

SURVEILLANCE REPORT

Legionellosis in Ontario: January 1, 2025 to December 31, 2025

Published: May 2026

Introduction

This report summarizes the epidemiology of laboratory confirmed cases of legionellosis in Ontario with a focus on cases occurring in 2025 and comparisons to trends in recent years.

Legionella are bacteria found naturally in water and can grow in human-made water systems, such as plumbing, cooling towers, hot tubs, showers and decorative fountains. They grow best in warm, stagnant water, especially when disinfectant levels are low or biofilm or sediment is present. People can become infected with *Legionella* by inhaling small droplets or vapour of contaminated water. Legionellosis refers to illnesses caused by *Legionella* infection, ranging from mild flu-like illness (Pontiac fever) to severe lung infection/pneumonia (Legionnaires' disease) that can result in hospitalization and death. In Ontario, legionellosis follows a seasonal pattern with case counts increasing in the late spring through the summer before declining in the fall and winter.

Legionellosis is a disease of public health significance under [Ontario Regulation 135/18 of the Health Protection and Promotion Act](#).¹ For additional information regarding legionellosis, including the provincial case definition, visit the [Ontario Ministry of Health Appendix 1: Case Definitions and Disease Specific Information Disease: Legionellosis](#), the [Public Health Ontario \(PHO\) webpage for Legionellosis](#), and the [Ontario Ministry of Health Legionella Investigation Reference Document](#).²⁻⁴

Key Messages

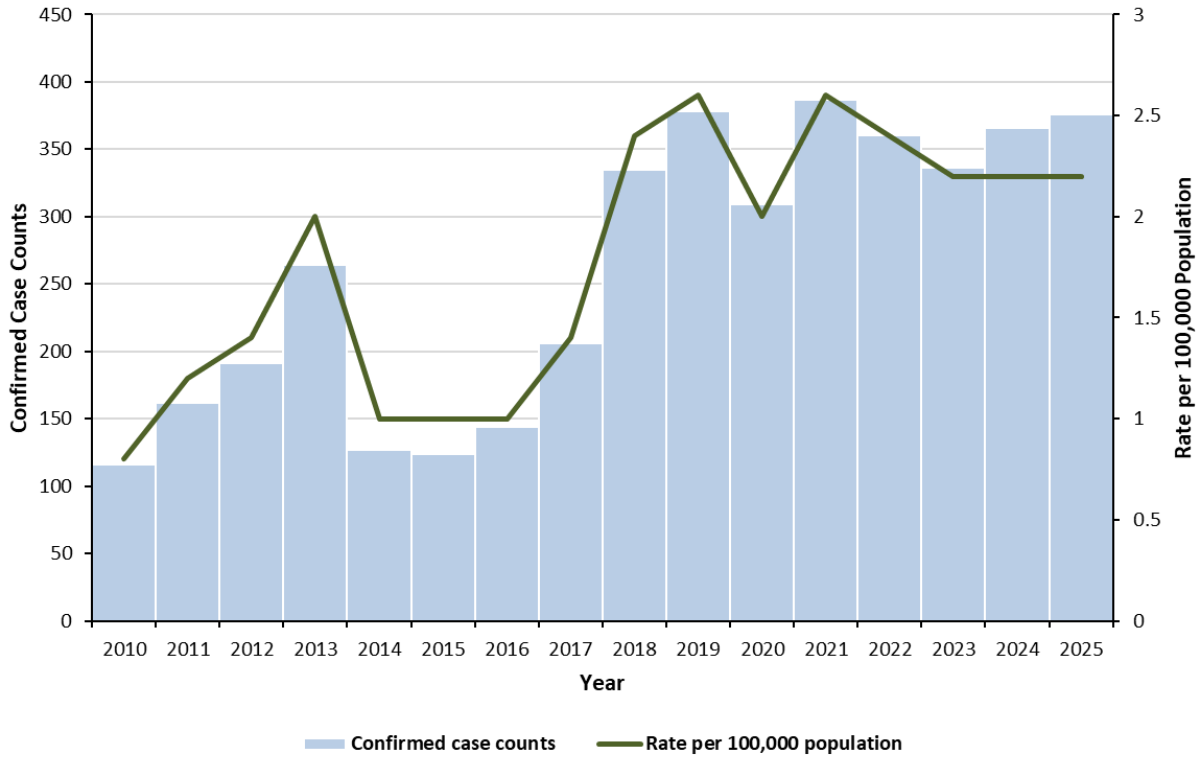
- *Legionella* bacteria are common in the environment. Most legionellosis cases reported in Ontario are sporadic and not linked to an identified cause or outbreak.
- The incidence of Legionellosis in Ontario has remained stable from 2018 to 2025, ranging from 2.0 to 2.6 cases per 100, 000 population per year.
- The pattern of illness for legionellosis remained the same in 2025 as in previous years, with higher monthly case counts and rates occurring in the summer months.
- In 2025, case counts in June were higher than usual largely because of a large outbreak in Middlesex-London Health Unit.⁵ The outbreak occurred over the summer and fall and accounted for 28.5% (107/376) of all legionellosis cases reported in Ontario in 2025.

Highlights

- In 2025, there were 2.3 cases of Legionellosis per 100,000 (376 cases) were reported in Ontario, which is similar to rates observed from 2018 to 2024 ([Figure 1](#)).
- Legionellosis in Ontario most often occurs between June and September with average case counts between 2020-2024 peaking in July. In 2025, however, the highest number of cases occurred in June ([Figure 2](#)).
- As in previous years, the highest rates of legionellosis in Ontario in 2025 occurred among males and older adults ([Table 1](#)).
- Legionellosis rates vary by public health unit (PHU), with higher rates seen in South West Ontario in 2025 ([Figure 4](#)).
 - Middlesex-London Health Unit (MLHU) reported the highest rate of legionellosis (18.1 cases per 100,000 population) in Ontario in 2025. This was largely driven by an outbreak of 107 cases that represented 28.5% of all cases reported in the province that year ([Figure 3](#)).
 - Other PHUs with the high rates of legionellosis in 2025 were Chatham-Kent Public Health (3.5 cases per 100,000 population), Southwestern Public Health (3.2 cases per 100,000 population) and Windsor-Essex County Health Unit (3.0 cases per 100,00 population).
- Laboratory test data at Public Health Ontario (PHO) showed an increase in the proportion of positive *Legionella* tests in late June and early July, with positivity peaking at approximately 10% during this period ([Figure 5](#)).
- In 2025, 77.9% of legionellosis cases were hospitalized and 7.4% had a fatal outcome, both of which were slightly higher than the averages observed from 2020 to 2024 ([Table 2](#)).

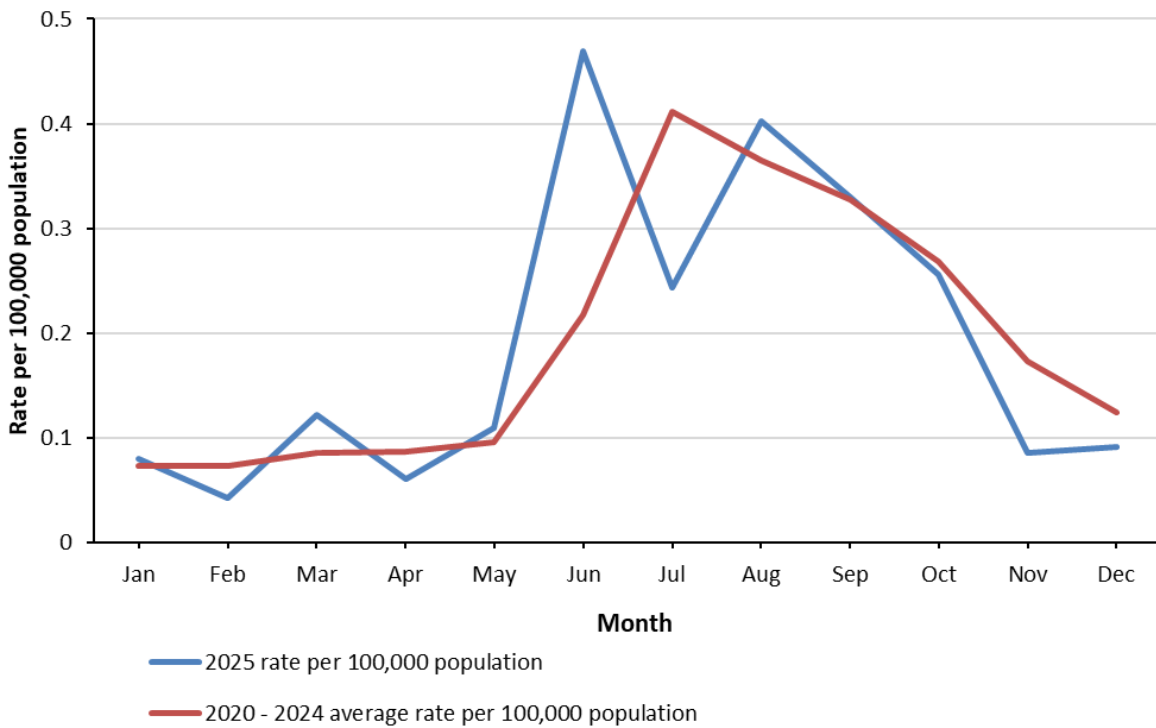
Trends

Figure 1: Confirmed Legionellosis Cases and Rates per 100,000 Population in Ontario from 2010 to 2025



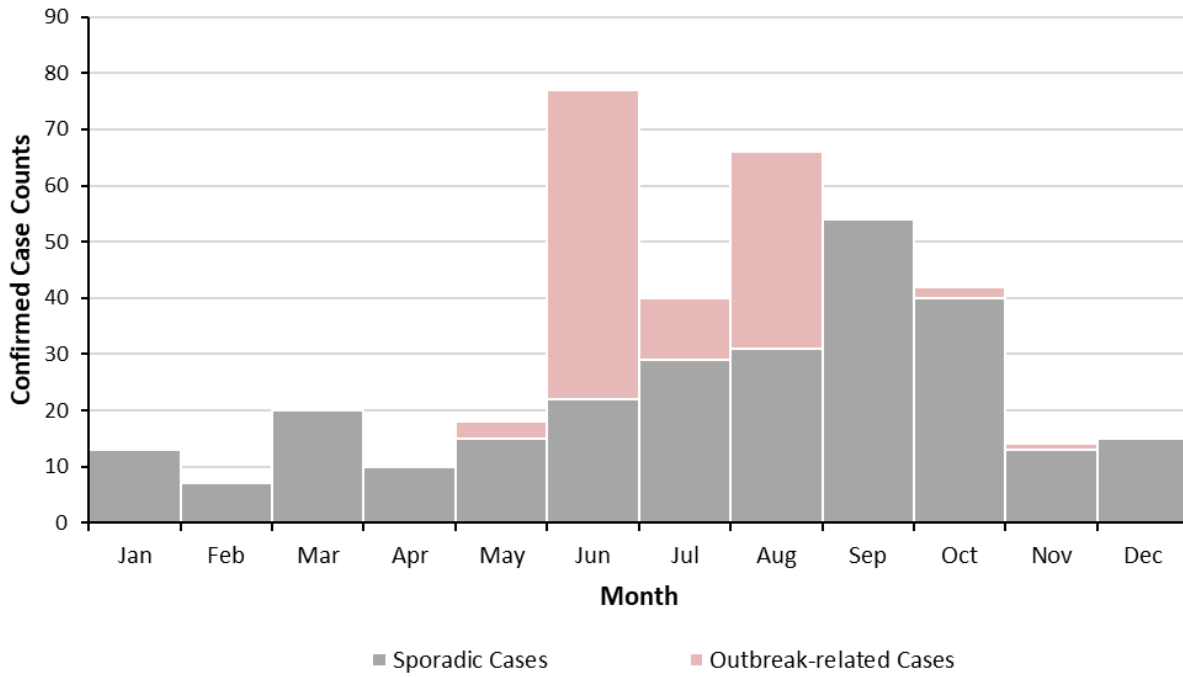
Data Source: Ontario. Ministry of Health. Integrated Public Health Information System (iPHIS) [database]. Toronto, ON: King’s Printer for Ontario [extracted 2026 March 3]. Population denominators: Statistics Canada and Ontario Ministry of Finance.

Figure 2: Rates of Confirmed Legionellosis Cases per 100,000 Population in Ontario by Month in 2025 compared to 2020 to 2024



Data Source: Ontario. Ministry of Health. Integrated Public Health Information System (iPHIS) [database]. Toronto, ON: King’s Printer for Ontario [extracted 2026 March 3]. Population denominators: Statistics Canada and Ontario Ministry of Finance.

Figure 3: Confirmed Legionellosis Cases in Ontario by Outbreak Status* and Month in 2025



Data Source: Ontario. Ministry of Health. Integrated Public Health Information System (iPHIS) [database]. Toronto, ON: King's Printer for Ontario [extracted 2026 March 3].

* All outbreak related cases reported in Ontario in 2025 were linked to an outbreak declared by MLHU.

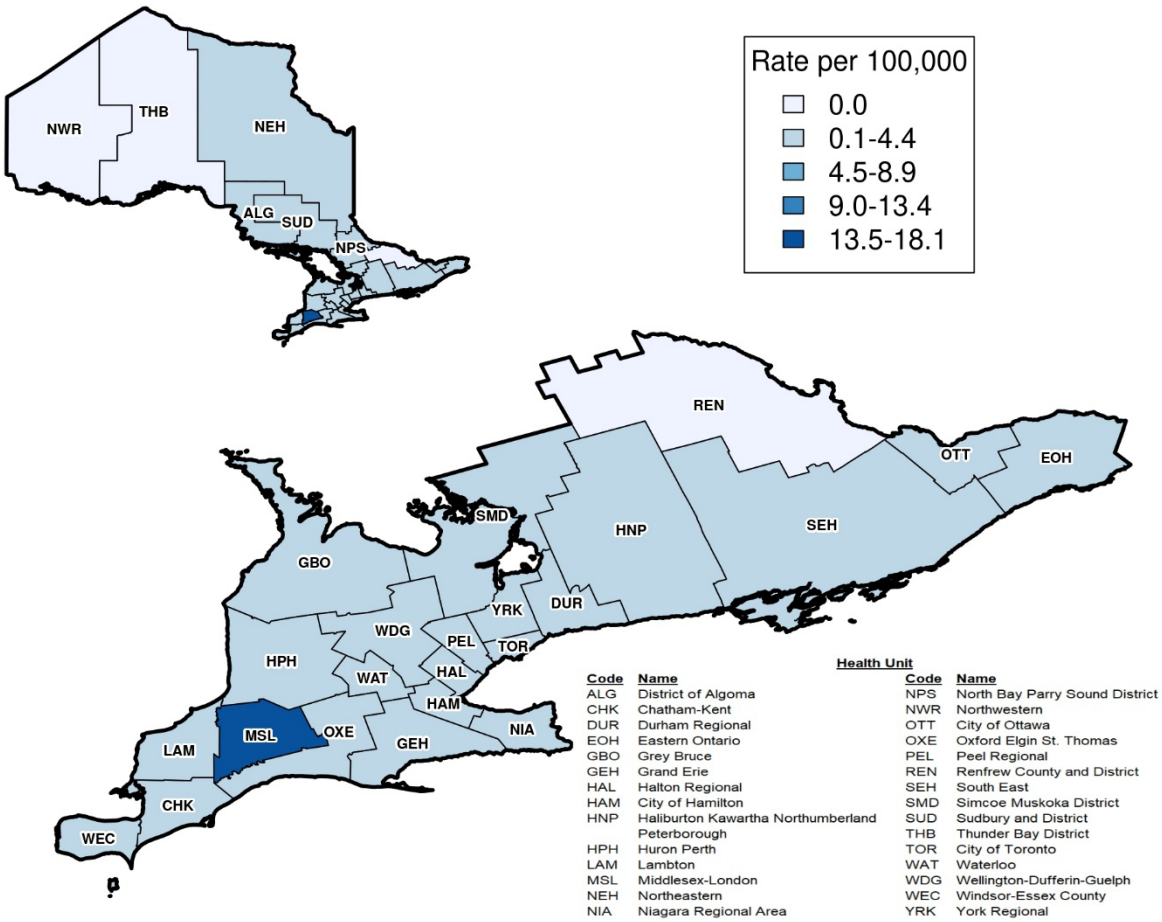
Table 1: Confirmed Legionellosis Cases and Rates per 100,000 Population in Ontario, by Sex* and Age in 2025 compared to 2020 - 2024

Sex and Age Group (years)	Total Number of Cases in 2025	Rate per 100,000 Population in 2025	Average Number of Cases from 2020 to 2024	Average Annual Rate per 100,000 Population from 2020 to 2024
Female	129	1.6	113.8	1.5
Male	246	3.0	237.8	3.1
Did not specify	1	N/A	0.0	N/A
0 – 19	0	N/A	1.0	0.0
20 – 39	25	0.5	16.4	0.4
40 – 59	98	2.5	105.0	2.7
60 – 79	195	5.8	184.4	6.0
≥80	58	7.6	44.6	6.5
Unknown	0	N/A	0.2	N/A
Total	376	2.3	351.6	2.3

Data Source: Ontario. Ministry of Health. Integrated Public Health Information System (iPHIS) [database]. Toronto, ON: King’s Printer for Ontario [extracted 2026 March 3]. Population denominators: Statistics Canada and Ontario Ministry of Finance.

*This report uses the terminology sex to reference the reported values for the “gender” field in iPHIS. Three values for sex are derived from the data entered in iPHIS: Male, Female, and Did Not Specify Male or Female; information from all three is combined when presenting total counts or rates.

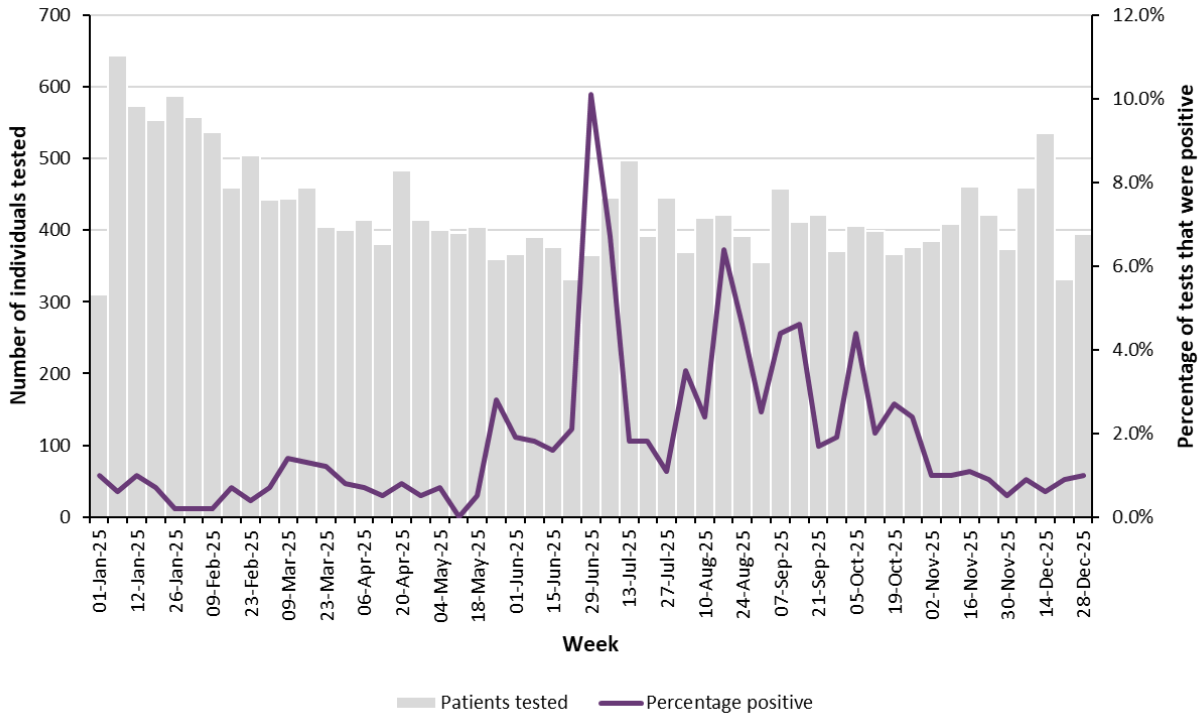
Figure 4: Rate of Confirmed Legionellosis Cases Reported in 2025 in Ontario, by Public Health Unit



Data Source: Ontario. Ministry of Health. Integrated Public Health Information System (iPHIS) [database]. Toronto, ON: King’s Printer for Ontario [extracted 2026 March 3]. Population denominators: Statistics Canada and Ontario Ministry of Finance.

Testing

Figure 5: Number of Individuals Tested for *Legionella* and Percent Positivity in Ontario, by Week, 2025*



Data Source: PHO Laboratory Information Management System [extracted 2026 February 17].

*The first week (January 1 - January 4) and last week (December 28 - December 31) represent partial weeks as the graph only includes data from 2025.

Severity

Table 2: Hospitalizations and Deaths among Confirmed Legionellosis Cases in Ontario, by Sex* and Age in 2025 compared to 2020 - 2024

Sex and Age Group (years)	Number (%) of Cases Hospitalized in 2025	Average Number (%) of Cases Hospitalized per Year from 2020 to 2024	Number (%) of Cases with a Fatal Outcome in 2025	Average Number (%) of Cases with a Fatal Outcome per Year from 2020 to 2024
Female	98/129 (76.0)	86.4/113.8 (75.9)	10/129 (7.8)	6.8/113.8 (6.0)
Male	194/246 (78.9)	182.4/237.8 (76.7)	18/246 (7.3)	16.0/237.8 (6.7)
Did not specify	1/1 (100.0)	N/A	0/1 (0.0)	N/A
0 – 19	N/A	0.8/1 (80.0)	N/A	0.0/1.0 (0.0)
20 – 39	19/25 (76.0)	11.6/16.4 (70.7)	0/25 (0.0)	0.6/16.4 (3.7)
40 – 59	77/98 (78.6)	79.0/105.0 (75.2)	3/98 (3.1)	2.6/105.0 (2.5)
60 – 79	150/195 (76.9)	142.4/184.4 (77.2)	14/195 (7.2)	14.6/184.4 (7.9)
≥80	47/58 (81.0)	35.0/44.6 (78.5)	11/58 (19.0)	5/44.6 (11.2)
Unknown	N/A	0.0/0.2 (0.0)	N/A	0.0/0.2 (0.0)
Total	293/376 (77.9)	268.8/351.6 (76.5)	28/376 (7.4)	22.8/351.6 (6.5)

Data Source: Ontario. Ministry of Health. Integrated Public Health Information System (iPHIS) [database]. Toronto, ON: King's Printer for Ontario [extracted 2026 March 3].

*This report uses the terminology sex to reference the reported values for the "gender" field in iPHIS. Three values for sex are derived from the data entered in iPHIS: Male, Female, and Did Not Specify Male or Female; information from all three is combined when presenting total counts or rates.

Technical Notes

Data Sources

- The data for this report were based on information entered in the Ontario Ministry of Health (MOH) integrated Public Health Information System (iPHIS) database **as of 9 a.m., March 3, 2026**.
- Testing and percent positivity data were obtained from PHO's Laboratory Information Management System on **February 17, 2026**.
- Population counts used to calculate rates for cases were calculated using the Ontario 2018 to 2022 population estimates⁶, sourced from Statistics Canada, and the Ontario 2023 and 2024 population projections⁷, sourced from the Ontario Ministry of Finance.

Data Caveats for iPHIS

- iPHIS is a dynamic disease reporting system that allows ongoing updates to previously entered data. As a result, data extracted from iPHIS represent a snapshot at the time of extraction and may differ from previous or subsequent reports.
- These data only represent laboratory-confirmed cases of legionellosis reported to public health and recorded in iPHIS. As a result, all case counts are subject to varying degrees of underreporting due to a variety of factors, such as disease awareness and medical care seeking behaviours, that may depend on severity of illness, clinical practices, and changes in laboratory testing and reporting behaviours.
- Only legionellosis cases meeting the confirmed case classification as listed in the Ontario Ministry of Health (MOH) surveillance case definitions and recorded in iPHIS are included in the reported case counts.
 - Provincial surveillance case definitions available online under the [Infectious Diseases Protocol](#)² are the most current.
 - Changes to provincial surveillance case definitions and disease classifications have occurred over the years and thus may impact the interpretation of trends over time. Cases are classified in iPHIS based on the Ontario MOH surveillance case definitions in use at the time the case was identified.
- Cases are reported based on the Episode Date, which is an estimate of the onset date of disease for a case. In order to determine this date, the following hierarchy exists in iPHIS: Onset Date > Specimen Collection Date > Lab Test Date > Reported Date.
 - For example: If an Onset Date exists, it will be used as the Episode Date. If Onset Date is not available, then the next available date in the hierarchy (i.e., Specimen Collection Date) will be used, and so on.
- Duplicate case records may be included if they were not identified and resolved at either the local or provincial level prior to data extraction from iPHIS.
- Public Health Ontario conducts the majority of *Legionella* testing in the province.
- Hospitalized legionellosis cases were determined based on a reported intervention type description of "Hospitalization" or "ICU" and a reported intervention start date on or after the case's episode date.

- Fatal legionellosis cases were determined based on a case outcome description of “Fatal” and the type of death not being reported as “Reportable disease was unrelated to cause of death” or “Under PHU Review”.
- Cases for which the Diagnosing Health Unit (DHU) was reported as MOHLTC (to signify a case that is not a resident of Ontario) were excluded from this analysis.
- The laboratory data includes all methods used for *Legionella* testing by Public Health Ontario’s laboratory. An individual is considered positive if a specimen was positive by any validated test method.
- Week was assigned based on the date the specimen was received at Public Health Ontario’s laboratory; start dates of each week are presented on the x-axis ([Figure 5](#)).

References

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2. Ontario. Ministry of Health. Ontario public health standards: requirements for programs, services and accountability. Infectious disease protocol. Appendix 1: case definitions and disease-specific information. Disease: Legionellosis. Effective: May 2022 [Internet]. Toronto, ON: King's Printer for Ontario; 2022 [cited 2025 Apr 1]. Available from: <https://www.ontario.ca/files/2025-01/moh-ophs-legionellosis-en-2022-05-01.pdf>
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Citation

Ontario Agency for Health Protection and Promotion (Public Health Ontario). Surveillance report: legionellosis in Ontario: January 1, 2025 to December 31, 2025. Toronto, ON: King's Printer for Ontario; 2026.

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