HEALTH CLUSTER BULLETIN

CHOLERA AND POST-EARTHQUAKE RESPONSE IN HAITI – FRIDAY, APRIL 15, 2011 – #23

Highlights

- The number of cholera cases nationwide continues to decrease. The number of cases in Northeast, Centre, Port-au-Prince, North, Northwest, Artibonite, West (except Leogane-Gressier), South, Grande Anse and Southeast departments are stable or decreasing. However, cases in Nippes and West (Leogane-Gressier) are increasing (although only slightly in the West).
- The continued decrease of cholera cases together with the phasing out of health actors from cholera treatment facilities has raised concerns about the capacity to cope with a potential increase in cases during the upcoming rainy season. The impact on the health sector is important given that the management of the cholera outbreak has been highly dependent on the support of foreign health organizations. A gap analysis is underway to identify potential risk areas and to sensitize donors to maintain their support to the cholera response.
- An independent evaluation mission has arrived in Haiti to assess the efficiency and effectiveness of the coordinated national and international response to cholera, both in terms of immediate and medium term impact. The results will assist the MSPP and its international and national partners to draw lessons from successes and shortcomings, and improve the joint response in case of a possible recurrence of the epidemic especially due to the upcoming rainy season.

Dear health partners,

In view of the upcoming rainy season and a possible upsurge in cholera cases, the Health Cluster coordination is continuously updating information regarding the number of operational CTCs and CTUs, and gathering information regarding the short and medium term future plans of health actors. This information is essential in order to better coordinate the response to any health hazard in the country's evolving environment.

Health Cluster Coordination

When cholera hit Haiti, WHO provided funds for the cholera treatment unit in the Pernier Hospital.

The Ministère de la Santé Publique et de la Population (MSPP) and PAHO, the Regional Office of the World Health Organization (WHO) for the Americas, coordinate the Health Cluster. **MSPP Cluster Contacts:** Dr. Claude Surena; Dr. Jean Hugues Henrys; **PAHO/WHO Contacts:** Dr. Juan Carlos Gustavo Alonso; Dr. Josep Vargas

Health Cluster partners are asked to contribute to this bulletin with information on needs and activities as well as corrections to content, by emailing hai.clustersante@paho.org (subject heading: Health Cluster Bulletin). For useful information on meetings, guidelines, and CTC, CTU, and health facility locations, visit: http://haiti.humanitarianresponse.info.

Situation Overview

- 4 April 2011, the cumulative number of reported cholera cases was 274,418, including 4,787 deaths. The observed cumulative incidence of cholera cases since the beginning of the outbreak was of 26.2 per 1,000 inhabitants, ranging from 4.9 per 1,000 in the Department of South-East to 40.3 per 1,000 in the Department of Artibonite.
- Overall, the number of medical staff from health partners has been reduced in most CTCs and CTUs. Medical staff has been trained and is currently employed in the CTUs established in health centers. NGOs are mostly phasing out due to the decrease in cholera cases or due to the lack of funding. However, health partners continue to provide support to maintain regular training and refreshment courses for local medical staff, and maintain a surveillance system to monitor the evolution and assessment of the potential need to reactivate their response.
- Apart from the essential work of the NGOs, it is important to mention the role of the Cuban Medical Brigade (CMB) as well. The CMB treated a high percentage of cholera and diarrhea cases during the epidemics through a network of CTCs and CTUs. They built up belts of community workers around each CTC and CTU, thus ensuring prevention and health promotion activities that accompanied the efforts to save lives at the treatment centers. The CMB also deployed active research brigades, who go to the difficult to reach sub-communes to investigate and treat cholera cases, thereby diminishing the "silent zones".
- The criteria for closing down cholera facilities and for phasing out NGOs from cholera facilities are well established, and there is an effort to maintain sufficient supplies and medical materials at the cholera centers. Nevertheless, lack of sufficient supervision and irregular payment of salaries to local health staff represent major risks that can jeopardize the response capacity at local and departmental level in case of sudden increase in the number of cholera cases, or any other major outbreak.
- The WASH sector remains of paramount importance. The chlorination of water systems and water trucks delivering water to the metropolitan areas has been a huge progress, despite the challenges that this method still faces. Attention needs to be paid to the private companies and the alternative treatment systems being used so as not to have resurgence within the urban areas. In rural areas, the treatment of water remains a difficult challenge.

Table 1: Cholera health structures:

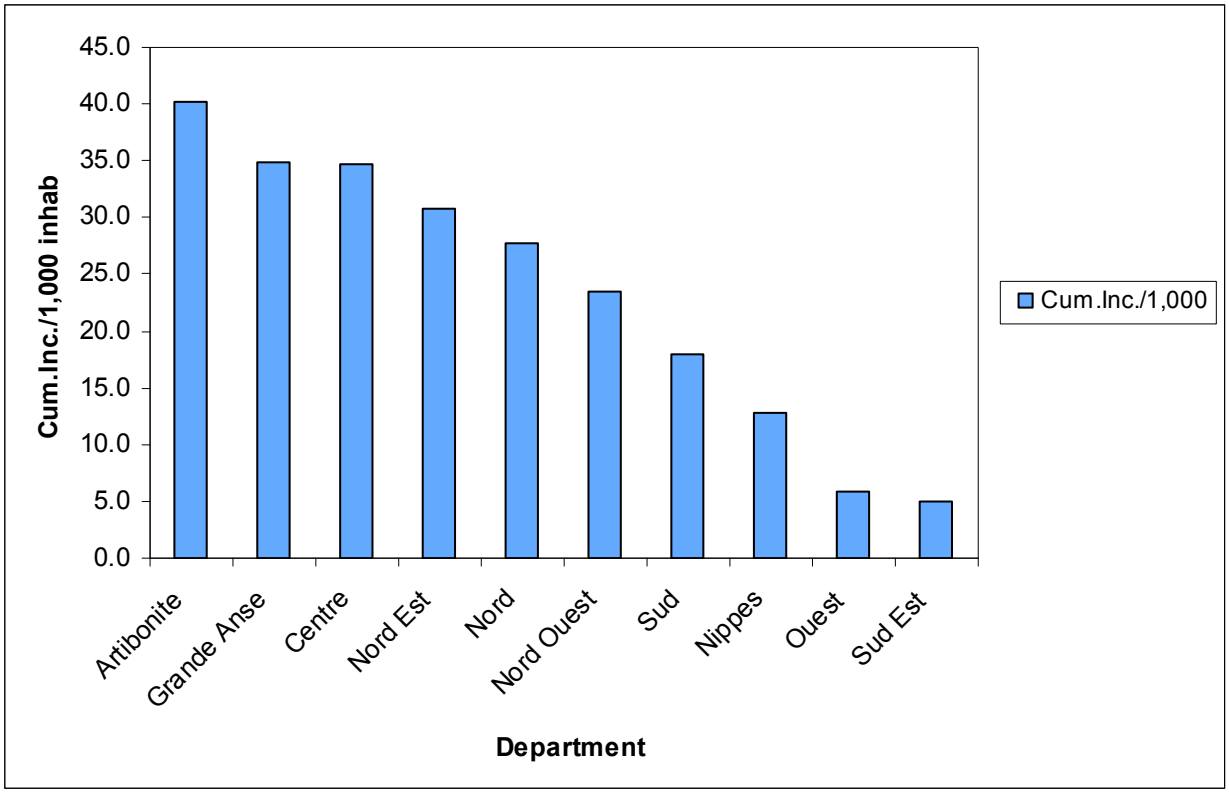
	10 Jan	16 Jan	23 Jan	30 Jan	6 Feb	13 Feb	16 Mar	April
Operational CTC	81	85	101	101	100	98	98	60
Operational UTC	156	129	165	185	188	215	214	219
ORC	s/o	298	786	778	774	642	692	783

Epidemiological Surveillance

Indicator-based component

Between 20 October 2010 and 4 April 2011, the cumulative number of reported cholera cases was 274,418, including 4,787 deaths. The observed cumulative incidence of cholera cases since the beginning of the outbreak was of 26.2 per 1,000 inhabitants, ranging from 4.9 per 1,000 in the Department of South-East to 40.3 per 1,000 in the Department of Artibonite (Figure 1).

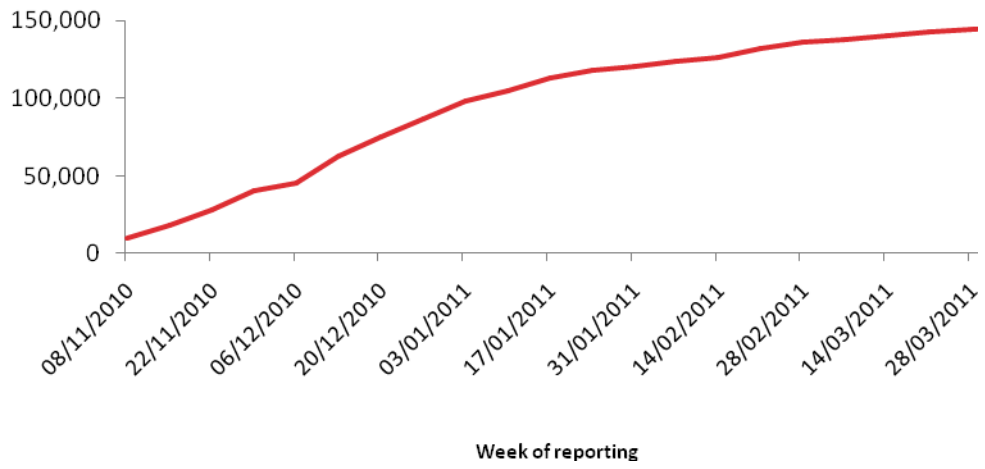
Figure 1: Cumulative incidence of reported cholera cases (number of cases per 1,000 inhabitants), by Department, 20 October 2010 – 4 April 2011



The overall observed case fatality ratio was 1.7%, ranging from 0.8% in Port-au-Prince to 7.7% in the South-East department. Since the beginning of the outbreak, at least 88.7% of the reported cases were observed among individuals aged 5 years or more (240,648 out of 271,298 individuals for whom the age is known). The proportion of cases observed in children under 5 years range from 5.7% in the North department to 14.2% in Port-au Prince and in the Artibonite department.

Of the total number of reported cholera cases as of 4 April 2011, 53.4% (146,686) has been hospitalized since the beginning of the outbreak (Figure 2).

Figure 2. Cumulative number of hospitalized cholera cases by week of reporting (N=146,686). Haiti, 8 Nov 2010 to 4 April 2011.



During the month of March 2011, the overall downward trend of the cholera outbreak observed since the beginning of the year has continued, stabilized at around 2,000 new hospitalizations per week during the last weeks (1,838 new hospitalizations reported during week 29 March-4 April 2011) (Figure 4). Port-au-Prince accounts for 30% of the hospitalized cases reported during 29 March to 4 April 2011, followed by the West department with 12%. With respect to the previous week, increases in the number of hospitalized cholera cases were registered in West and North-West departments. Of note, current developments in the cholera epidemic reveal the need for laboratory diagnosis in order to distinguish between other causes of diarrhea and cholera.

Figure 3: Cumulative incidence of reported cholera cases (number of cases per 1,000 inhabitants), by Department, 1 March 2011 – 4 April 2011

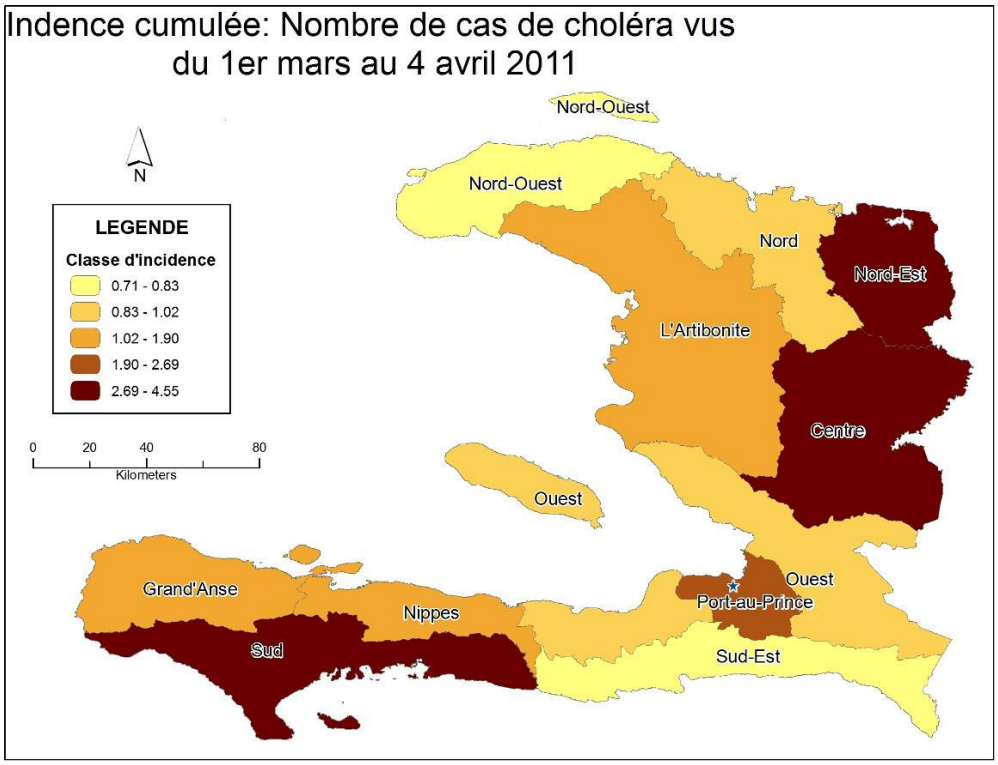
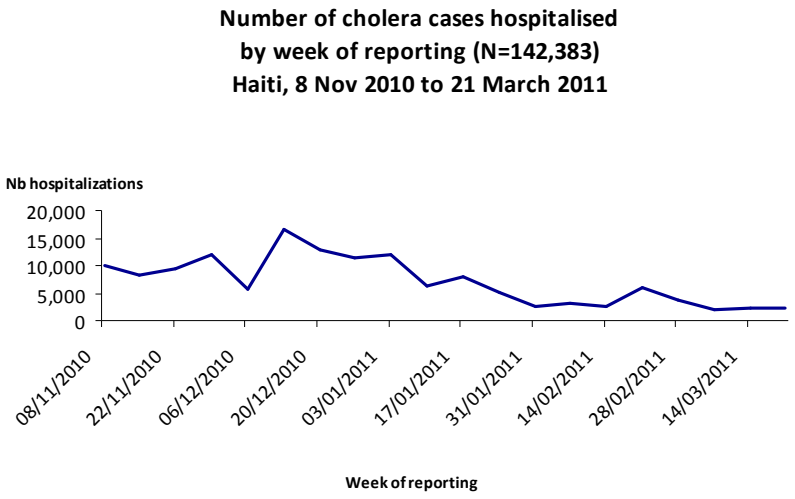


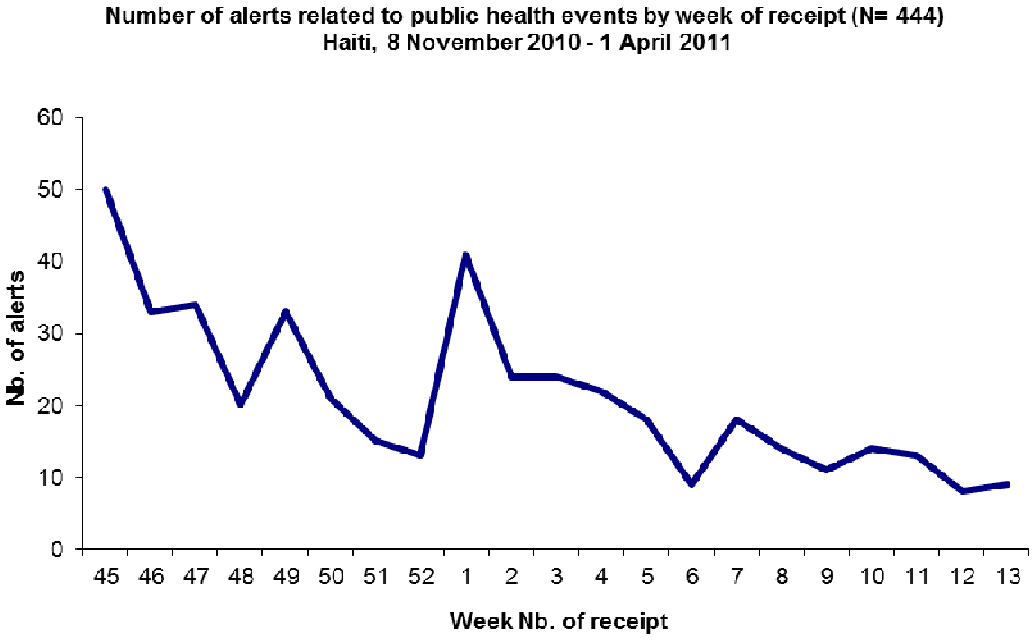
Figure 4. Number of hospitalized cholera cases by week of reporting (N=146,686). Haiti, 8 Nov 2010 to 4 April 2011.



Event-based component (alerts)

The number of daily alerts received from partners in the field is leveling off. The alerts are increasingly reflecting hazards other than cholera and cholera hot spots in remote areas (Figure 5), including the rainy season, elections, phasing out of CTCs and CTUs, and calls by health authorities and partners involved in surveillance activities for heightened attention at the health care facility and community level .

Figure 5



Wash (Environmental Health)

PAHO/WHO continues to support the MSPP in identifying needs and priorities for the improvement of sanitary conditions of the health centers in several departments through water sanitation networks and

waste management. Environmental health is an essential part of the long term fight against the spread of cholera and other diseases related to water and sanitation management.

The financial resources of numerous NGOs that ensured drinking water distribution and removal of excrement from latrines and septic tanks in Port-au-Prince are running out or have been exhausted. Transition strategies offer only a limited solution, and serious concerns exist with regard to access to drinking water and adequate public health conditions.

Mental Health

The working group that formulates the Mental Health Policy and the National Plan continues to be dynamic. This group consists of the MSPP, PAHO/WHO, national and international mental health actors and several experts from universities (Toronto, and Montreal). The drafting of the national policy document is currently being finalized.

The list of essential psychotropic drugs for the country is in its final stages of development and the proposal will be submitted to the MSPP by mid-April. The WHO-AIMS is in its final phase, consisting of the compilation of data and development of the evaluation report.

Health Promotion

The final version of The Ways of Working (WOW) document on hygiene promotion will be circulated starting 6 April. It systemizes the lessons learned formulated during the Hygiene and Sanitation Promotion Workshop (Haiti 2010) held at Moulin Sur Mer on 11-12 March.

Nutrition

To continue to reinforce MSPP capacity, PAHO/WHO has provided support for the development and reproduction of 500 copies of the Global Acute Malnutrition (GAM) management protocols that were provided to the MSPP in September 2010. With the cholera outbreak, PAHO/WHO has provided support to the MSPP to update the Protocol, taking into account the care of malnourished children suffering from cholera.

New growth standards: In May 2010, PAHO/WHO took the lead in MSPP adopting new growth standards, and later by professional associations and partners. Based on these new standards, PAHO/WHO has supported the MSPP in the review of the "chemen lasante" map, thereby creating the opportunity to dispose of a draft of a child nutrition and health booklet since February 2011.

Revision of the IMCI: In order to make the necessary adjustments based on new WHO recommendations and on the new national protocol for GAM management, PAHO/WHO is offering support for the review of current IMCI standards. The review of the national nutrition policy is underway.

Fortification: In order to prevent micronutrient deficiencies, the technical nutrition committee that support to the MSPP is currently conducting discussions on fortification of wheat flour with micronutrients.

Post Earthquake Health Surveillance

World TB Day, which took place on March 24th 2011, is designed to build public awareness that tuberculosis remains an epidemic, causing several million deaths each year, mostly in developing countries.

This year, Haiti's National TB Program of the Ministry of Health commemorated the World TB Day by organizing a Ceremony to launch the Reconstruction of the TB Hospital of Leogane, which was totally destroyed by the 2010 Earthquake. The Leogane center received the most significant number of TB cases in the country, and its loss resulted in an enormous challenge for TB services.

The meeting was aired on Haitian National Television and was attended by all national and international TB partners. The reconstruction will be done by Italian NGO INTERSOS, with technical support by PAHO/WHO and additional support by the Japanese Embassy.

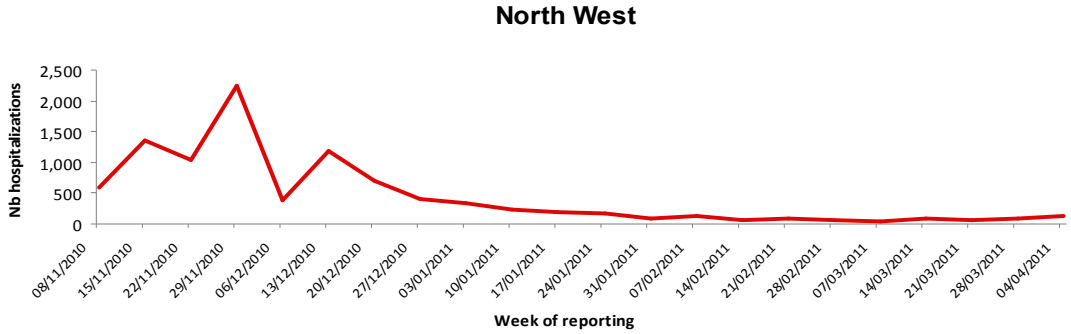
Situation by Department

In the sections situation by departments, the following information is presented: (i) trends of the cholera epidemic (number of reported hospitalized cholera cases by week of reporting, from 8 November 2010 to 4 April 2011; source: MSPP, http://www.mspp.gouv.ht/site/index.php#); (ii) trends and figures provided by the PAHO/WHO Teams at Departmental level; (iii) alerts regarding public health events received since the publication of Issue 22 of the Health Cluster Bulletin, published on 25 March 2011.[1]

Northwest

The overall trend of cholera activity is stable. No hotspots in the department reported.

Figure 6: Number of reported hospitalized cholera cases by week of reporting, from 8 November 2010 to 4 April 2011



North

The overall trend of cholera activity is stable or descending in the different localities and partners are on watch for new outbreaks especially in the following communes: Pignon, Cap-Haïtien, and Quartier Morin. Activities are now focusing on the set up of community brigades and the identification of health structures that can care for cholera patients. The weekly average of cholera cases reported daily is presented in Table 2.

Table 2

Week 7	Week 8	Week 9	Week 10	Week 11
58	73	74	46	50

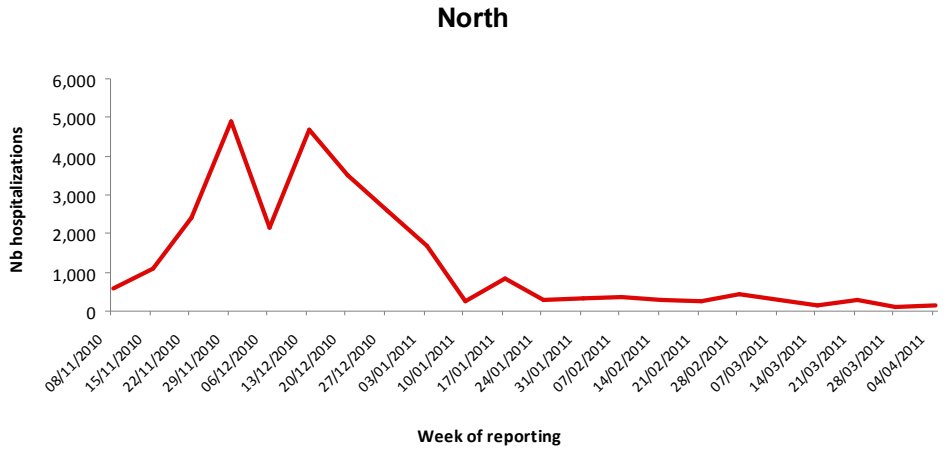
The closure of the CTC in Fort Liberté implies that there will be no surveillance of cholera cases at the Fort Liberté commune.

No hotspots in the department are reported.

[1] *Source routine surveillance data: Ministère de la Sante Publique et de la Population (MSPP), http://www.mspp.gouv.ht/site/index.php#, as of 28 February 2011. Note: Data presented should be interpreted cautiously as these are continuously corrected and updated (e.g. for some weeks, the cumulative number of cases may be lower than in the previous week; incomplete reports in some departments). Also there might be discrepancies between data presented in this section and those provided by partners and PAHO-WHO Teams deployed at Departmental levels and presented in the dedicated section.*
Data provided by the Directions Departmental de Sante and partners to the PAHO/WHO Teams in the field.

Source event based information: alert scheme currently maintained by the Pan-American Health Organization / World Health Organization in Haiti.

Figure 7: Number of reported hospitalized cholera cases by week of reporting, from 8 November 2010 to 4 April 2011



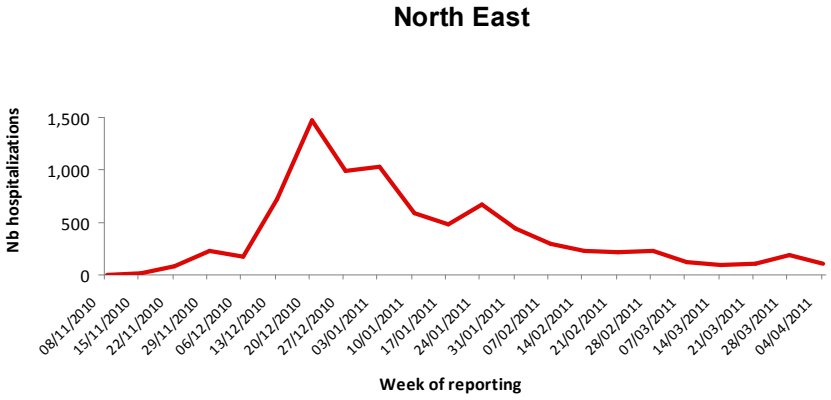
Northeast

The overall trend of cholera activity is decreasing in all communes with the exception of the commune of Perches. 20 cases were reported in week 11 compared to 11 cases and 7 cases in week 10 and week 9 respectively. Cases came from Forest 1 and Forest 2, Haut Camp, Maquillon, Acousandil, Bas de Perches and Zinipaille. The majority of these localities are isolated and sensitization campaigns and water treatment solutions haven't reached them. Following this increase in cases, health staff in the area was strengthened by MERLIN, and MSPP sent community brigades to sensitize the population and distribute aquatabs. A joint MSPP-PAHO investigation following this notification showed important issues regarding the quality of reporting of cholera cases, with a significant over reporting (3 fold) of actual cases. The communes reporting more cases were Ouanaminthe (37) and Trou du Nord (19). The weekly average of cholera cases reported daily is presented in Table 3.

Table 3

	Week 6	Week 7	Week 8	Week 9	Week10
Average of cases reported daily	77	60	39	24	26

Figure 8: Number of reported hospitalized cholera cases by week of reporting, from 8 November 2010 to 4 April 2011



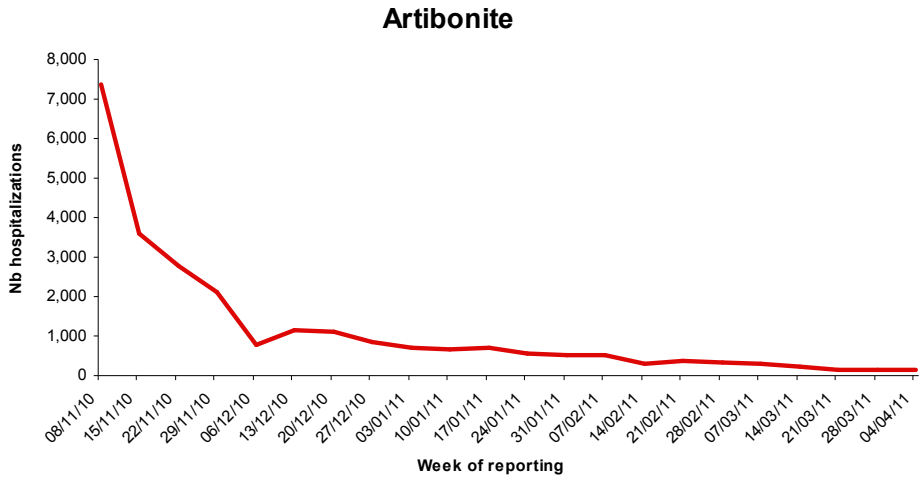
Hotspots in the department include:

- 24 mars 2011: An increase in cases of diarrhea among children under 3 years old was reported in the commune of Ouanaminthe. From March 11, 2011, 21 patients were admitted while the average per week is 2-3 patients. Samples were taken and sent first to the LNSP and then to CDC, Atlanta.
- 29 mars 2011: Increase in the number of cholera cases in the Commune of Mombin Crochu with 45 patients hospitalized in three days. A CTU was installed by MERLIN in response to this event.

ARTIBONITE

The overall trend of cholera activity is stable, and the number of cases continues to decrease. Case management by NGOs and agencies is decreasing, as the approach shifts now to a more community based effort (ex: brigades). Reference centers will need to be supported in order to deal with the increased workload, especially during the rainy season. The support will need to be operational (logistics, materials, even financing) as well as technical.

Figure 9: Number of reported hospitalized cholera cases by week of reporting, from 8 November 2010 to 4 April 2011



Hotspots in the department include:

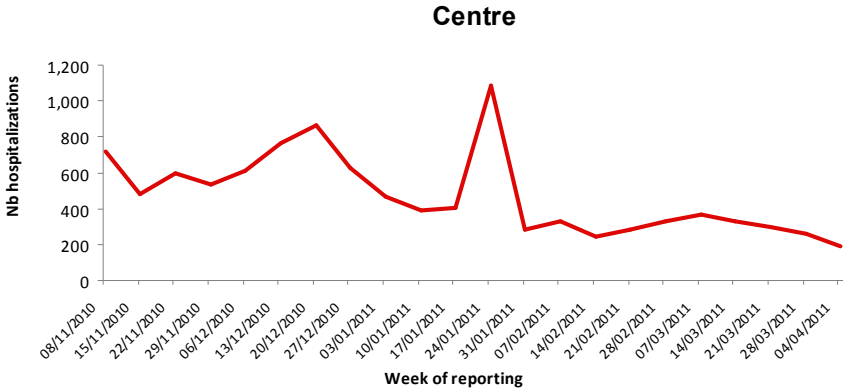
- 21 March 2011: Increase in the number of cholera cases in Saint-Michel de l'Attalaye where 206 patients and 5 community deaths were registered in 2 weeks (mainly coming from the 6th Section Lacedras). The major cause for this increase is the consumption of water from contaminated sources. In addition, the decrease in oral rehydration centers makes it more difficult for isolated populations to access early treatment.
- 28 March 2011: 2 suspected cases of diphtheria have been notified, one concerns a 6 year old boy at the Hospital Albert Schweitzer in Deschapelles and the other a 11 year old boy in Hatte Desdunes who died on 28 March 2011.
- 3 April 2011: In St. Michel de la Attalaye, Verette and Goyavier, ongoing outbreak of Varicella Zoster Virus. An MSPP epidemiologist is aware of this problem and coordinating the follow up.

Note: Recent suspected cases of measles reported in the Artibonite Department were clinically compatible with varicella (usually diagnosed as "rougeole a gros grain"). The last case reported 2 weeks ago in a 7 year old boy clinically compatible with varicella was sampled, with results pending, in Petit Riviere de l'Artibonite.

Center

The overall trend of cholera activity is decreasing.

Figure 10: Number of reported hospitalized cholera cases by week of reporting, from 8 November 2010 to 4 April 2011



Hotspots in the department include an increase in the number of cholera cases :

- In Bocbanic until Friday April 1st, 3 deaths and 10 cases were reported to the CTC of Cerca Lassource.
- In Thomassique until April 1st, 21 cases have been notified. The majority of these cases originated from Mateguasse and Dalegrand.
- In Decauville, close to the Lake Peligre, but under administrative jurisdiction of the Commune of Lascahobas, 71 cases have been reported.
- In Savanette, on April 6, 27 cases have been reported at the health center, originating from Raspadou and Dovilia. The Layaye section and the town of Gabourette are affected as well, but exact data have not been provided.

Action: The field team from the Centre department has been informed, as well as the CMB, and are verifying this alert and evaluating the needs in cooperation with the Departmental Office. The field team informed that PAHO and other partners are already intervening in Savanette.

West

Leogane-Gressier

The overall trend of cholera activity is stable with a slight increase of cases in week 11. No deaths have been reported in the CTCs and CTUs in week 12.

Figure 11: Number of reported hospitalized cholera cases by week of reporting, from 8 November 2010 to 4 April 2011

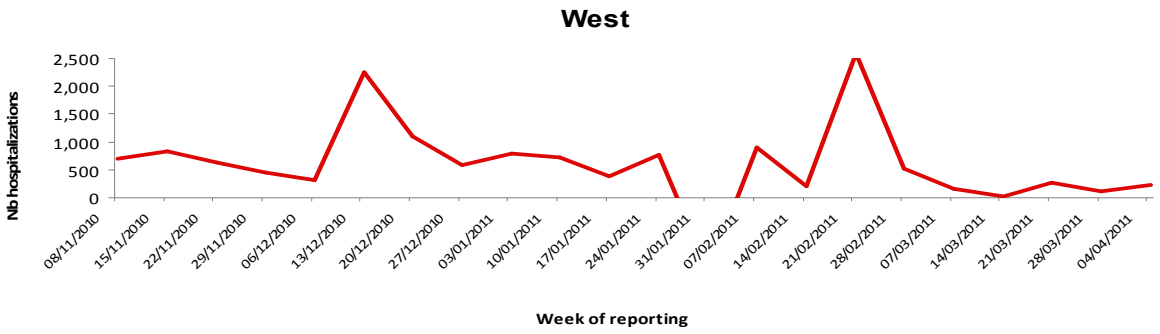
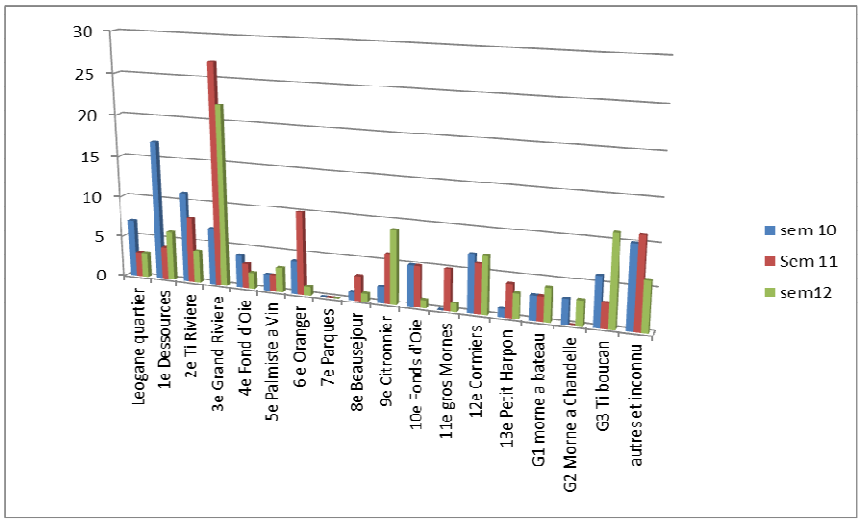


Figure 12 shows the origin of the cholera hospitalized cases during the last 3 weeks. For week 12, the majority of cases came from 3ième Grande Rivière, especially from Mapou Boussonière and Fayette in Gressier.

Figure 12: Cholera hospitalized cases by commune (weeks 10-12)



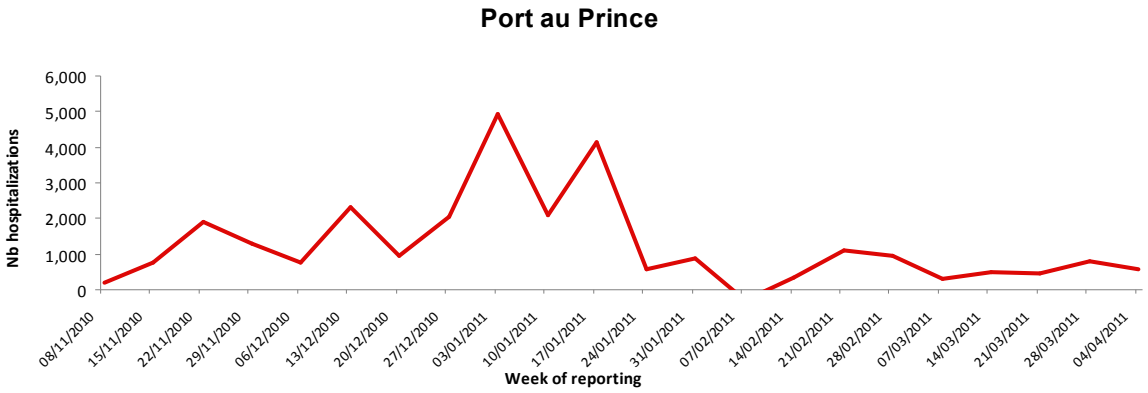
Hotspots in the department include:

- 24 mars 2011: Outbreak of 34 cholera cases in the sub-commune La Feote, commune of Croix des Bouquets. No deaths reported. The BMC went on site and carried out control and health promotion activities. The source was identified to be a small river in the area.
- 31 Mars 2011: Two suspected cases of measles were reported on 14 and 16 march 2011 in Petit-Goave and another case was notified in Delmas in the Camp Terrain Golf of JP/HRO. Sensitization activities were carried out regarding the need for early notification of suspected cases of measles. Patients could not be traced back due to the lack of information and the delayed reporting. However, there are reports of outbreak of varicella, a disease that is frequently diagnosed as measles in Haiti.

Port-au-Prince

The overall trend of cholera activity is decreasing.

Figure 13: Number of reported hospitalized cholera cases by week of reporting, from 8 November 2010 to 4 April 2011



- 22 March 2011: A suspect case of diphtheria was notified at the HUEH in a 3 year old girl. The child died. Though laboratory results have been negative, these have to be taken with precaution given the fact that the samples were taken after the start of the anti-biotherapy.

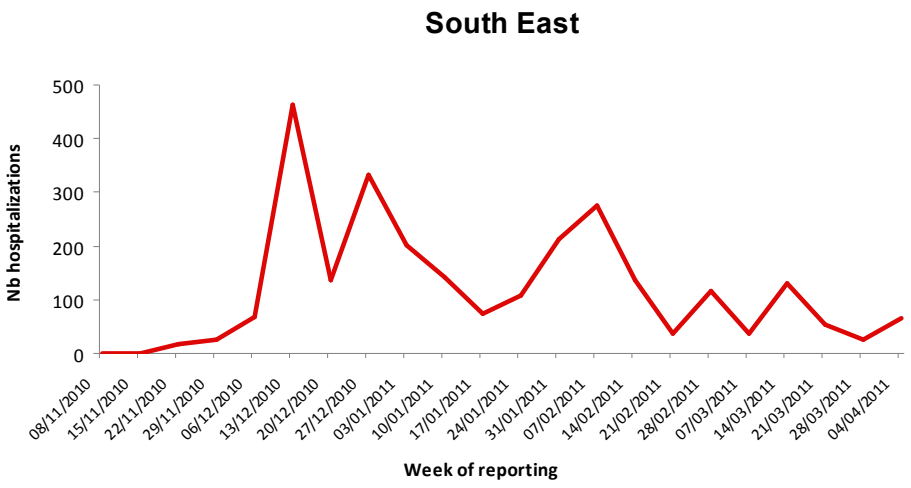
- 23 March 2011: Two suspect cases of measles were reported in the Camp ISA of IMC in Tabarre. Patients are a 3 year old girl and a 4 year old boy that presented with a popular and erithematose eruption. Cases could not be traced back.

- 24 March 2011: Fourfold increase in cholera cases in the Camp/ CTC La Piste- Cholera, coming from Rue Charlotin and Grande Rue. The NGO Vivario has carried out awareness raising activities, has disinfected 14 houses and has distributed hygiene kits. Aquatabs will be provided by PAHO/WHO.

Southeast

The overall trend of cholera cases is decreasing. Weekly incidence of new cholera cases seen in week 12 of 0.1 cases per 1000 is similar to that observed during the previous week. However, there was an increase in community deaths (7) over the week ending 18 March. This increase may be due to the rains in the department on previous days. For week 12, the number of cases at the departmental level was very low. Only 35 cases have been reported.

Figure 14: Number of reported hospitalized cholera cases by week of reporting, from 8 November 2010 to 4 April 2011



Hotspots in the department include:

- 30 March 2011: An alert regarding 25 to 30 cholera cases with 5 fatalities in Cotes de Fer was investigated and 19 cases and 1 death were confirmed for 3 days. Most of the cases were from 11eme Aquin in the Department of Sud or from Cotes de Fer city. Cases were being seen in Fond des Blancs.

Figure 15: Weekly incidence per 1,000 inhabitants by commune Dept of South-East, 26 February - 26 March 2011

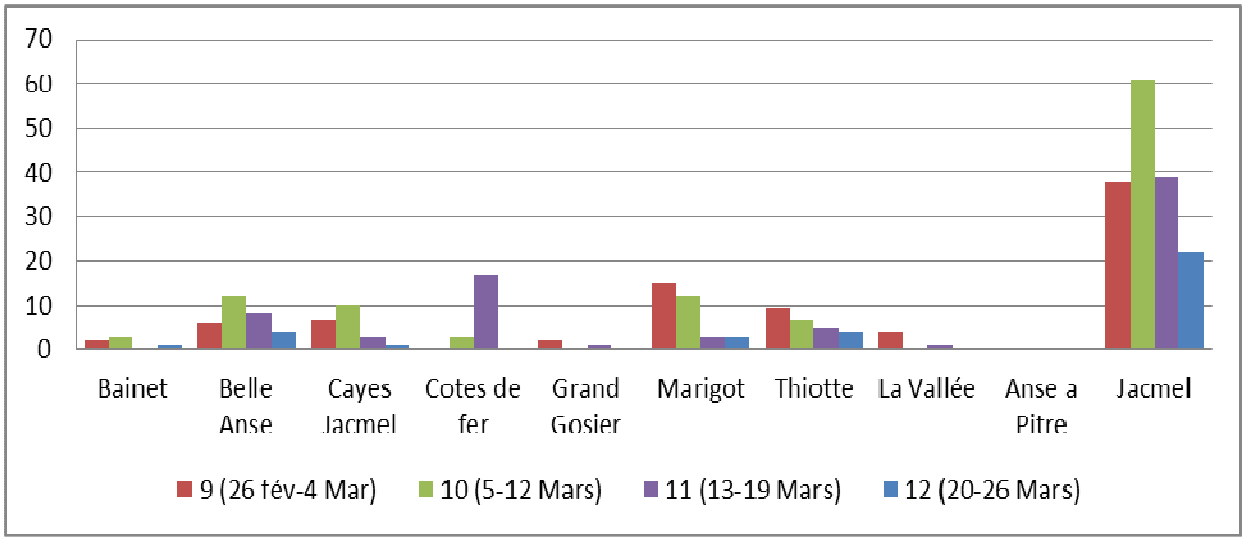
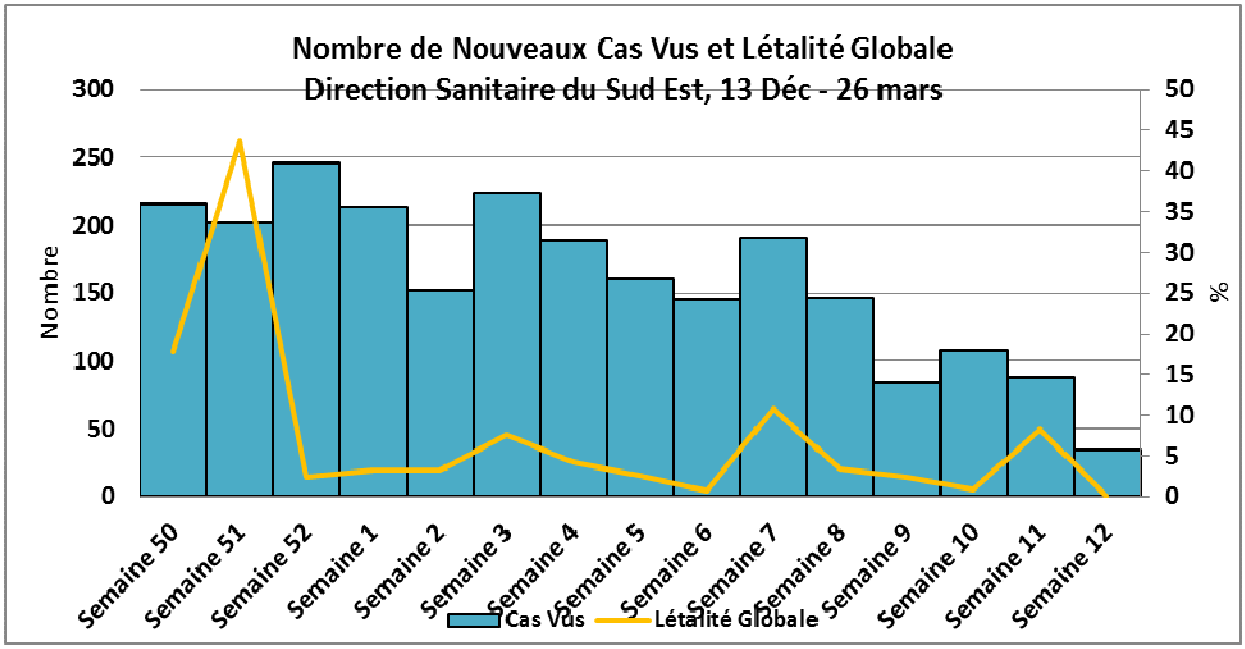


Figure 16: Number of reported cholera cases and overall case fatality ratio. Dept. of Sud-Est, 13 December 2010 - 26 March 2011.



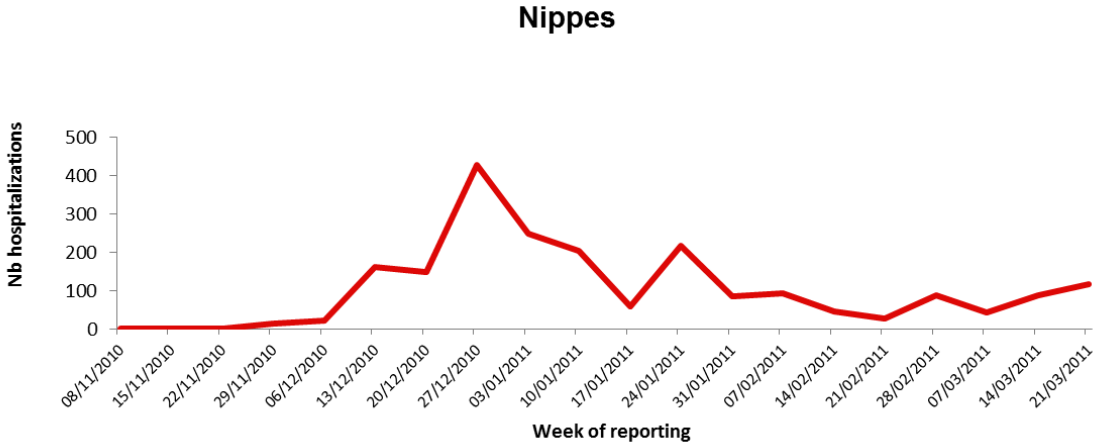
Note: St. Michel, Jacmel- Cholera / strike; the strike continues at St. Michel hospital, where cleaning staff has completely stopped working and the UTC has become very dirty. The peak in week 7 is most likely attributable to faulty data entry.

Action: The MSPP has reported that with UNICEF's help, they will be able to provide contracts for staff on Monday, 11 April. The MSPP has requested PAHOs help to carry out an emergency disinfection and cleaning of the UTC.

Nippes

The overall trend of cholera activity increased. No hotspots in the department reported.

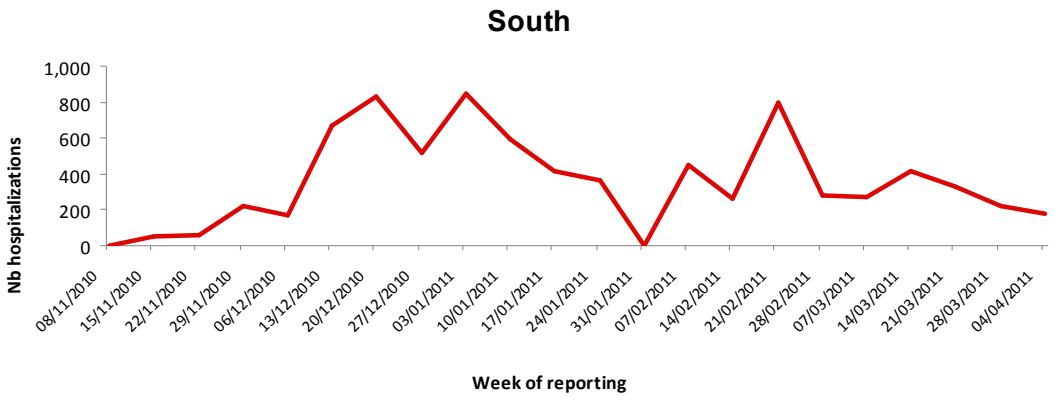
Figure 17: Number of reported hospitalized cholera cases by week of reporting, from 8 November 2010 to 4 April 2011



South

The overall trend of cholera activity is decreasing.

Figure 18: Number of reported hospitalized cholera cases by week of reporting, from 8 November 2010 to 4 April 2011



Hotspots in the department include:

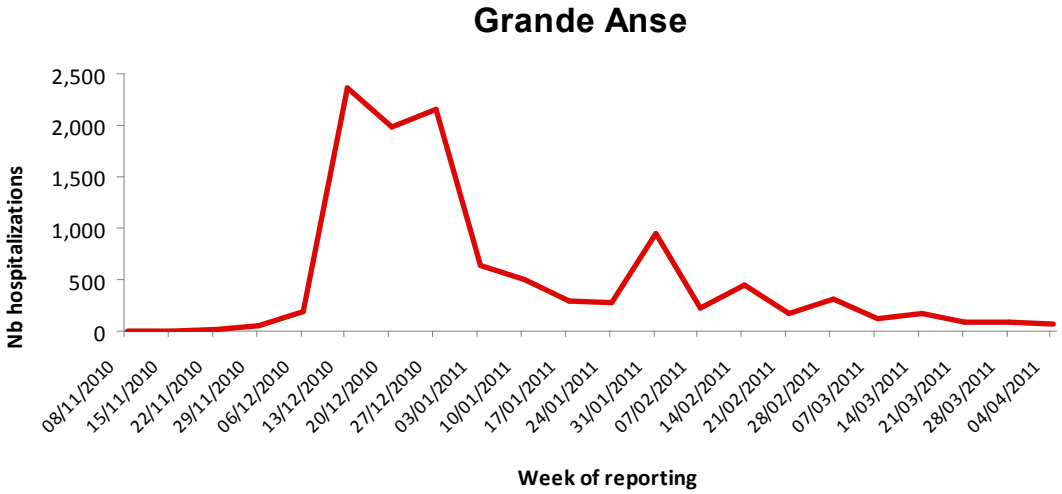
- 21 March: In Randelles, Commune Chardonnière, an initial alert received on 17 March 2011 indicates cholera cases without access to cholera treatment facilities.

Action: PAHO/WHO has deployed and established an emergency CTC in Chardonniere with a medical team of the Japanese Red Cross.

Grande Anse

The overall trend of cholera activity is decreasing.

Figure 19: Number of reported hospitalized cholera cases by week of reporting, from 8 November 2010 to 4 April 2011



Hotspots in the department include:

- 23 Mar 2011: Water supply in Pestel remains a challenge. A WASH consultant from PAHO- WHO has visited the area to assess the situation. For the time being, a private water truck will supply the population until a permanent installation can be set up.

A list of most frequently-used acronyms related to the response to cholera in Haiti is available at

http://new.paho.org/hq/index.php?option=com_docman&task=doc_download&gid=11788&Itemid=