

EMERGENCY APPEAL



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Cholera Resurgence in Hispaniola

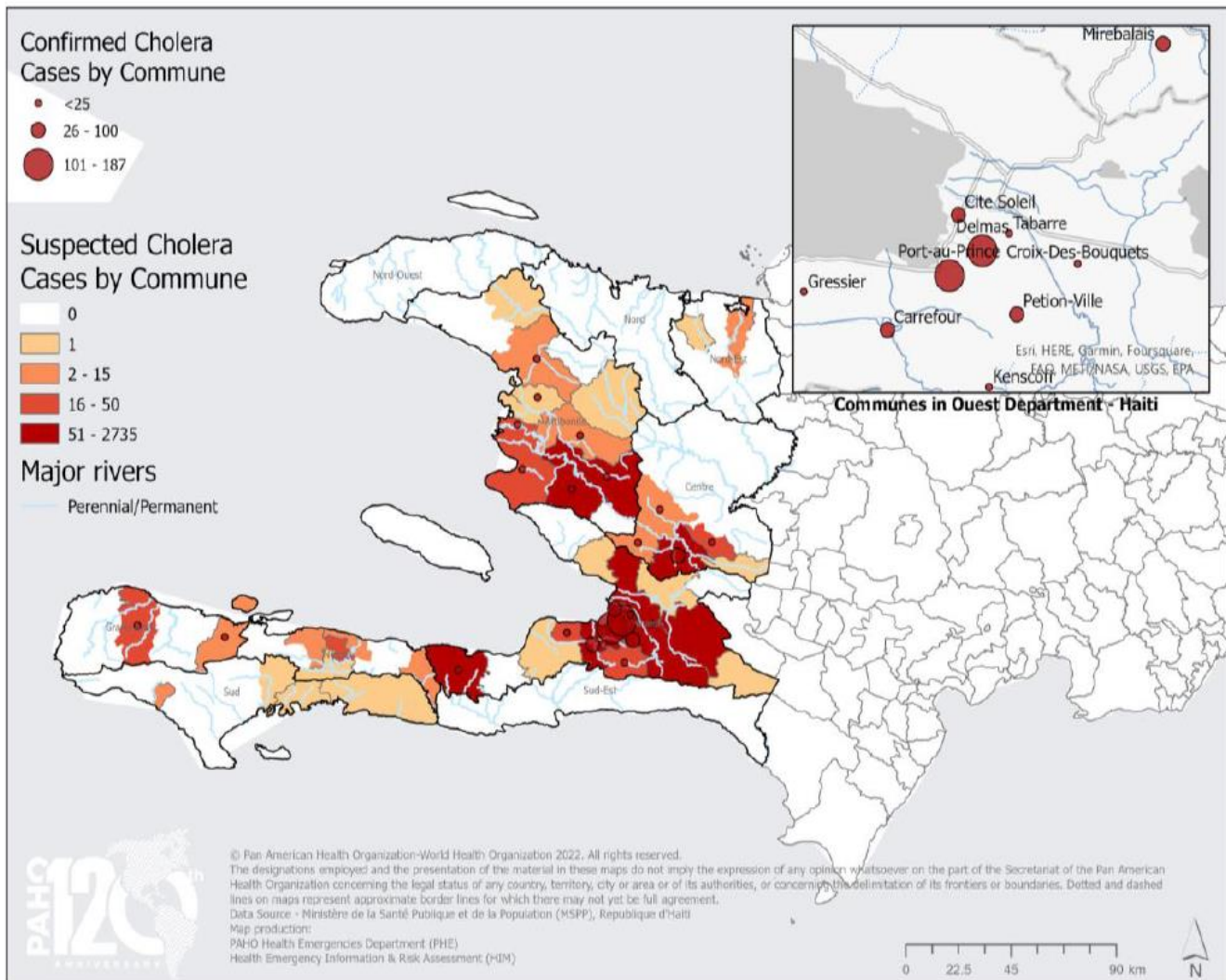
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Map of cumulative cases of Cholera in Haiti, as of 6 November 2022



FUNDING REQUIREMENTS

USD 16,809,700

Required to respond with life-saving interventions in Haiti and in the Dominican Republic over the first 12 months of the response (Oct.2022 – Sept.2023).

HIGHLIGHTS

After more than three years without cases, Haiti reported on 2 October 2022 a cluster of cholera cases in the metropolitan area of Port-au-Prince. As of 6 November 2022, Haitian health authorities have reported 653 laboratory-confirmed cases as *Vibrio cholerae* across four departments (Artibonite, Centre, Grand-Anse and Ouest), including 144 deaths, and a total of 6,814 suspected cases of which 5,628 have been hospitalized.

This cholera resurgence in Haiti is happening in a complex operational context, amid a volatile socio-political environment marked by blockades, fuel shortages, criminal gang activity and rampant insecurity. Civil unrest and lack of access to the affected communities are deepening the complex humanitarian crisis and hindering emergency response efforts.

Furthermore, the Dominican Republic, which shares the island of Hispaniola with Haiti, confirmed its first imported case of cholera in a patient traveling from Port-au-Prince to its Altagracia Province. On 20 October 2022, the Dominican Republic's National Public Health Laboratory Dr. Fernando A. Defillo confirmed the case as *V.cholerae* serogroup 01, Ogawa serotype. No further contacts have presented with symptoms.

Cholera spreads very quickly in conditions of high vulnerability characterized particularly by the deterioration of hygiene conditions, lack of quality water and improper waste disposal. If not treated very quickly, the disease can be deadly in few hours mainly because of dehydration. Although cholera is typically mild to moderate in 80-90% of cases, due to the current

socioeconomic situation and complex humanitarian crisis, which includes recent closure of hospitals and reduced ambulance services, as well as overall poor health condition of the population, including acute malnutrition, Haitians face a greater likelihood of severe disease and death.

Strong efforts are being deployed by Haitian and Dominican authorities, and by humanitarian partners including PAHO/WHO, to rapidly ramp up resources and capacities for early detection and confirmation of cholera cases as well as for the timely and adequate clinical management of cholera patients, especially among vulnerable groups such as children and the elderly. However, urgent actions are needed to save lives, control cholera morbidity and mortality in areas with active hotspots and limit the spread of the disease to other communities and countries of the region.

Priority needs to reduce the cholera mortality and morbidity:

- Strengthen and decentralize epidemiological surveillance and laboratory diagnostic capacity for early detection of cases;
- Rapidly scale-up cholera treatment capacity in high-risk areas with identified hotspots and other departments in anticipation of a geographical spread;
- Implement control and prevention measures at community and institutional level to limit the spread of cholera and protect individuals most at-risk of severe infection.

CRISIS OVERVIEW

Key points:

- Cholera can be deadly, but it is treatable and preventable. Rapid scaling up of response capacities is critical to save lives and to contain an outbreak.
- PAHO/WHO is supporting the Ministries of Health in Haiti and the Dominican Republic as well as active partners on the ground with lifesaving essential medical supplies, technical support in surveillance and case management.
- Civil unrest, insecurity, and lack of access to affected communities are hindering humanitarian partners' response in Haiti.
- At-risk populations include pregnant women, elderly, internally displaced populations, infant and children, especially those suffering from acute malnutrition.

Situation in Haiti

After more than three years with no cases of cholera reported in Haiti, on 2 October 2022, the national authorities reported two confirmed cases of *V.cholerae* O1 in the metropolitan Port-au-Prince area. As of 6 November 2022, 582 confirmed cases have been reported in the Ouest department alone, representing 93% of total confirmed cases to date. Additional cases are being reported from other departments – 18 cases in Artibonite, 37 cases in Center, and two cases in Grand-Anse have been confirmed by the laboratory. Suspected cases continue to be investigated in other departments including in Nippes and Nord-Est.

The Haiti Ministry of Public Health and Population (MSPP per its acronym in French), on 6 November 2022, reported 653 confirmed cases (laboratory confirmed as *V.cholerae*), including 144 deaths, and a total of 6,814 suspected cases of which 5,628 have been hospitalized. 59.54 % of the suspected cases are male, 40.46% are female.

Prior to 2010, cholera was not endemic to Haiti nor the island of Hispaniola. However, Haiti experienced the first outbreak of cholera ever confirmed in the country beginning in October 2010, following the devastating earthquake that occurred in January of the same year. The circulating strain was identified as *V. cholerae* serogroup O1, biotype Ogawa. At that time, the

outbreak was the largest worldwide in recent history, affecting over 820,000 people and killing 9,792 persons (annual CFR between 0.8%-2.2%).

Haiti is currently facing a complex humanitarian crisis, including socio-political unrest, power supply issues and fuel blockages that significantly constrain the operation of health services and hinder the provision of humanitarian assistance by international organizations and partners. Access to affected communities is extremely challenging and has worsened in the past weeks due to widespread insecurity, fuel shortages, protest marches, lootings, and general strikes.

The areas where most cholera cases have been reported are in communities within the metropolitan areas in Port au Prince, which are entirely controlled by gangs. Road circulation is very limited, and some hospitals had closed their doors because of the fuel crisis as well as difficulties for health staff to move around and access their facilities. Patients also have the same difficulties to access health services due to lack of transportation and barricades. Ambulance services are significantly reduced. Patients and health care personnel face difficulties in accessing hospitals which hinder early detection of cholera cases and timely and adequate clinical management.

Despite initial pledges by the international community, improvement in access to potable water, sanitation, and hygiene (WASH) has been marginal since 2010.¹ From 2010 to 2020, the fraction of the Haitian population with access to basic drinking water services increased from 62.2% to 66.7% and to sanitation services from 27.2% to 37.1%. Today, electricity power supply problems, fuel shortages and movement restrictions certainly affect the population's access to water, which exacerbates the already precarious situation many Haitians face and increasing their risk factors for cholera infection. In the areas affected by the violence, malnutrition was already present and will worsen, further increasing vulnerability and risk of severe cases of cholera, especially among children.

Situation in the Dominican Republic

Haiti and the Dominican Republic share a porous land border, with four official crossing points and hundreds of unofficial crossing points, which increases the risk of importation of cholera across borders on the island.

Following the 2010 cholera outbreak in Haiti, cases were imported into the Dominican Republic the same year. Over the following eight years, the Dominican Republic went on to report over 33,400 confirmed cholera cases and 504 deaths.²

Currently, the Dominican Republic remains under emergency alert in response to Category 1 Hurricane Fiona, which struck the island on 19 September 2022. The heavy rains produced landslides, and

infrastructure damage led to fallen bridges, blocked roads, power outages and interrupted telecommunications. The resulting damage to infrastructure as well as crowding in shelters for displaced persons can also increase the risk of transmitting water-borne diseases, including cholera, within the most affected communities.

The first imported case of cholera in the Dominican Republic was reported by their Ministry of Public Health on 20 October 2022 from a patient who traveled from Port-au-Prince to the province of La Altagracia. For now, no contacts have presented symptoms and no additional confirmed cases have been reported.

Global Situation

On 26 October 2022, WHO assessed the public health risk of cholera at global level as a **very high** due to the number of concurrent cholera outbreaks across all WHO regions in 29 countries. This has increased the global demand for cholera treatment medicines and supplies (including cholera kits and rapid diagnostic tests), and suppliers are struggling to meet the high demand.

In particular, the global shortage of oral cholera vaccines (OCV) presents a significant challenge to controlling the cholera outbreak in Hispaniola. In addition, in October 2022, the WHO and its partners have recommended that countries temporarily switch to using a single dose of the cholera vaccine instead of two due to supply shortages.

¹ WHO/UNICEF. Joint Monitoring Programme (JMP) on Water Supply, Sanitation and Hygiene (WASH); Data. 2022 [2022-11-07]. Available from: <https://washdata.org/data>

² Data taken from Pan American Health Organization / World Health Organization. Epidemiological Update: [Cholera. 11 October 2018](#), Washington, D.C. PAHO/WHO. 2018



Photo credit: PAHO/WHO

DISEASE INFORMATION

Cholera is an acute diarrheal infection caused by ingestion of food or water contaminated with the bacterium *Vibrio cholerae*. It has a short incubation period, ranging between two hours and five days. The bacterium produces an enterotoxin that causes a copious, painless, watery diarrhea that can quickly lead to severe dehydration and death if treatment is not promptly given. Vomiting also occurs in most patients. It affects both children and adults and can kill within hours. Person-to-person transmission is not common.

Among people who develop symptoms, about 80-90% of episodes are of mild or moderate severity and are difficult to distinguish clinically from other types of acute diarrhea. Less than 20% of ill persons develop acute watery diarrhea with severe dehydration. People

with low immunity, such as malnourished children or people living with HIV, are at greater risk of death if infected.

Cholera transmission is closely linked to inadequate access to clean water and sanitation facilities. Typical at-risk areas include peri-urban slums, and camps for internally displaced persons or refugees, where minimum requirements of clean water and sanitation are not met. The consequences of a humanitarian crisis – such as disruption of water and sanitation systems, or the displacement of populations to inadequate and overcrowded camps – can increase the risk of cholera transmission, should the bacteria be present or introduced. Uninfected dead bodies have never been reported as the source of epidemics.

MAIN PUBLIC HEALTH CONCERNS

At-risk populations

Although cholera is typically mild to moderate in 80-90% of cases, due to the current socioeconomic situation and complex humanitarian crisis, which includes recent closure of hospitals and reduced ambulance services, as well as overall poor health condition of the population, including acute malnutrition, Haitians face a greater likelihood of severe disease and death. A large portion of the population remains vulnerable to the risk of cholera infections, especially among children, or reoccurring person-person transmission.

Despite progress, Haiti remains behind the rest of Latin America and the Caribbean in terms of access to potable water and sanitation. Over a third of the population (35%) lack basic drinking water services and two-thirds (65%) have limited or no sanitation services. There is currently a lack of drinking water and irregularity in the supply of water services, including in

health structures; significant difficulties in ensuring the emptying of latrines and proper waste management. In addition, portions of the population have been displaced, and many are living in IDP camps with lack of appropriate basic services and in poor hygiene and sanitation conditions.

In the current context of the security crisis, individuals in situation of vulnerability, especially those living in precarious conditions and who combine all the aforementioned risk factors, may face even more limited access to safe water and health services, resulting in an increased risk of transmission and spread of the disease. Pregnant women, elderly, infants and children, particularly those suffering from malnutrition, are at increased risk of contracting cholera and developing a severe form of the disease.

Reduced access and response capacity

Haiti is currently experiencing a security crisis due to violence from armed gangs and breakdown in

infrastructure. The current fuel supply crisis has affected the supply of water and electricity to the population, health centers and hospitals. Due to problems of insecurity and violence, patients and health personnel have difficulty accessing hospitals and health services. In parallel, the public health system and international partners are faced with limited response capacity due to a reduction of international personnel in Haiti, combined with logistics issues and difficulties in importing supplies. Indeed, insecurity, roadblocks and lockdowns are affecting importation of internationally procured goods which may slow arrival of lifesaving essential supplies to support cholera response efforts.

The worsening violence and the lack of access to fuel in the country is also affecting the epidemiological surveillance system for the timely detection of new cases as well as the laboratory capacity for the confirmation of suspected cholera cases. The surveillance mechanism set up by the Haitian Government, with the support of PAHO/WHO and other partners, is operating under extremely difficult circumstances and therefore, it is very difficult to obtain accurate and timely official data. Most of the information up to now is coming directly from Doctors Without Borders (MSF) and other partners providing health services on the ground. As such, cholera cases are likely to be higher than reported both in the affected areas and across the rest of the country.

Limited availability of cholera supplies

This cholera resurgence in Haiti is happening in a complex operational context including a challenging and volatile security situation and an extremely competitive global environment as many countries are facing cholera outbreaks worldwide according to the Global Task Force on Cholera Control. So far 29

countries have reported cholera cases in 2022, including 13 with new outbreaks. This situation at global level is resulting in important shortages of essential supplies for cholera response due to a high global demand.

PAHO/WHO has secured additional cholera kits and other lifesaving medical and non-medical supplies to support and expand clinical management capacity of severe cholera cases. However, global supply and logistics constraints, including custom clearance difficulties due to gang control, may threaten the continued provision of essential supplies for cholera care and treatment services, increasing the risk of morbidity and mortality.

Risk of geographical spread

The complex humanitarian situation in Haiti meets the characteristics and risk factors for cholera transmission and therefore has an increased risk of spread of the disease. While movement restrictions and limited transportation may slow down the geographical dissemination of the outbreak, it also reduced the populations' access to lifesaving services and access to communities for disease containment and prevention interventions.

The neighboring Dominican Republic has already identified its first imported case of cholera from Haiti. The disease could also potentially spread with the migration of Haitians within the Region. The Dominican Republic currently does not have sufficient detection and diagnostic capacities to timely alert on cases of *Vibrio cholerae* O1. Other countries in the region have greater capacity to detect and control the disease although concurrent emergencies in the region have stretched out these capacities.

ONGOING HEALTH RESPONSE

Since the confirmation of the very first case of cholera on 2 October 2022, Haitian health authorities, with the support of all partners active in Haiti, including PAHO/WHO, other UN organizations and international humanitarian actors such as Doctors Without Borders (MSF), have activated response mechanisms and ramped up coordination to immediately address the resurgence of cholera in Haiti to reduce morbidity and mortality.

The Ministry of Health (MSPP) has launched a nationwide Cholera response plan for 12 months and set-up a coordination platform in different departments, led by the local health directorates to support a coordinated response axed through five pillars: laboratory and epidemiological surveillance, case management, Water, Sanitation and Hygiene (WaSH), vaccination and communications and community engagement. A crosscutting sector - logistics and coordination – has also been activated to support response operations.

PAHO/WHO maintains close links between its offices in Haiti and in the Dominican Republic to facilitate the coordination of logistic support, procurement, and delivery of essential goods, as well as to ensure harmonized public health response, particularly risk communication activities in the border regions.

Epidemiological surveillance and laboratory

Regular coordination meetings are being held by the health directorates in most departments in Haiti to provide epidemiological updates on the evolution of the epidemic to strategic partners, while wider sectorial coordination meetings are taking place on a weekly basis for now. PAHO/WHO is supporting the MSPP with additional field staff to support the case investigation and response, as well as data collection within CTCs.

Despite the security concerns and difficult operational context as described above, the labo-moto system deployed in the response to the previous cholera

epidemic in Haiti is being strengthened to improve rapid detection and surveillance capacity. Labo-moto nurses were temporarily deployed in the metropolitan area to support sample collection. As of 6 November 2022, 1,585 samples have been collected and tested by the National Public Health Laboratory (LNSP).

When cases are confirmed in the departments that lie at the border between Haiti and the Dominican Republic, PAHO/WHO supports coordination between the local national authorities to ensure surveillance efforts are strengthened at both sides of the border.

Case management

Strong efforts are being made to strengthen case management capacity in Haiti to avoid the loss of lives. As an initial immediate response, PAHO/WHO donated 13 tons of medical supplies and materials for case management and disinfection from its emergency stockpile in Port-au-Prince to the MSPP and to MSF, who is facilitating the health response in the affected area.

PAHO/WHO also provided tents and cholera beds to MSF and the MSPP to set up additional cholera treatment centers (CTCs) and cholera treatment isolation areas in health facilities to rapidly expand cholera bed capacity in the country. As of 8 November 2022, 25 CTCs are active in Haiti, of which 15 are located Ouest department, and the rest are divided between the other departments of Artibonite, Centre, Nord-Est, Nippes, Sud, and Sud-est. PAHO/WHO is supporting and coordinating closely with health authorities to monitor the availability of beds (Ouest and Center departments), the number of hospitalizations and the prospects for extending the case management sites.

In addition, the Organization has initiated the international procurement of additional cholera kits and other lifesaving essential supplies to support continued treatment capacity of cholera patients as cholera beds, tents, medicines and other supplies are urgently

needed to continue operating CTCs and expanding cholera bed capacity.

PAHO/WHO is also assisting the Ministry of Health for the revision of protocols and guides for the case management of cholera in malnourished children, pregnant and breastfeeding women and to assess the urgent needs.

Water, Sanitation and Hygiene

Recognizing the critical importance of water and sanitation in slowing down and preventing the transmission of cholera and ensure adequate care delivery in Haiti, PAHO/WHO is working closely with the MSPP, the National Directorate of Drinking Water and Sanitation (DINEPA for its French acronym), local health directorates, and other partners such as UNICEF, to ensure knowledge of and capacity to comply with proper IPC/WaSH guidelines and norms for CTC/CTU operations. Support includes the identification of urgent institutional WaSH needs at CTCs/CTUs, the update and dissemination of IPC/WaSH guidelines, inspection of active CTCs at hospital level as well as development of a plan of action to strengthen IPC and WaSH capacity at CTCs/CTUs.

In the Dominican Republic, PAHO/WHO is supporting the Ministry of Health in monitoring water quality in households in border provinces.

Risk communication and community engagement

PAHO/WHO is supporting Haitian health authorities in the development and implementation of a communication strategy to support cholera prevention and control measures and protect at-risk individuals. Technical support is being provided to develop and disseminate targeted cholera prevention messages to the Haitian population using SMS, social media, radio, etc., starting with the areas with active hotspots and neighboring communities.

An initial SMS messages campaign targeting the Port-au-Prince metropolitan area was rolled out in October, reaching over a million cellphone numbers. A second campaign targeting new hotspots outside the Ouest

department is being launched. Posters and brochures with sensitization messages have been produced for dissemination in the community and social media messages shared online. A radio spot has been produced and is being broadcasted on the radio stations of the Port-au-Prince metropolitan region as well as in other departments.

Response efforts are also relying on the network of community health workers (ASCP) to access affected populations and support community engagement activities in the most affected areas, particularly Cité Soleil, Port-au-Prince, Delmas, Tabarre, Croix des Bouquets and Carrefour. Three hundred ASCPs were trained on risk communication, community WaSH, surveillance and case referrals, and have been deployed within their communities.

In the Dominican Republic, PAHO/WHO and other partners are supporting the local health directorates of border provinces in the distribution of key cholera prevention messages, both printed and through mass media campaigns.

Vaccination

A request for 1 million doses of oral cholera vaccines is being prepared by the MSPP with the support of PAHO/WHO to the International Coordinating Group (ICG) of Vaccine Provision to vaccinate 500,000 at-risk individuals (above 1 year of age) in hotspots and surrounding localities, as well as IDP camps and civil prison of Port au Prince. The vaccines will be requested in two installments (500,000 doses each) to take into account logistic considerations. In parallel, a vaccination working group led by the Unite de Coordination Nationale du Programme de Vaccination is drafting a vaccine response plan for the operationalization of a vaccination campaign.

Given the security constraints, the vaccination operations will be implemented by field partners that have access to areas controlled by armed gangs and who have long experience in the implementation of vaccination campaigns against cholera.

URGENT HEALTH NEEDS

Predicting the size and duration of the outbreak is difficult, but all risk factors for cholera transmission including lack of safe water supply, poor sanitation conditions, degraded health status of the population in a context of limited access to essential goods and services starting with access to care are present, suggesting that several thousand – or hundreds of thousands - could be affected by the reemergence of cholera in the country. This includes at least 20% of symptomatic cases of cholera developing a severe form of the disease which requires timely and vigorous rehydration. Urgent actions are needed to save lives, control cholera morbidity and mortality in active hotspots and limit the spread of the disease to other communities and departments. The response strategy must focus on rapidly ramping up capacities for early detection and confirmation of cholera cases as well as for the timely and adequate clinical management of cholera patients, especially among vulnerable groups such as children and the elderly. If not treated very quickly, the disease can be deadly in few hours mainly because of dehydration. Efforts should also focus on implementing community control measures to protect at-risk individuals and people in situation of vulnerabilities from infection with *vibrio cholerae*.

Timely detection and confirmation of cases

Cholera spreads very quickly in conditions of high vulnerability characterized particularly by the deterioration of hygiene conditions, lack of quality water and improper waste disposal. Identifying cholera hotspots is therefore crucial to limit the spread, guide response interventions and apply preventive measures. To this end, **the epidemiological and laboratory surveillance systems at both institutional and community level must be urgently strengthened and expanded** to verify alerts, detect cases and confirm the disease, actively search for cases in communities, map affected areas, analyze data and share them with all stakeholders for a coordinated and effective action. The strengthening of

surveillance capacities should also focus on the decentralization of laboratory capacities through the activation of other subnational laboratories with limited capacity to test cholera samples and support transportation of those samples to reduce the duration of confirmation, the strengthening of community-based epidemiological surveillance in affected areas and neighboring departments as well as the implementation of community early alert warning systems through community health agents to protect the most at-risk individuals.

Scaled-up cholera case management capacity

As cholera cases continue to increase and remain underreported due to the current limitations of the epidemiological surveillance system, **urgent support is needed to sustain and expand the lifesaving care delivery capacity of health partners providing cholera treatment services to the affected population.** Strong efforts are being made by all health partners to rapidly ramp up case management capacity in the country to avoid the loss of lives. Assistance must focus on further supporting the setting-up and adequate operations of additional cholera treatment centers (CTCs) and units (CTUs), oral rehydration points (ORP) as well as the establishment of isolation space for cholera treatment areas in hospitals and healthcare facilities in or near communities with active hotspots as well as other departments to increase cholera treatment capacity. Whereas most cholera cases can be treated using oral rehydration salts (ORS) and zinc, severely dehydrated patients require rapid intravenous fluid administration and appropriate antibiotics. As such, the continued provision of lifesaving essential medicines and health supplies including oral rehydration salts, lactate ringer, cholera beds, IV sets, etc. is of utmost importance to ensure that health care facilities and point of services have timely and in sufficient quantity the necessary medical supplies for rapid rehydration of patients as well as antibiotics to slow diarrhea episode duration.

Infection Prevention and Control (IPC)

Health structures providing cholera care play a key role in interrupting the chain of transmission of *Vibrio cholerae* not only to health personnel but also to those accompanying the sick and the surrounding population. For this reason, these structures must implement appropriate water, hygiene, sanitation (WaSH) and IPC measures. To ensure proper adherence to IPC/WaSH norms, cholera treatment facilities must be equipped with adequate means to ensure to the provision of safe water, the collection and safe disposal of feces, the disinfection and decontamination of objects and places, food hygiene, the cleaning of surfaces, the management of biomedical waste, and the management of bodies of deceased persons. **Increasing availability of essential WaSH supplies and materials as well as necessary human resources is critical to support institutional infection prevention and control and WaSH interventions in the CTCs / health facilities that treat cholera patients and prevent the risk of**

transmission of the disease in healthcare settings.

In addition, cholera prevention and treatment protocols must be reestablished and well disseminated among health staff and other personnel working in all health facilities that are treating cholera cases, taking into account the next challenging operational context, to ensure compliance with clinical care and IPC/WaSH norms and standards.

Risk Communication and Community Engagement

In the current context of violence and insecurity and limited access to health services, **community-based strategies are of particular importance to protect families and ensure access to care.** There is an urgent need to further support the decentralization of treatment capacity to affected communities through the development of Oral Rehydration Points and establishment of CTCs near or directly within the most affected communities as well as provide health and hygiene education messages through community health agents to sensitize the population.



RESPONSE STRATEGY

Due to the different epidemiological circumstances in the two countries of Hispaniola, PAHO/WHO's regional strategy is two-pronged. The first part will focus on Haiti-specific needs where the cholera epidemic is already underway and address the immediate needs of the Haitian population in affected areas as well as protect the most vulnerable groups at risk of infection. The second part aims to prevent the spread of possible outbreaks from imported cases to the Dominican Republic, and to mitigate the impact on public health as well as the resulting social and economic consequences.

In an initial phase, the immediate response efforts will target:

- The scaling-up of response capacities of the Haiti MSPP and health partners already operational on the ground to increase capacities for surveillance, laboratory, care delivery, risk communication, wash, etc.

- The rapid reactivation of response structures and mechanisms established for the response to and elimination of the previous cholera outbreak (2012-2019).
- The strengthening of preparedness and response capacities in other departments in Haiti, in response to the observed geographical dissemination of the epidemic.
- Recognizing the risk of spread of the outbreak outside of Haiti, particularly to neighboring Dominican Republic, these efforts will also support countries at risk of importation of cases.

In a later phase, response efforts should incorporate the roll-out of the oral cholera vaccine through vaccination campaigns to prevent the further transmission of the disease, especially among the most at-risk individuals and populations in situation of vulnerability.

The proposed response strategy will be implemented by PAHO/WHO jointly with Haitian and Dominican health authorities and active humanitarian partners with in-country operational capacity. As cholera prevention and treatment requires a multi-sectorial approach incorporating public health actions as well as water, sanitation and environmental health interventions, complementary actions and coordinated interventions will be ensured within and across sectors through strengthened sectorial and intersectorial coordination.

Objectives

The objective of PAHO/WHO's health response strategy is to **reduce cholera mortality and morbidity through the scaling up of cholera preventive and curative activities**. PAHO/WHO's strategy targets three Strategic Objectives:

STRATEGIC OBJECTIVE 1:

Control cholera morbidity and mortality in affected communities through timely detection and investigation of cases

STRATEGIC OBJECTIVE 2:

Save lives through early and appropriate case management

STRATEGIC OBJECTIVE 3:

Prepare for and prevent transmission to protect vulnerable groups at risk of infection with *Vibrio cholerae*

PART A. CONTROL RESURGENCE OF CHOLERA IN HAITI

STRATEGIC OBJECTIVE 1: Control cholera morbidity and mortality in affected communities through timely detection and investigation of cases

Priority Area 1: Strengthen Epidemiological Surveillance & Laboratory Detection

Ensure the early detection and prompt confirmation of new cholera cases to guide response interventions

- Strengthen and expand the national and departmental surveillance system to support case investigation, data management, contact tracing, community response activities and sample collection.
- Decentralize laboratory diagnosis capacities and reinforcement of biosecurity capacities.
- Establish and strengthen of community-based surveillance systems (SEBAC) through sentinel sites and community health agents trained in cholera surveillance in communities with hotspots and other departments as needed.
- Procure reagents and materials needed to scale up and decentralize laboratory testing capacity of suspected cases of cholera.
- Support HR surge capacity, logistics, equipment and field mobilization of epidemiologists, laboratory technicians and labo-moto nurses to support data collection, case investigation, contact tracing, response activities, sample collection and transport and lab testing.

STRATEGIC OBJECTIVE 2: Save lives through early and appropriate case management

Priority Area 2: Expand Cholera Case Management Capacities

Ensure the timely provision of adequate clinical care to suspected cholera patients

- Procure, temporary storage and distribute lifesaving essential medicines and health supplies for cholera treatment.
- Facilitate the implementation and operations of Oral Rehydration Points (ORP) in affected communities and referral of severe cases to CTCs and CTUs.
- Support the monitoring of cholera bed availability and occupancy rates to facilitate an effective referral system of cholera patients among the CTCs and CTUs networks.
- Review, update and disseminate protocols for cholera case management.
- Facilitate the supervision, monitoring and evaluation of adherence to clinical care in ORPs, CTCs and health facilities.

STRATEGIC OBJECTIVE 3: Prepare for and prevent transmission to protect vulnerable groups at risk of infection with *Vibrio cholerae*

Priority Area 3: Increase Water, Hygiene and Sanitation & Infection Prevention and Control

Ensure proper WASH and IPC measures in health treatment structures to protect patients, relatives and healthcare workers

- Review, update and disseminate protocols for IPC norms, biomedical waste and corpses management in CTCs/health facilities and other at-risk locations (prisons, camps, etc.).
- Procurement of essential WaSH supplies to ensure appropriate WaSH and IPC norms in CTCs/health facilities.
- Support the implementation of infection prevention and control measures in Cholera Treatment Centre (CTC), Units (CTU) and in designated primary health care facilities and hospitals.
- Facilitate the supervision, monitoring and evaluation of adherence to WaSH protocols in CTCs health facilities.

Priority Area 4: Enhance Risk Communication & Community Engagement

Ensure health promotion and adoption of preventive actions targeted in at risk and vulnerable groups at risk of vibrio cholerae infection—including health workers

- Support the implementation of communication strategies to support cholera prevention and control measures and protect at-risk individuals.
- Review and update communication materials focused on health promotion and the adoption of actions for the prevention of cholera.
- Train community workers for the dissemination of communication materials.

Priority Area 5: Roll-out Emergency Cholera Vaccination Campaign (OCV)

Provide technical cooperation for the development and implementation of cholera vaccination campaigns

- Develop and adapt OCV campaign training tools.
- Train vaccination operators and supervisors at central level and departmental level.
- Facilitate the surveillance and management of Adverse Events Following Immunization.
- Ensure data management of vaccination operations.
- Implement communication campaigns for demand generation of the OCV.
- Monitor vaccination operations and facilitate post-campaign evaluation.

Cross-cutting Priority Area: In support of those five priority areas of work, PAHO/WHO's response strategy will rely on a cross-cutting axis to ensure leadership and coordination as well as address logistics and security challenges which are essential to ensure proper emergency operations in a complex and volatile environment.

Scale-up Coordination and Operations and Logistics Support (OSL)

Provide leadership, coordination, and logistical support for the health emergency response

- Ensure multi- and interinstitutional coordination of the response, jointly with Haitian authorities.
- Scale-up operational and logistical support for cholera response operations at national, subnational and regional levels.
- Facilitate deployment of international experts to surge PAHO/WHO's and health partners' response capacities.
- Monitor security aspects and support rapid evacuation of personnel as needed.



PART B. EARLY DETECTION AND CONFIRMATION OF IMPORTED CASES OF CHOLERA TO THE DOMINICAN REPUBLIC AND RAPID RESPONSE TO REDUCE THE RISK OF OUTBREAKS

STRATEGIC OBJECTIVE 1: Control cholera morbidity and mortality in affected communities through timely detection and investigation of cases

Priority area 1: Epidemiological Surveillance and Laboratory Detection.

Ensure the early detection and prompt confirmation of new cholera cases to guide response interventions.

- Strengthen municipal, regional, and reference laboratory diagnostic capacities to detect *V. cholerae* and provide necessary reagents and supplies to expand and decentralize laboratory confirmation of cholera cases to secondary and tertiary labs.
- Monitor the diagnostic quality of national and hospital laboratories with regional reference laboratories.
- Acquire rapid tests to scale up detection capacity at border entry points
- Train staff to use the rapid tests for investigation of cholera alerts.
- Provide equipment, supplies, and reagents to national public health laboratories to strengthen their diagnostic capacity in bacteriology and in the detection and characterization of *V. cholerae*
- Train staff on the collection, packaging, and shipment of samples to the national laboratory

STRATEGIC OBJECTIVE 2: Save lives through early and appropriate case management

Priority area 2: Expand Cholera case management capacities

Ensure the timely provision of adequate clinical care to suspected cholera patients to reduce case mortality through training of health personnel and expansion of patient care services.

- Provide medical and non-medical equipment and materials required for cholera case management, e.g., cholera kits, tents to establish cholera treatment centers, stretchers, medications, among others.
- Support the Ministry of Health in updating and providing training on cholera clinical management protocols.

STRATEGIC OBJECTIVE 3: Prepare for and prevent transmission to protect vulnerable groups at risk of infection with *Vibrio cholerae*

Priority area 3: Increase Water, Sanitation and Hygiene (WASH) and Infection Prevention and Control (IPC)

*Ensure proper WASH in health treatment structures to mitigate the transmission of *v. cholerae* in vulnerable populations and in health professionals providing treatment.*

- Strengthen surveillance of Chlorine concentration in potable water at distribution points
- Carry out surveillance and sanitary control in processing food and beverages sold in authorized establishments and in popular points of sale
- Support the implementation of control measures within the cholera treatment centers, in adherence with case management protocols



Photo credit: PAHO/WHO

Priority area 4: Enhance Risk Communication & Community Engagement (RCCE).

Ensure health promotion and adoption of preventive actions to support the MSP share information on preventive measures for cholera

- Print risk communication materials aimed at health personnel and the general population
- Provide support to prepare audiovisual material for radio, TV, and social networks focusing on cholera prevention
- Support mass placement of messages, including through the local media, to spread information

Cross-cutting Priority Area

Scale-up Coordination and Operations and Logistics Support (OSL)

Provide leadership, coordination, and logistical support for the health emergency response

- Ensure multi-sectorial and interinstitutional coordination of the response, jointly with Dominican health authorities, particularly in the border areas
- Scale-up operational and logistical support for emergency response operations at national/subnational level and regional level in support of cholera outbreak management
- Facilitate deployment of international experts to surge PAHO/WHO's and health partners' response capacities.

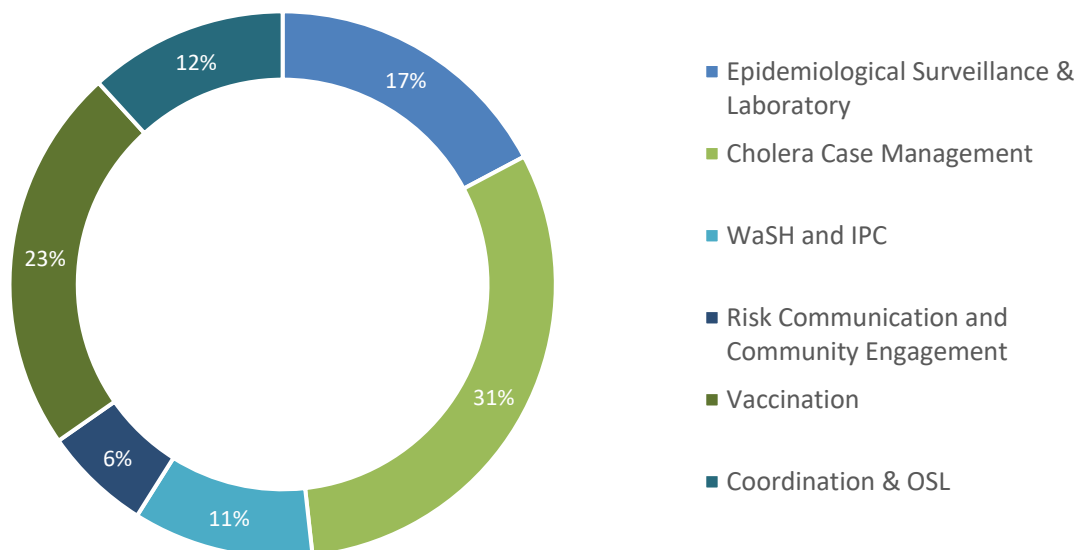
FUNDING REQUIREMENTS

Funding requirement to support the immediate and short-term health response actions highlighted above over the next 12 months is estimated at **USD 16,809,700**.

FUNDING REQUIREMENTS BY PRIORITY ACTION (US\$) *

Priority Action	Haiti (USD)	Dominican Republic (USD)	Total (USD)
1 Epidemiological Surveillance & Laboratory	2,728,500	171,200	2,889,700
2 Cholera Case Management	5,082,500	128,400	5,210,900
3 WaSH and IPC	1,605,000	192,600	1,797,600
4 Risk Communication and Community Engagement	963,000	107,000	1,070,000
5 Vaccination	3,852,000	-	3,852,000
6 Coordination & OSL	1,926,000	53,500	1,979,500
GRAND TOTAL	16,157,000	652,700	16,809,700

*Funding requirements include 7% Programme Support Costs



HOW TO SUPPORT THIS APPEAL

Generous donations from the international community allows PAHO to deliver its technical cooperation and deploy its operational and logistics support to address existing and emerging public health challenges impacting the countries and territories of the Americas.

PAHO highly values the donors who have already pledged funding to support the immediate health response operations to address the resurgence of cholera in Haiti. However, in the current context of the complex socio-political crisis the country is facing, additional support to PAHO's response efforts is needed to save lives, prevent the spread of cholera in Haiti and protect the most vulnerable population groups at risk of *Vibrio cholerae* infection—including health workers.

The current funding needs outlined in this appeal are pivotal to scale up Government and partners' response capacities to provide lifesaving services in communities with active cholera hotspots as well as strengthen readiness and preparedness efforts in other departments in preparation for a possible geographical dissemination of the disease.

PAHO ensures that funding is distributed in the most efficient manner and where it is most needed, in coordination with public health authorities, United Nations agencies and other humanitarian partners.

Here are some ways how private or public organizations and individuals can contribute to this donor appeal.

Donating directly to this Appeal

Financial contributions from governmental aid agencies, multilateral institutions, foundations and philanthropic organizations and other public and private sector partners are one of the most valuable and effective forms of support to the health emergency response. The main characteristic of a financial donation is its flexibility

to support an agile response. The resources obtained can be used in a fast and efficient way, responding to the most acute needs, and ensuring that the actions funded are fully aligned with the country's priority public health actions to successfully tackle the cholera outbreak.

Donating organizations are invited to make cash contributions to support one, several or all priority actions highlighted in this appeal. To make a donation to PAHO, please contact Julie Mauvernay (mauvernj@paho.org).

Individual donations can also make a difference and help save lives by supporting the delivery of essential supplies and critical assistance to people in need. Individuals can contribute to PAHO's cholera response efforts in Haiti by mailing checks to PAHO, 525 23rd St NW, Washington, D.C., 20037.

Donating in-kind resources and services

PAHO encourages the private and public sectors to align response efforts to address the resurgence of cholera in Haiti through the priority action lines outlined in this appeal. Donations from corporations must comply with PAHO/WHO's guidelines and roadmap for engagement with the private sector.

To make an in-kind donation of good and services, please contact Julie Mauvernay (mauvernj@paho.org) or donate@paho.org to guarantee coherent priorities, minimize gaps and duplication in the health response, and ensure quality assurance of the goods offered.

PAHO appreciates and thanks in advance its donors for their generous contributions to save lives and limit the spread of cholera in Haiti. Contributions to this Appeal will be reported on PAHO's webpage to acknowledge and give visibility to donors' generosity, report on funding received as well as remaining financial gaps.

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