



# PHE Weekly National Norovirus and Rotavirus Report

Summary of surveillance of norovirus and rotavirus

**26 March 2015**

This report is published weekly 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 available on 02 April 2015**

### Norovirus

- Laboratory reports of norovirus in the current season are thirteen percent lower overall compared to the five year seasonal average (from season 2009 and 2010 to season 2013 and 2014). Currently laboratory reports are at similar levels compared 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 seventy-four per cent 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 09/03/2015 and 22/03/2015 the hospital norovirus outbreak reporting scheme (HNORS) recorded 38 suspected or confirmed outbreaks of norovirus, 29 of which (76%) led to ward/bay closures or restrictions to admissions and 26 (68 per cent) were reported as laboratory confirmed norovirus outbreaks.

Since the start of this season (week 27 2014) there have been 605 reported outbreaks of suspected or confirmed norovirus, of which 569 (94 per cent) led to ward/bay closures or restrictions to admissions and 421 (69 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**

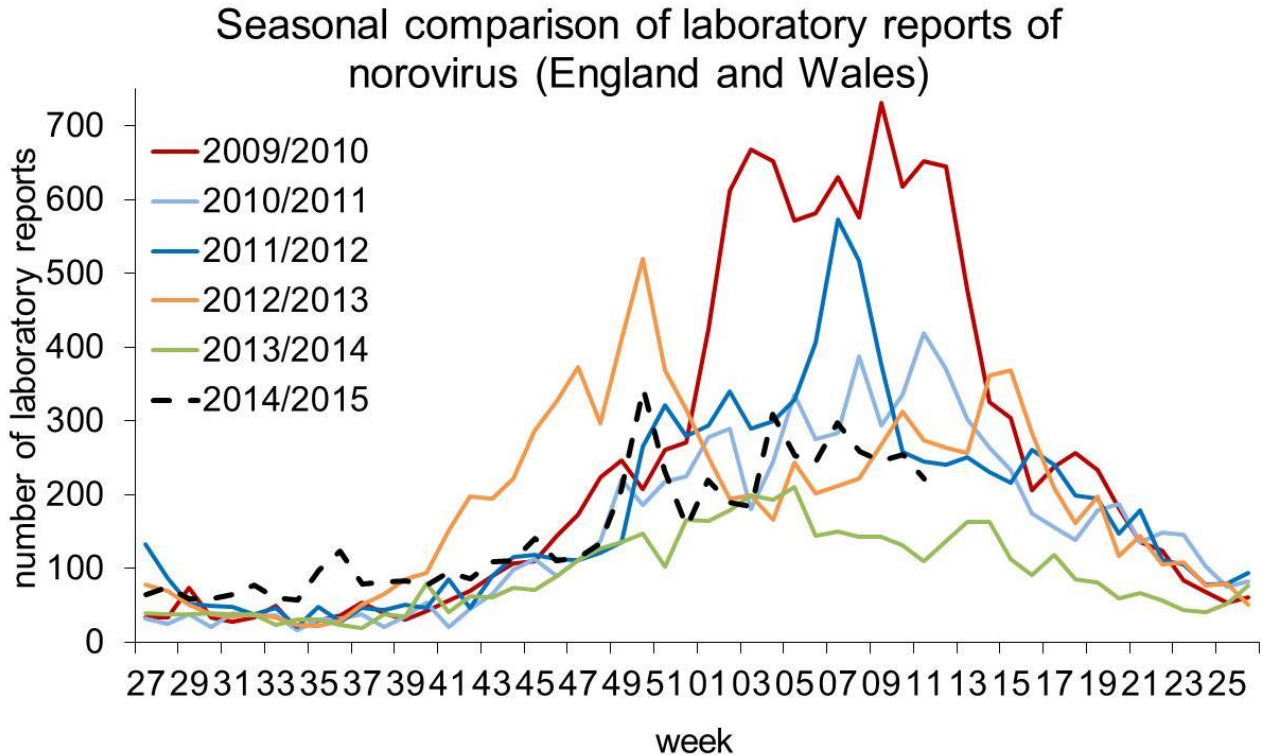
| Public Health England Centre                                 | Outbreaks<br>09/03/2015 to 22/03/2015 |                                  |               | Outbreaks reported in the last season 2013/2014<br>(week 27 2013 - week 26 2014) |                                  |               |
|--|---------------------------------------|----------------------------------|---------------|--|----------------------------------|---------------|
|  | Outbreaks                             | Ward/bay<br>closure <sup>‡</sup> | Lab confirmed | Outbreaks  | Ward/bay<br>closure <sup>‡</sup> | Lab confirmed |
| Avon, Gloucestershire and Wiltshire                          | 4                                     | 3                                | 2             | 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                                 | 5                                     | 5                                | 3             | 71   | 69                               | 29            |
| Greater Manchester   | 2                                     | 2                                | 2             | 18   | 15                               | 6             |
| Hampshire, Isle of Wight and Dorset                          | 6                                     | 5                                | 5             | 50   | 50                               | 36            |
| Lincolnshire, Leicestershire, Nottinghamshire and Derbyshire | 1                                     | 1                                |               | 46   | 44                               | 32            |
| London   |                                       |                                  |               | 9  | 9                                | 8             |
| Norfolk, Suffolk, Cambridgeshire and Essex                   |                                       |                                  |               |  |                                  |               |
| North East   | 2                                     | 2                                | 1             | 60   | 50                               | 39            |
| Sussex, Surrey and Kent                                      | 1                                     | 1                                | 1             | 31   | 31                               | 23            |
| Thames Valley  | 1                                     | 1                                |               | 22   | 22                               | 8             |
| West Midlands  | 9                                     | 8                                | 5             | 76   | 73                               | 39            |
| Yorkshire and the Humber                                     | 7                                     | 1                                | 7             | 112  | 94                               | 94            |
| <b>Total</b>   | <b>38</b>                             | <b>29</b>                        | <b>26</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

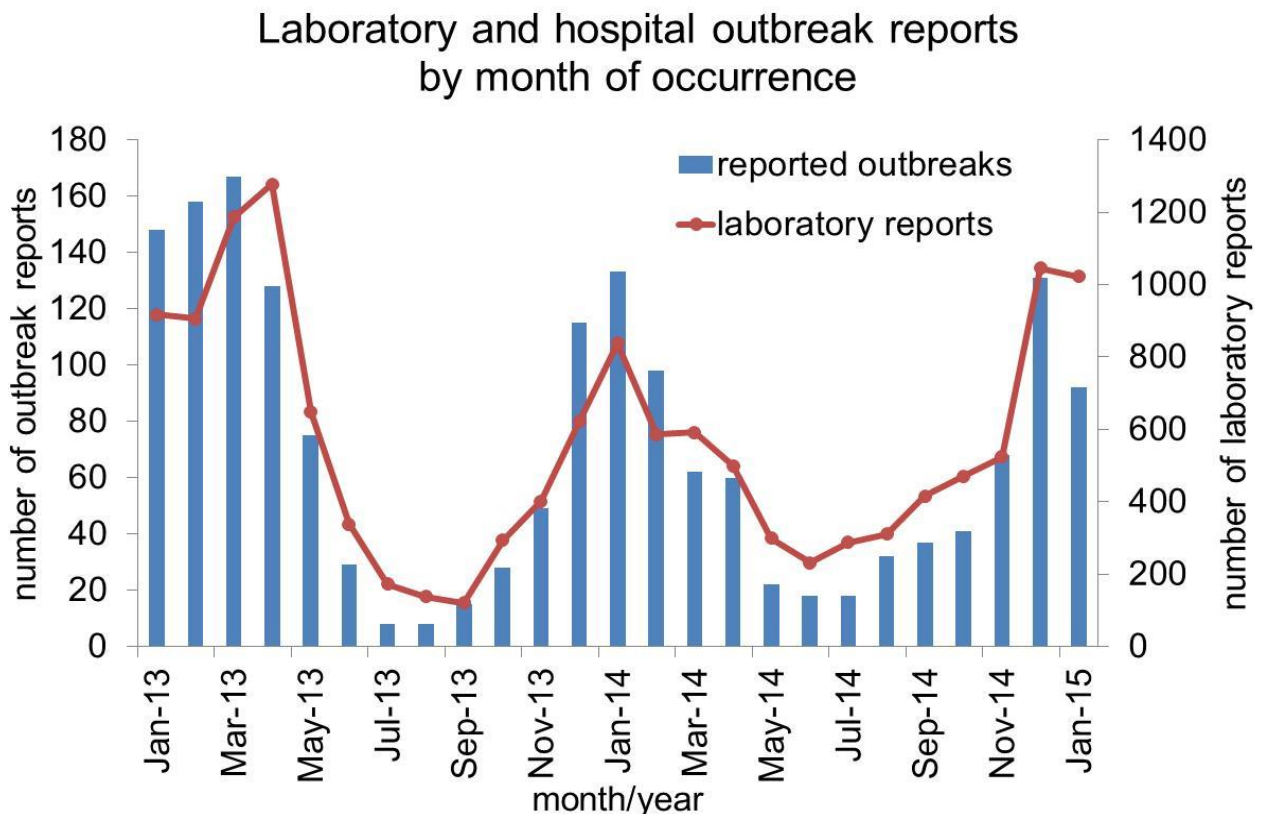
## Norovirus Laboratory Reporting

The number of laboratory reports of norovirus in this season\* (since week 27 2014) is 5566. This is thirteen per cent lower than the average number for the same period in the five seasons 2009/2010 to 2013/2014 (6396). 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.

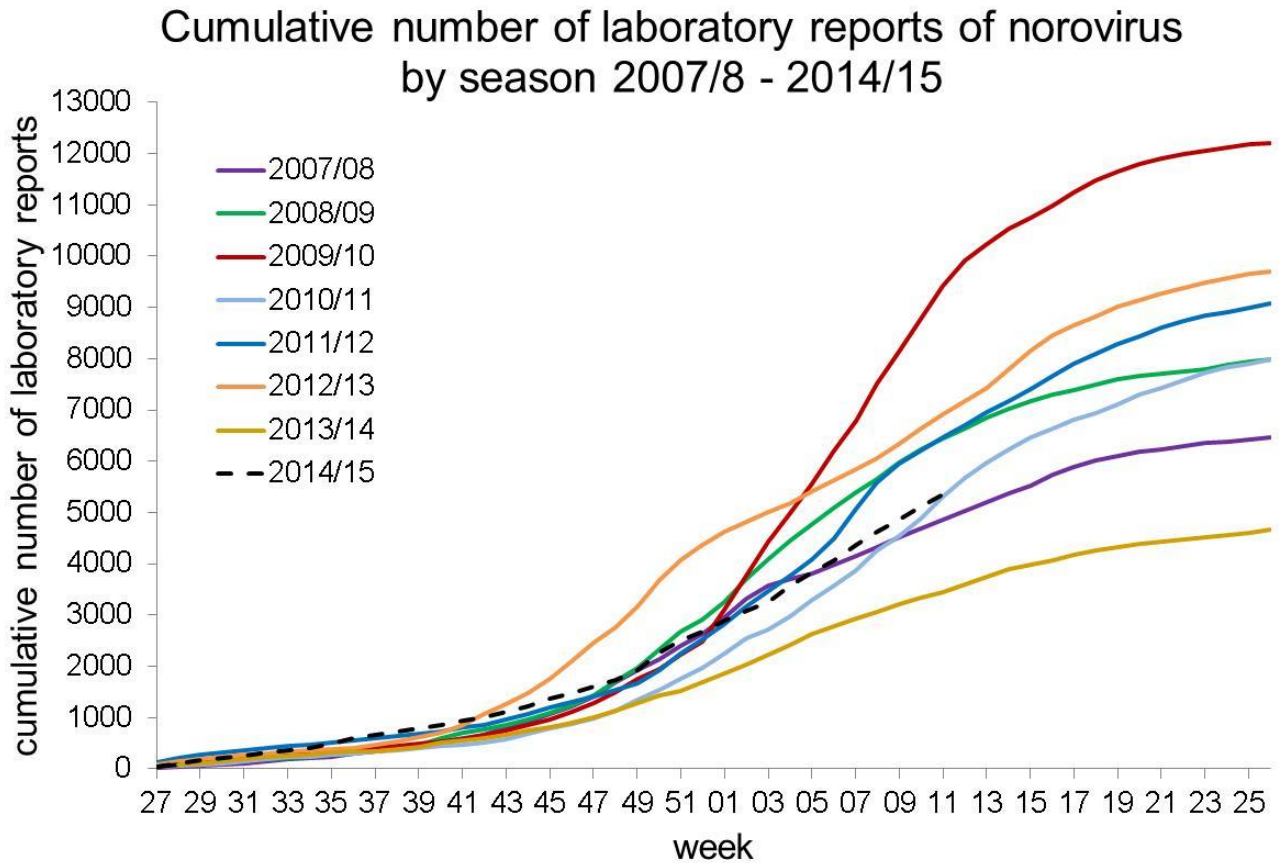
**Figure 1: Seasonal comparison of laboratory reports of norovirus (England and Wales)**



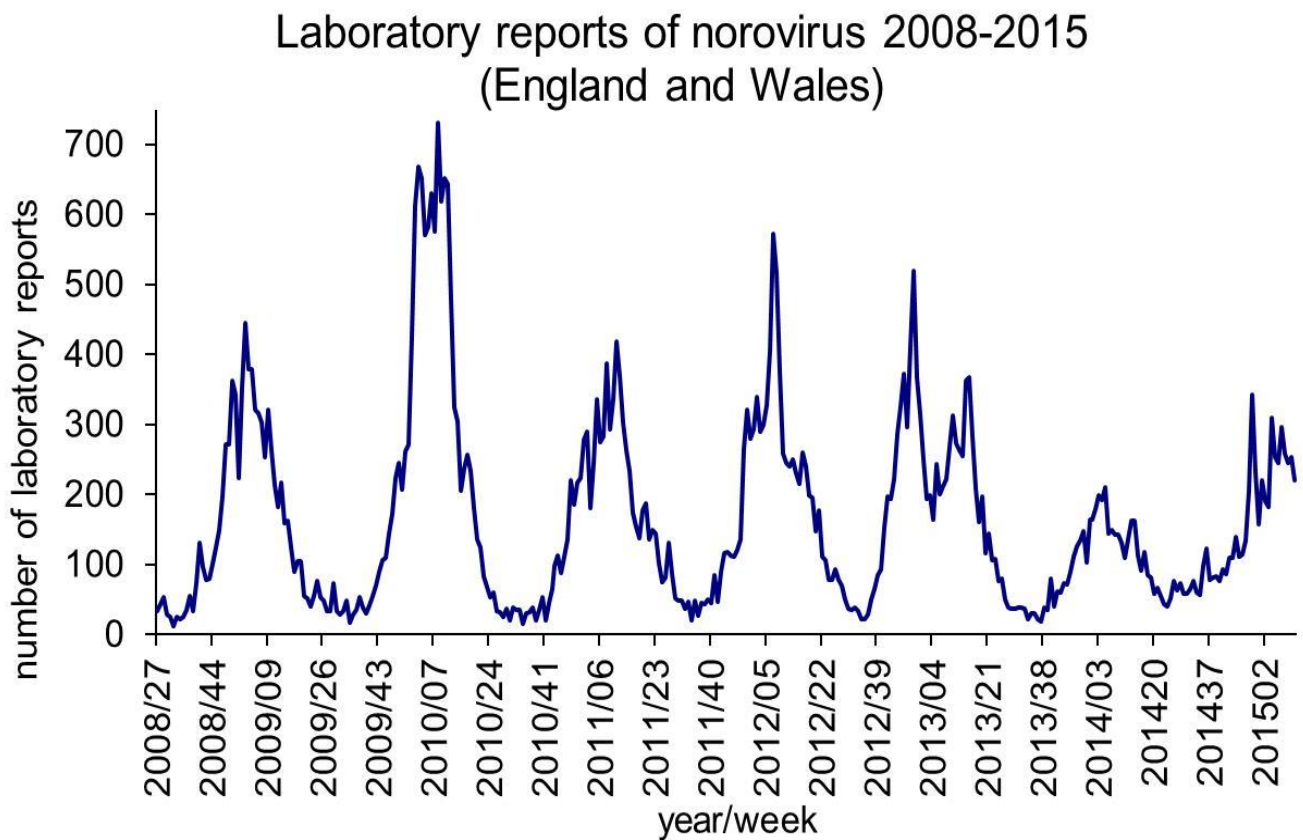
**Figure 2: Laboratory and hospital outbreak reports by month of occurrence**



**Figure 3: Cumulative number of laboratory reports of norovirus by season 2007/8-2014/15**



**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)

Total number of outbreaks referred to VRD (27-2014 to 12-2015): 299

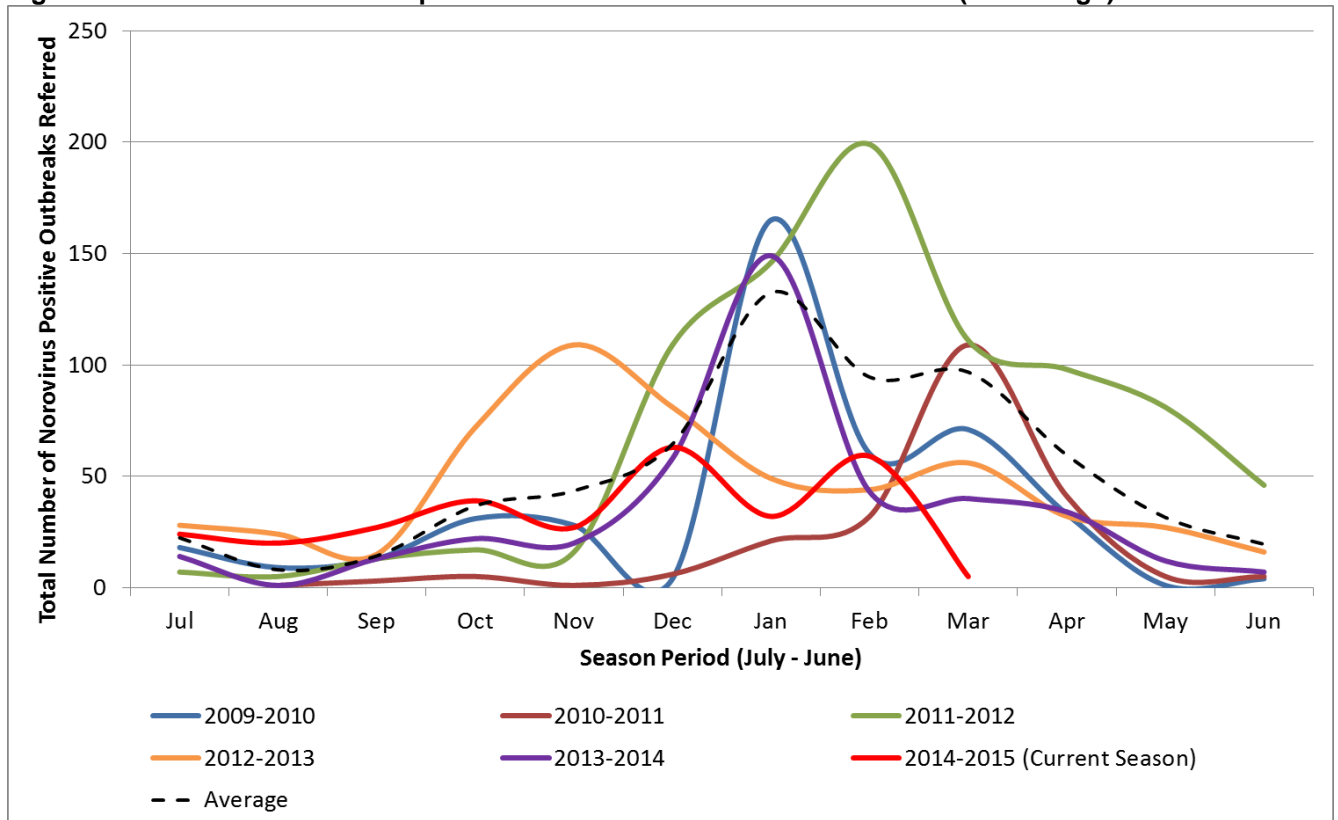
Total number of outbreaks confirmed as norovirus positive: 245

Total number of outbreaks from healthcare settings, referred to VRD (27-2014 to 12-2015): 130

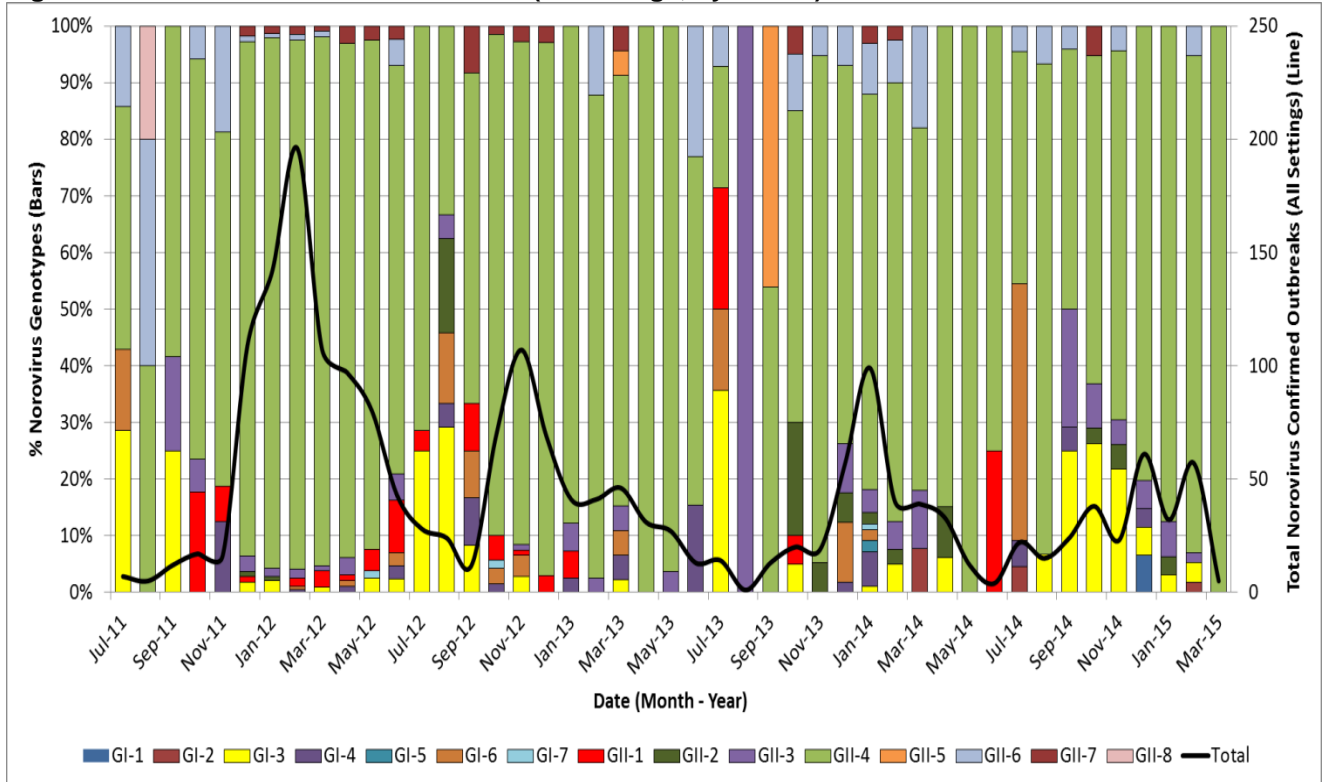
Total number of outbreaks from healthcare settings, confirmed as norovirus positive: 92

- 82.0 % of norovirus-confirmed outbreaks were associated with GII-4 strains since July 2011.
- 10 different norovirus genotypes have been detected in the current season (27-2014 to date).
- The majority of norovirus-confirmed outbreaks in the current season (27-2014 to date) were associated with GII-4 (202/277, 72.9 %).
- The most commonly detected GII-4 strain between periods 12-2014 to 12-2015 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.

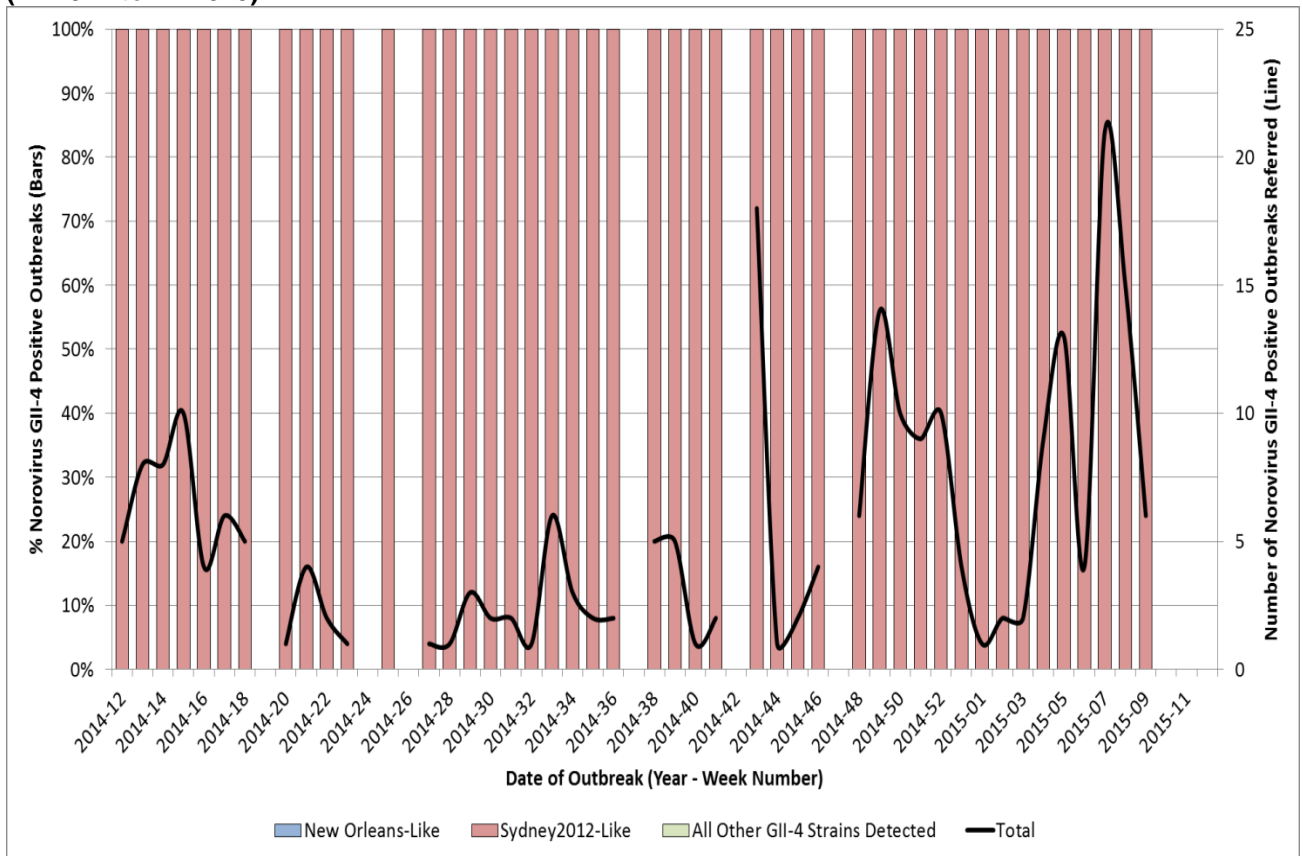
**Figure 5: Season-to-season comparison of norovirus-confirmed outbreaks (all settings) referred to VRD**



**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) (12-2014 to 12-2015)**



## Norovirus Activity in Prisons

No outbreaks of diarrhoea and vomiting have been reported in prisons between 16 March and 22 March 2015.

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

| Region                       | Public Health England Centre                                 | Outbreaks reported<br>16/03/2015 to 22/03/2015 | Outbreaks reported this season<br>week 27 2014 – week 10 2015 |
|------------------------------|--|--|---|
| 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 1833. This is seventy-four per cent lower the ten season average for the same period in the seasons 2004/2005 to 2013/2014 (7140). The observed decrease in rotavirus activity in this and the previous season is likely to be associated with the introduction of the oral vaccine in July 2013.

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)**

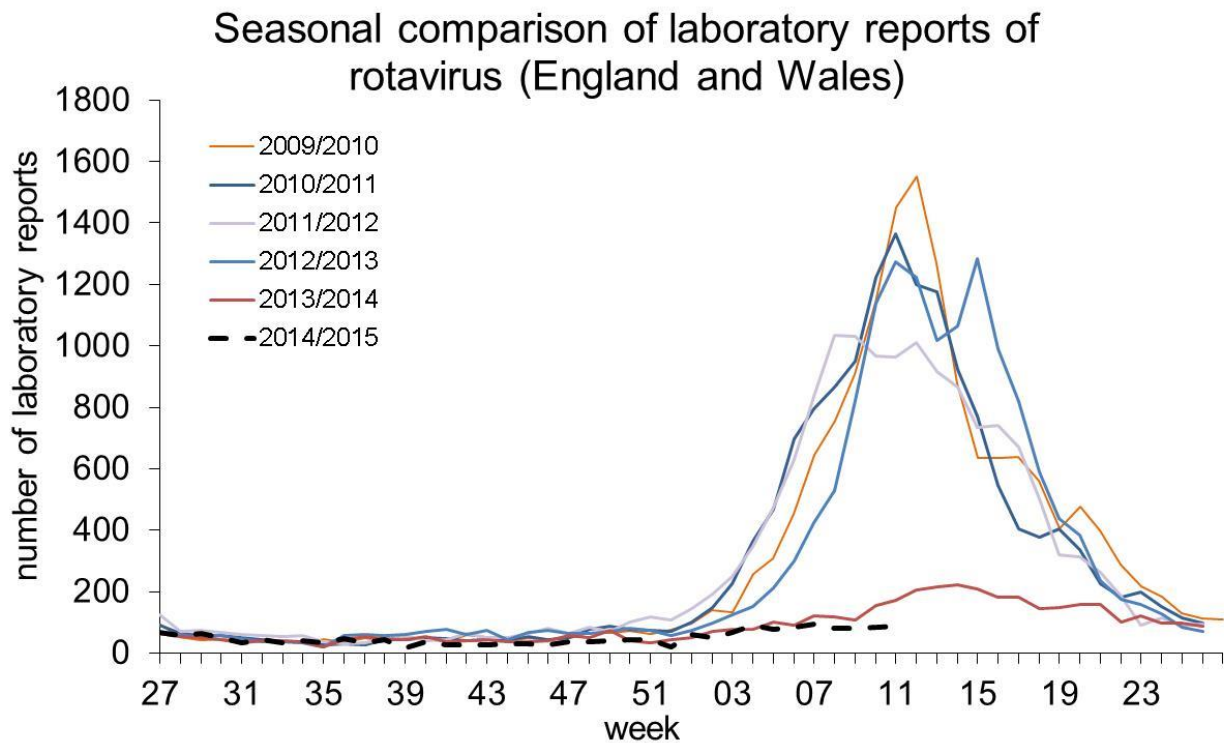
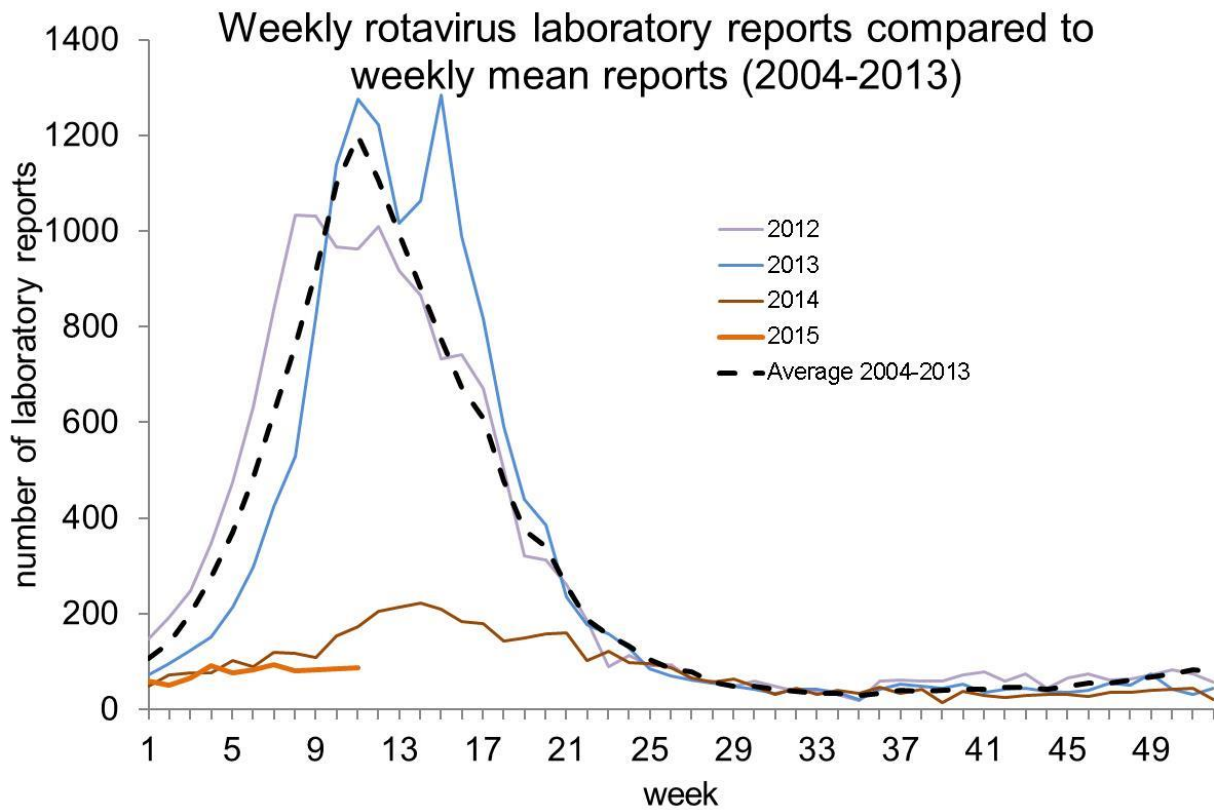




Figure 9: Weekly rotavirus laboratory reports compared to weekly mean reports(2004-2013)



\*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 year2, 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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