

Legionella

North Central District Health Department

Serving residents of East Windsor, Ellington, Enfield, Stafford, Suffield, Vernon, Windham, and Windsor Locks in Connecticut

Background

Legionella is a bacterium that lives in water. Most of us are unaffected by it unless we inhale infected water droplets. Legionnaires' Disease, a form of pneumonia caused by Legionella, has been on the rise in the last decade in the US. This illness can be serious, especially for older people or those with weak immune systems. The most common exposure sources are: water used for showering, cooling towers (parts of large building cooling systems), decorative fountains, and hot tubs. Most outbreaks have occurred in large buildings because complex water systems allow the bacteria to grow and spread more easily.

The disease got its name from a large outbreak in Philadelphia in 1976 at an American Legion convention. Over 200 people became ill, and 34 people died. The source of exposure was the building's water cooling system. New climate control regulations were adopted to lower the risk to people.

In the summer, a community member living in senior housing in the North Central District Health Department's (NCDHD's) jurisdiction tested positive for Legionella. They were hospitalized, received antibiotics, and recovered.

Challenges

Because Legionnaire's Disease presents like other pneumonias, delays in diagnosis can result in delayed treatment. The death rate for Legionnaire's is slightly higher than other pneumonias. Mitigating stagnant water in congregate living facilities can be difficult if units are periodically vacant.

Approach

NCDHD's staff worked with senior housing staff to access state and private sector resources to limit exposure as quickly as possible. Steps taken included:

- ongoing communication with residents and their families
- water testing that detected Legionella in the hot water system
- hot water shut off
- new filtered shower heads in all apartments
- updating of the facility's water management plan including proactive flushing of water (shower, toilet, sinks) in vacant units

While Legionnaire's Disease cannot be spread through drinking contaminated water, the facility supplied its residents with bottled water for two months for peace of mind.



Results / Outcomes

Responding to this Legionella case strengthened NCDHD's relationship with the senior housing facility and demonstrated its ability to connect staff with timely expertise and resources. "Reaching out to NCDHD during this event proved very helpful, and thankfully there were no additional cases," said the facility's manager. New procedures are in place to better prevent Legionnaire's Disease in this community.

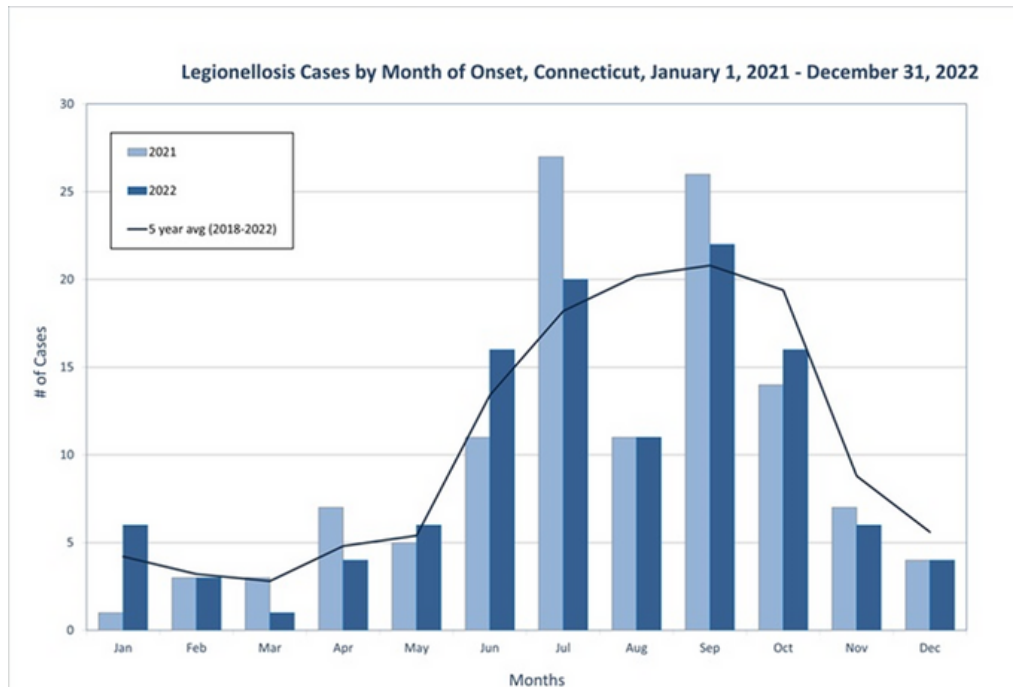


Lessons Learned

Congregate living facilities should review their water management plans annually and engage partners such as their local health department in the process. The CDC's free [water management toolkit](#) is available for reference.

Legionnaire's Disease in CT

In Connecticut, there are roughly 106 Legionella cases confirmed each year. The illness is diagnosed with a sputum culture or a urinary antigen test. According to the Connecticut Department of Public Health, over the last five years presumptive positive cases have ranged from 0-5 per year in Long Term Care and Skilled nursing facilities combined. There were no presumptive cases associated with assisted living facilities during this time period. The chart to the right includes all cases in Connecticut regardless of setting.



References

<https://portal.ct.gov/DPH/Epidemiology-and-Emerging-Infections/Legionnaires-Surveillance>

<https://www.cdc.gov/legionella/about/history.html>

<https://www.nejm.org/doi/full/10.1056/NEJMc1505356#t=article>

<https://www.cdc.gov/legionella/downloads/fs-legionella-clinicians.pdf>

<https://www.cdc.gov/legionella/wmp/toolkit/index.html>

Acknowledgements

Funding for this project is provided by the National Association of County and City Health Officials (NACCHO) to address, prevent, and protect residents of high-risk facilities against healthcare-acquired infections including COVID-19, antibiotic resistant organisms, and beyond.

Thank you to CT DPH for Legionnaire's Disease statistics.

For More Information

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