



Cholera and Handwashing Fact Sheet

Cholera is a diarrheal disease that has a substantial impact on public health. Each year, it affects the lives of millions of people, especially those who live in conditions that are not conducive to practicing preventive measures. Cholera contributes to the deaths of tens of thousands each year. Many of these are individuals who do not access effective treatment early enough after symptom onset. Handwashing with soap can significantly limit the risk of transmission and contain outbreaks. This fact sheet outlines basic evidence about cholera, its transmission, its treatment, and how handwashing and other critical water, sanitation, and hygiene (WASH) measures can play a role in its prevention. Resources for those who would like to learn more are also included.

What is cholera?

Cholera is an acute enteric infection caused by exposure to the bacterium, *Vibrio cholerae*, the most severe manifestations of which can be fatal if left untreated. According to the World Health Organization (WHO), 80% of individuals infected with this bacterium do not exhibit symptoms or exhibit mild symptoms indistinguishable from other mild cases of diarrhea. However, 10-20% of those infected develop a severe infection that can be characterized by acute watery diarrhea, severe dehydration, vomiting, and cramping.¹ The onset of symptoms ranges between several hours and five days, with an average incubation period of 2-3 days. Rapid loss of fluids is common, and without treatment, can result in death within several hours.² More information from the U.S. Centers for Disease Control and Prevention (CDC) on diagnosis of cholera can be found [here](#).

What is the global burden of cholera?

Estimating the global burden of cholera is hampered by inadequate surveillance and incomplete reporting. The WHO estimates 1.4 to 4.3 million cases of cholera resulting in an estimated 28,000-142,000 deaths, annually.¹ Experts at the Johns Hopkins Bloomberg School of Public Health estimate that there are 2.86 million cases annually in 51 countries resulting in 95,000 deaths.³ Of the cholera cases reported to the WHO in 2014, 55% occurred in Africa, 15% in the Americas, and 30% in Asia.⁵ More than half of the global incidence of infection and death due to cholera is comprised of children under the age of five.⁴ Aside from young children, particularly vulnerable populations include the elderly, those with compromised immune systems, and individuals living in extreme poverty.

How is cholera transmitted?

Cholera is prevalent in places with inadequate water treatment, poor sanitation, and insufficient hygiene. Individuals become infected with cholera from consuming food and water that are contaminated with the feces of an infected person, as well as consuming water from certain bodies of water (e.g., pools of freshwater, reservoirs, brackish rivers, and coastal waters).² Therefore, cholera can spread quickly in inadequate living environments, and thus significantly and disproportionately impacts informal settlements, including peri-urban slums, where access to basic infrastructure and public services such as WASH is limited.

How is cholera prevented?

Cholera can be prevented by halting the fecal contamination of food and water. Handwashing with soap, safe sanitation practices, such as proper disposal of human waste, and improved water treatment are all important preventive measures. Handwashing with soap prior to contact with food (e.g., during preparation, eating, or feeding), after contact with feces, and after providing care to those sick with cholera is necessary to help stop the spread of the disease. Handwashing or rinsing with water alone is not enough to remove the bacteria from one's hands fully—soap is essential.

Infection prevention services and behaviors in healthcare facilities, such as hand hygiene at key times, improved sanitation facilities, safe drinking water, safe storage and dispensing of oral rehydration solution, and facility cleanliness, are essential to reducing healthcare-associated transmission of cholera. Healthcare workers who come in contact with those infected with cholera or those presenting similar symptoms should always practice proper hand hygiene to minimize the risk of further transmitting the disease. Despite the grave risk that poor hand hygiene poses to healthcare workers and patients, only 35% of healthcare facilities in lower- and middle-income countries have access to soap and water.⁶ Increasing access to soap and water, and promoting infection prevention behaviors among health workers, patients, and caring family members, must be an immediate priority, both for preventing the spread of cholera, as well as other infections.

In households, water collected from untreated sources and used for drinking or cooking should be disinfected with water-purification tablets or bleach, and safely stored in sealed containers to prevent re-contamination. The CDC recommends disinfecting water by boiling for one minute and adding two drops of household bleach or half an iodine tablet per liter of water.¹ Furthermore, food should be adequately cooked and stored, and thoroughly reheated before eating. Food items to be consumed raw should be washed thoroughly with clean water.

Oral vaccines against cholera exist and have a lifespan of three years, but their availability is limited. They should be viewed as a complement to improved WASH behaviors, not as a substitute.¹ Improved handwashing habits and other WASH-related preventive behaviors must be prioritized and sustained to both prevent and contain cholera.

How is cholera treated?

Prompt treatment of infections contains outbreaks, prevents transmission, and reduces mortality. The primary method of cholera treatment is symptom management. Up to 80% of cases can be successfully treated with oral rehydration therapy. Zinc supplements and continued breastfeeding should also be components of treatment for children and infants, respectively.¹ Water used for oral rehydration solutions must be sterilized, boiled, or treated in order to eliminate traces of the bacterial strain.¹ The WHO does not recommend the administration of intravenous fluids or antibiotics, except in cases of severe dehydration, as a way to reduce the duration and severity of symptoms.¹ According to the CDC, when patients receive timely rehydration therapy, the likelihood of a cholera infection resulting in death is diminished to 1%.² Learn more about cholera treatment [here](#).

Mobilizing communities to defeat cholera

Cholera is an important public health concern. A proactive cholera prevention and control approach at the community-level should integrate handwashing promotion with strategies for both immediate and long-term outbreak responses. Prevention and control plans should also include:

- Health education campaigns that mobilize community members to adopt good WASH practices, such as handwashing with soap, water treatment, safe food preparation, oral rehydration, and continued breastfeeding;
- Awareness campaigns that provide information on how to identify cholera infections and encourage people exhibiting symptoms to seek immediate testing and treatment at healthcare facilities;¹
- Information for families of cholera patients on how to avoid contracting the infection;
- Improved access to water at the community level to prevent cholera contamination during collection and storage;
- Identification and decontamination of areas infected with cholera by trained public health officials;
- Effective warning systems that establish priority responses for healthcare staff and local authorities once a preliminary clinical diagnosis of cholera is made or confirmed in a community; and
- Timely reporting of confirmed cases by healthcare staff and government authorities to the WHO, which can activate an emergency response and provide essential resources to contain the outbreak if necessary.

Further reading and resources

Here are some recommended further readings and resources that can be useful to those engaged in the fight against cholera.

Prevention and control guidelines and manuals

- Cholera Outbreak Guidelines: Preparedness, prevention and control. 2012. Oxfam. [\[link\]](#)
- Cholera Prevention and Control: Introduction and Community Engagement. 2010. CDC. [\[link\]](#)
- Lutter contre le Choléra. 2013. Action Contre la Faim. [\[link\]](#) (French)
- Community Health Worker Training Materials for Cholera Prevention and Control. 2010. CDC. [\[link\]](#)
- Infection Control for Cholera in Healthcare Settings. 2014. CDC. [\[link\]](#)

Toolkits

- Cholera Toolkit (English, French and Arabic). 2013. UNICEF. [\[link\]](#)
- Revised cholera toolkit. 2015. WHO. [\[link\]](#)
- StopCholera Toolkit. 2016. Johns Hopkins University. [\[link\]](#)

Promotion materials

- Health Promotion Materials. 2014. CDC. [\[link\]](#)

Publications & Evidence

- Cholera: Latest publications and guidelines. 2016. WHO. [\[link\]](#)
- Cholera. Global Health Observatory data repository, WHO. [\[link\]](#)

Citations

1. World Health Organization. 2015. Cholera. <http://www.who.int/mediacentre/factsheets/fs107/en/>
2. Centers for Disease Control and Prevention. Cholera - *Vibrio cholerae* infection. 2014. <http://www.cdc.gov/cholera/general/index.html>
3. Ali, M., et al. 2015. *Updated Global Burden of Cholera in Endemic Countries*. PLOS Journal for Neglected Tropical Diseases. DOI: 10.1371/journal.pntd.0003832
4. UNICEF. 2016. Cholera Introduction. <http://www.unicef.org/cholera/>
5. World Health Organization. 2016. Number of reported cholera cases. http://who.int/gho/epidemic_diseases/cholera/cases_text/en/
6. World Health Organization, UNICEF. 2015. Water, sanitation and hygiene in health care facilities Status in low- and middle-income countries and way forward.