



Issue 111 August 9, 2013 | Cholera Prevention and Control

This issue updates the August 2012 Weekly with studies and resources published in 2013 on cholera prevention and control. Included are the latest statistics from WHO on the number of cholera cases and deaths. WHO states that annual figures in this report exclude the estimated 500,000–700,000 annual cases labeled “acute watery diarrhea” occurring in southeastern and central Asia. The actual numbers of cholera cases are known to be much higher than those reported. Other resources in this issue are the 2013 Cholera Toolkit by UNICEF, studies on socioeconomic and environmental factors that affect cholera outbreaks, country studies from Bangladesh, Cameroon, Haiti, and other studies.

EVENTS

- **August 1, 2013 - Subcommittee Hearing: The Impact of U.S. Water Programs on Global Health.** [\(Video\)](#)
Witnesses: Panel I - **Christian Holmes**, Global Water Coordinator, USAID | **Aaron A. Salzberg**, Special Coordinator for Water Resources, U.S. Department of State. Panel II- **John Oldfield**, Chief Executive Officer, WASH Advocates | **Malcolm Morris**, Chairman, Millennium Water Alliance | **Buey Ray Tut**, Executive Director, Aqua Africa
- **June 2013 - USAID and World Vision Join Coalition to Eliminate Cholera from Haiti and the Dominican Republic.** Pan American Health Organization, June 2013. [\(Link\)](#)
USAID and World Vision recently became the newest members of the Regional Coalition on Water and Sanitation to Eliminate Cholera in Hispaniola, an alliance of more than 20 agencies and associations that are supporting efforts by the governments of Haiti and the Dominican Republic to eliminate the transmission of cholera.

CHOLERA STATISTICS

- **Cholera in 2012.** *Weekly Epidem Rec, Aug 2013.* WHO. [\(Full text\)](#)
After several years of steady increases in the number of cholera cases reported to WHO as well as the number of countries that reported cholera cases, there was an important decrease in cases in 2012. Of the 30 countries that reported deaths from cholera, 23 were from the African continent, accounting for 2042 deaths or 67% of the global total, while in the Americas, the Dominican Republic and Haiti reported 962 deaths or 31% of the global total.

- **Cholera Country Profiles.** World Health Organization. ([Link](#))
WHO has prepared more than 25 cholera profiles by country. Dating from 2010 to 2013, each profile gives cholera statistics and other health information.

CHOLERA TOOLKITS

- **Cholera Toolkit,** 2013. UNICEF. ([Link](#))
The UNICEF Cholera Toolkit aims to provide UNICEF offices, counterparts and partners with one source of information for prevention and control of cholera outbreaks, preparedness, response and recovery – including integration with regular/development programs. The toolkit provides guidance primarily for the health and WASH sectors; nevertheless guidelines are presented in an integrated manner to avoid the continuation of “silo” approaches for cholera prevention, preparedness and response.

REPORTS/BULLETINS

- **Communication Strategy on Water, Sanitation & Hygiene for Diarrhoea & Cholera Prevention,** 2012. UNICEF/Liberia. ([Link](#), [pdf](#))
The first part this report focuses on promoting water, sanitation and hygiene, and the second section is about managing communication for cholera preparedness and response. The main body of the document is a synopsis of the strategy with links to relevant sections for more detailed information.
- **Gender and Vulnerability to Cholera in Sierra Leone,** 2013. N Rancourt. ([Link](#), [pdf](#))
While vibrio cholera is an “equal opportunity” infection, it is not gender neutral. Sex, age and social status are factors that may contribute to individuals’ vulnerability to cholera by dictating social roles and behaviors. In a society that adheres to strict gender roles, cholera transmission routes are more likely to be sex and age-specific. Despite this, the linkages between gender and vulnerability to cholera are not well understood and there is little literature on the topic. This research analyzes the roles socially ascribed to boys, girls, men and women in specific environmental, economic and socio-cultural contexts to highlight groups that may be more vulnerable to cholera in Sierra Leone.
- **WASHplus Weekly: Focus on Cholera Prevention and Control,** Aug 2012. ([Link](#))
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.
- **WASHplus Weekly: Focus on Cholera Prevention and Control,** Aug 2011. ([Link](#))
This issue contains annotations and links to 2011 journal articles that analyze cholera outbreaks in Haiti, Zimbabwe, and Bangladesh and cholera training materials for community health workers.

JOURNAL ARTICLES

- **Assessment of the Relationship Between Bacteriological Quality of Dug-Wells, Hygiene Behaviour and Well Characteristics in Two Cholera Endemic Localities in Douala, Cameroon.** *BMC Public Health, July 2013.* J Akoachere. ([Full text](#))
Poor well location, construction and hygiene and sanitary practices were among the

factors affecting water quality. There is an urgent need for education of inhabitants on effective water disinfection strategies and for regular monitoring of wells.

- **Cholera Surveillance During the Haiti Epidemic – The First 2 Years.** *New Eng Jnl Med, Feb 2013.* E Barzilay. ([Full text](#))
In October 2010, nearly 10 months after a devastating earthquake, Haiti was stricken by epidemic cholera. Within days after detection, the Ministry of Public Health and Population established a National Cholera Surveillance System (NCSS). A review of NCSS data shows that during the first two years of the cholera epidemic in Haiti, the cumulative attack rate was 6.1%, with cases reported in all 10 departments. Within three months after the first case was reported, there was a downward trend in mortality, with a 14-day case fatality rate of 1.0% or less in most areas.
- **The Cure for Cholera--Improving Access to Safe Water and Sanitation.** *N Engl J Med, Feb 2013.* R Waldman. ([Full text](#))
Cholera, rightly feared for both the terrifying loss of life it can cause and for the panic it incites in affected populations, is as much a symptom as a disease. It is a symptom of insufficient investment by the global development community in ensuring access to safe water and improved sanitation — of providing only a “Band-Aid” solution to a difficult problem.
- **Environmental Factors Influencing Epidemic Cholera.** *Am J Trop Med Hyg, July 2013.* A Jutla. ([Abstract](#))
The cholera outbreak following the earthquake of 2010 in Haiti has reaffirmed that the disease is a major public health threat. Using data from the 1800s, this study describes uniqueness in seasonality and mechanism of occurrence of cholera in the epidemic regions of Asia and Latin America. Epidemic regions are located near regional rivers and are characterized by sporadic outbreaks, which are likely to be initiated during episodes of prevailing warm air temperature with low river flows, creating favorable environmental conditions for growth of cholera bacteria.
- **Human Health Vulnerability to Climate Variability: The Cases of Cholera and Meningitis in Some Urban Areas of the Far North Region of Cameroon.** *Journal of Geography and Geology, 5(1) 2013.* S Kometa. ([Full text](#))
Vector-borne diseases and their incidence in northern Cameroon, particularly the Far North Region, have been recurrent and are on the increase. This paper assesses the impact of climate variability on the health of the population of the Far North Region of Cameroon, which is characterized by a tropical semi-arid climate in the vicinity of the Lake Chad. The paper examines the relationship between the outbreak of diseases and variations in some climatic elements. The results reveal a strong positive correlation between changes in the climatic elements and the incidence of vector-borne diseases, particularly cholera and meningitis.
- **The Role of Socioeconomic Status in Longitudinal Trends of Cholera in Matlab, Bangladesh, 1993–2007.** *PLoS Neg Trop Dis, Jan 2013.* E Root. ([Full text](#))
Although it is widely accepted that poor conditions place people at risk for cholera, very few studies have examined what role low socioeconomic status plays in cholera risk, especially during a new epidemic of the disease. In this paper, the authors explore how local-level socioeconomic status, measured using assets, education and sanitation, affect the severity of the cholera outbreak experienced during the 0139 biotype

epidemic in Matlab, Bangladesh.

- **Simple Filtration and Low-Temperature Sterilization of Drinking Water.** *Current Science, Feb 2013.* N Nimbkar. ([Link, pdf](#))
Solar energy can be used effectively for sterilizing drinking water during clear and partially cloudy days. However, during mostly cloudy days, the temperatures required may not be reached. A combination of traditional cotton-sari filtration and heating of water to simulate a solar boiler was evaluated as a water sterilization treatment.
- **The Singular Science of John Snow.** *Lancet, Apr 2013.* N Paneth. ([Full text](#))
John Snow was a scientist of rare dedication who published more than 100 contributions to the medical literature in a career entirely supported by clinical earnings and terminated by a lethal stroke when he was just 45 years old. The range of clinical and scientific topics covered by his research was wide, although he is most remembered for developing the scientific basis of anaesthesia practice and working out the epidemiology and preventability of cholera.
- **Survivability of *Vibrio cholerae* O1 in Cooked Rice, Coffee, and Tea.** *International Journal of Food Science, Volume 2013.* J Tang. ([Full text](#))
This study showed evidence for the survivability of *V. cholerae* in rice, coffee and tea. Holding these food and beverages for an extended period of time at room temperature should be avoided.
- **What We Are Watching-Five Top Global Infectious Disease Threats, 2012: A Perspective from CDC's Global Disease Detection Operations Center.** *Emerg Health Threats, July 2013.* K Christian. ([Full text](#))
The Centers for Disease Control and Prevention's Global Disease Detection (GDD) Operations Center monitors infectious and non-infectious public health events to identify new or unexplained global public health threats. At any one time, the GDD Operations Center actively monitors approximately 30-40 such public health threats. This article provides a perspective on five of the top global infectious disease threats in 2012: 1) avian influenza A (H5N1), 2) cholera 3) wild poliovirus 4) enterovirus-71, and 5) extensively drug-resistant tuberculosis.

WASHplus Weeklies will highlight 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, supports healthy households and communities by creating and delivering interventions that lead to improvements in access, practice and health outcomes related to water, sanitation, hygiene (WASH) and indoor air pollution (IAP). WASHplus uses at-scale, targeted as well as integrated approaches 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.

