



# PHE Monthly National Norovirus and Rotavirus Report

Summary of surveillance of norovirus and rotavirus

11 September 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 MONTH on 08 October 2015

### Norovirus

- Laboratory reports of norovirus in the current season are 34 percent higher overall compared to the five year seasonal average (from season 2009 and 2010 to season 2013 and 2014). Currently laboratory reports are similar to the number at this time last year. 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 reports is currently at similar levels to previous years. Laboratory reports are sixty-six per cent 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 likely to be because of a later peak than in previous seasons. Rotavirus activity is still greatly reduced compared to previous seasons overall.

## Hospital Norovirus Outbreak Reporting System (HNORS)

In the four weeks between 03/08/2015 and 30/09/2015 (weeks 32-35) the hospital norovirus outbreak reporting scheme (HNORS) recorded five suspected or confirmed outbreaks of norovirus, four of which led to ward/bay closures or restrictions to admissions and one was laboratory confirmed as a norovirus outbreak.

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**

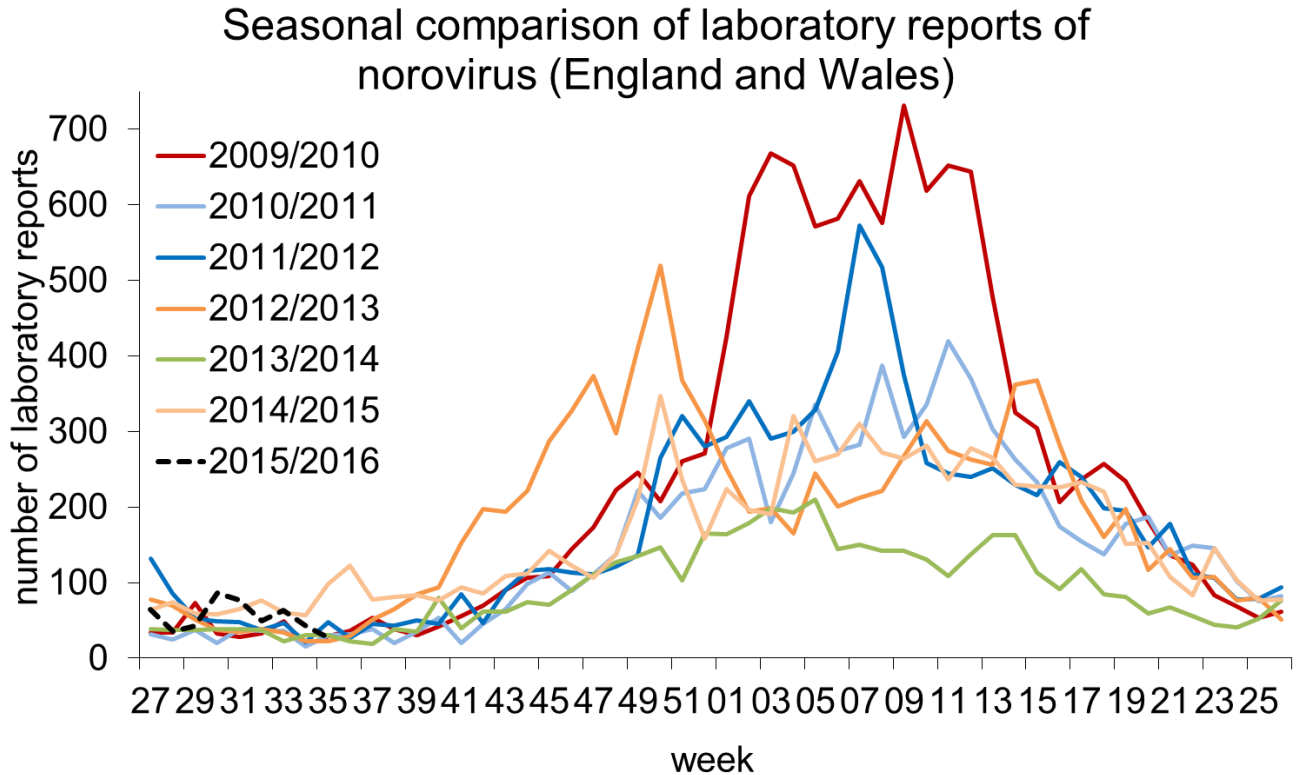
Public Health England Centre	Outbreaks 03/08/2015 to 30/09/2015			Outbreaks reported in the last season 2014/2015 (week 27 2014 - week 26 2015)		
	Outbreaks	Ward/bay closure <sup>‡</sup>	Lab confirmed	Outbreaks	Ward/bay closure <sup>‡</sup>	Lab confirmed
Avon, Gloucestershire and Wiltshire				101	99	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	1	1	1	44	43	37
Lincolnshire, Leicestershire, Nottinghamshire and Derbyshire				40	37	36
London				5	5	1
Norfolk, Suffolk, Cambridgeshire and Essex						
North East	1	1		97	88	62
Sussex, Surrey and Kent				30	30	18
Thames Valley	2	1		9	5	3
West Midlands	1	1		172	166	98
Yorkshire and the Humber				107	92	89
<b>Total</b>	<b>5</b>	<b>4</b>	<b>1</b>	<b>858</b>	<b>808</b>	<b>584</b>

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

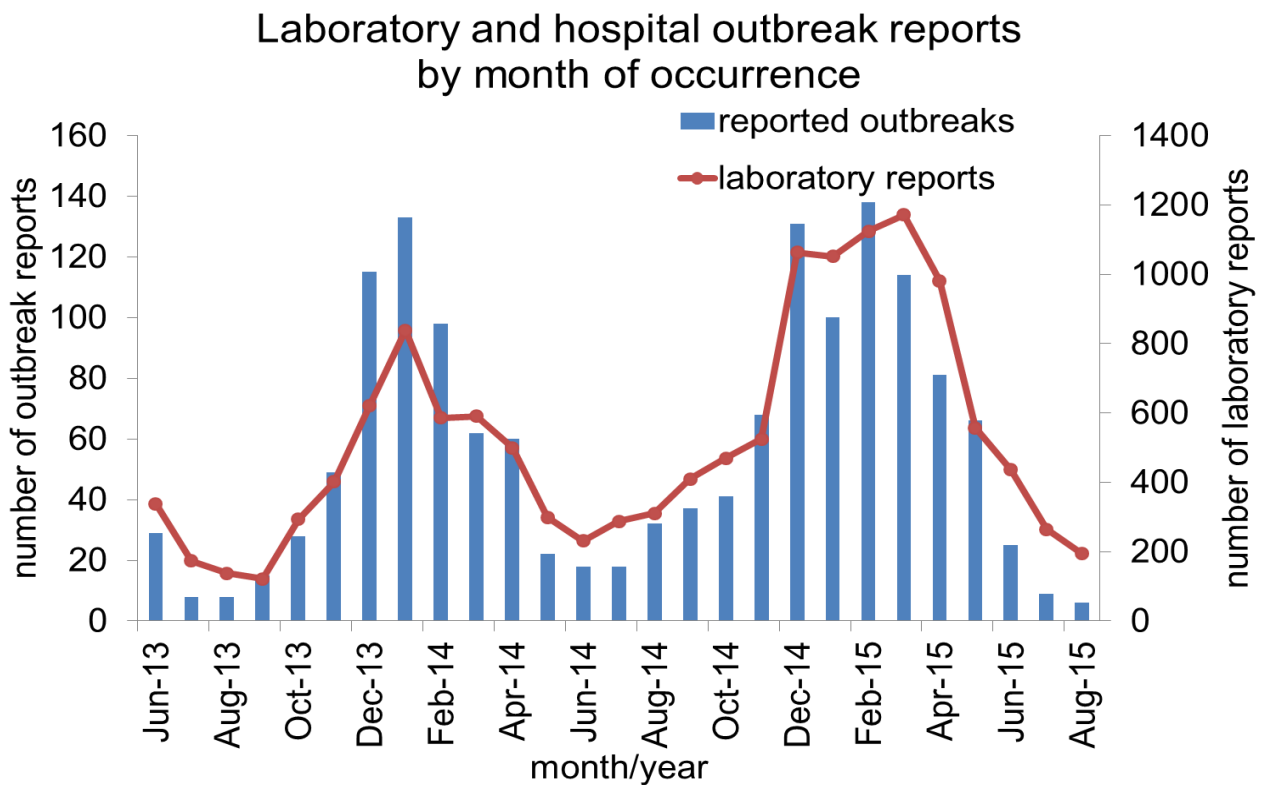
## Norovirus Laboratory Reporting

The number of laboratory reports of norovirus in this season\* (since week 27 2015) is 490. This is 34 per cent higher than the average number for the same period in the five seasons 2009/2010 to 2013/2014 (237), but twenty percent lower than the same weeks last year. 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.

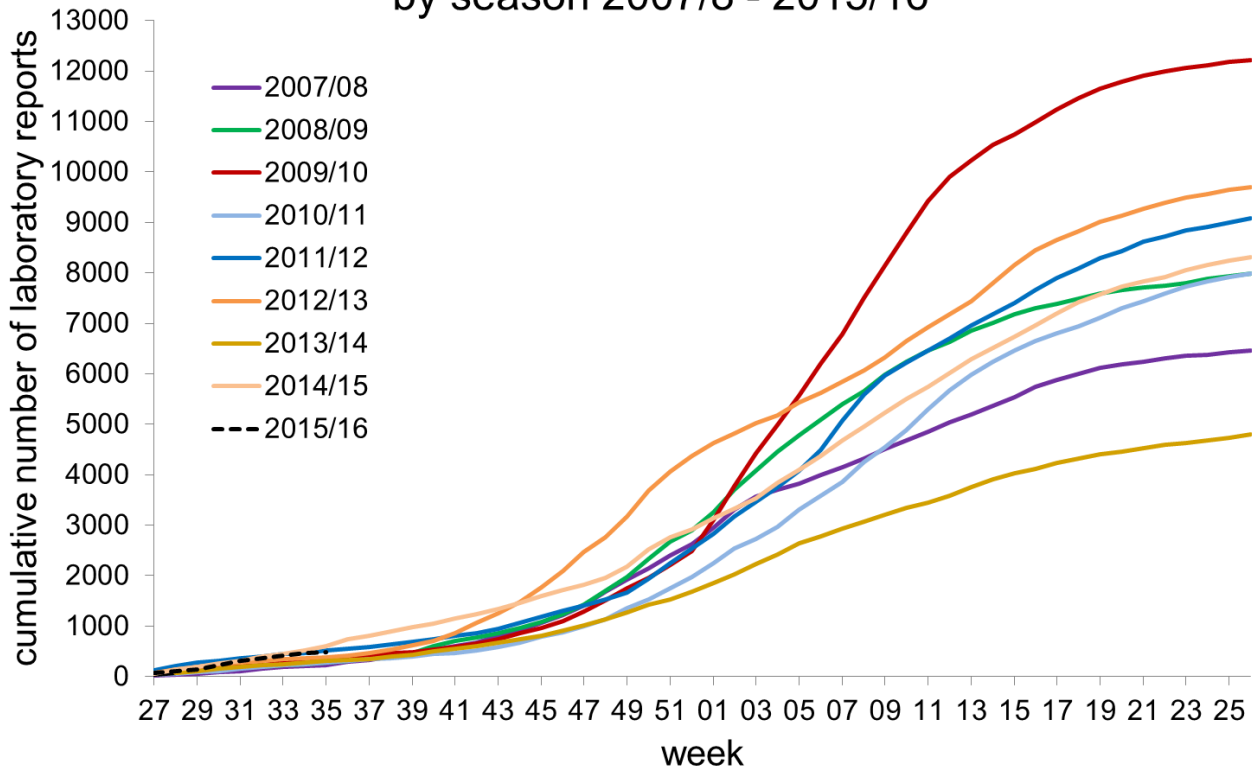
**Figure 1: Seasonal comparison of laboratory reports of norovirus (England and Wales)**



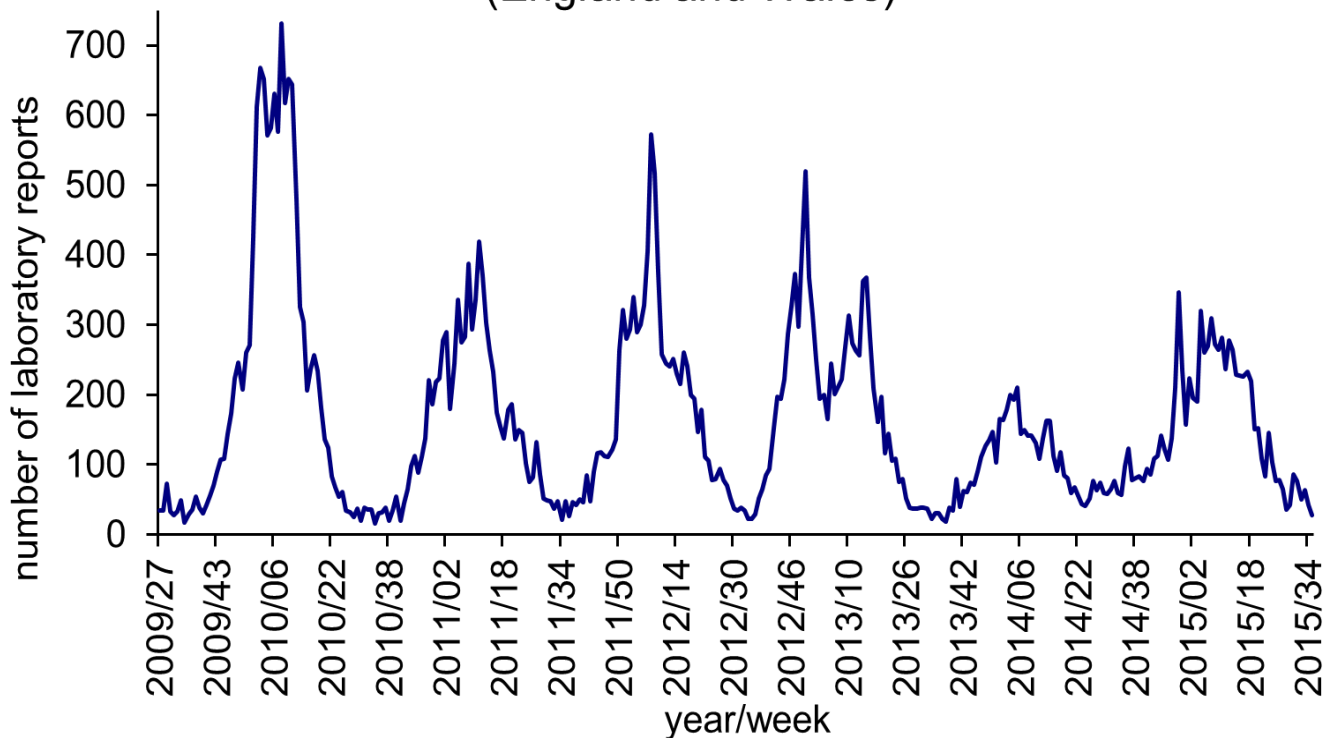
**Figure 2: Laboratory and hospital outbreak reports by month of occurrence**



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



**Figure 4: Laboratory reports of norovirus 2008-2015 (England and Wales)**  
 Laboratory reports of norovirus 2009-2015 (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: **11/09/2015**

Week of update: **37-2015**

Total number of outbreaks referred to VRD (27-2015 to 37-2015): **71**

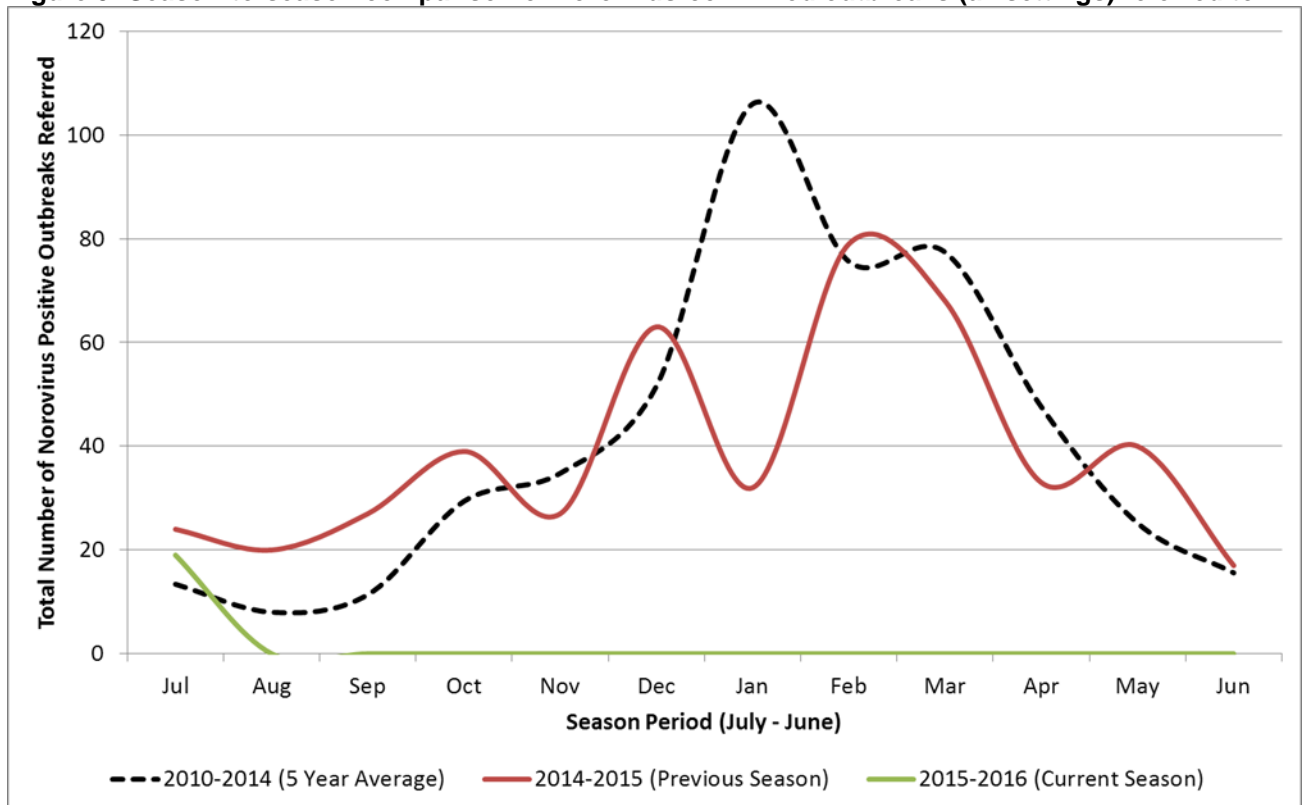
Total number of outbreaks confirmed as norovirus positive: **29**

Total number of outbreaks from healthcare settings, referred to VRD (27-2015 to 33-2015): **49**

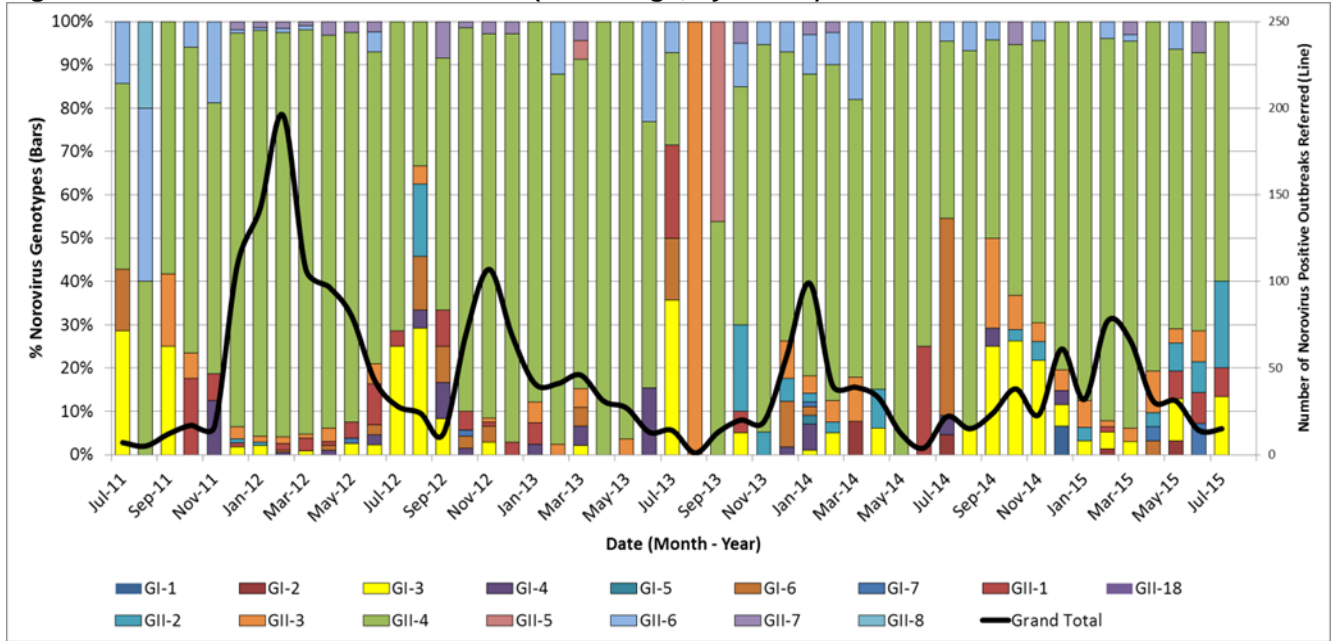
Total number of outbreaks from healthcare settings, confirmed as norovirus positive: **14**

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.

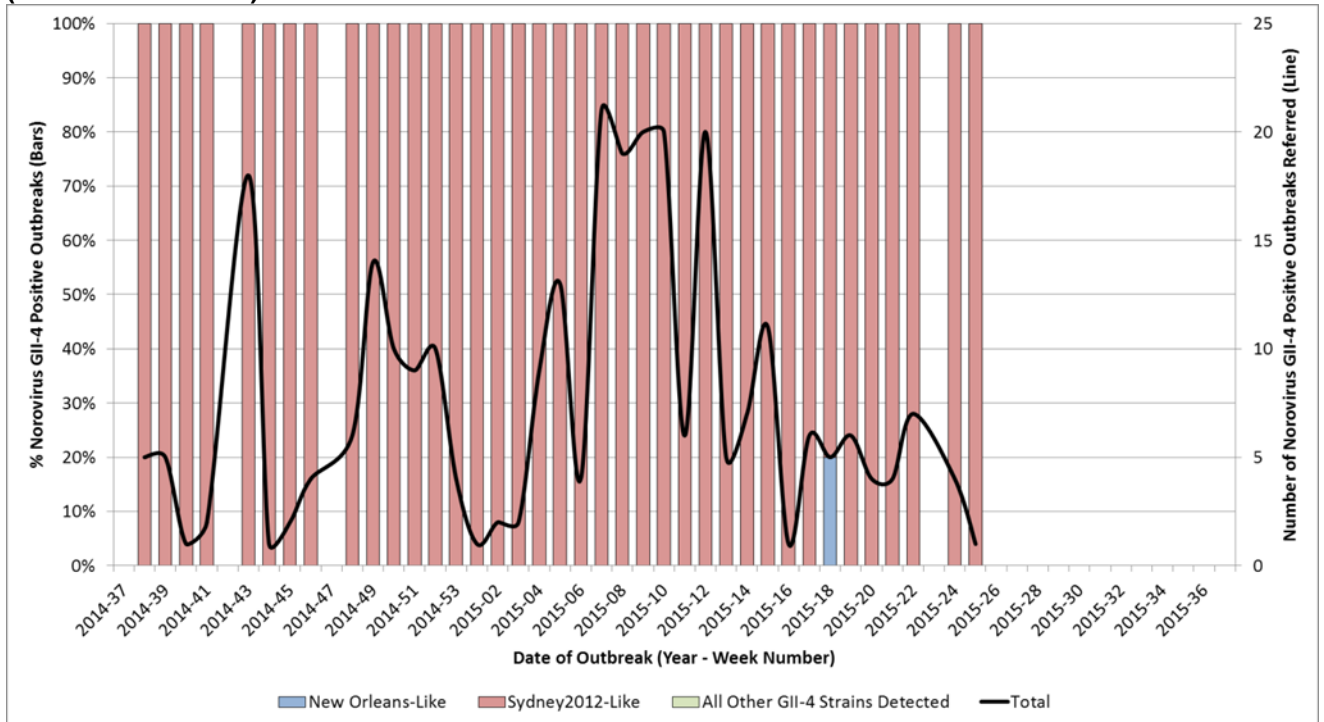
**Figure 5: Season-to-season comparison of norovirus-confirmed outbreaks (all settings) referred to VRD**



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



**Figure 7: GII-4 norovirus strains detected (by week) among norovirus confirmed outbreaks (all settings) (33-2014 to 33-2015)**



- 81.7% of norovirus-confirmed outbreaks were associated with GII-4 strains since July 2011.
- 5 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 (9/15 60.0%).

## Norovirus Activity in Prisons

No outbreaks of diarrhoea and vomiting have been reported in prisons between 10 August and 6 September 2015.

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

Region	Public Health England Centre	Outbreaks reported 10/08/2015 to 06/09/2015	Outbreaks reported last season week 27 2014 – week 26 2015
North	Greater Manchester		
	Cumbria and Lancashire		
	Cheshire and Merseyside		1
	Yorkshire and Humber		1
Midlands and East of England	North East		1
	Anglia and Essex		2
	South Midlands and Hertfordshire		2
	Nottinghamshire, Derbyshire, Lincolnshire and Leicestershire		2
London	West Midlands		1
	London		1
South	Thames Valley		1
	Wessex (Hampshire, Isle of Wight and Dorset)		2
	Avon, Gloucestershire and Wiltshire		
	Devon, Cornwall and Somerset		
	Surrey, Sussex and Kent		
<b>Total</b>			<b>14</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 2015) is 655. This is sixty-six per cent higher the ten season average for the same period in the seasons 2004/2005 to 2013/2014 (274). 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. Rotavirus activity is still greatly reduced compared to previous seasons overall (see figure 2).

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)**

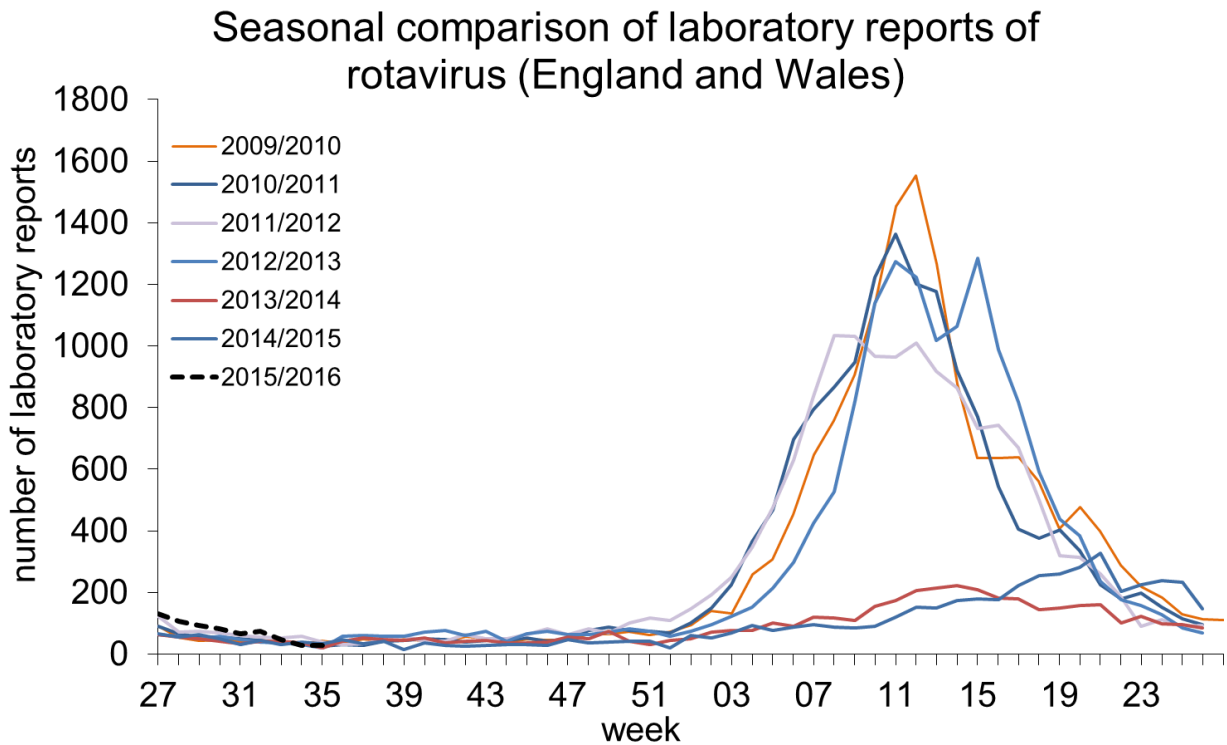
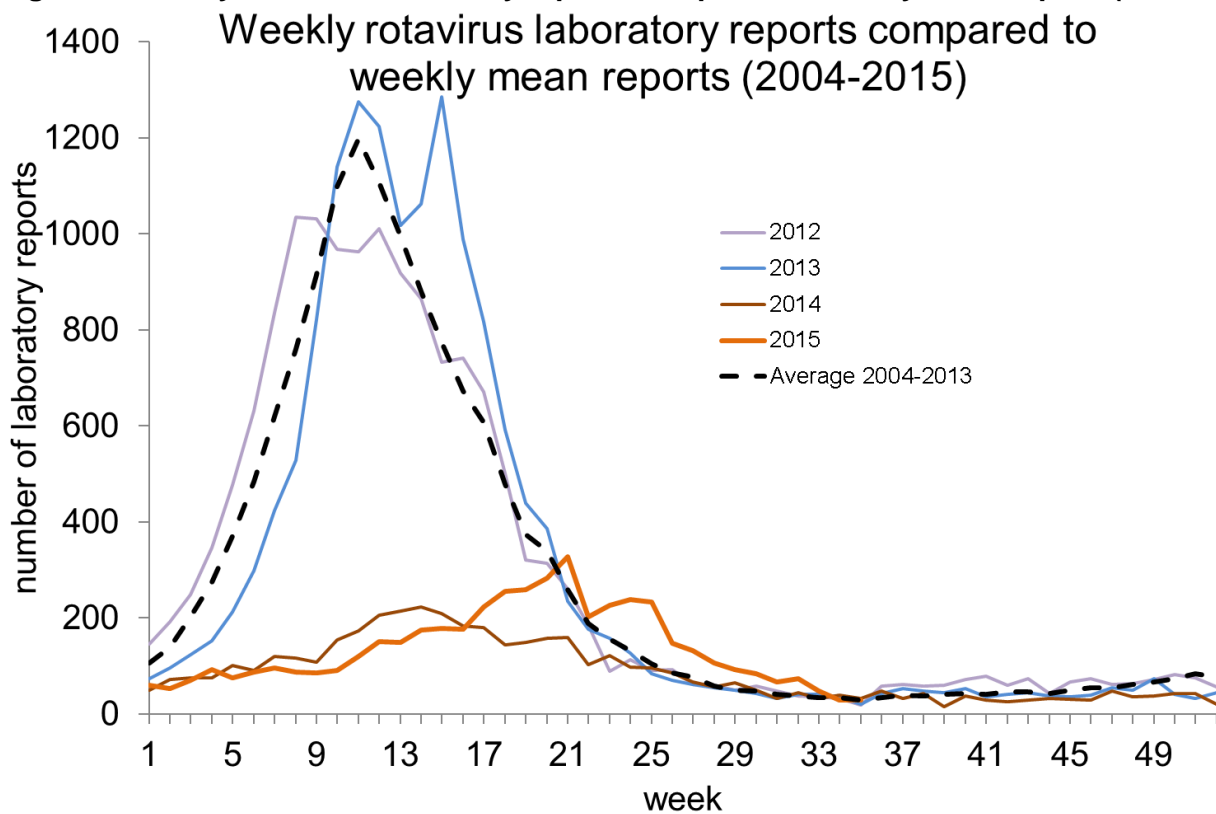




Figure 9: Weekly rotavirus laboratory reports compared to weekly mean reports(2004-2013)



\*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.

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