



# Annual Epidemiological Report

November 2025

# Legionellosis in Ireland, 2024

# **Key Facts**

- There were 28 cases of Legionnaires' disease notified in Ireland in 2024.
- The rate per million population remained stable at 5.4 in 2024, slightly lower than reported in 2023 (6.2 per 1,000,000 mln. population).
- The majority of Legionnaires' disease cases notified in Ireland in 2024 were male.
- · Seventeen cases were travel associated.
- One death due to Legionnaires' disease were reported in 2024 giving a case fatality rate of 3.6%.
- The annual trend over the last ten years indicates that the number of case notifications of Legionnaires' disease has been increasing over time.

Suggested citation: HSE Health Protection Surveillance Centre. Legionellosis in Ireland. Dublin: HSE HPSC; 2025

#### **Methods**

Figures for the year 2024 presented in this report were extracted from the computerised infectious disease reporting (CIDR) system on the 11<sup>th</sup> September 2025.

## **Epidemiology**

In 2024, there were 28 cases of Legionnaires' disease notified in Ireland, a rate of 5.4 per million population, which is slightly lower than reported in 2023 (6.2 per 1,000,000 mln. population). The majority of cases were male (57%, for 2 cases gender was unknown). The median age for all cases was 59 years, ranging from 16 to 85 years. One death due to Legionnaires' disease were reported among the 28 cases, giving a case fatality rate of 3.6%.

The HSE health regions who reported cases in 2024 are shown in Table 1.

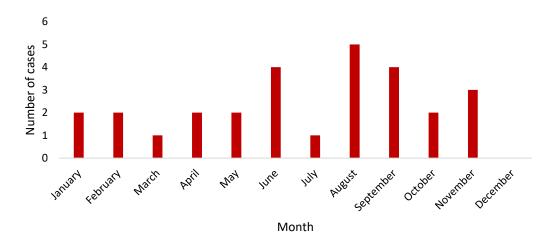
Table 1. Number of Legionnaires' disease cases by area of reporting in Ireland, 2024

HSE area	Number of cases
HSE Dublin and North East	9
HSE Dublin and Midlands	5
HSE Dublin and South East	3
HSE South West	2
HSE Mid West	8
HSE West and North West	1
Ireland	28

## Seasonality

Autumnal seasonality was observed in case notifications in 2024 with higher numbers of cases reported between August - September and in November (Figure 1).

Figure 1. Number of Legionnaires' disease cases by month of notification in Ireland, 2024



## **Causative organism**

The majority (96%) of cases, 27 out of 28, were classified as confirmed *Legionella* pneumophila serogroup 1 detected by urinary antigen test. One case of Legionella longbeachae was confirmed by culture method.

#### Case definitions

Each case of Legionnaires' disease is investigated and given a definition for surveillance, shown in Table 2. Seventeen cases (61%) were travel-associated, geographically grouped by continental region below. Eleven cases were assumed to be community acquired, and no nosocomial cases reported.

Table 2. Number of Legionnaires' disease cases by case definition, 2024

Case definition	Number of cases				
Travel abroad	17				
Africa	1				
Americas	1				
Asia	2				
Europe	12				
Oceania	1				
Antarctica	0				
Community					
assumed	11				
Nosocomial	0				
Total cases	28				

## Age as a risk factor for Legionellosis infection

Analysis the data over time, between 2015 and 2024, shows that the burden of disease lies in the older population with the majority of cases occurring in those aged 50 years and older (Table 3).

Table 3. Number of Legionnaires' disease cases and crude incidence rates (CIR) per million population in Ireland by age group, 2015-2024

Age Group (years)	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
<50	2	3	5	3	6	3	1	8	7	9
50-59	3	1	6	10	3	3	2	2	2	5
60-69	1	2	6	5	8	3	2	7	12	8
70+	5	4	8	8	7	5	2	7	11	6
Total	11	10	25	26	24	14	7	24	32	28
Total CIR per million	2.1	1.9	4.9	5.0	4.7	2.7	1.4	4.7	6.2	5.4

To calculate the crude incidence rate (CIR), Census of the Population data was used as the denominator with Census 2016 for the analysis of 2015-2019 and Census 2022 for the analysis of 2020-2024.

The crude incidence rate in those aged less than 50 years remains low and relatively stable over time; less than two cases per million population (Figure 2). Comparatively, the crude incidence rate for those aged 50 years and older remains higher in number than the younger age group but fluctuates over time, peaking in 2018 at 13.6 and 2023 at 14.7 per million population.

35 35.0 Incidence rate per 1,000,000 population 30 30.0 25.0 25 Number of cases 20.0 20 15 15.0 10 10.0 5 5.0 0 0.0 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024

Figure 2. Number of Legionnaires' disease cases by age group and crude incidence rates per million population in Ireland, 2015-2024

To calculate the crude incidence rate (CIR), Census of the Population data was used as the denominator with Census 2011 for the analysis of 2009-2013 data and Census 2016 for the analysis of 2014-2019 and Census 2022 for the analysis of 2020-2024.

**−**Rate <49

Rate >50

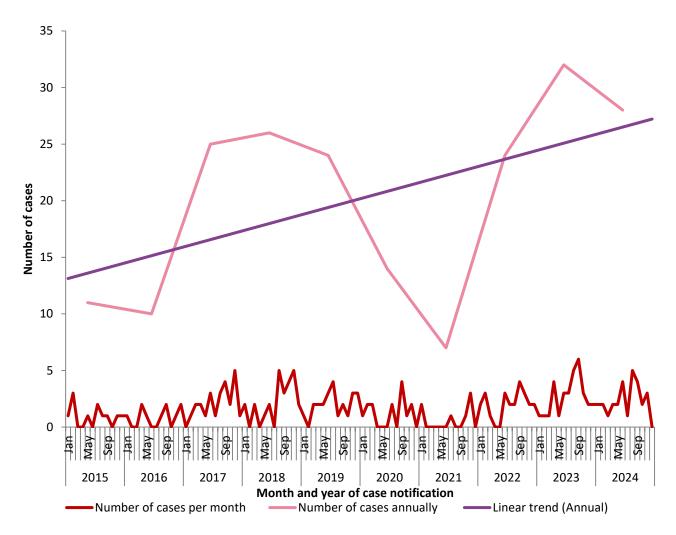
>50

<49yrs

#### Trends over time

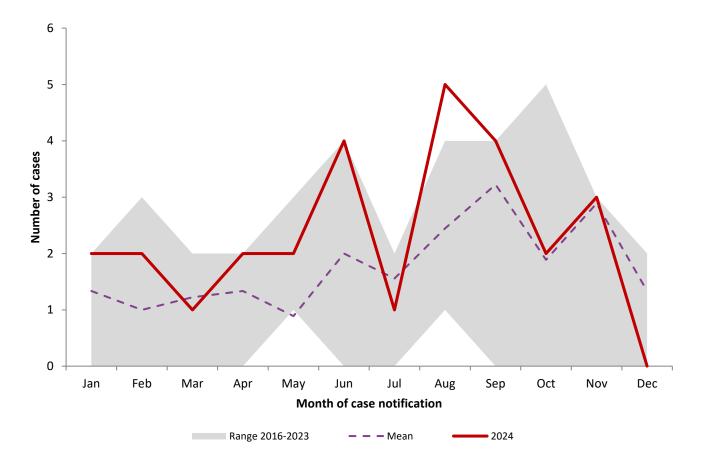
The number of Legionnaires' disease cases by month of notification between 2015 and 2024 are presented in Figure 3. The annual trend over the past ten years indicates that the number of Legionnaires' disease case notifications has been increasing over time (with exception pandemic years in 2020 and 2021) even though the actual number of notified cases remains low.

Figure 3. Number of Legionnaires' disease cases by month and year of notification in Ireland, 2015-2024



The numbers of cases notified in 2024 were within historical thresholds when compared with the mean for the previous eight years (Figure 4).

Figure 4. Number of Legionnaires' disease cases by month of notification in 2024 in Ireland compared to the mean and range by month for the years 2016-2023



### Further information available on HPSC website

The HPSC website contains the following information on Legionellosis:

- Factsheets for the public and General Practitioners
- National Guidelines for the Control of Legionellosis in Ireland 2009
- <u>Guidance</u> on how to respond to an outbreak of Legionnaires' disease in the community and in a hospital, and to an outbreak of cases of travel-associated Legionnaires' disease etc.
- Checklists for hotels, leisure centres and other accommodation sites
- <u>Checklist</u> for gardeners for precautionary measures to take while working with compost
- Additionally, the Legionella <u>links</u> section provides a list of additional resources including European and international guidance from the European Centre for Disease Control and Prevention and the World Health Organization.

## **Acknowledgements**

We would like to thank all the departments of public health and laboratories for providing and validating Legionnaires' disease data each year.