A cholera outbreak was reported in Borno State, northeast Nigeria, by the State Ministry of Health. The first case was recorded on 16 August 2017 and the outbreak has, as of 12 September, claimed the lives of at least 44 individuals in the state. The number of suspected cases stands at over 1,730 with hotspots in various sites for displaced persons in Maiduguri, Dikwa, Monguno and Konduga. Most cases are concentrated in the “Muna Corridor” in Maiduguri, which includes 15 sites for displaced, including Muna Garage, Customs House and Farm Centre. Following a rapid risk assessment, the World Health Organization has graded the risk of spread in the Borno capital as “high,” given the congestion, poor infrastructure and water/sanitation conditions in the area.

More than half of the identified suspected cases in the confirmed locations are outpatients, therefore the currently available numbers may not reflect the true total caseload. Cases are also suspected in Mafa and various other local government areas (LGAs) have been identified as being at ‘high risk’ (Bama, Biu, Kala Balge, Kukawa, Mobbar, Ngala, Hawul, Damboa, Gwoza).

Women and girls are considered to be particularly vulnerable as gender roles influence the exposure to cholera. For example, it is usually women and girls who care for sick family members, clean latrines, fetch and handle untreated water and prepare food.

Health and Water, Sanitation and Hygiene (WASH) humanitarian partners are coordinating the response and supporting the Borno State Ministry of Health to contain the outbreak. This involves a significant scale-up in treatment, prevention and preparedness activities.

In terms of response and treatment, to date, partners have been able to open several cholera treatment centres (CTCs) using their readily available resources to handle the most severe cases: two in Maiduguri, one in Monguno and one in Dikwa, for a cumulative number of over 280 beds. Several oral rehydration points (ORPs) have also been set up in IDP sites to handle the less complicated cases. Surveillance teams are conducting door-to-door case investigations and referring patients for treatment when necessary.

For improved prevention and preparedness, handwashing points are being set up in all hotspots, water chlorination and water analysis are ongoing, and latrine desludging is also being performed regularly. Last but not least, hygiene promotion through radio, community groups, posters, and other methods is being done in camps and schools, a critical aspect of containing the outbreak.

Despite the Government’s and humanitarian partners’ efforts, without a significant, timely and holistic scale-up in all “very high” and “high” risk areas, the number of cases could very soon outpace the partners’ capacity to respond, resulting in avoidable suffering and loss of life. Additional funding and subsequent action are urgently required.
**KEY FIGURES**

**Overview**
- 3.7 million people in need
- 2.1 million people targeted
- US$4.8 million

**WASH**
- 5.5 million people in need
- 2.1 million people targeted
- US$4.8 million

**HEALTH**
- 3.7 million people in need
- 3.7 million people targeted
- $US3.5 million

**Cholera cases**
- 1733 confirmed cases
- Of cholera, with 44 confirmed deaths.

**DMS (CCM)/SHELTER & NFI**
- 183 camp sites
- 23 priority camp sites
- US$1.6 million

**PRIORITY LOCATIONS**

![Map of Priority Locations](image)
Existing information and field observations suggest the following factors as the most immediate threats to life.

**Health**

Despite the response efforts the outbreak is not yet controlled and has the potential to spread to other parts of the state. Some of the gaps that need to be addressed to contain the outbreak and decrease morbidity and mortality are:

- **Surveillance:** data generated by the surveillance system needs to be specific enough to guide the WASH response.
- **Case management:** At present, the number of cholera beds in the affected areas is adequate to the number of at-risk population but the number of ORPs is lower than the required amount. For example, Muna IDP camp and the surrounding settlements have three ORPs when they would need to have at least seven. Most importantly, some patients do not seek care early enough and do not use the existing treatment facilities in a timely manner. In addition, if the outbreak spreads further or becomes protracted, the prepositioned supplies will be exhausted, which will affect the capacity to manage cases.
- **Risk communication:** Despite ongoing efforts of different partners on risk communication through hygiene promoters, posters, radio broadcasts and other platforms; behavioural change in communities is not at the required level and open defecation continues to be practiced widely.
- **Preparedness:** Health partners have diverted resources from their regular programming in order to rapidly respond to this emergency. An investment must be made in replenishing the used stocks of medical supplies so affected LGAs are adequately prepared for any other potential cholera outbreak and other health hazards.

**WASH**

In the affected 25 LGAs of Borno, 5.5 million internally displaced persons (IDPs) and host communities (1.3 million women, 1.2 million men and 3 million children including 1 million under the age of 5) living in overcrowded conditions in newly accessible areas and are therefore often exposed to faecal contamination caused by open defecation and spread by flooding. They lack adequate water supplies and proper sanitation services and safe hygiene practices.

The recent rainy season increased the risk of water-borne and sanitation-related diseases, including cholera and acute watery diarrhoea (AWD). Lack of adequate food and nutrition exacerbates the impact of the environmental contamination on malnourished persons.

Three interlinked interventions are needed to eliminate the faecal contamination of the living environment, which increases the risk of cholera and AWD, and to inculcate improved hygiene and health-seeking behaviours:

a) Social mobilisation for cholera awareness, health education, hygiene promotion and behavioural change — including risk communication responding to harmful beliefs and practices.

b) Promoting key behaviours of safe disposal of all excreta (stopping open defecation in fields, streams and in shallow unsafe household latrines), proper use of safe latrines, safe disposal of other waste, hand washing with soap at critical times, safe management of the water supply chain from source to point of use, safe management of all waste (solid waste, waste water). This will support the disinfection of all contaminated spaces and water bodies, training of change agents and supportive supervision, supply of commodities (consumables like soap) and establishing sustainable access to quality services required for the maintenance of hygiene behaviours and health-seeking behaviours. This component will include support to ORPs and CTCs in provision of water, sanitation and hygiene services.

c) Increase physical access to water supply and safe environmental sanitation and hygiene services, with predictable links to management support for the sustainability of quality operation and maintenance of water and sanitation systems and other basic services for health, education and nutrition across the affected LGAs. This includes water chlorination, reduction of down time for water and sanitation facilities, environmental cleaning including scheduled desludging of latrines and safe disposal of the fecal sludge, disinfecting and progressive decommissioning of shallow household latrines, continuous heath education, public health and clinical services, school WASH clubs and child-to-child health and hygiene promotion.
PART I: MAIN HUMANITARIAN NEEDS

**CCCM/NFI/SHELTER**

Due to insufficient funding in 2017, so far the sector has not been able to meet the enormous requirements in terms of site condition improvements, site management, shelter and NFI provision or settlement planning.

Improved qualitative site management is urgently required to mitigate disease outbreaks and facilitate service provision.
- Proper drainage mitigation
- Additional space for additional shelter to ease the levels of congestion in camps

**Logistics**

A coordinated logistics response is needed to ensure effective and efficient delivery of humanitarian assistance in North-East Nigeria. The volatile security situation affects the road network in the region, isolating vulnerable communities and limiting the provision of humanitarian assistance, as most key areas are only safely accessible by air. Furthermore, factors such as long distances and limited road infrastructure hinder the movement of humanitarian staff to remote areas.

Additionally, the humanitarian response is further challenged by some identified logistics gaps in the region, such as the lack of sufficient storage facilities, which still need to be established.

In collaboration with the Health and WASH Sector, the Logistics Sector will reach out to partners to discuss and coordinate associated logistics and supplies issues. This includes a faster procedure for the movement of cholera relief items by road, which needs to be negotiated with the Nigerian Armed Forces.

**FINANCIAL REQUIREMENTS PER SECTOR (in millions of US dollars)**

- **WASH**: 4,800,000
- **Health**: 3,500,000
- **CCCM/DMS**: 1,600,000

**US$9.9 million**

Total requested
STRATEGIC OBJECTIVES

The humanitarian response will be guided by the following strategic objectives and actions:

1. **Provide timely life-saving assistance to people affected by cholera**
   - Provide life-saving and life-sustaining health care through oral rehydration points and cholera treatment centres in targeted areas and ensure referral mechanisms are in place.
   - Sensitise communities to seek early care and timely treatment
   - Overcome logistics impediments to ensure an effective and timely distribution of relief items.

2. **Reduce the risk of cholera and other waterborne disease**
   - Deliver preventive and preparedness interventions for cholera and other waterborne diseases in 20 LGAs.
   - Strengthen surveillance, social mobilisation, case investigation and laboratory work for timely detection, confirmation and immediate intervention to contain the disease.

*Patients in the cholera treatment centre in Maiduguri, the capital of Borno State. Photo: OCHA/Y. Guerda.*
WHAT IF WE FAIL TO ACT

1. There is a very high risk of spread of cholera among a large and vulnerable population with devastating loss of life, which could be as high as 235 – 658 (case fatality rate 1 per cent to 2.8 per cent), especially where displaced people are living in highly congested conditions, with inadequate water and sanitation facilities, a disrupted health care system, and challenges related to insecurity, a poor communication network and seasonal rains. Besides this potential high death toll caused directly by cholera, the impact will be much greater, including increased malnutrition rates in an area already dealing with a nutrition crisis. As resources are diverted to the outbreak, other health services (including reproductive health) may suffer leading to poor maternal outcomes and further delays in strengthening and rebuilding of the health care system.

2. If the water and environmental sanitation proposed interventions are not implemented, then faecal contamination will continue and this will retain cholera reservoir in the environment and increase the risk of new outbreaks and rapid transmission. It will also be difficult to control and stop current outbreaks until after the rainy season. Preventable deaths will escalate.

3. If insufficient food assistance is provided, malnutrition and food insecurity will continue and the affected population will have reduced immunity against diseases.

4. The timely delivery of humanitarian supplies for the cholera response is of paramount importance. Any delay will have an impact on the currently affected population and might even increase the current number of cases.
2. SECTOR PLANS

HEALTH

Contact Information: Jorge Martinez martinezj@wo.int

Priority Actions

1. Conduct active case search/surveillance through house-to-house visits by volunteers and mobile health teams.
2. Training of health workers in case management
3. Establish cholera treatment centres and oral rehydration points
4. Supplies, cholera kits, water testing kits and logistics
5. Community mobilisation and risk communication through community structures and mass media

Response Strategy

In order to provide life-saving and life-sustaining health care for people affected by cholera, an analysis of the current outbreak and past epidemiological records will assist in identifying high risk areas and most vulnerable populations. Current and previous epidemiological evidence shows population in IDP camps are the most affected by cholera outbreaks. Fifteen LGAs with a combined population of 3,763,226, have been identified to be very high risk or high risk for progression of the cholera outbreak. The criteria used for prioritization of the LGAs include reports of cholera cases and overall WASH situation in the LGAs and IDP camps.

For each Cholera Treatment Center (CTC) established, a cholera kit for 100 people will be required to initiate the response; additional materials shall be made available as per the request of the responsible CTC management.

Two types of treatment centers are proposed;
- Cholera Treatment Units may be established where IDPs are concentrated in large numbers, with a maximum 50 beds capacity and
- CTCs should be established at the main general hospital. Human resource, material and logistical requirements have been estimated with breakdown. In order to facilitate the initiation of response and mobilization of adequate personnel, drugs and material resources, CTCs should be standardized

The current outbreak in Muna camps has shown a delay in seeking treatment with a high proportion (69 per cent) requiring care at the CTC. This may also be due to the possibility that many mild cases do not report for treatment at all. Through social mobilisation and risk communication efforts, it is expected that patients will come to seek care earlier, and that the majority of cases can be treated as outpatients with oral rehydration salts (ORS).

For planning purposes, an attack rate varying between 0.25 per cent and 1 per cent will be used in overcrowded IDP settlements and host communities. Based on this assumption 9,408 to 37,632 people will be affected by cholera, averaging to 23,520 people.

With an expected 23,520 cases, an assumed 20 per cent (4,704) will still need care at a CTC, requiring an expansion of the number of CTC beds beyond the current capacity of five CTCs with a total bed capacity of 280 beds.

In total, an additional 700 beds may be required to reach the 1,000 beds needed at the peak of the outbreak when an estimated 30 per cent of cases present in one week. This may require up to 10 additional CTCs to the existing capacity of 5 CTCs (4 operational, 1 on stand-by). It is proposed to establish 10 Oral Rehydration Points (ORPs) in 10 high risk IDP camps.

Different methodologies of ORS services can be utilized which are less demanding in terms of supplies and set-up. However, in remote locations with limited referral options, there is still need for a temporary structure where patients can be kept under observation for stabilisation and rehydration. Current capacity with the partners is limited to a maximum of ten ORPs, while at least 50 (five per CTC) would be required for an adequate coverage.

$3.5M
Required to reach 3.7M people
To contain the cholera outbreak in affected communities and prevent the disease spread in at-risk communities, the following activities need to be undertaken:

1. **Surveillance**: Strengthen the surveillance system to provide regular information concerning the health status of the affected population and to forecast whether a potential spread of disease in a new area. The specific activities to be carried out to strengthen the surveillance system are:
   - Training of health workers on disease surveillance
   - Prepositioning of supplies for sample transportation and investigation
   - Verify rumours of outbreaks through timely investigation
   - Ongoing monitoring of the outbreak through regular sample collection and analysis

2. **Case management**: Timely detection and proper management of cholera cases is central in decreasing mortality and controlling the outbreak. The priority activities to strengthen management of cholera cases include:
   - Training of 625 health workers on cholera case management
   - Prepositioning of supplies to establish and run 10 CTCs and 50 ORPs
   - Conducting active case search through house to house visits by volunteers and mobile health teams.

3. **Risk communication**: The approach used in risk communication for cholera will include:
   - Community Engagement through town announcers
   - Production and distribution of Information Education Communication materials such as posters and fliers
   - Community engagement through social and mass media
   - Dissemination through existing community structures (leaders/groups/committees)

4. **Coordination**: The focus will be to bring together the efforts of all health and WASH partners through:
   - Updating the response plan and sharing with all partners
   - Use of the Public Health Emergency Operations Centre as an operational centre for close coordination and collaboration by all partners and sectors
   - Daily health and WASH sector meetings at state level and in the affected LGAs
   - Synchronizing data tools and reports of all partners
   - Monitoring the evolution of the outbreak by location
   - Producing and sharing daily cholera situation report
   - Conducting field visits to affected and at-risk areas to coordinate the response and provide leadership

**Humanitarian Partners**

**WATER SANITATION AND HYGIENE (WASH)**

Contact Information: Souleymane Sow: ssow@unicef.org

**Priority Actions**
1. Removing faecal contamination
2. Hygiene promotion, health education, social mobilisation and teachers training
3. Establishing a supportive management structure for the operation and maintenance of water and sanitation systems
4. Increasing physical access to safe drinking water and adequate sanitation, including in schools
5. Spraying/disinfection
6. Hygiene Kit distribution

**$4.8 MILLION**
Required to reach **2.1M people**
**Response Strategy**

Around 2.1 million people are living at ‘high-risk’ LGAs (Konduga, Mungono, Dikwa, Jere and Maiduguri). Social mobilisation and service delivery will form the bedrock for the response, helping sensitise traditional and religious leaders, teachers and child-to-child change agents to influence behavioural change towards ending open defecation, promoting the abandonment of unsafe shallow latrines (disinfecting and decommissioning), and hand washing with soap at critical times, including at school.

Supplying commodities and consumables for water treatment, hand washing, disinfection of polluted or contaminated environments, establishing a sustainable system for garbage collection, sorting, treatment and removal or burning or burying as appropriate, providing cash support (incentivised volunteers) for the camp and toilet cleaning, repair of water and sanitation infrastructure, chlorination of water supply, rapid repairs and maintenance during downtime of water or sanitation facilities, operational support for scheduled regular desludging of latrines, increasing access to water supply services and sanitation services through increasing available water by developing new sources, increasing pumping to source capacities, rehabilitating and repairing broken systems.

**Humanitarian Partners**

UNICEF, CIDAR, DRC, NEWSAN, CRS, FHI 360, IMC, SI, Malteser International, Tdh-L, Save the Children, Plan International

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**Camp Coordination and Camp Management (CCCM)/ NFI/SHELTER**

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**Priority Actions**

1. Site management support teams in affected areas for scale-up of camp management support and messaging / community mobilisation in 23 priority locations, targeting 300,000 people

2. Site analysis and development of an action plan (topography, site disease mitigation improvements and dissemination) in 23 priority locations, targeting 300,000 people

3. Drainage in 23 priority locations, targeting 300,000 people

4. Emergency shelter reinforcement kit and cleaning drainage materials (provision kits)

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**Response Strategy**

In Borno State, out of the 183 IDP sites hosting over 636,000 people, 96 sites were monitored through the site facilitation approach with dedicated site facilitators and/or mobile teams, providing a safety net and the foundations for site management through the constitution of camp site committees, monitoring and referral. Nonetheless, limited funding was received in 2017 to scale-up capacities in terms of camp management and site improvements and more support in needed to ensure proper and dedicated camp management capacities on site, in support to the government camp managers as well as site decongestion, settlement planning despite spontaneous and porous environment, camp care and maintenance and support for improved decision-making on site as well as site infrastructure mapping and governance. In Borno State only, 59 camps are prone to flood, hosting 70,000 families. In 2017, only 12 sites were being targeted with drainage interventions due to limited funding available and 35 camps benefitted from small-scale mitigation work and sensitisation during the rainy season.

Most of the 23 sites directly affected by the cholera outbreak present spontaneous character, poor land conditions, porous borders and fluid movements, as well as constant arrivals of population. The sector strategy is to scale up in the most affected areas the camp management support as well as to prioritize interventions in key locations through light and rapid interventions with impact for the creation of conductive environment and disease mitigation. The main purpose of this site management is to structure in a more organized manner the management mechanism in the camp. This includes the improvement of the communication to the affected communities and the development of actions plan to mitigate the dissemination of the disease, as well as camp care and maintenance to mitigate unsafe environment.
The improvement of shelter conditions, is necessary paired with land advocacy to mitigate congestion on sites and therefore the propagation of disease outbreaks. The current shelter response is consequently focusing on the provision of emergency shelter reinforcement solutions, inclusive of drainage tools and maintenance materials, land advocacy for site decongestion and improvement of living conditions. Nonetheless, with most of the shelters being built in an earlier phase, no capacities to replace them soon and constant arrivals on sites, the situation is extremely congested. This situation aggravated the lack of hygiene in most of the camps. Therefore, the strategy is to improve the shelter conditions by upgrading the most affected areas by the cholera outbreak as well as to mitigate spreading of disease in other locations prone to further outbreak.

**Humanitarian Partners**
INTERSOS, CRS, DRC, NRC, IOM, UNHCR, ACTED, Solidarites Internationale, Secours Islamique France, Mercy Cops, IRC, ACF
ANNEX 1: PRIORITY LGAs AND RISK RANKING

The following LGAs were prioritised and ranked based on the Health Sector analysis conducted on 9 September 2017.

<table>
<thead>
<tr>
<th>LGA</th>
<th>Priority level</th>
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<tbody>
<tr>
<td>Konduga</td>
<td>Very high</td>
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<tr>
<td>Mungono</td>
<td>Very high</td>
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<tr>
<td>Dikwa</td>
<td>Very high</td>
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<tr>
<td>Jere</td>
<td>Very high</td>
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<tr>
<td>MMC</td>
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<tr>
<td>Bama</td>
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<td>Blu</td>
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<td>Kala Balge</td>
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<td>Kukawa</td>
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<td>Mafa</td>
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<td>Mobbar</td>
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