



PHE Monthly National Norovirus and Rotavirus Report

Summary of surveillance of norovirus and rotavirus

26 November 2015

This report is published monthly on the PHE [website](#). For further information on the surveillance system mentioned in this report, please visit the [Hospital Norovirus Reporting System website](#).

Contents: | [Summary](#) | [Hospital norovirus outbreak reporting system](#) | [Laboratory reporting](#) | [Laboratory surveillance update](#) | [Activity in prisons](#) | [Rotavirus](#) | [Acknowledgements](#) |

Summary

The next report will be NEXT WEEK on 3 December.

Norovirus

- The number of laboratory reports of norovirus in this season (since week 27 2015) is 1143. This is 17 per cent lower than the average number for the same period in the five seasons 2010/2011 to 2014/2015 (1379), and 50 percent lower than the same weeks last season. Reports of outbreaks of diarrhoea and vomiting in hospitals continue to be reported at similar levels to previous years.

Rotavirus

- The level of rotavirus laboratory reporting is currently at similar levels to previous years. Laboratory reports are eight percent higher than the ten season average (from season 2003 and 2004 to season 2012 and 2013). The increase in comparison to the ten year average is because of a later peak this season than previous seasons. Rotavirus activity is still greatly reduced compared to previous seasons overall.

Hospital Norovirus Outbreak Reporting System (HNORS)

In the two weeks between 09/11/2015 and 22/11/2015 (weeks 46 and 47) the hospital norovirus outbreak reporting scheme (HNORS) recorded two suspected or confirmed outbreak of norovirus, both led to ward/bay closures or restrictions to admissions and one was laboratory confirmed as a norovirus outbreak.

This season (since week 27 2015) there have been 53 outbreaks reported, 50 of which (94%) resulted in ward/bay closures and 24 (45%) were laboratory confirmed as norovirus.

Last season (week 27 2014 to week 26 2015) 858 outbreaks were reported, 808 (94 per cent) of which reported ward/bay closures or restrictions to admissions and 584 (68 per cent) were reported as laboratory confirmed norovirus outbreaks.

Table 1: The number of suspected and confirmed norovirus outbreaks in hospitals

Public Health England Centre	Outbreaks 09/11/2015 to 22/11/2015			Outbreaks reported in the last season 2014/2015 (week 27 2014 - week 26 2015)		
	Outbreaks	Ward/bay closure [‡]	Lab confirmed	Outbreaks	Ward/bay closure [‡]	Lab confirmed
Avon, Gloucestershire and Wiltshire				101	99	76
Bedfordshire, Hertfordshire and Northamptonshire				7	7	6
Cheshire and Merseyside				10	7	9
Cumbria and Lancashire				50	49	25
Devon, Cornwall and Somerset				164	162	114
Greater Manchester				22	18	10
Hampshire, Isle of Wight and Dorset				44	43	37
Lincolnshire, Leicestershire, Nottinghamshire and Derbyshire				40	37	36
London				5	5	1
Norfolk, Suffolk, Cambridgeshire and Essex						
North East	2	2	1	97	88	62
Sussex, Surrey and Kent				30	30	18
Thames Valley				9	5	3
West Midlands				172	166	98
Yorkshire and the Humber				107	92	89
Total	2	2	1	858	808	584

[‡] Note: not all outbreaks result in whole ward closure, some closures are restricted to bays only

Norovirus Laboratory Reporting

The number of laboratory reports of norovirus in this season* (since week 27 2015) is 1143. This is 17 per cent lower than the average number for the same period in the five seasons 2010/2011 to 2014/2015 (1379), and 50 percent lower than the same weeks last season. Data from laboratory reporting are subject to a reporting delay and the number reported in recent weeks is likely to increase as further laboratory reports are received. Norovirus is predominantly a winter pathogen; however, norovirus infections do occur in the summer months.

Figure 1: Seasonal comparison of laboratory reports of norovirus (England and Wales)

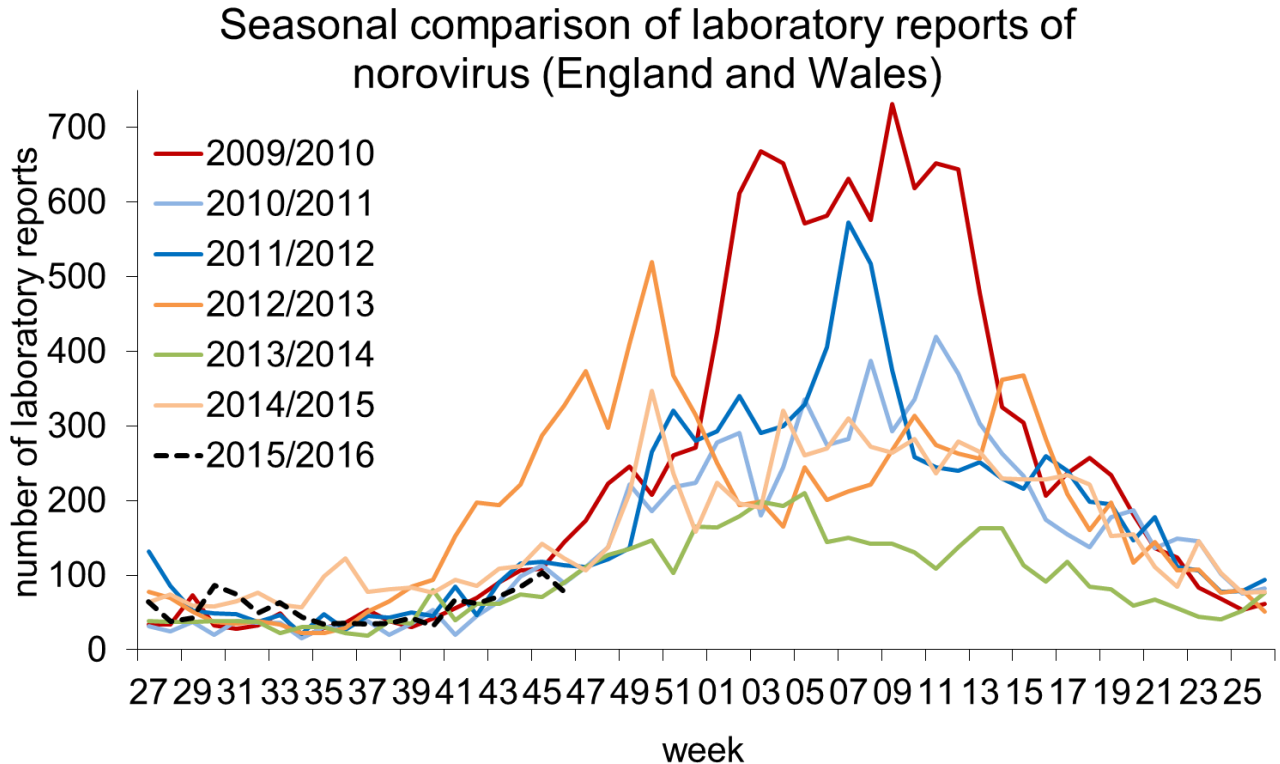


Figure 2: Laboratory and hospital outbreak reports by month of occurrence

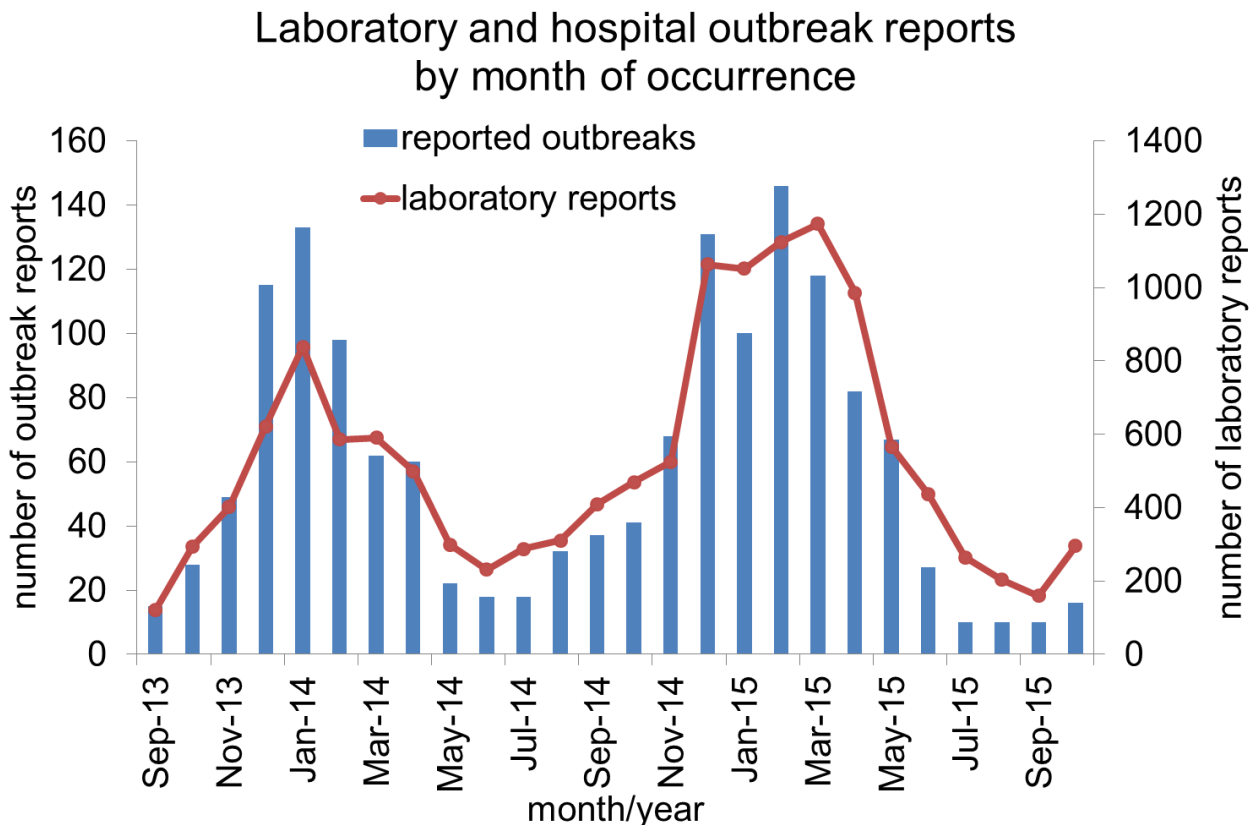


Figure 3: Cumulative number of laboratory reports of norovirus by season 2007/8-2015/16

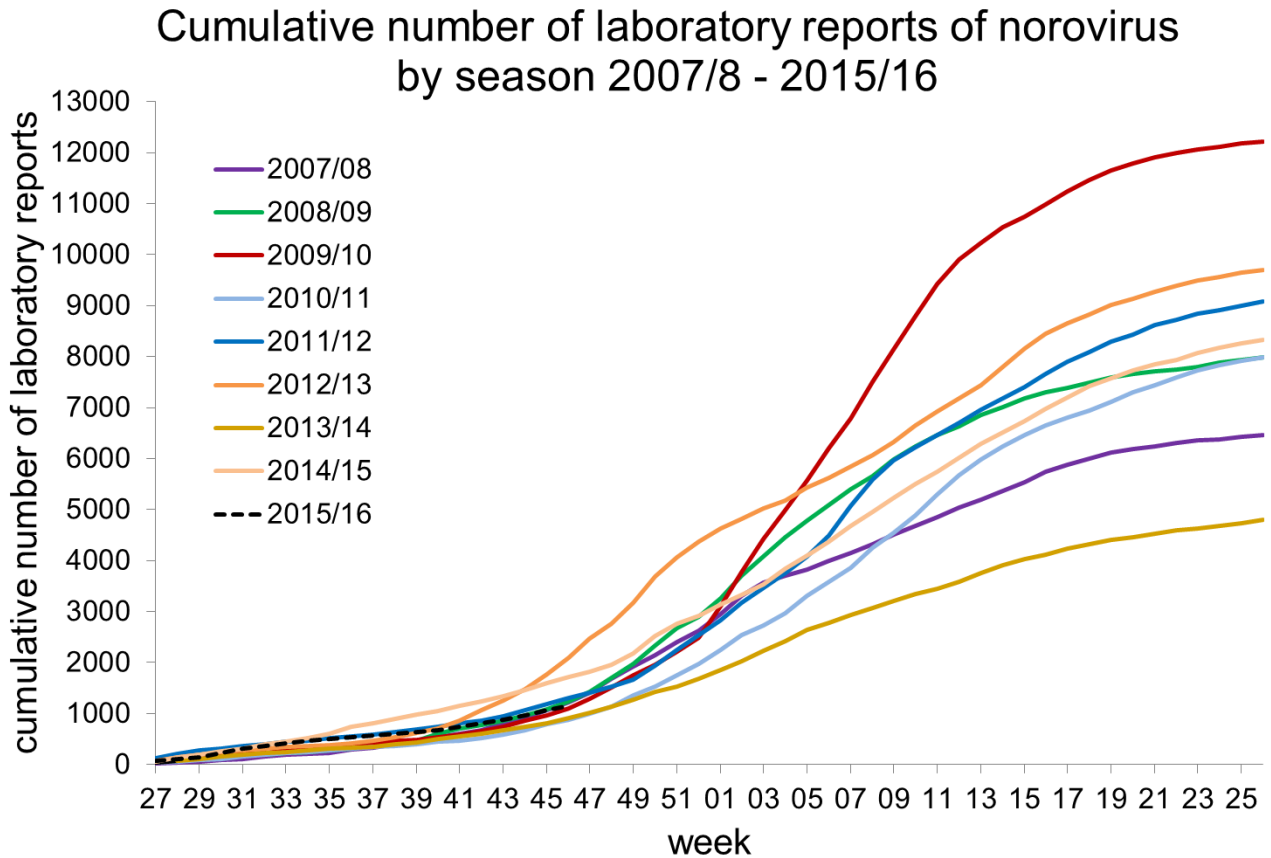
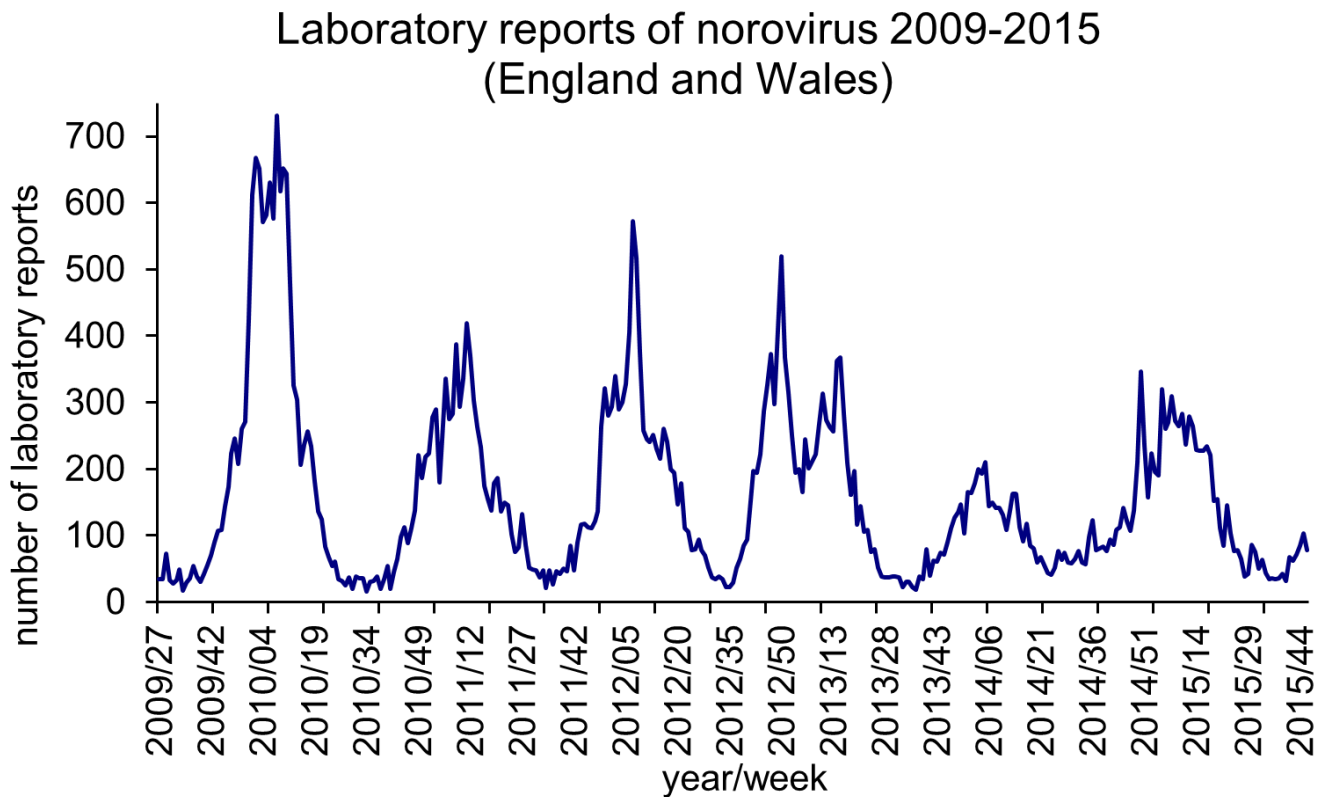


Figure 4: Laboratory reports of norovirus 2008-2015 (England and Wales)



*In order to capture the winter peak of norovirus activity in one season, for reporting purposes, the norovirus season runs from week 27 in year 1 to week 26 in year2, i.e. week 27 2009 to week 26 2010, July to June.

Laboratory Surveillance Update – Virus Reference Department (VRD)

Date of update: **24/11/2015**

Week of update: **48-2015**

Total number of outbreaks referred to VRD (27-2015 to 48-2015): **158**

Total number of outbreaks confirmed as norovirus positive: **64**

Total number of outbreaks from healthcare settings, referred to VRD (27-2015 to 48-2015): **106**

Total number of outbreaks from healthcare settings, confirmed as norovirus positive: **22**

The reason for the varying numbers above is due a large number of retrospectively referred samples (dated from April onwards), which are still undergoing testing. As soon as the testing and analysis is complete, this is will be reflected in a future update.

Figure 5: Season-to-season comparison of norovirus-confirmed outbreaks (all settings) referred to VRD

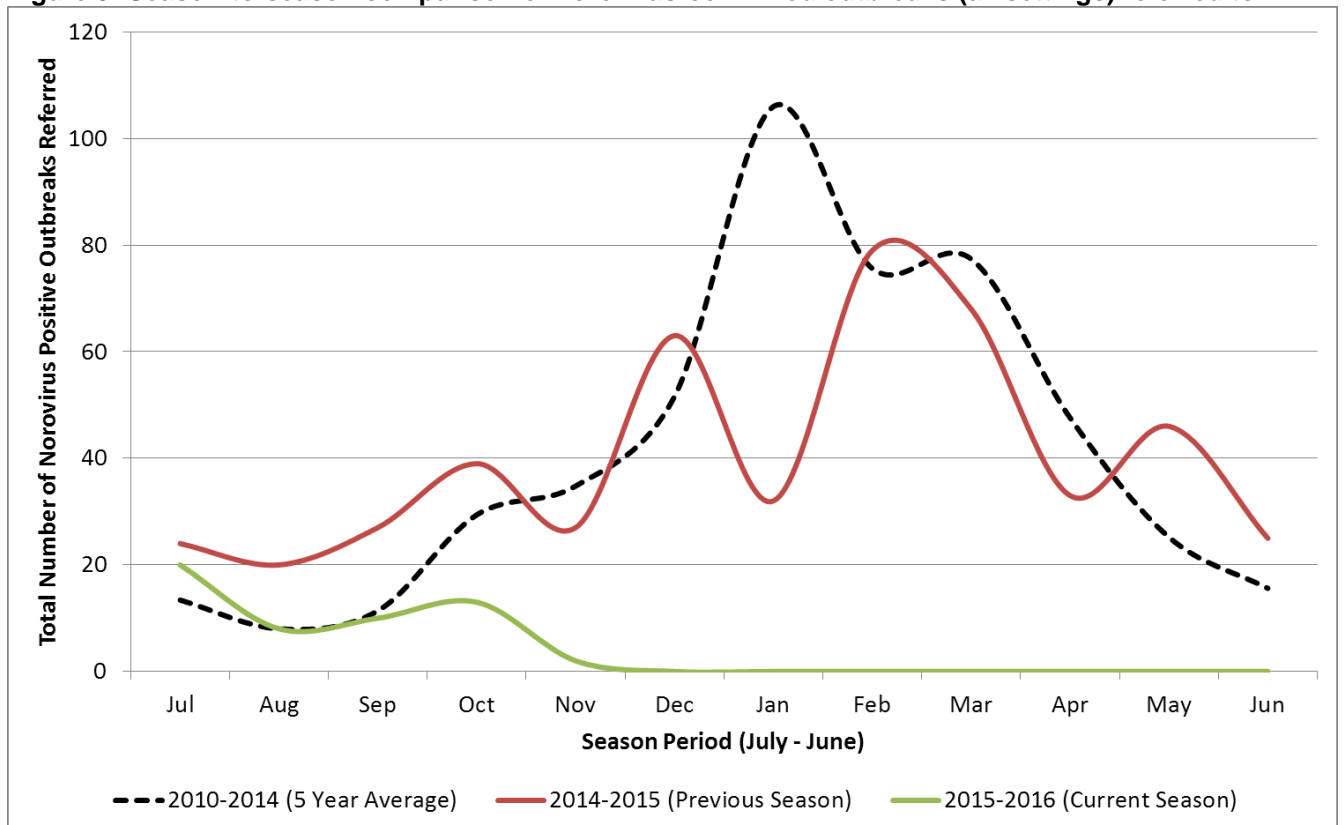
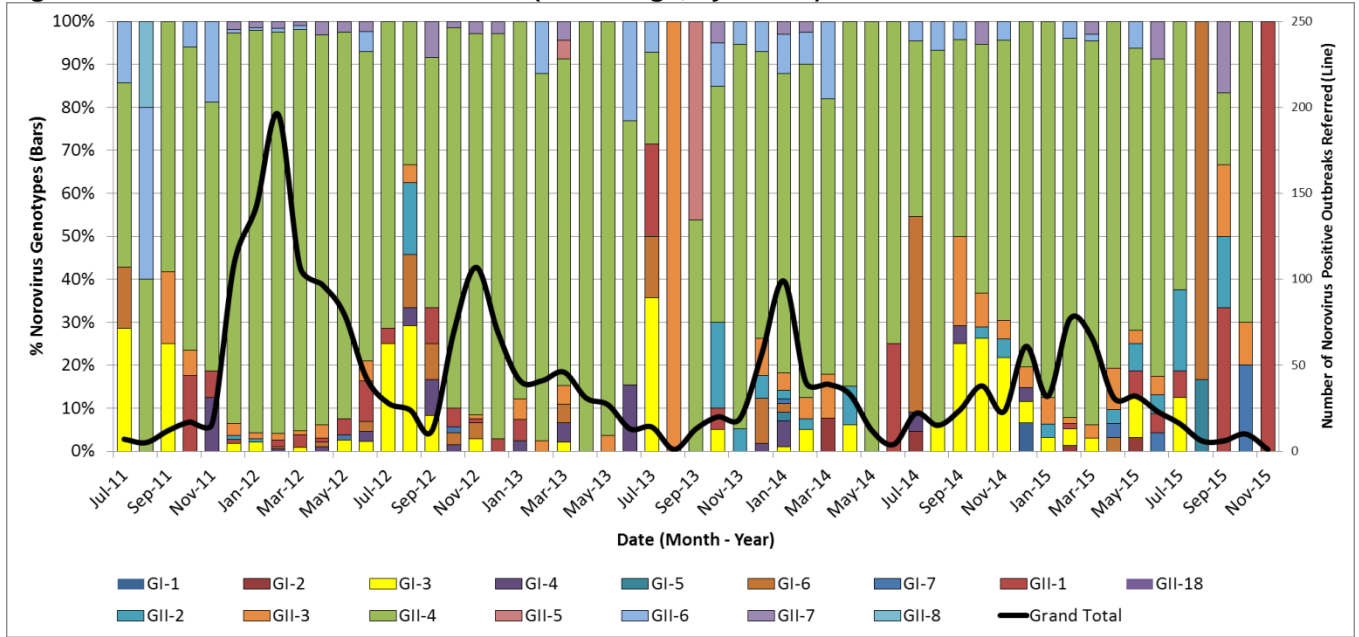
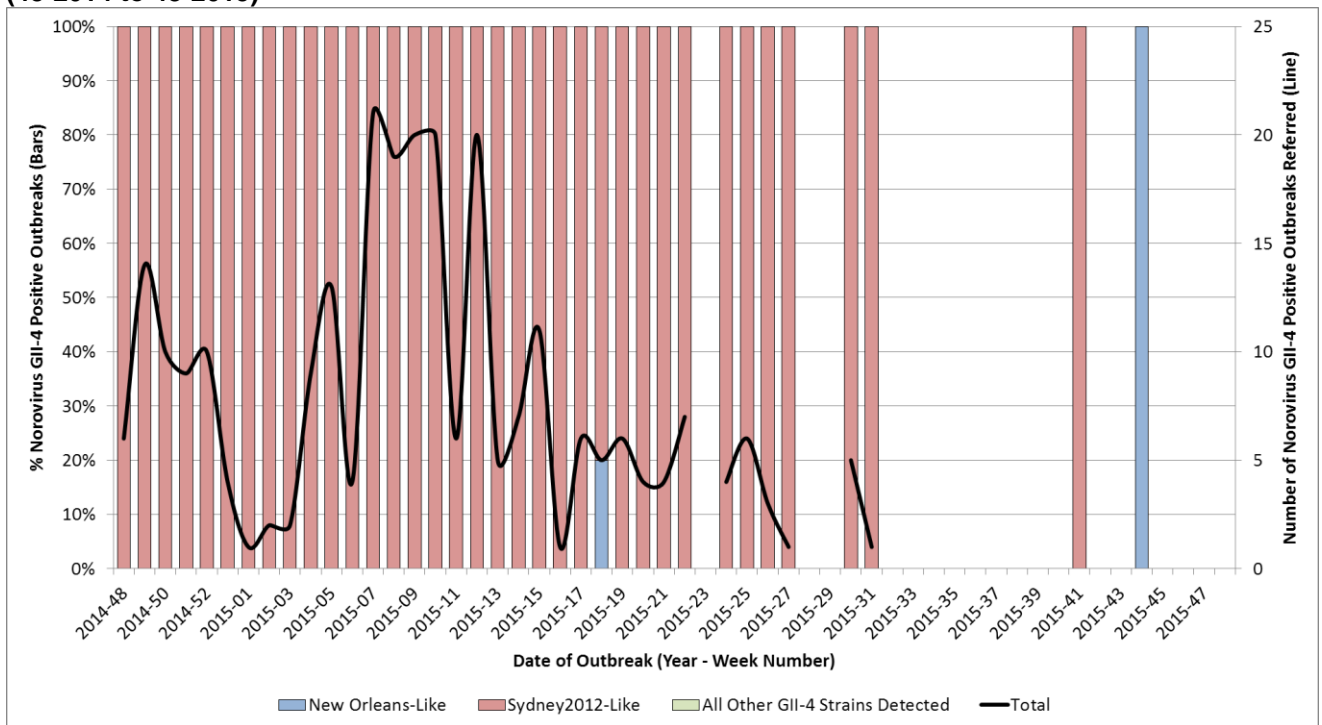


Figure 6: Norovirus-confirmed outbreaks (all settings, by month) referred to VRD



- 81.3% of norovirus-confirmed outbreaks were associated with GII-4 strains since July 2011.
- 10 different norovirus genotypes have been detected in the current season (27-2015 to date).
- The majority of norovirus-confirmed outbreaks in the current season (27-2015 to date) were associated with GII-4 (18/39 46.2%).

Figure 7: GII-4 norovirus strains detected (by week) among norovirus confirmed outbreaks (all settings) (48-2014 to 48-2015)



- The most commonly detected GII-4 strain between periods 48-2014 to 48-2015 is Sydney2012 and is associated with 99.3 % of GII-4 norovirus-confirmed outbreaks.
- The most common detected GII-4 strain in the previous season (2014-2015) was Sydney2012

Norovirus Activity in Prisons

Three outbreaks of diarrhoea and vomiting (not laboratory confirmed as norovirus) have been reported between weeks 46 and 47 2015.

Table 2: The number of suspected and confirmed norovirus outbreaks in prisons

Region	Public Health England Centre	Outbreaks reported week 46 to week 47 2015
North	Greater Manchester	
	Cumbria and Lancashire	
	Cheshire and Merseyside	
	Yorkshire and Humber	
Midlands and East of England	North East	1
	Anglia and Essex	
	South Midlands and Hertfordshire	1
	Nottinghamshire, Derbyshire, Lincolnshire and Leicestershire	
London	West Midlands	
	London	
South	Thames Valley	
	Wessex (Hampshire, Isle of Wight and Dorset)	1
	Avon, Gloucestershire and Wiltshire	
	Devon, Cornwall and Somerset	
	Surrey, Sussex and Kent	
Total		3

NB. Not all suspected cases are tested for norovirus. Where there is an outbreak, a sample of individuals will be tested.

For guidance on the management of outbreaks in prisons see:

<https://www.gov.uk/government/publications/multi-agency-contingency-plan-for-disease-outbreaks-in-prisons>

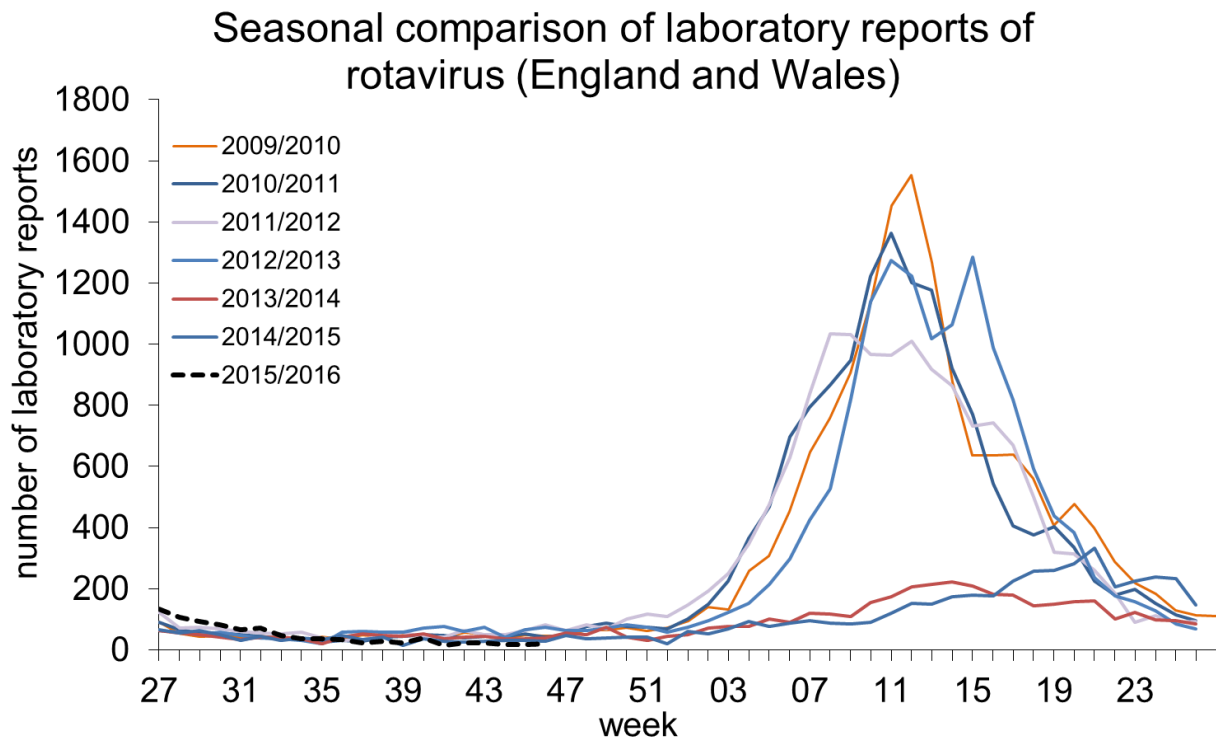
Rotavirus Laboratory Reporting

The number of laboratory reports of rotavirus in this season* (since week 27 2015) is 925. This is eight per cent higher than the ten season average for the same period in the seasons 2004/2005 to 2013/2014 (855)*. The level of rotavirus laboratory reports currently are at similar levels to previous years, the increase is likely to be because of a later peak than in previous seasons. (see figure 9).

Rotavirus particularly contributes to reported diarrhoea and vomiting illness in children aged under five and is often associated with outbreaks of diarrhoea and vomiting in nurseries and schools.

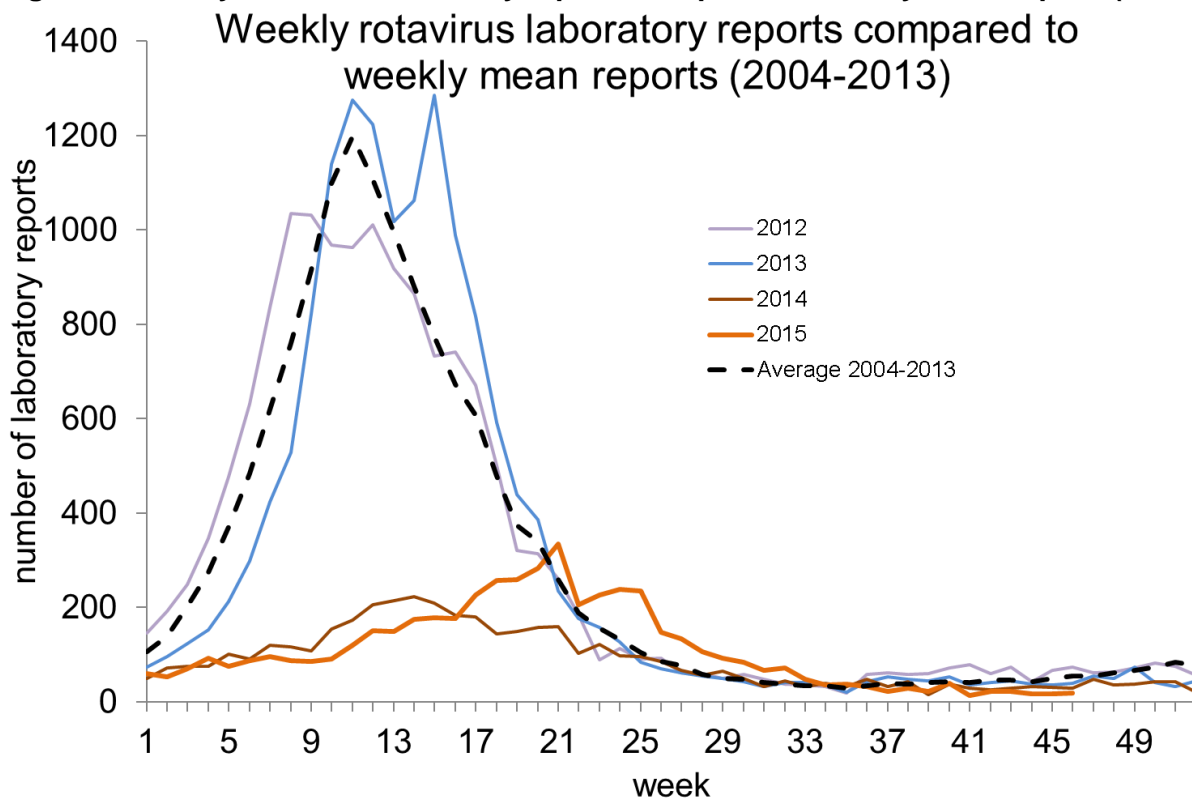
Data from laboratory reporting are subject to a reporting delay and the number reported in recent weeks is likely to increase as further laboratory reports are received.

Figure 8: Seasonal comparison of laboratory reports of rotavirus (England and Wales)



*Comparison is made with this ten year period as it is prior to the vaccine introduction.

Figure 9: Weekly rotavirus laboratory reports compared to weekly mean reports(2004-2013)



*In order to capture the winter peak of norovirus activity in one season, for reporting purposes, the rotavirus season runs from week 27 in year 1 to week 26 in year 2, i.e. week 27 2009 to week 26 2010, July to June

Acknowledgements

We thank all of the infection control staff in hospitals who take the time to contribute data to HNORS.

Any queries can be directed to noroOBK@phe.gov.uk