Epidemiological Alert:
Weekly update on the Cholera situation
EW 5 (January 30 to February 5, 2011)

(Published on 23 February 2011)

Summary

Haiti

During the epidemiological week 5 of 2011, at national level, Haiti registered an increase in the weekly incidence rate, which went from 8.1 cholera cases per 10,000 inhabitants in EW 4 to 11.4 cases per 10,000 inhabitants in EW 5. This was linked which is an increase of 5.2 % in the new case registered when compared to the previous week.

At subnational level, three departments registered an increase in their weekly incidence rate (Nord, Nord Est and Ouest).

The in-hospital case fatality rate, at national level, was 2.4% for EW 5; while the overall case fatality rate for the same period was 2.0%.

Dominican Republic

The Dominican Republic Ministry of Health reported a total of 380 laboratory-confirmed cases of cholera from the beginning of the outbreak to EW 5.

The objective of this alert is to present the current epidemiological situation of the cholera outbreak in Haiti and the Dominican Republic updated as of epidemiological week (EW) 5, 2011. The information that is presented in this epidemiological alert has been provided by the Ministère de la Sante Publique et de la Population (MSPP) de Haiti and by the Dominican Republic Ministry of Health.

Haiti

Since the beginning of the cholera outbreak[1] as of Epidemiological Week (EW) 5 of 2011, the MSPP registered a total of 228,038 cholera cases of which 53.9% (122,880) required hospitalization[2] and 2.0% (4,532) died (global case-fatality rate).

New cases per week

During the EW 5, there were 11,762 new cases and 421 new deaths registered. At national level, in this week, an increase in the weekly incidence rate with respect to the previous week was observed, from 8.1 to 11.4 per 10,000 inhabitants.

All departments recorded new cholera cases; nevertheless, an increase in the weekly incidence rate was registered only in three departments (Nord, Nord Est and Ouest). In the other seven departments a decrease in the weekly incidence rate was observed.

[1] On October 20, 2010 the first cases of cholera (*V. cholerae* O: 1 serotype Ogawa) are confirmed by via laboratory testing in patients hospitalized in the department of Artibone.

[2] A case of cholera is defined as a patient with profuse, acute, watery diarrhea, in a resident of a department in which at least one laboratory confirmed case of cholera exists. Hospitalized cases are when a patient is admitted to a health establishment (a hospital or cholera treatment center) during at least one night. A death due to cholera is the death of a person with the cholera disease that satisfied the definition of cholera cases. Any death that occurs due to cholera that happens in a health establishment, even if this person is admitted at night or in the morning is considered a hospital death due to cholera.

Hospitalizations trend and in-hospital case fatality rate

At national level, a slighted increase (33.3%) in the number of new hospitalizations was registered, comparing to what was recorded the previous week. All departments registered during the EW 5 new hospitalizations due to cholera. Artibonite, Nord, Sud and Sud Est registered the greater increase of hospitalizations during EW 5, comparing with the previous week. In contrast, Grand Anse, Centre, Nord Est, Nord Ouest and Nippes have reduced the number of new hospitalizations due to cholera.

The hospital case-fatality rate at the national level -that is, the proportion of deaths between patients hospitalized for cholera- in EW 5 was 2.5%, duplicating the case-fatality rate presented in EW 4, which was 1.0%.

Global case fatality rate and in-hospital case fatality rate

The global case fatality rate of the cholera epidemic, which is the total number of deaths registered divided by the total number of registered cases, as of EW 5 was 2.0% (with a range that went from 1.4% in Artibonite, to 11.8% in the department of Sud Est).

Dominican Republic

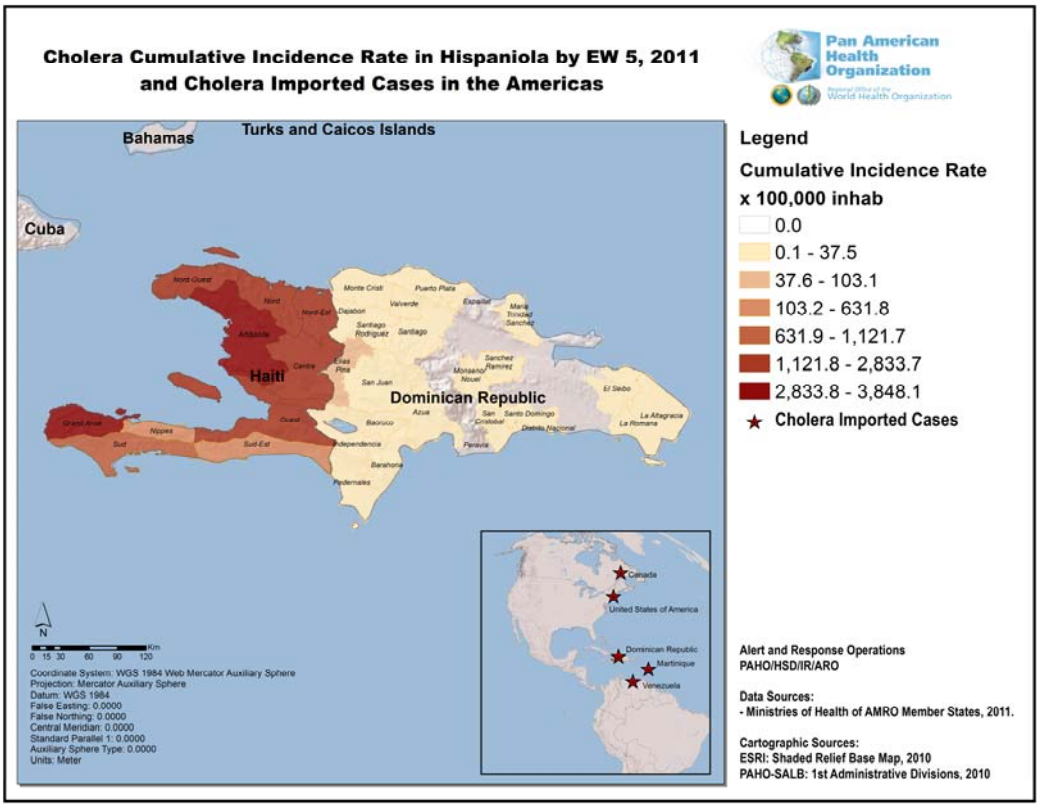
The Ministry of Public Health reported that as of EW 5, the total number of laboratory confirmed cholera cases raised to 380 (191 in 2010 and 189 in 2011), with three fatal cases.

Since the beginning of the outbreak, there have been registered cases and hospitalizations due to cholera in 22 of the 31 provinces of the country. The provinces where cases have been detected during the previous two weeks are Azua, Elías Piña, El Seibo, La Altagracia, Monte Cristi, Santiago, Santo Domingo and Distrito Nacional. The province of Puerto Plata registered case for the first time during EW 5.

The accumulative incidence rate at national level was 3.8 per 100.000 inhabitants. The province of Elías Piña has notified up to this moment the highest incidence rate with 103.1 cases per 100,000 inhabitants, followed by Independencia with 37.5 cases per 100.000 inhabitants and Pedernales with 30.9 cases per 100,000 inhabitants.

In the Bolivarian Republic of Venezuela, the information available by February 12, mentioned that there were identified 312 people with history of having participated in a wedding hold in the Dominican Republic on January, 22. Among those people, 92 were confirmed as cholera cases by laboratory or epidemiological link; 27 of which were hospitalized and 65 were treated on an ambulatory basis. No deaths were registered and no autochthonous were reported.

The genetic analysis of the *V cholerae 01, Serotype Ogawa,* isolated from cholera patients in Venezuela, performed by Pulse Field Gel Electrophoresis (PFGE) technique, showed a similar patter to those obtained from cholera strain circulating in Dominican Republic and Haiti.



Recommendations

The Pan American Health Organization reiterates to Member States that they should reinforce the following recommendations issued on October 24, 2010 and January 31 2011.

Surveillance

Under the International Health Regulations (2005) public health events that involve the risk of cholera cases should be evaluated on the basis of Annex 2 of the IHR, and –according to it- notified the WHO Contact Point for IHR.

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

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

- Monitor the trend of acute diarrhea diseases with emphasis in adult.
- Immediate notification of all suspected cases from the local to the central and peripheral level.
- Investigation of all suspected cases and clusters.
- Laboratory confirmation of all suspected cases.

In an outbreak situation the following measures are recommended:

- Intensified surveillance with the inclusion of active case finding.
- Laboratory confirmation as soon as possible.
- Weekly analysis of the number of cases and deaths by age, sex, geographical location and hospital admission.

Diagnosis

The diagnosis of cholera is established by the isolation of *V. cholerae* or by serological evidence of recent infection.

Treatment

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

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

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

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

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

Response plans must provide for coordination between treatment centers and health centers and levels of care in the communities where they located and should include the dissemination of hygiene and public health measures.

Infection Prevention Measures

The following recommendations are aimed to reduce the transmission of fecal-oral infection of cholera in the health care environment:

- Wash hands with soap and water or glycerine alcohol before and after patient contact.
- Use of gloves and gowns for close contact with patients and contact with excretions or secretions.
- Isolation of patients in a single room or of cohorts.
- Separation of beds by more than one meter.
- Cleaning of debris and organic material with sodium hypochlorite (bleach) dilution (1:10).
- Cleaning of environment with sodium hypochlorite (bleach) dilution (1:100).
- Persons who care for children that use diapers or people with incontinence must strictly follow the same precautionary measures cited above, especially those related to hand hygiene (after changing diapers and contact with excretions). In addition, it is recommended to change soiled diapers frequently.

Prevention

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

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

Key sectors that should be involved are:

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

Water supply and sanitation

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

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

Travel and international trade

Experience has shown that measures such as quarantine - to limit movement of people - and the seizure of goods, are ineffective and unnecessary in controlling the spread of cholera. Therefore, restricting the movement of people, as well as imposing restrictions on imported food produced under good manufacturing practices, based solely on the fact that cholera is epidemic or endemic in a country, is not justified.

Technical Information on cholera

The daily updates with respect to the number of cases, hospitalizations and fatalities due to cholera are published through the Interactive Cholera Map which can be found through the following link:
http://new.paho.org/hq/images/Atlas_IHR/CholeraHispaniola/atlas.htm

The report concerning the actions taken by the Health Assistance Group, at the national and department level can be found through the following link:
http://new.paho.org/hq/index.php?option=com_content&task=view&id=4404&Itemid=3487

A complete selection of technical guides and recommendations about the handling of cases, procedures for the identification of cases by laboratory and measures for the control of outbreaks in emergencies is available at PAHO's website. They can also be accessed through the following links:

In English:
http://new.paho.org/hq/index.php?option=com_content&task=blogcategory&id=3119&Itemid=3467&lang=en

In Spanish:
http://new.paho.org/hq/index.php?option=com_content&task=blogcategory&id=3119&Itemid=3467&lang=es

In French:
http://new.paho.org/hq/index.php?option=com_content&task=blogcategory&id=3119&Itemid=3467&lang=fr