

Legionnaires' outbreaks: Cases nearly quadrupled in 15 years

By [Lena H. Sun](#) June 7



Water from showers is one of the most common sources of the bacteria that causes Legionnaires' disease. (Bigstock)

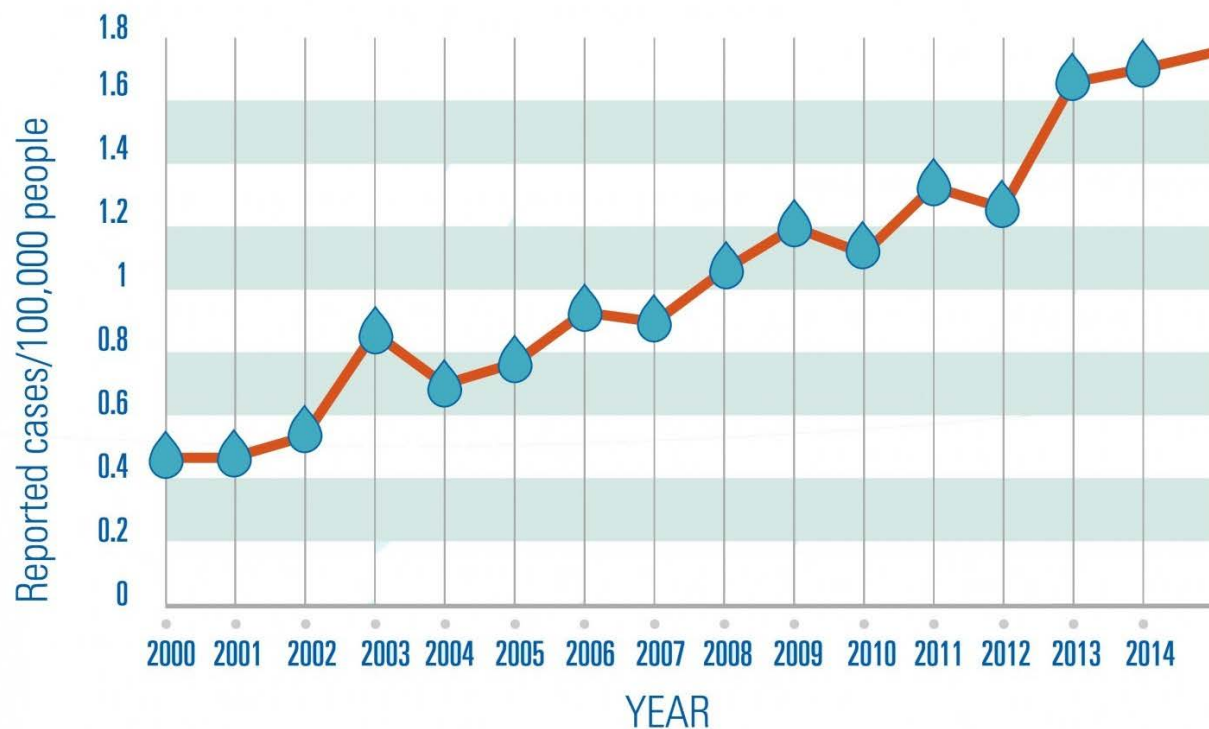
Cases of Legionnaires' disease nearly quadrupled in the United States over a 15-year period, and almost all might have been prevented with the proper use of disinfectant, the right water temperature and other measures, federal health officials said Tuesday.

In the last year alone, about 5,000 Americans were diagnosed with this severe, sometimes fatal pneumonia, and more than 20 outbreaks were reported to the Centers for Disease Control and Prevention. The disease is caused by a person breathing small droplets of water contaminated with the bacteria Legionella.

"Large recent outbreaks in New York City and Flint, Michigan have brought attention to the disease and highlight the need to understand why the outbreaks occur and how best to prevent them," CDC Director Tom Frieden said in a briefing.

[Did Flint's tainted water cause deadly Legionnaires' outbreaks?]

From 2000 to 2014, the rate of reported cases of legionellosis, which includes Legionnaires' disease and a milder flu-like illness called Pontiac fever, increased nearly fourfold, from .42 to 1.62 cases per 100,000 persons, according to a CDC report released Tuesday. Virtually all of the cases involved Legionnaires' disease, officials said.



Reported cases of legionellosis, almost all of which are Legionnaires' disease: 2000-2014. (CDC)

"People are unnecessarily and avoidably getting sick and dying from preventable infections," Frieden said. And the cases carry a high price tag: The annual cost of treating Legionnaires' disease, based on hospital claims, is about \$434 million, he said.

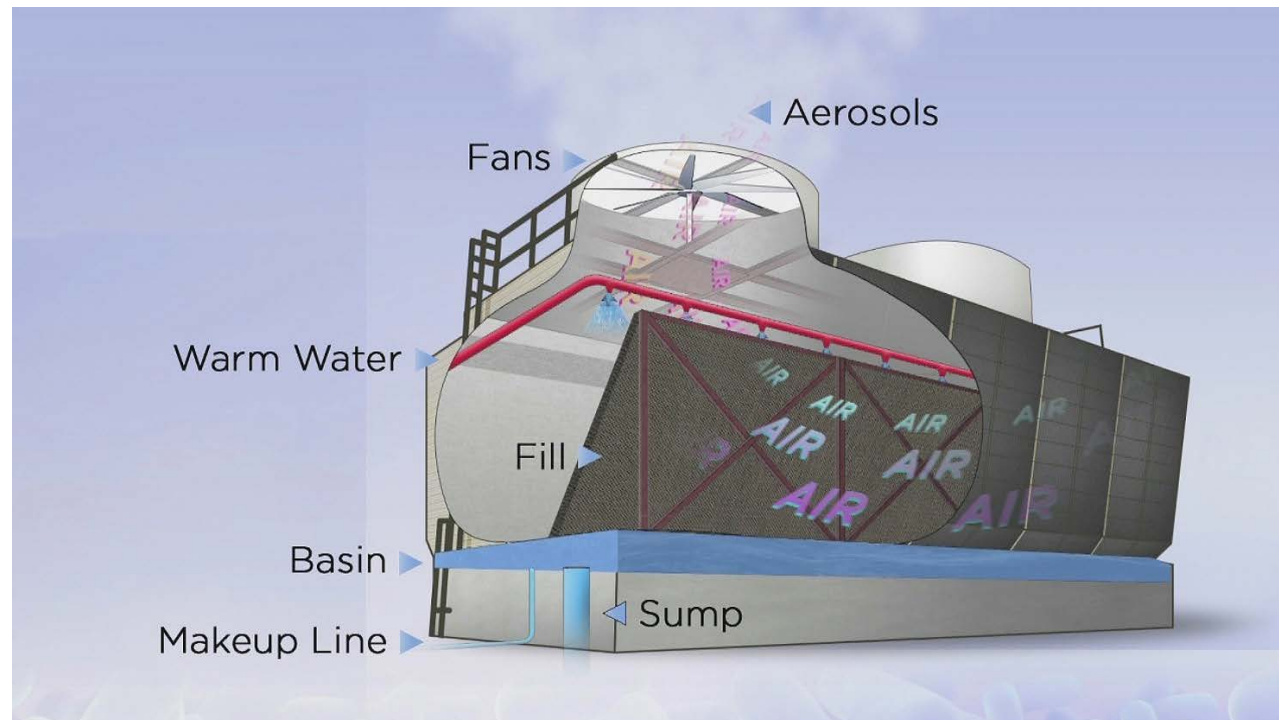
Officials said a combination of factors is likely behind the increase. More people may be getting sick because of the country's aging population, more people with chronic illnesses and older plumbing infrastructure. Increased use of diagnostic testing and more reliable reporting may also be factors.

Most individuals need hospital care and make a full recovery. But about one in 10 people will die from the infection. Most at risk are people 50 years and older, those with certain risk factors, including smoking, and those with chronic lung disease or a weakened immune system.

The CDC analyzed outbreaks it had investigated from 2000 to 2014 that involved 415 cases, including 65 deaths. Most of the outbreaks were in buildings with large or complex water systems, such as hotels, hospitals and long-term-care facilities. The report only looked at outbreaks associated with buildings, but the disease is also found on cruise ships.)

About half of outbreaks examined were the result of a single failure, such as a broken disinfection system or human error.

The most common sources of the bacteria were water in showers, cooling towers and hot tubs, Frieden said. The bacteria grow well in warm water but can be killed by disinfectants, such as chlorine.



Cooling towers, which are often part of the air conditioning systems of large buildings, are a common source of Legionella exposure in outbreaks. Cooling towers need to be properly maintained in order to prevent Legionnaires' disease. (CDC)

The CDC did not investigate the 2014-2015 outbreak in Flint, which sickened 91 people and resulted in 12 deaths. Although the source was not been definitively determined, residents and local health officials have

said illnesses began after the city changed its public water supply from Lake Huron to the Flint River. More than half of the people sickened were hospitalized or visited McLaren Flint hospital. The facility is served by Flint's municipal water system.

Last summer, the South Bronx saw an outbreak in which a dozen people died. City officials reacted by requiring that all building cooling towers be cleaned, but two months later, another round of cases occurred.

CDC officials released a new toolkit to help building managers and owners prevent problems such as inadequate disinfectant levels, equipment breakdowns and human errors that can raise the risk of Legionnaires' disease.