



DATE: June 1, 2026
TO: Healthcare Providers, Healthcare Facilities, Clinical Laboratories, and Local Health Departments (LHDs)
FROM: New York State Department of Health (Department)
New York City Department of Health and Mental Hygiene (NYC Health Department)

HEALTH ADVISORY: LEGIONELLOSIS

For All Clinical Staff in Internal Medicine, Pulmonary and Intensive Care Medicine, Geriatrics, Primary Care, Infectious Diseases, Emergency Medicine, Family Medicine, Laboratory Medicine, and Infection Control/Epidemiology

Summary

- New York State (NYS) has a high rate of legionellosis. In 2025, incidence increased to 6.1 cases per 100,000 population, after remaining stable at 4.1 during 2022–2024. Cases occur year-round with increased incidence during the summer and early fall.
- Clinicians should remain alert for possible cases of legionellosis and conduct appropriate diagnostic testing.
 - Legionellosis is an infection caused by *Legionella* bacteria.
 - Legionnaires' disease (a type of legionellosis) cannot be clinically distinguished from other causes of pneumonia.
 - Test for *Legionella* by respiratory culture, polymerase chain reaction (PCR), and urine antigen, especially if testing for other respiratory infections has been negative; refer to the [diagnostic testing table](#) for additional information.
 - [Culture](#) of the organism from specimens is the gold standard for Legionnaires' disease diagnosis and is the only way to identify and link clinical cases to a potential environmental source.
 - Clinicians must specifically request a culture for *Legionella* because this testing requires specialized media.
- Confirmed *Legionella* isolates from any clinical [specimen](#) should be submitted to the NYS Department of Health (DOH) Wadsworth Center Laboratories or the New York City (NYC) Public Health Laboratory (NYC PHL) for serogrouping and whole genome sequencing (WGS).
- Report legionellosis cases promptly to the [local health department](#) (LHD) where the person resides.
 - Cases in NYC residents should be reported to the NYC Health Department by calling the Provider Access Line at 866.692.3641.
 - NYS Cases residing outside of NYC should be reported to the LHD. If you are unable to reach the LHD, contact the NYS Department of Health Bureau of Communicable Disease Control (BCDC) at 518.473.4439 or by email at epiLegionella@health.ny.gov during business hours or 866.881.2809 during evenings, weekends, and holidays.

Definitions

Legionellosis is a bacterial disease caused by *Legionella* species. There are multiple types of legionellosis:

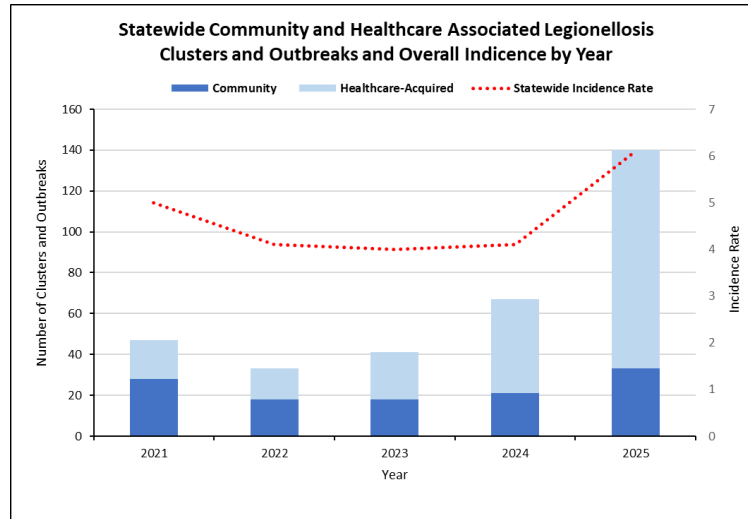
- **Legionnaires' disease:** characterized by pneumonia diagnosed radiographically or clinically
- **Pontiac fever:** a milder, self-limiting illness without pneumonia (i.e., no antibiotics required)
- **Extrapulmonary legionellosis:** rare; infection outside the lungs (e.g., endocarditis, wound infection)

Epidemiology

Legionellosis occurs year-round, with increased incidence during the summer and early fall. Clusters of cases and outbreaks are common.

- Statewide incidence remained relatively stable from 2022 through 2024, then increased sharply in 2025 to 6.1 cases per 100,000 population, with the highest burden among residents of New York City and of counties in Western New York.
- In 2025, 33 community-acquired and 107 healthcare facility associated clusters or outbreaks were investigated in NYS, including NYC.

Figure: Statewide Community and Healthcare Associated Legionellosis Clusters and Outbreaks and Overall Incidence by Year, 2021-2025



The national Legionnaires' disease [case-fatality proportion](#) is estimated to be 10% for community-acquired and 25% for healthcare associated cases.

Legionnaires' Disease

Clinical Presentation: Clinical suspicion of Legionnaires' disease should be elevated for individuals presenting with pneumonia, especially if they report recent travel (e.g., with stays in hotels or on cruise ships), or live in an area with an ongoing outbreak, recent exposure to hot tubs, or recent inpatient care at a healthcare facility, or if the person lives in a congregate setting such as a skilled nursing facility.

Risk Factors:

Persons at higher risk for Legionnaires' disease include those aged 50 years or older; current or former smokers; and persons with chronic lung disease, immunocompromising conditions, systemic malignancy, or comorbid conditions such as diabetes or renal/hepatic failure.

Testing: Respiratory tract specimens for *Legionella* culture should ideally be obtained before initiation of antibiotics, although antibiotics should not be delayed to obtain a specimen. Cultures can be ordered after the initiation of antibiotics. See the [diagnostic testing table](#) for more details.

Treatment: Empiric treatment of community-acquired pneumonia in hospitalized persons should include adequate coverage for *Legionella* with either a macrolide (e.g., azithromycin) or a respiratory fluoroquinolone (e.g., levofloxacin). Detailed information on clinical guidance and treatment regimens for legionellosis can be found [here](#).

Public Health Reporting

Report cases promptly to the [LHD](#) where the person resides.

- Cases residing in NYC should be reported to the NYC Health Department by calling the Provider Access Line at 866.692.3641.
- NYS Cases residing outside of NYC should be reported to the LHD. If you are unable to reach the LHD, contact the BCDC at 518.473.4439 during business hours or 866.881.2809 during evenings, weekends, and holidays.

- Laboratories should send all *Legionella* isolates to the appropriate public health laboratory for serotyping and WGS as outlined in the NYS Laboratory [Reporting of Communicable Diseases](#).
 - Cases in residents of NYC: send isolates to the NYC PHL using [eOrder](#). Select *Legionella* serotyping and send isolates to 455 1st Avenue, New York, NY 10016.
 - Cases in residents outside of NYC: send isolates to the NYS Wadsworth Center [Bacteriology Laboratory](#).

Questions regarding clinical or epidemiological information should be directed to the LHD or the BCDC at 518.473.4439 or epiLegionella@health.ny.gov. For questions pertaining to NYC residents, call the NYC Health Department Provider Access Line at 866.692.3641.

Diagnostic Testing

<u>Test</u>	<u>Specimen Type</u>	<u>Advantages</u>	<u>Challenges</u>
Culture (gold standard) <i>Results typically in 7–14 days</i>	<ul style="list-style-type: none"> • Lower respiratory secretions (sputum) • Tissue • Pleural fluid • Extrapulmonary site 	<ul style="list-style-type: none"> • Provides confirmatory lab evidence of legionellosis infection • Detects ALL species and serogroups • Whole genome sequencing (WGS) can be conducted and used to compare clinical and environmental isolates to identify a potential source 	<ul style="list-style-type: none"> • Clinicians must specifically request the specimen be cultured for <i>Legionella</i> (i.e., not a general respiratory bacterial culture), as specialized media (buffered charcoal yeast extract [BCYE] agar) is required • To ensure culture viability, pure colony isolates should be streaked on sealed BCYE agar plates or slants and transported at room temperature • Cultures should not be frozen
Polymerase chain reaction (PCR) <i>Results typically in 24–48 hours</i>	<ul style="list-style-type: none"> • Lower respiratory secretions (sputum) • Tissue 	<ul style="list-style-type: none"> • Provides confirmatory lab evidence of legionellosis infection • Detects <i>L. pneumophila</i> serogroup 1 as well as other species and serogroups 	<ul style="list-style-type: none"> • WGS cannot be performed if only PCR is ordered; a specimen for culture should be obtained to perform WGS for comparison to environmental isolates to identify potential sources of outbreaks
Urine antigen testing (UAT) <i>Results typically in <24 hours</i>	<ul style="list-style-type: none"> • Urine 	<ul style="list-style-type: none"> • Provides confirmatory lab evidence of legionellosis infection • ONLY reliably detects <i>L. pneumophila</i> serogroup 1 	<ul style="list-style-type: none"> • Cannot identify or rule out infection with other <i>Legionella</i> species / serogroups • Cannot be used for WGS • Cannot be used to identify potential environmental source of infection in outbreaks <p>Note: Increased false positives have been observed with the ImmuView combined <i>S. pneumoniae</i> and <i>L. pneumophila</i> UAT; the manufacturer recommends boiling urine specimens for confirmation.</p>
Serology <i>Results typically in 1–4 days</i>	<ul style="list-style-type: none"> • Blood 	<ul style="list-style-type: none"> • Can only diagnose acute legionellosis infection retrospectively 	<ul style="list-style-type: none"> • A single antibody titer is NOT diagnostic for legionellosis • Requires collection of two specimens, 3–4 weeks apart, to detect a fourfold rise in antibody titer to a level >1:128 • Cannot be used to identify potential environmental source(s) of infection in outbreaks

References

- Local Health Department Contact Information: https://www.health.ny.gov/contact/contact_information/
- CDC Clinical Guidance for *Legionella* Infections: <https://www.cdc.gov/legionella/hcp/clinical-guidance/index.html>
- Case Fatality Rate: <https://www.cdc.gov/mmwr/volumes/66/wr/mm6622e1.htm>
- NYS Guidance for Reporting Legionnaires' Disease: <https://www.health.ny.gov/professionals/diseases/reporting/communicable/>
- NYS Laboratory Reporting of Communicable Diseases: https://www.wadsworth.org/sites/default/files/WebDoc/CDRG%20NYState%202020_101920%202.pdf
- Wadsworth Laboratory Specimen Submission Guidelines: <https://www.wadsworth.org/programs/id/bacteriology/submission-guidelines>
- NYC PHL eOrder: https://www1.nyc.gov/account/login.htm?spName=a816-phleorder.nyc.gov-PHLeOrder&samlContext=us1_8176884_dabf54ad-9076-4cf8-a44b-c6ddfdb45bdf
- Immuvue package insert, page 11: <https://ssid.com/wp-content/uploads/2026/03/IFU-ImmuView-S.-pneumoniae-og-L.-pneumophila-EN-EU-for-product-95389-95603-14.pdf>