PHE Monthly National Norovirus Report

Summary of surveillance of norovirus and rotavirus

10 July 2014 - Weeks 23 - 26 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 monthly report will be available on the 7th August 2014.

Norovirus

- Norovirus activity is low. Reports of outbreaks of diarrhoea and vomiting in hospitals continue to be reported but at lower levels than in previous years. The number of laboratory reports of norovirus in the season to date is similar to the five year seasonal average (from season 2007 to 2008 to season 2011 to 2012).

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 four weeks from 01/06/2014 to 29/06/2014 the hospital norovirus outbreak reporting scheme (HNORS) recorded 13 suspected or confirmed outbreaks of norovirus, all of which led to ward/bay closure or restrictions to admissions. Four (31 per cent) were reported as laboratory confirmed norovirus outbreaks. Since the start of the season (week 27 2013) there have been 595 reported outbreaks of suspected or confirmed norovirus, 556 (93 per cent) of which led to ward/bay closure or restrictions to admissions and 371 (62 per cent) were laboratory confirmed as norovirus outbreaks.

In the last season (week 27 2012 to week 26 2013) 1459 outbreaks were reported, 1311 (90 per cent) of which reported ward/bay closures or restrictions to admissions and 990 (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 01/06/2014 to 29/06/2014			Outbreaks reported in the last season 2012/2013 (week 27 2012 - week 26 2013)		
	Outbreaks	Ward/bay closure[ǂ]	Lab confirmed	Outbreaks	Ward/bay closure[ǂ]	Lab confirmed
Avon, Gloucestershire and Wiltshire	2	2		118	116	93
Bedfordshire, Hertfordshire and Northamptonshire				14	14	13
Cheshire and Merseyside				41	33	26
Cumbria and Lancashire				110	103	49
Devon, Cornwall and Somerset	2	2		204	204	131
Greater Manchester	2	2		40	7	27
Hampshire, Isle of Wight and Dorset				68	67	54
Lincolnshire, Leicestershire, Nottinghamshire and Derbyshire				107	103	75
London				33	32	28
Norfolk, Suffolk, Cambridgeshire and Essex				4	4	4
North East				202	193	134
Sussex, Surrey and Kent	4	4	4	139	113	97
Thames Valley	1	1		59	57	36
West Midlands				95	84	48
Yorkshire and the Humber	2	2		225	181	175
Total	13	13	4	1459	1311	990

[ǂ] 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 2013) is 4654. This is 47 per cent lower than the average number for the same period in the seasons 2007/2008 to 2011/2012 ǂ (8830). 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: Laboratory and hospital outbreak reports by month of occurrence

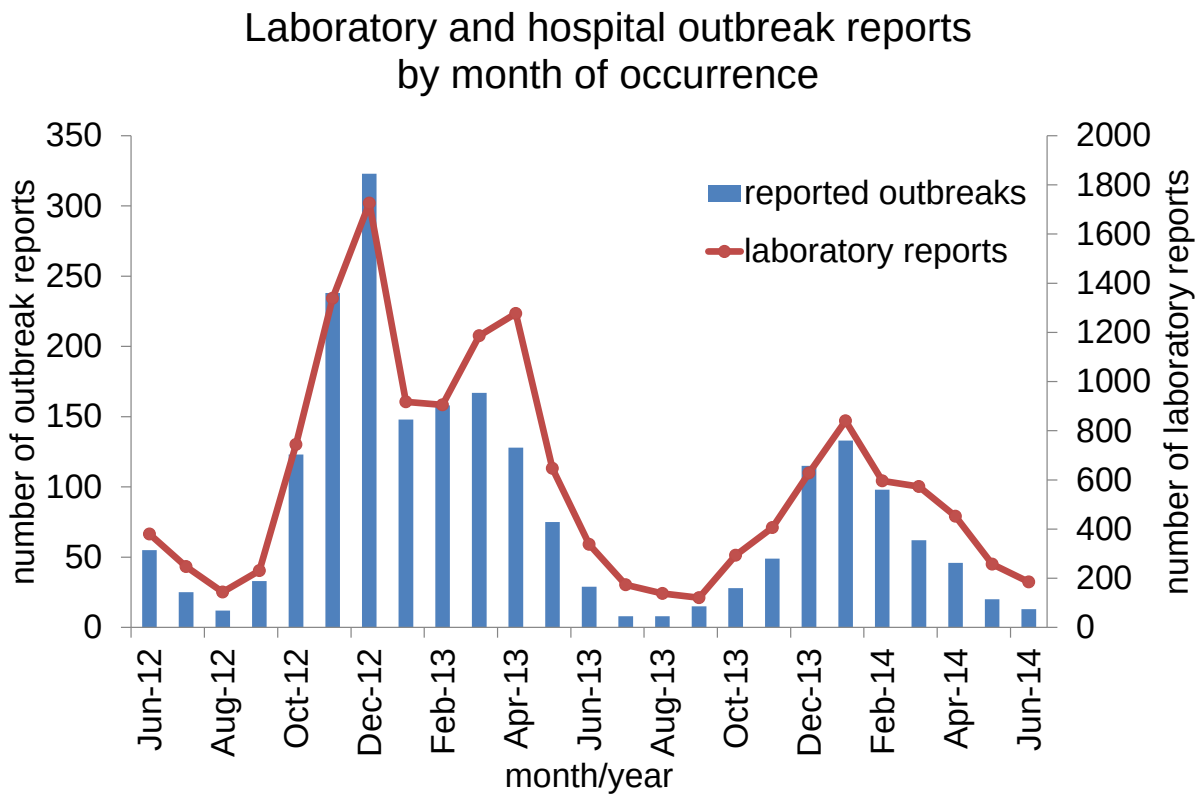


Figure 2: Seasonal comparison of laboratory reports of norovirus (England and Wales)

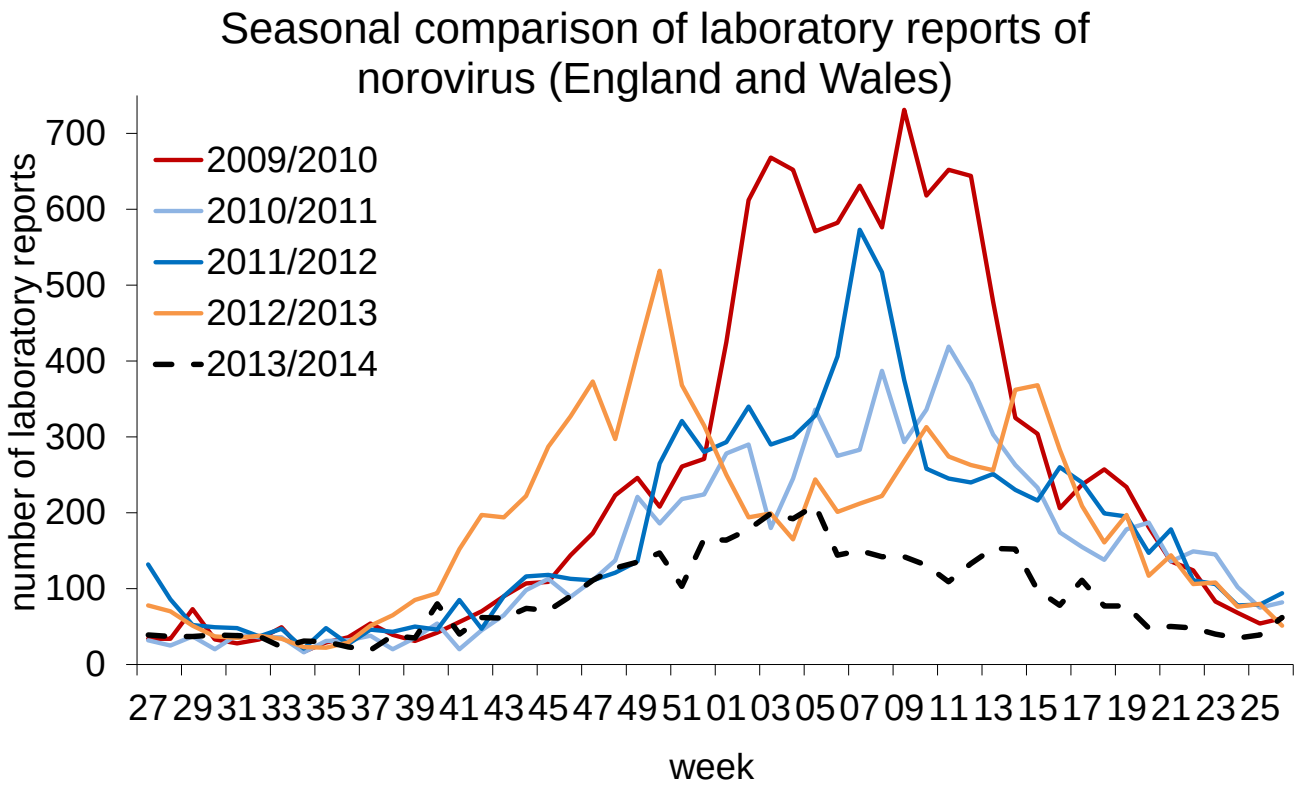


Figure 3: Cumulative number of laboratory reports of norovirus by season 2007/8-2013/14

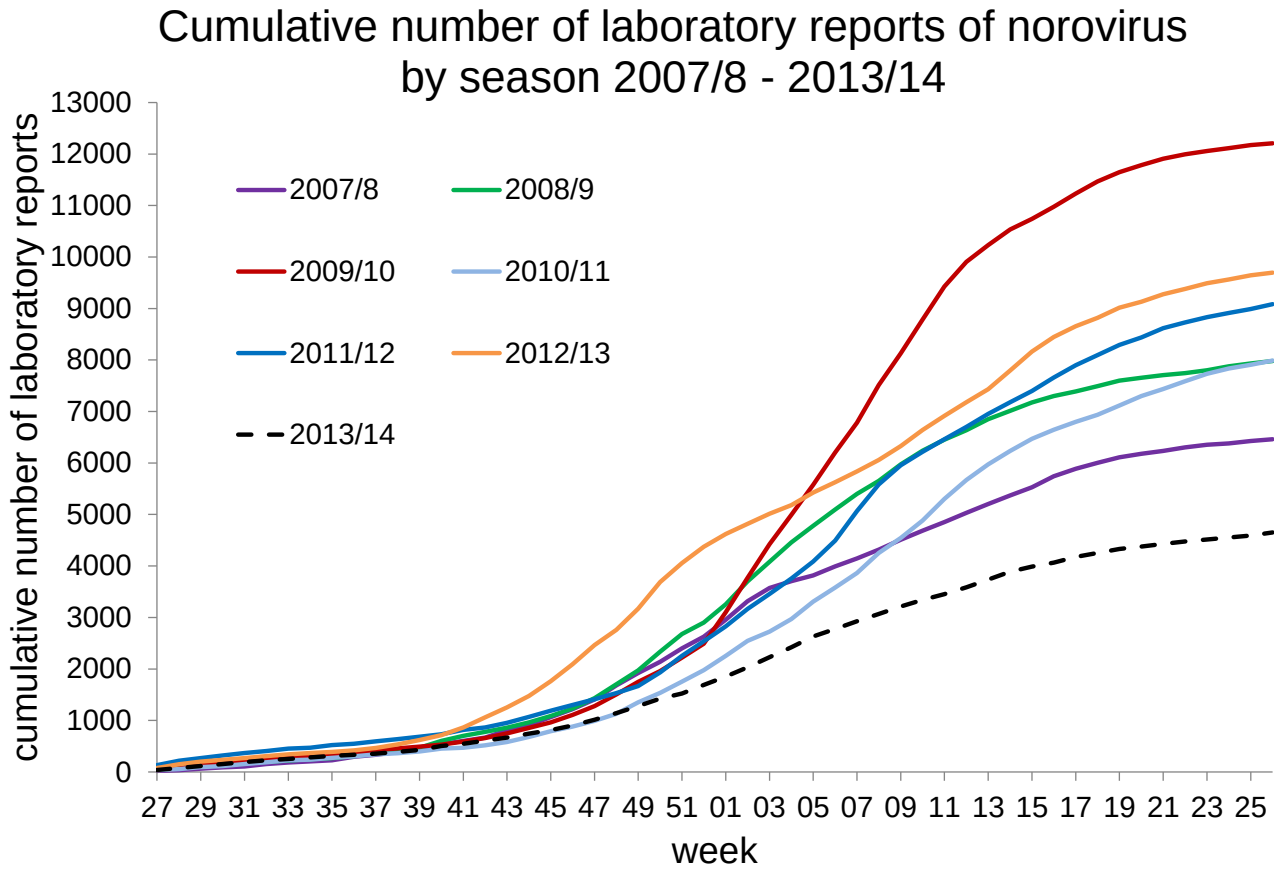
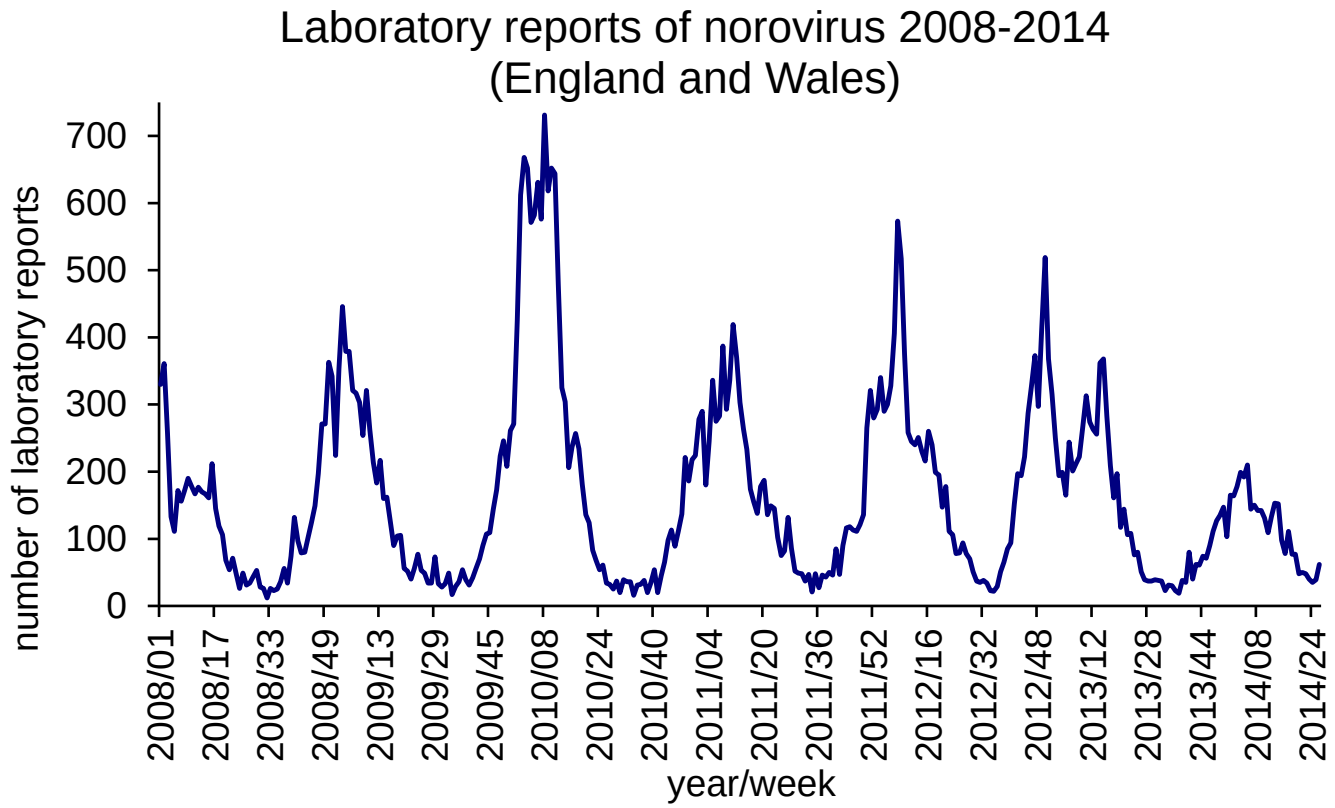


Figure 4: Laboratory reports of norovirus 2007-2014 (England and Wales)



*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. ǂ Last season – 2012/2013 – the season began earlier than normal so comparisons between this current and last season would not be valid.

Laboratory Surveillance Update – Virus Reference Department (VRD)

Total number of outbreaks referred to VRD (27-2013 to 28-2014): 379
Total number of outbreaks confirmed as norovirus positive: 285
Total number of outbreaks from healthcare settings, referred to VRD (27-2013 to 28-2014): 211
Total number of outbreaks from healthcare settings, confirmed as norovirus positive: 144

- 83.6 % of norovirus-confirmed outbreaks were associated with GII-4 strains since July 2011.
- 13 different norovirus genotypes have been detected in the current season (27-2013 to date).
- The majority of norovirus-confirmed outbreaks in the current season (27-2013 to date) were associated with GII-4 (243/348, 69.9 %).

- The most commonly detected GII-4 strain between periods 28-2013 to 28-2014 is Sydney2012 and is associated with 99.1 % of GII-4 norovirus-confirmed outbreaks.
- The most commonly detected GII-4 strain in the previous season (2012-2013) was Sydney2012.

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

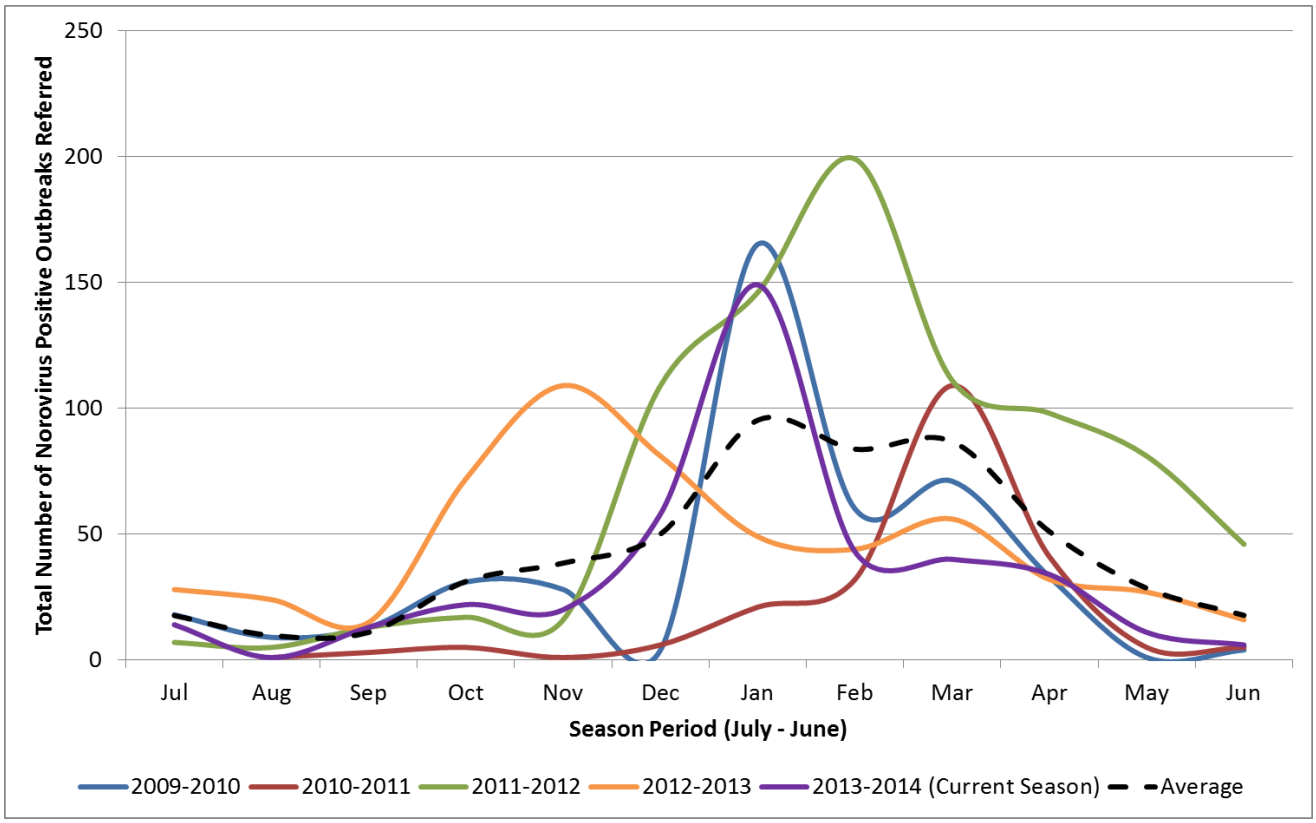


Figure 6: Norovirus-confirmed outbreaks (all settings, by month) referred to VRD

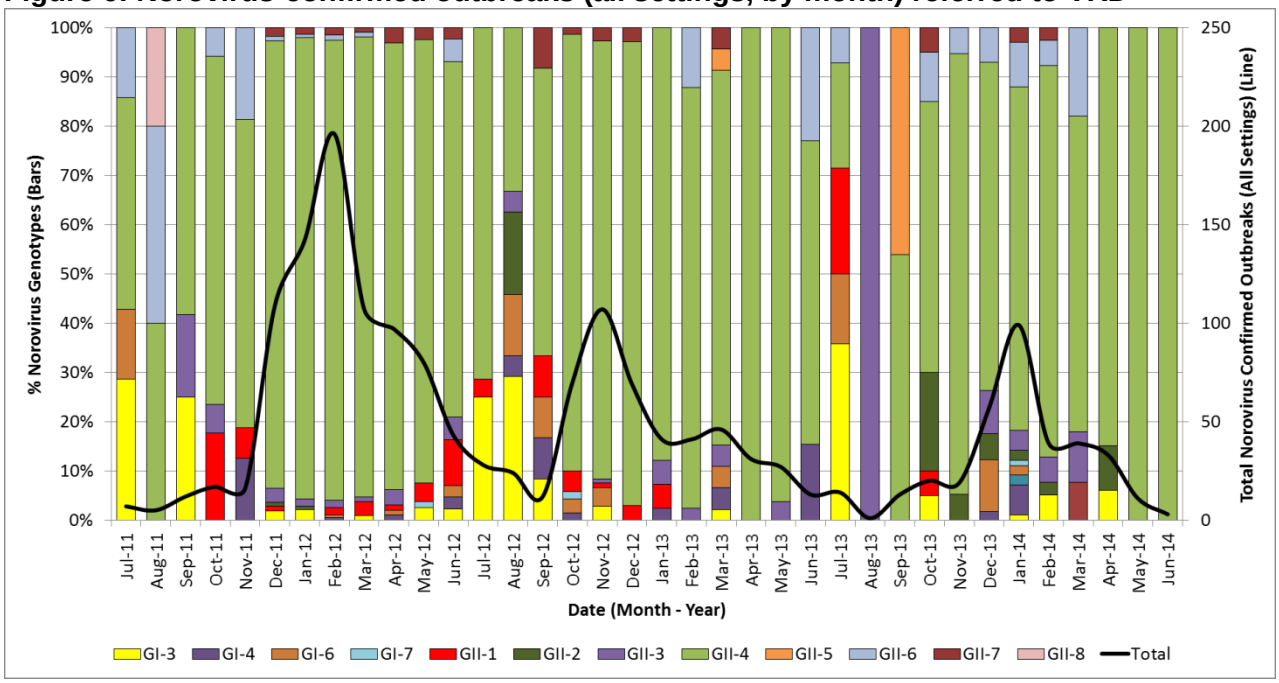
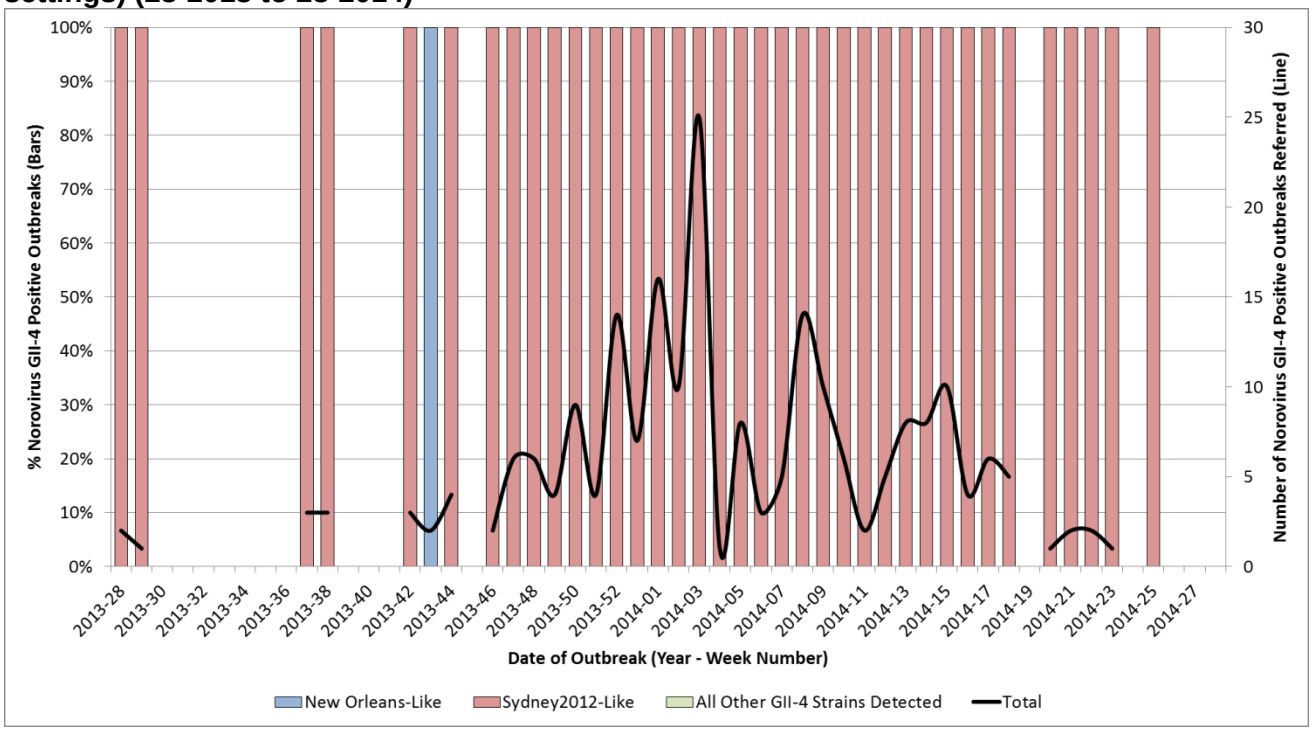


Figure 7: GII-4 norovirus strains detected (by week) among norovirus confirmed outbreaks (all settings) (28-2013 to 28-2014)



Norovirus Activity in Prisons

No outbreaks of diarrhoea and vomiting have been reported in prisons between 2nd June and 29th June 2014.

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

Region	Public Health England Centre	Outbreaks reported 02/06/2014 to 29/06/2014	Outbreaks reported this season week 27 2013 – week 26 2014
North	Greater Manchester		1
	Cumbria and Lancashire		1
	Cheshire and Merseyside		1
	Yorkshire and Humber		2
	North East		2
Midlands and East of England	Anglia and Essex		
	South Midlands and Hertfordshire		1
	Nottinghamshire, Derbyshire, Lincolnshire and Leicestershire		2
	West Midlands		2
London	London		
South	Thames Valley		
	Wessex (Hampshire, Isle of Wight and Dorset)		1
	Avon, Gloucestershire and Wiltshire		4
	Devon, Cornwall and Somerset		
	Surrey, Sussex and Kent		
Total			17

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 'Template Generic Prison Outbreak Plan' on:

http://www.hpa.org.uk/web/HPAweb&HPAwebStandard/Page/1287145637214

Rotavirus Laboratory Reporting

The number of laboratory reports of rotavirus in this season* (since week 27 2013) is 4490. This is 69 per cent lower than the ten season average for the same period in the seasons 2003/2004 to 2012/2013 (14127). The observed decrease in rotavirus activity 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)

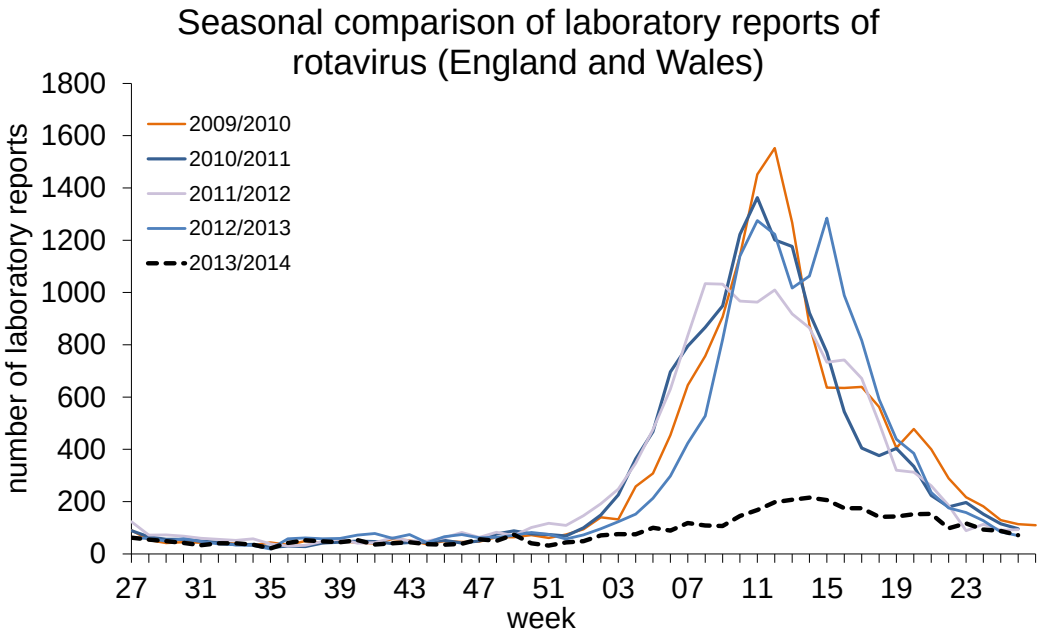
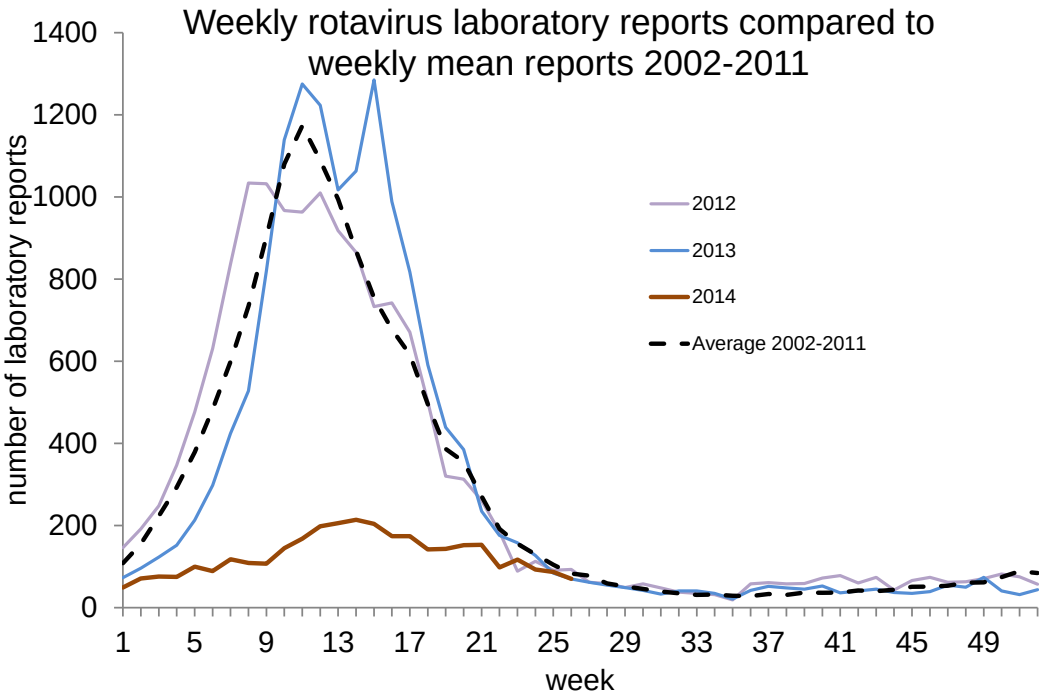


Figure 9: Weekly rotavirus laboratory reports compared to weekly mean reports 2002-2011



*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 year2, 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.

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