

Cholera Outbreaks

Coordinated Preparedness and Response

Operational Plan

Introduction

The objectives of the WASH Cluster response are to prevent and control transmissions of cholera outbreaks in Haiti by:

- Strengthening coordination of the national response;
- Ensuring/providing sufficient clean, safe water as both preventive and curative measures;
- Ensuring that men, women and children are mobilized and enabled to take actions to prevent/mitigate cholera outbreak risks by adhering to safe hygiene practices;
- Ensuring that men women and children are mobilized and enabled to start home treatment of (suspected) cholera cases, and seek immediate medical support

Priority for the WASH cluster includes a series of mapping exercises to identify potentials gaps and overlaps.

For example the existing, pipeline and needed stocks/supplies will be tracked, while a 3W matrix will be further developed and widely disseminated. Contextualised and agreed cholera response (including monitoring and evaluation) guiding framework and standards will be developed by the sector. In order to improve inter-cluster partnership, collaboration and coordination, a clear sharing of roles and responsibilities between the WASH and Health Cluster will be established.

The WASH cluster cholera preparedness and response plan has been developed with the understanding that:

- the incubation period for cholera is a few hours till 4 till 5 days.
- Around 80 % of the infected patients will not show any symptoms but will be able to transmit the disease.
- Patients discharged from a CTC can still transmit cholera for several days.
- The main, but not only, transmission routes are likely to be drinking water that might have been contaminated at source or during transport or storage, and food that has been contaminated before or after preparation (including fruits and vegetables).

1 Outbreak detection

It is common that the highest Case Fatality Rate (CFR)in a cholera outbreak occurs during the first days of the outbreak and in communities where awareness on cholera and early treatment (ORS) is low.

High CFR is often due to a delay in relaying information from the outbreak areas up to district, provincial and national levels, poor access to ORS and limited capacity at clinics to handle influx of cholera patients.

A functional early warning system should be established as soon as possible. Within that system, alerts and immediate preliminary assessments and response should be conducted in accordance with a specific format by Inter-Agency Rapid Assessment Teams made of Medical staff, engineers, hygiene promotion experts, and supported by MoH which should provide timely (preferably daily) information.

1.1 Key Health Information Statistic

It is likely that improvements in the overall cholera surveillance (involving community structures for contact tracing, etc) will strengthen the overall WASH and Health Cluster response in terms of strategies and priorities. There is an urgent need to share information and provide daily updates of the number and location of cases and deaths as reported in the country. To ensure a targeted and timely response of the WASH sector it is crucial to get daily updates on (new) areas affected and to be provided with information on transmission routes.

Weekly epidemiological bulletins with in-depth data and analysis, including maps and epidemiological curves by affected district will improve the WASH response

1.2 Priority areas

Priority areas can be set by using some of the following criteria.

- a) Areas with reported and confirmed cases of cholera.
- b) Areas neighbouring reported cholera cases and with low water and sanitation coverage and poor hygiene practises. Especially areas relying on surface water or water from shallow unprotected hand dug wells.
- c) Flooded areas with displacement (and often with low water and sanitation coverage)
- d) Areas with a high population density (slums, IDP camps) with low water and sanitation coverage and poor hygiene.

Within the above areas special attention could be given to ensure better hygiene and sanitation at markets, and other places of food handling.

WASH cluster should react to new hotspots and must be proactive in identifying high risk populations near to ongoing outbreaks and begin mobilizing the population in these sites. The WASH cluster will promote rapid WASH intervention teams that can react within short time frames after the alert (preferably within 48 hours)

1.3 Community mobilization and Hygiene Promotion

Hygiene promotion and community mobilisation is one of the key approaches in cholera response. Information, Education, Communication (IEC) materials approved by the authorities should be used to enable people at risk to take actions to prevent/mitigate cholera outbreak risks by adhering to safe hygiene practices, (eg. hand washing with soap) and to ensure that people are enabled to start home treatment with ORS and or seek immediate treatment. Standardized approaches in response delivery should be encouraged. As transmission routes might differ at different locations hygiene promotion might need to focus on different aspects depending on identified transmission routes and identified key risk behaviours.

The involvement of communities and partners (local NGOs, Red Cross, churches, traditional healers) should be encouraged to increase compliance and coverage. ***The Hygiene promotion working group developed a detailed strategy paper for cholera response.***

Community sensitization, mobilization and active case finding will be consolidated using a network of community volunteers and or hygiene promotion workers. In particular, provision of ORS or immediate treatment of cases identified during door-to-door visits will be ensured, and referral of most severe cases to the nearby health facility encouraged. A standard training package for community volunteers and or hygiene promotion workers will be developed by the WASH cluster.

1.4 Funeral practices

The Health Cluster with the support of the WASH cluster should provide official recommendations targeted education messages for funeral organizers and for communities where suspected cholera cases have died at home. Work with local government authorities to ensure safe handling of corpses, supervised funerals.

1.5 Water Supply

Safe water supply in affected areas including the health facilities/critical area is a priority. Safe water supply can be ensured by the distribution of chlorine generating tablets/products (Aquataps, bleack Jif etc for turbidities < 20 NTU and PuR >20 NTU, etc). *In principle, all water in cholera affected areas should be chlorinated. However, due to the limited resources priority should be given to water supplies in priority areas and within those areas only to water sources that are likely to be bacteriological contaminated or that are at risk of being contaminated (confirm through sanitary inspection and or bacteriological testing).* Leaflets with instructions on how to use the chlorine in local language and or

drawings should be given with the distribution. Cluster needs to provide clear instructions on proper dosing of WPT to ensure that there is adequate concentration of chlorine to ensure that the water is safe, yet not be too high to dissuade users from drinking it. It is essential that on site monitoring of chlorine residuals in piped or tankered water is initiated. Use of household level treatments should also be monitored by doing residual chlorine testing at household level to ensure proper use and understanding of these products.

Batch chlorination of piped water supply in affected areas is recommended, (0.5mg/l). In case residual chlorine can be found at the water-point, no distribution of chlorine tablets is needed. Mobile water treatment units can be used for water treatment but organisation doing so should ensure maintenance, operation and eventual disposal of the units

In certain areas drilling of boreholes and or protecting wells can be considered (*confirm water quality through water testing*).

The efficiency and timeliness of the response will need to be ensured. Cluster agreements on the standards/guidance for the response appropriate to the context as well as long and midterm response to reduce the risk of cholera outbreaks will need to be developed.

1.6 Excreta Disposal

Increasing sanitation coverage nationwide is a long/medium term project and although ensuring safe disposal of excreta should be key in the long-term cholera response for Haiti, due to the scale and size of the areas affected or at risk, the WASH cluster considers that for emergency response the provision of toilets or safe excreta disposal at family level is of a lower priority, than the provision of safe water supply and hygiene education. It is unlikely that good sanitation coverage will be achieved in the short term with limited resources and time. However, emergency sanitation should be provided for any densely populated high risk populations such as IDP camps or settlements

Toilet provision with hand washing facilities at CTC's (*responsibility of health cluster*) will need to be ensured. Other public places like schools and markets, should be considered for the provision of sanitary facilities. Wash cluster should support health cluster if their capacity is limited to provide on site sanitation at CTCs or other facilities receiving cholera patients.

Disinfecting latrines and maintaining cleanliness of latrines in CTC and affected areas should be promoted

Safe excreta disposal by de-sludge trucks will need to be ensured, scavengers should not be allowed access to dumping sites or sludge.

Advocacy and donor support for inclusion of excreta disposal components in more developmental WASH projects is strongly appealed for. Sanitation coverage will need to be improved to prevent future outbreaks.

1.7 Solid Waste Management

Safe waste disposal of waste generated at the CTCs will need to be ensured (*responsibility of health cluster*).

General collection of waste is not seen as an emergency priority by the WASH cluster to control the cholera outbreak. However, waste collection and disinfection of waste at places of food handling (markets) in cholera affected areas should be considered. Especially if the wastes contribute to blocking drainage canals that could lead to flooding or when waste is mixed with faecal matter.

A strategy will be to support the city councils with resources (materials, equipment, funds), to actively mainstream waste management into hygiene promotion, and to support communities with clean-up campaigns.

1.8 Drainage

CTC's should not be built in areas that are prone to flooding. The WASH cluster can maintain drainage around CTC's and health facilities to further reduce those risks.

In general, the cleaning of drains will not be seen as an immediate priority, unless it can clearly prevent areas from flooding (markets, high density population areas).

1.9 Disinfection of affected households

Relatives and or caretakers of patients should be given soap, disinfectant (Jif or other concentrated chlorine product) and hygiene education that will allow them to protect themselves and their relatives. Relatives should be trained to disinfect their toilet cooking utilities and beddings etc.

Disinfection of affected household by mobile sprayer teams is not seen as a priority by the WASH cluster. Mainly as it is not clear how effective this strategy is and may use considerable resources in order to visit families of infected patients. Disinfection of households does nothing to prevent transmission from the subclinical (and other unreported) cases. Spraying teams usually only get to the household after the first few days of the cholera episode, when the contamination has occurred and any likely transmission to secondary cases in the household has already taken place. One-off disinfection will not prevent subsequent recontamination of bedding, clothes etc in the following few days.

Organizations involved in disinfecting at household level should be cautious of the danger of stigmatising the patients, and becoming such an ordeal for the households concerned that other households become reluctant to report their cases.

1.10 Schools at high risk areas

The authorities with guidance of the Education, WASH and the Health cluster will need to provide guidance regarding possible closure of schools in affected areas or schools with suspected cholera cases amongst the children and or teachers. Currently in general guidance has been to not close schools, but to provide handwashing stations, sanitation, safe water and mobilize the students and teachers to understand cholera and how to prevent it. Possibly it is advisable to close schools with infected students and who cannot provide sanitation, hand washing and safe water supply.

The WASH cluster will provide hygiene kits to schools containing IEC material, water purification tablets, soap and preferably hand washing stands.

To provide latrines at schools in affected areas is seen as a priority intervention in areas with confirmed cholera cases and were the decision is taken to keep the school open.

IEC material focussing on children will need to be developed by the Education and or WASH cluster

1.11 WASH in Health facilities

Though WASH in Health facilities including dispensaries, is and will be a responsibility of the Health cluster the WASH cluster will need to ensure that WASH in health facilities (including CTC's) is properly addressed and to provide technical guidance or material support if needed. All health facilities in risk areas and or affected areas will need hand washing facilities with soap or 0.05 % chlorine solution as a bare minimum.

1.12 Assessment and Monitoring

More focus is required on monitoring impacts of the interventions of the WASH cluster.

The DPC assessment form should be used for flooding and an assessment form for cholera affected areas that can identify key priorities for interventions need to be developed by the WASH cluster.

After NFI distributions agencies will need to monitor the correct use of the items distributed, and to ensure the hygiene messages are understood. Results of the monitoring or lesson learned should be shared with the cluster. A water quality monitoring system will need to be put in place to monitor residual chlorine at urban centres and at household level. Bacteriological testing and or sanitary surveys should be done to assist identifying priority areas for chlorine distribution.

1.13 Involvement of Partners

International NGO's are encouraged to partner with local NGO's and or authorities and strengthen their capacities.

ANNEX : RESPONSIBILITIES & ACCOUNTABILITIES MATRIX

This matrix defines the responsibilities and accountabilities of the Health and WASH Clusters during the response to cholera in Haiti in areas of potential overlap. The below matrix is an adaptation of a matrix developed by the Global WASH Cluster with a broad consultation of the Health and Nutrition Clusters. The below matrix will need to be used with flexibility and be revised as per need.

Objectives

- Clarify responsibilities and accountabilities among the two clusters, especially as they relate to the prevention and control of cholera.
- Improve coordination and collaboration among Health and WASH Cluster partner field staff during emergency operations.

Please note that:

- Responsibility means ensuring that the job gets done, not necessarily doing it.

| AREA OF POTENTIAL OVERLAP | SPECIFIC ACTIVITY | RESPONSIBILITY | |
|---|--|--|---|
| | | HEALTH CLUSTER | WASH CLUSTER |
| Assessment | Conduct WASH assessments | In health facilities | Outside health facilities |
| Monitoring | Monitor and share WASH related information with other clusters | Disease status and WASH indicators in health facilities | WASH indicators (more perception based) outside health facilities |
| WASH Information Management (IM) | Develop and monitor IM system | Gather, analyze and disseminate evidence based health information (health facilities). Share with other clusters | Gather WASH information (outside health facilities) and share with other clusters. |
| WASH Standards | Disseminate, promote and monitor application | In health facilities | Outside health facilities |
| | Agree indicators | Provide input | Responsible for coordinating agreement |
| Water Quality & Quantity | Identify country testing capacity and facilities | | Fully responsible |
| | Ensures testing capacity | In health facilities: WASH to support upon request | Outside health facilities – in collaboration with national authorities. Provide support to Health Cluster as requested. |

| | | | |
|---------------------------------------|--|---|---|
| | Testing | In health facilities: WASH to support upon request | Outside health facilities - in collaboration with national authorities (includes source, storage & distribution) Provide training to other clusters as requested |
| | Monitoring | In health facilities: WASH to support on request | Outside health facilities – in collaboration with national authorities |
| | Provide quantity | Inside health facilities | Outside health facilities – in collaboration with national authorities |
| Water facilities | Improve access | | Fully responsible |
| Water Treatment | Procurement of chemicals | Responsible for health facilities: WASH to support on request | For other areas |
| | Design systems | | Fully responsible |
| Hygiene | Promote and improve hygiene | In health facilities | To coordinate common messages between clusters; and to conduct health promotion outside health facilities |
| Excreta disposal | Improve access | In health facilities: with support from WASH on request | Outside health facilities |
| Provision of ORS | Ensure availability of ORS within communities at risk | In health facilities and to relatives of patient | Outside health facilities |
| Improving Sanitary Environment | Improve environment | In health facilities: with support from WASH on request | Outside health facilities |
| Disease Outbreak | Assessment, Surveillance and monitoring (& contact tracing), Outbreak control, Communication | Fully responsible for overall coordination (with input from other clusters) | Participate in assessment and Support as requested |
| Waste Management | Maintain, construct and renovate | In health facilities | Outside health facilities Provide support to Health Clusters as requested |
| WASH Infrastructure | Prioritise facilities for renovation and construction. Implement projects | | Fully Responsible |
| WASH Related Stockpiles | Procure and share information about stockpiles between clusters. | Material used in health facilities. WASH cluster support supports as required or if requested | Population based material (water treatment chemicals (eg chlorine), water testing equipment, soap) |
| Disinfection | Disinfection of household, health facilities | Responsible; with support from WASH as requested | |

Common chlorine solutions for CTC and or health facilities

Water needs for CTC 60 l/patient /day

Oral rehydration point 10 l/patient/day

Preparation and use of a chlorine solution in health care settings with clean water

| Concentration solution in % of active chlorine | Preparation ⁽¹⁾ with HTH at 65% | Indications | Procedures | Remarks |
|--|---|---|--|--|
| 0.05% | 0.75 gr for 1 litre 7.5 gr for 10 litres | <ul style="list-style-type: none"> washing of hands and skin rinsing dishes washing of new patients on arrival, possibly with a spray | Clean and dry hands, then rub with chlorine solution during 30 seconds. Let dry. | 0.05% solution is stable for 24 hours and should be renewed every day. Never mix the solution with a detergent. |
| 0.2% | 3 gr for 1 litre 30 gr for 10 litres | <ul style="list-style-type: none"> disinfection of floors spraying of homes of patients (floors, beds, latrines) spraying of beds in CTC foot-sprayer at all entrances disinfection of clothes by soaking for 10 minutes, rinsing and washing afterwards | First sweep the floors and wash with soap and water. Then apply the chlorinated solution, leave it in contact for 10 minutes, rinse and let dry. | Rinse, wring and dry the floor cloth after use 0.2% solution is stable for 24 hours and should be renewed every day. Never mix the solution with a detergent. |
| | | Foot bath (considering it's limitation) | Pour the solution in the footbath. Everybody entering or leaving the infected area must dip their feet in it | 0.2% solution used in footbath should be replaced at least twice a day. |
| 2% | 30 gr for 1 litre 300 gr for 10 litres | <ul style="list-style-type: none"> disinfection of vomit and faeces (to be used in excreta buckets) disinfection of corpses. | Spray directly the body with the solution after blocking all orifices and then place the body in body bag. | 2% solution is stable for one week if stored properly. Never mix the solution with a detergent. |

⁽¹⁾ For preparation of these chlorine solutions, see annex 10.

For preparation of safe drinking water, refer to the MSF handbook *Public Health Engineering in emergency situation and annex 15*

From MSF cholera guidelines (2004)

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