

# UNDERSTANDING LEGIONELLA TESTING

## LEGIONNAIRES' DISEASE IN THE UNITED STATES

Legionnaires' outbreaks are common and have severe consequences, including death, costly legal settlements, facility downtime, and negative publicity.

**900%**

Rise in the number of reported Legionnaires' disease cases in the US. <sup>1</sup>

**10,000**  
Number of cases in 2018

**1,100**  
Number of cases in 2000



Up to **500K**

Estimated true number of Legionnaires' cases each year that are diagnosed as community-acquired pneumonia. <sup>2</sup>



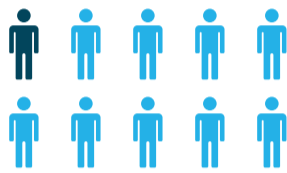
**1 IN 3**

Cooling towers are contaminated with Legionella. <sup>3</sup> Other high-risk water sources are potable water, showers, hot tubs, humidifiers and fountains.



**10%**

Fatality rate of Legionnaires' patients. <sup>4</sup> Overall, Legionnaires' kills more people annually than asbestos. <sup>5</sup>



**\$2.7M**

Median settlement for an individual Legionnaires' lawsuit against a business. <sup>6</sup> Lawsuits attract negative PR.

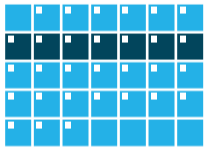


## CURRENT TESTING FAILS TO DETECT CONTAMINATION

Existing Legionella culture testing method is based on 150-year-old technology that is slow and inaccurate.

**7 DAYS**

Time it takes for Legionella to reach outbreak levels. <sup>7</sup>



**14 DAYS**

Time it takes to get a lab culture result. <sup>8</sup>



**77%**

Percentage of samples degrade during shipping to a lab. <sup>8</sup>



**17X**

Underestimate of true Legionella levels. <sup>9</sup>



## TIME FOR A CHANGE: ERADICATING LEGIONNAIRES'

On-site DNA testing uses Nobel-prize winning chemistry and unique filtering technology to detect the precise amount of Legionella in a water source.

**45 MINUTES**

Time for you to accurately detect Legionella bacteria in your building with on-site qPCR testing.



**BENEFITS**

- ✓ Detect and disinfect contamination in real time
- ✓ Save time and money minimizing your risk
- ✓ Keep your occupants safe from Legionnaires' disease
- ✓ Treat low-level positives before they grow to outbreak levels, potentially reducing your chemical use and extending your equipment lifetime
- ✓ Minimize the risk of Legionnaires'-related downtime in your facility

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3. Llewellyn AC et al. (2017). Distribution of Legionella and bacterial community composition among regionally diverse US cooling towers. *PLoS One*. 12(12): e0189937.

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5. Mazurek JM et al. (2017). Malignant mesothelioma mortality—United States, 1999–2015. *Morb Mortal Wkly Rep*. 66(8): 214–218.

6. Denenea J. Legionnaires' disease claims and compensation. *The Legionnaires' Lawyer*. Retrieved from

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9. Lucas CE, Taylor TH, Fields BS. (2011). Accuracy and precision of Legionella isolation by US laboratories in the ELITE program pilot study. *Water Res*. 45(15): 4428–4436.