

Northern Cameroon: Cholera Outbreak

30 July 2014



	Insignificant	Minor	Moderate	Important	Major
Expected impact			X		
	Not required	Low	Moderate	Important	Urgent
Need for international assistance			X		

Crisis Overview

- More than 1,200 cholera cases have been reported from northern Cameroon as of 24 July, including more than 200 deaths. According to the Minister of Public Health, Logone-et-Chari and Mayo Sava are the hardest hit areas. The weekly caseload increased 18% between 21 and 26 July.
- The first three cases were reported in late April in the Far North region of Cameroon, and involved a Nigerian family who had crossed into Cameroon to receive treatment. Neighbouring Nigeria has seen an increase in cases since September 2013: 24,683 cholera cases have been reported in Nigeria between the beginning of 2014 and the first week of July.

Key Findings

Anticipated scope and scale

As of 24 July, 1,233 cases have been recorded in the north of Cameroon. Public health officials report over 100 hospital deaths and over 100 deaths outside hospitals. Health authorities report an 18% increase in caseload between 21 and 26 July.

The Cameroon Red Cross warns that unless resources are deployed to handle the outbreak, there could be a repeat of the 2010 epidemic that killed more than 4,000 people. The high mobility of people affected means the disease is spreading across regions.

Need for humanitarian assistance

- Monitoring of the cholera situation in Cameroon in the coming days to better determine its impact.
- Medical treatment of the affected. Delivery of oral rehydration salts and appropriate antibiotics.
- Adequate safe drinking water is a high priority, to reduce exposure and spread of the disease.

- Strengthening of the early warning system and enhancing water, sanitation, and hygiene interventions and sensitisation.

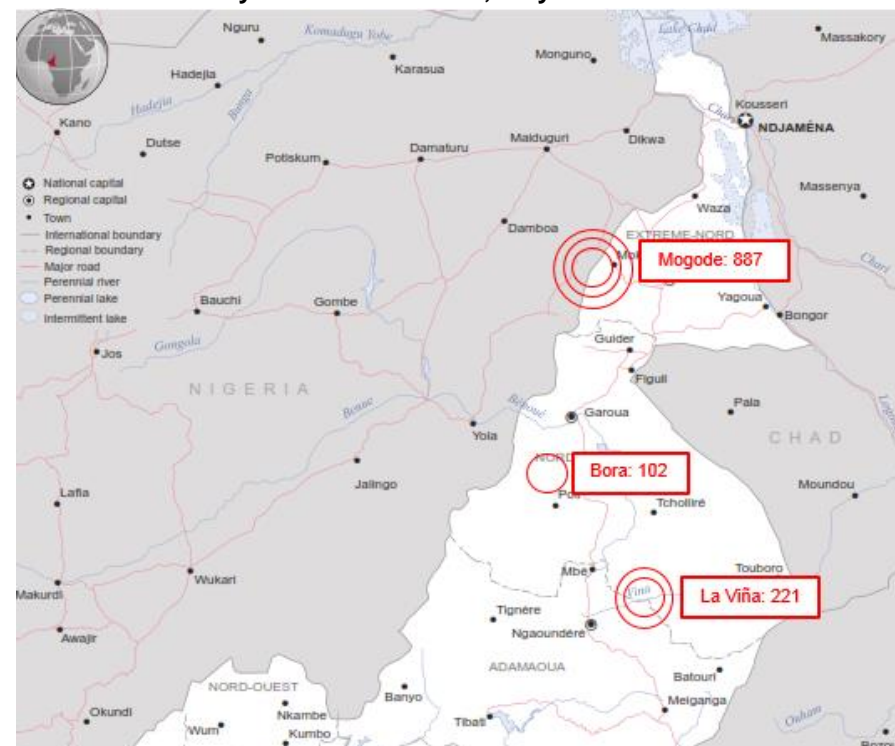
Key vulnerable groups

A majority of people infected with the disease are children under the age of five and women, and some of the affected are Nigerian refugees fleeing the militant group Boko Haram.

Humanitarian constraints

- Insufficient information about the outbreak areas and caseload.
- Although the Far North region of Cameroon is not considered particularly insecure, fighting in neighbouring Nigeria may pose a threat to humanitarian actors on the ground.
- The coming rainy season may hamper access for assistance, as roads and camps become flooded.
- Insufficiently reliable epidemiological surveillance system.
- There are also reports of inadequate medical supplies in the affected areas.

Areas Most Affected by Cholera Outbreak, July 2014.



Source: OCHA, Cameroonweb 26/07/2014.

Key Information

Cholera Outbreak in Neighbouring Nigeria

Since September 2013, a surge in cholera cases has been reported in neighbouring Nigeria (WHO, 22/11/2013). As of 6 July, 24,683 cholera cases had been reported in Nigeria since the beginning of 2014. During week 27 (30 June–6 July), 488 cases were reported, including 33 deaths, from eight states (Adamawa, Bauchi, Borno, Kaduna, Kano, Kebbi, Plateau, and Zamfara), a 15% increase compared to the previous week. Health workers are concerned that an ongoing doctors strike could exacerbate the outbreak (UNOCHA 22/07/2014).

Spread of Outbreak in Cameroon

The first three cholera cases in Cameroon were detected in Goulfe (Far North region) on 26 April, involving a family from Nigeria's Adamawa state, who crossed the border for treatment. This is believed to be the source of the outbreak (World Bulletin 28/05/2014).

According to the Minister of Public Health, the hardest hit areas are Logone-et-Chari and Mayo Sava in Far North region, where safe drinking water is usually in short supply. The epidemic follows the beginning of the rainy season, and heavy rains that triggered flooding (VOA 29/07/2014).

Health System Capacity

WHO has reported that health facilities are extremely understaffed and experience shortages of water and electricity (IPS 24/06/2014). Despite the Government having set up emergency treatment units, medical supplies are inadequate, as facilities are consistently overwhelmed with patients (VOA 29/07/2014).

Crisis Impact

Current Caseload

According to CRTV public radio-television, as of 24 July, 1,233 cholera cases had been reported. The most affected districts are Mogode (887 reported cases) la Viña (221 cases) and Bora (102 cases) in the North and Far North regions (Cameroonweb 26/07/2014). According to health authorities, between 21 and 26 July, the number of reported cases rose by 18% (PI, 29/07/2014). Between 16 and 22 June, 95% of cholera cases and 100% of deaths were reported from the North and Far North regions (UNICEF 30/06/2014).

According to Cameroon's Far North regional delegate for public health, the death toll from cholera in hospitals has reached more than 100; deaths out of hospital are also estimated at more than one hundred (VOA 29/07/2014). A 5% case fatality rate was reported by national authorities at 21 July.

The national Red Cross society and the National Order of Medical Doctors have warned that if resources are not deployed to fight the disease, Cameroon may experience a repeat of the 2011 epidemic of 22,762 cases, more than 80% of which were in the north. The epidemic in 2010 killed approximately 786 people (VOA 29/07/2014) (Journal of Infectious Diseases, 2013)

Factors Affecting Efforts to Control the Outbreak

The disease is spreading across regions due to the high mobility of people affected (VOA 29/07/2014)

Affected Vulnerable Groups

A majority of people infected with the disease are children under the age of five and women According to the Minister of Public Health (VOA 29/07/2014).

Some of the affected are Nigerian refugees fleeing the militant group Boko Haram, according to the Government of Cameroon, (VOA 29/07/2014).

Potential Aggravating Factors

Rainy Season

The rainy season in northern Cameroon runs from April through September (HEWS 2014, Cameroon 2014). This could lead to further spread of the disease and have an impact on relief operations.

Violence and Displacement caused by Boko Haram Spilling into Northern Cameroon

At least 15 people were killed in two attacks blamed on Boko Haram in northern Cameroon, with the wife of the country's deputy prime minister among a dozen people reportedly kidnapped (AFP 28/07/2014).

Potential Spread to Locations Housing CAR Refugees

Conditions for CAR refugees in Cameroon are dire, and if needs are not met, the consequences of cholera spreading to the region could be severe.

- **WASH:** Refugees have to travel long distances to fetch water and firewood (IPS 24/06/2014). In camps in Yokadouma, access to drinking water is very difficult, with only one water source for about 600 refugees (IFRC 20/06/2014). The Ministry of Public Health has advised people to only drink potable water and not get their water from rivers, which can carry the disease downstream if infected fecal matter or bacteria is in the (VOA 29/07/2014).
- **Nutrition:** GAM is at 20–30% among CAR refugee children aged 6–59 months; 40% of SAM refugee cases present complications and require inpatient care (WFP 25/06/2014). One in five pregnant/lactating refugee mothers arrives malnourished (WFP 04/07/2014). Gbiti, Mbilé, Gado, and Timangolo camps, in Eastern Cameroon, are of particular nutritional concern (FAO, 31/05/2014). Inpatient therapeutic feeding

centres had mortality rates of over 20% in June due to dehydration, hypothermia, and severe anaemia. Under-five mortality rates are at 5.4/10,000/day in Gbiti and 3.1/10,000/day in Gado Bedzere (OCHA 26/06/2014). Both camps have between 35-40% GAM and 6% SAM (PI). Given the devastating nutrition situation among the newly arriving population, on 22 May WFP declared a Level 3 Emergency in Cameroon (WFP 06/06/2014).

Background Information on Cholera

Cause and Symptoms

Cholera is an acute intestinal infection caused by ingestion of food or water contaminated with the bacterium *Vibrio cholerae*. It has a short incubation period, from less than one day to five days. Symptoms include copious, often painless, watery diarrhoea that can quickly lead to severe dehydration and death if treatment is not promptly given. Vomiting also occurs in most patients. If left untreated, cholera can kill within hours (WHO, 29/07/2014).

Treatment

80% of cholera cases can be successfully treated with oral rehydration salts. Very severely dehydrated patients require intravenous fluids as well as appropriate antibiotics to diminish the duration of diarrhoea, reduce the volume of rehydration fluids needed, and shorten the duration of *V. cholerae* excretion (WHO 29/07/2014).

Previous Outbreaks in Cameroon

Cameroon first reported cholera cases in 1971, when the current pandemic hit the African continent. More than 2,000 cases were reported, with a CFR of 15% (WHO 17/01/2012). In 2004, 8,000 cases were reported in Littoral and West regions. By June of that year, there were 700 cases weekly. In 2005, Cameroon reported 2,847 cases including 110 deaths (CFR 3.86%); 70% of cases were in Littoral region.

From 2009-2011, Cameroon reported its worst outbreak since 1971. The outbreak started at the beginning of September 2009, in the Far North region. Nigeria was also facing an outbreak in the bordering states of Adamawa, Borno and Taraba. During 2011, nine out of ten regions in Cameroon reported a total of 22,762 cases, including 786 deaths (WHO 17/01/2012). The worst affected regions were Far North and North, where less than 25% of the population has access to potable water and less than 5% of the population uses latrines.

Disease Burden

The worldwide burden of Cholera is estimated to be 3–5 million cases and 100,000–120,000 deaths annually. Many cases are unaccounted for due to limitations in surveillance systems and fear of trade and travel sanctions (WHO, 29/07/2014).

Cholera Vaccines

Although effective control measures rely on prevention, preparedness, and response (WHO 02/2014), oral cholera vaccines of demonstrated safety and effectiveness have recently become available. Their use in emergency situations, although accepted, still remains a challenge and must be complementary to existing strategies for cholera control. Some countries have already used oral cholera vaccines to immunise populations considered to be at high risk for cholera outbreaks. Work is ongoing to investigate the role of mass vaccination as a public health strategy for protecting at-risk populations against cholera (WHO 29/07/2014).

Risk Factors

Cholera transmission is closely linked to inadequate environmental management. Typical at-risk areas include places where the minimum requirements of safe water and sanitation are not met. Where cholera bacteria are present or introduced, the disruption of water and sanitation systems, or the displacement of populations to inadequate camps, can increase the risk of transmission. Epidemics have never through transmission from dead bodies. Cholera remains a global threat to public health and a key indicator of lack of social development. The re-emergence of cholera has recently been identified in parallel with the increasing size of vulnerable populations living in unsanitary conditions (WHO 29/07/2014)

Key Characteristics of Cameroon

- **Demographic profile:** Total population (2012): 21,699,631. 52.7% urban (World Bank). In the Far North region, the total population is approximately 3.1 million people (NewsWatchCameroon 3/09/2013).
- **WASH statistics:** Government statistics indicate that only about 30% of Cameroon's inhabitants have access to piped drinking water. Total use of improved sanitation facilities: 47.8% (2011) (UNICEF). According to the state water company, current needs surpass the capital Yaoundé's capacity by three times (ACAPS 24/07/2014).
- **Health statistics:** Infant mortality rate: 61 per 1,000 live births; <5 mortality rate: 95 per 1,000 live births; maternal mortality ratio: 780 per 100,000 births (2012) (UNICEF). There is one doctor for every 4,500 people (CNN 17/11/2013).
- **Food insecurity:** The impact of the 2011–2012 drought is still being felt, with chronic food insecurity in the Sahelian North and Far North regions (ACAPS 25/06/2014).
- **Nutrition levels:** 14.6% of the population are underweight (moderate and severe); 32.5% of population suffers from stunting (moderate and severe) (UNICEF).

- **Literacy levels:** Total adult literacy rate: 71.3%. Male youth literacy: 85.4%, female youth literacy: 76.4%. Primary school net enrolment: 93.5% (UNICEF).

Response Capacity

Local and National Response Capacity

The main government institution reporting on the cholera epidemic is the Ministry of Public Health. Cameroon Red Cross and AIDER (local NGO) also work in the health cluster.

International Response Capacity

Main UN Agencies in Cameroon include UNICEF, WHO, UNHCR, UNFPA, IOM and WFP (UNICEF 30/06/2014). In terms of cholera response, UNICEF and WHO are the key agencies.

Lessons Learned

- Water, sanitation and hygiene clusters must coordinate.
- Water points should be constructed and well protected from contaminants.
- The ability to detect and confirm cholera needs to be broadly available.
- Continued success of rehydration treatment strategies has proved very helpful to the affected communities.
- With training, adequate supplies and treatment facilities, hospitalised case fatality ratios of <1% can be reached.
- Safe water and hand washing practices should be integrated into household and community settings.
- Mapping clusters of cholera cases helps health workers better target WASH activities.
- The use of GPS to facilitate follow-up visits to identify high-risk practices that accelerate the spread of cholera.
- Sentinel sites might facilitate rapid health, water, and sanitation responses.
- Actions to reduce vulnerabilities, like community detection sites, public information campaigns and drills are positive.
- Community-led total sanitation (CLTS) approach (where the communities undertake their own sanitation improvements) has been largely successful in West African countries.
- If immunisation campaigns have taken place, there needs to be clear numbers of the proportion of the population that has been immunised and how long immunity will last.

Sources: IRIN, UNICEF, US National Institute of Health, IFRC, CDC