Epidemiological Alert:
Weekly update on the Cholera situation
EW 6 (February 6 to 12, 2011)

(Published on 1st March 2011)

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) 6, 2011. The information that is presented in this alert has been provided by the Ministère de la Sante Publique et de la Population (MSPP) of Haiti and by the Dominican Republic Ministry of Health.

Summary

Haiti

During Epidemiological Week 6 of 2011, at the national level, Haiti registered a decrease in the weekly incidence rate, which decreased from 11.4 cholera cases per 10,000 inhabitants in EW 5 to 5.1 cases per 10,000 inhabitants in EW 6.

At the sub-national level, two departments (Centre y Grand Anse) registered an increase in their weekly incidence rate.

The in-hospital case fatality rate at the national level was 1.3% for EW 6, while the overall case fatality rate for the same period was 1.9%.

Dominican Republic

The Dominican Republic Ministry of Health reported a total of 426 laboratory-confirmed cases of cholera, including three fatal cases, since the beginning of the outbreak up to EW 6.

Haiti

Since the beginning of the cholera outbreak[1] as of EW 6 2011, the MSPP registered a total of 233,227 cholera cases of which 53.9% (125,763) required hospitalization[2] and 1.9% (4,528) were fatalities (global case-fatality rate).

New cases per week

During EW 6, there were 5,189 new cases and 38 new deaths registered. At the national level, during EW 6, a decrease in the weekly incidence rate with respect to the previous week was observed, from 11.4 to 5.1 per 10,000 inhabitants.

All departments recorded new cholera cases; however, an increase in the weekly incidence rate was registered in only two departments (Centre y Grand Anse). 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) were confirmed by laboratory testing of patients hospitalized in the department of Artibone.

[2] A case of cholera is defined as a patient with profuse, acute, watery diarrhea, who is a resident in a department in which at least one laboratory-confirmed case of cholera exists. Hospitalized cases are considered when a patient is admitted to a healthcare establishment (a hospital or cholera treatment center) for at least one night. A death due to cholera refers to the death of a person with the cholera disease that has satisfied the definition of a cholera case. Any death that occurs due to cholera in a healthcare establishment—regardless of whether this person was admitted at night or in the morning—is considered a hospital death due to cholera.

Hospitalization trends and in-hospital case fatality rate

A slight decrease (14.5%) in the number of new hospitalizations was registered at the national level, compared to the previous week. All departments registered new hospitalizations due to cholera during EW 6. Centre, Grand Anse, Nord Est, Nord Ouest, Ouest and Sud registered the greatest increases in hospitalizations during EW 6 compared to the previous week. In contrast, Artibonite, Nippes and Sud Est saw a reduction in the number of new hospitalizations due to cholera.

The hospital case-fatality rate at the national level—that is, the proportion between the number of cholera deaths and patients hospitalized for cholera—in EW 6 was 1.3%, a decrease of one point in the case-fatality rate presented in EW 5, which was 2.4%.

Global case fatality rate

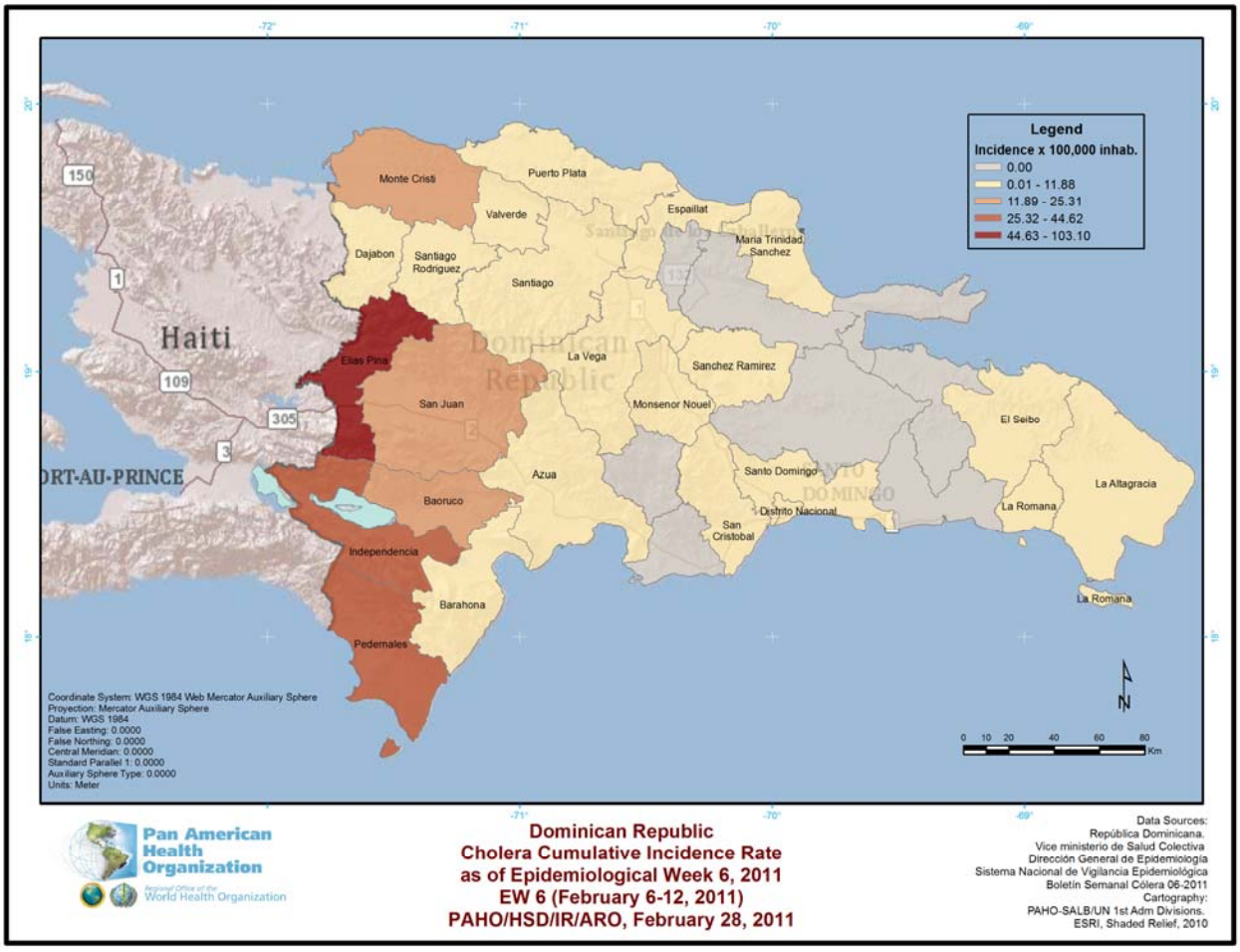
The global case fatality rate of the cholera epidemic, which is the total number of deaths registered in the country divided by the total number of cases registered, as of EW 6 was 1.9% (ranging from 1.0% in Port au Prince to 8.7% in the department of Sud Est).

Dominican Republic

The Ministry of Public Health reported that as of EW 6 the total number of laboratory-confirmed cholera cases had risen to 426 (191 in 2010 and 235 in 2011) with three fatalities.

Since the beginning of the outbreak, there have been registered cases and hospitalizations due to cholera in 24 out of the 31 provinces of the country. The provinces where cases have been detected during the previous two weeks are Azua, Elías Piña, La Altagracia, Santiago and Distrito Nacional. The provinces of Espaillat and La Vega both registered cases for the first time during EW 6.

The accumulative incidence rate at the national level was 4.3 per 100,000 inhabitants. The province of Elías Piña has registered up to this moment the highest incidence rate with 103.1 cases per 100,000 inhabitants, followed by Independencia with 44.6 cases per 100,000 inhabitants and Pedernales with 30.9 cases per 100,000 inhabitants.



Recommendations

The Pan American Health Organization reiterates to its Member States that they should reinforce the following recommendations:

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—in accordance with it—the WHO Contact Point for IHR should be notified.

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 where no cholera cases have been reported, the following is recommended:

- Monitor the trend of acute diarrhea diseases with an emphasis on adults.
- 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 satisfactorily 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 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 the production of 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 at strategic points to maximize the number of affected individuals that can be treated outside of a hospital setting and based on management protocols defined by and agreed to by all parties.

Response plans must provide for coordination between treatment centers, healthcare centers, and levels of care in the communities in which they are located and should include the dissemination of proper hygiene practices and public health measures.

Infection Prevention Measures

The following recommendations are aimed to reduce the transmission of fecal-oral infection of cholera in healthcare environments:

- 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 themselves.

A coordinated multidisciplinary approach, 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 waterborne epidemic diarrheal diseases. However, this approach may be unrealistic for those poorest populations 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, 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 or imposing restrictions on imported food produced by good manufacturing practices, based solely on the fact that there is a cholera 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 at 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 laboratories, and measures for the control of outbreaks in emergencies is available at PAHO's website. These guides 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