



# PHE Monthly National Norovirus and Rotavirus Report

Summary of surveillance of norovirus and rotavirus

09 October 2014 - Weeks 36 - 39 report

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

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## Summary

The next report will be available on the 6<sup>th</sup> November 2014, when we will move to weekly reporting.

### Norovirus

- The number of laboratory reports of norovirus in the season to date is higher than the five year seasonal average (from season 2009 and 2010 to season 2013 and 2014). However, the number of laboratory reports in the last two weeks is similar to the average. Reports of outbreaks of diarrhoea and vomiting in hospitals continue to be reported at similar levels to previous years.

### Rotavirus

- Rotavirus activity is low; laboratory reports are similar to the ten season average (from season 2003 to 2004 to season 2012 to 2013). The decreased rotavirus activity is likely to be associated with the introduction of the oral vaccine in July 2013.

### Upcoming event:

NOROVIRUS IN HEALTHCARE SETTINGS AND BEYOND - A RESEARCH WORKSHOP

Friday 17<sup>th</sup> October, Institute of Materials, Central London

This event is organised by the Infectious Disease Research Network in collaboration with Public Health England. It will be of relevance to those who have an interest in enteric disease and infection control. These may include - clinical and public health staff and students, academics, the private sector, and funders of biomedical research and policy groups.

Further details can be found [here](#)

## Hospital Norovirus Outbreak Reporting System (HNORS)

In the four weeks from 01/09/2014 to 28/09/2014 the hospital norovirus outbreak reporting scheme (HNORS) recorded 18 suspected or confirmed outbreaks of norovirus, sixteen (89%) of which led to ward/bay closures or restrictions to admissions. Twelve (65 per cent) were reported as laboratory confirmed norovirus outbreaks. Since the start of the season (week 27 2014) there have been 58 reported outbreaks of suspected or confirmed norovirus, of which 56 (97%) led to ward/bay closures or restrictions to admissions and 36 (62 per cent) were laboratory confirmed as norovirus outbreaks.

In the last season (week 27 2013 to week 26 2014) 609 outbreaks were reported, 570 (94 per cent) of which reported ward/bay closures or restrictions to admissions and 382 (63 per cent) were reported as laboratory confirmed norovirus outbreaks.

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

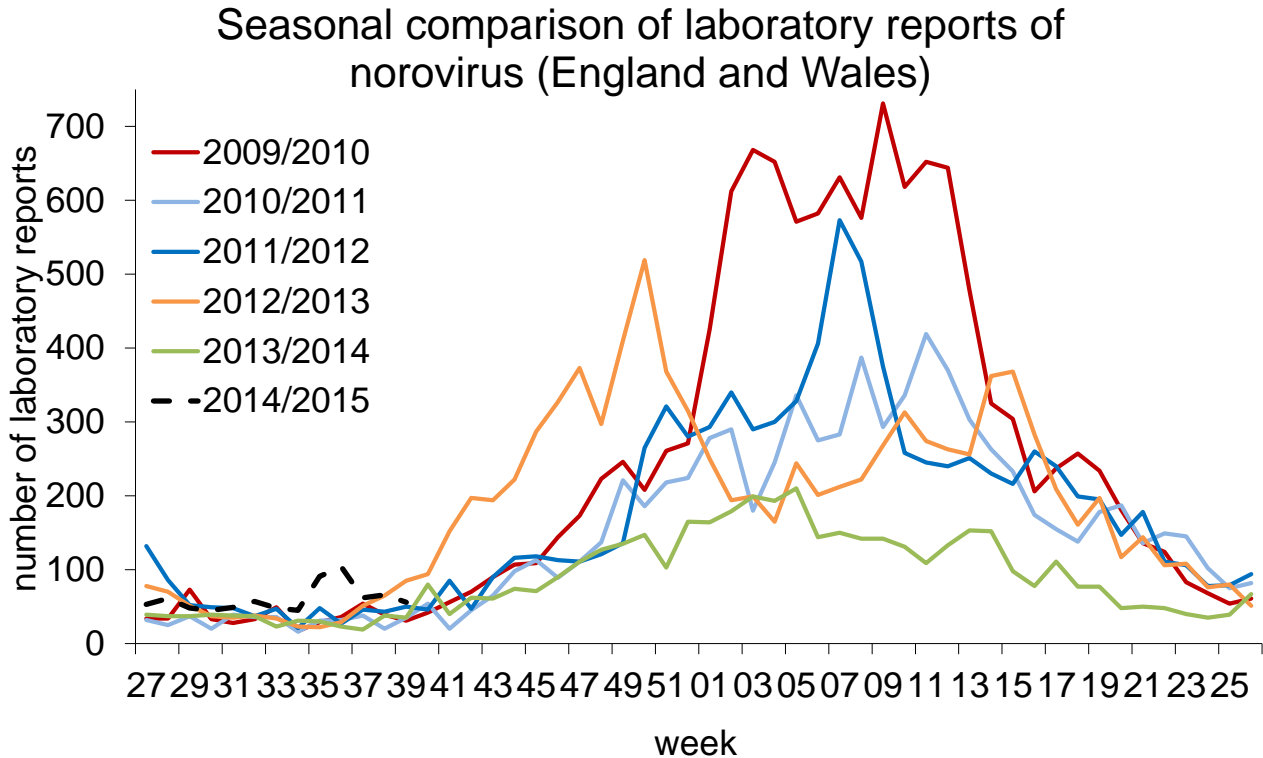
Public Health England Centre	Outbreaks 01/09/2014 to 28/09/2014			Outbreaks reported in the last season 2013/2014 (week 27 2013 - week 26 2014)		
	Outbreaks	Ward/bay closure <sup>‡</sup>	Lab confirmed	Outbreaks	Ward/bay closure <sup>‡</sup>	Lab confirmed
Avon, Gloucestershire and Wiltshire	3	3	2	81	81	54
Bedfordshire, Hertfordshire and Northamptonshire				1	1	1
Cheshire and Merseyside				4	3	4
Cumbria and Lancashire	1	1	1	29	29	10
Devon, Cornwall and Somerset	1	1	1	71	69	29
Greater Manchester				18	15	6
Hampshire, Isle of Wight and Dorset				50	50	36
Lincolnshire, Leicestershire, Nottinghamshire and Derbyshire	4	4	4	46	44	32
London				9	9	8
Norfolk, Suffolk, Cambridgeshire and Essex						
North East	3	3	2	59	49	38
Sussex, Surrey and Kent	1	1		31	31	23
Thames Valley	3	1	1	22	22	8
West Midlands				76	73	39
Yorkshire and the Humber	2	2	1	112	94	94
<b>Total</b>	<b>18</b>	<b>16</b>	<b>12</b>	<b>609</b>	<b>570</b>	<b>382</b>

<sup>‡</sup> Note: not all outbreaks result in whole ward closure, some closures are restricted to bays only

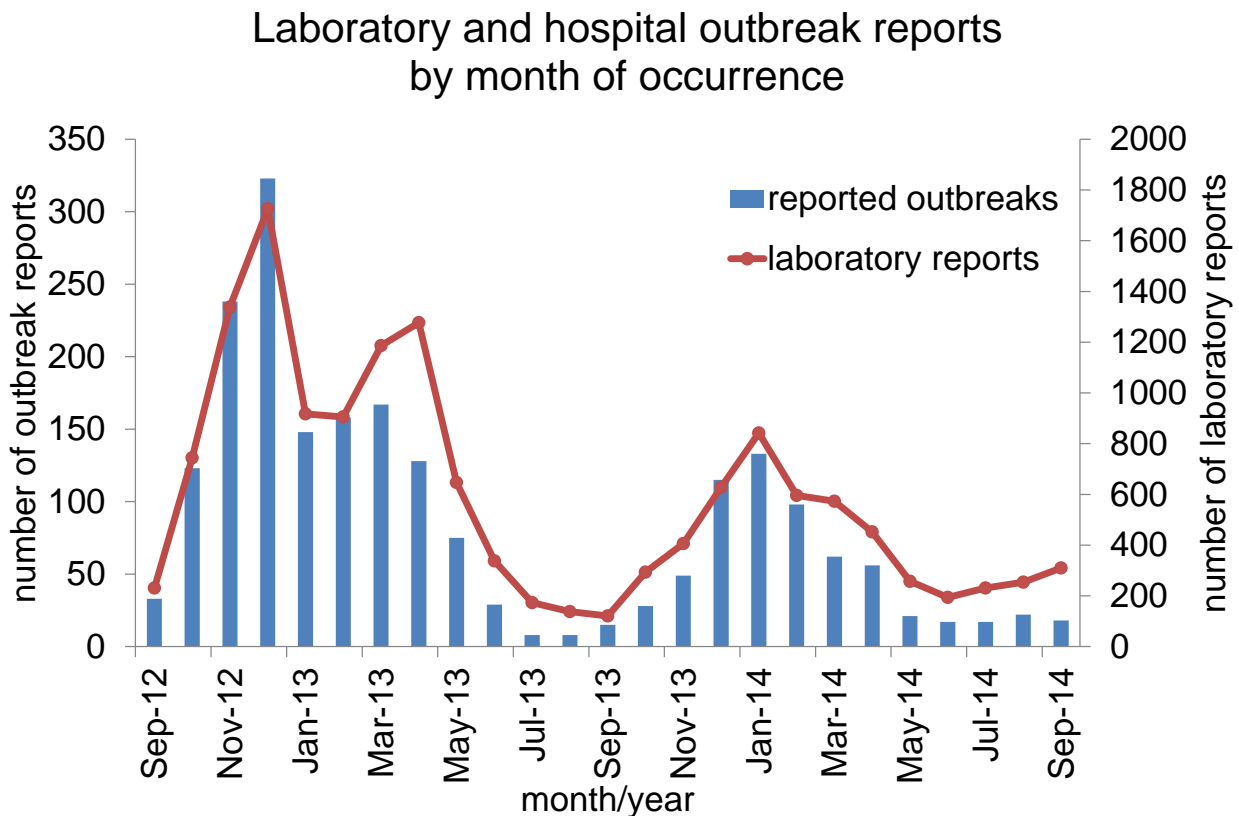
## Norovirus Laboratory Reporting

The number of laboratory reports of norovirus in this season\* (since week 27 2014) is 785. This is 50 per cent higher than the average number for the same period in the seasons 2009/2010 to 2013/2014 (523). Data from laboratory reporting are subject to a reporting delay and the number reported in the most recent weeks is likely to increase as further laboratory reports are received. Norovirus is predominantly a winter pathogen; however, infections due to norovirus do occur in the summer months.

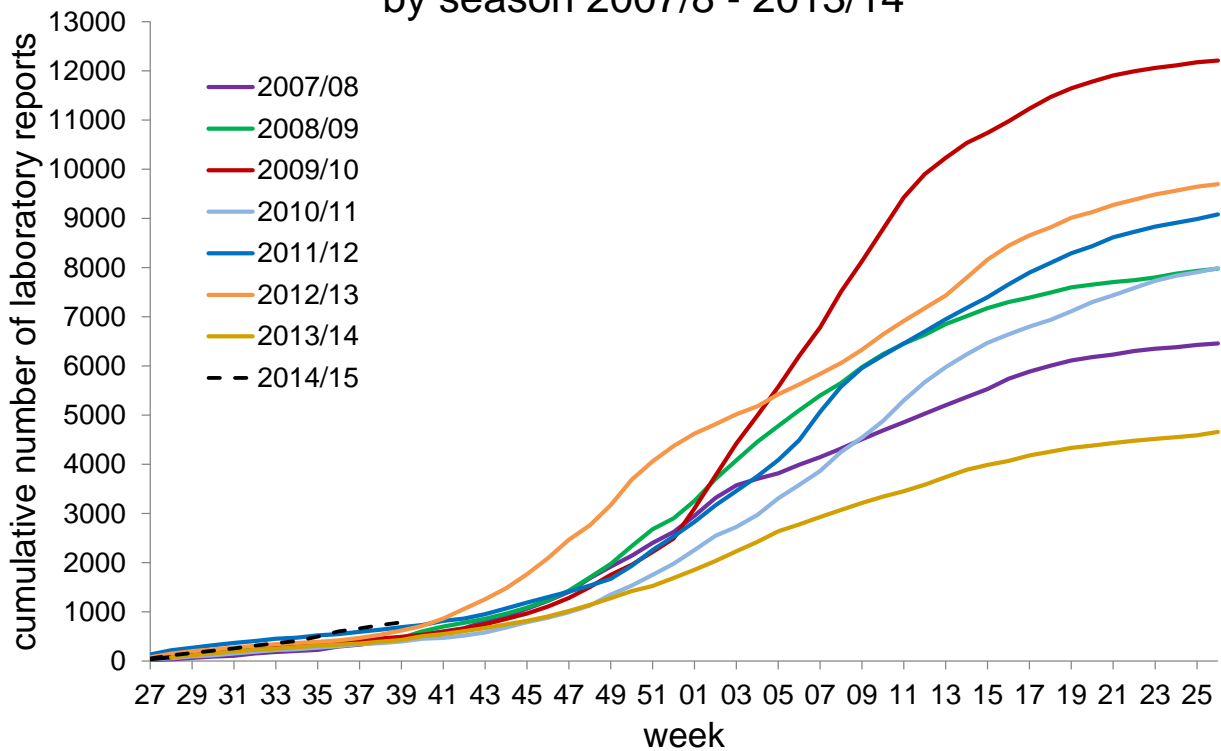
**Figure 1: Seasonal comparison of laboratory reports of norovirus (England and Wales)**



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

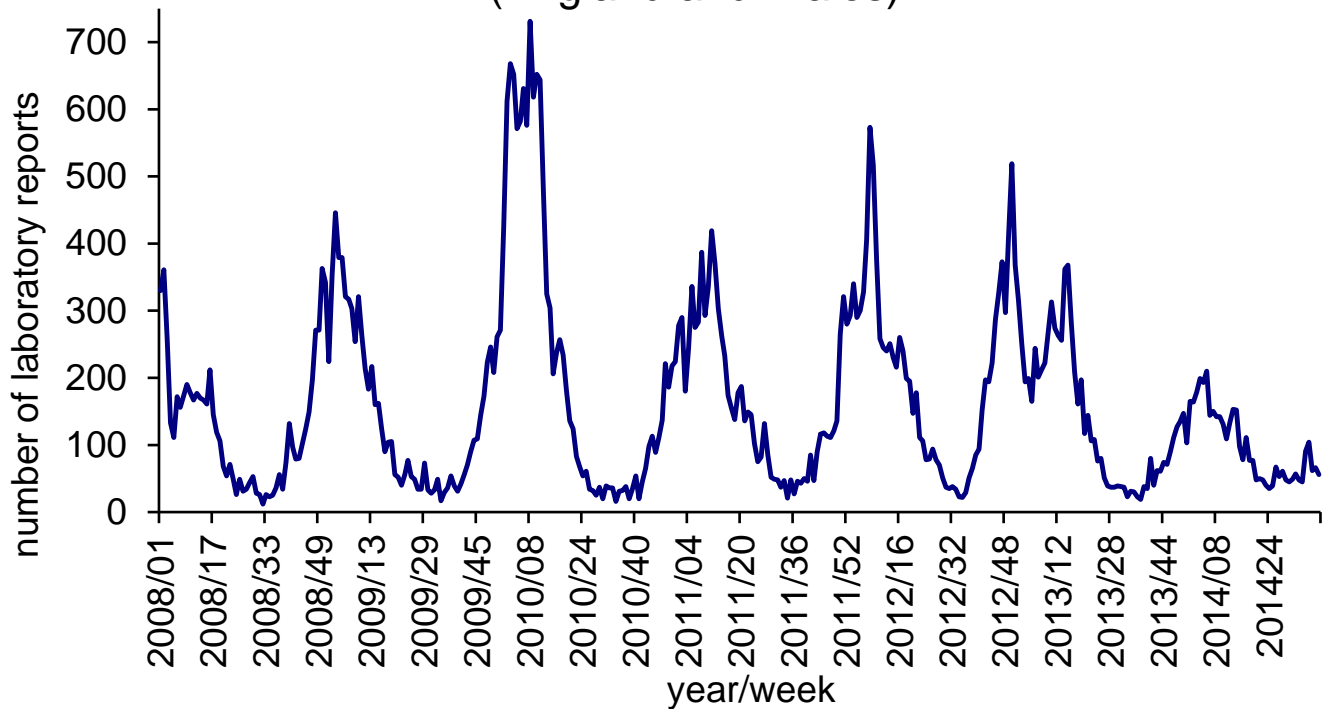


**Figure 3: Cumulative number of laboratory reports of norovirus by season 2007/8-2013/14**  
 Cumulative number of laboratory reports of norovirus by season 2007/8 - 2013/14



**Figure 4: Laboratory reports of norovirus 2007-2014 (England and Wales)**

Laboratory reports of norovirus 2008-2014 (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)**

Total number of outbreaks referred to VRD (27-2014 to 41-2014): 52

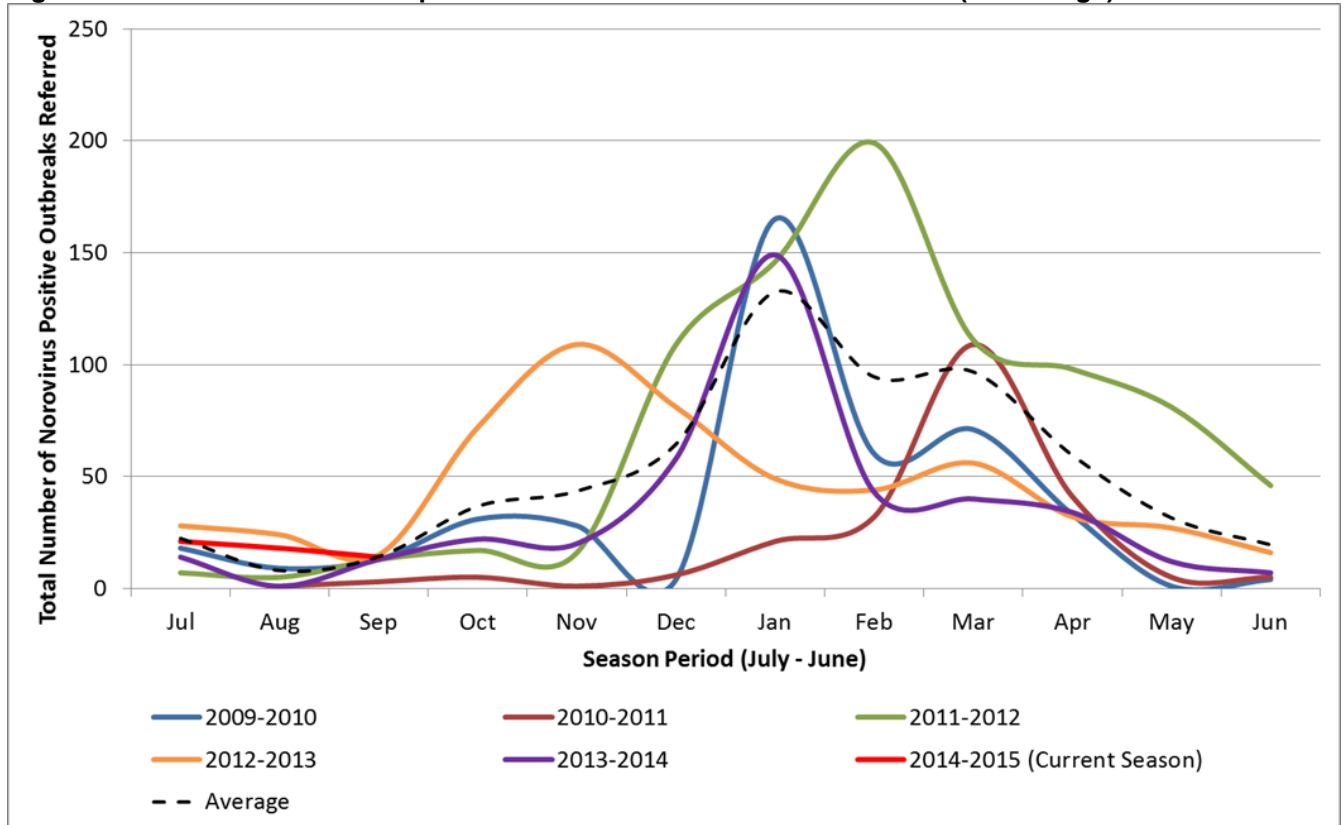
Total number of outbreaks confirmed as norovirus positive: 36

Total number of outbreaks from healthcare settings, referred to VRD (27-2014 to 41-2014): 17

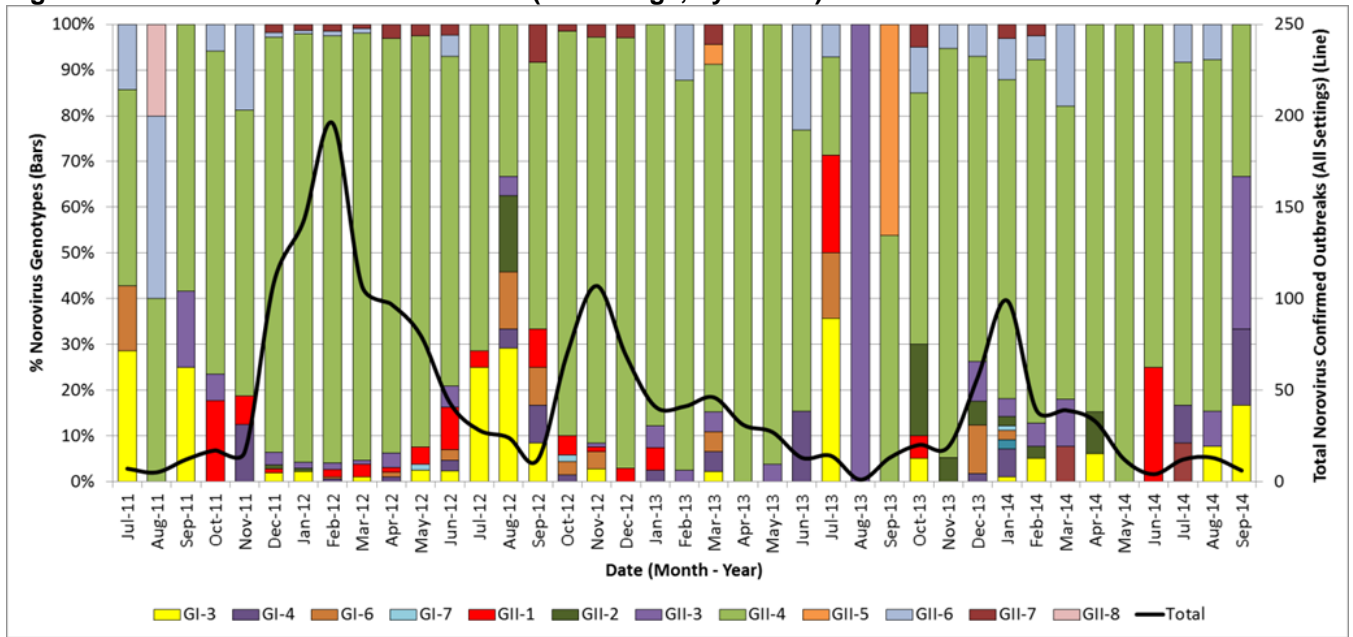
Total number of outbreaks from healthcare settings, confirmed as norovirus positive: 10

- 83.1 % of norovirus-confirmed outbreaks were associated with GII-4 strains since July 2011.
- 6 different norovirus genotypes have been detected in the current season (27-2014 to date).
- The majority of norovirus-confirmed outbreaks in the current season (27-2014 to date) were associated with GII-4 (21/31, 67.7 %).
- The most commonly detected GII-4 strain between periods 41-2013 to 41-2014 is Sydney2012 and is associated with 99.2 % of GII-4 norovirus-confirmed outbreaks.
- The most common detected GII-4 strain in the previous season (2013-2014) was Sydney2012.

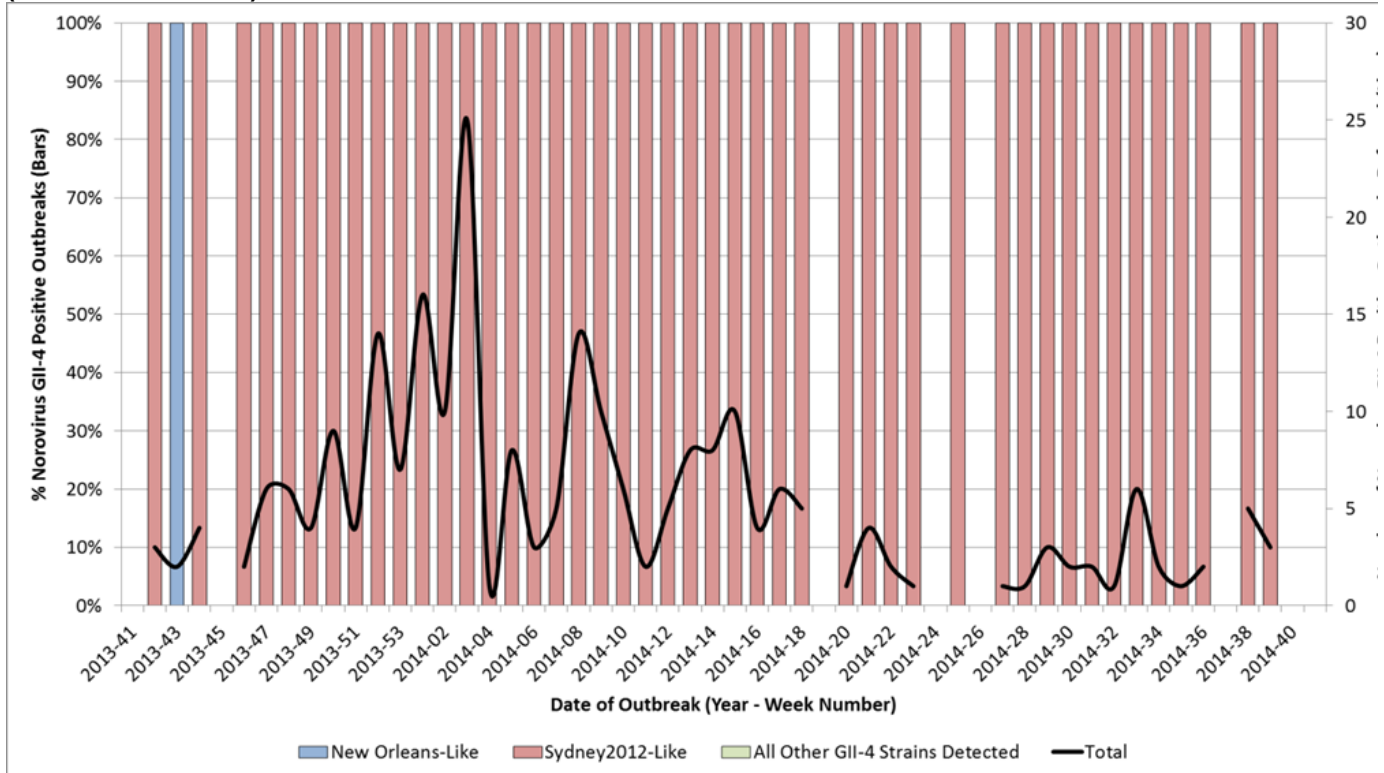
**Figure 5: Season-to-season comparison of norovirus-confirmed outbreaks (all settings) referred to VRD**



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



**Figure 7: GII-4 norovirus strains detected (by week) among norovirus confirmed outbreaks (all settings) (41-2013 to 41-2014)**



## Norovirus Activity in Prisons

One outbreak of diarrhoea and vomiting has been reported in the Yorkshire and Humber Public Health England Centre between 25<sup>th</sup> August and 21<sup>st</sup> September 2014.

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

Region	Public Health England Centre	Outbreaks reported 25/08/2014 to 21/09/2014	Outbreaks reported this season week 27 2014 – week 38 2014
North	Greater Manchester		
	Cumbria and Lancashire		
	Cheshire and Merseyside		1
	Yorkshire and Humber	1	1
Midlands and East of England	North East		
	Anglia and Essex		1
	South Midlands and Hertfordshire		
	Nottinghamshire, Derbyshire, Lincolnshire and Leicestershire		1
London	West Midlands		
	London		
South	Thames Valley		1
	Wessex (Hampshire, Isle of Wight and Dorset)		
	Avon, Gloucestershire and Wiltshire		
	Devon, Cornwall and Somerset		
	Surrey, Sussex and Kent		
<b>Total</b>		<b>1</b>	<b>5</b>

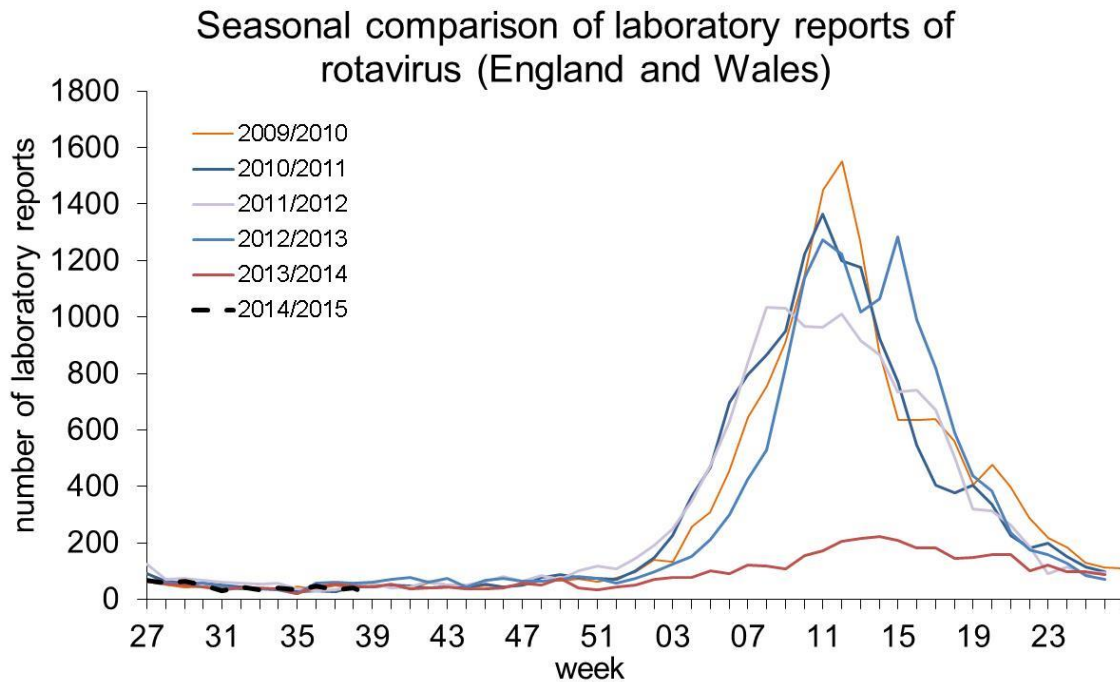
NB. Not all suspected cases are tested for norovirus. Where there is an outbreak, a sample of individuals will be tested.

For guidance on the management of outbreaks in prisons see 'Template Generic Prison Outbreak Plan'

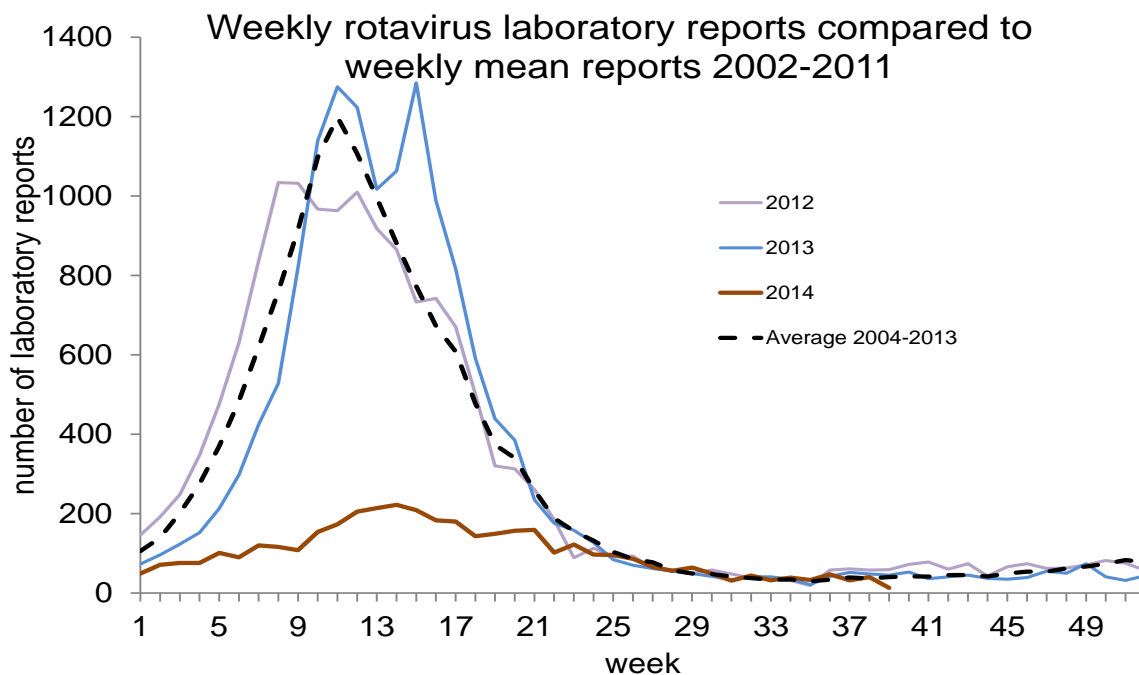
## Rotavirus Laboratory Reporting

The number of laboratory reports of rotavirus in this season\* (since week 27 2014) is 546. This is similar to the ten season average for the same period in the seasons 2004/2005 to 2013/2014 (558). The observed decrease in rotavirus activity in the previous season is likely to be associated with the introduction of the oral vaccine in July 2013. Rotavirus will particularly contribute 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. Note that laboratory reports for the latest weeks are likely to increase as further reports are received.

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



**Figure 9: Weekly rotavirus laboratory reports compared to weekly mean reports 2002-2011**



\*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 would like to thank infection control staff in hospitals for contributing data to HNORS.

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