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Morbidity and Mortality Weekly Report (*MMWR*)

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# Cholera Outbreak --- Haiti, October 2010

*Weekly*

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*On October 28, this report was posted as an* MMWR *Dispatch on the* MMWR *website (http://www.cdc.gov/mmwr).*

An outbreak of cholera is ongoing in Haiti. On October 21, 2010, toxigenic *Vibrio cholerae* O1, serotype Ogawa, biotype El Tor was identified by the National Laboratory of Public Health of the Ministry of Public Health and Population in Haiti. Identification of the isolate was confirmed by CDC. Antimicrobial susceptibility testing of selected *V. cholerae* O1 isolates conducted at the National Laboratory of Public Health and at CDC demonstrated susceptibility to tetracycline (susceptibility to this drug predicts doxycycline susceptibility), ciprofloxacin, and kanamycin; and resistance to trimethoprim-sulfamethoxazole, furazolidone, nalidixic acid, sulfisoxazole, and streptomycin.

As of October 27, a total of 4,722 cholera cases with onset during October 21--27 and 303 deaths had been reported in Haiti (*1*). Most cases have been reported from Artibonite Department (*1*), a rural but densely settled area with several small urban centers. In addition, probable cases have been identified elsewhere in Haiti, including Ouest Department, where the capital city of Port-au-Prince is located.

Cholera is transmitted through fecal contamination of water or food and causes an acute, severe, watery diarrhea that can result in hypovolemic shock and death if not treated with fluid replacement promptly. Epidemic cholera has not been reported previously from Haiti; the population is immunologically naïve and therefore highly susceptible to infection with *V. cholerae* (*2--4*). The outbreak appears to have spread from an initial concentration of cases in Artibonite Department. An international public health response, led by the Ministry of Public Health and Population and including technical support from the Pan American Health Organization, CDC, and other governmental and nongovernmental organizations, is under way. The emphasis of the response is on 1) minimizing mortality by using oral rehydration for most cases and intravenous rehydration for severely ill patients and 2) preventing infection by promoting water treatment, adequate sanitation and hygiene, and safe food preparation (*5*).

No cases of cholera in travelers from Haiti to the United States have been reported to CDC. Cholera is notifiable in all U.S. states and territories. Clinicians should promptly report known or suspected cases of cholera to state or local health departments. Health departments that identify suspected or confirmed cases of cholera in travelers who have arrived recently from Haiti should e-mail CDC at eocreport@cdc.gov. The potential for spread in the United States is low because U.S. water, sanitation, and food systems minimize the risk for fecal contamination of food and water.

CDC has provided prevention and treatment guidance for travelers to and from Haiti online (available at http://wwwnc.cdc.gov/travel/default.aspx). Health departments, especially in areas with large

Haitian populations that might be more likely to include recent travelers to Haiti, should consider providing cholera information to clinicians. Clinicians serving Haitian populations should be aware of the recommendations for diagnosis and treatment.

More information on cholera, including recommendations for treatment, laboratory testing, and scientific publications, is available at http://www.cdc.gov/cholera. Further information regarding the outbreak in Haiti is available at http://www.cdc.gov/haiticholera.

## Reported by

*Ministry of Public Health and Population, Haiti. Pan American Health Organization. CDC.*

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