



Supportive Environments for Healthy Communities

Issue 66 August 10, 2012 | Focus on Cholera Prevention and Control

This issue updates the August 2011 Weekly on cholera prevention and control. Resources in this issue include the latest statistics from WHO by country, on the number of cholera cases, deaths and case fatality rates; and the updated WHO Cholera Fact Sheet. Other useful resources include a series of posters for Africa by CDC, and country studies from Haiti, Kenya and Zimbabwe. Links to selected 2012 videos about cholera are also included as well as links to CDC and WHO cholera-related websites.

Please let WASHplus know at any time if you have resources to share for future issues of WASHplus Weekly or if you have suggestions for future topics. An [archive](#) of past Weekly issues is available on the WASHplus website.

FACT SHEETS/STATISTICS/BIBLIOGRAPHIES

- **Cholera Fact Sheet**, July 2012. World Health Organization. ([Full text](#))
Cholera is an acute diarrheal infection caused by ingestion of food or water contaminated with the bacterium *Vibrio cholerae*. Every year, there are an estimated 3–5 million cholera cases and 100,000–120,000 deaths due to cholera. The short incubation period of two hours to five days, enhances the potentially explosive pattern of outbreaks.
- **Cholera in 2011**, *Weekly Epidem Rec*, Aug 2012. ([Full text](#), [pdf](#))
In 2011, a total of 58 countries from all continents reported cholera cases to WHO, a 16% increase in the number of countries compared with 2010. From the African continent, 27 countries reported cases, 4 more countries than in 2010. From Asia, the number of countries reporting cases increased by one from the previous year, with a total of 15 countries in 2011. In the Americas, the number of reporting countries increased from 4 in 2010 to 9 in 2011. Imported cases were reported from the Americas, Asia, Europe and Oceania.
- **Focus on Cholera Prevention and Control**. *WASHplus Weekly*, Aug 2011. ([Full text](#))

Links to some key manuals, studies and guidelines published in 2011.

MANUALS/REPORTS

- **Community Health Worker Training Materials for Cholera Prevention and Control**, n.d. Centers for Disease Control & Prevention. ([Full text, pdf](#))

This manual is intended as a tool for community health workers to use to help their communities prevent cholera illnesses and deaths. The manual consists of 13 modules with information about community mobilization, cholera, oral rehydration solution, safe drinking water preparation and storage, hand washing, sanitation, food preparation, handling a death that occurs at home, and stigma associated with cholera.
- **Guidelines for Water, Sanitation and Hygiene in Cholera Treatment Centres**, n.d, UNICEF. ([Full text, pdf](#))

Guidelines on setting up WASH services in temporary cholera treatment centers.
- **Posters for the Prevention and Control of Cholera in Africa**, n.d. Centers for Disease Control and Prevention. ([Full text, pdf](#))

These posters are designed to raise awareness about the prevention and control of cholera in Africa, including ways to make water safe.
- **Somalia: AWD/Cholera Preparedness and Response Plan**, 2012. UNICEF. ([Full text, pdf](#))

The purpose of the cholera preparedness and response plan is to establish a minimum service provision for cholera and acute watery diarrhea (AWD) outbreaks in order to control the extent and spread of AWD/Cholera outbreaks. It details which agency will coordinate response, in which locations and the protocols the responding agencies will follow.

JOURNAL ARTICLES

- **Elevation and Cholera: An Epidemiological Spatial Analysis of the Cholera Epidemic in Harare, Zimbabwe, 2008-2009**. *BMC Public Health*, Jun 2012. M Fernandez. ([Full text](#))

This study highlights the importance of considering topographical elevation as a geographical and environmental risk factor in order to plan cholera preventive activities linked with water and sanitation in endemic areas. Furthermore, elevation information, among other risk factors, could help to spatially orientate cholera control interventions during an epidemic.
- **Epidemic Cholera in Kakuma Refugee Camp, Kenya, 2009: The Importance of Sanitation and Soap**. *J Infect Dev Ctries*, Mar 2012. A Mahamud, Kenya Medical Research Institute/ Centers for Disease Control and Prevention. ([Abstract](#))

The authors conducted a case-control study to characterize the epidemiology of a

cholera outbreak. In a multivariate model, washing hands with soap was protective against cholera while presence of dirty water storage containers was a risk factor. Provision of soap, along with education on hand hygiene and cleaning water storage containers, may be an affordable intervention to prevent cholera.

- **The Global Burden of Cholera.** *Bull World Health Organ, Mar 2012.* M Ali, International Vaccine Institute. ([Full text](#))

About 1.4 billion people are at risk for cholera in endemic countries. An estimated 2.8 million cholera cases occur annually in such countries and an estimated 87,000 cholera cases occur in non-endemic countries. The incidence is estimated to be greatest in children less than 5 years of age. Every year about 91,000 people (uncertainty range: 28,000 to 142,000) die of cholera in endemic countries and 2,500 people die of the disease in non-endemic countries. The global burden of cholera, as determined through a systematic review with clearly stated assumptions, is high. The findings of this study provide a contemporary basis for planning public health interventions to control cholera.
- **Health Authorities' Leadership Reduces Cholera Deaths in Haiti,** *The Lancet, Aug 2012.* A Mohamed. ([Full Text](#))

Interviews with 11 key informants revealed several success factors that quickly contained a major cholera outbreak and reduced the number of deaths, including: strong coordination of partners by the department health authorities; quick chlorination of water sources; community education campaigns for systematic hand washing with soap; and information on how to get quickly to treatment facilities.
- **Reassessment of the 2010–2011 Haiti Cholera Outbreak and Rainfall-Driven Multiseason Projections.** *PNAS, Apr 2012.* A Rinaldo, École Polytechnique Fédérale de Lausanne. ([Full text, pdf](#))

The authors conclude that despite differences in methods that can be tested through model-guided field validation, mathematical modeling of large-scale outbreaks emerges as an essential component of future cholera epidemic control.
- **Reinforcing Cholera Intervention through Prediction-Aided Prevention.** *Bulletin World Health Organ, Mar 2012.* A Akanda, Tufts University. ([Full text, pdf](#))

Time is a critical element for reducing cholera transmission. An early warning system based on a spatially explicit cholera prediction model can potentially provide critical lead-time to deploy human and material resources and establish preventive measures in vulnerable areas ahead of impending outbreaks.

VIDEOS

- **Cholera in Haiti: Lessons from Next Generation DNA Sequencing,** Jan 2012. University of California Berkeley. ([Video](#))

Matt Waldor's presentation on "Cholera in Haiti: Lessons from Next Generation DNA

Sequencing," sponsored by the Henry Wheeler Center for Emerging and Neglected Diseases.

- **Fighting a Deadly Outbreak of Cholera in the Congo**, 2012. UNICEF. ([Video](#))
UNICEF reports on a series of initiatives to treat, combat and prevent cholera in the Republic of the Congo.
- **Oceans, Climate, and Global Infectious Disease: the Cholera Paradigm**, July 2012. Distinctive Voices. ([Video](#))
Dr. Rita Colwell, Chairman of Canon US Life Sciences, Inc. and Distinguished University Professor both at the University of Maryland at College Park and at Johns Hopkins University Bloomberg School of Public Health discusses the seasonality of diseases, including malaria and cholera, previously documented by epidemiologists from the new research shows a very close interaction of the environment and both occurrence and distribution of many infectious diseases.
- **Water in the Time of Cholera: Haiti's Most Urgent Health Problem**, Apr 2012. NPR. ([Video](#))
This story from NPR reports that now that cholera has invaded Haiti, safe drinking water has become Haiti's most urgent public health problem. The disease has killed more than 7,000 people since late 2010.

WEBSITES

- **Haiti Cholera Training Resources** – Centers for Disease Control and Prevention. ([Website](#))
Training manuals and guides for community health workers and other resources.
- **Cholera Data** – World Health Organization. ([Website](#))
Statistics, by country, on cholera cases, deaths and case fatality rate.

Each WASHplus Weekly highlights topics such as Urban WASH, Indoor Air Pollution, Innovation, Household Water Treatment and Storage, Hand Washing, Integration, and more. If you would like to feature your organization's materials in upcoming issues, please send them to Dan Campbell, WASHplus knowledge resources specialist, at dacampbell@fhi360.org.



About WASHplus - WASHplus, a five-year project funded through USAID's Bureau for Global Health, creates supportive environments for healthy households and communities by delivering high-impact interventions in water, sanitation, hygiene

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(WASH) and indoor air pollution (IAP). WASHplus uses proven, at-scale interventions to reduce diarrheal diseases and acute respiratory infections, the two top killers of children under five years of age globally. For information, visit www.washplus.org or email: contact@washplus.org.

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