



PHE Weekly National Norovirus and Rotavirus Report

Summary of surveillance of norovirus and rotavirus

09 April 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 16 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-seven 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 23/03/2015 and 05/04/2015 the hospital norovirus outbreak reporting scheme (HNORS) recorded 24 suspected or confirmed outbreaks of norovirus, All of which led to ward/bay closures or restrictions to admissions and 12 (50per cent) were reported as laboratory confirmed norovirus outbreaks.

Since the start of this season (week 27 2014) there have been 639 reported outbreaks of suspected or confirmed norovirus, of which 603 (94 per cent) led to ward/bay closures or restrictions to admissions and 443 (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 23/03/2015 to 05/04/2015			Outbreaks reported in the last season 2013/2014 (week 27 2013 - week 26 2014)		
	Outbreaks	Ward/bay closure [‡]	Lab confirmed	Outbreaks	Ward/bay closure [‡]	Lab confirmed
Avon, Gloucestershire and Wiltshire	3	3	3	81	81	54
Bedfordshire, Hertfordshire and Northamptonshire				1	1	1
Cheshire and Merseyside				4	3	4
Cumbria and Lancashire	2	2		29	29	10
Devon, Cornwall and Somerset	4	4	2	71	69	29
Greater Manchester				18	15	6
Hampshire, Isle of Wight and Dorset				50	50	36
Lincolnshire, Leicestershire, Nottinghamshire and Derbyshire				46	44	32
London				9	9	8
Norfolk, Suffolk, Cambridgeshire and Essex						
North East	2	2	2	60	50	39
Sussex, Surrey and Kent	2	2		31	31	23
Thames Valley				22	22	8
West Midlands	11	11	5	76	73	39
Yorkshire and the Humber				112	94	94
Total	24	24	12	610	571	383

[‡] 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 6055. This is thirteen per cent lower than the average number for the same period in the five seasons 2009/2010 to 2013/2014 (6954). 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)

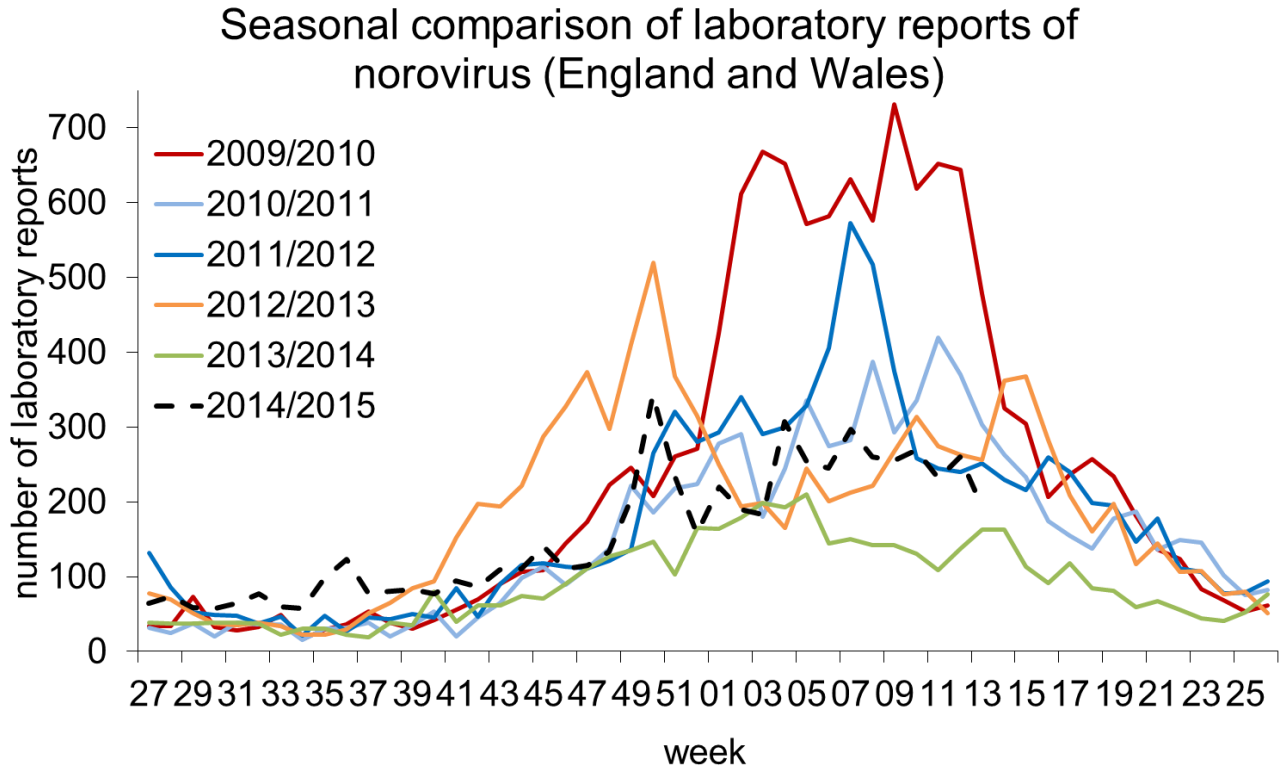


Figure 2: Laboratory and hospital outbreak reports by month of occurrence

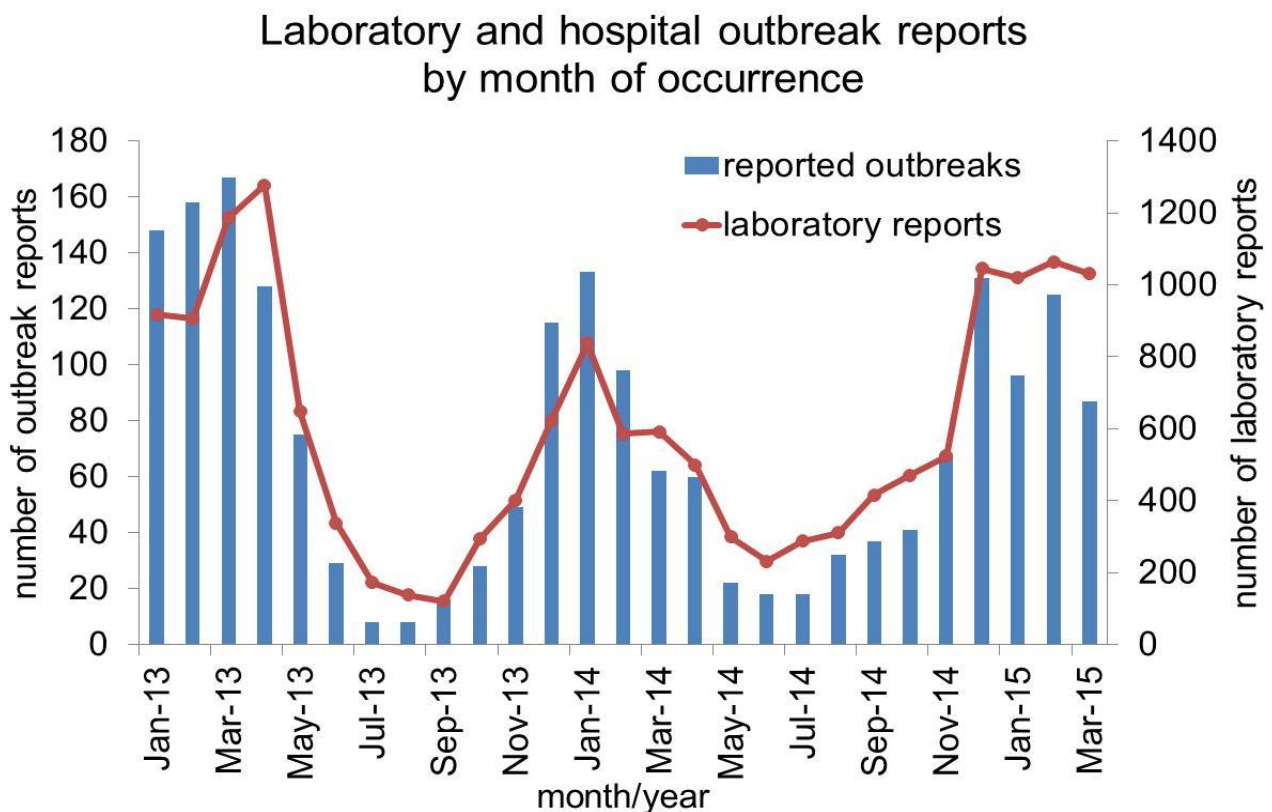


Figure 3: Cumulative number of laboratory reports of norovirus by season 2007/8-2014/15
 Cumulative number of laboratory reports of norovirus
 by season 2007/8 - 2014/15

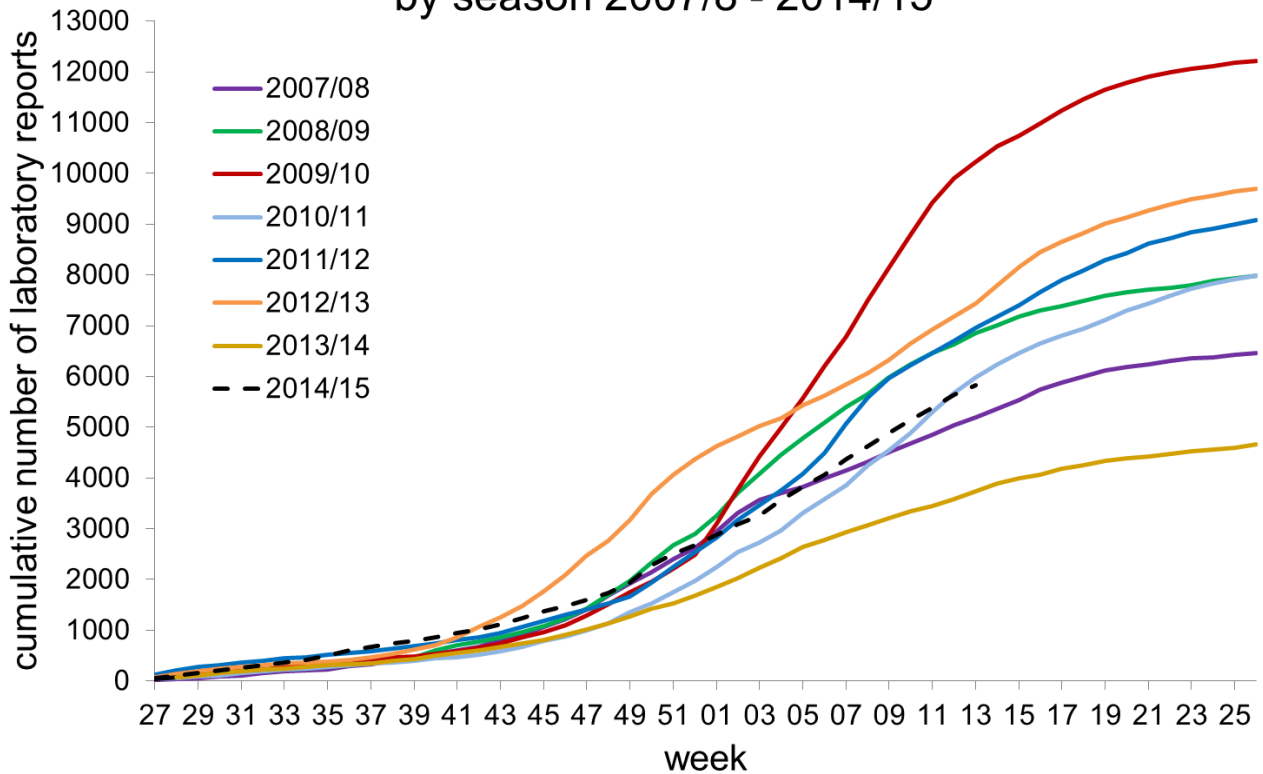
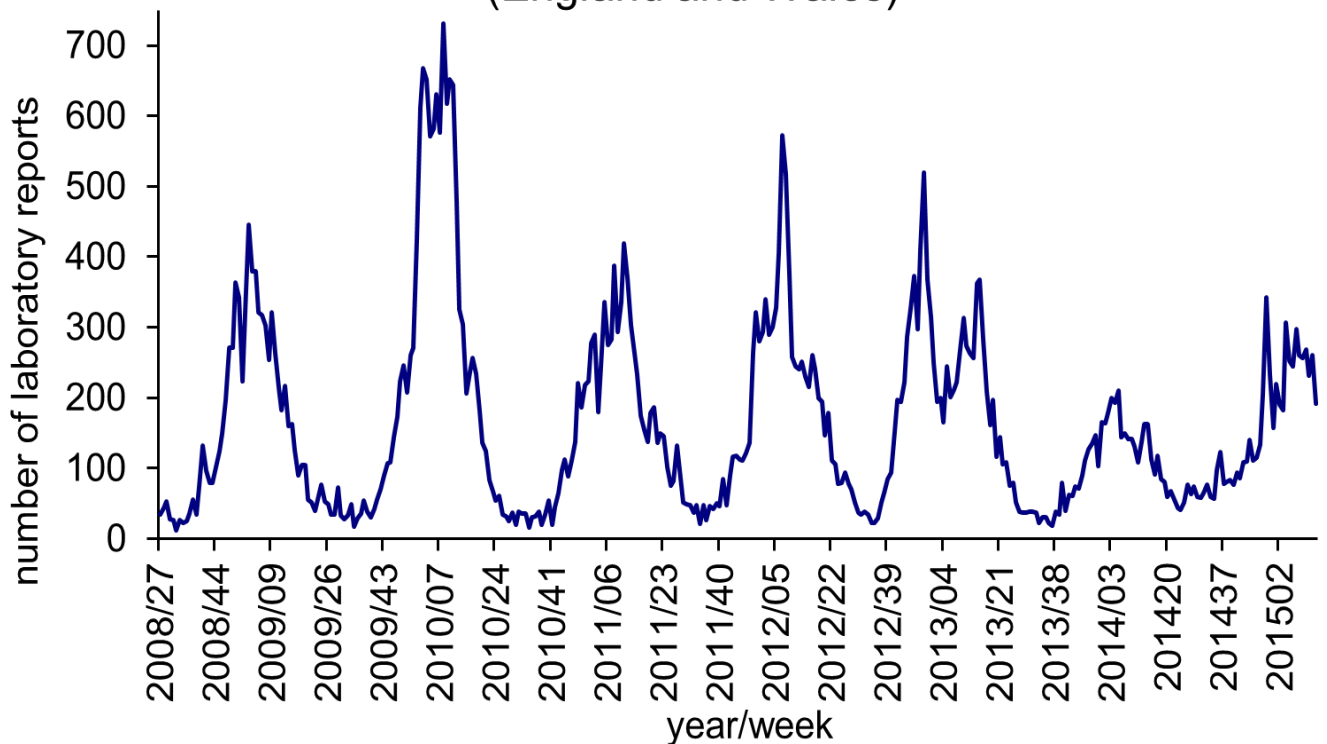


Figure 4: Laboratory reports of norovirus 2008-2015 (England and Wales)
 Laboratory reports of norovirus 2008-2015
 (England and Wales)



*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 13-2015): **317**

Total number of outbreaks confirmed as norovirus positive: **260**

Total number of outbreaks from healthcare settings, referred to VRD (27-2014 to 13-2015): **133**

Total number of outbreaks from healthcare settings, confirmed as norovirus positive: **98**

- 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 (219/296, 74.0 %).
- The most commonly detected GII-4 strain between periods 13-2014 to 13-2015 is Sydney2012 and is associated with 100 % 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

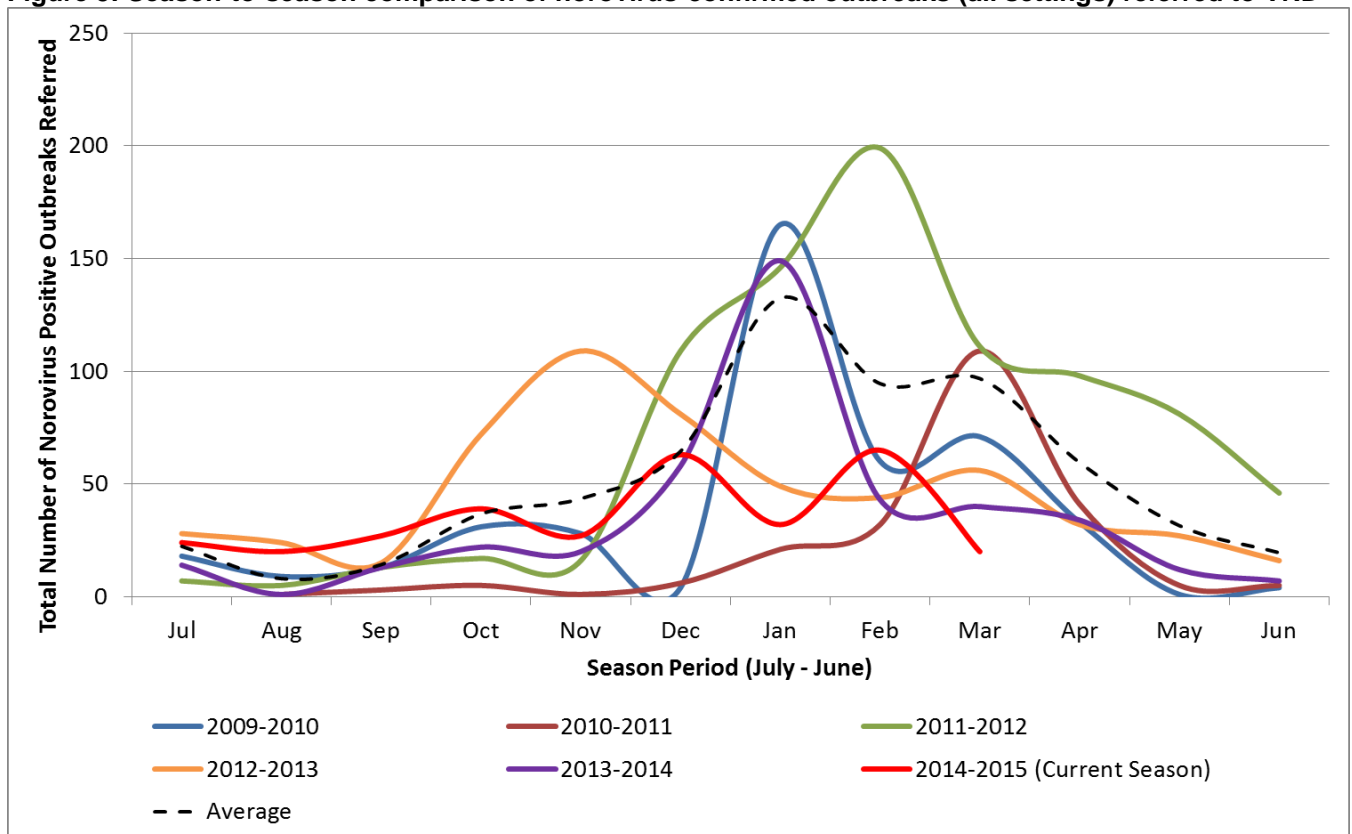


Figure 6: Norovirus-confirmed outbreaks (all settings, by month) referred to VRD

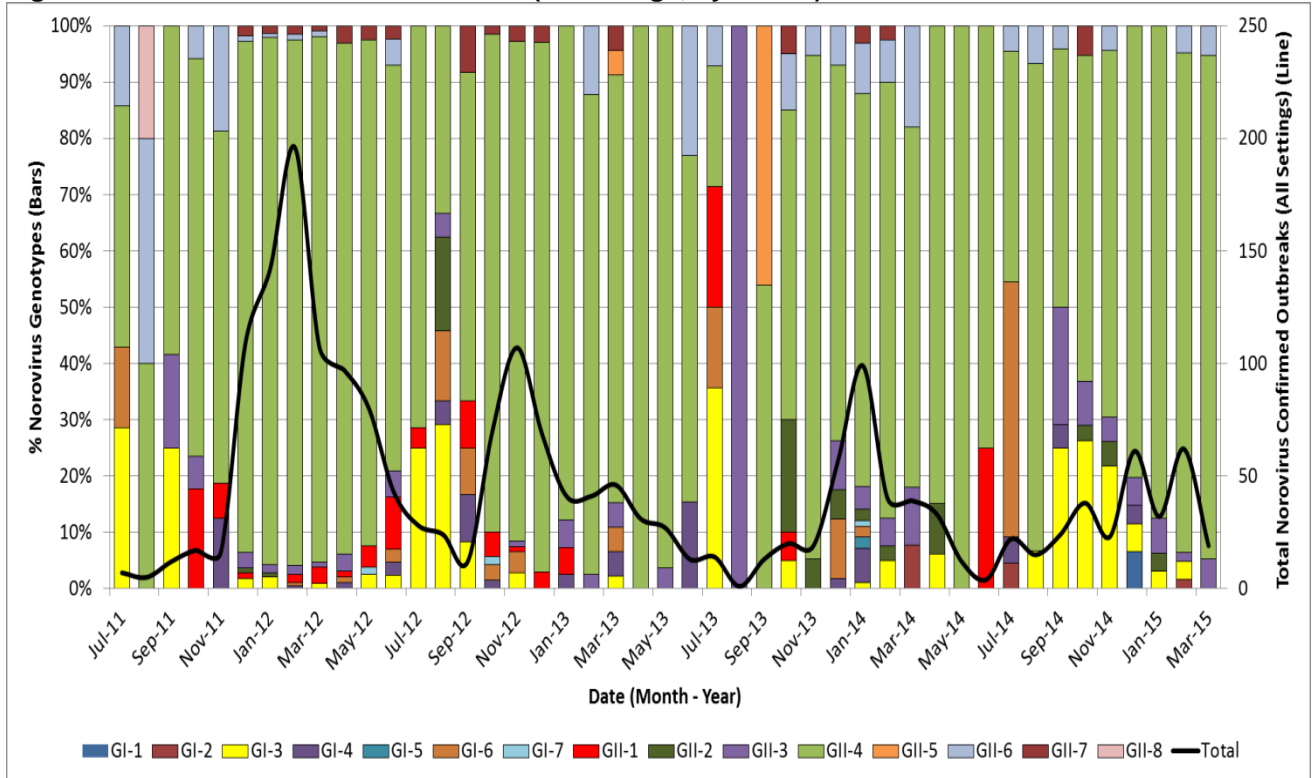
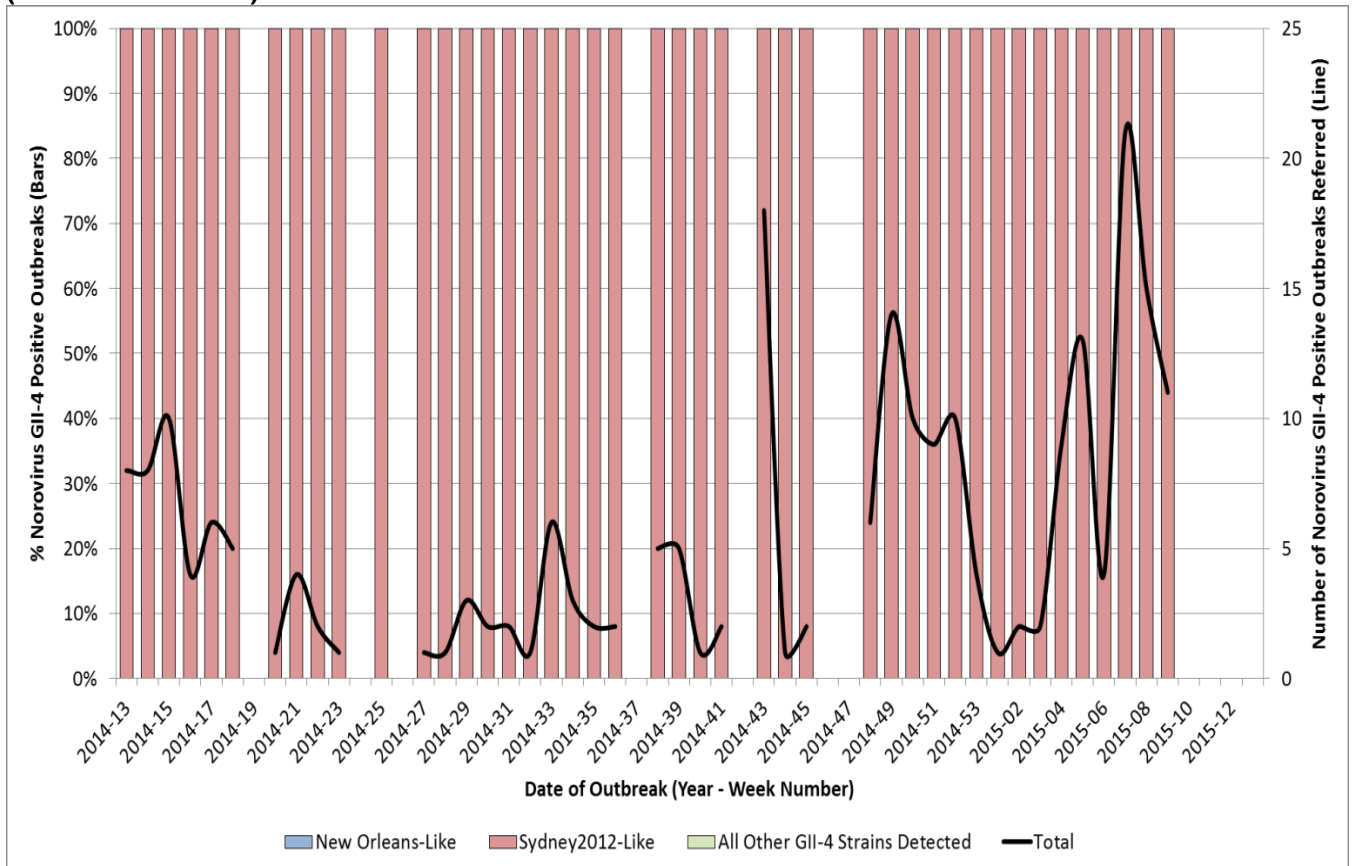


Figure 7: GII-4 norovirus strains detected (by week) among norovirus confirmed outbreaks (all settings) (13-2014 to 13-2015)



Norovirus Activity in Prisons

No outbreaks of diarrhoea and vomiting have been reported in prisons between 30 March and 02 April 2015.

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

Region	Public Health England Centre	Outbreaks reported 30/03/2015 to 02/04/2015	Outbreaks reported this season week 27 2014 – week 14 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		
Total			10

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 2100. This is seventy-seven per cent lower the ten season average for the same period in the seasons 2004/2005 to 2013/2014 (9041). 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)

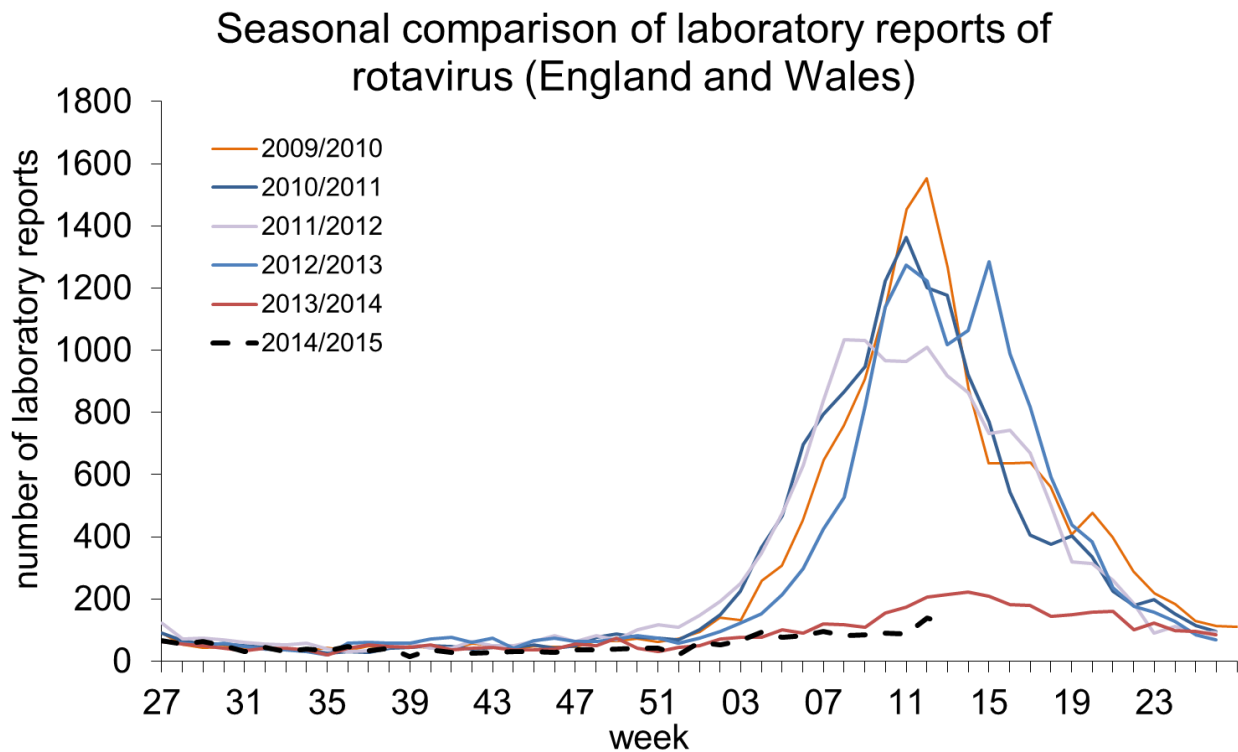
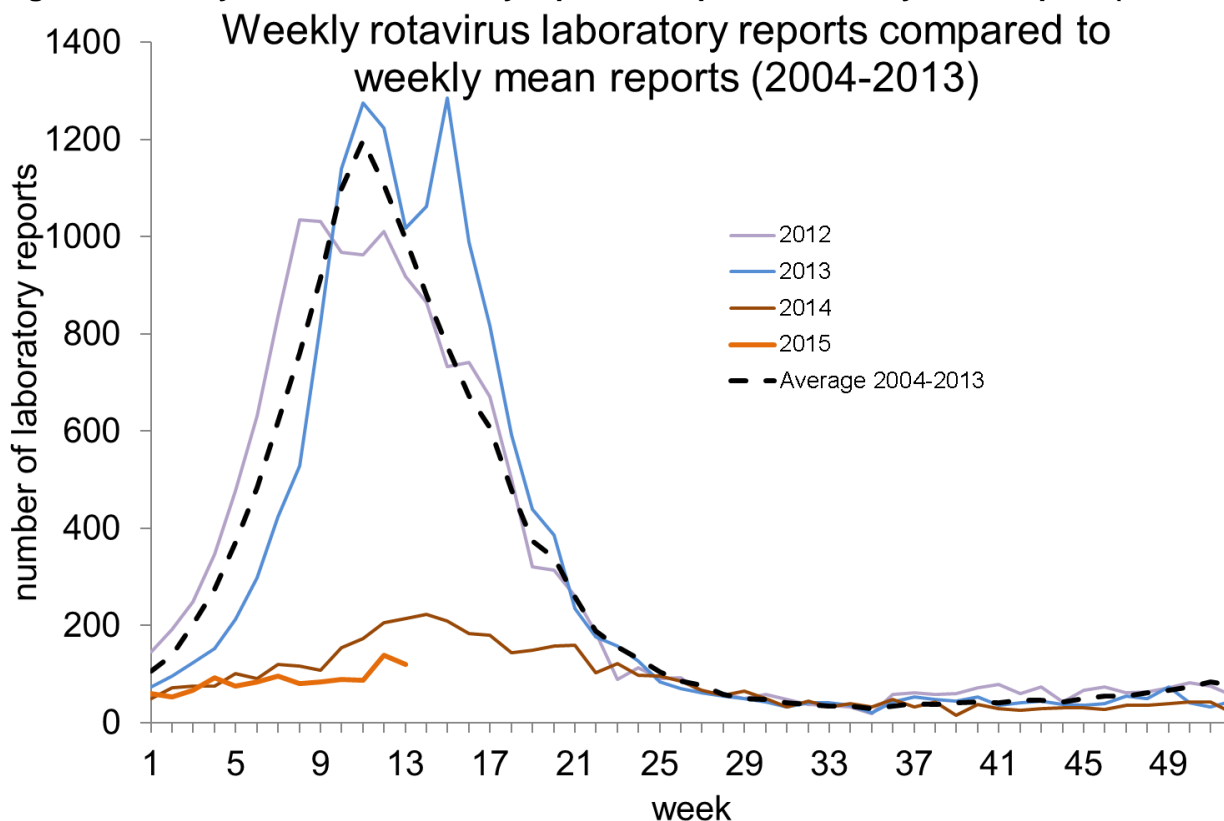


Figure 9: Weekly rotavirus laboratory reports compared to weekly mean reports(2004-2013)



*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.

Any queries can be directed to noroOBK@phe.gov.uk