



Public Health
England

Protecting and improving the nation's health

Monthly legionella report

January 2020

National surveillance scheme for legionnaires' disease
in residents of England and Wales

About Public Health England

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Public Health England
Wellington House
133-155 Waterloo Road
London SE1 8UG
Tel: 020 7654 8000
www.gov.uk/phe
Twitter: @PHE_uk
Facebook: www.facebook.com/PublicHealthEngland



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Introduction

The national surveillance scheme for legionnaires' disease in residents of England and Wales is co-ordinated by PHE.

The main objectives of the scheme are to:

- detect clusters and outbreaks of legionella in England and Wales or abroad through the surveillance of all reported cases
- identify sources of infection so control measures can be assessed and, where necessary, improved upon to prevent further cases
- as a member state, collaborate with the European legionnaires' disease Surveillance Network (ELDSNet) in the detection, control and prevention of cases, clusters and outbreaks within European countries through the reporting of travel associated cases of legionnaires' disease

This report provides a summary of data extracted from the national legionella database for confirmed and suspected cases of legionellosis in residents of England and Wales, as reported to the national surveillance scheme during the month of January 2020.

The report only provides an interim representation of legionella activity in England and Wales during this time period due to delays in reporting. This means that the data for this month may not be comparable with previously published data for the same period in previous years. Changes as updates reported after the date of this report will be updated in subsequent monthly reports as further data becomes available.

Figures are correct at the time of publication and may be subject to change.

Legionella data: January 2020

All data presented in this report is correct as at 4 February 2020.

As a notifiable disease registered medical practitioners and laboratory staff performing diagnostic tests have a statutory duty to notify their local proper officer of all suspected cases of legionnaires' disease.

Every reported case must be microbiologically tested and confirmed cases undergo enhanced surveillance through completion of the **national surveillance form** which is completed by the local health protection team.

Table 1: Reported/notified[†] number of legionella infection cases

Number of suspected and confirmed* cases of legionellosis reported since 1 January 2020	53
Number of cases [‡] of legionellosis reported/notified [†] during January 2020	40
Number of confirmed* cases [‡] of legionnaires' disease (LD) since 1 January 2020	21

These case numbers are provisional and subject to change.

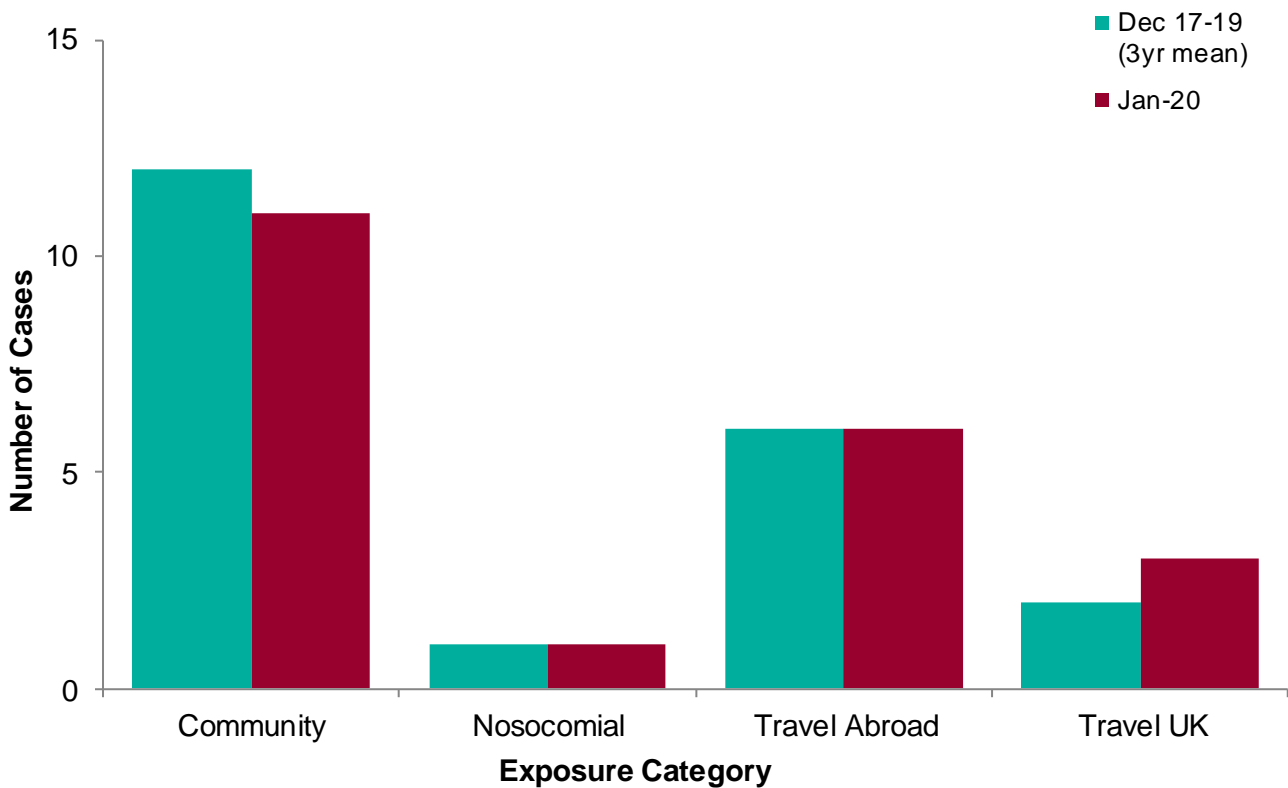
[†] reported/notified cases are any cases reported to the national surveillance scheme via regional colleagues, laboratories and statutory notifications (includes confirmed and non-confirmed cases)

[‡] cases reported with symptom onset between 1 January to 31 January 2020 inclusive with sufficient information submitted and verified by the national surveillance scheme

* cases confirmed to have clinical and/or radiological signs of pneumonia and positive microbiology in the form of culture, urinary antigen and/or nucleic acid detection

Enhanced surveillance of confirmed cases enables the national surveillance team and local health protection teams to determine whether the case fits the case definition for legionnaires' disease. Some of the most valuable details obtained from the enhanced surveillance is information on potential exposures an individual may have come across during their incubation period.

Figure 1: Confirmed* cases of LD by category of exposure, excluding unassigned cases, with onset of symptoms in January 2020



* cases confirmed to have pneumonia and laboratory confirmation of legionella infection – includes some with incomplete data

Exposure details enable local colleagues to investigate potential exposures in an attempt to identify the source of infection and initiate necessary control measures, thereby preventing further cases that could otherwise lead to an outbreak.

For epidemiological purposes cases are sub-divided into one of 4 categories of exposure which are:

- community-acquired cases
- nosocomial/healthcare associated cases
- travel abroad cases
- travel UK cases

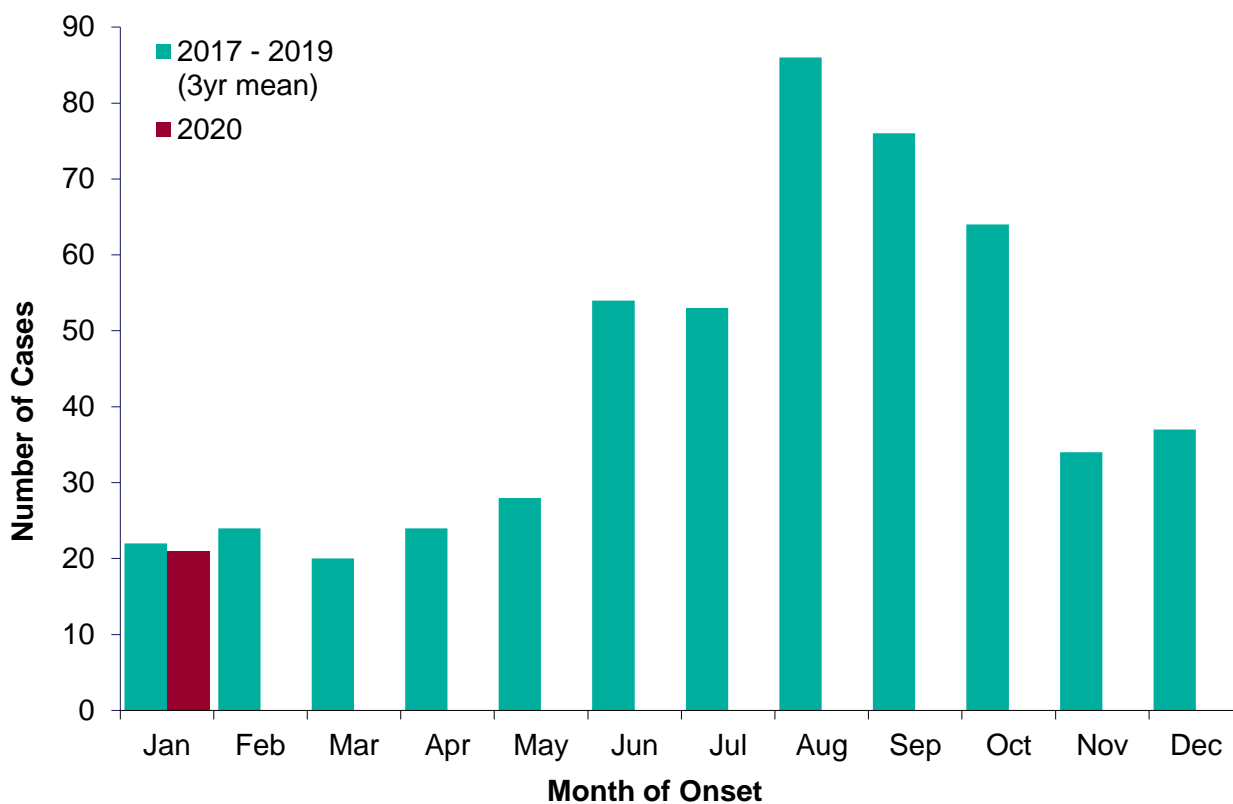
The category a case is designated to is based on information deduced from information retrieved in the national enhanced surveillance form.

Table 2: Number of confirmed* cases of LD by category with onset in January 2020

Category	Confirmed* cases with onset in January 2020
Community	11
Nosocomial	1
Travel abroad	6
Travel UK	3
Unassigned	-
Total	21

* cases confirmed to have pneumonia and laboratory confirmation of legionella infection – includes some with incomplete data
 NB: figures in this table are not equivalent to table 1 as cases reported in January may have earlier onset dates or cases may later prove to be negative or probable

Figure 2: Confirmed* cases of LD by month of onset (January 2020 against monthly mean for previous 3 years)



* cases confirmed to have pneumonia and laboratory confirmation of legionella infection; includes some with incomplete data.

Table 3: All confirmed* cases by region of residence

Region of residence	Confirmed* cases with onset in January 2020	
	Total cases	Cases with LRT (%)
East Midlands	5	1 (20.0)
East of England	2	-
London	4	1 (25.0)
North East	1	1 (100.0)
North West	2	1 (50.0)
South East	2	2 (100.0)
South West	3	2 (66.7)
Wales	-	-
West Midlands	2	-
Yorkshire and Humber	-	-
Other	-	-
Total	21	8 (38.1)

LRT: lower respiratory tract sample

* cases confirmed to have pneumonia and laboratory confirmation of legionella infection; includes some with incomplete data

One of the primary aims of the national surveillance scheme is to detect clusters and outbreaks. Every reported case has the potential to be associated with an existing cluster/outbreak or become part of a cluster/outbreak that emerges in the future. It is therefore essential to obtain as much information as possible from all confirmed cases and this includes clinicians making every attempt to obtain lower respiratory tract samples from patients for sequence-based typing (SBT).

The importance of SBT is that currently the only method by which an individual can be linked to a likely source is through the comparison of the SBT deduced from the clinical sample against the environmental sample SBT.

Table 4: Positive clinical tests of confirmed* cases of LD with onset of symptoms since 1 January 2020

	Number of confirmed cases	Number of cases with respiratory samples	Number of culture and/or PCR positive cases	Number of cases with SBT identified
Total number of cases	21	8	8	2

PCR: polymerase chain reaction; SBT: sequence based typing

* cases confirmed to have pneumonia and laboratory confirmation of legionella infection; includes some with incomplete data

Of the 21 cases of Legionnaires' disease reported to the National Surveillance Scheme 8 (38.1%) cases had a respiratory specimen taken and tested for legionella infection. Of the 8 cases where a respiratory specimen was tested by culture and/or PCR, all 8 specimens tested positive for *Legionella spp*, hence 38.1% of confirmed cases tested positive for *Legionella spp* by culture &/or PCR. A complete/partial sequence type has been determined for 2 (9.5%) cases.

(Please note that some results may still be pending at the time of this report.)

Comments

None for January 2020