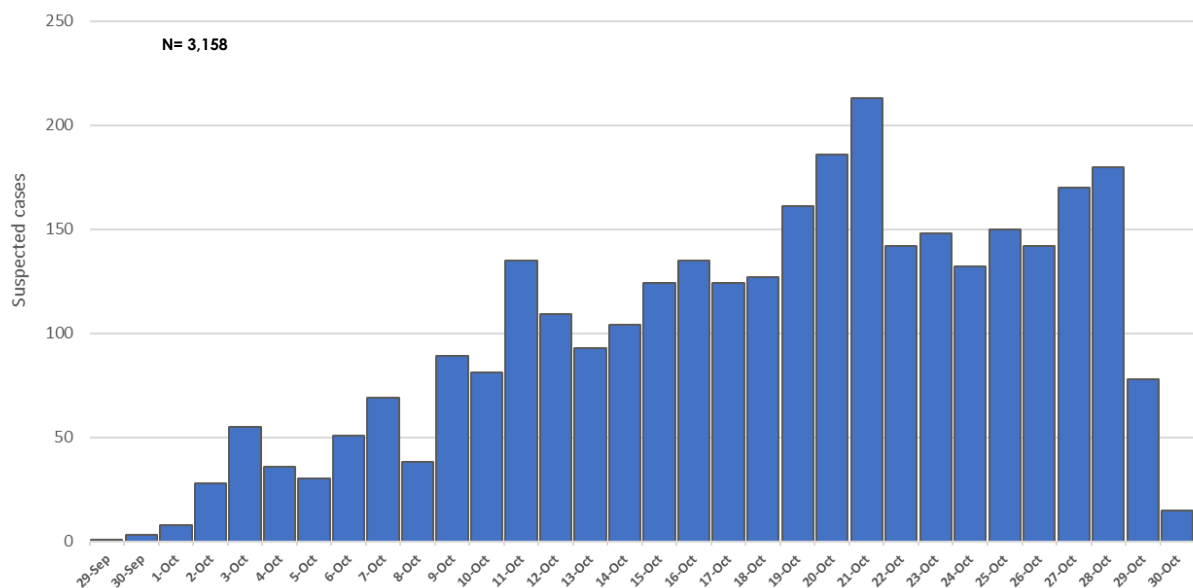


### Summary of the current situation<sup>1</sup>

#### Haiti

Since the notification of the first two confirmed cases of *Vibrio cholerae* O1 in the greater Port-au-Prince area on 2 October 2022, to 30 October 2022, the Haitian Ministry of Health (Ministère de la Santé Publique et de la Population, MSPP per its French acronym)<sup>2</sup>, reported a total of 3,429 suspected cases in 6 departments of the country, including 399 confirmed cases, 2,942 hospitalized suspected cases, and 89 registered deaths. This represents an increase of 82% in confirmed cases (N=180) and 62% in deaths (N=34) compared to the Update of October 25, 2022. To date, 3 departments have confirmed cases (Artibonite, Centre and Ouest). Of a total of 1,058 samples analyzed by the National Public Health Laboratory (LNSP for its acronym in French), 387 were confirmed (36.6% positivity rate).

**Figure 1.** Daily distribution of suspected cases of cholera in Haiti in 2022, as of 30 October 2022<sup>3</sup>



Source: Ministère de la Santé Publique et de la Population

Of the total reported suspected cases with available information, 57% are male and 50% are aged 19 years or younger. The most affected age group is 1 to 4-year-olds, followed by 5 to 9-year-olds (Figure 2).

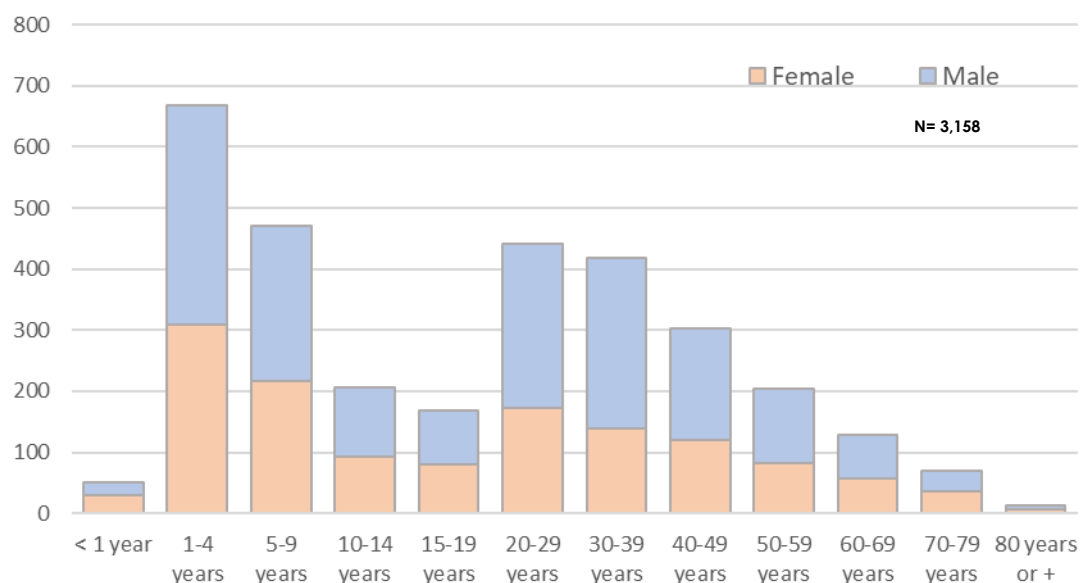
<sup>1</sup> Update produced using available provisional data as of 30 October 2022, which will be adjusted as new information becomes available.

<sup>2</sup> Epidemiological situations of cholera, Haiti, available at: <https://bit.ly/3Vrdyp6> and <https://bit.ly/3Sq27Qw>

<sup>3</sup> The figures and map produced in this update exclusively represent the cases related to the community outbreak registered in Haiti. They do not include the cases registered in the Port-au-Prince prison.

**Suggested citation:** Pan American Health Organization / World Health Organization. Epidemiological Update: Cholera. 1 November 2022, Washington, D.C.: PAHO/WHO; 2022

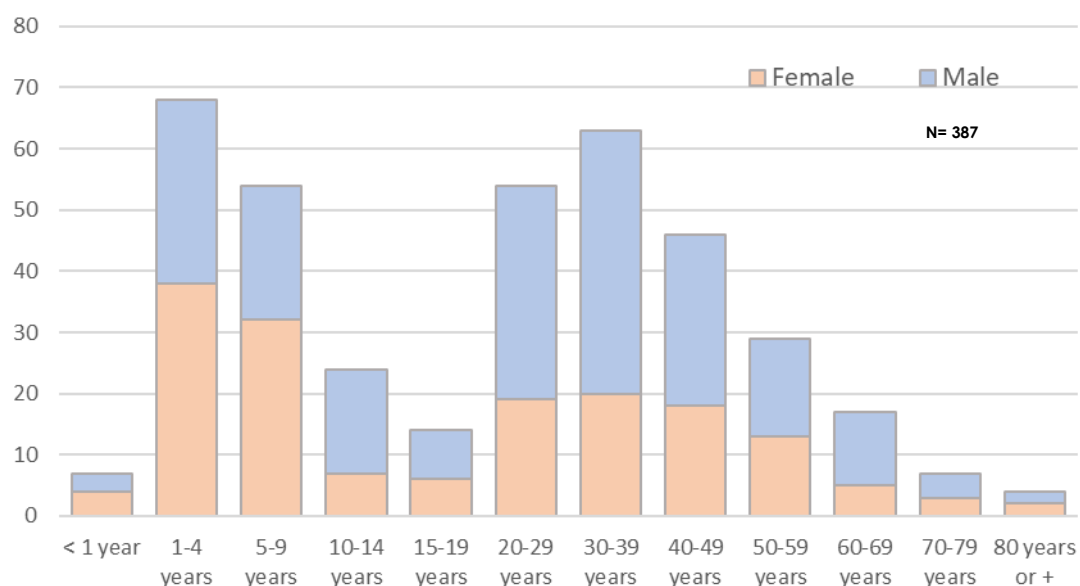
**Figure 2.** Distribution of suspected cases of cholera by age group in Haiti in 2022, as of 30 October<sup>3</sup>



Source: Ministère de la Santé Publique et de la Population

Among confirmed cases with available age and sex information (387), 43% (167) are aged 19 years or younger and 19% (75) of cases were among children aged 4 years or younger (Figure 3).

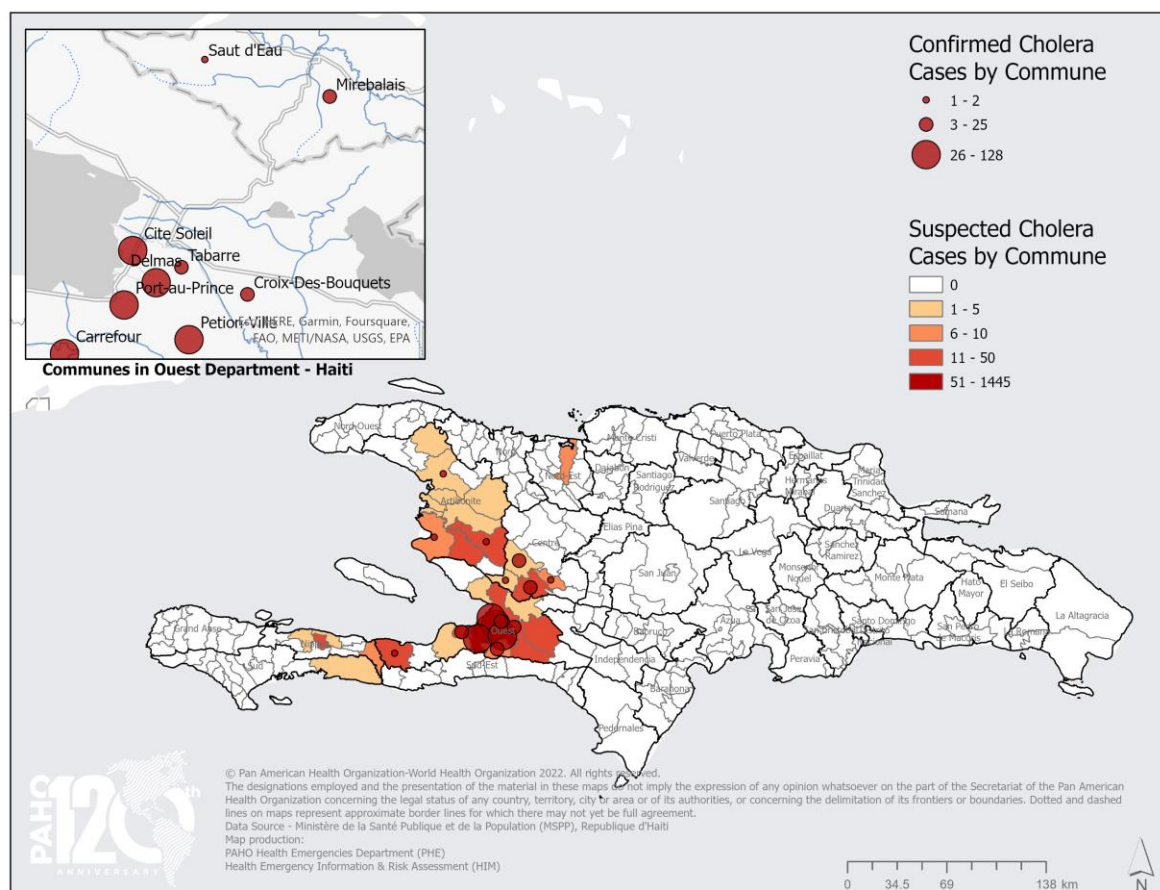
**Figure 3.** Distribution of confirmed cases by age group and sex in Haiti in 2022, as of 30 October<sup>3</sup>



Source: Ministère de la Santé Publique et de la Population

The Ouest Department continues to report the highest number of cases, with 94% of all suspected cases recorded (excluding the 271 suspected cases from the Port-au-Prince prison). The communes of Cité-Soleil and Port-au-Prince account for 72% of all suspected cases reported in the Ouest Department (Figure 4).

**Figure 4.** Map of cumulative cases of cholera in Haiti in 2022, as of 30 October 2022<sup>3</sup>



In the Port-au-Prince prison, an outbreak of cholera has been registered which has identified 271 suspected cases to date, including 12 confirmed cases and 14 deaths.

The complex humanitarian and security crisis in Port-au-Prince and neighboring cities continues, so access to health services and laboratories is limited and, therefore, epidemiological surveillance could be affected.

The Pan American Health Organization / World Health Organization (PAHO / WHO) is working in coordination with the Haitian public health authorities to characterize this event and support the response.

### Dominican Republic

On 20 October 2022, the Dominican Republic Ministry of Public Health confirmed the first imported case of cholera in the country. This is a 32-year-old woman of Haitian nationality, who entered the Dominican Republic on October 17 from Port-au-Prince and then travelled to the province of La Altagracia. For now, none of the contacts have presented symptoms and no additional confirmed cases have been reported. The Ministry's press release is available at: <https://bit.ly/3DhfERG>.

## Guidance for national authorities

PAHO/WHO recommends that Member States strengthen and maintain surveillance for cholera for the early detection of suspected cases and to provide adequate treatment to prevent its spread. Early and adequate treatment limits the case-fatality rate (CFR) of hospitalized patients to less than 1%.

PAHO/WHO encourages Member States to continue their efforts to ensure adequate basic sanitation conditions and access to drinking water, in addition to safe hygiene promotion and social mobilization, in order to reduce the impact of cholera and other waterborne diseases.

PAHO/WHO reiterates that the following recommendations remain valid:

### Surveillance

Under the International Health Regulations (IHR (2005)), public health events that involve the risk of cholera cases should be evaluated using the IHR Annex 2, and the WHO IHR Regional Contact Point should be notified accordingly.

Surveillance for cholera should be part of an integrated surveillance system within a country and should include timely feedback of information at local and global levels. It is recommended to use the WHO standardized case definition<sup>4</sup> to obtain a more precise estimation of the cholera burden at the global level in order to define more sustainable support strategies.

In countries where no cholera cases have been reported, the following is recommended:

- Monitor the trend of acute diarrhea diseases with an emphasis on adults.
- Immediate notification of all suspected cases from the local to the central and peripheral levels.
- Investigation of all suspected cases and clusters.
- Laboratory confirmation of all suspected cases.

In an outbreak situation the following measures are recommended:

- Intensified surveillance with the inclusion of active case finding.
- Laboratory confirmation to monitor the geographic spread and resistance patterns.
- Weekly analysis of the number of cases and deaths by age, sex, geographical location, and hospital admission.

### Laboratory diagnostics

Laboratory confirmation is done by isolating *V. cholerae* strains. It is important that public health laboratories in the Region have the capacity to confirm cases of *V. cholerae* O:1, perform antibiograms, and establish mechanisms for molecular characterization of the strain, especially in the first confirmed cases.

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<sup>4</sup> Suspected case in an **unaffected** health country/region: any patient aged 5 years or older who develops severe dehydration or death from acute watery diarrhea.

Suspected case in **affected** country/health region: any patient aged 5 years or older who develops acute watery diarrhea with or without vomiting.

## Treatment

Cholera is a disease that responds satisfactorily to medical treatment. The first treatment goal is to replace fluids that have been lost by diarrhea and vomiting. Up to 80% of cases can be treated through early administration of oral rehydration salts (WHO/UNICEF oral rehydration salts standard sachet).

It is recommended to administer liquids intravenously to patients that have lost more than 10-20 ml/kg/h or patients with severe dehydration. Following the replacement of the initial liquid lost, the best guide for fluid therapy is to record losses and gains in fluids and to adjust administration as appropriate.

The administration of appropriate antibiotics, especially in severe cases, shortens the duration of diarrhea, reduces the volume of hydration fluids necessary, and shortens the time *V. cholerae* is excreted.

The massive administration of antibiotics is not recommended because it has no effect on the spread of cholera and contributes to the production of bacterial resistance. With appropriate treatment the fatality rate is less than 1%.

In order to provide timely access to treatment, cholera treatment centers should be established in affected populations. These centers should be located at strategic points to maximize the number of affected individuals that can be treated outside of a hospital setting and based on management protocols defined by and agreed to by all parties.

Response plans must provide for coordination between treatment centers, healthcare centers, and levels of care in the communities in which they are located and should include the dissemination of proper hygiene practices and public health measures.

## Prevention measures

### Prevention in the healthcare environment

The following recommendations are aimed at reducing the transmission of fecal-oral cholera infection in the healthcare environment:

- Hand washing with soap and water or glycerine alcohol before and after contact with the patient.
- Use of gloves and gowns for close contact with the patient and for contact with excretions or secretions.
- Isolation of patients in a single or cohort room.
- Separation between beds of more than one meter.
- Cleaning of waste and organic matter with sodium hypochlorite (bleach or bleach) dilution (1:10).
- Cleaning the environment with sodium hypochlorite (bleach or bleach) dilution (1:100).
- People who care for children who use diapers and incontinent people should strictly follow the same precautions mentioned above, especially regarding hand hygiene (after changing the diaper and after contact with excreta). Frequent removal of dirty diapers is also recommended.

## **Preparedness and response**

The implementation of prevention activities in the medium and long term is the key in the fight against cholera. Generally, the response to cholera outbreaks tends to be reactive and take the shape of an emergency response; this approach prevents many deaths, but not cholera cases themselves.

A coordinated multidisciplinary approach, supported by a timely and effective surveillance system is recommended for prevention, preparedness, and response.

Key sectors that should be involved are:

- Health care.
- Water supply and sanitation.
- Agriculture and Fisheries.
- Education.
- Professional associations, non-governmental organizations and international partners in the country.

## **Water supply and sanitation**

The improvement of water supply and sanitation remains the most sustainable measure to protect people against cholera and other waterborne epidemic diarrheal diseases. However, this approach may be unrealistic for those poorest populations in our region.

Cholera is usually transmitted by food or water contaminated with feces. Sporadic outbreaks can occur anywhere in the world where water supply, sanitation, food safety, and hygiene are inadequate.

## **Vaccination**

Given the current availability of oral cholera vaccine (OCV) as well as information on its safety, efficacy, effectiveness, ease of administration in the field, impact and acceptability among populations affected by cholera, WHO recommends the use of this biologic in areas with endemic cholera, during humanitarian crises with high risk of cholera, and during cholera outbreaks.

Mass vaccination campaigns are the most practical option to deliver OCVs to multiple age groups and prevent further spread of the virus in the community. Pregnant and lactating women, as well as immunosuppressed people, can receive OCV and should be included in all vaccination operations.

Proper case management, water supply and sanitation interventions, surveillance, and community mobilization remain the key elements of cholera control. Vaccines complement these prevention and control measures and should always be deployed in conjunction with them.

## **Travel and international trade**

Experience has shown that measures such as quarantine to limit movement of people and the seizure of goods are unnecessary and ineffective in controlling the spread of cholera. Therefore, restricting the movement of people or imposing restrictions on imported food produced by good manufacturing practices, based solely on the fact that there is a cholera

epidemic or endemic in a country, is not justified.

Routine monitoring or restrictions on the movement of people, including quarantine or cordon sanitaire measures, have not been shown to be effective in controlling cholera and are therefore considered unnecessary. WHO advises against the application of routine checks or any other restrictions on movements, such as the quarantine of travelers coming from areas with a cholera outbreak. Any health measures on arrival or departure, or related to the entry of travelers, must be applied in accordance with the provisions of the IHR (2005).

The risk of infection for international travelers is very low for most travelers, even in countries where cholera outbreaks are active, as long as proper preventive measures are followed. Humanitarian workers may be at risk if they are likely to be directly exposed to cholera patients or to contaminated food or water, especially those staying in areas with poor access to healthcare facilities.

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