social media, community leaders, influencers, radio stations, print and audio etc). Map existing RCCE materials and messages and identify gaps.

Risk Level	Activity
	- Co-create and/or co-revise, validate, translate, print, and distribute standardized package of RCCE tools and messages. - Promote through two-way communication channels RCCE materials and messages on prevention, readiness and signs/symptoms of cholera to high-risk communities - Facilitate community meetings to identify areas of risk (for example access to safe water and sanitation systems) and develop action plans for reducing these risks. Support the implementation of risk-reducing interventions at household and community level. - Maintain trust with at-risk communities by proactively communicating what is known, what is unknown, the level of risk and clear actions to take, as well as providing clear feedback to complaints received through community feedback systems - Provide capacity building opportunities for community leaders, influencers, the media, spokespeople, health workers, community volunteers, and others on the risks of cholera, with a preparedness focus

PILLAR 3: Surveillance and outbreak investigation

Timely and structured disease detection and investigation of cholera alerts enable rapid emergency response and ensure control measures are put in place. Rapid information sharing through established communication channels is essential to ensure data consolidation, analysis and inform strategic decision making.

Risk Level	Activity
Acute crisis	- Adapt, print, and distribute surveillance tools, including case definition, line list template, and case investigation forms etc. - Provide surge staff to support epidemiological investigation and data management. - Provide training to surge staff on the use of surveillance and case finding tools - Enhance case investigation. - Monitor activities of surveillance teams (reporting from all sites). - Provide support with data collection, management and analysis, including through shared analysis code. - Support development of situation reports and other information products. - In close collaboration with RCCE counterparts, enhance community-based surveillance and reporting mechanisms.
Active Outbreak	- Adapt, print, and distribute surveillance tools, including case definition, line list template, and case investigation forms etc. - Provide training to surveillance staff on the use of surveillance tools - Enhance case investigation.

Risk Level	Activity
	- Monitor activities of surveillance teams (reporting from all sites). - Provide support with data collection, management and analysis, including through shared analysis code. - Support development of situation reports and information products. - In close collaboration with RCCE counterparts, enhance community-based surveillance and reporting mechanisms.
Preparedness / Readiness	- Provide training on use of surveillance tools, including case definition, line list template, case investigation forms etc. - Share surveillance guidelines and support preparedness of existing national surveillance systems (such as IDSR where appropriate), and build national capacity for potential implementation of temporary adjunct systems (such as EWARS, Go.Data). - In close collaboration with RCCE counterparts, initiate and strengthen community-based active surveillance and event-based surveillance. In line with this, increase community awareness about cholera risks and symptoms, to encourage care seeking and reporting of cases. - Establish or strengthen collaboration and information sharing around cross-border surveillance.

PILLAR 4: Water, sanitation and hygiene (WASH)

Ensuring at risk and vulnerable communities have access to clean and safe water and WASH services is critical for the prevention of and response to cholera outbreaks. Appropriate faecal waste disposal and improved hygiene should be ensured at community and household levels to prevent spread of cholera and further morbidity and mortality.

Risk Level	Activity
Acute crisis	- Provide and/or increase advocacy for safe water to the community through water trucking or appropriate water treatment. - Provide household water treatment chemicals to communities for water chlorination and engage with them to ensure widespread understanding of the importance of use and how to use. Ensure access to appropriate supporting tools such as jerrycans. - Support water quality testing and monitoring, with systems for informing communities of outcomes - Provide and/or increase advocacy for emergency temporary latrine construction in collaboration with affected communities. - Enhance solid waste management, collection, and disposal, with particular attention to markets and other public spaces. - Ensure adequate water supply and WASH supplies for health care facilities, including consumables.

Risk Level	Activity
Active Outbreak	- Provide and/or increase advocacy for safe water to the community through water trucking or appropriate water treatment. - Provide household water treatment chemicals to communities for water chlorination and engage with them to ensure widespread understanding of the importance of use and how to use. Ensure access to appropriate supporting tools such as jerrycans. - Support water quality testing and monitoring, with systems for informing communities of outcomes. - Provide and/or increase advocacy for emergency temporary latrine construction in collaboration with affected communities. - Enhance solid waste management, collection, and disposal, with particular attention to markets and other public spaces. - Ensure adequate water supply and WASH supplies for health care facilities, including consumables.
Preparedness / Readiness	- Enhance and prioritize investment in sustainable safe water sources and water treatment activities and sustainable wastewater and faecal matter treatment and disposal. - Conduct training of trainers for WASH cluster partners on WASH/IPC in AWD/cholera. - Assess and review existing training plans and protocols related to WASH including training at community level. - Map existing water sources and identification of water sources that require improvement. Ensure communities participate in the identification and improvement process. - Support water quality monitoring and testing with supplies and training as needed.

PILLAR 5: Laboratory diagnostics and testing

Strengthen and maintain national and sub-national capacity to test and confirm samples including samples from suspected cholera cases and monitor drinking water quality in a timely manner to guide response and surveillance actions.

Risk Level	Activity
Acute crisis	- Procure and distribute required laboratory reagents and supplies, including rapid diagnostic tests (RDT) and supplies for sample collection, transport and culture. - Disseminate standard and GTFCC-recommended guidelines, protocols and operating procedures for sample collection, transport and diagnostics

Risk Level	Activity
	including antimicrobial susceptibility testing. Adapt guidelines and develop testing strategy based on surveillance capacity in the country. - Ensure coordination with epidemiology and data teams regarding laboratory data for input to situation reports. - Conduct refresher capacity-building training for laboratory diagnosis, including use of RDT and sample collection, as needed - Support and facilitate sample referral mechanisms for diagnosis and confirmatory testing as needed. - Support water quality monitoring and testing with supplies and training as needed.
Active Outbreak	- Prioritize distribution of required laboratory reagents and supplies, including RDT and supplies for sample collection, transport and culture. - Disseminate standard and GTFCC-recommended guidelines, protocols and operating procedures for sample collection, transport and diagnostics including antimicrobial susceptibility testing. Adapt guidelines and develop testing strategy based on surveillance capacity in the country. - Ensure coordination with epidemiology and data teams regarding laboratory data for input to situation reports. - Conduct refresher capacity-building training for laboratory diagnosis, including use of RDT and sample collection, as needed. - Support water quality monitoring and testing with supplies and training as needed.
Preparedness / Readiness	- Conduct comprehensive assessments of national laboratory capacity, including identification of gaps and needs. - Disseminate standard and GTFCC-recommended guidelines, protocols and operating procedures for laboratory diagnostics. - Identify gaps and conduct capacity-building training for national staff on laboratory diagnostics for outbreak response. - Conduct assessment of laboratory supplies and ensure the appropriate pre-positioning of supplies based on identified needs and gaps. - Facilitate quality control and External Quality Assurance mechanisms in coordination with reference laboratories or WHO collaborating centres.

PILLAR 6: Infection prevention and control (IPC)

Ensure robust systems and capacities are in place at all levels to reduce risk of health care-associated infections. Enable functional and hygienic health care environments to ensure quality of care of patients and staff safety within health facilities through establishment and reinforcement of IPC standard and transmission-based precautions. Reduce the risk of health and care facilities amplifying transmission of cholera and initiating clusters and outbreaks of other infections transmissible in health and care facilities when managing acute caseloads.

Risk Level	Activity
Acute crisis	- Enable all efforts to support case management in the identification of patients with cholera presenting to health facilities and outpatient care clinics and facilitate the use of transmission-based precautions when they are isolated in health facilities or transferred to CTCs and CTUs. - Monitor and support essential health service delivery to mitigate the risk of cholera transmission and healthcare associated infection clusters and outbreaks from occurring among patient populations in health and care facilities. - Monitor for health worker, caregiver, and visitor infections and prioritize IPC intervention support where transmission is attributable to exposure in health and care facilities. - Develop site-specific strategies to enable or maintain minimum requirements for IPC for hygienic quality of care in cholera treatment centres/units as well as health and care facilities in the context of surges of cases; including mitigation strategies for overcrowding, development of additional sites, and waste management.
Active Outbreak	- Train and equip IPC focal persons to provide supportive mentoring and monitoring of quality of care in CTCs/CTUs. - Institute continuous quality improvement of IPC practices and WASH infrastructure to ensure hygienic care environments and practices when managing patients with cholera. - Support training of health workers at CTCs and CTUs on IPC risk assessment to enable appropriate interventions at the right time to reduce the risk of transmission of cholera to health workers, visitors, and caregivers; and to avoid worsening the condition of patients at risk of acquiring health care-associated infections. - Enable management and education of visitors and caregivers on arrival to cholera isolation areas to orient them to IPC standard precautions when caring for patients with cholera.
Preparedness / Readiness	- Assess IPC and WASH supply needs in CTCs, CTUs and ORPs (sodium hypochlorite, soap, alcohol-based hand rub, PPE, etc.), ensuring availability of supplies to enable safe and hygienic care in health service settings. - Conduct training of health workers on IPC measures, including use of standard and transmission-based precautions to prevent and control healthcare associated infections at health and care facilities. Enable practical skills training on IPC risk assessment, use of personal protective equipment, safe preparation and use of sodium hypochlorite (chlorine) solutions, cleaning and disinfection procedures, and waste management.

Risk Level	Activity
	- Enable charting and monitoring of symptom changes in hospitalized patients that may indicate healthcare-associated infection

PILLAR 7: Case management

Ensure rapid access to quality treatment to reduce preventable morbidity and mortality (CFR <1%).

Risk Level	Activity
Acute crisis	- Establish cholera treatment structures - o At community level: ORPs - o Centralized CTUs and CTCs for more severe cases - Implement ambulance / referral pathways from ORPs and CTUs as necessary. - Distribute treatment guidelines and SOPs to treatment structures. - Enhance response capacity, as needed, by hiring additional staff for treatment structures. - Conduct training of health workers on SOPs and guidelines, including training of trainers approach. - Supervise case management activities. - Increase coordination and joint activities with IPC teams to reduce risk of transmission within all treatment structures. - Increase coordination and joint activities with WASH teams to ensure safe water provision in treatment structures including for preparation of ORS. - Increase coordination and joint activities with RCCE to engage communities to ensure rapid health seeking behaviour, preventative behaviours and safe and dignified dead body management.
Active Outbreak	- Establish cholera treatment structures - o At community level: ORPs - o CTUs and CTCs for more severe cases. - Implement ambulance / referral pathways from ORPs and CTUs as necessary - Distribute treatment guidelines and SOPs to treatment facilities - Enhance response capacity, as needed, by hiring additional staff for treatment structures. - Conduct training of health workers on SOPs and guidelines, including training of trainers approach. - Supervise case management activities. - Increase coordination and joint activities with IPC teams to reduce risk of transmission within all treatment structures. - Increase coordination and joint activities with WASH teams to ensure safe water provision in treatment structures including for preparation of ORS.

Risk Level	Activity
	- Intensify readiness in areas bordering active outbreaks and in areas where spread can be anticipated. - Increase coordination and joint activities with RCCE to engage communities to ensure rapid health seeking behaviour, preventative behaviours and safe and dignified dead body management.
Preparedness / Readiness	- Update mapping of health care facilities (HCFs), including detailing gaps in human resources, infrastructure (isolation and bed capacity) and access to WASH services in HCFs. - Update mapping of health partners who can support case management activities, include partners for different levels of care (CTC/CTU and ORPs). - Identify potential sites for cholera treatment facilities in high-risk areas. - Update guidance for the establishment of ORPs, in coordination with RCCE counterparts. - Conduct training of medical staff on identification, reporting, treatment and referral procedures, including rational use of antibiotics. - Develop, update and/or adapt cholera case management guidelines and SOPs. Print and pre-position as appropriate. - Increase community knowledge of signs and, symptoms to encourage early care seeking, and what to do if a case is detected, in collaboration with RCCE teams.

PILLAR 8: Operation support and logistics (OSL)

Supplies, equipment and lifesaving goods are made available in appropriate quantities and quality to at risk communities to ensure structured and capable preparedness and response activities.

Risk Level	Activity
Acute crisis	- Define the forecasted material needed on the short- and medium-term based on a worst-case scenario in collaboration with all pillars of response. - Ensure the presence of an inventory of common stocks and pipelines of cholera related material shared with the ministry of health and active or potential partners. - Ensure market research is done in a proactive manner to ensure no stockouts of critical items. - Define a supply strategy (local, regional, international) based on zero shortage taking into consideration cost-efficient transport, including last mile delivery and warehousing. - If needed, advise on the construction and setup of cholera health structures, in collaboration with IPC teams. - Ensure tools are in place to monitor and assess field operations, including costing.

Risk Level	Activity
	- Proactively support all pillars in all related enabling functions (transport of personnel, communication equipment, office setup, team living, implementation of security measures recommended by UNDSS). - Establish a budgeted concept of operations in line with a response strategy defined in-country.
Active Outbreak	- Ensure regular update of stock, pipeline and consumption of all items and equipment following the evolution of the epidemic. - Work with all pillars to evaluate the likelihood of different scenarios and consequences on supply, to enable pre-planning and pre-positioning.
Preparedness / Readiness	- Conduct regular emergency stock inventory including expiry date verification and stock rotation. - Identify and map current availability of supplies and estimate needs. - Procure and preposition laboratory material, cholera kits and related supplies sufficient to initiate a first response (1000 cases / 1 month). - Support the ministry of health and partners to regularly update stock status, and equipment inventory including at the regional and provincial levels. - Conduct mapping of available warehouse and storage capacities in potential epidemic areas. - Develop a contingency plan for logistics and critical supplies at sub-offices.

PILLAR 9: Continuity of essential health and social services

The impact of outbreaks extends to the disruption of existing services. This pillar's objectives are to minimise the impact of the cholera outbreak without aiming to lift the overall coverage/quality beyond the normal state or minimum standards. Where cholera is a result of a primary emergency (for example a cyclone or flooding) this pillar would not cover the repair or replacement of existing services as this would be part of the primary emergency plan.

Risk Level	Activity
Acute crisis	- Monitor the impact of outbreaks on access to essential health and social services - Maintain health and social services in the affected areas where cholera response activities negatively impact existing services. - Identify and plan for continuity of essential social services for women, children and marginalized communities such as services for prevention and management of gender-based violence, education services and child protection services.
Active Outbreak	- Monitor the impact of outbreaks on access to essential health and social services.
Preparedness / Readiness	- Review hospital and healthcare facility contingency plans and scale up readiness to activate in the event the country shifts to an acute crisis.

PILLAR 10: Vaccination

The effective and early implementation of oral cholera vaccine (OCV) campaigns in strategic high-risk communities identified by active surveillance can help mitigate the impact of cholera outbreaks. OCV should be used in conjunction with other cholera prevention and control strategies and activities.

Risk Level	Activity
Acute crisis	- Implement OCV campaigns, as appropriate, including all pre-campaign formalities and followed by documentation, post-campaign coverage survey and monitoring of incidence. - Monitor and evaluate vaccination campaigns. - Collect, analyse and utilize socio-behavioural data on community knowledge, trust, and demand for vaccination. - Engage communities in planning and implementation of vaccination campaigns. - Implement enhanced surveillance activities in governorates/districts where OCV has been implemented.
Active Outbreak	- Perform risk assessment of targeted area for vaccination. - Submit ICG requests for securing OCV doses to vaccinate the targeted population in affected communities. - Finalize operational costing and microplanning of OCV campaigns in consultation with relevant national and provincial stakeholders. - Collect and analyse socio-behavioural data on community knowledge, trust, and demand for vaccination. - Engage communities in planning and implementation of vaccination campaigns.
Preparedness / Readiness	- Conduct orientation sessions for the national and provincial health department on OCV introduction and use during an outbreak. - Obtain emergency use approval from the national regulatory authority on importation and use of OCV in countries where OCV is not registered. - Review previously identified geographical areas and populations to be targeted and develop contingency plans for the implementation of OCV campaigns. - Engage in preventive vaccination campaign when global OCV supply allows, including the multi-year plan of actions. - Engage communities in planning and implementation of vaccination campaigns. Collect, analyse and use socio-behavioural data on community knowledge, trust, and demand for vaccination.

Budget

An estimated US\$ 160 408 800 is required for the WHO to support the immediate and short-term health preparedness, readiness and response actions highlighted above. The timeline for the Global SPRRP is April 2023 to April 2024.

Table 3: Summary global budget for WHO preparedness, readiness and response activities to cholera outbreaks over the period of April 2023 to April 2024

Pillar	Acute Crisis	Active Outbreak	Preparedness / Readiness
Leadership, coordination, planning and monitoring	4 240 740	559 541	473 234
Risk communication and community engagement	15 206 565	2 006 418	1 773 842
Surveillance and outbreak investigation	10 955 443	1 445 507	1 222 543
Water, sanitation and hygiene	12 874 475	1 698 712	1 436 693
Laboratory diagnostics and testing	17 982 183	2 372 645	2 501 924
Infection Prevention and Control	13 541 718	1 786 751	1 511 152
Case management	21 666 861	2 858 817	2 417 855
Operational support and logistics	18 054 119	2 382 136	2 014 701
Continuity of essential health and social services	5 667 620	n/a	n/a
Vaccination*	9 454 170	1 247 423	1 055 013
TOTAL (US\$)	129 643 894	16 357 950	14 406 956

* Gavi, the Vaccine Alliance provides support for emergency use of OCV, including vaccine and operational costs, in eligible countries.

Key performance indicators (KPIs)

During the next 12 months, WHO will continue to regularly review progress using the cholera key performance indicators (KPIs), outlined in Table 4 below. The KPIs should be monitored at the operational level. The KPIs proposed are country specific and should be monitored during acute crises and done so as appropriate according to the context. Monitoring should be complimented at country level by intra-action reviews and after-action reviews as relevant.

Table 4: Key performance indicators for global cholera SPRRP

Indicators	Target	Responsibility	Frequency
Leadership, coordination, planning and monitoring			
Number of target stakeholders/partners engaged	100%	WHO	Monthly
Number of strategic coordination meetings conducted	100%	WHO	Monthly
Percentage of responders who have had PRSEAH training within 1 week of engagement	100%	WHO	Weekly
Risk communication and community engagement			
Percentage of targeted community influencers reached with prevention and control messages	80%	WHO	Weekly
Percentage of trained community mobilizers actively engaged in risk communication and community engagement	80%	WHO/UNICEF/IFRC	Weekly
Percentage of rumours, and alerts investigated within 48 hours (particularly important to understand community deaths)	80%	WHO/UNICEF/IFRC	Weekly
Weekly analysis of social-behavioural data, including summary of community feedback/listening available at national level	100%	WHO/UNICEF/IFRC	Weekly
Surveillance and outbreak investigation			
Proportion of cholera signals investigated within 24-48hrs	90%	WHO	Weekly
Preparation and sharing of situation report	100%	WHO	Weekly (minimum)
Water Sanitation and Hygiene			
Percentage of affected communities with ongoing water quality monitoring	80%	WHO	Weekly
Laboratory diagnostics and testing			
Percentage of testing centres reporting RDT results within 24hrs	100%	WHO	Weekly
Percentage of laboratories in high-risk regions fully capacitated to perform cultures and sensitivity testing	80%	WHO	Monthly
Percentage of laboratories with SOPs to test cholera	100%	WHO	Biweekly
Infection prevention and control			
Percentage of treatment facilities that met IPC assessment requirements	100%	WHO	Weekly
Case management			
Percentage of affected communities with fully operational Oral Rehydration Points (ORPs)	100%	WHO	Weekly
Percentage of CTUs/CTCs fully operational	100%	WHO	Weekly
Case fatality ratio (country level CFR)	<1%	WHO	Weekly
Operational support and logistics (OSL)			
Number of ruptures of essential items	0%	WHO	Weekly
Lead time from order placed to delivery	<48h in emergency <1 week for local purchase	WHO	Weekly
Continuity of essential health and social services			
Existence of at least one health systems and service	100%	WHO	Weekly until FP

continuity focal point at national level			identified
Bed occupancy ratio in designated CTUs	<65%	WHO	Weekly
Monitoring and reporting of essential service uptake trends through existing health information system platforms in affected countries	100%	WHO	Monthly
Vaccination			
OCV coverage in hotspot areas	95%	WHO	Whenever OCV campaign is ongoing
Percentage of targeted health workers that received training on OCV implementation	100%	WHO	Pre OCV campaigns

World Health Organization
Avenue Appia 20
1211 Geneva 27
Switzerland
www.who.int