



# PHE Weekly National Norovirus and Rotavirus Report

Summary of surveillance of norovirus and rotavirus

**31 December 2014 - Week 1 report**

This report is published weekly 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 8<sup>th</sup> January 2015**

### Norovirus

- The number of laboratory reports of norovirus in the season to date is four percent higher overall than the five year seasonal average (from season 2009 and 2010 to season 2013 and 2014). However, laboratory reports are currently at similar levels to the same weeks in previous years. 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 lower than 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.

## Hospital Norovirus Outbreak Reporting System (HNORS)

In the two weeks between 15/12/2014 and 28/12/2014 the hospital norovirus outbreak reporting scheme (HNORS) recorded 22 suspected or confirmed outbreaks of norovirus, twenty-one of which (95 per cent) led to ward/bay closures or restrictions to admissions. Twelve (55 per cent) were reported as laboratory confirmed norovirus outbreaks.

Since the start of this season (week 27 2014) there have been 260 reported outbreaks of suspected or confirmed norovirus, of which 242 (93%) led to ward/bay closures or restrictions to admissions and 176 (68 per cent) were laboratory confirmed as norovirus outbreaks.

In the last season (week 27 2013 to week 26 2014) 610 outbreaks were reported, 571 (94 per cent) of which reported ward/bay closures or restrictions to admissions and 383 (63 per cent) were reported as laboratory confirmed norovirus outbreaks.

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

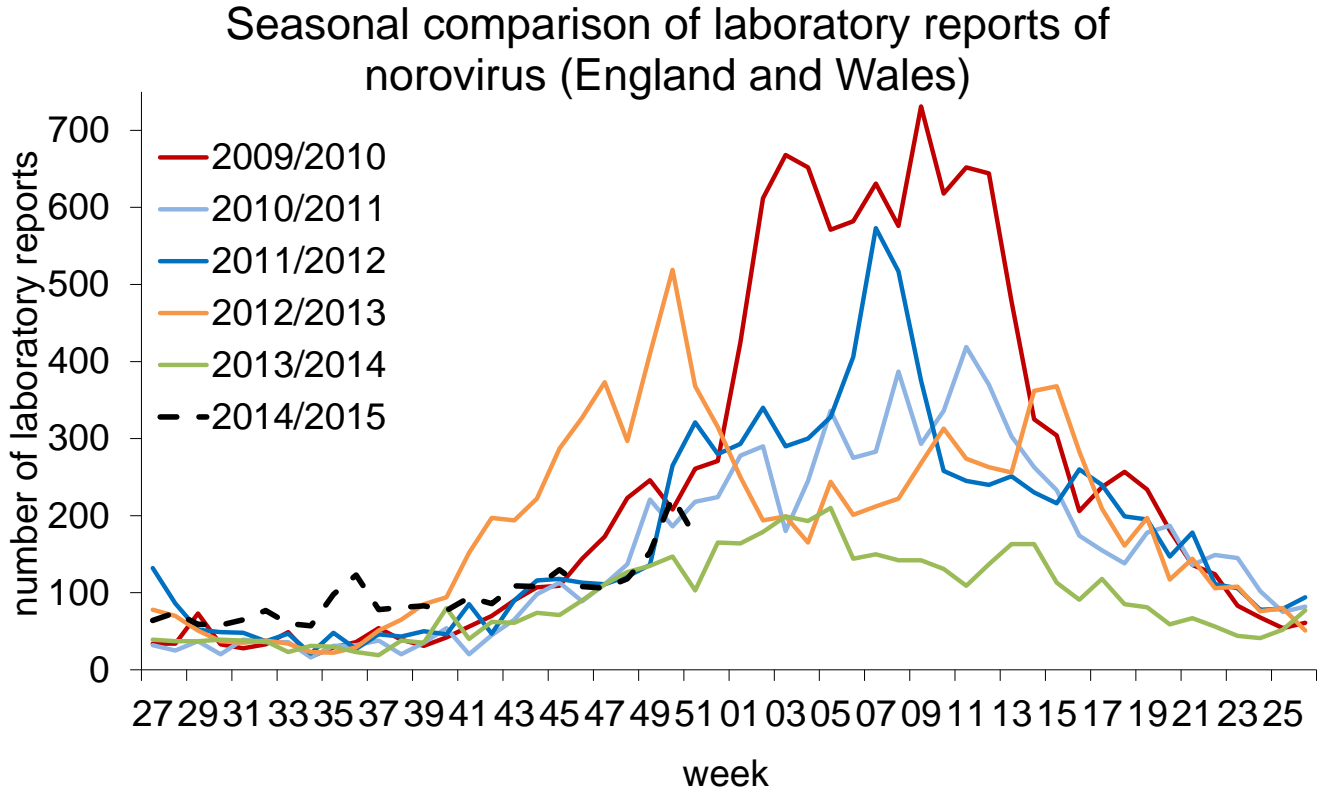
Public Health England Centre	Outbreaks 15/12/2014 to 28/12/2014			Outbreaks reported in the last season 2013/2014 (week 27 2013 - week 26 2014)		
	Outbreaks	Ward/bay closure <sup>‡</sup>	Lab confirmed	Outbreaks	Ward/bay closure <sup>‡</sup>	Lab confirmed
Avon, Gloucestershire and Wiltshire	3	3	1	81	81	54
Bedfordshire, Hertfordshire and Northamptonshire				1	1	1
Cheshire and Merseyside				4	3	4
Cumbria and Lancashire				29	29	10
Devon, Cornwall and Somerset	1	1		71	69	29
Greater Manchester	1	1	1	18	15	6
Hampshire, Isle of Wight and Dorset	3	3	3	50	50	36
Lincolnshire, Leicestershire, Nottinghamshire and Derbyshire	1	1		46	44	32
London				9	9	8
Norfolk, Suffolk, Cambridgeshire and Essex						
North East	5	5	4	60	50	39
Sussex, Surrey and Kent				31	31	23
Thames Valley				22	22	8
West Midlands	8	7	3	76	73	39
Yorkshire and the Humber				112	94	94
<b>Total</b>	<b>22</b>	<b>21</b>	<b>12</b>	<b>610</b>	<b>571</b>	<b>383</b>

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

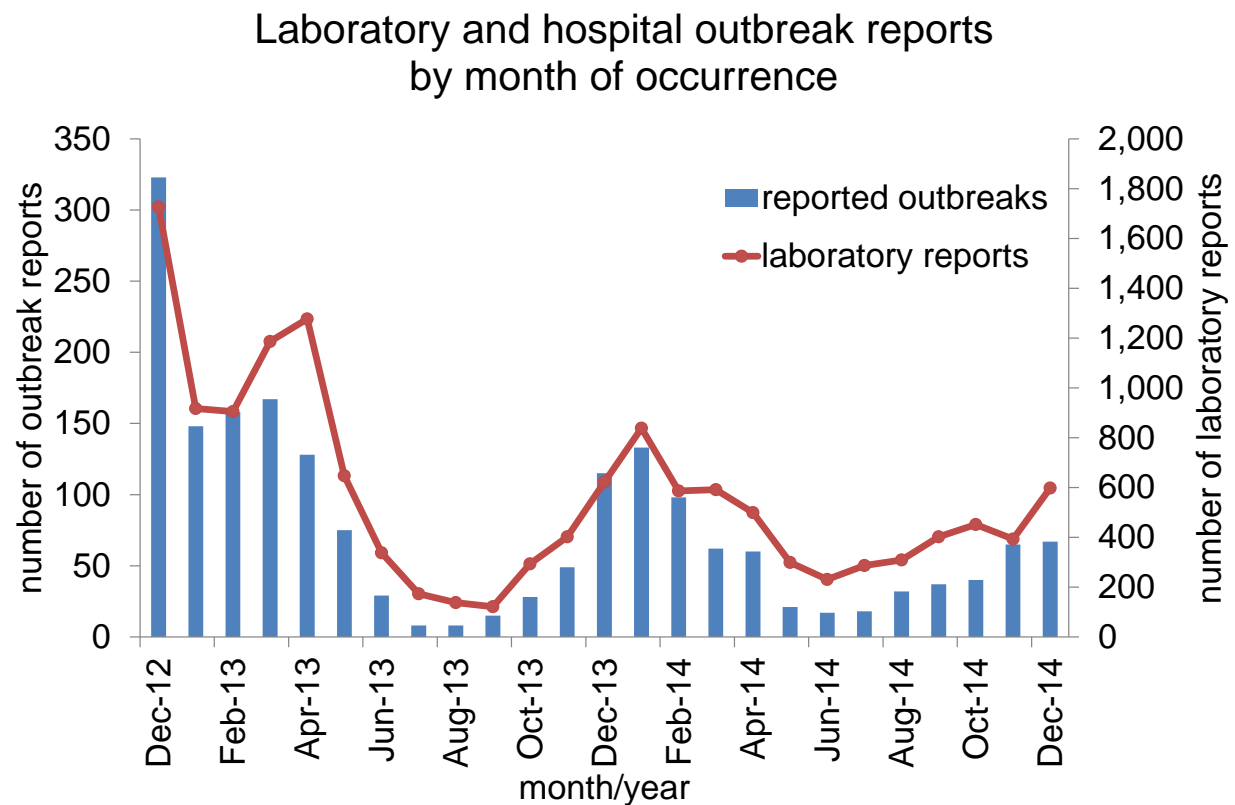
## Norovirus Laboratory Reporting

The number of laboratory reports of norovirus in this season\* (since week 27 2014) is 2462. This is four per cent higher than the average number for the same period in the seasons 2009/2010 to 2013/2014 (2363). 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.

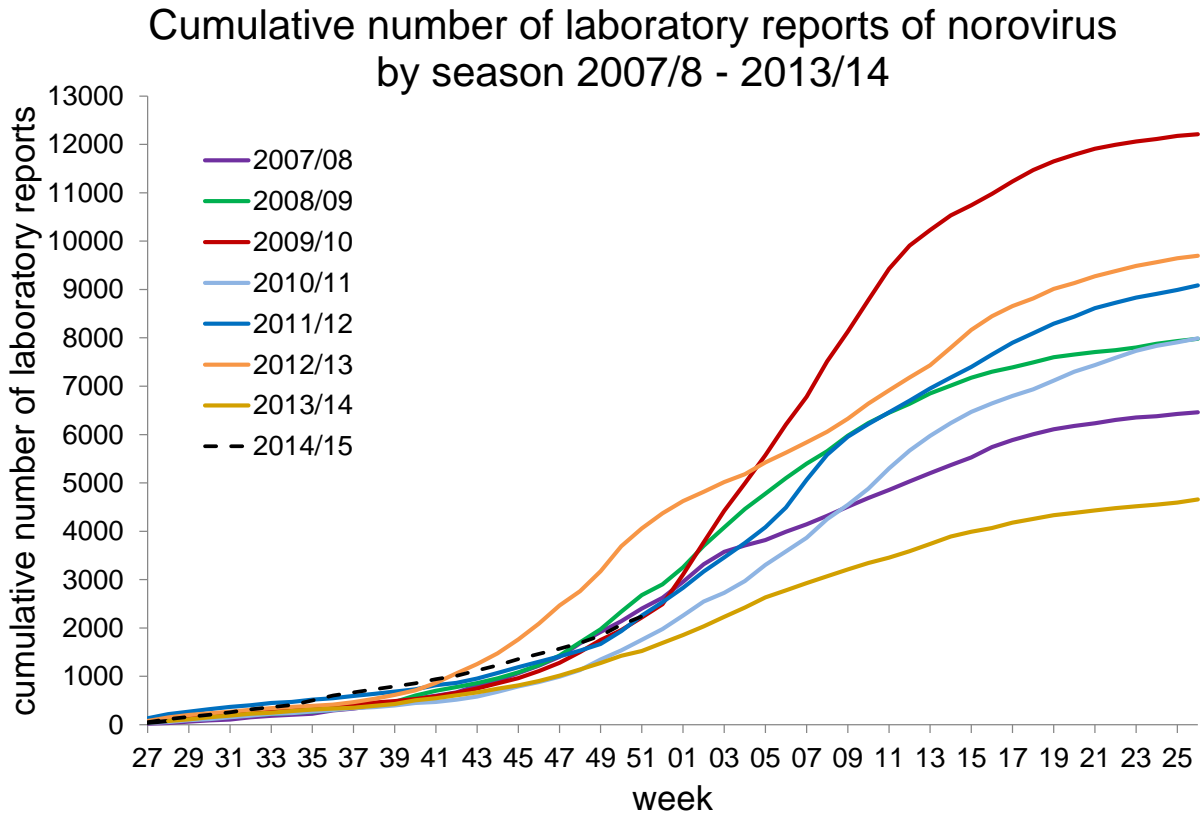
**Figure 1: Seasonal comparison of laboratory reports of norovirus (England and Wales)**



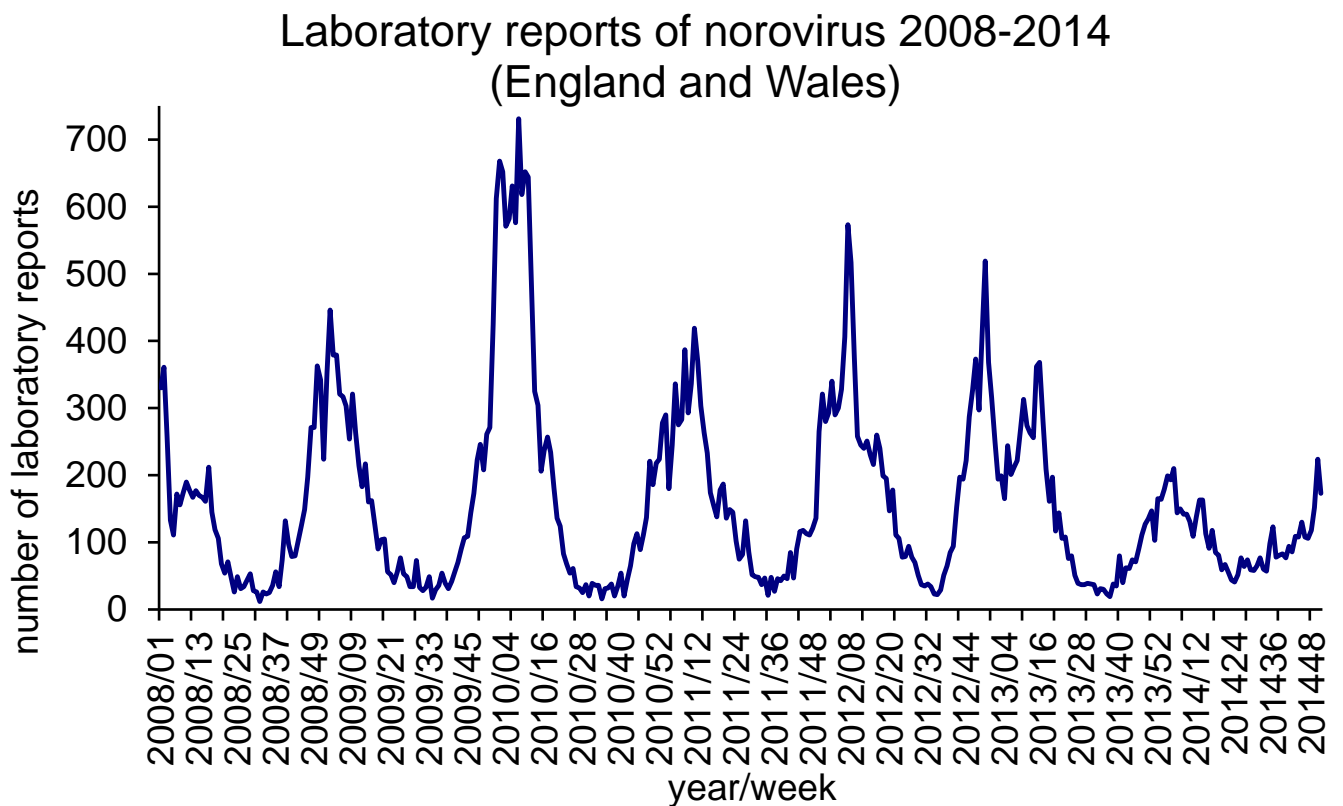
**Figure 2: Laboratory and hospital outbreak reports by month of occurrence**



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



**Figure 4: Laboratory reports of norovirus 2007-2014 (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. From 1 December 2014 we moved to a new laboratory reporting system so direct comparisons between the previous system (LabBase2) and the new system (SGSS) may not be valid.

**Laboratory Surveillance Update – Virus Reference Department (VRD)**

Total number of outbreaks referred to VRD (27-2014 to 52-2014): 154

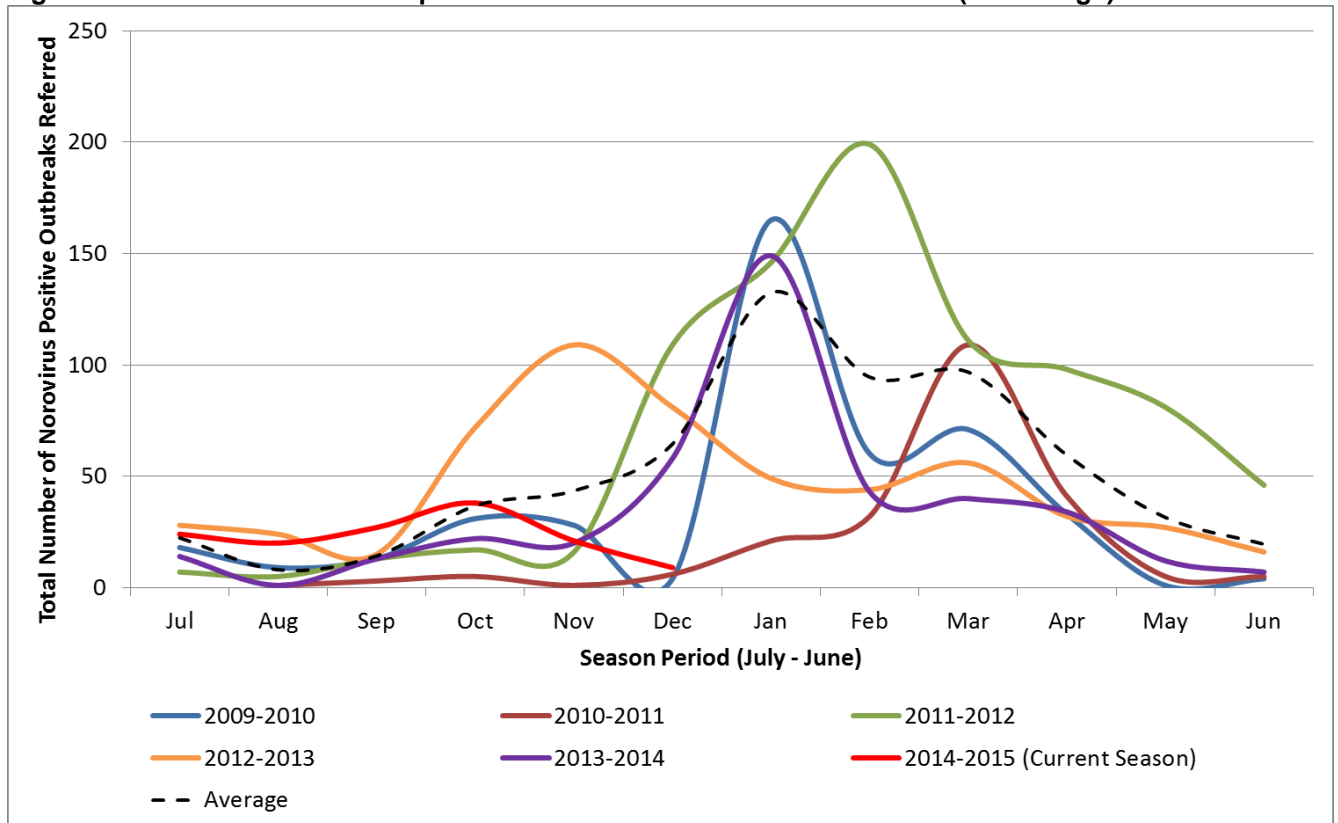
Total number of outbreaks confirmed as norovirus positive: 119

Total number of outbreaks from healthcare settings, referred to VRD (27-2014 to 52-2014): 44

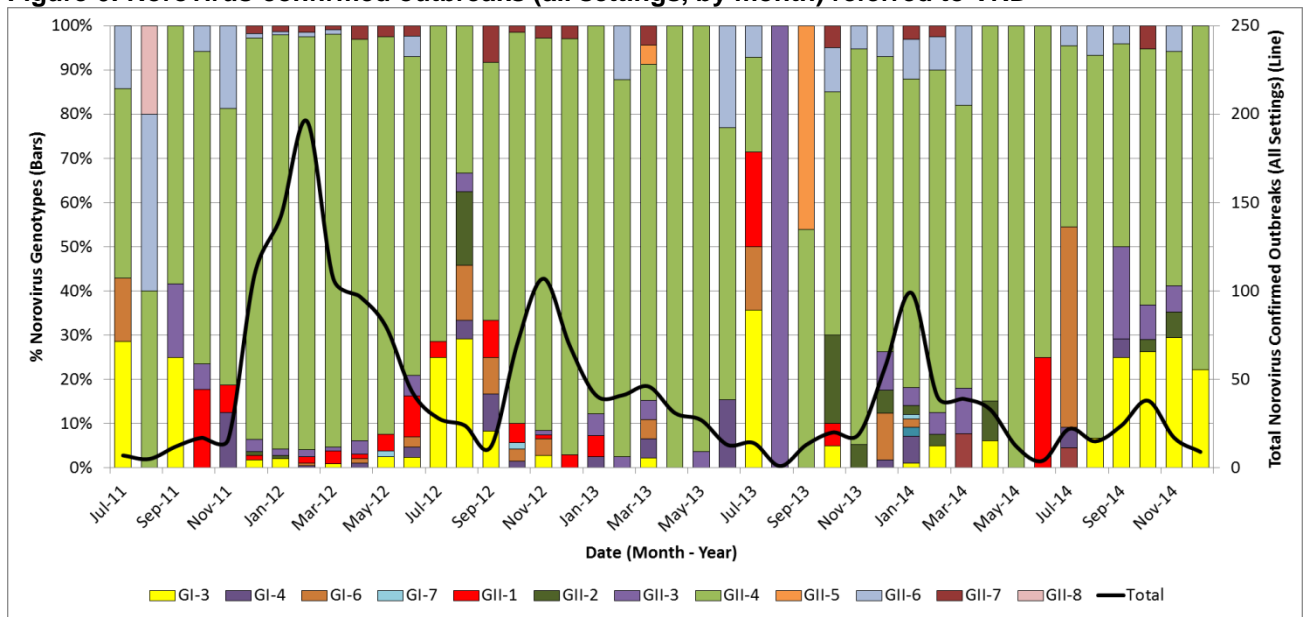
Total number of outbreaks from healthcare settings, confirmed as norovirus positive: 26

- 81.7% of norovirus-confirmed outbreaks were associated with GII-4 strains since July 2011.
- 9 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 (71/125, 56.8%).
- The most commonly detected GII-4 strain between periods 52-2013 to 52-2014 is Sydney2012 and is associated with 100% of GII-4 norovirus-confirmed outbreaks.
- The most commonly detected GII-4 strain in the previous season (2013-2014) was Sydney2012.

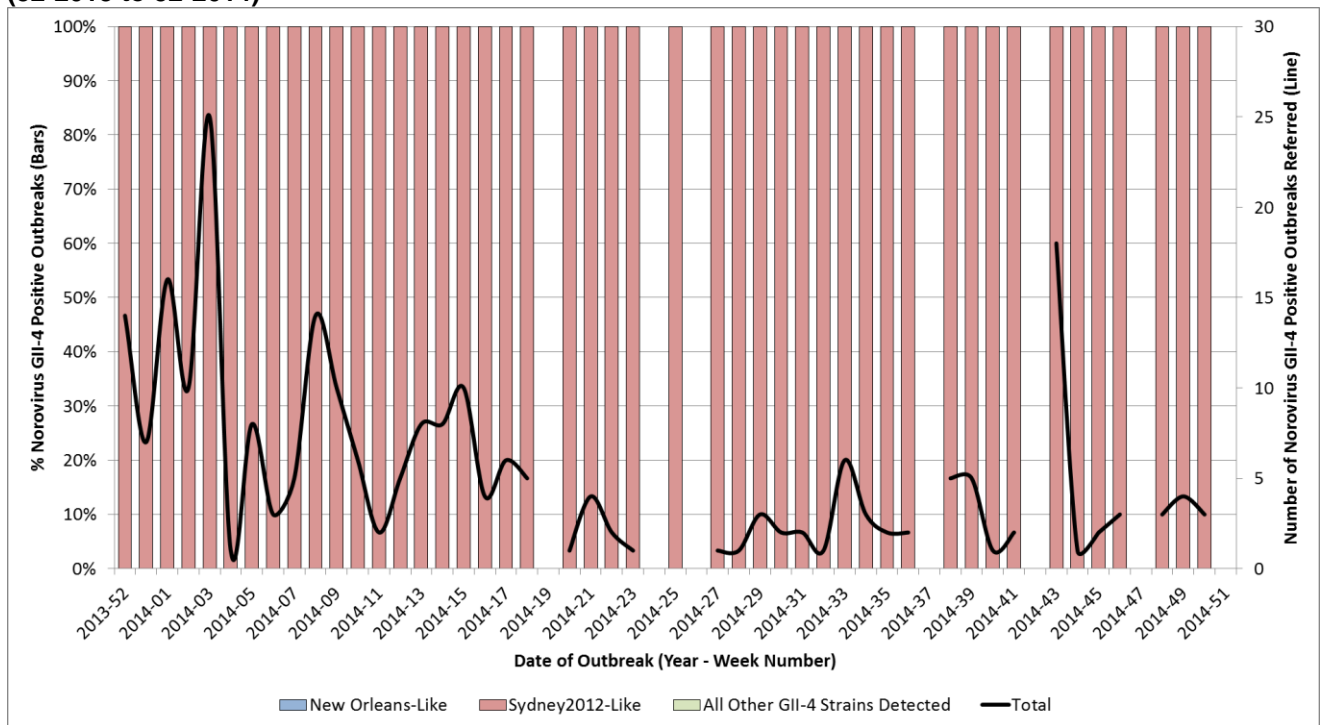
**Figure 5: Season-to-season comparison of norovirus-confirmed outbreaks (all settings) referred to VRD**



**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) (52-2013 to 52-2014)**



## Norovirus Activity in Prisons

No outbreaks of diarrhoea and vomiting have been reported between 22<sup>nd</sup> December and 28<sup>th</sup> December 2014.

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

Region	Public Health England Centre	Outbreaks reported 22/12/2014 to 28/12/2014	Outbreaks reported this season week 27 2014 – week 52 2014
North	Greater Manchester		
	Cumbria and Lancashire		
	Cheshire and Merseyside		1
	Yorkshire and Humber		1
	North East		1
Midlands and East of England	Anglia and Essex		2
	South Midlands and Hertfordshire		
	Nottinghamshire, Derbyshire, Lincolnshire and Leicestershire		2
	West Midlands		1
London	London		
South	Thames Valley		1
	Wessex (Hampshire, Isle of Wight and Dorset)		1
	Avon, Gloucestershire and Wiltshire		
	Devon, Cornwall and Somerset		
	Surrey, Sussex and Kent		
<b>Total</b>			<b>10</b>

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

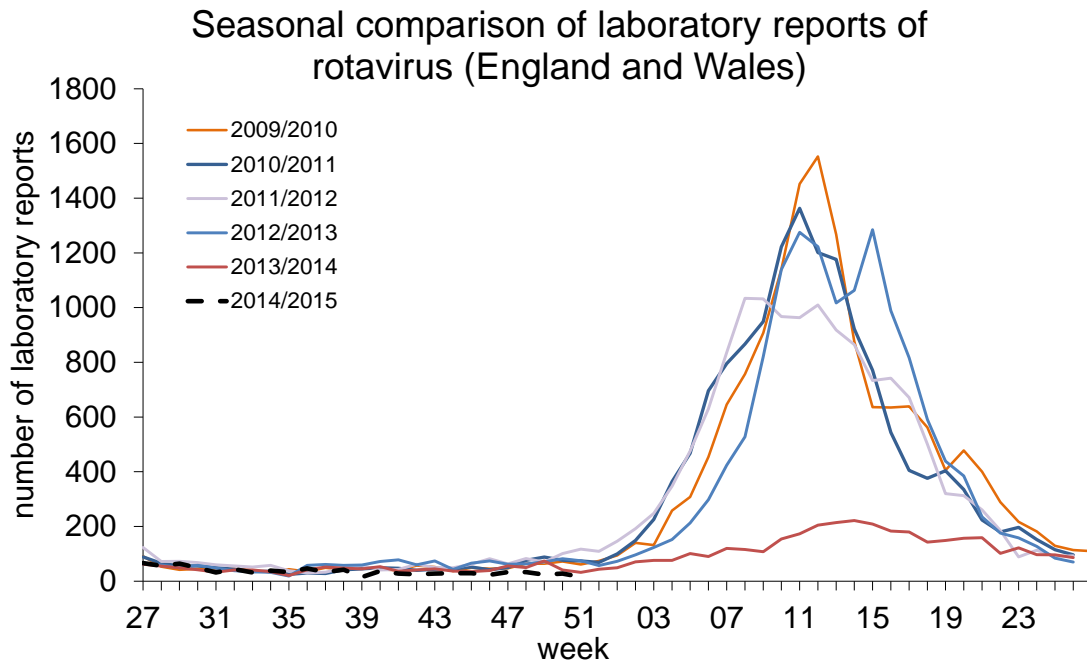
For guidance on the management of outbreaks in prisons see:

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

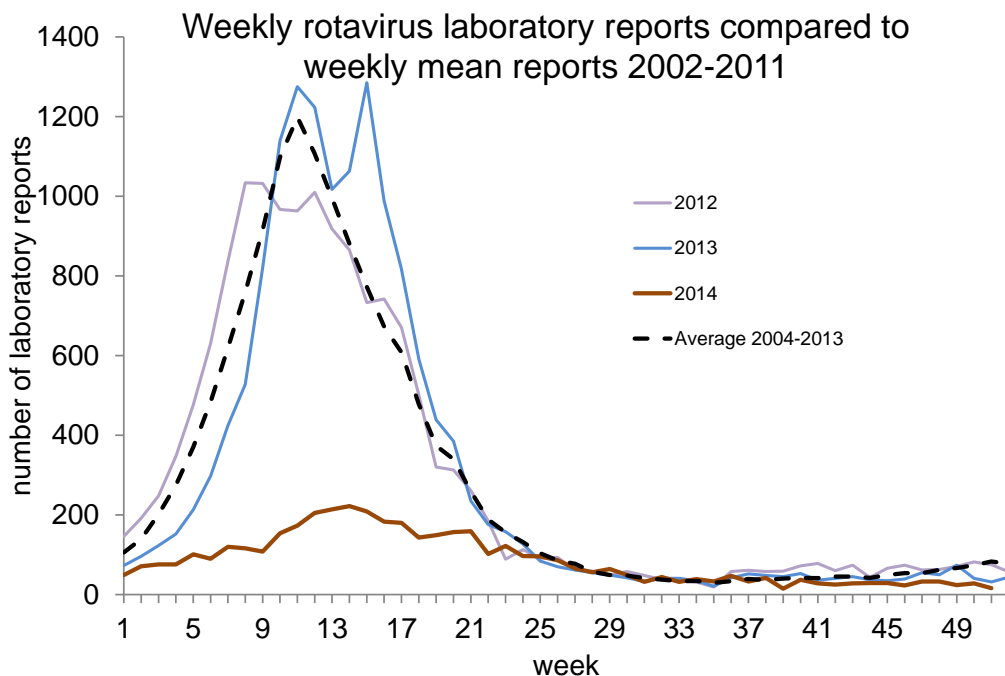
## Rotavirus Laboratory Reporting

The number of laboratory reports of rotavirus in this season\* (since week 27 2014) is 885. This is twenty-seven per cent lower the ten season average for the same period in the seasons 2004/2005 to 2013/2014 (1217). 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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