Public Health England

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This is a PDF consolidation of the infection reports published on 2 and 10 April 2015.

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Infection Reports

Respiratory *

Laboratory reports of respiratory infections made to PHE Colindale from PHE and NHS laboratories in England and Wales, monthly report (weeks 10 to 13, 2015)

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* Published in *HPR* **9**(12) on 2/4/2015.

** Published in *HPR* **9**(13) on 10/4/2015.

Infection report / Respiratory

Volume 9 Number 12 Published on 2 April 2015

Laboratory reports of respiratory infections made to the CIDSC from PHE and NHS laboratories in England and Wales: weeks 10-13/2015

Data are recorded by week of report, but include only specimens taken in the last eight weeks (i.e. recent specimens)

Table 1. Reports of influenza infection made to CIDSC, by week of report

Week	Week 10	Week 11	Week 12	Week 13	Total
Week ending	**8/3/15**	**15/3/15**	**22/3/15**	**29/3/15**	
Influenza A	**178**	**283**	**124**	**171**	**756**
Isolation	10	20	5	7	**42**
DIF *	23	7	4	2	**36**
PCR	117	232	92	143	**584**
Other †	28	24	23	19	**94**
Influenza B	**83**	**125**	**79**	**149**	**436**
Isolation	5	10	6	17	**38**
DIF *	6	9	3	5	**23**
PCR	67	95	62	120	**344**
Other †	5	11	8	7	**31**

* DIF = Direct Immunofluorescence. † Other = "Antibody detection - single high titre" or "Method not specified".

Table 2. Respiratory viral detections by any method (culture, direct immunofluorescence, PCR, four-fold rise in paired sera, single high serology titre, genomic, electron microscopy, other method, other method unknown), by week of report

Week	Week 10	Week 11	Week 12	Week 13	Total
Week ending	**8/3/15**	**15/3/15**	**22/3/15**	**29/3/15**	
Adenovirus*	74	116	81	95	**366**
Coronavirus	18	30	9	27	**84**
Parainfluenza†	66	94	105	87	**352**
Rhinovirus	111	183	149	140	**583**
RSV	95	115	84	94	**388**

* Respiratory samples only. † Includes parainfluenza types 1, 2, 3, 4 and untyped.

Table 3. Respiratory viral detections by age group: weeks 10-13/2015

Age group (years)	<1 year	1-4 years	5-14 years	15-44 years	45-64 years	≥65 years	Un-known	Total
Adenovirus *	72	106	28	102	41	16	1	**366**
Coronavirus	16	13	1	16	18	20	–	**84**
Influenza A	11	32	16	95	130	238	1	**523**
Influenza B	11	27	50	147	162	135	2	**534**
Parainfluenza †	103	56	12	45	57	79	–	**352**
Respiratory syncytial virus	142	51	18	45	55	75	2	**388**
Rhinovirus	220	121	40	69	57	74	2	**583**

* Respiratory samples only.
† Includes parainfluenza types 1, 2, 3, 4 and untyped.

Table 4 Laboratory reports of infections associated with atypical pneumonia, by week of report

Week	Week 10	Week 11	Week 12	Week 13	Total
Week ending	**8/3/15**	**15/3/15**	**22/3/15**	**29/3/15**	
Coxiella burnettii	–	–	–	–	**0**
Respiratory *Chlamydia* sp.*	1	1	–	–	**2**
Mycoplasma pneumoniae	13	21	9	–	**43**
Legionella sp.	9	3	1	–	**13**

* Includes *Chlamydia psittaci*, *Chlamydia pneumoniae*, and Chlamydia sp detected from blood, serum, and respiratory specimens.

Table 5 Reports of Legionnaires Disease cases in England and Wales, by week of report

Week	Week 10	Week 11	Week 12	Week 13	Total
Week ending	**8/3/15**	**15/3/15**	**22/3/15**	**29/3/15**	
Nosocomial	–	–	–	–	**0**
Community	7	1	–	–	**8**
Travel Abroad	2	2	–	–	**4**
Travel UK	–	–	1	–	**1**
Total	9	3	1	–	**13**
Male	7	2	1	–	**10**
Female	2	1	–	–	**3**

* Cases with onset of symptoms in 2015.

Thirteen cases were reported with pneumonia. Eleven males aged 35-87 years and three females aged 38-67 years. Eight cases had community-acquired infection. Three deaths were reported in males aged 64 and 72.

Five cases were reported with travel association: Switzerland (1), Thailand (1), United Arab Emirates / United Kingdom (2) and United Kingdom (1).

Table 6. Reports of Legionnaires Disease cases in England and Wales, by PHE Centre: weeks 10-13/2015

Region/Country	Nosocomial	Community	Travel Abroad	Travel UK	Total
North of England					
North East	–	1	1	–	**2**
Cheshire & Merseyside	–	–	–	–	**0**
Greater Manchester	–	1	–	–	**1**
Cumbria & Lancashire	–	–	–	–	**0**
Yorkshire & the Humber	–	–	–	–	**0**
South of England					
Devon, Cornwall & Somerset	–	–	–	–	**0**
Avon, Gloucestershire & Wiltshire	–	1	–	1	**2**
Wessex	–	–	–	–	**0**
Thames Valley	–	–	–	–	**0**
Sussex, Surrey & Kent	–	–	–	–	**0**
Midlands & East of England					
East Midlands	–	–	1	–	**1**
South Midlands & Hertfordshire	–	–	–	–	**0**
Anglia & Essex	–	–	–	–	**0**
West Midlands	–	2	1	–	**3**
London Integrated Region					
London	–	3	1	–	**4**
Public Health Wales					
Mid & West Wales	–	–	–	–	**0**
North Wales	–	–	–	–	**0**
South East Wales	–	–	–	–	**0**
Miscellaneous					
Other	–	–	–	–	**0**
Not known	–	–	–	–	**0**
Total	0	**8**	**4**	**1**	**13**

Infection report / Group A Streptococci

Volume 9 Number 13 Published on 10 April 2015

Group A streptococcal infections: third update on seasonal activity 2014/15

High levels of scarlet fever continue to be notified in England, with week 13 exceeding the record levels seen at this point last season (2013/14) [1]. Notifications received to date for week 14 fall below week 13 which may indicate the start of the seasonal downturn but may reflect delays in diagnosis and/or notification. As such, continued vigilance is recommended. Alerts have been sent to local authorities, GPs, microbiologists and paediatricians to raise awareness of the national increase in scarlet fever, highlighting actions to be taken for every case, including: prompt notification to local Health Protection Teams; swabbing when there is uncertainty about a diagnosis or when a case is part of an outbreak; and exclusion of the patient from school/work until 24 hours of antibiotic treatment has been received [2].

Routine invasive GAS (iGAS) disease reports remain within normal seasonal levels. Due to rare but potentially severe complications associated with GAS infections, clinicians, microbiologists and health protection teams should continue to be mindful of potential increases in invasive disease and maintain a high degree of suspicion in relevant patients.

Scarlet fever

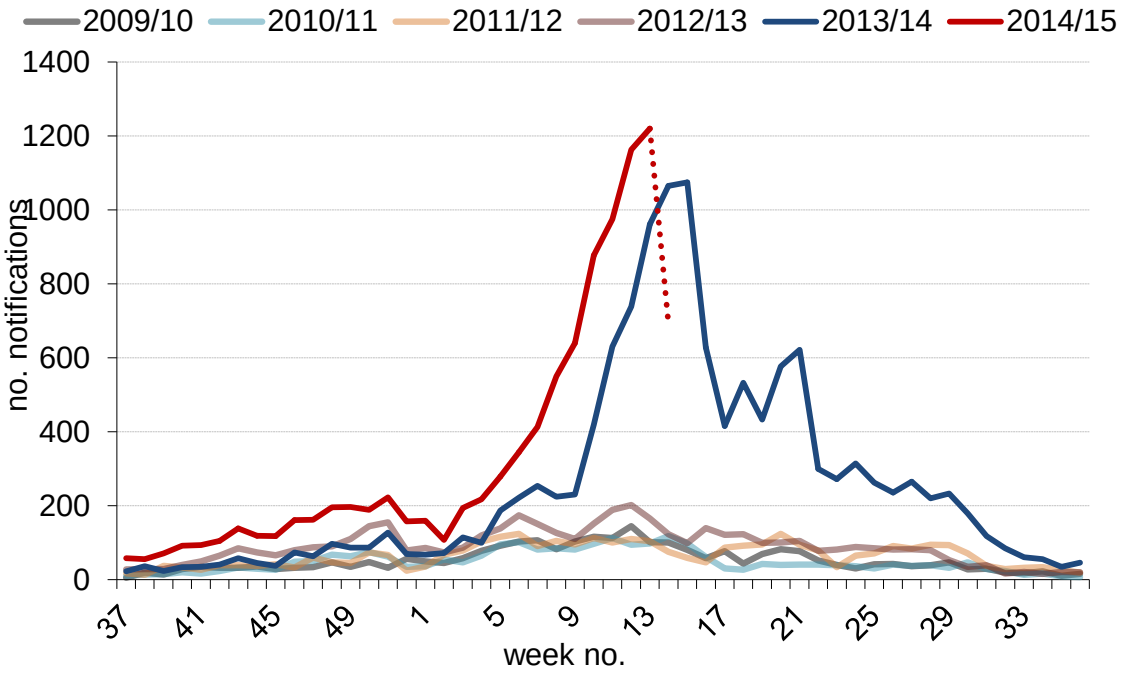
Routine monitoring showed continued increases in scarlet fever up to week 13 of 2015 where 1220 notifications were made for patients in England (the highest weekly total on record; figure 1). Notifications received to date for week 14 are lower than for week 13 (694) but likely to increase as further notifications are made. This brings the total number of notifications of scarlet fever made to Public Health England so far this season (weeks 37 2014 to 14 2015) to 9974, compared with 6231 for the same period last season.

For most of February and March 2015, the average week-on-week increase in notifications exceeded 20%. However, in the past two weeks (weeks 12 to 13) the rate of increase slowed to 12%. This deceleration, in conjunction with a drop in GP consultations for scarlet fever, may be an indication that the height of the season is approaching, or has passed [3,4].

Scarlet fever notifications remain high across all parts of England, with two areas reporting more than twice the number of cases than for the same period last season (weeks 37 to 14), Yorkshire and the Humber (29.6 vs 10.2/100,000 population) and Wessex (23.2 vs 11.2/100,000). London has the lowest cumulative rate of scarlet fever notification (11.1/100,000).

The age distribution of scarlet fever cases notified this season remains similar to previous years, with 89% of cases reported in children under 10 years of age (median four years; range <1y to 87y).

Figure 1. Weekly scarlet fever notifications in England, 2008/09 onwards*



* Dashed line indicates that numbers may increase as further notifications expected.

Invasive Group A Streptococcus

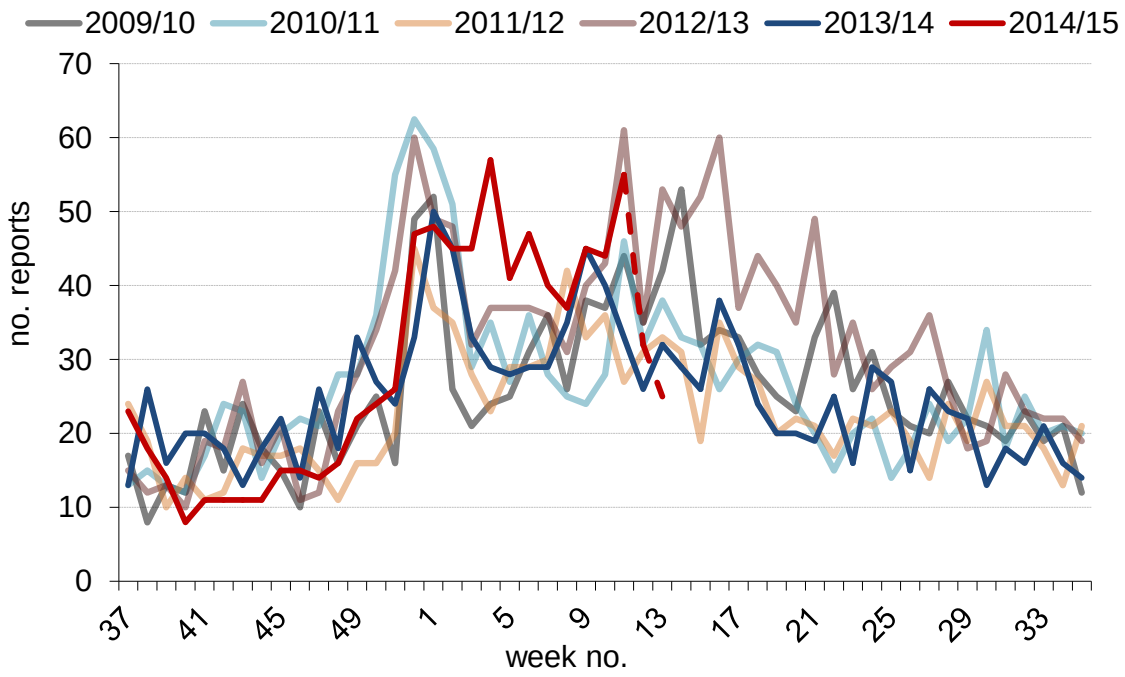
The number of routine laboratory reports of iGAS infection in England in recent weeks remains in line with normal seasonal patterns (figure 2), with a total of 847 cases reported so far this season (week 37, 2014, to week 13, 2015), slightly above average for the same period over the last five years (799) but within the reported range for this period (696 to 900). The median age of patients with iGAS infection so far this season is 63 years (range <1y to 105y) with 53% of cases being male.

Geographical variation in iGAS reports is noted across England. Eight English regions have reported an above average cumulative number of reports so far this season (weeks 37 to 13) compared to the past five years: East Midlands (74), West Midlands (97), Devon, Cornwall and Somerset (47), Kent, Surrey and Sussex (70), Thames Valley (37), Cheshire and Merseyside (45), North East (44) and Yorkshire and the Humber (91).

Antimicrobial susceptibility results from routine iGAS infection laboratory reports for the season so far indicate erythromycin non-susceptibility is within the usual range at 4%. The susceptibility testing of iGAS isolates against other key antimicrobials (tetracycline, 11%; clindamycin, 3%;

and penicillin, 0%) indicate no changes in resistance although susceptibility reporting remains low (<50% isolates).

Figure 2. Weekly routine laboratory reports of iGAS infection, England, 2008/09 onwards*



* Dashed line indicates that numbers may increase as further notifications expected.

Whilst both the notifications and GP consultation rates for scarlet fever suggests that a seasonal decline in scarlet fever may be starting, the Easter school holidays may have affected timeliness of notification and access to GPs, as well as facilitating a reduction in transmission.

Close monitoring, rapid and decisive response to potential outbreaks and early treatment of scarlet fever remains essential, especially given the potential complications associated with GAS infections. Invasive GAS disease reports have so far remained within the usual bounds this season although current activity is slightly elevated in some parts of the country. Clinicians, microbiologists and health protection teams should therefore continue to be mindful of potential increases in invasive disease and maintain a high index of suspicion in relevant patients as early recognition and prompt initiation of specific and supportive therapy for patients with iGAS infection can be life-saving.

Invasive disease isolates and those from suspected clusters or outbreaks should be submitted to the Respiratory and Vaccine Preventable Bacteria Reference Unit at Public Health England, 61 Colindale Avenue, London NW9 5HT.

Relevant guidelines and FAQs are available on the PHE website, as follows:

- Guidelines on infection control in schools and other childcare settings, including recommended exclusion periods for scarlet fever and guidelines on management of scarlet fever outbreaks, can be found at:
    - scarlet fever: managing outbreaks in schools and nurseries
    - infection control in schools poster

- FAQs on scarlet fever can be found at: https://www.gov.uk/government/collections/scarlet-fever-guidance-and-data

- Guidelines for the management of close community contacts of invasive GAS cases and the prevention and control of GAS transmission in acute healthcare and maternity settings are also available at: https://www.gov.uk/government/collections/group-a-streptococcal-infections-guidance-and-data

References

1. PHE (March 2015). Group A streptococcal infections: second update on seasonal activity, 2014/15. *Health Protection Report* **9**(9): Infection (News) Report.

2. PHE. Interim guidelines for the public health management of scarlet fever outbreaks in schools, nurseries and other childcare settings.

3. PHE. GP in-hours consultations bulletin: 29 March 2015 week 13.

4. PHE. GP out-of-hours consultations bulletin: 2 April 2015 week 13.

Infection reports

Volume 9 Number 13 Published on: 10 April 2015

Enteric

General outbreaks of foodborne illness in humans, England and Wales: weeks 9-13/2015

Preliminary information has been received about the following outbreaks.

PHE Centre/ Health Protect'n Team	Organism	Location of food prepared or served	Month of outbreak	Number ill	Cases positive	Suspect vehicle	Evidence
East Midlands South	Salmonella Typhimurium	Restaurant	March	41	Not known	N/k	N/k

Common gastrointestinal infections, England and Wales, laboratory reports: weeks 9-13/2015

Laboratory reports	Number of reports received					Total reports	Cumulative total	
	9/15	10/15	11/15	12/15	13/15	9-13/15	1-13/15	1-13/14
Campylobacter	919	852	807	755	595	**3928**	12395	12136
Escherichia coli O157 *	2	4	2	3	3	**14**	46	59
Salmonella †	129	113	77	31	6	**356**	1304	1151
Shigella sonnei	21	13	13	11	8	**66**	276	265
Rotavirus	84	89	88	126	114	**501**	1107	1528
Norovirus	256	269	231	260	186	**1202**	3157	2049
Cryptosporidium	35	44	41	26	29	**175**	577	528
Giardia	56	55	60	54	42	**267**	929	886

*Vero cytotoxin–producing isolates: data from PHE's Gastrointestinal Bacteria Reference Unit (GBRU).
† Data from GBRU.

Less common gastrointestinal infections, England and Wales, laboratory reports: weeks 1-13/2015

Laboratory reports	Total reports 1-13/2015	Cumulative total to 1-13/2015	Cumulative total to 13/2014
Astrovirus	153	153	84
Sapovirus	91	91	57
Shigella boydii	21	21	15
Shigella dysenteriae	6	6	4
Shigella flexneri	238	238	138
Plesiomonas	20	48	44
Vibrio spp.	11	11	11
Yersinia spp	11	11	19
Entamoeba histolytica	21	21	11
Blastocystis hominis	31	31	35
Dientamoeba fragilis	1	1	6

Salmonella infections (faecal specimens) England and Wales, reports to Public Health England (salmonella data set): February 2015

Details of 383 serotypes of salmonella infections recorded in February are given in the table below.

In March 2015, 233 salmonella infections were recorded.

Organism	Cases: February 2015
S. Enteritidis PT4	3
S. Enteritidis (other PTs)	84
S. Typhimurium	91
S. Virchow	6
Others (typed)	199
Total salmonella (provisional data)	**383**

Note: Following the introduction of a new laboratory reporting system (SGSS) in December 2014, direct comparisons with data generated by the previous system (LabBase2) may not be valid.

Suspected and laboratory-confirmed reported norovirus outbreaks in hospitals, with regional breakdown: outbreaks occurring in weeks 9-13/2015

The hospital norovirus outbreak reporting scheme (HNORS) recorded 114 outbreaks occurring between weeks 9 and 13, 2015, 101 of which (89%) led to ward/bay closures or restriction to admissions. Eighty-one outbreaks (71%) were recorded as laboratory confirmed due to norovirus (see table). For the calendar year 2015 – between week 1 (January) and week 13 (week beginning 16 March) – 297 outbreaks were reported. Ninety-five per cent (282) of reported outbreaks resulted in ward/bay closures or restrictions to admissions and 71% (212) were laboratory confirmed as due to norovirus (see table).

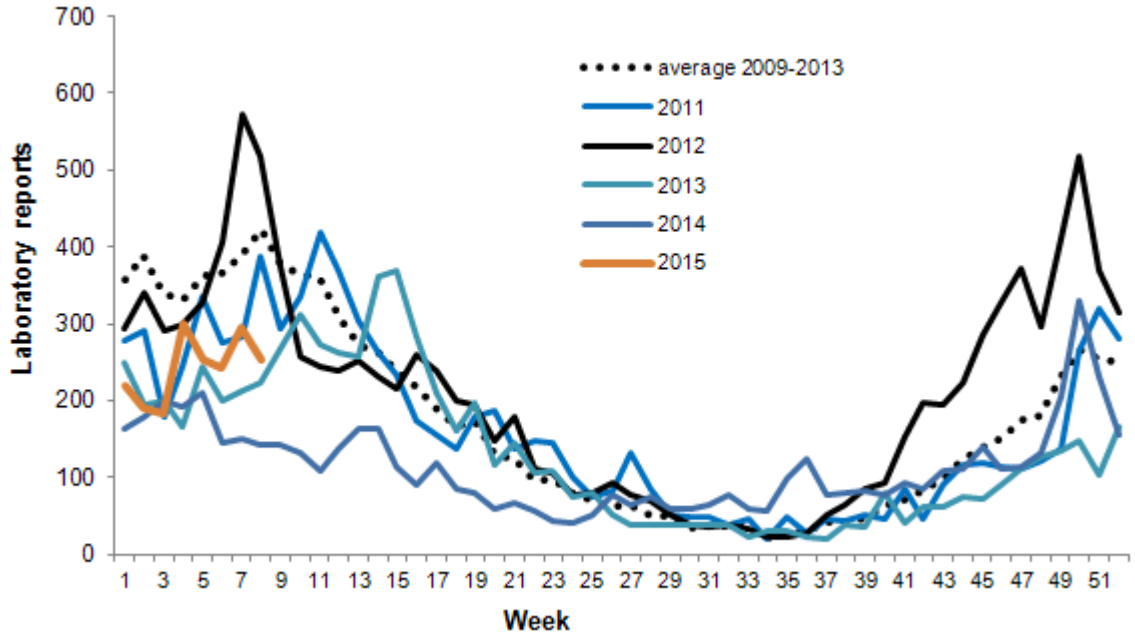
Seasonal comparison of laboratory reports of norovirus (England and Wales)

In the current season to date† (from week 27, 2014, to week 13, 2015), there were 6055 laboratory reports of norovirus. This is 13% lower than the average number of laboratory reports for the same period in the seasons between 2009/10 and 2013/2014 (6954). The number of laboratory reports in the most recent weeks will increase as further reports are received.

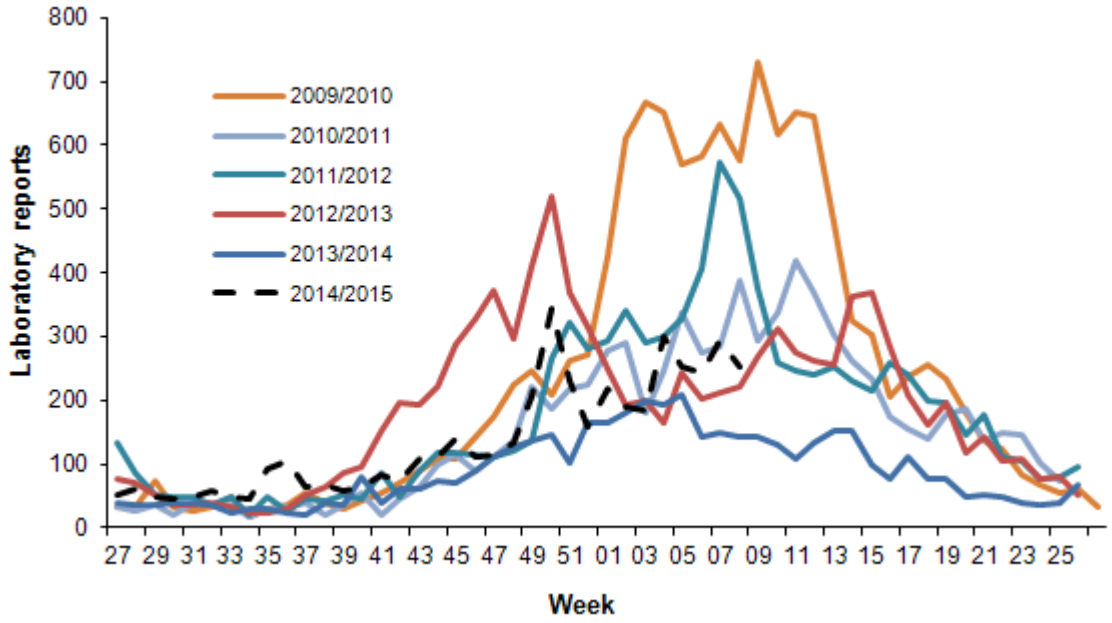
† The norovirus season runs from July to June (week 27 in year one to week 26 in year two) in order to capture the winter peak in one season.

Notes: The number of laboratory reports in the most recent weeks will increase as further reports are received. A new laboratory reporting system was commissioned on 1 December 2014; as a result, direct comparisons between the earlier report (based on LabBase2) and the new system (SGSS) may not be valid.

Current-year (to week 13) norovirus laboratory reports compared to weekly average 2006/2010



Seasonal comparison of laboratory reports of norovirus (England and Wales), to week 13, 2015



Suspected and laboratory-confirmed reported norovirus outbreaks in hospitals, with regional breakdown: outbreaks occurring in weeks 1-4/2015 (and 1-52/2014)

Region/ PHE Centre	Outbreaks between weeks 9-13/2015			Total outbreaks 1-13/2015		
	Outbreaks	Ward/bay closure*	Lab-confirmed	Outbreaks	Ward/bay closure*	Lab-confirmed
Avon, Gloucestershire and Wiltshire	14	13	11	47	46	38
Bedfordshire, Hertfordshire and Northamptonshire	–	–	–	5	5	4
Cheshire and Merseyside	–	–	–	3	3	3
Cumbria and Lancashire	3	3	–	23	23	10
Devon, Cornwall and Somerset	21	21	16	49	49	36
Greater Manchester	5	3	4	11	9	6
Hampshire, Isle of Wight and Dorset	7	6	6	15	14	14
Lincolnshire, Leicestershire, Nottinghamshire and Derbyshire	9	9	6	17	16	13
London	–	–	–	4	4	1
Norfolk, Suffolk, Cambridgeshire and Essex	–	–	–	–	–	–
North east	5	5	3	24	24	16
Sussex, Surrey and Kent	4	4	3	9	9	8
Thames Valley	2	2	1	2	2	1
West Midlands	31	29	19	65	62	40
Yorkshire and the Humber	13	6	12	23	16	22
Total	**114**	**101**	**81**	**297**	**282**	**212**

* Note: not all outbreaks result in whole wards closures, some closures are restricted to bays only.