



## Local Summary of Legionnaires' disease in Residents of England and Wales, 2015

### West Midlands

This report provides a short summary of Legionella activity in residents of West Midlands, in individuals with onset of symptoms during 2015. This report should be read in conjunction with either the 2015 official statistics which provides data on Legionella activity across the whole of England and Wales during 2015.

It can be found at the following location on the Public Health England (PHE) website:

[www.gov.uk/government/statistics/legionnaires-disease-in-england-and-wales-2015](http://www.gov.uk/government/statistics/legionnaires-disease-in-england-and-wales-2015).

Or the 2015 annual report for Legionnaires' disease in residents of England and Wales:

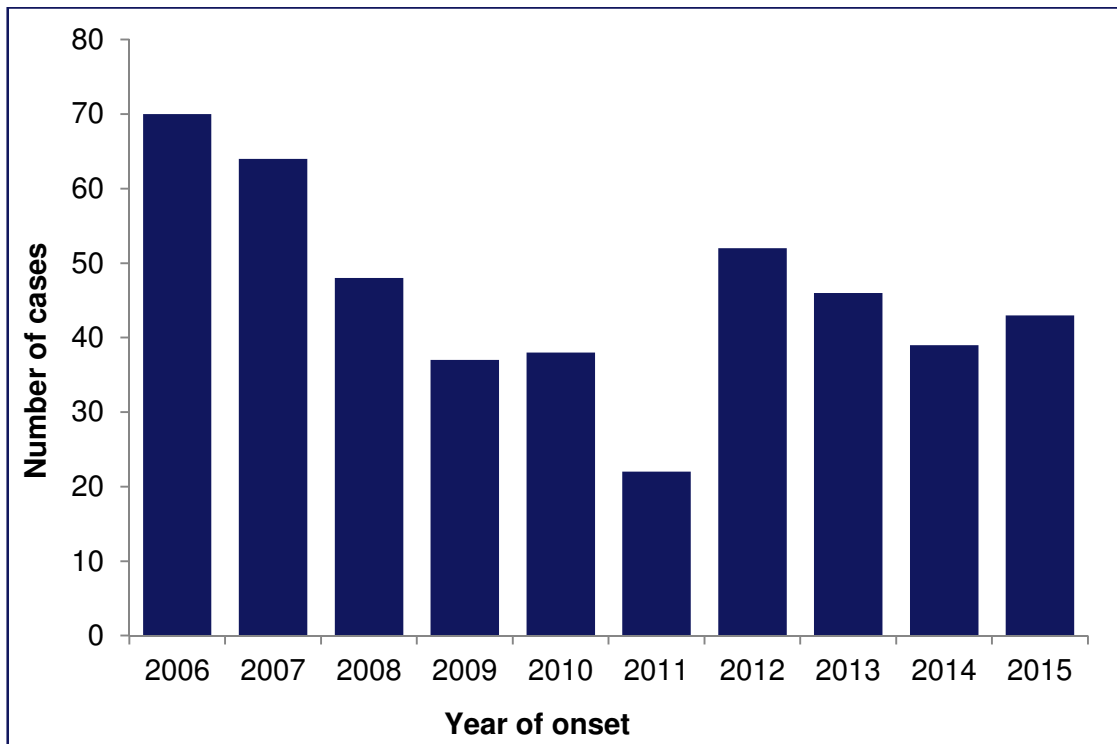
[www.gov.uk/government/publications/legionnaires-disease-in-england-and-wales-report-2015](http://www.gov.uk/government/publications/legionnaires-disease-in-england-and-wales-report-2015).

The annual report provides wider analysis of Legionella activity across England and Wales along with case definitions, detailed methodology and discussion on key aspects of Legionella activity.

The data in this report primarily focuses on cases with onset of symptoms during 2015 but data for years 2013 and 2014, and in some tables and figures for years 2006 to 2014, are presented for comparative purposes.

All data presented in this report are based on cases of legionellosis reported to the National Surveillance Scheme for Legionnaires' disease in Residents of England and Wales which is managed by the Respiratory Diseases Department, National Infection Service, Public Health England.

**Figure 1:** Number of cases of legionellosis (confirmed and presumptive) in residents of West Midlands by year of onset of symptoms 2006 to 2015



**Table 1:** Number of cases of legionellosis (confirmed and presumptive) in residents of West Midlands by disease type and year of onset 2013 to 2015

|                                    | Number of confirmed (presumptive*) cases |   |           | Total<br>(2013 - 2015)                              |
|------------------------------------|--|---|-----------|---|
|                                    | 2013                                     | 2014  | 2015      |   |
| <b>Legionnaires' disease</b>       | 44                                       | 38 (1)  | 43        | <b>125 (1)</b>                                      |
| <b>Non-pneumonic Legionellosis</b> | 2  | -   | -         | <b>2</b>  |
| <b>Pontiac fever</b>               | -  | -   | -         | <b>0</b>  |
| <b>Total</b>                       | <b>46</b>                                | <b>38 (1)</b><br>(38 confirmed,<br>1 presumptive) | <b>43</b> | <b>127 (1)</b><br>(127 confirmed,<br>1 presumptive) |

\* presumptive cases with only a single high titre or PCR result

**Table 2:** Number and population rate<sup>¥</sup> per million of confirmed cases of Legionnaires' disease in residents of West Midlands by year of onset 2013 to 2015

| Region               | 2013       |             | 2014       |             | 2015       |             | Total<br>(2013 - 2015) |             |
|----------------------|------------|-------------|------------|-------------|------------|-------------|------------------------|-------------|
|                      | n          | Rate        | n          | Rate        | n          | Rate        | n                      | Rate        |
| <b>West Midlands</b> | 44         | 7.70        | 38         | 6.65        | 43         | 7.53        | <b>125</b>             | <b>7.29</b> |
| <b>National</b>      | <b>285</b> | <b>4.96</b> | <b>331</b> | <b>5.77</b> | <b>382</b> | <b>6.65</b> | <b>998</b>             | <b>5.79</b> |

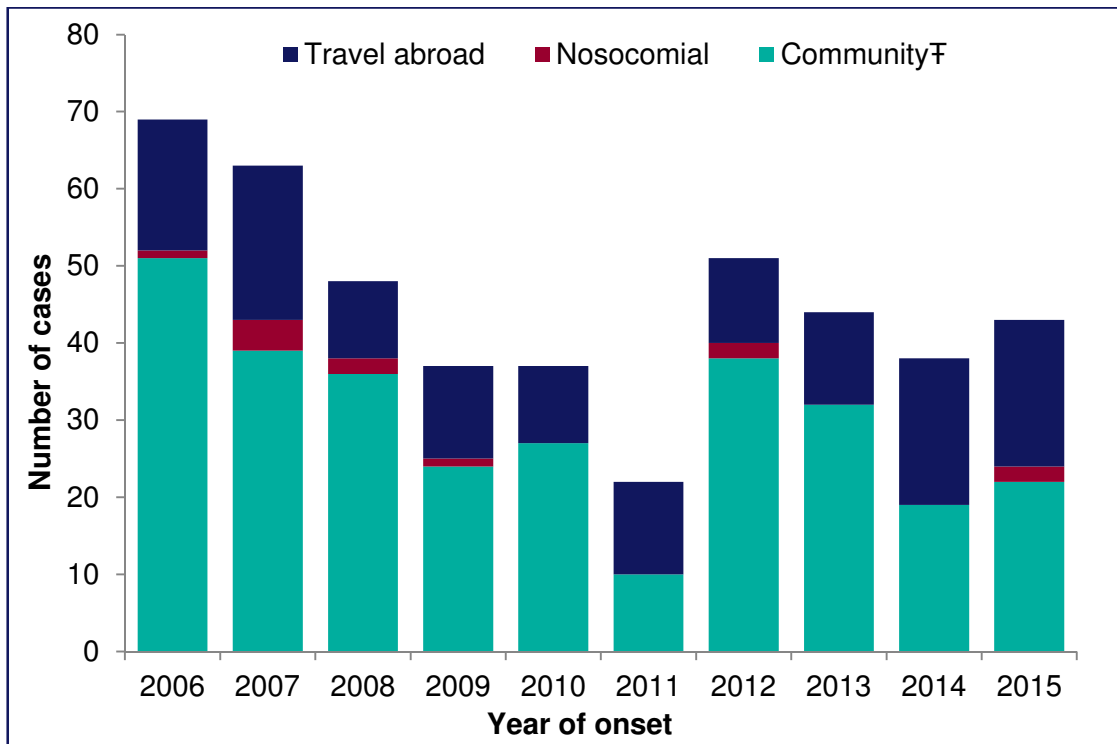
¥ Rate calculated using mid-2014 population estimates for England and Wales from office of national statistics

**Table 3:** Number and proportion of confirmed Legionnaires' disease cases in residents of West Midlands by likely exposure category 2013 to 2015

| Category                     | 2013<br>(%) | 2014<br>(%) | 2015<br>(%) | Total<br>(%)     | National<br>Total (%)<br>(2013 - 2015) |
|------------------------------|-------------|-------------|-------------|------------------|--|
| <b>Community<sup>‡</sup></b> | 32 (72.7)   | 19 (50.0)   | 22 (51.2)   | <b>73 (58.4)</b> | <b>569 (57.0)</b>                      |
| <b>Nosocomial</b>            | -           | -           | 2 (4.7)     | <b>2 (1.6)</b>   | <b>25 (2.5)</b>                        |
| <b>Travel abroad</b>         | 12 (27.3)   | 19 (50.0)   | 19 (44.2)   | <b>50 (40.0)</b> | <b>404 (40.5)</b>                      |
| <b>Total</b>                 | <b>44</b>   | <b>38</b>   | <b>43</b>   | <b>125</b>       | <b>998 (100.0)</b>                     |

‡ includes travel UK cases

**Figure 2:** Number of confirmed Legionnaires' disease cases<sup>o</sup> in residents of West Midlands by year of onset and category 2006 to 2015



‡ includes travel UK cases

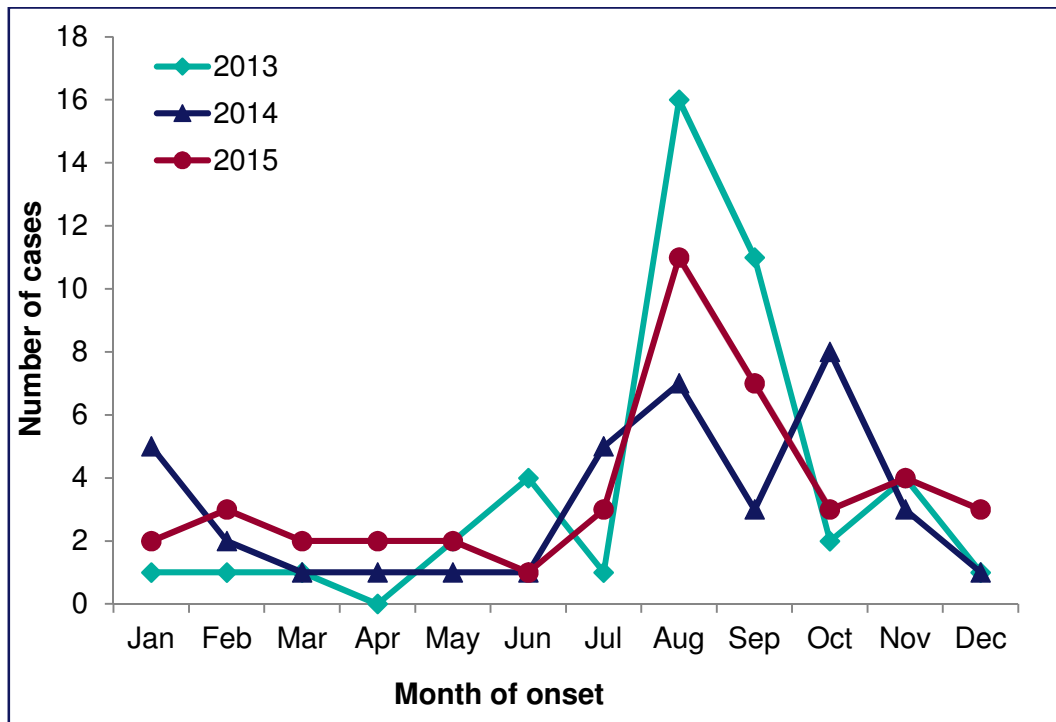
<sup>o</sup> confirmed LD case: diagnosis by culture, urinary antigen or serology with a four-fold rise (FFR) and evidence of pneumonia

**Table 4:** Number and proportion of confirmed Legionnaires' disease cases in residents of West Midlands by age group and gender, with age specific case-fatality rates 2013 to 2015

| Age Groups                 | Number (%) of cases |                  |                    | No. Deaths | Age Specific CFR (95%CI)       |
|----------------------------|---------------------|------------------|--------------------|------------|--------------------------------|
|                            | Female              | Male             | Total (2013 -2015) |            |                                |
| <b>Under 50 years</b>      | 6 (23.1)            | 20 (76.9)        | 26 (20.8)          | -          | 0.0 (0.0 - 13.2 <sup>‡</sup> ) |
| <b>50-59 years</b>         | 4 (15.4)            | 22 (84.6)        | 26 (20.8)          | 1          | 3.8 (0.1 - 19.6)               |
| <b>60-69 years</b>         | 8 (23.5)            | 26 (76.5)        | 34 (27.2)          | 1          | 2.9 (0.1 - 15.3)               |
| <b>70 years &amp; over</b> | 9 (23.1)            | 30 (76.9)        | 39 (31.2)          | 4          | 10.3 (2.9 - 24.2)              |
| <b>Total</b>               | <b>27 (21.6)</b>    | <b>98 (78.4)</b> | <b>125 (100.0)</b> | <b>6</b>   | <b>4.8 (1.8 - 10.2)</b>        |

<sup>‡</sup> one-sided, 97.5% confidence interval

**Figure 3:** Number of confirmed Legionnaires' disease cases in residents of West Midlands by month and year of onset 2013 to 2015



**Table 5:** Legionnaires' disease cases in residents of West Midlands by diagnostic test and year of onset 2012 to 2014~

|                                 | 2013 (%)   | 2014 (%)  | 2015 (%)  | Total (%) (2013 - 2015) | National Total (%) (2013 - 2015) |
|---------------------------------|------------|-----------|-----------|-------------------------|----------------------------------|
| <b>Case Numbers<sup>†</sup></b> | <b>44</b>  | <b>38</b> | <b>43</b> | <b>125</b>              | <b>998</b>                       |
| <b>Culture</b>                  | 10 (22.7)  | 2 (5.3)   | 7 (16.3)  | <b>19 (15.2)</b>        | <b>248 (24.9)</b>                |
| <b>Urine</b>                    | 44 (100.0) | 37 (97.4) | 42 (97.7) | <b>123 (98.4)</b>       | <b>975 (97.7)</b>                |
| <b>Serology (SHT)</b>           | -          | -         | -         | -                       | <b>0</b>                         |
| <b>Serology (FFR)</b>           | -          | -         | -         | -                       | <b>0</b>                         |
| <b>PCR</b>                      | 16 (36.4)  | 5 (13.2)  | 9 (20.9)  | <b>30 (24.0)</b>        | <b>305 (30.6)</b>                |

~ this table shows the investigations carried out on each confirmed case

<sup>†</sup> please note that some cases have more than one diagnostic test carried out, therefore the sum of diagnostic tests does not equal the annual 'case number'

**Table 6:** Number of confirmed Legionnaires' disease cases in residents of West Midlands by Local Authority (Upper-Tier) and year of onset 2013 to 2015

| <b>Local Authority</b>         | <b>2013</b> | <b>2014</b> | <b>2015</b> | <b>Total<br/>(2013 - 2015)</b> |
|--------------------------------|-------------|-------------|-------------|--------------------------------|
| <b>Birmingham</b>              | 12          | 6           | 12          | <b>30</b>                      |
| <b>Bromsgrove</b>              | 1           | -           | -           | <b>1</b>                       |
| <b>Cannock Chase</b>           | 1           | -           | -           | <b>1</b>                       |
| <b>Coventry</b>                | 3           | 1           | 2           | <b>6</b>                       |
| <b>Dudley</b>                  | 1           | 3           | 2           | <b>6</b>                       |
| <b>East Staffordshire</b>      | -           | 1           | -           | <b>1</b>                       |
| <b>Hereford</b>                | 1           | 4           | 1           | <b>6</b>                       |
| <b>Lichfield</b>               | 2           | -           | 1           | <b>3</b>                       |
| <b>Malvern Hills</b>           | -           | 1           | -           | <b>1</b>                       |
| <b>Newcastle under Lyme</b>    | 3           | -           | 1           | <b>4</b>                       |
| <b>North Warwickshire</b>      | 2           | -           | 1           | <b>3</b>                       |
| <b>Nuneaton and Bedworth</b>   | 1           | 3           | 1           | <b>5</b>                       |
| <b>Redditch</b>                | -           | 1           | -           | <b>1</b>                       |
| <b>Rugby</b>                   | 1           | -           | -           | <b>1</b>                       |
| <b>Sandwell</b>                | 4           | 2           | 2           | <b>8</b>                       |
| <b>Shropshire UA</b>           | 1           | -           | 3           | <b>4</b>                       |
| <b>Solihull</b>                | 3           | 2           | 2           | <b>7</b>                       |
| <b>South Staffordshire</b>     | 1           | -           | -           | <b>1</b>                       |
| <b>Stafford</b>                | 2           | -           | -           | <b>2</b>                       |
| <b>Staffordshire Moorlands</b> | -           | 2           | -           | <b>2</b>                       |
| <b>Stoke on Trent</b>          | 1           | 5           | 2           | <b>8</b>                       |
| <b>Stratford on Avon</b>       | 1           | 1           | 1           | <b>3</b>                       |
| <b>Tamworth</b>                | 1           | -           | 1           | <b>2</b>                       |
| <b>Telford and Wrekin</b>      | 1           | -           | 4           | <b>5</b>                       |
| <b>Walsall</b>                 | -           | 2           | 5           | <b>7</b>                       |
| <b>Warwick</b>                 | 1           | 1           | 1           | <b>3</b>                       |
| <b>Wolverhampton</b>           | -           | 1           | -           | <b>1</b>                       |
| <b>Wychavon</b>                | -           | 1           | -           | <b>1</b>                       |
| <b>Wyre Forest</b>             | -           | 1           | 1           | <b>2</b>                       |
| <b>Total</b>                   | <b>44</b>   | <b>38</b>   | <b>43</b>   | <b>125</b>                     |

**Table 7:** Number and type of outbreaks/clusters with associated number of West Midlands cases of Legionnaires' disease 2013 to 2015

|                   | 2013     |          | 2014     |          | 2015     |           | Total<br>(2014 - 2015) |           |
|-------------------|----------|----------|----------|----------|----------|-----------|------------------------|-----------|
|                   | OB       | Cases    | OB       | Cases    | OB       | Cases     | OB                     | Cases     |
| <b>Community</b>  | -        | -        | -        | -        | 2        | 14        | <b>2</b>               | <b>14</b> |
| <b>Nosocomial</b> | -        | -        | -        | -        | -        | -         | <b>0</b>               | <b>0</b>  |
| <b>Travel UK</b>  | -        | -        | -        | -        | -        | -         | <b>0</b>               | <b>0</b>  |
| <b>Total</b>      | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>2</b> | <b>14</b> | <b>2</b>               | <b>14</b> |

( ) cases with onset of symptoms in other years that are included in the cluster/outbreak

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