



# PHE National norovirus and rotavirus Report

## Summary of surveillance of norovirus and rotavirus

**06 July 2016 – reporting weeks 22-25**

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](#).

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### Summary

**The next report will be published next month on 11 August 2016.**

#### Norovirus

- The number of laboratory reports of norovirus in this season\* (since week 27 2015) is 5793. This is 25% lower than the average number for the same period in the five seasons from season 2010 and 2011 to season 2014 and 2015 (7701), and 20% lower than the same weeks last season. Reports of outbreaks of diarrhoea and vomiting in hospitals continue to be reported but at lower levels than in previous years.

#### Rotavirus

- The number of laboratory reports of rotavirus in this season\* (since week 27 2015) is 2287. This is 84% lower than the ten season average for the same period in the seasons 2003 and 2004 to 2012 and 2013 (14510)\*. Rotavirus laboratory reports are currently lower than previous years.

\*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 year 2, i.e. week 27 2009 to week 26 2010, July to June.

## Hospital Norovirus Outbreak Reporting System (HNORS)

In the four weeks between 29/05/2016 and 26/06/2016 (weeks 22 2016 to 25 2016) the hospital norovirus outbreak reporting scheme (HNORS) recorded 13 outbreaks of norovirus, all of which led to ward/bay closures or restrictions to admissions and six of which (46%) were laboratory confirmed as a norovirus outbreak.

This season (since week 27 2015) there have been 480 outbreaks reported, 455 of which (95%) resulted in ward/bay closures and 353 (74%) 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**

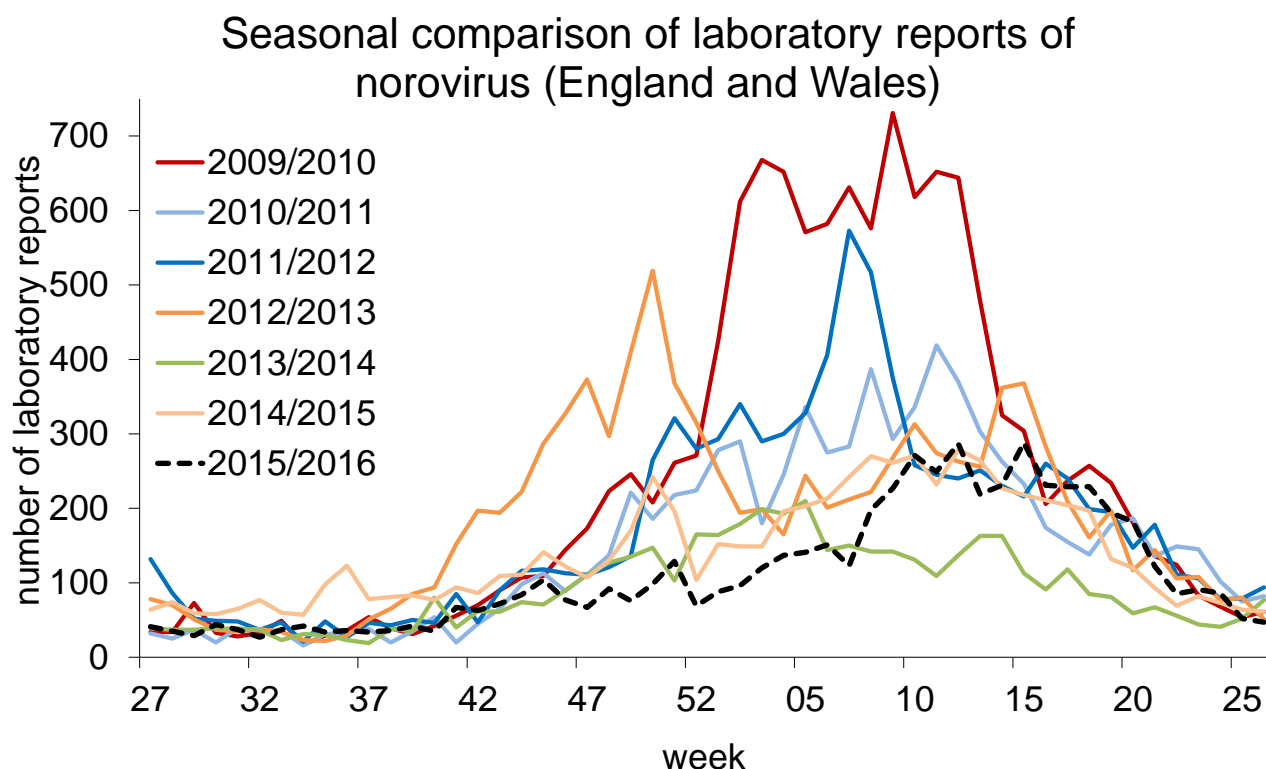
Public Health England Centre	Outbreaks 29/05/2016 to 26/06/2016			Outbreaks reported in the last season 2014/2015 (week 27 2014 - week 26 2015)		
	Outbreaks	Ward/bay closure <sup>‡</sup>	Lab confirmed	Outbreaks	Ward/bay closure <sup>‡</sup>	Lab confirmed
Avon, Gloucestershire and Wiltshire	4	4	3	101	99	76
Bedfordshire, Hertfordshire and Northamptonshire				7	7	6
Cheshire and Merseyside	1	1	1	10	7	9
Cumbria and Lancashire				50	49	25
Devon, Cornwall and Somerset	1	1	1	164	162	114
Greater Manchester	2	2		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	2	2		97	88	62
Sussex, Surrey and Kent				30	30	18
Thames Valley				9	5	3
West Midlands	2	2		172	166	98
Yorkshire and the Humber				107	92	89
<b>Total</b>	<b>13</b>	<b>13</b>	<b>6</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

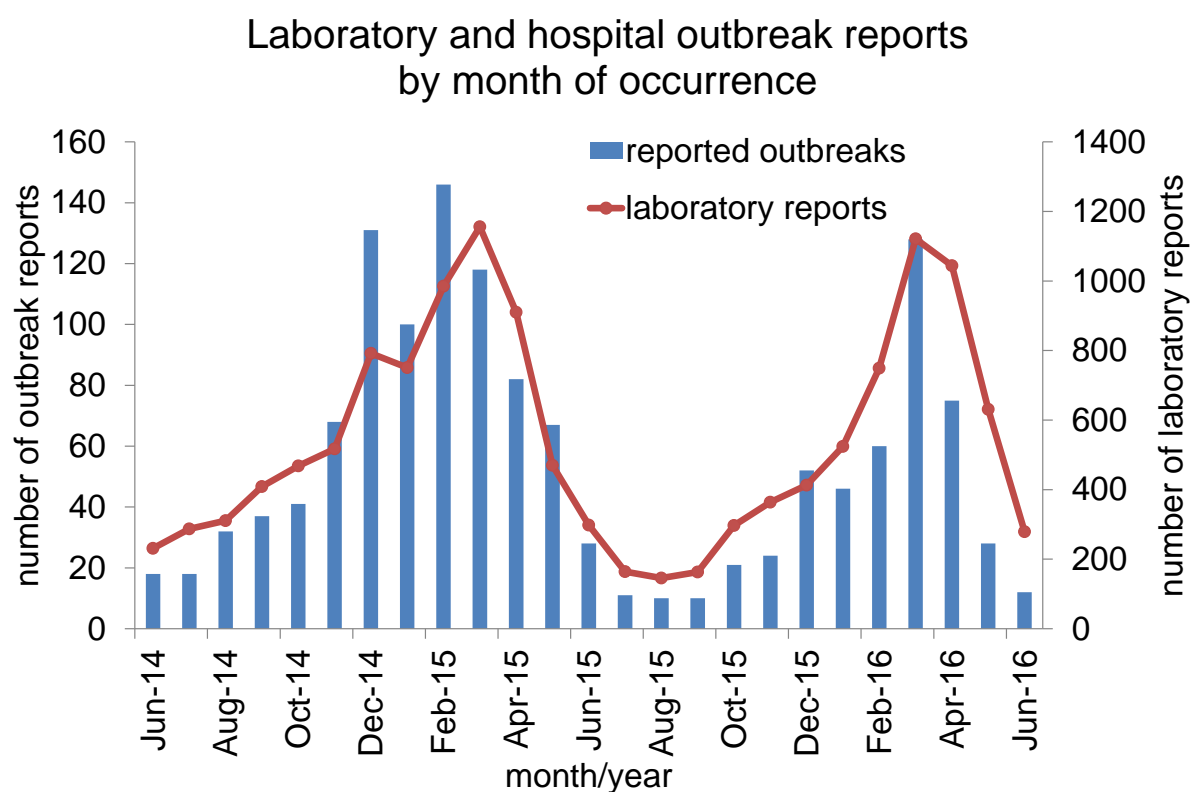
## Norovirus Laboratory Reporting

The number of laboratory reports of norovirus in this season\* (week 27 2015 to week 25 2016) is 5793. This is 25% lower than the average number for the same period in the five seasons from season 2010 and 2011 to season 2014 and 2015 (7701), and 20% 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.

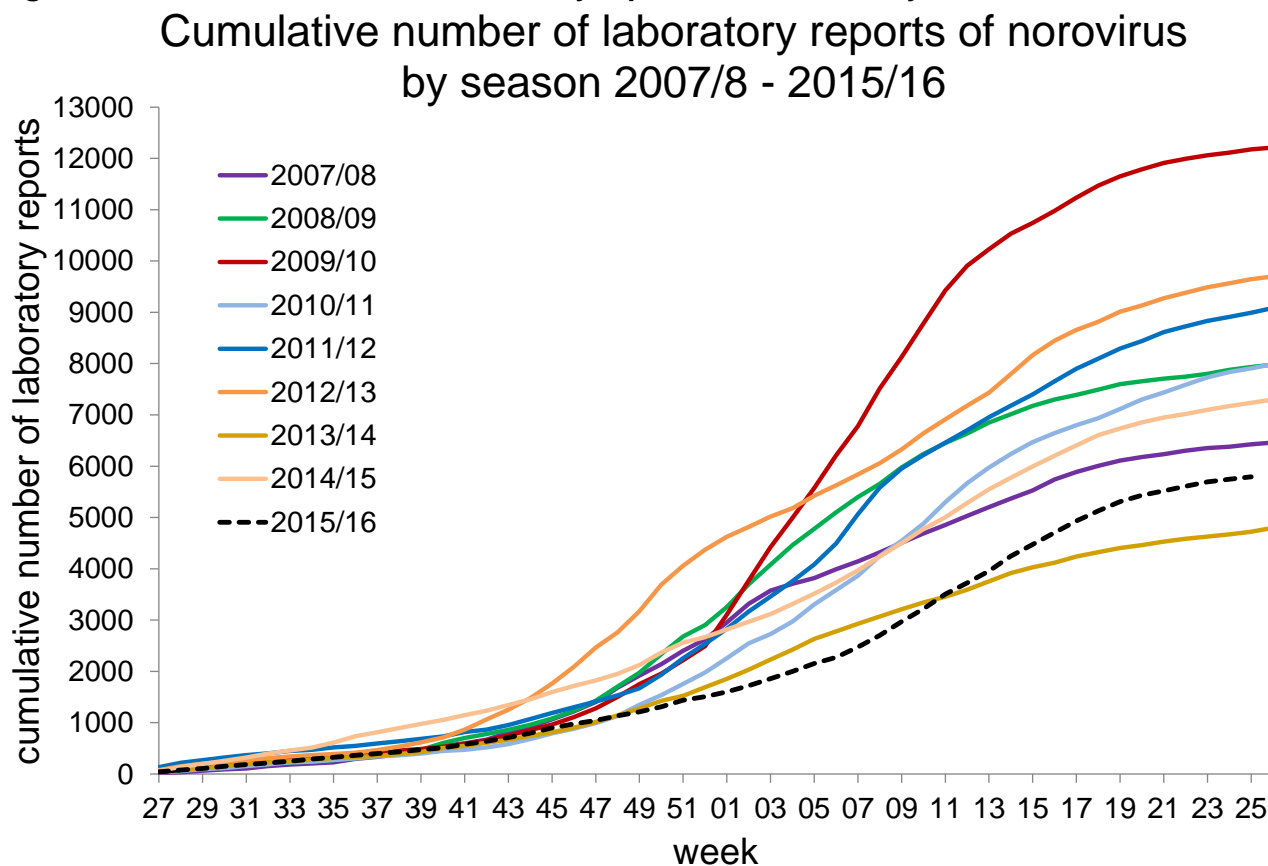
**Figure 1: Seasonal comparison of laboratory reports of norovirus (England and Wales)**



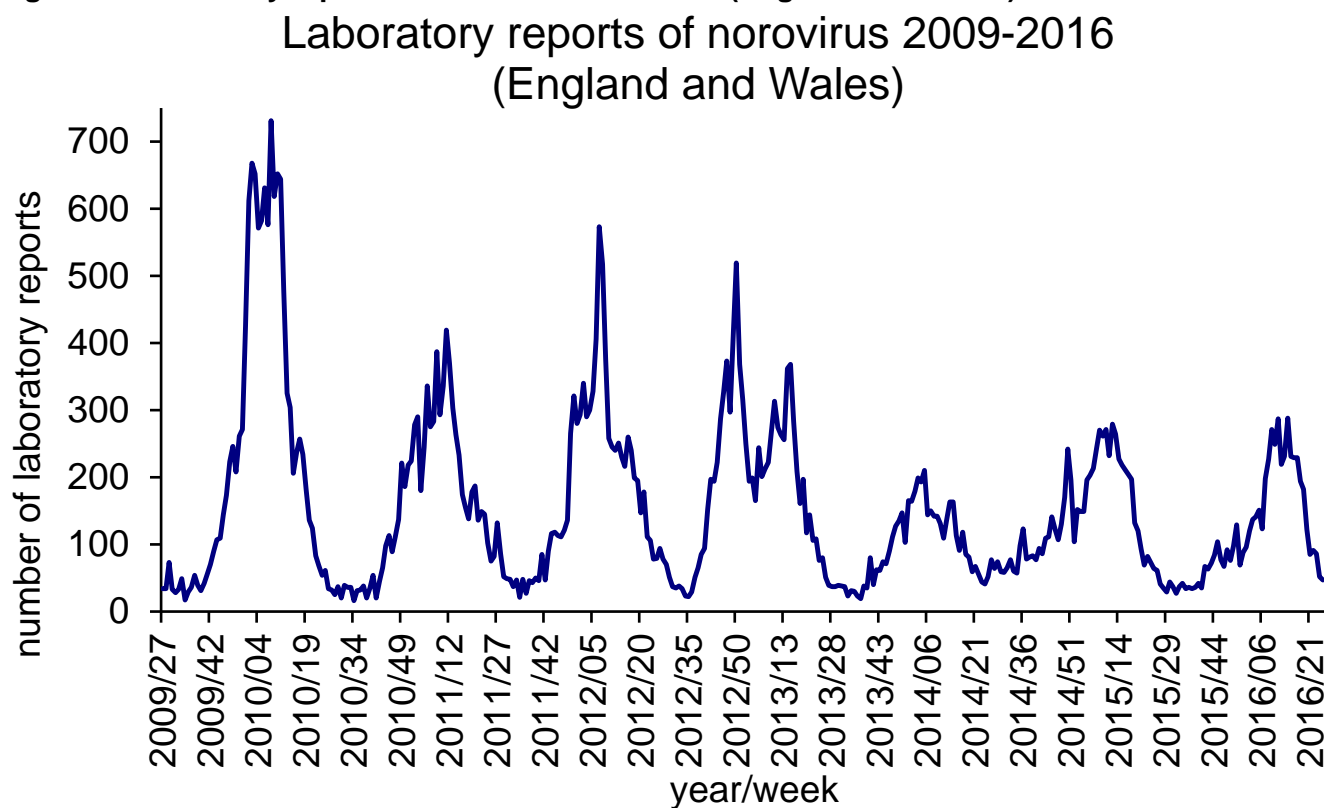
**Figure 2: Laboratory and hospital outbreak reports by month of occurrence**



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



**Figure 4: Laboratory reports of norovirus 2009-2016 (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 year 2, i.e. week 27 2009 to week 26 2010, July to June.

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

Date of update: **04/07/2016**

Week of update: **27-2016**

Total number of outbreaks referred to VRD (27-2015 to date): **639**

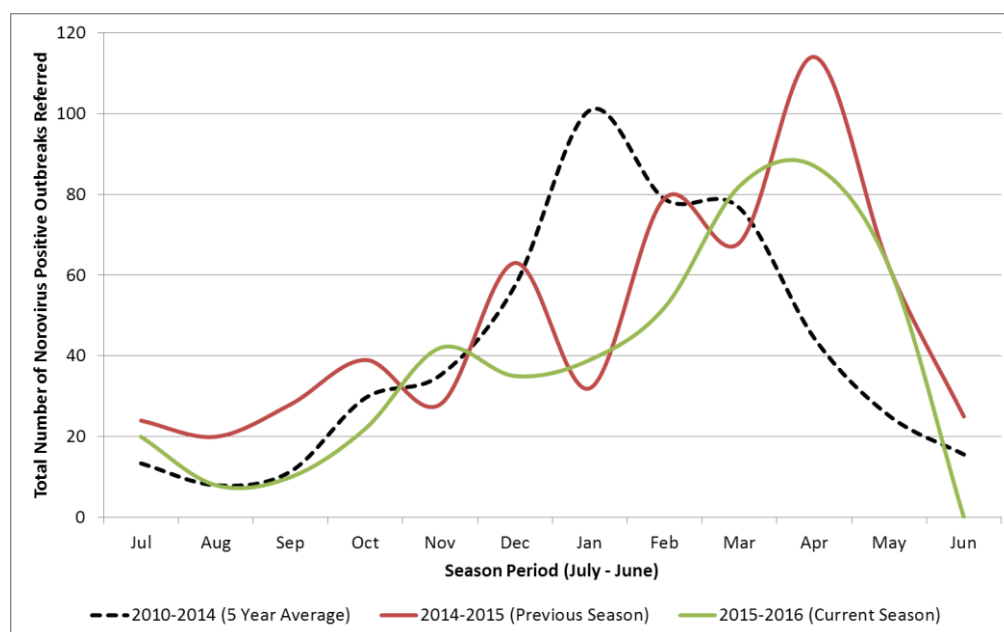
Total number of outbreaks confirmed as norovirus positive: **399**

Total number of outbreaks from healthcare settings, referred to VRD (27-2015 to date): **437**

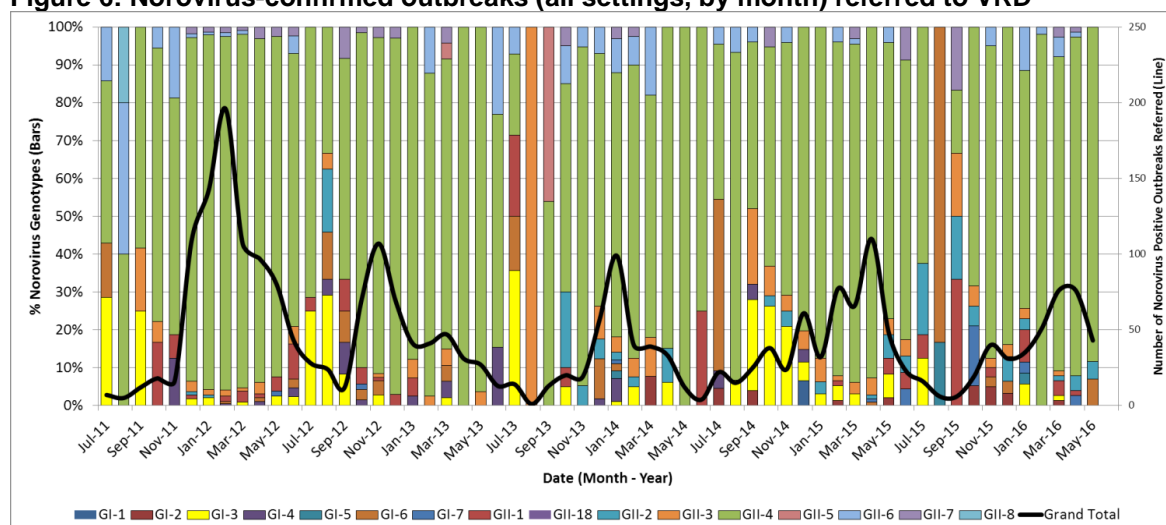
Total number of outbreaks from healthcare settings, confirmed as norovirus positive: **219**

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**

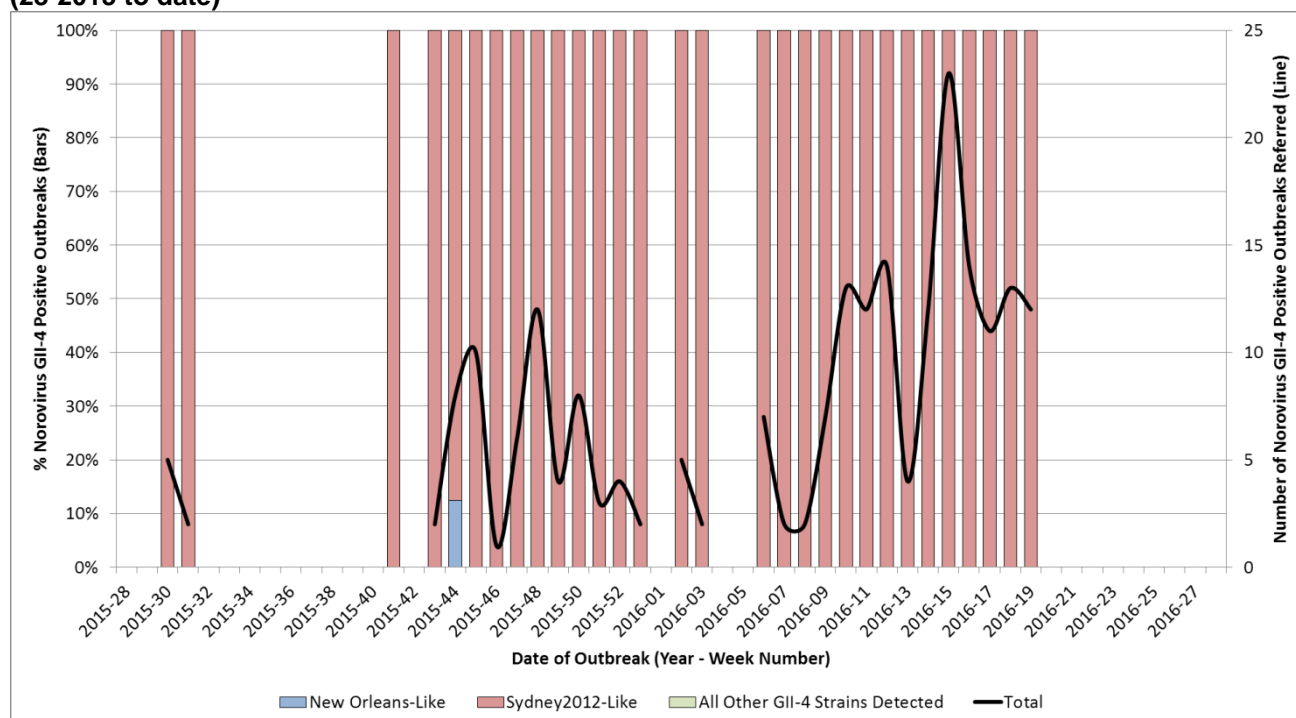


**Figure 6: Norovirus-confirmed outbreaks (all settings, by month) referred to VRD**



- 82.3% of norovirus-confirmed outbreaks were associated with GII-4 strains since July 2011.
- 12 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 (324/399, 81.2 %).

**Figure 7: GII-4 norovirus strains detected (by week) among norovirus confirmed outbreaks (all settings) (28-2015 to date)**



- The most commonly detected GII-4 strain between periods 28-2015 to date is Sydney 2012 and is associated with 99.5% of GII-4 norovirus-confirmed outbreaks.
- The most commonly detected GII-4 strain in the previous season (2014-2015) was Sydney 2012

### Norovirus Activity in Prisons

One outbreak of diarrhoea and vomiting has been reported in prisons in weeks 22 to 25 2016.

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>

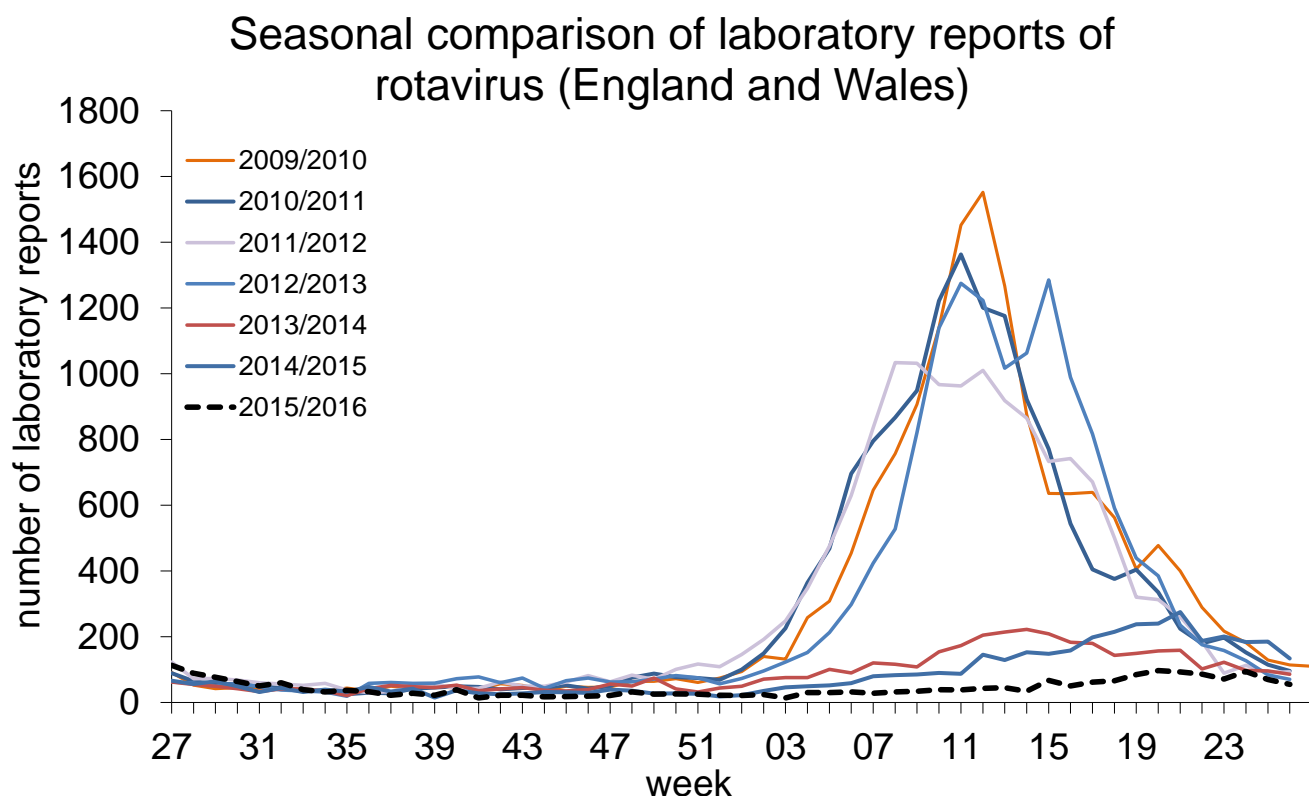
## Rotavirus Laboratory Reporting

The number of laboratory reports of rotavirus in this season\* (week 27 2015 to week 25 2016) is 2287. This is 84% lower than the ten season average for the same period in the seasons 2003 and 2004 to 2012 and 2013 (14510)\*\*. Rotavirus laboratory reports are currently lower than previous years.

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.

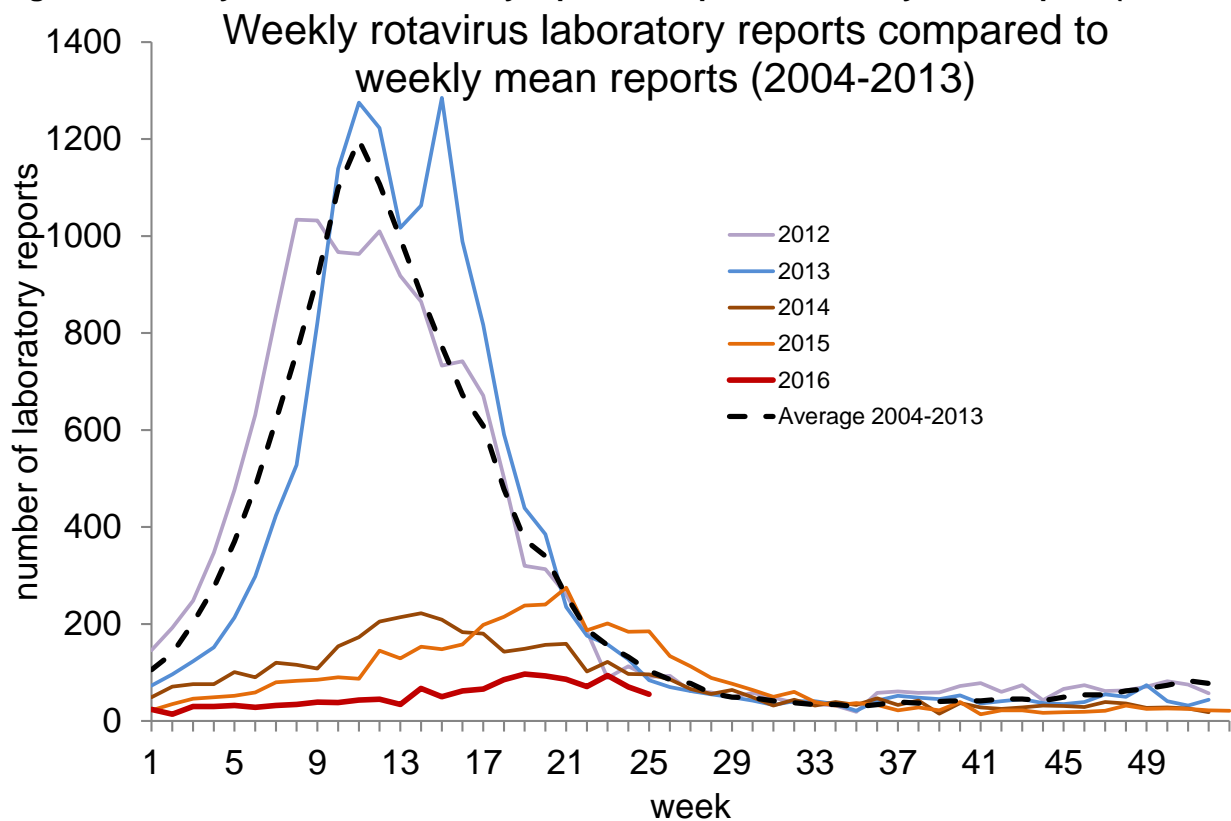
**Figure 8: Seasonal comparison of laboratory reports of rotavirus (England and Wales)**



\*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 year 2, i.e. week 27 2009 to week 26 2010, July to June.

\*\*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)**



#### 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](mailto:noroOBK@phe.gov.uk)