

Acute Watery Diarrheal Disease Preparedness and Response Plan

Table of Contents

1. Introduction	3
Purpose of this document	3
Cholera and its routes of transmission.....	3
AWD data in host communities and camps	4
Oral cholera vaccination campaign	6
Surveillance.....	6
Outbreak declaration	7
Information sharing.....	7
Overview of the scenarios	8
Planning figures.....	9
1.5.1. Target population	9
1.5.2 Key assumptions	9
1.5.3 Caseload estimates for best and worst-case scenario	9
Teams roles and responsibilities.....	10
1.6.1. Role of the Joint Assessment Team (JAT)	11
1.6.2. Role of the Emergency Response Team	11
1.6.3. Role of the Core Facilitators Team	12
2. WASH response	13
2.1 WASH response 1: Prevention and preparedness	13
2.2 WASH response 2: Localised response.....	17
2.2.1 Scenario 2. a	17
2.2.2 Scenario 2. B.....	18
2.3 WASH response 3: Outbreak response	20
2.3.1 Response timeframe	23
3. Annexes	24
3.1 Chlorination recommendations.....	24
3.2 Glossary	24
3.2.1 List of acronyms	24
3.2.2 Case definitions	25
3.2.3 Definitions.....	25
3.3 Reference documents and further information.....	26

1. Introduction

Purpose of this document

In October 2017, the WASH Sector, in consultation with relevant Ministries, developed a WASH AWD Preparedness and Response Plan to set out the required activities to prepare for and respond to an AWD outbreak. This document was reviewed and updated in June of 2018 followed by a second review in April-May, 2019 and by a third review that took place from July to September 2020.

A **multisectoral AWD response** plan was developed by the Health, WASH and CWC Sectors¹. The current document reflects this plan but includes additional details related to WASH-specific activities.

The purpose of the WASH AWD Plan is to ensure a proactive, coordinated, and effective effort to prevent AWD and control it where it does occur. Specifically, this document sets out the preparedness, transition and response actions that are required in order to prevent or limit the impact of AWD outbreaks in Cox's Bazar Rohingya camps and nearby host communities. This plan is intended to provide guidance to WASH agencies in the development of their own AWD preparedness and response plans.

The current plan has been revised during COVID-19 pandemic. It is to be intended that all the recommendations regarding physical distancing, use of masks, respiratory etiquettes, avoidance of gathering and so on, should be considered while implementing the AWD plan.

AWD and COVID-19 have a lot of similar prevention and mitigation measures (awareness raising, hand washing stations installation, disinfection of WASH facilities); these measures have been already taking place since the onset of the pandemic (March 2020). Please refer to COVID-19 WASH Sector plan and technical guidances [here](#).

Cholera and its routes of transmission

Cholera is a diarrhoeal disease caused by a **bacterial infection of the intestine**. The bacterium is *Vibrio cholerae*, which can either be of type O1 or O139. It can infect both children and adults.

In peak week, about 20% of those infected develop acute watery diarrhoea (AWD), and, of these, between 25% develop severe watery diarrhoea with vomiting. If people are not promptly and adequately treated, the loss of large amounts of fluid and salts through diarrhoea and vomiting can lead to severe dehydration and death within hours.

The **typical presentation of cholera** is a sudden onset of profuse, painless, watery stools, sometimes like rice-water, often accompanied by vomiting. Dehydration appears within 12–24 hours. The first 24 hours of cholera manifestation are the riskiest, and if the sufferer is not rehydrated, death can result.

Cholera is usually transmitted through **faecally contaminated water, hands or food**, and remains an ever-present risk in many countries. New outbreaks can occur sporadically where water supply, sanitation, food safety, and hygiene are inadequate. The **greatest risk occurs in over-populated communities, displaced populations and refugee settings**, which are characterized by poor

¹ 2019, *Multi-Sectoral Acute Watery Diarrhoea Response Plan*, [here](#). A new updated version will be soon released.

sanitation, unsafe drinking water and increased person to-person contact. Immunocompromised persons, persons with disabilities and other vulnerabilities are more vulnerable to cholera. Because the incubation period is very short (two hours to five days), the number of cases can rise very rapidly. **Early identification and response are critical** to prevent mortality and reduce morbidity.

Treatment is straightforward (basically rehydration). In severe cases, an effective antibiotic can reduce the volume and duration of diarrhoea and the period of bacteria excretion. Vaccines (OCV) are available to protect against type V. cholerae O1 and O139. **However, emphasis should be on hygiene promotion** (promotion of hygiene practices, including systematic handwashing with soap at critical times and food hygiene), **prevention through use of safe water** (household water treatments, safe water handling, on-site chlorination) **and through adequate sanitation** (use and maintenance of latrines, elimination of open defecation).

AWD data in host communities and camps

Bangladesh is an endemic country with one of the world's highest burdens of cholera, with an estimated 109,052 cholera cases annually while a population of 166,495,209 is at risk with an annual incidence rate of 1.64/1,000 population²

In addition, the health of refugee and vulnerable host populations in Cox's Bazar is particularly threatened also by the following risks factors: poor environmental sanitation conditions, high population density (for camps), non optimal hygiene practices and challenges around access to chlorinated drinking water. Despite the efforts of the humanitarian community to improve water and sanitation conditions, diarrheal diseases still remain one the most common cause of health consultations³. Malnutrition may play a big role as well in the possibility of a child to recover from cholera. In camps, prevalence of global acute malnutrition (GAM) among children (6-59 months) is 10.9% (high)⁴.

Regarding the **seasonality of AWD** in Cox's Bazar, it looks like there's a peak happening at the end of the dry season, from June to August, and another one from September to November (**Figures 2 and 3**). In 2019, AWD outbreak hit the Rohingya refugee camps with a peak registered in November, with first case reported on the 5th September (**Figure 1**): 85% of the total cases were reported

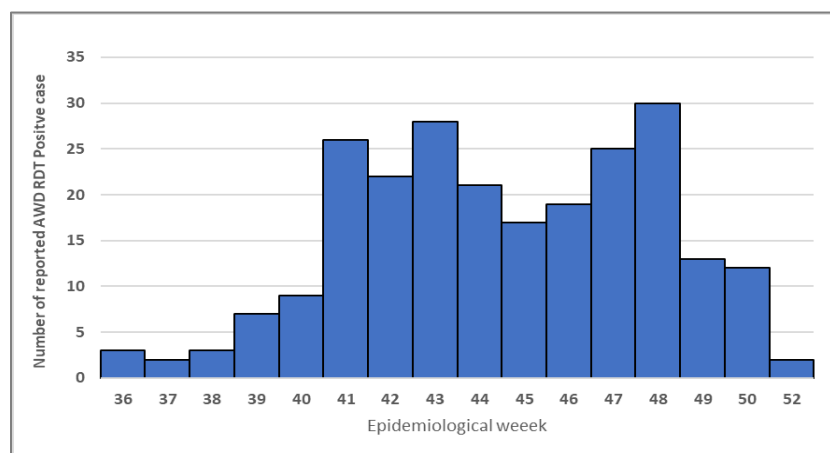


Figure 1: AWD suspected and confirmed cases by date of notification (2019)

² Government of Bangladesh, [National cholera control plan for Bangladesh](#), 2019 – 2030.

³ Please consult WHO Cox's Bazar weekly epidemiological bulletins [here](#).

⁴ ACF and nutrition Sector, *Emergency nutrition assessment final report, Nyapara & Kutapalong registered Rohingya refugee camps and makeshift settlements, Cox's Bazar, Bangladesh, 25th September - 23rd October, 2019*, [here](#).

from Teknaf, 65% of cases were reported in Rohingya camps, 41% of cases were aged over 15 years and 53% were female⁵.

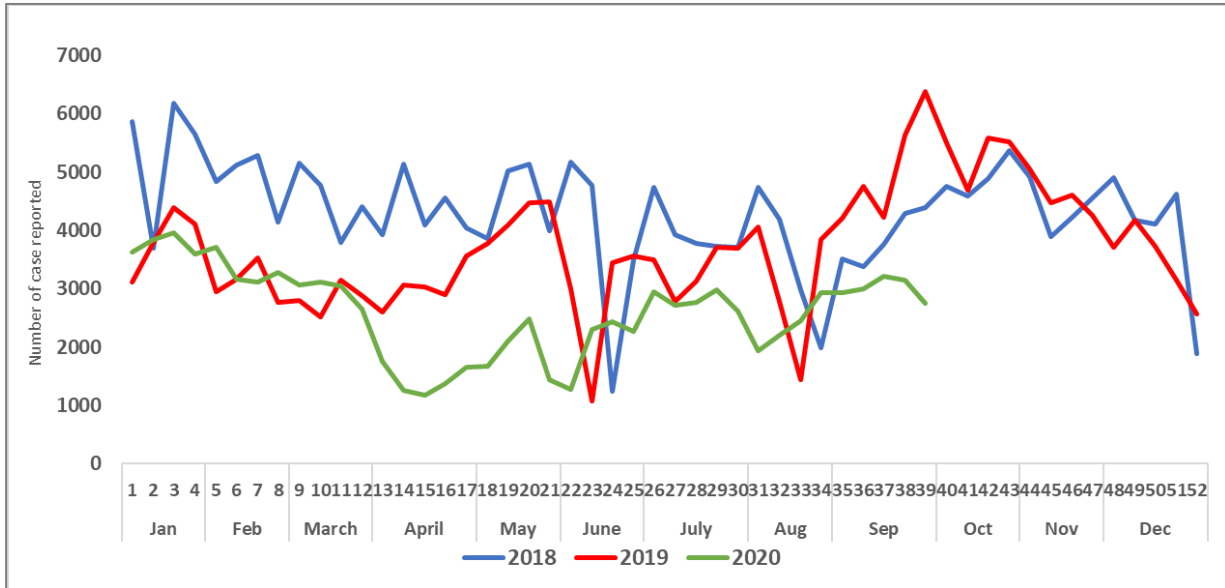


Figure 2: Total number of AWD case reported in EWARS from 2018-2020, Cox's Bazar Health Sector

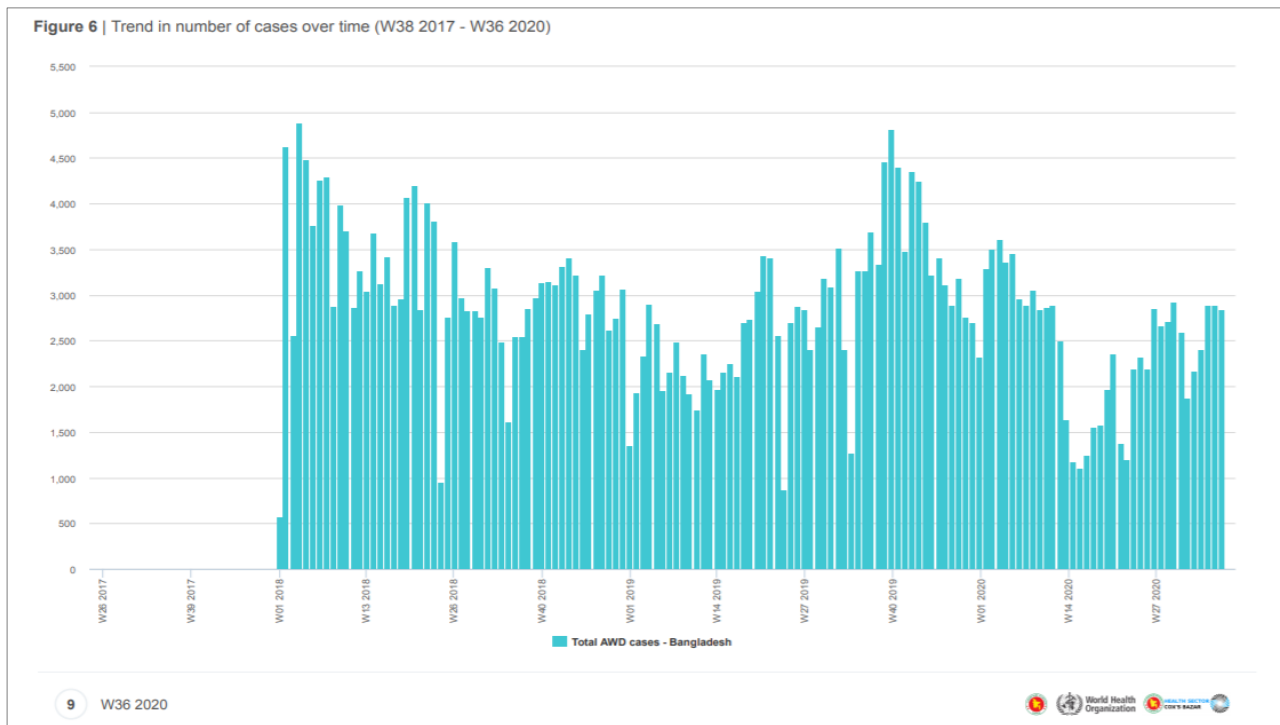


Figure 3: Trend in number of cases over time (W38 2017 to W36 2020), Cox's Bazar WHO and GoB

⁵ 26 Dec. 2019, Cox's Bazar AWD Sitrep.

Oral cholera vaccination campaign

Four (4) rounds of Oral Cholera Vaccine (OCV) campaigns were conducted in October 2017, March, May and December 2018, December 2019 and February 2020 in which FDMN and most at-risk host community populations were vaccinated with Shanchol vaccine⁶ (Sanofi Pasteur)⁷. Two (2) rounds of OCV were conducted in early 2020 in camps, covering all the children aged less than 5 years. No OCV vaccination took place, for adults, in 2020. Second round of OCV vaccination for host community (adults and children) will start, most likely, in Nov-Dec 2020.

Surveillance

In camps and nearby host communities, the average weekly number of cases of AWD (in non-outbreak scenario) is usually around 3500, with fluctuations due to interpretation of case definitions and completeness/timeliness of reporting from health centers to Health Sector. In 2020, though, an average of 2500 cases per week is reported. This reduction might be interpreted by a change in health care seeking behaviours due to COVID-19 as the **health consultations among Rohingya refugees dropped** by 50% between March and July 2020 (**Figure 4**); another interpretation, is that the increased awareness and practice on hygiene behaviours achieved by the massive scale up of WASH interventions due to COVID-19 response (hygiene promotion awareness, installation of handwashing stations, disinfection of WASH facilities to mention some) might have contributed to a reduction of diarrhoea disease in communities.

Regular diarrhoeal surveillance is conducted in 13 sentinel sites in camps and 2 in host communities (1 in Teknaf and 1 in Ukhiaa). Every month, around 250/300 RDT (rapid diagnostic tests) are carried out (randomly) and, the same 250/300 tests (positive and negative) are then sent to Dhaka for laboratory culture test. Results are usually received within 3/4 days. During non-outbreak time, usually tests are sent to Dhaka twice per week, while during outbreak the frequency becomes daily.

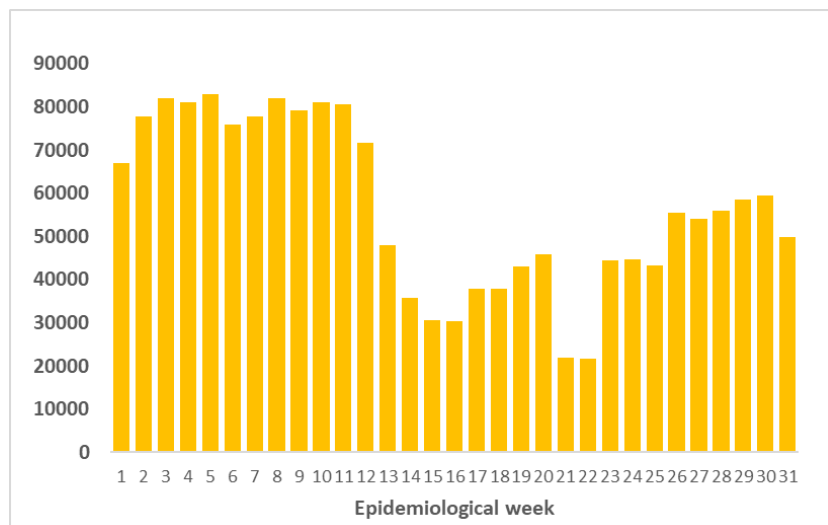


Figure 4: Total number of consultation in EWARS from week 1-31, 2020

⁶ Refer to AWD multisector plan (August 2020 revision, in draft at the moment)

⁷ <http://www.who.int/cholera/vaccines/AddendumGuideVaccinationForShanchol050913.pdf>

Outbreak declaration

At Cox's Bazar level, cholera outbreak declaration is notified through Civil Surgeon (CS). The IEDCR has the authority to declare the outbreak, which is a institute that falls under the Directorate General of Health Service (DGHS⁸) of the national Ministry of Health and Family Welfare.

Information sharing

In case of rapid or laboratory confirmed test and cholera outbreak declaration, the information Health/WASH Sectors will be quickly shared via phone call among key-persons (i.e. Sectors coordinators or Epidemiological working group lead to HPTWIG lead). Health Sector will regularly update and share their EWARS bulletins and AWD situations updates (Health Sector via regular bulletins, website update⁹ and ISCG).

Information among WASH and Health partners will also take place through dedicated WhatsApp groups. WhatsApp has been widely used in the Rohingya response to coordinate activities and the Health Sector has relied on it also to manage the current COVID-19 pandemic, including during the last AWD outbreak (November 2019).

Proposed of two (2) new WhatsApp groups, one for Teknaf area and one for Ukiya areas, will be set-up, while the previous WhatsApp group will be inactivated.

⁸ <https://dghs.gov.bd/index.php/en/home>

⁹ <https://cxbhealth.info/>



Overview of the scenarios

The WASH AWD response plan is based on **3 scenarios** of escalation in terms of diarrhoea cases. Each step in the ladder demands a different level of relationship between WASH and Health sectors and higher level of engagement by WASH actors in the field. To move between the steps in the ladder there is an agreed “trigger” defined by the Health sector but also requiring intervention actions by WASH. The scenarios are outlined below.

Scenarios of the Multisectoral response plan	Explanation	WASH response plan (this document)
Scenario 1: Situation remains unchanged	AWD rates in camps and host population remain as they are (routine activities over the year);	WASH response 1: Prevention and preparedness
Scenario 2: Situation escalates moderately	2. a A verified AWD alert either by Cholera RDT or culture positive case is reported without evidence of an increase of AWD in the area – Localised response (determined by JAT) OR	WASH response 2: Localised response
	2. b A 15% increase in AWD cases reported through EWARS compared with the previous 3 weeks (this needs to be verified by WHO) – Localised response (determined by JAT) OR	
	2. c Cholera confirmed by either RDT or culture AND a verified increase in AWD cases in EWARS and EBS reports (verified by WHO Epi team/JAT)	WASH response 3: Outbreak response
Scenario 3: Outbreak confirmed and declared by MoH	Full response activated	

Planning figures

1.5.1. Target population

As of June 2020, 860,356 individuals are residing in Rohingya camps¹⁰. As per 2020 JRP, the target population, including both Rohingya and neighbouring host communities, is of 1,120,000 individuals,

Target population breakdown (JRP 2020)	Figures
Rohingya refugees	860,494
Host population	444,000
Total population	1,304,494

however, to ensure uniformity with the Multisectoral plan, the estimations have been adapted to the data provided by the Health Sector, which differs mainly as per host community beneficiary number.

1.5.2 Key assumptions

For scenario planning purposes, the following key assumptions were made based on the characteristics of past large AWD outbreaks in refugee camp settings:

- Average duration of an outbreak: 3 months
- Oral cholera vaccine efficacy: 65% (best-case scenario)
- Oral cholera vaccine efficacy: 0% (worst-case scenario)
- Population attack rate among FDMN population among unprotected/unvaccinated: 2%
- Population attack rate for host population: 1%
- Proportion of cases seen during peak week (20%)
- The proportion with severe dehydration: 25% of expected caseload
- The proportion with some dehydration: 30% of expected caseload
- The proportion of no dehydration: 45% of the caseload
- Case fatality rate (CFR) with appropriate treatment should remain below 1%

1.5.3 Caseload estimates for best and worst-case scenario

Two scenarios - “worst-case” and “best-case” are presented, for resources planning purposes. For the worst case scenario a 0% vaccine efficacy is assumed among host and refugee populations. For the best case scenario 65% oral cholera vaccine efficacy is assumed for all vaccinated populations¹¹. These figures, along with the estimated caseload derived from them, are presented in the table below.

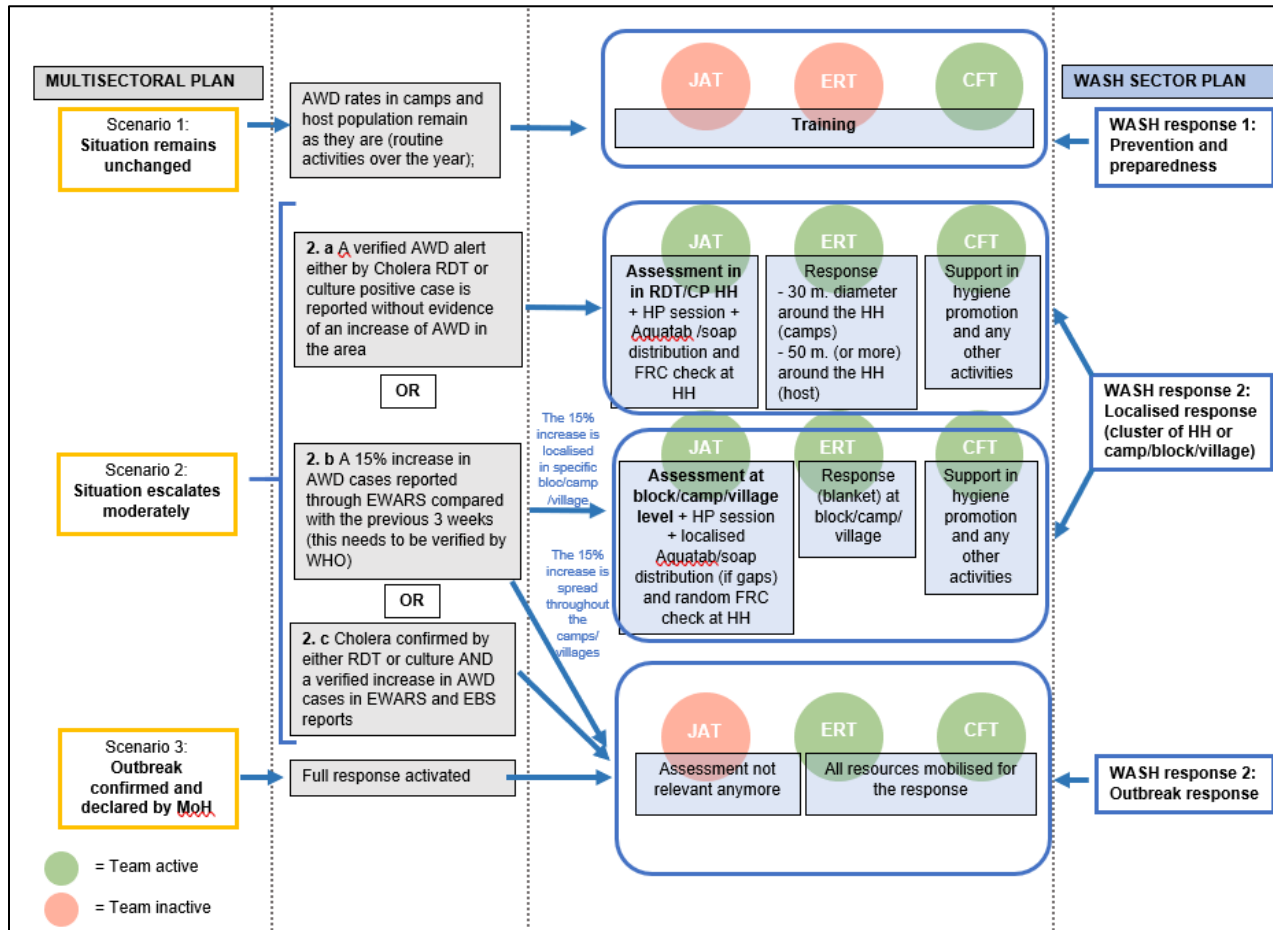
¹⁰ UNHCR and Govt. of Bangladesh, Joint Government of Bangladesh - UNHCR Population breakdown as of 30 June 2020, [here](#).

¹¹ An estimated 528,000 host community received one dose; 899,946 refugees received two doses; 160,000 children (from 1 to 5 y.o.) received 2 doses in January/February 2020.

Estimated cases	No vaccine protection (worst-case scenario)	Assuming 65% vaccine efficacy among vaccinated populations (best-case scenario)
Cases refugees (2% attack rate)	17,203	15,093
Cases host community (1% attack rate)	4,440	4,440
Total cases refugee and host community	21,634	19,533
Estimated cases in peak week (20%)	4,327	3,907
Cases - severe dehydration peak week (25%)	1081	977
Cases - some dehydration peak week (30%)	1,298	1172
Estimated fatalities (<1%)	216	195

Teams roles and responsibilities

Below are listed roles and responsibilities of JAT, ERT and CFT teams. The same individuals (WASH staff and/or volunteers) can have roles within JAT, ERT and CFT.



1.6.1. Role of the Joint Assessment Team (JAT)

JAT

The JAT team is a multi-sectoral team that consist of members from WASH and Health sectors who completed the JAT training as well as a member for the Cox's Bazar district laboratory to facilitate sample collection and transportation if required. **The JAT team is a team activated in case of suspected AWD/Cholera outbreak.** Objectives of the JAT team is:

- To carry out rapid assessment of current status of water, sanitation and hygiene in HH, neighbourhood, AWD affected areas and suspected AWD hotspots;
- To coordinate with the Emergency Response Team (ERT) for AWD response activities (hygiene awareness, distributions, disinfection, bucket chlorination...), according to the needs highlighted by the assessment;
- To provide immediate response in terms of hygiene promotion awareness raising, focusing on specific AWD HP guidance
- To complete and share reports with WHO, Health and WASH Sectors, AFA, WASH focal point, after field investigations.
- To check if in the AWD affected HH or within surrounding area (<30m radius) there are gaps in terms of soap and water containers
- To assess the need of distributing Aquatabs and to be able to demonstrate its use; distribution of Aquatabs, if needed, should be done during the assessment (if for limited number). JAT team must be aware about the concept of “double chlorination”, which has to be avoided.
- Immediate WASH response: promote HP, provide WASH items.
- To support logistics arrangements including obtaining hygiene kits and other related logistics, with support from ERT/WASH camp focal agencies (CFA)/area focal agencies (AFA).
- Any other task as requested by the WASH & health coordination team from time to time.

1.6.2. Role of the Emergency Response Team


ERT

The WASH Emergency Response Team, in the framework of AWD response, **is activated by the JAT team or by WASH camp focal points** (scenarios 2 and 3). The ERT is in charge of respond to AWD alerts, according to the AWD plan. ERT team members, at camp level, are supposed to participate to camp level WASH meeting and to AWD ad-hoc meeting. The WASH ERT can be activated also for other emergency responses. Objectives of the ERT team is:

- In coordination with Health and WASH Sectors, CiC, CFP and AFA, to ensure immediate implementation of WASH response as per AWD response plan, including distributions of hygiene items (soap, Aquatabs, water containers according to needs), disinfection of WASH facilities, bucket chlorination set-up and implementation, support regular water quality monitoring if needed in interested areas, HP.
- To link with stakeholder groups in the camp as (Education, Protection, Health, Shelter/Site Management Sectors, Food Vendors, Majis, Imams, Play Centres/Child Friendly Centres, etc) as may be required.
- To link with the WASH AFA for technical and resource support.

- Manage the allocation of resources to effectively deal with any WASH emergency response.
- Provide direction to all partners and their staff in managing any WASH emergencies in camp.
- Report on the progress of the management of all WASH emergency response to CiC/Site management and AFA.

1.6.3. Role of the Core Facilitators Team

 The Core facilitators' team (CFT) is a capacity building initiative, aimed to ensure effective, appropriate and context-relevant hygiene promotion activities within the WASH Rohingya response. The CFT consist of several national field staff from different WASH agencies and are organized into camp-level teams. The CFT members **are WASH staff regularly working in the response at camp**; they can also undertake additional tasks and respond in case of emergencies (outbreaks, floods...). See the full ToR [here](#).

2. WASH response

Prevention, preparedness and response activities can and should be implemented in parallel. While in some locations no active transmission is ongoing, the partner can focus on preparedness in this location, and immediately respond in case new cases are reported. As an example, preparedness can cover a wider area while response activities are taking place only in villages or camps with active transmission, targeting (suspected) cholera cases and immediate surrounding households.

Ideally, prevention activities should be linked with response, especially in high risk areas where many cases are reported. Rapid cholera assessments and sanitary surveys can be used to plan prevention measures. In case the partner does not have capacity to implement the activities, the Sector can mobilize other partners to follow up. Partners need to share data from rapid assessments and gaps immediately with the WASH cluster in order to facilitate quick action.

2.1 WASH response 1: Prevention and preparedness

Scenarios of the Multisectoral response plan	Explanation	WASH response plan (this document)
Scenario 1: Situation remains unchanged	AWD rates in camps and host population remain as they are (routine activities over the year);	WASH response 1: Prevention and preparedness
Scenario 2: Situation escalates moderately	2. a A verified AWD alert either by Cholera RDT or culture positive case is reported without evidence of an increase of AWD in the area – Localised response (determined by JAT) OR	WASH response 2: Localised response
	2. b A 15% increase in AWD cases reported through EWARS compared with the previous 3 weeks (this needs to be verified by WHO) – Localised response (determined by JAT) OR	
	2. c Cholera confirmed by either RDT or culture AND a verified increase in AWD cases in EWARS and EBS reports (verified by WHO Epi team/JAT)	WASH response 3: Outbreak response
Scenario 3: Outbreak confirmed and declared by MoH	Full response activated	

This scenario sets out what needs to be undertaken **before the outbreak season occurs** in order to avoid illness and death as much as possible in the event of an outbreak. For countries where AWD is endemic like Bangladesh, preparedness refers to the period “between outbreaks”. It refers to a situation where no AWD increased rates are reported.

At this time the WASH and Health sectors are operating **preventive programming** including maintaining WASH service provision and hygiene related behaviour change according to sector standards.

Rumours of atypical diarrhoea that originate from the Primary Health Centre (PHC), community or other entity would result in further investigation from Health or Health and WASH.

WASH response 1: prevention and preparedness		
Activity	Responsible	Resources
Coordination		
Revision of AWD response plan , revision of technical annexes and reporting templates.	WASH Sector, led by the HP TWiG - AWD sub-group	<ul style="list-style-type: none"> • Cox's Bazar Multisectoral AWD response plan here • Various international resources (see references in Annexes and here)
Contact lists updates	WASH Sector	<ul style="list-style-type: none"> • WASH Sector emergency contact lists here
Revise ERT roles and responsibilities	AWD sub-group	<ul style="list-style-type: none"> • See above (Section 0)
Revise CFT roles and responsibilities	AWD sub-group	<ul style="list-style-type: none"> • CFT ToR here
Revise JAT team roles and responsibilities	AWD sub-group/WHO	<ul style="list-style-type: none"> • See above (Section 0) and here
JAT assesment form revision	AWD sub-group/WHO	<ul style="list-style-type: none"> • To be finalised
AWD contingency stock/supply prepositioning	WASH Sector/partners	<ul style="list-style-type: none"> • WASH Sector contingency stock (not linked because regularly updated) • CFP resources mapping and Gap analysis, to be shared with WASH Sector and ERT
Regular meeting with CFA, CiC, WASH implementing partners, AFA representatives, SMS and health CFA at Camp level	WASH Camp Focal point	<ul style="list-style-type: none"> • Minutes of meetings
Regular meetings with Health Sector and Risk Communication TWiG regarding rumors about suspected AWD cases increase	HP TWiG lead	<ul style="list-style-type: none"> • EWARS updates • Meeting minutes
Coordinate with other sectors to ensure correct hygiene behaviours and proper maintenance of WASH facilities	WASH with interested sectors (CWC, Nutrition, Education...)	<ul style="list-style-type: none"> • AWD F.A.Q. and guidelines for hygiene promoters to share with relevant sectors
Capacity building		
Train WASH staff , ERT, JAT, CFT on AWD prevention, household disinfection, FRC testing at HH level, communication strategy, and referral pathways.	All WASH and Health partners, led by WASH and Health Sectors	<ul style="list-style-type: none"> • AWD training materials (Sept. 2020) here • AWD TOT for hygiene promoters (2018)
Water		



<p>Map locations where bucket chlorination could be necessary, considering tube well uses and community acceptance</p>	<p>All WASH partners</p>	<ul style="list-style-type: none"> • Bucket Chlorination Protocol in: “MSF, Public Health Engineering in precarious situations, pages nn. 75 and 76” • Other chlorination resources here
<p>Continue regular monitoring of drinking water quality at source and HH level (Recommended: FRC and turbidity for productive BH and TW with bucket chlorination, at source and HH level; fecal coliform (rapid test if available) and turbidity for tube wells without bucket chlorination (at source and HH level).</p> <p>Corrective measures if E. Coli are present in TW: BH disinfection or decommissioning if necessary + BH disinfection after handpump repair. If turbidity >5NTU propose filtration and boiling or increased chlorination.</p> <p>Corrective measures if E. Coli are present in water network: testing source BH + tests along the line + checking chlorination device and revising protocol if needed.</p>	<p>All WASH partners WASH Sector for compilation</p>	<ul style="list-style-type: none"> • Water analysis results here
<p>Sanitation</p>		
<p>Scale-up installation of hand washing station</p>	<p>All WASH partners</p>	<ul style="list-style-type: none"> • See various handwashing stations compendium here
<p>Continue regular O&M of WASH facilities, including monitoring and compliance with procedures used for desludging and waste safe disposal</p>	<p>All WASH partners WASH Sector for 4W compilation and mapping</p>	
<p>Map/identify the “at risk” areas within camps and host communities, based on previous years experience and environmental characteristics.</p>	<p>All WASH partners</p>	
<p>Disinfection of latrines after disludging and FSM surroundings</p>	<p>All WASH partners</p>	
<p>Hygiene promotion</p>		
<p>Regular hygiene promotion in host communities and camps</p>	<p>All WASH partners</p>	
<p>Agree on common messages for AWD prevention and response (including health seeking behaviours and communication pathways if in case of suspected AWD death in the HH)</p>	<p>HP TWiG with support from Health Sector for the referral pathway</p>	<ul style="list-style-type: none"> • AWD F.A.Q. and guidelines for hygiene promoters to share with relevant sectors • AWD IEC materials
<p>Print in sufficient numbers specific WASH AWD IEC materials</p>	<p>All WASH partners</p>	<ul style="list-style-type: none"> • AWD IEC materials
<p>Train food providers on environmental health and food safety. Ensure food stalls have handwashing facilities and access to regularly supply of soap.</p>	<p>All WASH partners</p>	<ul style="list-style-type: none"> • Food hygiene for food vendors

Ensure regularity in distribution of soap and hygiene kits at HH level	All WASH partners	• Refer to WASH Sector minimum requirements
Support, if needed, soap provision in schools and other institutions (gap-filling)		

BOX 1 – WASH supplies prepositioning

- Calcium hypochlorite, HTH, 65-70%
- Chlorine NaDCC 55%
- Chlorine NaDCC tablets 33 mg (Aquatabs)
- Pool testers with DPD 1 & Phenol red tablets; turbidity tubes
- Water tanks/onion tanks size 1000 / 2000 liters
- Jerry cans / pichers/ buckets 10 / 20 liters
- Consumable Hygiene Kit (Soap)
- Sprayers for disinfection
- [PPE](#)
- IEC materials – brochures / posters / banners
- Megaphones / speakers (+ batteries)
- Squatting plates and emergency latrine materials (if relevant)
- Fecal coliform, rapid test kits
- Consumables for bacteriological analysis (Del Agua/WagTech kits)
- Turbidity tubes
- Disludging pumps and spare parts (back up)
- Hand Washing stands
- Hand pumps spare part
- PUR & Filter cloth (if relevant – when turbidity is >5 NTU)

BOX 2 – Where to plan for bucket chlorination

- If water source at camp level is motorized borehole with chlorination system, there's no need for bucket chlorination.
- If DTW & STW is the source of drinking water, chlorination (bucket or Aquatabs) recommended. Specific environmental conditions like TW located at less than 30 m. from source of contamination or in areas with high water table (pit latrines bottom <1.5m water table) require bucket chlorination. However, also TW without contamination risks should be chlorinated in case of outbreak, to ensure water safety also after collection/storage (if Aquatab is not used at HH level).
- Double chlorination has to be avoided.
- Bucket chlorination should be monitored (FRC checks at source and HH level) and chlorine solution percentages adjusted accordingly in order to get a good compromise among FRC levels and palatability/acceptance.

2.2 WASH response 2: Localised response

Scenarios of the Multisectoral response plan	Explanation	WASH response plan (this document)
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	2. c Cholera confirmed by either RDT or culture AND a verified increase in AWD cases in EWARS and EBS reports (verified by WHO Epi team/JAT)	WASH response 3: Outbreak response
Scenario 3: Outbreak confirmed and declared by MoH	Full response activated	

The WASH response 2: localised WASH response corresponds to scenarios 2.a and 2.b of the multi-sectoral plan. In this phase outbreak preventive actions must be quickly scaled up while all the regular coordination and O&M activities (see above) are maintained.

2.2.1 Scenario 2. a

At this stage, **JAT team is activated**, in order to assess and respond to alerts. JAT team is visiting the HH where the suspected or confirmed cholera case has been reported and is conducting preventive activities in neighbouring HH.

- **Localised response for camp setting:** a radius of around **30 meters** around the shelter where the suspected/confirmed case lives is investigated upon receiving the location.
- **Localised response for host communities:** the investigated area depends a lot on village characteristics (density, shared or private latrines, location of water point for drinking water...). The investigation area can start including **50 meters** from the house of the suspected/confirmed case and be extended according to the context, until including at least the nearest water point used for drinking water or the first communal toilet. The radius of intervention can be further extended until the inclusion of the whole village. The suspected/confirmed case can give information about which water point and toilet is using.

2.2.2 Scenario 2. B

This scenario refers to a sensible increase of AWD cases. The cases could be scattered throughout the camp and hosts or can be localised in specific zones or camps or blocks.

- **Increase of cases is localised** (i.e. few villages and/or few camps/blocks): JAT team is activated to investigate the environmental conditions of the areas where the increase of cases is reported. The team can assess the HH of AWD cases if those are reported during the visit and/or referred by health staff (probably the assessment will cover a sample of suspected cases, not all of them). Response is activated in the whole village and/or camps/blocks.
- **Increase of cases is widespread** (i.e. majority of camps and/or host): the response is activated in all locations (see [WASH response 3](#)).

WASH response 2: localised response		
Activity	Responsible	Resources
Coordination		
Rapid Assessment by JAT in coordination with WASH/Health Sector, AFA, CFA where cases/increased reported numbers are localised	WASH and Health Sectors + WASH partners operating in high-risk areas + WASH focal points + CFT + JAT + ERT	• JAT assessment form
Suspected diarrhoea or rumours are safely and confidentially referred to WASH focal points to Health focal points, at camp level		• Share any referral to: washcoxsbar@gmail.com
“Situation room” called twice a week at camp/host level led by ERT with the presence of Health actors presenting the cases of previous day by area, RDT results, clinical diagnosis and rehydration plan, WASH actors ongoing response, coverage and gaps		• Meeting minutes
Ad-hoc WASH and Health coordination meetings	WASH and Health Sectors	• Meeting minutes and presentations
Water		
Based on health surveillance data, conduct targeted water quality and water safety assessments in high-risk areas and at all sources; if contaminated water sources is identified, evaluate the feasibility of closing/fencing it until the contamination issue is solved. Conduct wells disinfection/shock chlorination if appropriate.	All WASH partners operating in high-risk areas	
Superchlorinate and purge water tanks (1 time activity)		
Monitor Free Residual Chlorine levels of all sources and ensure compliance with FRC 0.8-1 mg/l at tap and 0.2-0.5 mg FRC/l at household level		• “Chlorination recommendations” in Section 3.1
If relevant and accepted by community, conduct bucket chlorination as water treatment methodology at source level (tube wells) and increase FRC at source level for piped networks (0.8/1 mg/L)		• Bucket Chlorination Protocol in: “MSF, Public Health Engineering in



		<p>precarious situations, pages nn. 75 and 76”</p> <ul style="list-style-type: none"> • Other chlorination resources here • See Section 3.1 in Annexes
If source chlorination is not feasible, reinforce HH treatment accompanied by targeted awareness activities		<ul style="list-style-type: none"> • Aquatabs info-sheet
Make sure affected areas can rely on at least 15 L/person/day of water. Plan for water trucking if needed.		
Sanitation		
Continue regular sanitation services (including SWM) and facilities O&M, ensuring correct use of PPE by operators	All WASH partners operating in high-risk areas. WASH Sector to support if gaps	<ul style="list-style-type: none"> • WASH Sector recommendations for PPE use (valid for COVID-19) here
Latrines disinfection with chlorine solution (0.5 HTH solution, 2 times per day)		
Increase monitoring of latrine desludging needs. Desludging team to inform WASH actor of needs related to cleaning and repairs. If needed, foresee additional desludging activities beyond regular schedule.		
If latrines in affected areas are unsafe and need major repair works, evaluate the possibility of decommissioning		<ul style="list-style-type: none"> • Decommissioning guidelines
Staff operating the desludging equipment are provided with manual sprayers and chlorine to be used to clean the area around latrines which have been desludged.		
All mechanical desludging vehicles equipped with chlorine 2% chlorine sprays for cleaning vehicle after each collection, lime based spill kits and 0.5% sprays for disinfecting latrines after collection.		
All manual desludging teams to carry lime spill kits and 0.5% sprays for disinfecting latrines after collection.		
Increase hand washing stations coverage, at HH and latrines level		<ul style="list-style-type: none"> • See various handwashing stations compendium here
Hygiene promotion		
Ensure soap and water are available at handwashing stations at public sanitation facilities (markets, learning centres, CFS) and next to food vendors.	All WASH partners operating in high-risk areas. WASH Sector to support if gaps	
NFI distribution in affected area: check last time soap and water containers have been distributed and check the status of water containers and soap availability during assessment: plan for additional soap and water containers distribution, if needed or gaps identified. Add Aquatabs if the conditions apply (see above “Water” section).		

Plan for a water containers cleaning campaign and insist on safe water chain awareness raising.		
Increase community based hygiene promotion in at risk communities/blocks/camps (defined by health data), using updated Info Sheets and materials.		
Intensify AWD prevention activities via listener groups/radio, mosques louspeakers and other media.		
Religious and community leaders , community volunteers and public places stakeholders are trained on AWD and they are provided sets of AWD IEC tools and Info sheet.		
Increase hygiene promotion at food sellers and market place level on environmental health and food safety; hygiene promoters visit food providers every day. SWM at the market to be monitored and improved if needed.		
Ensure enough hand washing facilities at gatherings (NOT applicable at the moment due to COVID-19 limitations)		

2.3 WASH response 3: Outbreak response

Scenarios of the Multisectoral response plan	Explanation	WASH response plan (this document)
Scenario 1: Situation remains unchanged	AWD rates in camps and host population remain as they are (routine activities over the year);	WASH response 1: Prevention and preparedness
Scenario 2: Situation escalates moderately	2. a A verified AWD alert either by Cholera RDT or culture positive case is reported without evidence of an increase of AWD in the area – Localised response (determined by JAT) OR	WASH response 2: Localised response
	2. b A 15% increase in AWD cases reported through EWARS compared with the previous 3 weeks (this needs to be verified by WHO) – Localised response (determined by JAT) OR	
	2. c Cholera confirmed by either RDT or culture AND a verified increase in AWD cases in EWARS and EBS reports (verified by WHO Epi team/JAT)	WASH response 3: Outbreak response
Scenario 3: Outbreak confirmed and declared by MoH	Full response activated	

All the interventions listed above in the “WASH response 2: localised response”, apply to the outbreak response, with the difference that, for the “WASH response 3”, the interventions will not be

localised but will target all camps and host communities locations. Coordination has to be strengthened further, with daily sharing of information of cases.

The role of JAT team in terms of assessment is less relevant, while all the efforts should be put in the response activities.

If not happened yet, hygiene promotion and solid waste interventions should be scaled up. With the help of WASH sector, WASH partners can start operating in other areas of interventions if gaps are flagged or limited resources are highlighted. This can lead to support in NFI distribution, desludging, water trucking, awareness raising activities and so on.

WASH support to Cholera Treatment Centers (CTC) can be foreseen. Similarly, WASH partners could support other collective centers like learning centers, women centers and similar.

WASH response 3: outbreak response		
Activity	Responsible	Resources
Coordination		
Daily short situation room at camp level led by ERT with Health actors presenting the cases by block/sub-block, RDT results, clinical diagnosis and rehydration plan, WASH response teams present response coverage for each identified case and scaled up, intensified HP communications, so that guidance can be provided immediately if required	Health Sector to share updates with WASH Sector + WASH Sector to cascade info via email to partners	<ul style="list-style-type: none"> WhatsApp group (only to share relevant info, messages to be monitored by Admin/WHO in case of sharing confidential/irrelevant info, to be evaluated restrictions of who can write on the group) Meeting minutes
Daily updates from Health to WASH Sector and partners		<ul style="list-style-type: none"> WhatsApp group (only to share relevant info, messages to be monitored by Admin/WHO in case of sharing confidential/irrelevant info, to be evaluated restrictions of who can write on the group) Email updates
Support activation of Oral Rehydration points (ORPs) and CTC facilities (extra water supply, WASH NFIs, chlorine, foot baths...)	WASH and Health sector to coordinate + WASH partners to implement	
Support health partners in provision of soap of other hygiene items for outpatients (according to needs and partners' capacities)	WASH and Health sector to coordinate	<ul style="list-style-type: none"> AWD fact sheet Aquatabs IEC materials

	+ WASH partners/ Hygiene promotion team	
Water		
<i>All the activities listed in "WASH response 2" apply to the whole camps and host locations</i>		See above
Sanitation		
<i>All the activities listed in "WASH response 2" apply to the whole camps and host locations</i>		See above
Hygiene promotion		
<i>All the activities listed in "WASH response 2" apply to the whole camps and host locations</i>		See above
Listen to rumours around dead body management, transmission routes, cultural beliefs, etc. to understand barriers to accessing treatment and concerns as well as identify positive deviants. Adapt communication and report rumours to Health Sector.		<ul style="list-style-type: none"> • Emails to WASH Sector washcoxsbazar@gmail.com
Hygiene promoters to be informed about dead body management protocol in case of questions arise from community. HP do not actively discuss about DBM		

2.3.1 Response timeframe

	24 to 48 Hours	24 to 48 Hours	3-5 days
Outbreak alert	<ul style="list-style-type: none"> • Rapid Joint Assessment (max 24h) - determine affected and at risk population and immediate needs and start the response (hygiene promotion, soap/Aquatabs distribution, FRC checks at HH level...) • Report end of day on the day of assessment • Water quality sampling for bacteriological analysis at source level (if no rapid test) 	<ul style="list-style-type: none"> • Initiate bucket chlorination • Distribution of hygiene kits (soap, Aquatabs, water containers if relevant) to targeted beneficiaries (see Scenarios) • Initiate emergency sanitation interventions (disinfection, accelerate desludging in at-risk locations, scale up sanitation...) • Scale up/target on-going hygiene promotion activities • Adjust response according to bacteriological results 	<ul style="list-style-type: none"> • Continue with activities as per plan/scenarios • Set up ad-hoc coordination meeting (field or Coxs') • Rumors reporting
	Monitoring, including joint coordination and review meetings		

3. Annexes

3.1 Chlorination recommendations

Residual levels for the different points of the system are listed in the table below.

Location in the distribution system	Free Residual chlorine (after 30 minutes contact time)
At water network distribution points	between 0.8 and 1.0 mg/l
At communal water tanks	1.0 mg/l
In water trucks	1.0 mg/l (with insurance that FRC is sufficient at point of consumption)
At collection vessel (for bucket chlorination)	between 0.5 and 0.8 mg/l
At point of consumption (HH level)	between 0.2 and 0.5 mg/l
NOTE:	
<ul style="list-style-type: none"> Chlorine levels can be tasted at about 0.8 mg/l and therefore, unless higher levels are vital for health reasons such as cholera outbreaks, it is recommended that such high levels, while still safe for health, are avoided at the point of consumption. Chlorine taste can induce persons to change water point, leading to the use of unsafe sources like surface water. Chlorine acceptance is something that needs to be discussed with religious and community leaders and community members. Women and girls needs to be targeted by the discussion as the ones in charge of water collection and food preparation. The higher chlorine levels at water point are included because of the higher risk of contamination between standpipe or communal water tank, home and point of consumption, leading to a reduced chlorine level by the time the water has been drunk. For water trucks, the chlorine levels need to be checked near the point of discharge. If they are below 0.5 mg/l, additional chlorine should be added. Chlorination in a truck will help prevent build-up of organic matter in the tank and make the water safe to drink. Issues related to chlorine acceptance can be referred to community users group, WASH camp focal point and shared to the WASH Sector at washcoxsbazar@gmail.com. 	

3.2 Glossary

3.2.1 List of acronyms

- CFT core facilitators team
- CTC cholera treatment centre
- CTU cholera treatment unit
- DTW deep tube well
- EBS Event-based surveillance
- ERT emergency response team
- EWARS (WHO's) Early Warning, Alert and Response System
- FRC free residual chlorine
- JAT Joint Assessment Team
- JMP Joint Response Plan
- GAM Global Acute Malnutrition

- HTH high test hypochlorite
- HP hygiene promotion
- HR human resources
- HHWT household water treatment
- OCV oral cholera vaccine
- O&M operation and maintenance
- ORP oral rehydration point
- ORS oral rehydration solution
- RDT Rapid diagnostic test
- STW shallow tube well
- WHO World Health Organization

3.2.2 Case definitions¹²

Acute watery diarrhoea (AWD)

The passage of ≥ 3 abnormally loose or fluid stools in the past 24 hours, with or without dehydration.

Suspected cholera case

In areas where a cholera outbreak has not been declared, a suspected case is any patient who has acute watery diarrhea and severe dehydration or Rapid Diagnostic Test (RDT) positive case or died from acute watery diarrhea. In areas where a cholera outbreak is declared, a suspected case is any person presenting with or dying from acute watery diarrhea

Confirmed cholera case

A suspected case with *V. cholerae* O1 or O139 confirmed by culture or PCR.

3.2.3 Definitions

Cholera-endemic area

An area where confirmed cholera cases, resulting from local transmission, have been detected in the last 3 years. An area can be defined as any sub-national administrative unit including state, district or smaller localities.

Cholera hotspot

A geographically limited area (e.g. city, administrative level 2 or health district catchment area) where environmental, cultural and/or socioeconomic conditions facilitate the transmission of the disease and where cholera persists or re-appears regularly. Hotspots play a central role in the spread of the disease to other areas

¹² Government of Bangladesh, [National cholera control plan for Bangladesh](#), 2019 – 2030.

Cholera outbreak

Cholera outbreak is defined by the occurrence of at least **one confirmed case** of cholera by culture or PCR and evidence of local transmission. Outbreaks can also occur in areas with sustained year-round transmission. These outbreaks are defined by an unexpected increase in the magnitude or timing of suspected cases over two consecutive weeks, with some cases being confirmed by the laboratory. Investigate and respond to such increases appropriately through additional outbreak response and control measure are required.

3.3 Reference documents and further information

- Government of Bangladesh, [National cholera control plan for Bangladesh](#), 2019 – 2030.
- ICDDR, B, 2020, [Genome Dynamics of Vibrio cholerae Isolates Linked to Seasonal Outbreaks of Cholera in Dhaka, Bangladesh](#).
- ICDDR, B, no date, [Cholera Surveillance in Bangladesh](#).
- UNICEF, [Cholera toolkit](#), 2013: and [webpage](#) on Cholera.
- MSF, [Management of Cholera epidemics](#), 2017.
- MSF, [Public Health Engineering in precarious situations](#), 2010.
- WHO [cholera web page](#) and [fact sheet](#) on cholera.
- WHO, 2018, [Overview on Ending Cholera](#), a Global Roadmap to 2030.
- OXFAM, 2012, [Cholera Outbreak Guidelines: Preparedness, prevention and control](#).
- Solidarités International, 2018, [Fighting Cholera](#), Operational Handbook, Response to outbreaks and risk prevention in endemic areas.
- Global WASH Cluster [resource center](#).
- WASH Sector Google Drive on [AWD and Cholera](#).