



## Local Summary of Legionnaires' disease in Residents of England and Wales, 2016

### North West

This report provides a short summary of Legionella activity in residents of North West, amongst individuals with onset of symptoms during 2016. It is recommended that this report be read in conjunction with either the 2016 official statistics which provides statistics on Legionella activity across the whole of England and Wales during 2016 and can be found on the Public Health England (PHE) website at the following address:

[www.gov.uk/government/statistics/legionnaires-disease-in-england-and-wales-2016](http://www.gov.uk/government/statistics/legionnaires-disease-in-england-and-wales-2016).

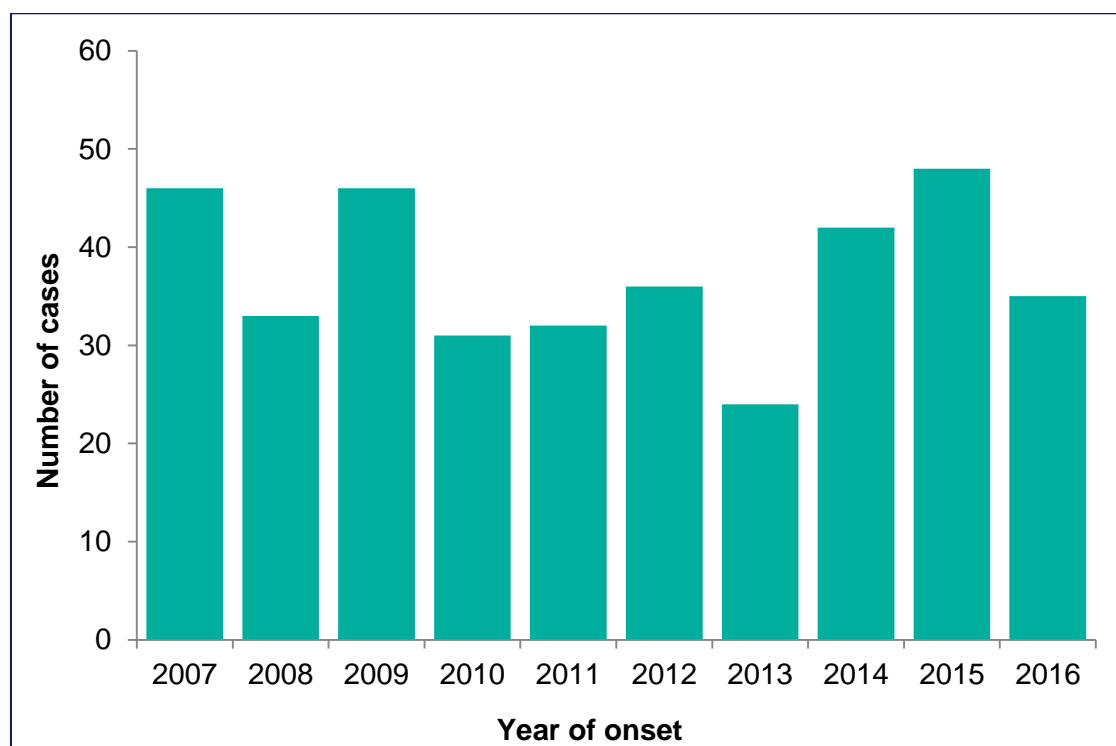
Alternatively, the annual report; Legionnaires' disease in residents of England and Wales: 2016 can be referred to and is located at: [www.gov.uk/government/publications/legionnaires-disease-in-residents-of-england-and-wales-2016](http://www.gov.uk/government/publications/legionnaires-disease-in-residents-of-england-and-wales-2016).

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 in England and Wales during 2016.

The data in this report primarily focuses on cases with onset of symptoms during 2016 but data for years 2014 and 2015 and in some tables and figures, for years 2007 to 2015, are presented for comparative purposes.

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 that is managed by the Respiratory diseases department, National Infection Service, PHE.

**Figure 1: Number of cases of legionellosis (confirmed and presumptive) in residents of North West by year of onset of symptoms: 2007 – 2016**



**Table 1: Number of cases of legionellosis (confirmed and presumptive) in residents of North West by disease type and year of onset; 2014 - 2016**

	Number of confirmed (presumptive*) cases			Total (2014 - 2016)
	2014	2015	2016	
<b>Legionnaires' disease</b>	41 (1)	46 (1)	34 (1)	<b>121 (3)</b>
<b>Non-pneumonic Legionellosis</b>	-	1	-	<b>1</b>
<b>Pontiac fever</b>	-	-	-	<b>0</b>
<b>Total</b>	<b>41</b> (41 confirmed, 1 presumptive)	<b>47</b> (46 confirmed, 1 presumptive)	<b>34</b> (34 confirmed, 1 presumptive)	<b>122</b> (122 confirmed, 3 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 North West by year of onset; 2014 - 2016**

Region	2014		2015		2016		Total (2014 - 2016)	
	n	Rate	n	Rate	n	Rate	n	Rate
North West	41	5.68	45	6.37	34	4.71	121	5.59
National	331	5.67	384	6.58	355	6.08	1070	6.11

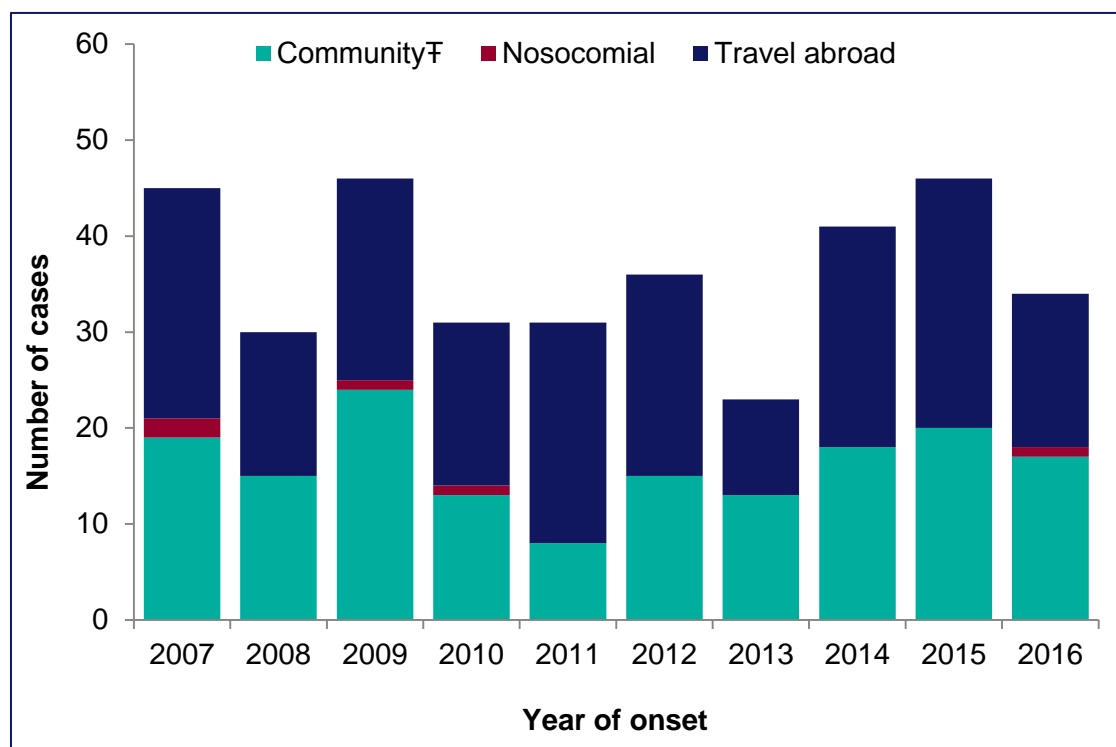
‡ Rate calculated using mid-2016 population estimates for England and Wales from office of national statistics

**Table 3: Number and proportion of confirmed Legionnaires' disease cases in residents of North West by likely exposure category: 2014 - 2016**

Category	2014 (%)	2015 (%)	2016 (%)	Total (%)	National Total (%) (2014 - 2016)
Community <sup>‡</sup>	18 (43.9)	20 (43.5)	17 (50.0)	55 (45.5)	580 (54.2)
Nosocomial	-	-	1 (2.9)	1 (0.8)	27 (2.5)
Travel abroad	23 (56.1)	26 (56.5)	16 (47.1)	65 (53.7)	463 (43.3)
<b>Total</b>	<b>41</b>	<b>46</b>	<b>34</b>	<b>121</b>	<b>1070 (100.0)</b>

‡ includes travel UK cases

**Figure 2: Number of confirmed Legionnaires' disease cases<sup>o</sup> in residents of North West by year of onset and category: 2007 – 2016**



‡ includes travel UK cases

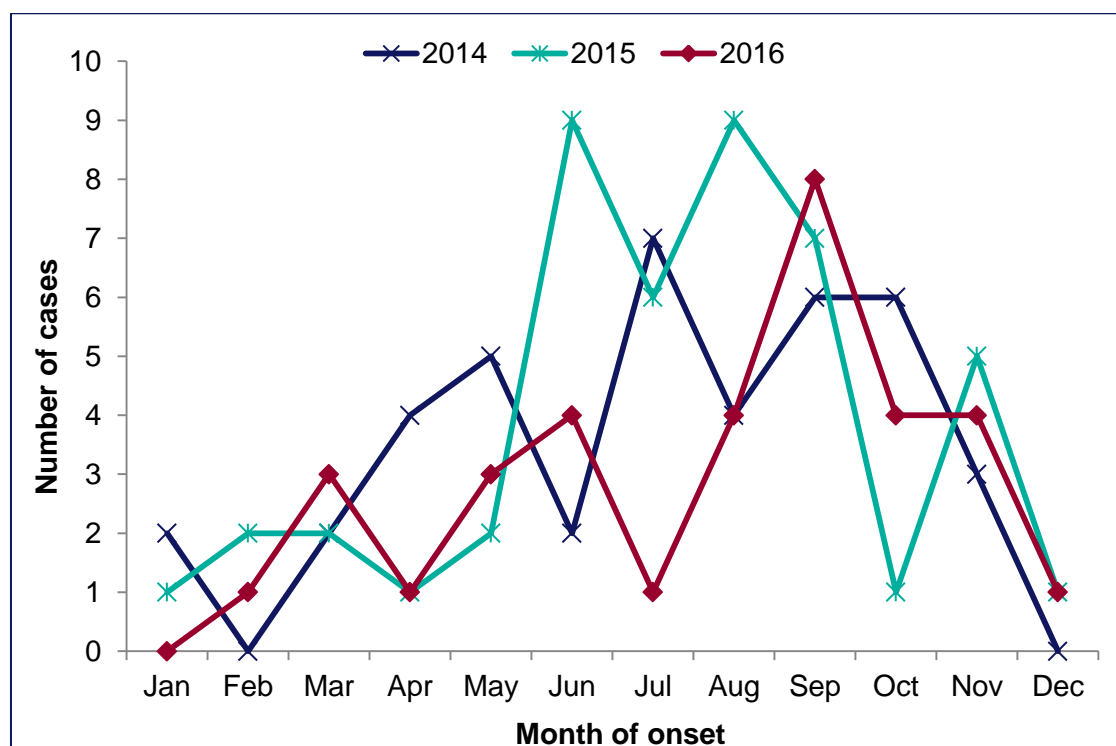
confirmed LD case: diagnosis by culture, urinary antigen or serology with a four-fold rise (FFR) and evidence of pneumonia

**Table 4: Number and proportion of confirmed Legionnaires' disease cases in residents of North West by age group and gender, with age specific case-fatality rates: 2014 – 2016**

Age Groups	Number (%) of cases			No. Deaths	Age Specific CFR (95%CI)
	Female	Male	Total (2014-2016)		
<b>Under 50 years</b>	6 (30.0)	14 (70.0)	20 (16.5)	-	0.0 (0.0 - 16.8 <sup>‡</sup> )
<b>50-59 years</b>	3 (11.5)	23 (88.5)	26 (21.5)	1	3.8 (0.1 - 19.6)
<b>60-69 years</b>	14 (31.1)	31 (68.9)	45 (37.2)	1	2.2 (0.06 - 11.8)
<b>70 years &amp; over</b>	9 (30.0)	21 (70.0)	30 (24.8)	7	23.3 (9.9 - 42.3)
<b>Total</b>	<b>32 (26.4)</b>	<b>89 (73.6)</b>	<b>121 (100.0)</b>	<b>9</b>	<b>7.4 (3.5 - 13.7)</b>

‡ one-sided, 97.5% confidence interval

**Figure 3: Number of confirmed Legionnaires' disease cases in residents of North West by month and year of onset: 2014 – 2016**



**Table 5: Legionnaires' disease cases in residents of North West by diagnostic test and year of onset: 2014 - 2016~**

	2014 (%)	2015 (%)	2016 (%)	Total (%) (2014 - 2016)	National Total (%) (2014 - 2016)
<b>Case Numbers<sup>†</sup></b>	<b>41</b>	<b>46</b>	<b>34</b>	<b>121</b>	<b>1070</b>
<b>Culture</b>	16 (39.0)	15 (32.6)	12 (35.5)	<b>43 (35.5)</b>	<b>241 (22.5)</b>
<b>Urine</b>	38 (92.7)	46 (100.0)	33 (97.1)	<b>117 (96.7)</b>	<b>1044 (97.6)</b>
<b>Serology (SHT)</b>	-	-	-	-	<b>0</b>
<b>Serology (FFR)</b>	-	-	-	-	<b>0</b>
<b>PCR</b>	19 (46.3)	16 (34.8)	16 (47.1)	<b>51 (42.2)</b>	<b>306 (28.6)</b>

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

† please note that some cases have more than 1 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 North West by Local Authority and year of onset: 2014 - 2016**

<b>Local Authority</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>Total (2014 - 2016)</b>
<b>Blackburn with Darwen</b>	1	1	-	<b>2</b>
<b>Blackpool</b>	-	1	-	<b>1</b>
<b>Bolton</b>	2	-	4	<b>6</b>
<b>Bury</b>	1	-	-	<b>1</b>
<b>Cheshire East</b>	4	3	-	<b>7</b>
<b>Cheshire West and Chester</b>	2	-	1	<b>3</b>
<b>Cumbria</b>	3	1	1	<b>5</b>
<b>Halton</b>	-	1	2	<b>3</b>
<b>Knowsley</b>	-	1	1	<b>2</b>
<b>Lancashire</b>	5	10	9	<b>24</b>
<b>Liverpool</b>	2	3	2	<b>7</b>
<b>Manchester</b>	-	4	2	<b>6</b>
<b>Oldham</b>	-	2	1	<b>3</b>
<b>Rochdale</b>	1	1	2	<b>4</b>
<b>Salford</b>	2	4	3	<b>9</b>
<b>Sefton</b>	3	3	-	<b>6</b>
<b>St. Helens</b>	1	1	1	<b>3</b>
<b>Stockport</b>	3	3	-	<b>6</b>
<b>Tameside</b>	2	1	1	<b>4</b>
<b>Trafford</b>	3	2	-	<b>5</b>
<b>Warrington</b>	2	1	1	<b>4</b>

<b>Wigan</b>	3	2	-	<b>5</b>
<b>Wirral</b>	1	1	3	<b>5</b>
<b>Total</b>	<b>41</b>	<b>46</b>	<b>34</b>	<b>121</b>

**Table 7: Number and type of outbreaks/clusters with associated number of North West cases of Legionnaires' disease: 2014 – 2016**

	2014		2015		2016		Total (2012 - 2014)	
	OB	Cases	OB	Cases	OB	Cases	OB	Cases
<b>Community</b>	-	-	1	6	-	-	<b>1</b>	<b>6</b>
<b>Nosocomial</b>	-	-	-	-	-	-	<b>0</b>	<b>0</b>
<b>Travel UK</b>	-	-	-	-	1	2 (1)	<b>1</b>	<b>2 (1)</b>
<b>Total</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>6</b>	<b>1</b>	<b>2 (1)</b>	<b>2</b>	<b>8 (1)</b>

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

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