



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

East Midlands

This report provides a short summary of Legionella activity in residents of East Midlands, 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

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.

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 East Midlands by year of onset of symptoms: 2007 – 2016

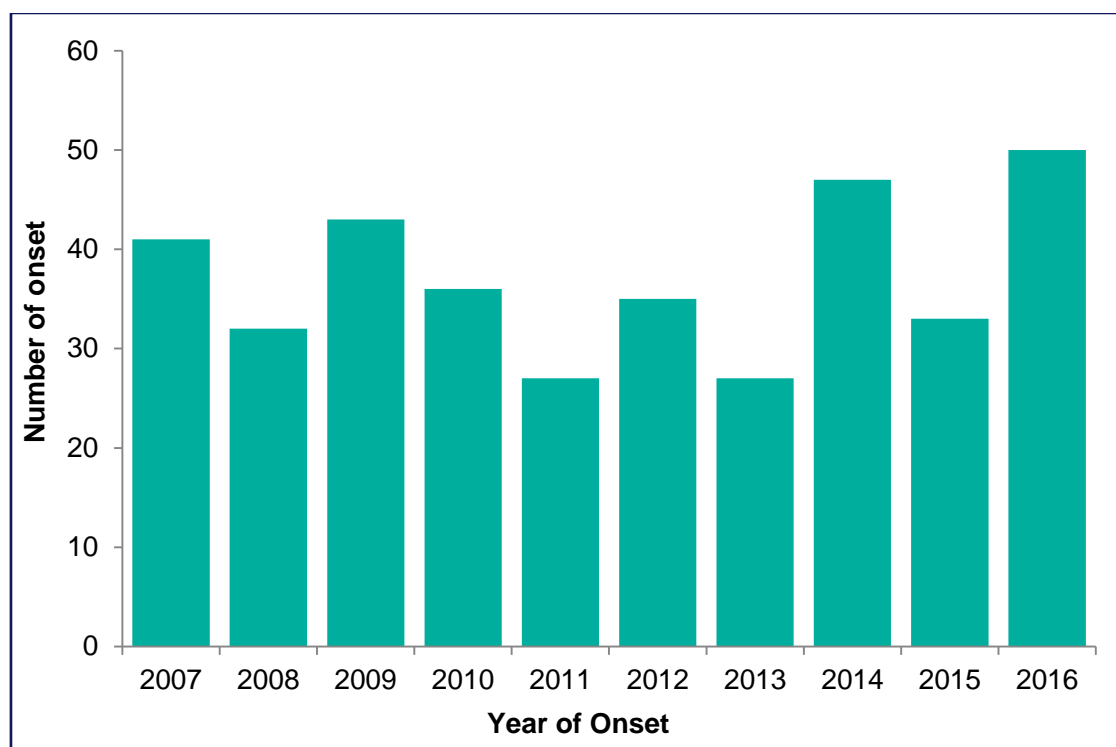


Table 1: Number of cases of legionellosis (confirmed and presumptive) in residents of East Midlands by disease type and year of onset: 2014 – 2016

	Number of confirmed (presumptive*) cases			
	2014	2015	2016	Total (2014 - 2016)
Legionnaires' disease	46 (1)	33	50	129 (1)
Non-pneumonic Legionellosis	-	-	-	0
Pontiac fever	-	-	-	0
Total	46 (1) (46 confirmed, 1 presumptive)	33	50	129 (129 confirmed, 1 presumptive)

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

Table 2: Number and population rate[‡] per million of confirmed cases of Legionnaires' disease in residents of East Midlands by year of onset: 2014 – 2016

Region	2014		2015		2016		Total (2014 - 2016)	
	n	Rate	n	Rate	n	Rate	n	Rate
East Midlands	46	9.74	33	6.98	50	10.58	129	9.10
National	331	5.67	384	6.58	355	6.08	1070	6.11

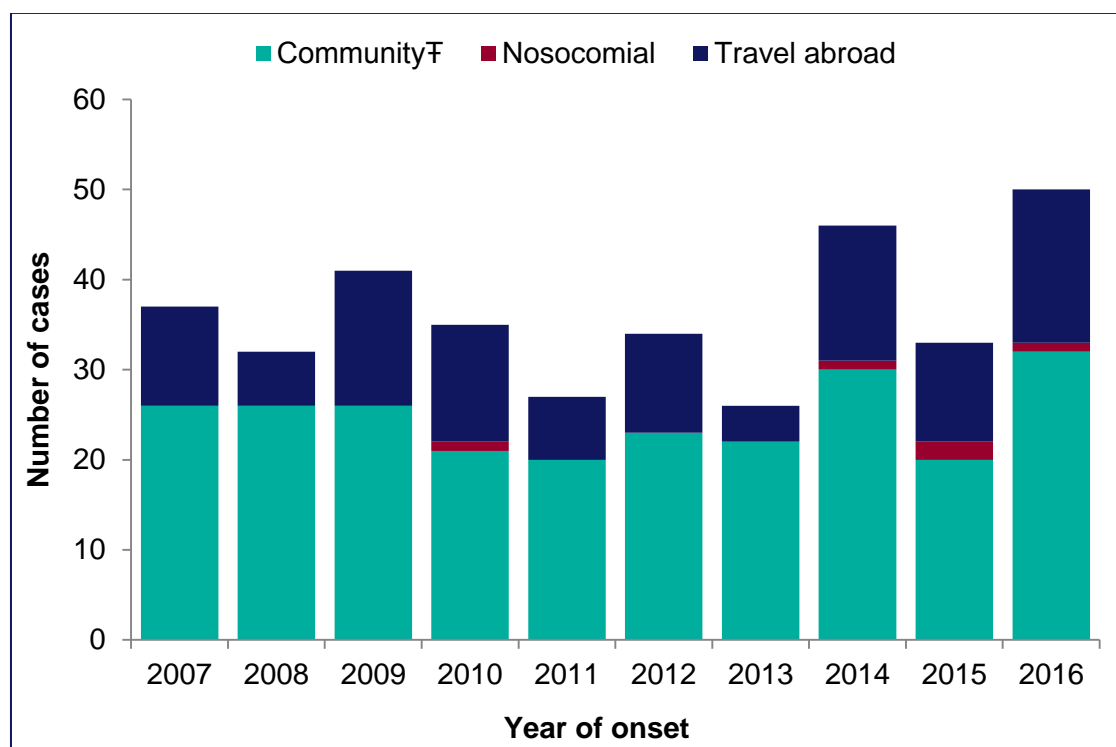
‡ Rate calculated using mid-2016 population estimates for England and Wales from office of national statistics

Table 3: Number and proportion of confirmed Legionnaires' disease cases in residents of East Midlands by likely exposure category: 2014 – 2016

Category	2014 (%)	2015 (%)	2016 (%)	Total (%)	National Total (%) (2014 - 2016)
Community[‡]	30 (65.2)	20 (60.6)	32 (64.0)	82 (63.6)	580 (54.2)
Nosocomial	1 (2.2)	2 (6.1)	1 (2.0)	4 (3.1)	27 (2.5)
Travel abroad	15 (32.6)	11 (33.3)	17 (34.0)	43 (33.3)	463 (43.3)
Total	46	33	50	129	1070 (100.0)

‡ includes travel UK cases

Figure 2: Number of confirmed Legionnaires' disease cases° in residents of East Midlands 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 East Midlands 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)		
Under 50 years	1 (6.7)	14 (93.3)	15 (11.6)	-	0.0 (0.0 - 21.8 [‡])
50-59 years	12 (44.4)	15 (55.6)	27 (20.9)	1	3.7 (0.1 - 19.0)
60-69 years	20 (45.5)	24 (54.6)	44 (34.1)	6	13.6 (5.2 - 27.4)
70 years & over	17 (39.5)	26 (60.5)	43 (33.3)	4	9.3 (2.6 - 22.1)
Total	50 (38.8)	79 (61.2)	129 (100.0)	11	8.5 (4.3 - 14.7)

‡ one-sided, 97.5% confidence interval

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

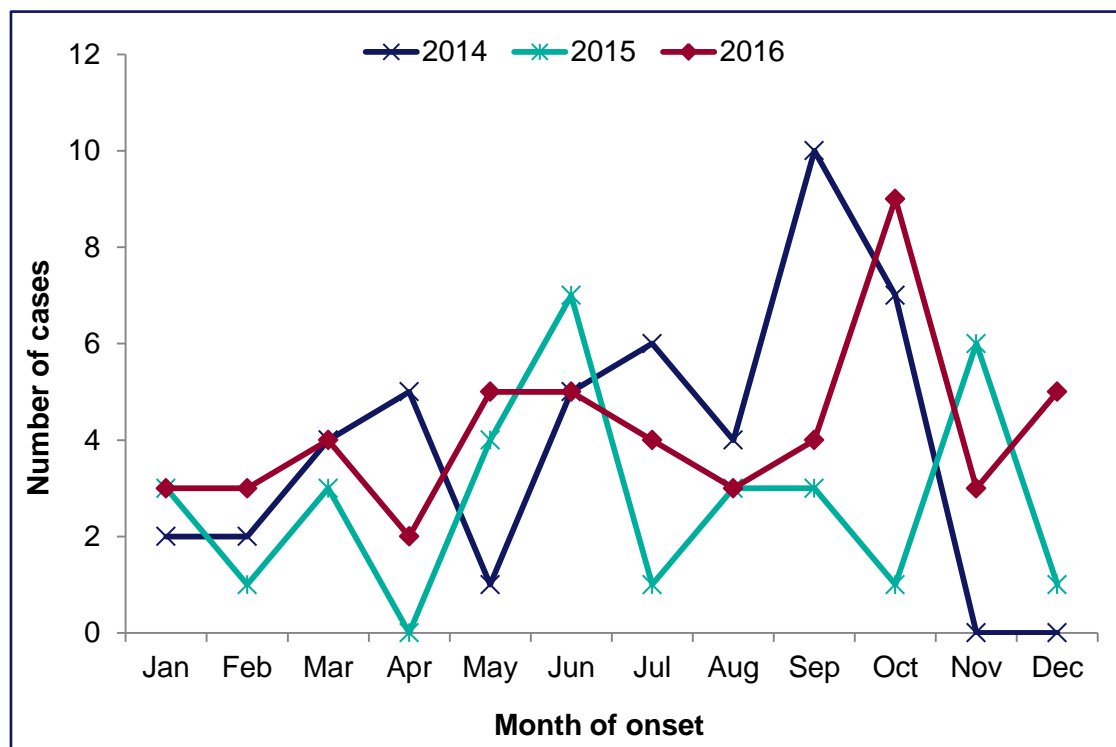


Table 5: Legionnaires' disease cases in residents of East Midlands by diagnostic test and year of onset: 2014 – 2016~

	2014 (%)	2015 (%)	2016 (%)	Total (%) (2014 - 2016)	National Total (%) (2014 - 2016)
Case Numbers[†]	46	33	50	129	1070
Culture	15 (32.6)	8 (24.2)	12(24.0)	35 (27.1)	241 (22.5)
Urine	46 (100.0)	33 (100.0)	49 (98.0)	128 (99.2)	1044 (97.6)
Serology (SHT)	-	-	-	-	0
Serology (FFR)	-	-	-	-	0
PCR	17 (37.0)	13 (39.4)	19 (38.0)	49 (38.0)	306 (28.6)

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

[†] 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 East Midlands by Local Authority and year of onset: 2014 – 2016

Local Authority	2014	2015	2016	Total (2014 - 2016)
Derby	2	1	3	6
Derbyshire	8	4	11	23
Leicester	1	1	2	4
Leicestershire	2	6	3	11
Lincolnshire	2	4	5	11
Northamptonshire	8	3	5	16
Nottingham	11	3	3	17
Nottinghamshire	12	11	18	41
Total	46	33	50	129

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

	2014		2015		2016		Total (2012 - 2014)	
	OB	Cases	OB	Cases	OB	Cases	OB	Cases
Community	1	12	1	3	1	2	3	17
Nosocomial	-	-	1	2 (1)	-	-	1	2 (1)
Travel UK	1	3 (1)	-	-	-	-	1	3 (1)
Total	2	15 (1)	2	5 (1)	1	2	5	22 (2)

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

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