Public Health Ontario | Santé publique Ontario

SURVEILLANCE REPORT

Legionellosis in Ontario: January 1 to October 13, 2026

Updated: October 16, 2026

Introduction

This report summarizes the epidemiology of laboratory confirmed cases of legionellosis in Ontario with a focus on cases occurring in 2026 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 breathing in small droplets or vapour of contaminated water. Legionellosis refers to illness 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

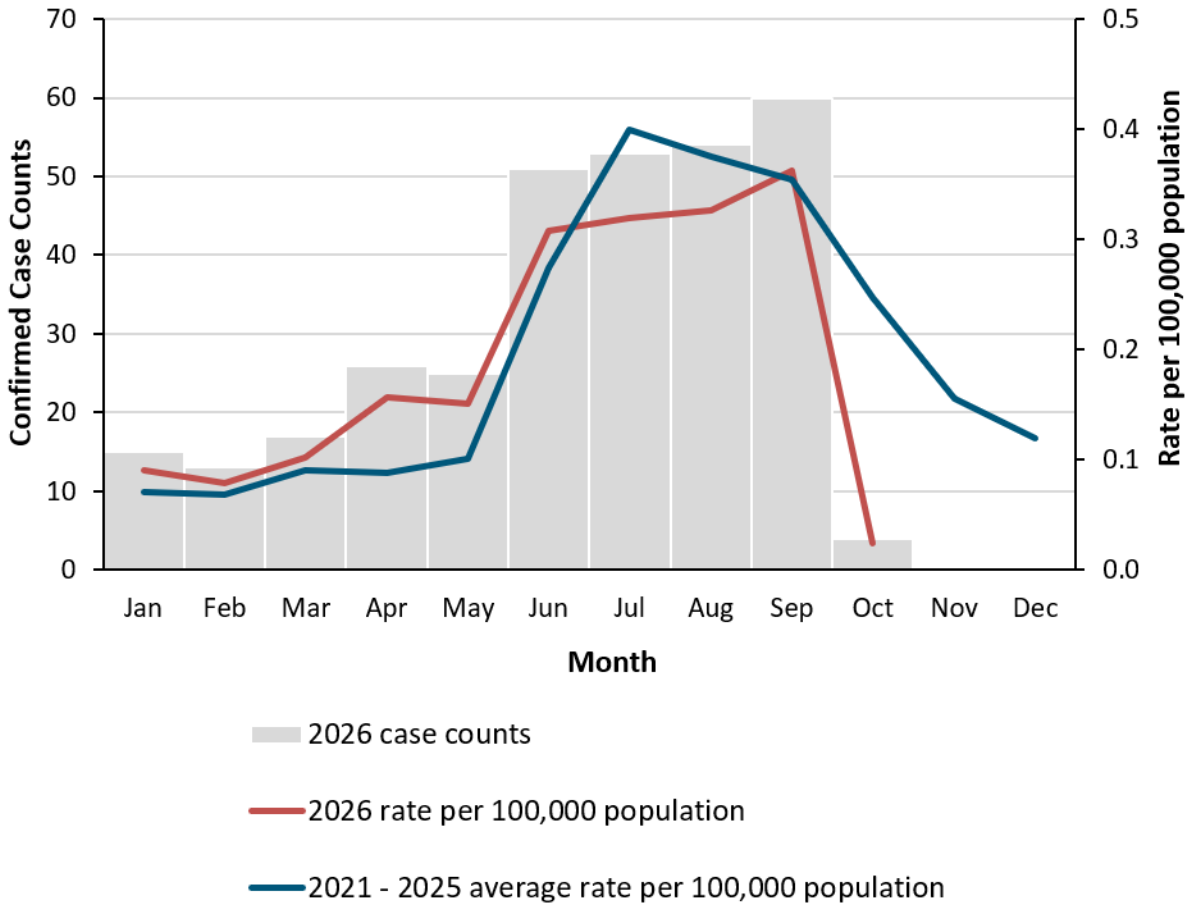
- *Legionella* bacteria are ubiquitous in the environment and typically most legionellosis cases reported in the province are sporadic and not linked to an identified cluster/outbreak.
- There have been 318 cases of legionellosis in Ontario with episode dates between January 1 and October 13, 2026.
  - Of the 318 cases, 48 (15.1%) are recorded as being related to a cluster/outbreak. This compares to an annual average of 307.8 cases during the same period from 2021 to 2025, of which 37.4 (12.2%) were recorded as being related to a cluster/outbreak.

Highlights

- Among the 318 cases with an episode date between January 1 and October 13, 2026, an earlier than expected increase was observed in April (Figure 1), with the April 2026 rate 1.8 times higher than the average for the previous five years.
  - The early increase continued in May and June before levelling off with rates for July, August lower than the five-year average. (Figure 2). The number of cases reported increased again in September, but with rates that were similar to the five-year average.
- As in previous years, the highest rates of legionellosis in Ontario in 2026 have occurred among males and older adults aged 60 years of age and over (Table 1).
- Legionellosis rates varied by public health unit (PHU), with the highest rate to date in 2026 observed in City of Hamilton Public Health Services with 5.8 cases per 100,000 population (Figure 3).
- After an early increase in the proportion of positive tests among all *Legionella* tests conducted by PHO (percent positivity) in April and May, percent positivity declined, before reaching higher levels during summer. The highest weekly percent positivity to date of 6.9% occurred the week of June 28 to July 4 (Figure 4).
- Legionellosis case severity is presented in Table 2 and interpretation of the data should consider the possible impact of lags in reporting for 2026. The proportion of legionellosis cases to-date in 2026:
  - With hospitalization reported is 73.0%, which is lower than the average for the same period from 2021 to 2025 (77.3%).
  - Resulting in a fatal outcome is 3.5%, which is lower than the average for the same period from 2021 to 2025 (6.4%) (Table 2).

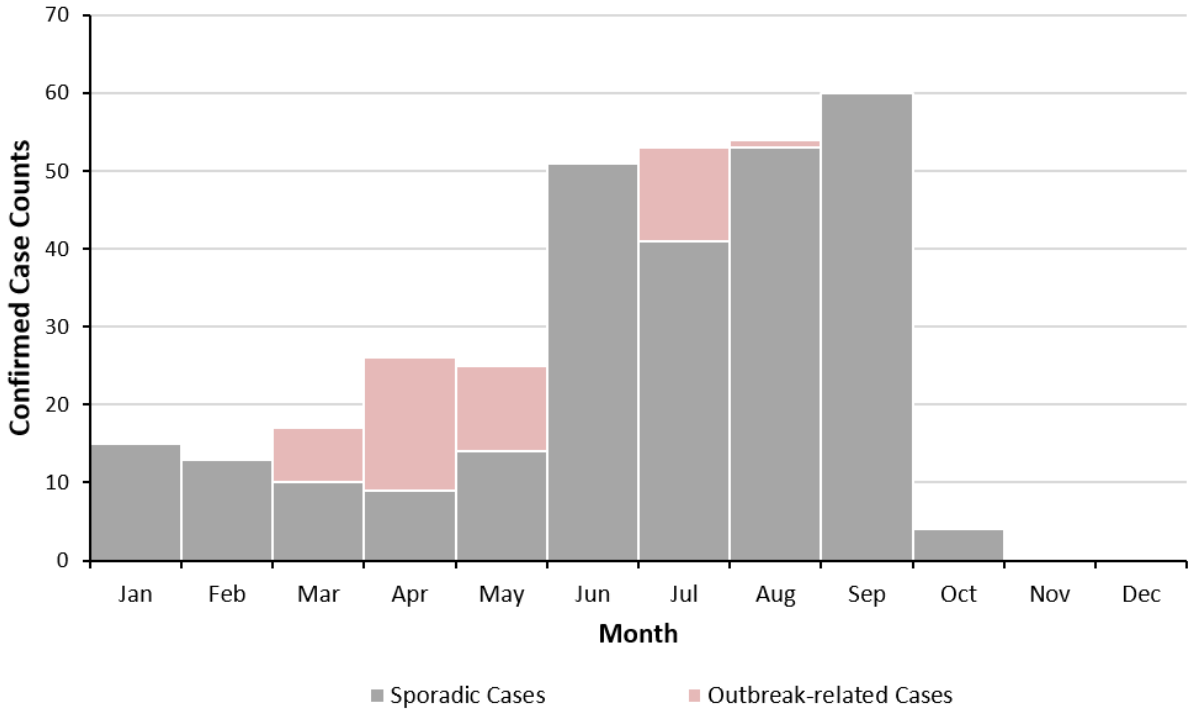
Trends

Figure 1: Confirmed Legionellosis Case Counts and Rates per 100,000 Population in Ontario: Year 2026* Compared to Average Rate for 2021 – 2025, by Month



Data Sources: Cases: integrated Public Health Information System (iPHIS) [database] [extracted 2026 October 14]. Population denominators: Statistics Canada and Ontario Ministry of Finance.
*2026 includes data from January 1 to October 13 only.

Figure 2: Confirmed Legionellosis Cases in Ontario by Cluster/Outbreak Status* and Month in 2026**



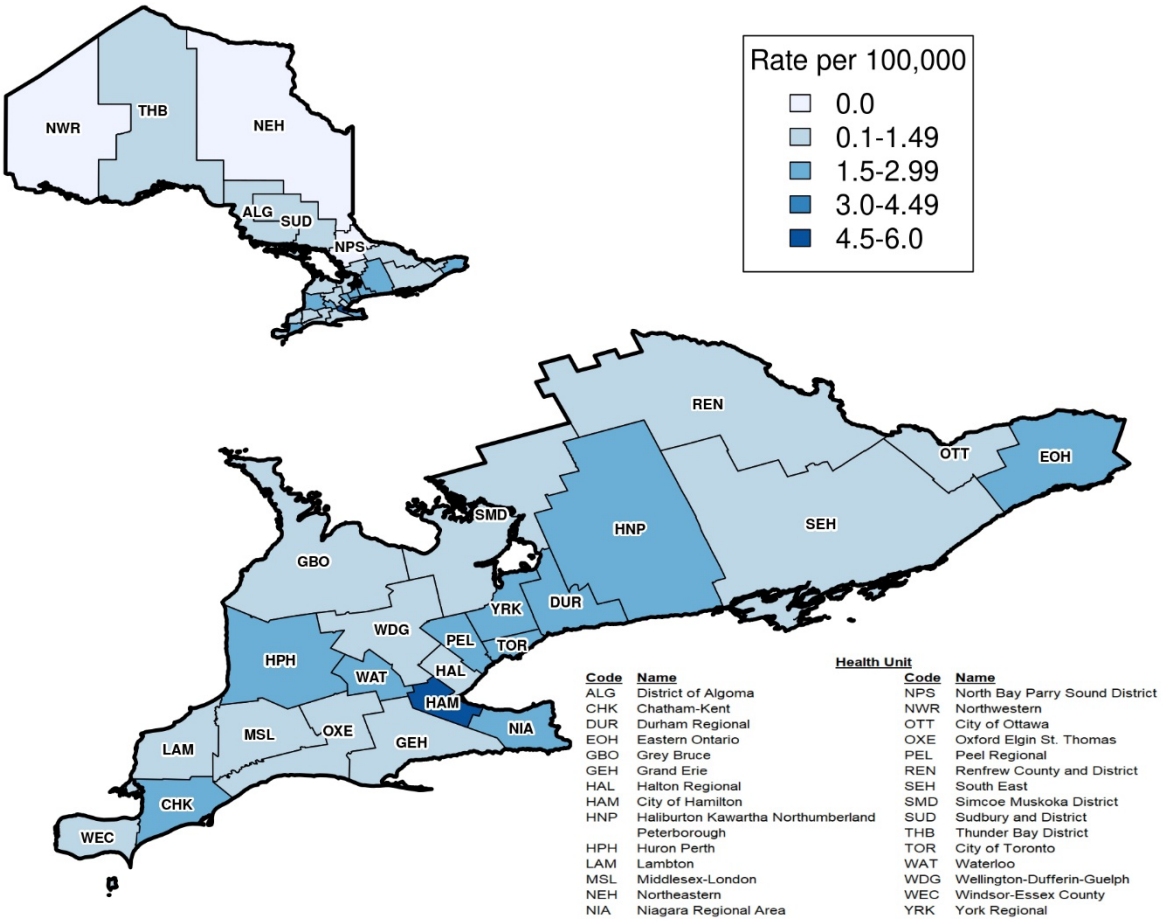
Data Source: integrated Public Health Information System (iPHIS) [database] [extracted 2026 October 14].
* There were three clusters/outbreaks identified/declared in Ontario in 2026 as of October 13, 2026. These were located in the following public health units: Toronto Public Health and City of Hamilton Public Health Services.
**Includes data from January 1 to October 13 only.

Table 1: Confirmed Legionellosis Case Counts and Rates per 100,000 Population in Ontario, by Sex* and Age: Year 2026 Compared to the Average for the Previous Five Years (2021 - 2025)

Sex and Age Group (years)	Total Number of Cases Between January 1 to October 13, 2026	Rate per 100,000 Population Between January 1 to October 13, 2026	Average Number of Cases Annually Between January 1, 2021 to October 13, 2025	Average Annual Rate per 100,000 Population Between January 1, 2021 to October 13, 2025
Female	122	1.5	102.0	1.3
Male	196	2.4	205.6	2.6
Did not specify	0	N/A	0.2	N/A
0 – 19	0	N/A	0.8	0.0
20 – 39	20	0.4	15.8	0.3
40 – 59	80	2.0	88.8	2.3
60 – 79	165	4.8	161.2	5.1
≥80	53	6.7	41.0	5.7
Unknown	0	N/A	0.2	N/A
Total	**318**	**1.9**	**307.8**	**2.0**

Data Source: Cases: integrated Public Health Information System (iPHIS) [database] [extracted 2026 October 14].
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.

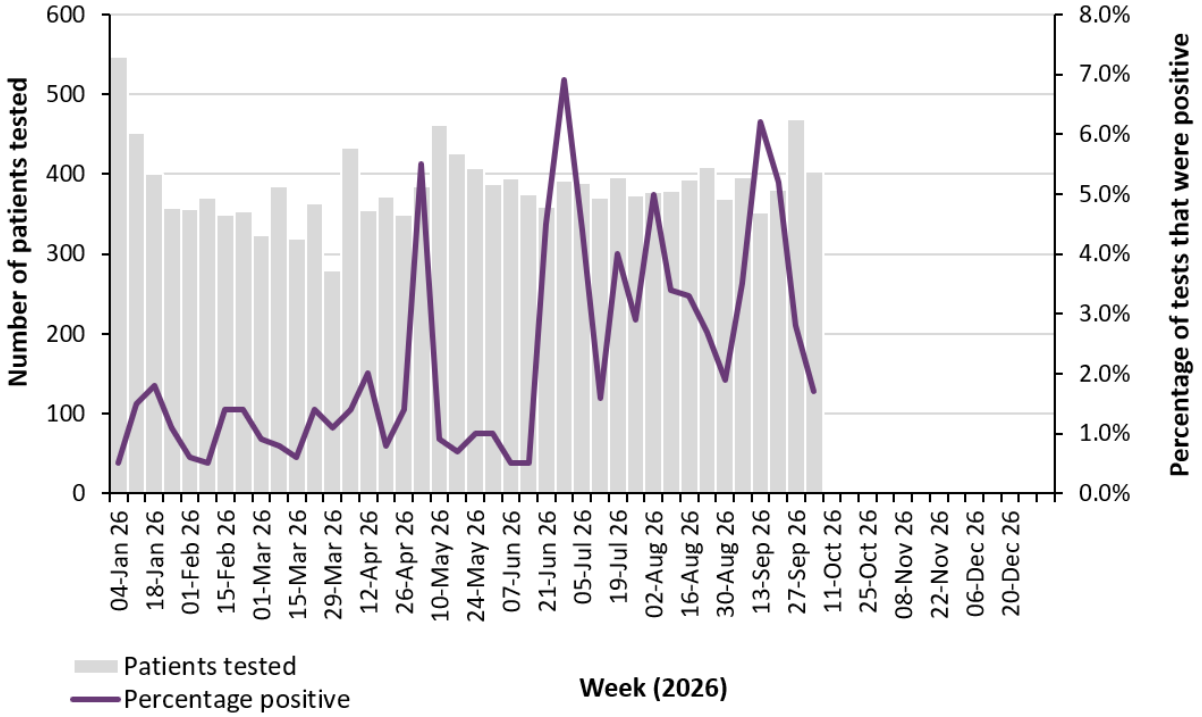
Figure 3: Rate of Confirmed Legionellosis Cases from January 1 to October 13, 2026 in Ontario, by Public Health Unit



Data Source: Cases: integrated Public Health Information System (iPHIS) [database] [extracted 2026 October 14]. Population denominators: Statistics Canada and Ontario Ministry of Finance.

Testing

Figure 4: Number of Patients Tested for *Legionella* and Percent Positivity in Ontario, by Week, 2026*



Data Source: PHO Laboratory Information Management System [extracted 2026 October 14].
Note: Testing for the most recent week is not complete. Includes all *Legionella* testing methods conducted by Public Health Ontario's laboratory. A patient 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.
*The first full week in 2026 contains data from January 4-10, 2026.

Severity

Table 2: Hospitalizations and Deaths among Confirmed Legionellosis Cases in Ontario, by Sex* and Age: Year 2026 Compared to the Average for the Previous Five Years (2021 - 2025)

Sex and Age Group (years)	Number (%) of Cases Hospitalized Between January 1 to October 13, 2026	Average Number (%) of Cases Hospitalized per Year Between January 1, 2021 to October 13, 2025	Number (%) of Cases with a Fatal Outcome Between January 1 to October 13, 2026	Average Number (%) of Cases with a Fatal Outcome per Year Between January 1, 2021 to October 13, 2025
Female	87/122 (71.3)	77.8/102 (76.3)	3/122 (2.5)	6.8/102 (6.7)
Male	145/196 (74.0)	159.8/205.6 (77.7)	8/196 (4.1)	12.8/205.6 (6.2)
Did not specify	N/A	0.2/0.2 (100.0)	N/A	0.0/0.2 (0.0)
0 – 19	N/A	0.6/0.8 (75.0)	N/A	0.0/0.8 (0.0)
20 – 39	16/20 (80.0)	11.2/15.8 (70.9)	0/20 (0.0)	0.6/15.8 (3.8)
40 – 59	59/80 (73.8)	68.0/88.8 (76.6)	1/80 (1.3)	2.2/88.8 (2.5)
60 – 79	116/165 (70.3)	125.4/161.2 (77.8)	5/165 (3.0)	11.4/161.2 (7.1)
≥80	41/53 (77.4)	32.6/41.0 (79.5)	5/53 (9.4)	5.4/41 (13.2)
Unknown	N/A	0.0/0.2 (0.0)	N/A	0.0/0.2 (0.0)
Total	**232/318 (73.0)**	**237.8/307.8 (77.3)**	**11/318 (3.5)**	**19.6/307.8 (6.4)**

Data Source: Ontario. Ministry of Health. integrated Public Health Information System (iPHIS) [database] [extracted 2026 October 14].

*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., October 14, 2026.**
- Testing and percent positivity data was obtained from PHO's Laboratory Information Management System **as of October 14, 2026.**
- Population estimates used to calculate rates for cases were calculated using the Ontario 2020 to 2024 population estimates[5], sourced from Statistics Canada, and the Ontario 2025 and 2026 population projections[6], 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 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 analysis 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.
- Cases linked to a public health unit created outbreak record, that was not marked as "Does Not Meet", were assessed to be cluster/outbreak-related.
- Interpretation of severity data for 2026 should consider the possible impacts of lags in reporting:
  - 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".

- 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.
- Cases for which the Diagnosing Heath Unit (DHU) was reported as MOHLTC (to signify a case that is not a resident of Ontario) were excluded from this analysis.
- Public Health Ontario conducts the majority of Legionella testing in the province.
- 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 4).

References

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Citation

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