

# NEWS SPLASH

Important News for Water Research Foundation Subscribers

October 7, 2014

Some water utilities have begun receiving inquiries regarding Ebola. Below are a few facts and resources to reinforce that Ebola cannot spread through the water supply.

The Ebola virus causes an acute illness that is often fatal with a death rate of up to 90%. Ebola virus disease first appeared in 1976 in two simultaneous outbreaks, one in a remote area of Sudan and the other in a village near the Ebola River in the Democratic Republic of Congo, from which the disease takes its name. The current outbreak in West Africa (the first cases reported in March 2014) is the largest and most complex Ebola outbreak since the Ebola virus was first discovered.<sup>1</sup> The current outbreak has spread through both urban and rural areas.<sup>2</sup>

Ebola is not a foodborne, waterborne, or airborne illness. The virus is transmitted to humans from wild animals and spreads in the human population through human-to-human transmission. Ebola is transmitted through direct contact with infected bodily fluids (e.g., blood, vomit, feces).<sup>1,3</sup> The Ebola virus can only replicate within host cells. Therefore, it cannot survive long in water because it does not have its host – either a human or an animal. Because of Ebola's fragility when separated from its host, bodily fluids flushed by an infected person would not contaminate the water supply.<sup>4,5</sup> Researchers believe that Ebola survives in water for only a matter of minutes. This is because water does not provide the same environment as our bodily fluids, which have higher salt concentrations. Once in water, the virus will take in water in an attempt to equalize the osmotic pressure, causing the cells to swell and burst, thus killing the virus.

1 World Health Organization (WHO) Website: <http://www.who.int/csr/disease/ebola/en/>

2 World Health Organization (WHO) Website:  
<http://www.who.int/mediacentre/factsheets/fs103/en/>

3 Centers for Disease Control and Prevention Website: <http://www.cdc.gov/vhf/ebola/about.html>

4 CNN interview: <http://www.cnn.com/2014/10/01/health/ebola-us-reader-questions/index.html>

5 NPR interview: <http://www.npr.org/blogs/goatsandsoda/2014/09/12/346114454/how-do-you-catch-ebola-by-air-sweat-or-water>



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