Since the beginning of the outbreak in October 2010, the Ministry of Public Health and Population (MSPP) has recorded 736,376 suspected cholera cases, and 8,768 cholera related deaths between from October 2010 through to 28 March 2015. Following a peak of over 350,000 reported cases for 2011, concerted Haitian and international efforts have succeeded in drastically reducing this by more than 90% in 2014 (27,388 suspected cholera cases). However, the number of cases and deaths rose sharply in the last three months of 2014 due to late and heavy rains, weak water and sanitation infrastructures, and the limited ability to sustain prevention and treatment services within the public health system.

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Reported Cholera Cases</th>
<th>Total Deaths</th>
<th>Cholera incidence rate</th>
<th>Global fatality rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010 (Oct-Dec)</td>
<td>185,351</td>
<td>3,951</td>
<td>1.84%</td>
<td>2.13%</td>
</tr>
<tr>
<td>2011</td>
<td>351,839</td>
<td>2,918</td>
<td>3.43%</td>
<td>0.83%</td>
</tr>
<tr>
<td>2012</td>
<td>101,503</td>
<td>908</td>
<td>0.98%</td>
<td>0.89%</td>
</tr>
<tr>
<td>2013</td>
<td>58,574</td>
<td>581</td>
<td>0.56%</td>
<td>0.99%</td>
</tr>
<tr>
<td>2014</td>
<td>27,388</td>
<td>297</td>
<td>0.26%</td>
<td>1.08%</td>
</tr>
<tr>
<td>2015 (Jan-28 Mar)</td>
<td>11,721</td>
<td>113</td>
<td>0.11%</td>
<td>0.96%</td>
</tr>
</tbody>
</table>

Source: DELR/ Ministry of Public Health and Population, Haiti

These triggers are aggravated by structural issues such as weak water, sanitation and health systems. Consequently cholera is still an emergency in Haiti and continued coordinated efforts are vital to eliminate the disease. The sharp increase in suspected cholera cases reported in the last quarter of last year continued throughout the first three months of 2015. As such suspected cholera cases reported for January to March 2015 are above those observed in early 2012 (but lower than those reported in the first quarter of 2013). This was predominately due to large outbreaks in the metropolitan region of Port-au-Prince which then spread to other high-risk regions. According to the national authorities, 4,321 suspected cholera cases and 36 deaths were reported in January 2015, 4,055 suspected cases and 46 deaths were reported in February 2015, and 3,014 cases and 22 deaths in March 2015. It is clear that the Government, UN and

1 Source is the Epidemiological Department (DELR) of the MSPP: The 2015 monthly figures are provisory and need to be validated. The total figures do not coincide with the official figures of the weekly Rapport du Réseau National de Surveillance
partners must continue to focus on maximizing efforts during the dry season to minimize the number of suspected cases and to capitalize on the gains made over the last two years. Due to the unexpectedly high number of cases in late 2014/early 2015 the window of opportunity for cutting the transmission during the current dry season is no longer feasible. As Haiti enters the first 2015 rainy season, the cholera response strategy continues to focus on controlling potential cholera outbreaks with the objective of reaching an average of 1,000 to 1,500 monthly suspected cholera cases being reported all year round.

In addition, a priority for 2015 will be to reinforce the national capacity for epidemic preparedness and response and closing gaps in the provision of basic health and WASH services, in line with the National Plan for the Elimination of Cholera. Specifically this includes:

- improving coordination mechanisms at the national level;
- ensuring the accuracy, completeness and promptness of cholera epidemiological information to improve the national surveillance capacity;
- guaranteeing adequate cholera case management in health facilities, avoiding ruptures in medical supplies and assuring appropriate sanitary conditions in cholera treatment facilities to reduce nosocomial infection and ensure that cholera fatality rates remain below 1% WHO standard;
- maintain adequate resources and support for rapid and appropriate community response to stop each outbreak as early as possible;
- link emergency cholera response with longer-term prevention and elimination activities such as sustainable community WASH projects and improving WASH in health facilities.

**Current Situation**

The West, Artibonite, Centre and North Departments have systematically reported high numbers of suspected cholera cases since the beginning of the outbreak. Within these 4 departments, specific communes continue to have high rates of cholera and remain at risk. Identifying and prioritising high-risk communes for targeted interventions to break cholera persistence and reduce the overall number of observed cases is an important part of the Haiti Transitional Appeal (TAP) 2015-16 strategy. As such an analysis was undertaken to identify priority...
areas taking into account factors including epidemiological data, ease of access to health care and water sources, response capacity and vaccination. Through this analysis MSPP and partners identified 55 communes (of 140 communes) across the 10 departments that should receive targeted assistance. The TAP aims to target 16 priority communes considered at highest risk over the 2015-16 period, with the other 38 communes to follow when resources are available.

Further while cholera cases are normally expected to increase during the rainy season, which begins in April, the 2015 dry season has represented an atypical dry season with heavy and prolonged rains observed throughout March which has further exacerbated cholera transmission in high-risk areas. As such from 1 January to 28 March 2015, MSPP has reported 11,721 suspected cholera cases and 113 cholera-related deaths for an incidence of 1.07 per 1,000 persons and a hospital fatality rate of 0.90%. This is more than double the cases in comparison to the same period in 2014.

The large cholera outbreaks observed at end of 2014/ early 2015 highlighted the important role of the water supply network in cholera transmission, particularly in the high density urban areas of Port au Prince. While access to potable water and improved sanitation is a significant driver of the cholera epidemic and has long been a concern in Haiti, these latest outbreaks identified worrying trends that in later years had mostly been confined to high-risk rural areas with limited access to potable water and sanitation. As such there is an urgent need to strengthen the protection of water systems against faecal contamination, particularly from rainwater run-off following heavy rains (as has been observed in the first quarter of 2015).

For example, the area of Martissant a section of Port-au-Prince (West Department) is considered to have a relatively good water distribution network which is provided by the national water authority (DINEPA). On 27 January 2015, there were an estimated 400 suspected cholera cases reported in Martissant in only a few days and this neighbourhood is considered to be one of the main foci of the latest outbreaks. Interviews in the area showed that 87% of the suspected cases had access to improved latrines and that most also had access to potable water. Investigation into the cause of the outbreak indicated faecal contamination of the water distribution system, a complex network of pipelines providing water to all of the affected areas. In addition some members of the population were illicitly tapping water from these pipelines. This is known to be a method employed by some gangs who extract water for commercial purposes, reselling the water to areas outside of DINEPA coverage. It is suspected that contaminated water may have entered some pipelines through this method thereby contributing to the further contamination of other water distribution systems, thus spreading the outbreak to various other neighbourhoods.

Thanks to the improved surveillance and early response system between MSPP, DINEPA, UNICEF, PAHO and the NGO partners in Port-au-Prince, the weekly incidence from these outbreaks are now reducing again, however the risk remains high due to unprotected water systems, unhygienic public markets and recurrent rains occurring during this atypical dry season.

The cholera response rests at a critical tipping point. Given adequate resources and sustained interventions, coupled with improvement in long-term water, sanitation and health infrastructure, it may be possible to eliminate cholera before the timeline of the National Plan for the Elimination of Cholera. However, if the response falters and resources are not forthcoming, hard-won gains may be compromised and cholera could persist in Haiti.
2015 Response

Political Advocacy and Coordination

On 13 February, following sustained advocacy by the DSRSG/RC/HC and UN agencies, the Minister of Health chaired the first meeting of the reactivated Technical Taskforce, with DSRSG in attendance. This inter-ministerial technical coordination structure was originally set up at the onset of the cholera epidemic. The reactivated Taskforce is composed of representatives of the Ministry of Health, Interior, Public Works (DINEPA), UNICEF, WHO and CDC. Members of the Taskforce presented a short term plan with priority actions under the four pillars of the National Plan for the elimination of cholera namely epidemiological surveillance, case management, health and hygiene promotion as well as water and sanitation. The Ministry of Health has since consolidated the priority actions for the next four months.

At the operational level, the UN continues to provide financial and technical assistance to the National Cholera Coordination Unit, hosted by the Ministry of Health. PAHO supports the Ministry of Health with surveillance, case management and technical support to health promotion and vaccination. UNICEF supports the National Cholera Coordination Unit of MSPP, the MSPP DELR, DINEPA and the water and sanitation sector by providing technical and operational support and resources for the cholera response.

MINUSTAH’s Civil Affairs Section continues to support the implementation of the Government of Haiti’s cholera elimination plan through the implementation of Quick Impact Projects (QIPs) and institutional support at the departmental and local level. During the months of January and February 2015, five projects were approved, 15 projects were initiated and seven projects were closed. The approved projects aim at improving the water distribution network and access to potable water to communities in Artibonite, South East and North West and the construction of toilet facilities at a national school in the North East. The projects total funding is of USD 153,862 benefiting around 47,290 people. The 15 initiated projects are being implemented in eight departments of Haiti, with a higher concentration at the Centre department. The projects initiated, worth USD 858,161, will benefit approximately 254,500 people. Moreover, five projects, worth USD 312,368, were closed in the Centre, North and Nippes Departments for the benefit of 30,100 residents. In addition to strengthening the government’s institutional capacity to respond to cholera outbreaks, MINUSTAH QIPs provide access to drinking water, build health infrastructure and improve hygiene and health practices to mitigate the spread of cholera.

Epidemiological surveillance and alert system

The MSPP’s epidemiological department (DELR) manages the alert mechanism that collects the warnings coming from the field through the national epidemiological surveillance system. PAHO supports DELR through technical support, supervision, data entry and analysis as well as providing support to the cholera treatment institutions which have been unable to report the cases and providing equipment to facilitate timely data transmission. UNICEF has deployed epidemiological experts (from the Assistance Publique – Hôpitaux de Marseille and the French Institute of Research and Development) to work with government epidemiologists at department and central levels, including in the DELR.

Each cholera alert triggers an investigation and response coordinated through MSPP Departmental cholera coordinators and government rapid response teams (Equipes Mobiles d'Intervention Rapide - EMIRAs) that are closely supported by the national Water and Sanitation
Authority (DINEPA) and a network of field response teams from UN (IOM, PAHO and UNOPS), WASH NGOs (ACF, ACTED, French Red Cross, Goal, Oxfam, Solidarités International, Zanmi Lasante) and health NGOs (IMC, GHESKIO, MdeM Consortium and MSF’s Belgium, France and Holland). These teams are supported locally by water and sanitation technicians (TEPACs), civil protection brigadiers, and community health workers.

Each confirmed cholera case triggers a complete package of targeted WASH interventions to approximately 55 people through; decontamination of the affected household, distribution of hygiene kits and other water treatment products to affected households and its neighbours (approx 10 households), community outreach and sensitization on cholera prevention and good hygiene practices as well as chlorination and/or rehabilitation of community water sources as required. Between January and 26 March over 1,345 targeted interventions have been undertaken by UNICEFs WASH NGO partners, 70% of which occurred within the first 72 hours following a cholera alert and have distributed over 57,000 cholera kits, decontaminated over 11,500 households and put in place over 100 chlorination points for community water sources.

IOM established an alert system in Artibonite and North West Departments with 174 brigadiers/ASCP/Hygiene Promoters to report suspected cholera cases for IDP’s living in camps and surrounding areas. This year a total of 109 camps received cholera health coverage by IOM mobile response teams. A total 747 sensitization sessions were carried out to reach a total of 41,286 people.

**National Sanitation Campaign**

The National Sanitation Campaign was officially launched by the Prime Minister in Los Palmas, Central Department on 14 July, 2014 to advance the government's 10 year national cholera elimination plan through prioritising 55 communes considered to be at high-risk of cholera. UNICEF supported the compilation of the paper presented in Clean Water, Improved Sanitation, and Better Health conference in Washington DC on 9 October. The paper articulates a shared strategy between the Haiti Government, the World Bank and the UN on reduction of water borne diseases through integrated action in Health, Water and Sanitation, with agreement on initially targeting 16 of the high-risk cholera communes. These initiatives will include improving water and sanitation conditions in over 200 rural communities, 200 local schools and over 20 health facilities. 2 training of trainers’ sessions on Community Led total Sanitation have been conducted in Artibonite and Centre Departments. A workshop involving the ministries of Health, Education and DINEPA has been also conducted to develop sanitation communication plans for 10 departments in the Country. The National partner DINEPA conducted a water week in March 2015 which contributed to raise awareness on water as well as sanitation issues at national and Departmental levels.

**Cholera vaccination campaigns**

In 2013, The Pan American Health Organization/World Health Organization (PAHO/WHO) and The United Nations Children's Emergency Fund (UNICEF) began working with partners to support the MSPP to vaccinate 600,000 people in areas of cholera persistence. In working with the global health community, the UN helped establish a global stockpile of oral cholera vaccines as an additional tool to help control cholera epidemics. The stockpile is managed by the International Coordination Group, whose Secretariat is the WHO and includes International Federation of Red Cross and Red Crescent Societies, Médecins Sans Frontières and UNICEF. The cholera vaccination campaign in Haiti was financed with a grant from the UN Central Emergency Response Fund (CERF) and the vaccines were acquired through the global stockpile. The first phase of the campaign took place in August 2013 and reached 107,906 people in two affected
communes. It was closely linked with integrated WASH activities as part of a comprehensive package of cholera prevention activities (this included rehabilitation of water networks, implementation of chlorination systems, building of kiosks and a toilet block at a school). A second phase was implemented in August/September 2014 and reached 191,129 people (99 per cent of the targeted population) with two doses of the oral vaccine Shanchol™ in seven high-risk areas across the Centre, Artibonite and West Departments and 16 state penitentiaries (supplementary campaign). Complementary WASH are in the process of being completed in Centre Department.

An additional 313,000 people are targeted for 2015, however discussion with MSPP and WHO Geneva (Global stockpile) indicate that this may be best split between 2015 and 2016. Further funding is also required in order to carry out the 2015 campaign.

**CHALLENGES**

Preparedness is a key component of cholera control and that adequate resources must be ensured to be able to quickly scale-up the level of the response when and where needed. Further, controlling outbreaks during the dry season is the only period allowing to completely cut the transmission and this requires the particular attention and effort of all stakeholders.

The GoH has made significant advances in recovering from the 2010 Earthquake and beginning to address long-term structural issues. However, there are a number of challenges that remain including;

- strengthening inter-governmental coordination and reinforce the importance of the cholera response to the various directorates
- overcome administrative constraints that are creating problems and hindering an efficient field response to cholera outbreaks. Indeed, the Haitian Health Ministry is facing a huge debt with unpaid salary to contract-based personal, amounting about US$ 1 million. Although part of the money is already at the Finance Ministry level, internal blockages impede the funds to be disbursed to MSPP. To support MSPP keeping its contractual personal until end of 2015 has an estimated cost of US$ 1.2 million.
- as per today, the available funds for community rapid response allow to cover the operation until October 2015. There is a major concern regarding the lack of resources for ensuring the continuation of the operation until the end of the coming rainy season, i.e. December 2015, even with the new ECHO contribution of 2.6 million Euros, partly because of a very low exchange rate between US$ and Euro. Therefore, the minimum estimated gap for community response (mainly UNICEF partners) is around US$ 1 million. In addition, it is worth noting that in opting to launch the TAP rather than a Humanitarian Action Plan (HAP) Haiti is not eligible for the CERF underfunded allocation anymore and despite ongoing advocacy by UNCT, there is no certainty of further CERF availability for cholera prevention in 2015, which could force NGOs partners to downscale their activity.
- address structural weaknesses within government structures to strengthen management and implementation of cholera activities.
- ensuring that cholera treatment centres are receive sufficient resources and are adequately staffed 24 hours, 7 days.
- assure timely reporting and information sharing to ensure rapid response to cholera alerts.
FUNDING

National Plan for the Elimination of Cholera in Haiti 2013 - 2022
The GoH launched its National Plan for the Elimination of Cholera on 27 February 2013. The benchmarks against which the success of the UN’s efforts to eliminate cholera will be measured include:

- the short term objective is to reduce infection rates by limiting and cutting the transmission of the epidemic and meeting the lifesaving needs of affected populations.
- by 2015, to reduce the cholera incidence rate to less than 0.5 per cent (achieved in 2014) and the global fatality rate to less than 1 per cent.
- the midterm objective is to reduce the cholera incidence rate to less than 0.1 per cent and global fatality rate to 0.5 per cent by 2017.
- the long-term objective is to reduce the cholera incidence rate to less than 0.01 per cent by 2022 and ensure Haiti is less vulnerable to the disease by improving water and sanitation services and hygiene practices.

There are four pillars of the national cholera elimination plan:
1) epidemiological surveillance
2) health promotion
3) medical treatment
4) water, hygiene and sanitation

The National Plan requires an estimated USD 2.2 billion to support large-scale development of public health, water and sanitation infrastructure. As of December 2014, 50% of the short-term plan ($486 million for February 2013 – February 2015) was funded and 18 per cent ($407 million) of the ten-year plan was funded with 12.9 per cent ($285 million) disbursed.

Ensuring that cholera operations are adequately funded throughout 2015 will be critical to maintaining and improving the gains made over the last 24 months. Sustaining the same response capacity at least is indeed a sine qua non condition to control cholera in 2015 and to continue seeking a quick elimination in 2016.

National Sanitation Campaign
The National Sanitation Campaign has an estimated US$310M ($228M for WASH and $82M for health) over the next 3 years. A further US$70M is needed for investments in Water Supply in Port au Prince. In support of the initiative, UNICEF is focusing on rural water and sanitation and so far has mobilized US$13 million through Canada and Japan and has internally allocated US$1.38 million. The World Bank has so far mobilised $50 million for a period of 5 years leaving a current gap of $315.32 million. Water and sanitation activities are being implemented in 8 Communes located in the 3 Departments supported by Canada, Japan and UNICEF thematic funds.

The Haiti Transitional Appeal 2015-2016 (TAP)
The TAP was launched 11 March to replace the Humanitarian Action Plan 2014, to serve as a bridge between planning cycles and act as a planning and advocacy tool. UNICEF and PAHO/WHO worked closely with MSPP and DINEPA on the cholera pillar 2 which aims to; i) ensure a rapid and effective response to cholera outbreaks, ii) while supporting national capacity for epidemic preparedness and response and closing gaps in the provision of basic social services that permit disease to emerge and take hold. The TAP pillar 2 prioritises key activities over the
next 2 years with a budget of US$107.4 million (US$47.6 for result 1 and US$59.8 for result 2), of which US$27.1 million has been funded leaving a gap of US$43.7 million.