

# United Nations Support Plan for the elimination of the transmission of cholera in Haiti

2014-2015



United Nations plan to support the implementation of the Government of Haiti's 2-year plan on cholera elimination

January 2014



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# 1. Executive Summary

**Important strides have been made in combating cholera in Haiti.** Concerted international and Haitian efforts since the cholera outbreak was declared in October 2010 have resulted in a drastic reduction in the number of suspected cholera cases and deaths. **The overall incidence of the disease has been reduced by half since 2011 and fatality rates are below 1 per cent,** the standard global alert threshold defined by the World Health Organization. Of the **698,304** suspected cholera cases reported since 2010, only 6 per cent were reported during 2013 compared to 51 per cent in 2011.

**Yet, cholera continues to take a heavy toll on the lives of Haitian people.** Though the number of new suspected cases has considerably diminished, Haiti is still reporting the highest number of cholera cases in the world. From January to December 2013, Haiti reported 58505 cases and 610 deaths while all other countries in the world combined reported 30,266 cases and 573 deaths over the same period. With the start of the 2013 rainy season, the number of new cases rose from 2,717 in April 2013 to 6,300 in November 2013. The institutional fatality rate (the number of suspected cholera victims who die in cholera treatment facilities) in 2013 (0.98%) is higher than at the same period last year (0.83%), reflecting a deterioration in the capacity of health centers to provide timely and adequate health services to cholera-affected patients. **If current trends are confirmed, an estimated 45,000 cases of cholera could be expected in 2014.**

**The persistence of cholera in Haiti is mainly due to the lack of access to clean water and appropriate sanitation facilities.** Cholera thrives in areas where poor sanitation and water quality is combined with poor hygiene practices. According to recent surveys, more than three million Haitians (or 30 per cent of the population) have no access to sources of safe drinking water and only 26 per cent of the Haitian population (2.7 million people) has access to improved latrines. Further, 62 per cent of 13,181 households surveyed in 2012<sup>1</sup> were able to indicate a place to wash their hands. The task of the Government and its international partners is therefore enormous as the sources of contamination are vast and the risk of recontamination will remain constant as long as the problem of water, sanitation and poor hygiene practices is not addressed. This will require time and significant resources. Meanwhile, cholera response activities addressing life-saving and mitigating actions need to be sustained.

**On 27 February 2013, the Government of Haiti launched its 10-year National Cholera Elimination Plan and a two-year operational component of the Plan.** The 10-year, US\$2.2 billion plan focuses on the long-term elimination of the disease through the large-scale development of public health and sanitation infrastructure. Of this amount, \$448 million is required for the first two years. **The lack of sustained funding, however, has dramatically decreased capacity to respond effectively.** So far, only half of the \$448 million needed for the next two years has been mobilized, and less than a quarter of the \$40 million required for immediate humanitarian needs have been received.

**The UN Secretary-General has made supporting the Haitian Government to eliminate cholera a key UN priority.** Much has been done by the UN in the last three years to support national efforts to combat cholera in Haiti. Initiatives include the establishment of an early warning and alert system and a mechanism to rapidly respond to an alert within 48 hours, sensitization campaigns, household visits, and activities to increase access to clean water and improve overall

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<sup>1</sup> EMMUS-V 2012

sanitation and hygiene. Around \$140 million has so far been spent by the UN system to respond to the epidemic. To underline his support to these efforts, the UN Secretary-General (SG) launched the Initiative for the Elimination of Cholera in the Island of Hispaniola in December 2012. In view of strengthening initiatives underway, the SG requested the elaboration of a clear road map outlining the UN's cholera elimination efforts in country and the establishment of a Cholera Coordination Unit in Haiti to oversee UN efforts, and appointed a Senior Cholera Coordinator based in New York to optimize UN resources and support the national plan for the elimination of cholera.

The UN system in Haiti has developed a two-year Support Plan to help operationalize the national two-year plan for the elimination of cholera in Haiti. The plan highlights the key objectives and activities the UN intends to carry out to support the Government. The 2014 emergency activities of this plan will be reflected in the 2014 Haiti Humanitarian Action Plan. UN efforts in support to cholera elimination aim at attaining three key objectives. The short term objective is to reduce infection rates by limiting and cutting the transmission of the epidemic (i.e. reducing the annual incidence rate of cholera from 3% to less than 0.5%) and meeting the lifesaving needs of affected populations. The midterm objective is to reduce the annual incidence of cholera to less than 0.1% by 2017. The long-term objective is to reduce cholera incidence to less than 0.01% by 2022 and ensure Haiti is less vulnerable to the disease by improving water and sanitation services and hygiene practices. These objectives are fully in line with the national objectives. The UN plan is structured around the four pillars of the national cholera elimination plan, namely: 1) epidemiological surveillance; 2) health promotion; 3) medical treatment; and 4) water, hygiene and sanitation. The UN will support national authorities to lead and coordinate these efforts.

**\$70 million is urgently required to implement the UN's 2-year Support Plan.** Success in achieving these results is largely contingent on the availability of necessary resources to maintain and scale-up some of the life-saving activities being carried out. \$40 million is needed immediately to pursue activities in 2014. Additional, predictable and sustainable funding is needed to scale-up current UN efforts.

## UN entities engaged in the fight against cholera in Haiti<sup>2</sup>:

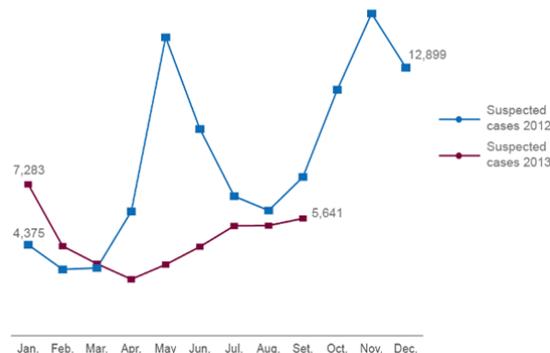


<sup>2</sup> Aside from the agencies listed above, other UN entities and international partners contribute to cholera elimination efforts through programmes not directly linked to cholera but which include sensitization, education, disaster risk reduction, etc.

## 2. Context

Although global infection rates have been reduced by half since 2010, Haiti still hosts the largest number of suspected cholera cases worldwide. As of 31 December 2013, 698,304 suspected cases of cholera and 8,562 deaths had been reported since the beginning of the cholera epidemic in October 2010. From January to December 2013, Haiti reported more than 58505 cases and 610 deaths, while other countries in the world combined reported 30,266 cases and 573 deaths over the same period. An increase in the number of suspected cases in several departments of the country has been reported since April 2013, which coincides with the beginning of the rainy season which fosters the transmission of the disease. The number of new cases rose from 2,717 in April 2013 to 6300 in October 2013, and the institutional fatality rate (the number of suspected cholera victims who die in cholera treatment facilities) from 0.72% to 1.24% over the same period.

Comparison of suspected cholera cases per month (2012 to Oct. 2013)



Whilst overall fatality rates have been reduced, institutional fatality rates increased in 2013. Thanks to concerted efforts, cholera fatality rates (the total number of cholera victims that expire from those that have the disease) have remained below the WHO established global threshold of 1%. Yet, the institutional fatality rate observed so far in 2013 (0.98%) is higher than the rate of the same period last year (0.83%). This reflects weaknesses in the capacity of health centers to provide timely and adequate health services to cholera-affected patients as well as

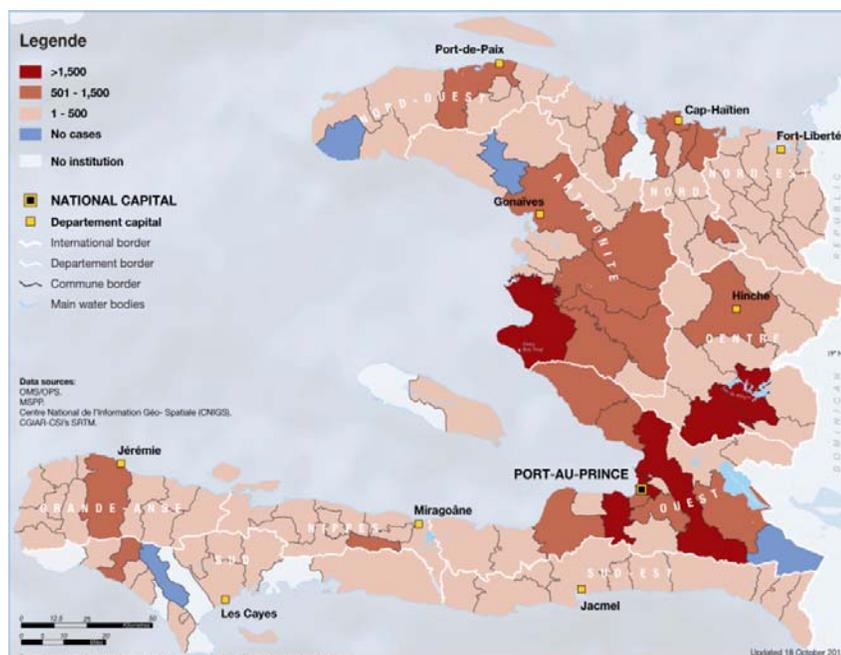
delays in the arrival of patients in medical health care.

Four departments have been identified as the persistent foci of cholera during the dry season. They have systematically reported high numbers of suspected cholera cases since the beginning of the outbreak. These are the West, Artibonite, Centre and North Departments. In 2013, a similar pattern has been observed. During the dry season (from December to April), most alerts were reported in these four areas which are now believed to be the areas of persistence of cholera transmission. Fifty eight per cent of all suspected cases reported this year came from the West and Artibonite Departments. Within these four departments, 17 communes are identified to be at high risk of cholera transmission, as highlighted in the map below.

If current trends are confirmed, an estimated 45,000 suspected cholera cases could be expected in 2014, compared to 101,151 in 2012 (according to PAHO/WHO estimates). The highest number of cases could be expected during the rainy and hurricane seasons (from April to November).

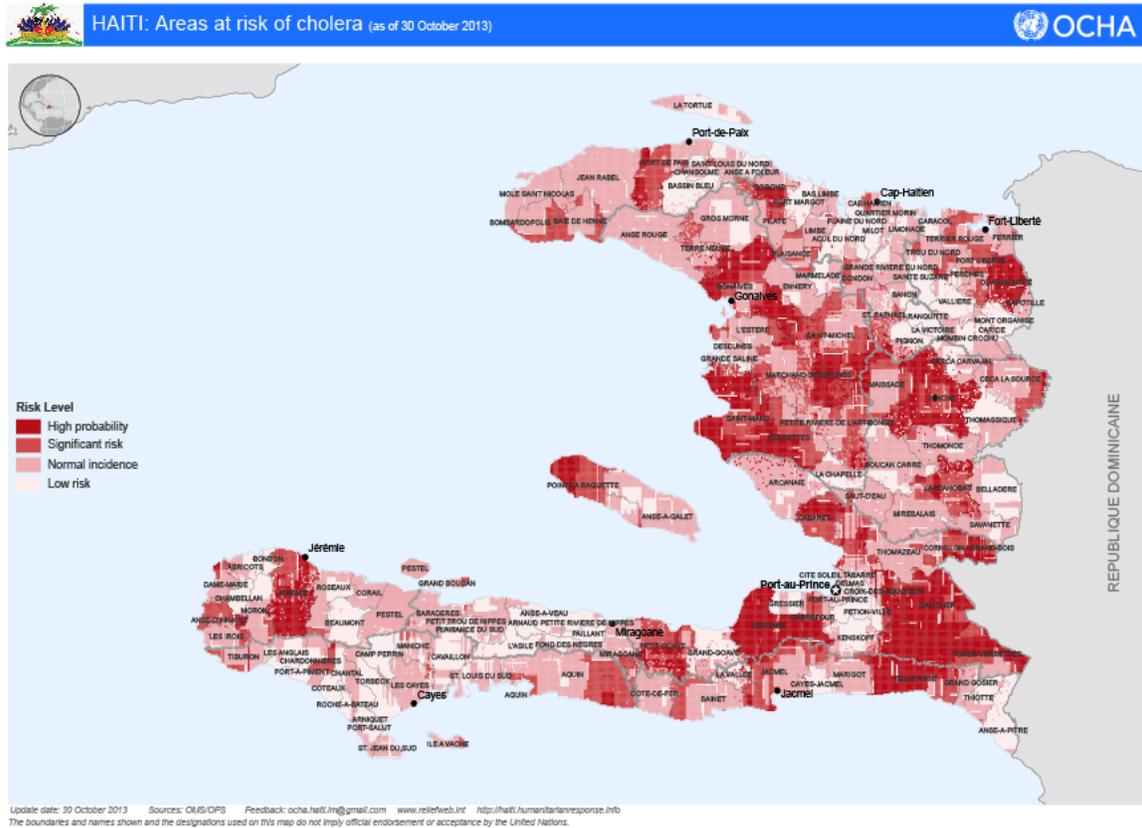
### Affected areas

According to available epidemiological data, the following map reflects the 17 communes reporting most suspected cholera cases in 2013.



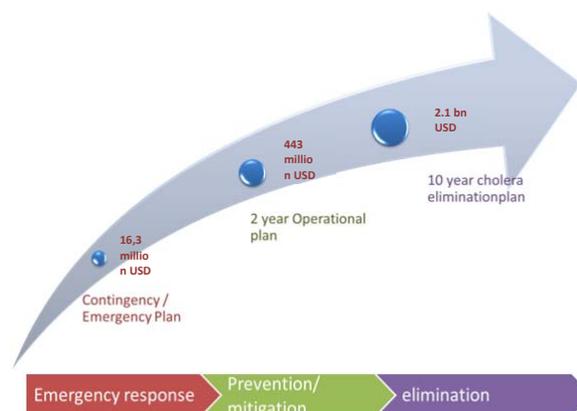
## Areas at risk

A more analytical map prepared by PAHO identifies the key areas at risk of cholera. The analysis takes into account factors including epidemiological data, ease of access to health care and water sources, response capacity and vaccination. According to this analysis, 20 communes could be the worst affected by cholera in terms of exposure and limited response capacities. Nine of the 20 communes at risk are in the Western Department, followed by the Artibonite Department with 5 of the 20 communes at risk. These communes do not coincide with the areas of epidemiological persistence but take into account response capacities. These areas need to be monitored closely and should be prioritized for long-term interventions.



## Cholera Initiatives

In February 2013, the Government of Haiti launched the National Plan for the Elimination of Cholera, a 10-year strategic plan outlining health, water and sanitation activities necessary to eliminate cholera and other diseases. The Government also developed a 2-year operational plan to prioritize key short-term activities for 2013-2014. The UN Support Plan outlines the humanitarian community's contribution to the Government's operational plan. The activities are also included in the 2014 Humanitarian Action Plan (HAP) for Haiti.



### Haiti 10-year Cholera Elimination Plan (2012-2022)

On 27 February 2013 the Government of Haiti launched the 10-year cholera elimination plan. The plan **aims to limit the transmission of cholera in Haiti by improving access to water, sanitation, hygiene and health care facilities for 80-90% of the Haitian population.** The plan has six specific objectives that should be achieved in three distinct phases within the 10 year timeframe (see table on the right)

#### Objectives of the 10 year plan

Enable access to drinking water for at least 85% of the population

Enable access to sanitation for at least 90% of the population

Increase the collection of household waste to 90% in metropolitan areas and to 80% in secondary cities

Facilitate access to health care services for 80% of the population

Strengthen epidemiological surveillance

Intensify public education on hygiene

#### 2.1 bn USD to eliminate cholera in Haiti 10 year plan

141 m USD for Ministry of Public Works

109 m USD for Ministry of Health

33 million for DINEPA

#### 448 mil USD to reduce incidence of cholera 2 year plan

231 m for the Ministry of Public Works

94,5 m for the Ministry of health

91,48 m for DINEPA

#### 16,3 mil USD to prevent and respond to cholera - 6 month emergency plan

4.2 m USD for the Ministry of Health

12,1 m for DINEPA

### Haiti 2-year operational plan of the Cholera Elimination Plan (2013-2015)

The 2-year operational plan represents the first phase of implementation of the cholera elimination plan and prioritizes key short-term objectives related to mitigation efforts to contain the disease. This plan **aims to reduce the incidence of cholera from 3 to 0.5 per cent and to achieve 80 per cent coverage of treated water in cholera-affected areas.** It also hopes to reach some 600,000 people with vaccines, improve surveillance and early warning and strengthen health services. The cost of implementation of the two year plan is around \$444 million.

### Haiti Humanitarian Action Plan

The 2014 Humanitarian Action Plan (HAP) is Haiti's humanitarian strategic planning and advocacy tool. It includes a section on cholera in direct support to the two-year national plan. It prioritizes life-saving response efforts to be implemented by UN partners and NGOs in support and complement to the Government's efforts. The cost of cholera prevention and response in the HAP amounts to \$40 million.

### UN Support Plan

The UN Support Plan for the elimination of cholera in Haiti outlines the contribution the UN system intends to make in the coming two years in support of the Government's two-year national plan. The cost of the two-year plan is \$70 million. The activities of the first year of the plan are those included in the HAP 2014.

## Efforts underway

National authorities have made significant efforts to provide timely and adequate health care services to cholera-affected patients and to prevent the spread of the disease. Both leading ministries (health and public works) have made considerable efforts in the past years to increase their capacity to tackle the epidemic. The Ministry of Health (MoH) has created a National Cholera Coordination Unit with a central structure and a focal point in all 10 departments in charge of monitoring the situation and mobilizing adequate responses. The epidemiological department of the Ministry (the DELR) manages the alert mechanism that collects all warnings coming from the field. After receiving the alert, the DELR starts an investigation. If an alert is confirmed, rapid response activities are undertaken by the MoH, DINEPA (ministry of water and sanitation) and NGOs. The MoH has also deployed a Cholera Coordinator to each department to lead a Cholera Coordination Cell. The Cholera Coordination Cell monitors and responds to suspected cases at the departmental level. UNICEF's NGO partners are working in each department to support the secretariat of these cells. DINEPA has also deployed 264 water and sanitation technicians (TEPAC), 2 per commune, and 13 departmental focal points, to facilitate WASH investigation and response capacities. The TEPACs are supported by UNICEF's international partners in view of building their capacities. DINEPA has recently reinforced its Emergency Department capacities with a cholera coordinator and two assistants.

To reduce the transmission, the MoH, DINEPA and NGO partners work in close collaboration to ensure a rapid response to all alerts within 48 hours: PAHO/WHO field teams also support MOH cholera coordinators in the ten departments. DINEPA and WASH NGOs identify contaminated water sources suspected to be the origin of the cholera cases, conduct rehabilitation of water sources and provide chlorination when needed. Coordination of the response to cholera outbreak between the MoH, DINEPA and partners at the departmental level is improving steadily.

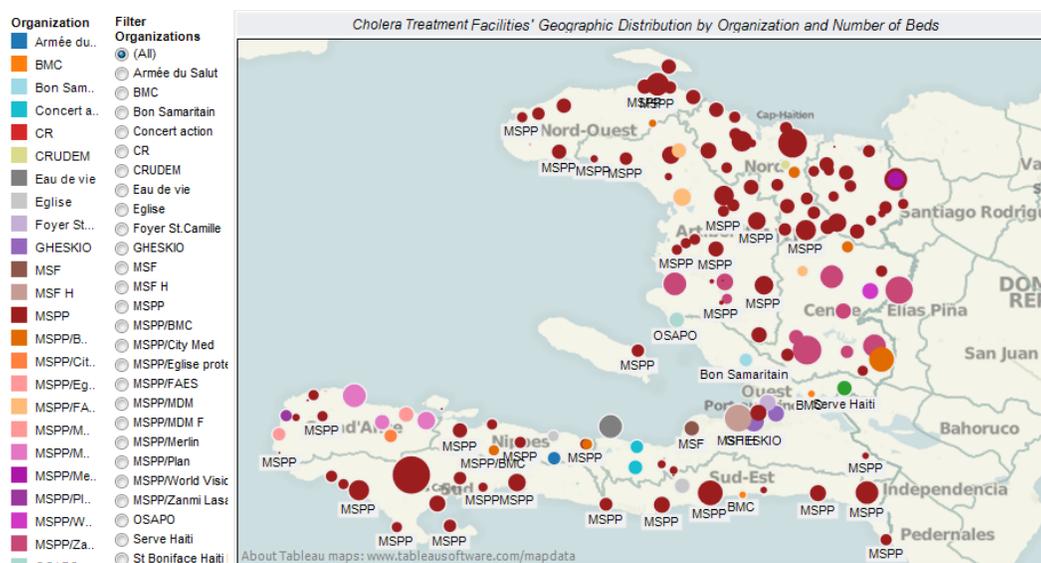
The UN and international partners have provided significant support to national partners. The UN has been supporting the key pillars of the Government's national plan with critical interventions including:

1. *Strengthened surveillance system*: Support has been provided to improve the surveillance of suspected cholera cases across the country through the deployment of epidemiological experts, communication and transport support, laboratory and research materials as well as the deployment of cholera rapid diagnostic tests (RDTs) to support investigation of suspected cholera cases;
2. *Alert systems and rapid response*: The UN is supporting a national alert system and mobile teams across the country able to respond with both health and WASH interventions to every alert within 48 hours. So far in 2013, 115 alerts were identified and responded to within 48 hours by the UN or one of its partners. To improve the quality of care, the UN has helped establish/upgrade over 100 cholera treatment facilities, rehabilitated water and sanitation infrastructure in five department hospitals and 14 cholera treatment facilities, improved water quality in 80 health centers, and established nearly 700 water chlorination points across Haiti;
3. *Prevention*: To reduce the risk of contamination by using unsafe water and food, the UN has helped improve water quality, raise awareness of adequate hygiene practices and supported a vaccination campaign in key affected areas. Specifically, the UN has helped establish a water-quality monitoring system that is implemented in 56 health centers and is expanding the system to all of Haiti's 140 communes; it has constructed waste water treatment plants, provided sewage management in camps for internally displaced people, and built sanitary facilities in 240 schools. It has supplied more than 9 million critical items for prevention and treatment of cholera as well as oral cholera vaccines to cover close to 110,000 people. It has reduced risks for an estimated 1.2 million people through desludging of latrines in IDP camps and health centers.

## Key challenges and critical gaps

Despite these efforts, important challenges remain to effectively respond to cholera alerts. The following outlines the key difficulties that need to be addressed:

1. *The epidemiological surveillance system needs to be improved* to monitor the evolution of the epidemic in the country and respond swiftly to alerts. A reporting system via SMS was introduced to facilitate the reporting of data by health centers and department epidemiologists to the central level. Yet, the timely collection, analysis and reporting of data from all areas of the country remains a challenge, particularly from the community level. There is also a need to increase the number of rapid tests to help differentiate the cases of cholera from those of acute diarrhea and to reinforce the involvement of the national laboratory to confirm the tests.
2. *The cholera alert system needs to be strengthened*: As a complement to the epidemiological surveillance system, an alert system at central and departmental level was put in place in 2010 led by the Ministry of Health to ensure a timely response to cholera alerts. The system is based on a network of actors in the field reporting cholera alerts via emails or phone to the Ministry, which monitors the situation and coordinates the response. With the withdrawal of many partners involved in cholera response due to lack of funding, the timely reporting of alerts has been weakened, delaying the response time. In addition, efforts to improve the collaboration between the Ministry of Health and DINEPA at the national and departmental level need to be strengthened.
3. *Medical care and integration of cholera into the health care system*: The Ministry of Health has, for the last two years, attempted to integrate the treatment of cholera patients into regular health structures attended by regular medical staff rather than in separate cholera treatment centers or units (CTC or CTU) with specific staff allocated for cholera response. Due to the withdrawal of many partners responding to cholera, the overall number of cholera treatment facilities (CTDA, CTC and CTU) has reduced from 250 in 2011 to about 160 in 2013. Most facilities are now run by the Ministry of Health which has limited capacity to maintain adequate quality conditions for the treatment of cholera patients and lack the finances to pay the necessary number of staff to ensure 24-hour shifts. As a result, response capacities have been significantly stretched following the increase in suspected cholera cases observed since April. In August 2013, six departments registered a higher hospital fatality rate than at the same period last year, which may be a sign of the deterioration in the quality of health care provided to cholera-affected patients. In addition, due to the closure of many CTCs, patients have to travel longer distances to treatment centers and therefore arrive with more severe dehydration which may also contribute to the increased institutional fatality rate.



4. *Availability of supplies:* Since the beginning of the epidemic, PROMESS, the national agency for the provision of medicines, has provided medical supplies for the treatment of cholera free of charge to health centers and partners working in the cholera response. The amount of stocks available in department depots is regularly monitored to ensure timely provision and avoid shortages. Though department pharmacists have been trained to manage stocks and ensure the regular provision of supplies to health centers, shortages of some items have been observed in health centers due to funding shortfalls and distribution problems. Though funding was secured to respond to about 15,000 cases from October to December 2013, PROMESS was often not able to supply affected areas, meaning other actors often have had to step in. Therefore, for PROMESS to continue to supply health structures treating cholera patients, funding is needed to purchase medical supplies for the 60,000 anticipated cholera patients during 2014.
5. *Sensitization:* In a country where cholera was not known by the population before 2010, sensitization activities are essential to stop the transmission of the disease where alerts are detected. The Ministry of Health introduced a new strategy for community health workers in 2013 whereby there would be one multipurpose community health agent per 500 to 1,000 people. This strategy would require approximately 10,500 community health workers nationally, of which about half would be based in rural areas. A common training curriculum was developed and all community health workers recruited should receive the training. So far, only 1,700 community health workers have received the training and an average of 400 community health workers are being trained each year. The recruitment and training of additional community health workers is therefore essential, in particular in the most-affected areas
6. *Water and sanitation:* The main cause for the persistence of cholera in Haiti is the lack of access to clean water and sanitation facilities and poor hygienic practices. Significant needs remain to improve access to water and sanitation across the country. According to the latest figures, 69 per cent of the population in urban areas has access to safe drinking water and 50 per cent in rural areas<sup>3</sup>; 26 per cent have access to improved sanitation (34 per cent in urban areas, 17 per cent in rural areas). Basic interventions are needed – as envisioned in the National Plan for the Elimination of Cholera – to improve WASH facilities.
7. *Funding:* Limited funding is severely hampering the UN's capacity to pursue and scale up ongoing efforts. Only \$10 million of the \$38 million required for immediate life-saving needs were received this year in response to the appeal to respond to cholera. Less than 50 per cent of the funding necessary to implement the national 2-year operational plan has been mobilized. **Additional and predictable funding is needed to scale up UN and Government efforts to sustainably tackle the epidemic.**

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<sup>3</sup> source Joint Monitoring Plan Update 2013

## 3. Overview of the UN Support Plan

### *Strategic vision*

This plan aims to reduce mortality and morbidity by limiting transmission and responding rapidly to outbreaks including timely and adequate treatment of patients. Although cholera is not difficult to treat or prevent, epidemics are difficult to control when access to clean water is limited and hygiene is poor. To permanently eliminate cholera in Haiti, the transmission route has to be broken by building national water and sanitation systems. This can only be achieved with a coordinated, multi-sectoral approach. Through this support plan, the UN will strengthen government capacity and leadership and mobilize international partners around the key relevant priorities in the Government's national cholera elimination plan to meet this objective.

Better data on the epidemic as it evolves will enable the Government and its partners to respond faster in the areas where the needs are most acute. To increase access to data, the UN will support the Department of Epidemiology (DELR) at the central and departmental levels, providing staff, supplies and upgrading facilities. The UN will also provide technical support to the DELR to adopt guidelines, map high-risk areas and the wider health sector to differentiate cholera from acute watery diarrhea.

The population needs to adopt appropriate hygienic practices. However, it is not easy to change behavior. Sensitization needs to reach the community level and be culturally sensitive, encompassing a wide range of activities including mass media, community mobilization, training of community workers and the supply of hand-washing points and hygienic materials.

The response to outbreaks must be rapid and flexible. Even small shortfalls in staff and supplies make the difference between life and death. The UN is providing additional staff to the Ministry of Health to strengthen mobile medical teams at the departmental level, and monitoring the response to identify unmet needs, provide medical supplies including a contingency stock, and rehabilitate level I and II health structures, including setting up isolation wards.

Clean water, proper sanitation and hygiene are the only means to control and eliminate cholera. To cut transmission, an emergency WASH response to every suspected case is required. This is challenging in Haiti, as many rural communities are hard to access. The UN supports DINEPA by providing staff and supporting a network of NGOs, which give DINEPA technical and operational support at the decentralized level and provide WASH supplies. In parallel, the UN is advocating to mobilize the large-scale investment required by the Government to build water and sanitation systems, in line with the ten-year Government Plan for the Elimination of Cholera.

Cholera vaccination has been recommended as a complement to traditional prevention and control measures. As vaccination is unlikely to be a long-term solution to cholera transmission in Haiti, it will be used on the short term in priority areas identified by the Government. The UN is providing the Government technical and logistical support and supplies to run the campaigns, and monitor their effectiveness, to add to the global stock of knowledge on the utility of the cholera vaccine.

Coordination is essential to elimination efforts. Within the UN, PAHO is leading on surveillance, case management and technical support to health promotion and vaccination. UNICEF leads on water and sanitation and also provides operational support to health promotion and vaccination. OCHA will lead on communication and information-sharing with donors, and will also ensure accountability. It is critical that all UN efforts support Government capacity and leadership. The UN will therefore coordinate its efforts to ensure they support that goal and are aligned behind the national plan led by

the Ministry of Health. The key mechanism for achieving this is a technical taskforce, led by PAHO and UNICEF, and supported by OCHA, which brings together international partners including MINUSTAH, other UN agencies and international NGOs. The taskforce will coordinate, monitor implementation and report to the UN Humanitarian Coordinator. In addition, a mechanism will be established to ensure coordination at the non-technical level between the Office of the Prime Minister and the Special Representative to the SG (SRSG)/DSRSG.

### **Objectives**

The UN system in Haiti aims to support the Government to achieve the following objectives drawn from the national 10-year cholera elimination plan:

- During the period 2013-2015, reduce the annual incidence rate of cholera from 3% to less than 0.5%. This requires carrying out immediate life-saving actions to treat patients, limit transmission and prevent the outbreak from spreading.
- By 2017, reduce the annual incidence rate of cholera to less than 0.1%. This requires strengthening the institutional response, managerial and supervisory capacity of the health and water, sanitation and hygiene sectors, as well as reinforcing the health information system, case management and health promotion activities.
- By 2022, reduce the cholera incidence to less than 0.01%, meaning that cholera would no longer be considered a significant public health problem in Haiti. To reach this objective, access to safe drinking water and sanitation has to increase to the level of the average coverage in Latin American and Caribbean countries. In addition, 75% of the Haitian population will have to wash their hands with soap after defecation and before eating.

The scope of the present plan is limited to the short-term objectives to be achieved by 2015.

### **Benchmarks of success**

The benchmarks against which the success of the UN system in Haiti will be measured include:

- By 2015, the incidence of cholera is reduced to less than 0.5%
- By 2015, the global fatality rate is reduced to less than 1%

### **Areas of support**

Six key areas of UN support to national cholera elimination efforts have been identified on the basis of the pillars of the national cholera elimination strategy. These include:

- Strengthening/improving epidemiological and laboratory surveillance
- Health promotion
- Medical treatment
- Water, sanitation and hygiene
- Vaccination
- Coordination

The UN system will support these efforts both at the national and decentralized levels in all areas where cases of cholera have been identified including in the remaining IDP camps.

### **Guiding principles**

1. **Align with Government priorities:** The development and implementation of the UN Support Plan is fully aligned with the strategic and programmatic priorities articulated in the national cholera elimination plan and the two-year operational plan. At the operational level, UN efforts are closely coordinated with the Government at central and departmental/communal levels to ensure that

targeting and sequencing of interventions are coordinated and in conformity with national and local priorities and needs.

2. **Better integrate the short and long term aspects of the fight against cholera:** Emergency interventions are developed with appropriate linkages to on-going or planned long-term development and institutional capacity reform and development programmes. Equally, medium- to long-term interventions take into account and prioritize critical life-saving needs. Strengthened national coordination mechanisms and a close collaboration with national actors in the design and implementation of programmes will (a) ensure the proper targeting and sustainability of capacity strengthening efforts; and (b) promote transfer of knowledge and expertise between international and national actors.
3. **Targeted interventions in high risk areas:** the definition of areas at high risk of cholera is based on the following criteria: high attack rate, high case fatality rate, limited access to health care, poor access to water and sanitation, early increase of cases in the rainy season and areas with dynamic commercial activities (exchanges, population movements). The characterization of high risk areas is highly dependent on the quality of surveillance (notably for attack rate and case fatality rate) therefore the selection of areas for targeted interventions should be carefully determined through field investigations including epidemiologically “silent” areas (areas lacking reporting). During 2014-15 high risk areas are to be targeted for intensive interventions combining rapid health and wash response, vaccination, sensitization of the population and water chlorination activities. In these areas, interventions would significantly contribute to the elimination of cholera transmission. However the longer term elimination of cholera cannot be achieved by only targeting high risk areas. Elimination of cholera transmission can only be achieved through comprehensive interventions addressing 100% of the population.
4. **Remain flexible:** Implementation arrangements must take into account the volatility of the environment and the need to rapidly re-align and adapt interventions, resources and capacities towards opportunities as they arise. Concretely, this means: 1) flexible planning and operational frameworks; 2) the ability to rapidly acquire and re-orient human and logistical resources; and 3) funding arrangements which allow for re-allocation and re-prioritization of resources.

## Risks

1. Sustained rains are a key determinant in the transmission of cholera. The passage of a tropical storm or hurricane could increase the incidence of cholera in country.
2. A further premature withdrawal or reduction of on-going projects. Many humanitarian actors have withdrawn and closed operations, leaving critical gaps in some areas. Further retreats should be well managed to ensure a proper transition.
3. Lack of Government coordination mechanisms bringing all partners together. There is a lack of coordination amongst health and WASH partners, particularly at the national level. Improvements have been noted at departmental level and need to be sustained.
4. Lack of sufficient financial resources to continue projects, pay salaries and maintain infrastructure. A further reduction of funding could seriously compromise gains made so far in case critical gaps cannot be addressed and the epidemic could gain greater proportions if not adequately contained.
5. Insufficient supplies of oral cholera vaccine on the global market.

## 4. Implementation of the UN Support Plan

### ***Programming***

The present UN Support Plan identifies the global operational objectives of the UN system in Haiti to support Government efforts to eliminate cholera in country.

The below Results Framework defines the collective expected outcomes and outputs of the five areas of support envisioned by the UN.

More detailed/specific programmatic tools (programmes or projects) are available per agency (Ref. UNICEF Strategic Plan for Cholera and PAHO's 2-year plan titled the 'Role of WHO in cholera elimination in Haiti'); Further programmatic details and specific projects for the emergency phase of the response will also be found in the Humanitarian Action Plan 2014. Specific projects can be accessed through the CAP website <http://www.unocha.org/cap/appeals/humanitarian-action-plan-haiti-2013>

### ***Resource mobilization***

The UN support strategy budget (in annex 2) estimates resource requirements for the interventions set out in the Results Framework. The estimates are based on current interventions and are indicative only. More detailed funding requirements can be found in the UN agency specific strategic plans as well as on the CAP website (<http://www.unocha.org/cap/appeals/humanitarian-action-plan-haiti-2013>)

Resource mobilization efforts will be carried out by the UN system at the national level under the leadership of the DSRSG/RC/HC and at the international level under the leadership of the Senior Cholera Coordinator appointed by the Secretary-General.

### ***Coordination***

Overall cholera coordination efforts are and will continue to be led by national institutions. A coordination structure led by the Prime Minister and the UN system is currently being discussed. The establishment of a steering committee chaired by the Ministry of Health and including all partners involved in the efforts to eliminate cholera is also under negotiation with national authorities. Pending the establishment of adequate national-led coordination mechanisms, the UN will continue to support cholera coordination efforts through a Cholera Task Force which will include members of the health (led by PAHO/WHO) and WASH clusters (led by UNICEF). The UN will also increase its internal coordination efforts through a UN task force. Internal UN system coordination in country will be led by the DSRSG/RC/HC supported by a 'Cholera Unit' to be established by the end of 2013.

## 5. Results Framework (based on the pillars of the Government's 2-year operational plan)

### Pillar 1: Epidemiological surveillance

Lead agency: PAHO

Outcomes	Indicators	Short-Term Emergency Activities 2014 (included in HAP)	Medium-Term Activities 2014-2015	Responsible Agency	Estimated Budget (USD)
Strengthened monitoring of cholera cases, data collection and analysis	<ul style="list-style-type: none"> <li>100% of departments collect epidemiological data in a timely manner.</li> <li>Monthly analysis of the evolution of the situation provided by the MOH/DELR</li> </ul>	<ul style="list-style-type: none"> <li>Reinforce the capacity of the DELR through human resources, international expertise, training, and the provision of equipment and material including cholera rapid diagnostic tests (PAHO/UNICEF)</li> <li>Improve national laboratory diagnosis capacity through the provision of minimum equipment and training (PAHO)</li> <li>Reinforce diagnostic capacities at the periphery and set up a laboratory network (PAHO)</li> <li>Reinforce the capacities of epidemiologists in the field (PAHO/UNICEF/IOM)</li> <li>Strengthen data collection capacities and reporting links between communes (and camps) and the central level (PAHO/UNICEF/IOM)</li> <li>Strengthen capacities of communal health staff, polyvalent agents and UTC staff in reporting cases and surveillance through training in camps and communities (PAHO/UNICEF/IOM)</li> <li>Strengthen reporting of communication system by sms (PAHO/IOM/UNICEF)</li> </ul>	<ul style="list-style-type: none"> <li>Establish the capacity of the national laboratory for antibiotic resistance analysis of vibrio cholera (PAHO/UNICEF)</li> </ul>	PAHO/WHO	1,340,000
				IOM	200,000
				UNICEF	350,000

## Pillar 2: Health Promotion

Lead agency: PAHO: technical guidance

UNICEF: operational guidance

Outcomes	Indicators	Short-Term Activities 2014 (included in HAP)	Medium-Term Activities 2014-2015	Responsible Agency	Estimated Budget
Harmonization of hygiene-related messages among partners and media	<ul style="list-style-type: none"> <li>Inter-sectoral plan of hygiene promotion is operationalized</li> </ul>	<ul style="list-style-type: none"> <li>Operationalization of the inter-sectoral plan of hygiene promotion at departmental level, approved by MoH. Development and update of hygiene key messages and materials for the media. Recruitment and training of ASCPs (Agents de Santé Communautaire Polyvalent) in hygiene and health promotion (PAHO)</li> </ul>		PAHO/WHO	850,000
Improved hygiene practices and dissemination of hygiene-related messages (mainly in high-risk areas including IDP camps)	<ul style="list-style-type: none"> <li>80% of the population is aware of at least three hygienic and prevention practices</li> </ul>	<ul style="list-style-type: none"> <li>Support mass national sensitization on cholera prevention, complemented by targeted sensitization at the community and household level in areas with cholera alerts (UNICEF)</li> <li>Deploy emergency mobile teams to do hygiene promotion campaign in rural and very remote areas with local organizations (UNOPS)</li> <li>Establish a communications system to allow people to access information on hygiene practices, including by sms (UNOPS)</li> <li>Support mass sensitization and door-to-door sensitization in targeted areas (vulnerable camps and communities with cholera spikes) through trained polyvalent agents and health promoters (IOM/UNICEF)</li> </ul>		UNICEF UNOPS IOM	2,250,000 900,000 300,000

## Pillar 3: Medical Treatment

Lead Agency: PAHO

Outcomes	Indicator	Short-Term Activities 2014 (included in HAP)	Medium-Term Activities 2014-2015	Responsible Agency	Estimated Budget
Strengthened cholera case management and response capacities in affected communities and areas at risk (including in camps)	<ul style="list-style-type: none"> <li>80% of the population has access to cholera treatment facilities</li> <li>Institutional fatality rate is reduced to 0.5%</li> </ul>	<ul style="list-style-type: none"> <li>Set up mobile medical teams for outbreak responses to be deployed in isolated areas and in health care centers with weak capacities (including camps) (PAHO, IOM)</li> <li>PRO and PRO+ construction and maintenance in isolated areas to ensure rapid access to treatment. (PAHO, IOM)</li> <li>Emergency rehabilitation of temporary and semi-permanent infrastructures of cholera care centers (PAHO, UNICEF, MINUSTAH, IOM)</li> <li>Emergency rehabilitation of WASH infrastructure in health centers, provision of WASH supplies to treatment centers; construction/rehabilitation of water points, toilets and hand-washing areas in centers and community infrastructures; and disludging and disinfection of toilets in centers (PAHO/MINUSTAH, IOM)</li> <li>Provide standard protocols for case management and relevant training (PAHO)</li> <li>Preposition medical stocks at central (PROMESS) and departmental level (CDAI)</li> </ul>	<ul style="list-style-type: none"> <li>Support departmental level response coordination through mobile PAHO field teams.</li> <li>Reinforce MoH human resource capacities for case management through personnel and training. Improve medical and WASH input availability and strengthen the distribution channel through the CDAI.</li> <li>Construct acute diarrhoea treatment centers (CTDAs)</li> </ul>	PAHO/WHO	3,400,000
				MINUSTAH	100,000
				UNOPS	1,800,000
				IOM	1,600,000
				UNICEF	3,400,000
				MINUSTAH	1,280,000

- Facilitate the distribution of supplies to service delivery levels (PAHO/UNOPS, IOM)
- Train and deploy polyvalent community agents as the main first line responders in communities (PAHO, UNICEF, IOM)
- Support the logistical needs (i.e. transportation) of cholera patients to health care facilities (IOM/UNOPS)

## Pillar 4: Water and Sanitation

Lead agency: UNICEF

Outcomes	Indicators	Short-Term Activities 2014 (included in HAP)	Medium-Term Activities 2014-2015	Responsible Agency	Estimated Budget
Reduction of the cholera trend through improved access to safe drinking water and improved hygiene and sanitation and emergency WASH response to cholera alerts within 48 hours	<ul style="list-style-type: none"> <li>• 80% of alerts responded to within 48 hours</li> <li>• 80% access to clean water</li> <li>• 80% access to sanitation facilities and services</li> </ul>	<ul style="list-style-type: none"> <li>• Support and accompany the TEPACs and staff of the MOH to identify the origin of the alerts; provide hygiene kits to health facilities; systematically investigate affected areas; sensitize on cholera prevention and treat water consumed by households in affected neighbourhoods; immediately repair water points that are suspected to be a source of contamination; and evaluate the actions undertaken (UNICEF)</li> <li>• Strengthen water systems chlorination control at the national level, through support to an SMS-based technology SYS-KLOR; support DINEPA and MOH to raise awareness of private companies on chlorination of water tankers in Port-au-Prince and Cap Haitian; conduct mass national communication campaigns to promote good hygiene and sanitation (UNICEF)</li> <li>• Strengthen community-based WASH projects in areas of cholera persistence; construct sustainable WASH facilities, WASH in schools, 300 water points and boreholes; rehabilitate and construct WASH facilities in 50 community centers; social marketing of local chlorine products (UNICEF/IOM)</li> <li>• Provide rapid response WASH activities following an alert (UNICEF/IOM)</li> </ul>		UNICEF	43,465,000 (emergency & sustainable WASH activities)
				IOM	1,000,000

- At the departmental level, support NGO partners, community health workers and DINEPA's technical field staff (TEPAC) to communicate early warnings; and at the communal level, support communication between NGO partners, TEPACS and health facilities (UNICEF)
- Emergency repair/rehabilitation of latrines and water points in camps and desludging of latrines in Port-au-Prince IDP camps (IOM/UNICEF)

- Distribution of clean water systems and water filtration units (MINUSTAH, IOM)
- Watershed management and Canal Rehabilitation/Construction (MINUSTAH, IOM)

MINUSTAH

820,000

## Vaccination

Lead agency: PAHO

Supporting agency: UNICEF

Outcomes	Indicator	Short-Term Activities 2014 (included in HAP)	Medium-Term Activities 2014-2015	Responsible Agency	Estimated Budget
Vulnerable population in areas at risk are vaccinated	90% of target population in areas at risk receive 2 doses of the cholera vaccine		Support the MoH in the: <ul style="list-style-type: none"> <li>• identification of priority areas,</li> <li>• development and production of tools and materials for data management,</li> <li>• development and production of support and materials for social communication,</li> <li>• planning and micro-planning of vaccination activities,</li> <li>• implementation of vaccination operations,</li> <li>• training of personnel,</li> </ul>	PAHO/WHO	1,000,000

	<ul style="list-style-type: none"> <li>• supervision and coordination of vaccination activities,</li> <li>• storage and distribution of vaccines and materials,</li> <li>• Monitoring and evaluation of vaccination activities (Rapid Coverage Monitoring, Coverage survey and measurement impact) (PAHO/UNICEF/IOM)</li> </ul>		
Support the MOH to conduct a campaign targeting 500,000 persons with limited access to services (particularly those with: no access in remote rural communities, shanty towns, former IDP camps)		UNICEF/PAHO	2,800,000

## Coordination

### Lead Agencies: PAHO (Health) and UNICEF (WASH)

Outcomes	Indicators	Short-Term Activities 2014 (included in HAP)	Medium-Term Activities 2014-2015	Responsible Agency	Estimated Budget
Coordinated health and WASH cholera response in affected communities and communities at risk (including camps)	<ul style="list-style-type: none"> <li>• Joint health and WASH national and decentralized coordination mechanisms (including national authorities) are established and meet at least on a monthly basis</li> </ul>	<ul style="list-style-type: none"> <li>• Support MoH to respond to cholera alerts through the provision of human resources and coordination support tools. Support monitoring and evaluation, facilitate information sharing and reporting to donors and to the Elimination of Cholera Coalition (PAHO/WHO).</li> <li>• Establish an early alert response center at PAHO central level to improve the immediate response to alerts through partners and MoH. At departmental level, provide support to MoH coordinators through PAHO's mobile field teams and logistics (PAHO)</li> <li>• At the national level, support DINEPA to lead the WASH cluster and participate in other mechanisms for cholera coordination. At the departmental level, support the Cholera Coordination Cell led by the MOH, which supports a coordinated rapid response. At the communal level, support DINEPA technical staff to carry out WASH interventions (UNICEF)</li> <li>• Support PAHO/WHO and UNICEF in the coordination of cholera rapid response in camps and communities (IOM)</li> </ul>		PAHO/WHO	1,500,000
				UNICEF	3,300,000
				IOM	120,000

## 6. Financial requirements 2014-2015 (indicative)

UN agency	Funding Available 2013	GAP 2014	GAP 2015	UN funding requirements 2014-2015
PAHO	1 154 000	4 427 000	4 080 000	8 507 000
UNICEF:	11 112 341	33 089 000	22 476 000	55 565 000
IOM:	789 604	1 710 000	1 660 000	3 370 000
UNOPS:	50 000	750 000	750 000	1 500 000
MINUSTAH	3 010 000	0	0	0
<b>Grand-total</b>	<b>16 115 945</b>	<b>39 976 000</b>	<b>28 966 000</b>	<b>68 942 000</b>

Pillars	Funding Available 2013	GAP 2014	GAP 2015	UN funding requirements 2014-2015
Epidemiological surveillance	295 000	1 170 000	1 070 000	2 240 000
Health Promotion	848 000	2 375 000	1 625 000	4 000 000
Health care	3 836 906	5 050 000	4 050 000	9 100 000
Water and sanitation	9 651 039	26 809 000	18 611 000	45 420 000
Vaccination	637 000	1 662 000	1 600 000	3 262 000
Coordination[1]	848 000	2 910 000	2 010 000	4 920 000
<b>Grand-total</b>	<b>16 115 945</b>	<b>39 976 000</b>	<b>28 966 000</b>	<b>68 942 000</b>