PHE Weekly National Norovirus Report

Summary of surveillance of norovirus and rotavirus

05 December 2013- Week 49 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

Norovirus

- Reports of norovirus outbreaks in hospitals increased in the last two weeks. However, norovirus activity is low. The number of laboratory reports of norovirus in the current week has increased but is lower than the five year seasonal average (2007/2008 to 2011/12).

Rotavirus

- Rotavirus activity is low, laboratory reports are at the expected level for the time of year.

Hospital Norovirus Outbreak Reporting System (HNORS)

- In the last two weeks (20/11/2013 and 03/12/2013) the hospital norovirus outbreak reporting scheme (HNORS) recorded 16 suspected or confirmed outbreaks of norovirus. All of these outbreaks led to ward/bay closure or restrictions to admissions and nine (56%) were reported as laboratory confirmed norovirus outbreaks. Since the start of the season (week 27 2013) there have been 86 reported outbreaks of suspected or confirmed norovirus, 82 (95 per cent) of which led to ward/bay closure or restrictions to admissions and 41 (48 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 (76 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 20/11/2013 to 03/12/2013			Outbreaks reported in the last season 2012/2013 (week 27 2012 - week 26 2013)		
	Outbreaks	Ward/bay closure[ŧ]	Lab confirmed	Outbreaks	Ward/bay closure[ŧ]	Lab confirmed
Avon, Gloucestershire and Wiltshire	2	2	1	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	1	1		204	204	131
Greater Manchester				40	7	27
Hampshire, Isle of Wight and Dorset	6	6	6	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	1	1		202	193	134
Sussex, Surrey and Kent	1	1	1	139	113	97
Thames Valley				59	57	36
West Midlands	5	5	1	95	84	48
Yorkshire and the Humber				225	181	175
Total	16	16	9	1459	1311	990

[ŧ] Note: not all outbreaks result in whole ward closure, some closures are restricted to bays only

Norovirus Laboratory Reporting

- The number of laboratory reports in this season* (week 27 2013 to week 47 2013) is 952. This is twenty-seven per cent lower than the average number of laboratory reports for the same period in the seasons between 2007/2008 and 2011/2012 ǂ (1304). 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

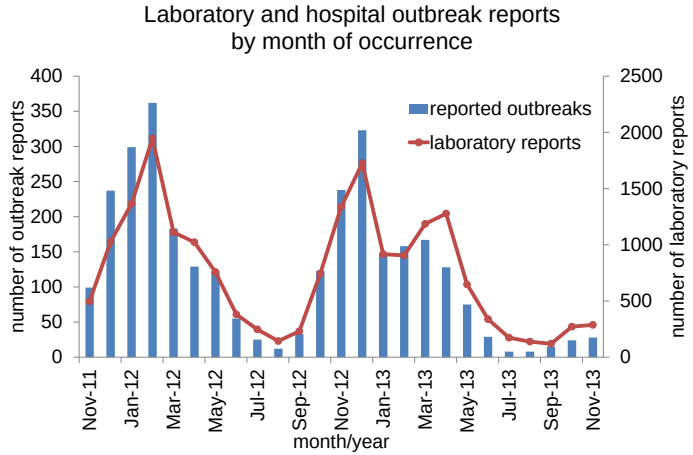


Figure 2: Seasonal comparison of laboratory reports of norovirus (England and Wales)

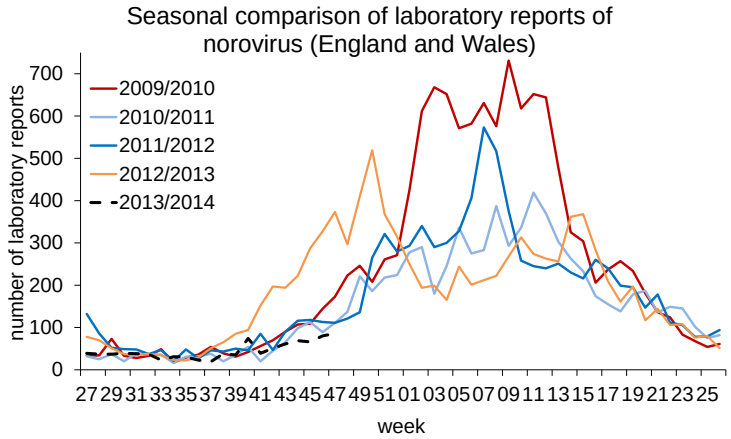


Figure 3: Current weekly norovirus laboratory reports compared to weekly average 2006-2010

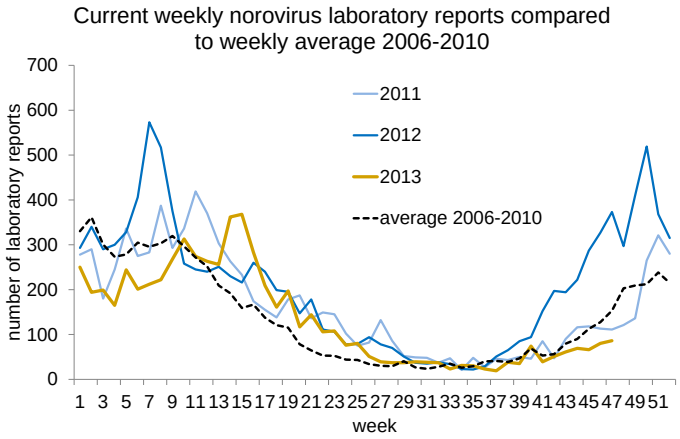
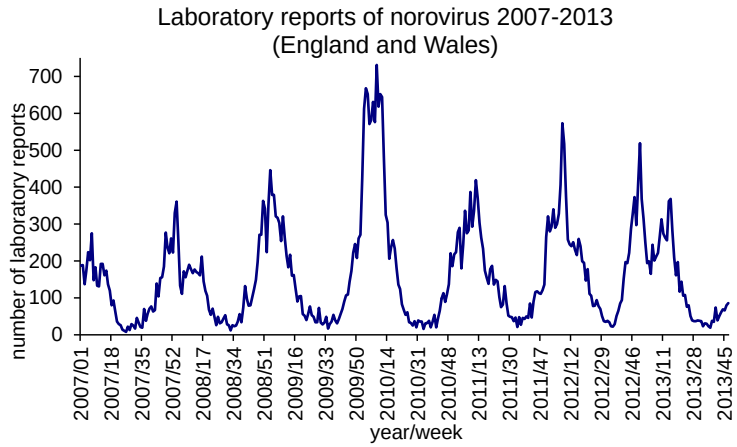


Figure 4: Laboratory reports of norovirus 2007-2013 (England and Wales)



*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 49-2013): **106**
Total number of outbreaks confirmed as norovirus positive: **57**
Total number of outbreaks from healthcare settings, referred to VRD (27-2013 to 49-2013): **60**
Total number of outbreaks from healthcare settings, confirmed as norovirus positive: **25**

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

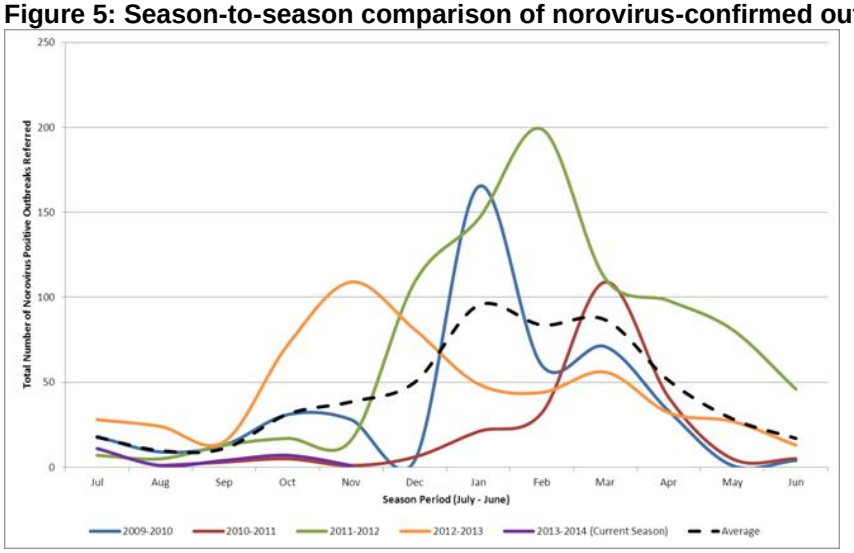
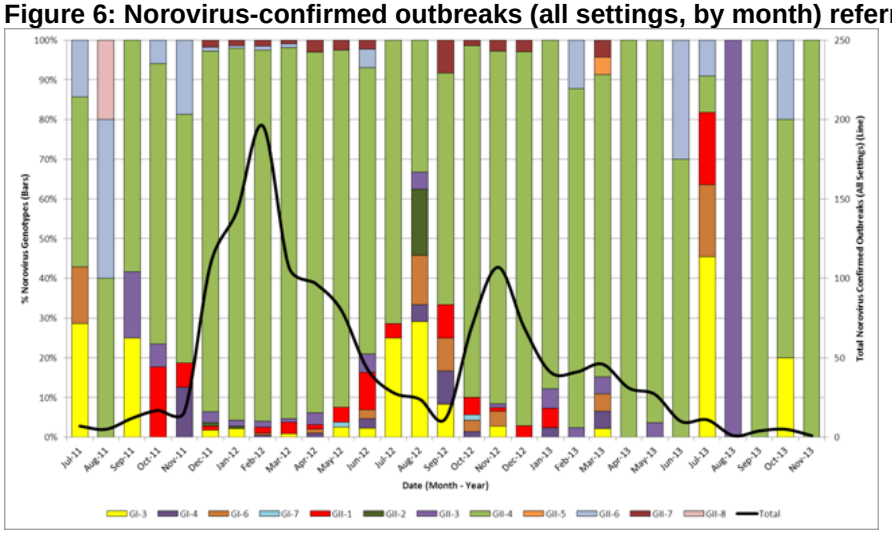
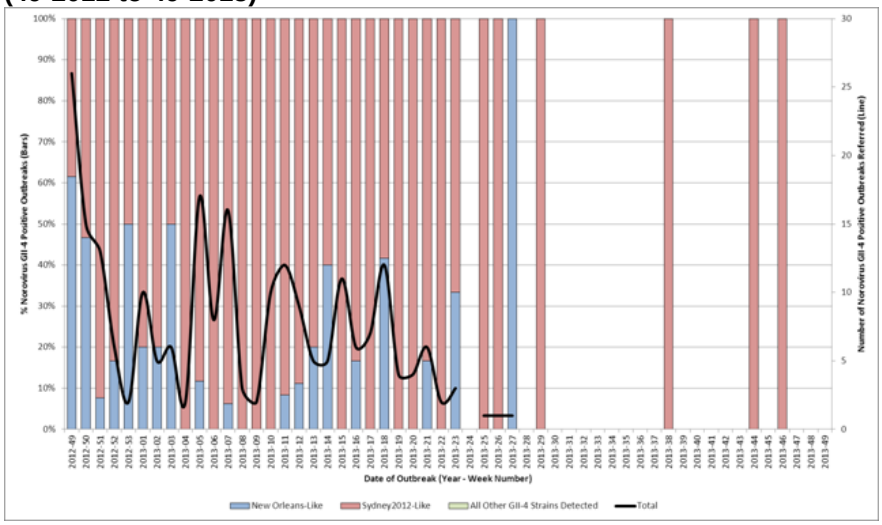


Figure 6: Norovirus-confirmed outbreaks (all settings, by month) referred to VRD



- 86.5 % of norovirus-confirmed outbreaks were associated with GII-4 strains since July 2011.
- 6 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 (9/22, 40.9 %).

Figure 7: GII-4 norovirus strains detected (by week) among norovirus confirmed outbreaks (all settings) (49-2012 to 49-2013)



- The most commonly detected GII-4 strain between periods 49-2012 to 49-2013 is Sydney2012 and is associated with 79.1 % of GII-4 norovirus-confirmed outbreaks.
- The most commonly detected GII-4 strain in the previous season (2012-2013) was Sydney2012.

Norovirus Activity in Prisons

- No new outbreaks of diarrhoea and vomiting have been reported in prisons between 25th November 2013 and 1st December 2013.

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

Region	Public Health England Centre	Outbreaks reported 25/11/2013 to 01/12/2013	Outbreaks reported this season week 27 2013 – week 48 2013
North	Greater Manchester		
	Cumbria and Lancashire		
	Cheshire and Merseyside		1
	Yorkshire and Humber		1
	North East		
Midlands and East of England	Anglia and Essex		
	South Midlands and Hertfordshire		
	Nottinghamshire and Derbyshire, Lincolnshire and Leicestershire		1
	West Midlands		
London	London		
South	Thames Valley		
	Wessex (Hampshire, Isle of Wight and Dorset)		
	Avon, Gloucestershire and Wiltshire		1
	Devon, Cornwall and Somerset		
	Surrey, Sussex and Kent		
Total			4

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 for rotavirus is at levels expected for this time of year. 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: Laboratory reports of rotavirus infections by season 2009-2013

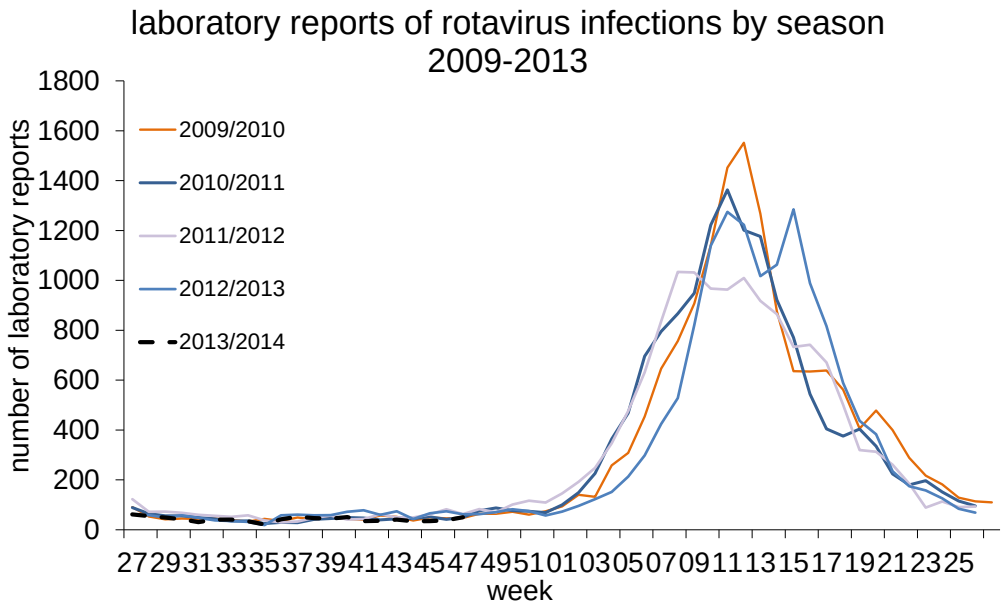
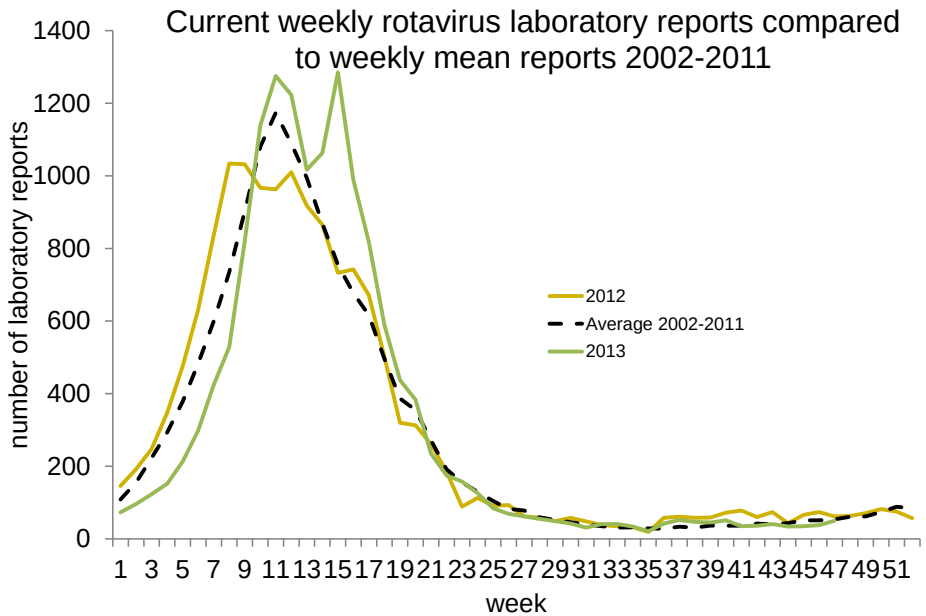


Figure 9: Current weekly rotavirus laboratory reports compared to weekly mean reports 2002-2011



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