



PHE National norovirus and rotavirus Report

Summary of surveillance of norovirus and rotavirus

19 October 2017 – data to week 40

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 Outbreak Reporting System website](#).

Contents: | [Summary](#) | [Hospital Norovirus Outbreak Reporting System](#) | [Laboratory reporting](#) | [Laboratory surveillance update](#) | [Activity in prisons](#) | [Rotavirus](#) | [Acknowledgements](#) |

Summary

The next report will be published next week on 26 October 2017.

Norovirus – laboratory reporting

- Norovirus activity varies from season-to-season; therefore it is more appropriate to use the five season average for comparison. Due to this variability between norovirus seasons, it is not possible to predict how the current season will progress.
- Since week 27, 2017 there have been 673 laboratory reports of norovirus in England and Wales. This is 5 per cent lower than the average number for the same period in the five seasons from season 2012/13 to season 2016/17 (705), and 7 per cent lower than the same weeks last season.

Norovirus – Hospital Norovirus Outbreak Reporting System (HNORS)

- Reports of suspected and confirmed outbreaks of norovirus in hospitals in England are currently at lower levels than in previous years.

Rotavirus – laboratory reporting

- Since week 27 2017, there have been 354 laboratory reports of rotavirus in England and Wales. This is 45 per cent lower than the average for 2013/14 to 2016/17 (the period after vaccine was introduced).
- The total number of laboratory-confirmed rotavirus infections each season has remained low compared to the pre-vaccine period.

*In order to capture the winter peak of activity in one season, for reporting purposes, the norovirus and rotavirus 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 data for 2009 and 2015 exclude week 53

Hospital Norovirus Outbreak Reporting System (HNORS) - England

In the two weeks between 25/09/2017 and 08/10/2017 (weeks 39 2017 to 40 2017) the hospital norovirus outbreak reporting scheme (HNORS) recorded four outbreaks of suspected or confirmed norovirus in England, all of which led to ward/bay closures or restrictions to admissions and three of which (75 per cent) were laboratory confirmed as a norovirus outbreak.

This season (since week 27 2017) there have been 26 outbreaks reported, 24 of which (92 per cent) resulted in ward/bay closures and 16 (62 per cent) were laboratory confirmed as norovirus.

Last season (week 27 2016 to week 26 2017) 440 outbreaks were reported, 412 (94 per cent) of which reported ward/bay closures or restrictions to admissions and 321 (73 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 25/09/2017 to 08/10/2017			Outbreaks reported in the last season 2016/2017 (week 27 2016 - week 26 2017)		
	Outbreaks	Ward/bay closure [‡]	Lab confirmed	Outbreaks	Ward/bay closure [‡]	Lab confirmed
East of England				1	1	1
East Midlands				25	24	24
London				3	3	1
North East				50	46	26
North West				49	46	36
South East				41	40	26
South West	3	3	2	101	98	87
West Midlands	1	1	1	80	74	55
Yorkshire and the Humber				90	80	65
Total	4	4	3	440	412	321

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

Norovirus Laboratory Reporting – England and Wales

The number of laboratory reports of norovirus in England and Wales, as reported to Public Health England, in this season* (week 27 2017 to week 40 2017) is 673. This is 5 per cent lower than the average number for the same period in the five seasons from season 2012/13 to season 2016/17 (705), and 7 per cent lower than the same weeks last season (723). No two seasons are the same therefore it is more appropriate to use the five season average for comparison.

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.

*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. Data for 2009 and 2015 exclude week 53.

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

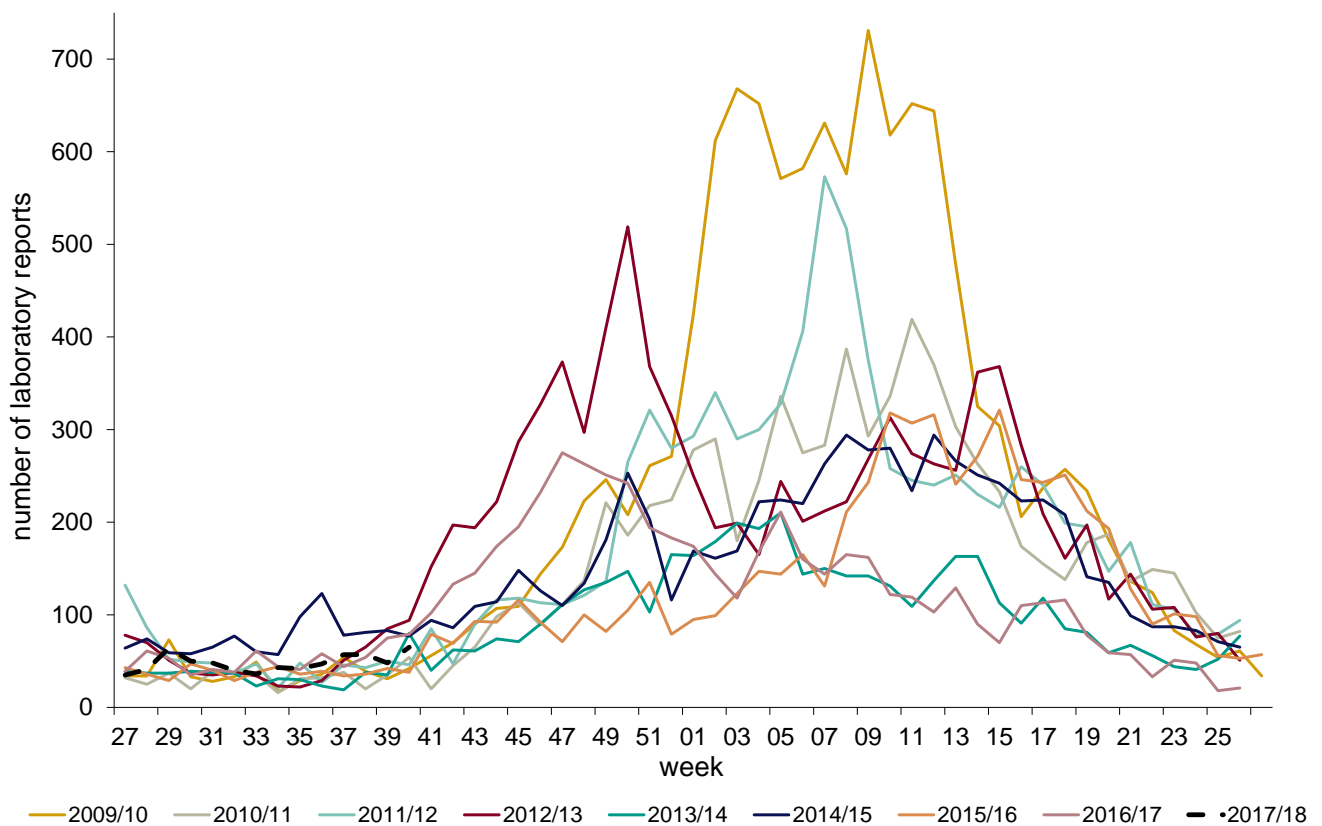
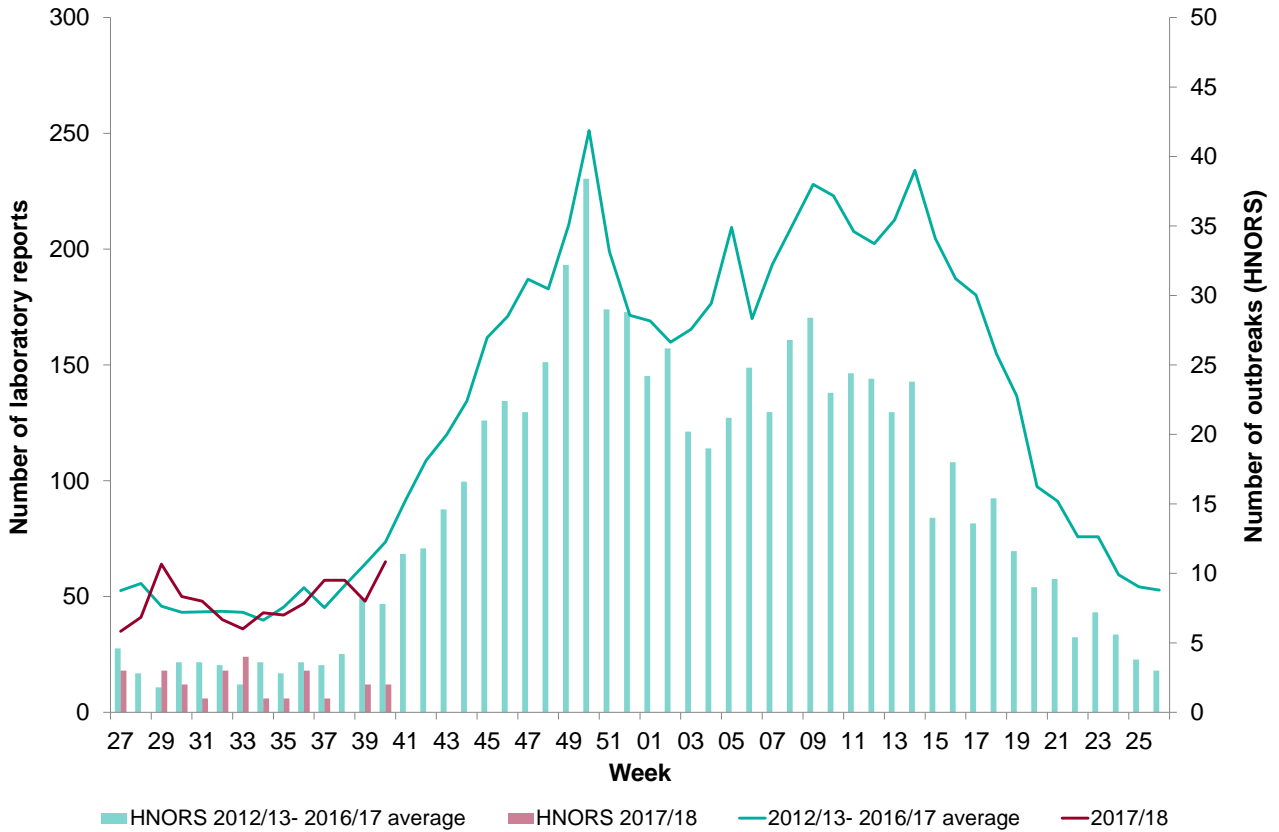


Figure 2: Laboratory and hospital outbreak reports by week of occurrence



NB: Laboratory data (England and Wales), HNORS data (England only)

Figure 3: Cumulative number of laboratory reports of norovirus by season 2007/8-2016/17 (England and Wales)

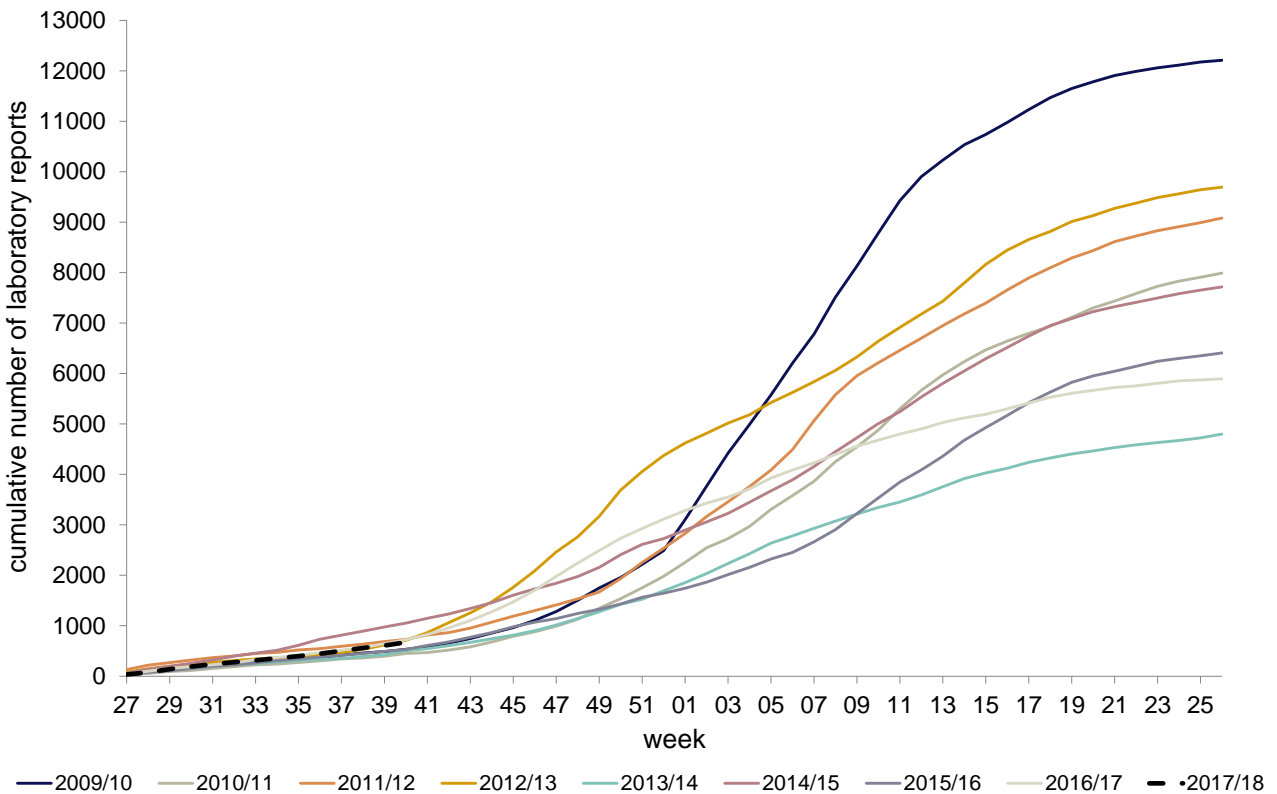
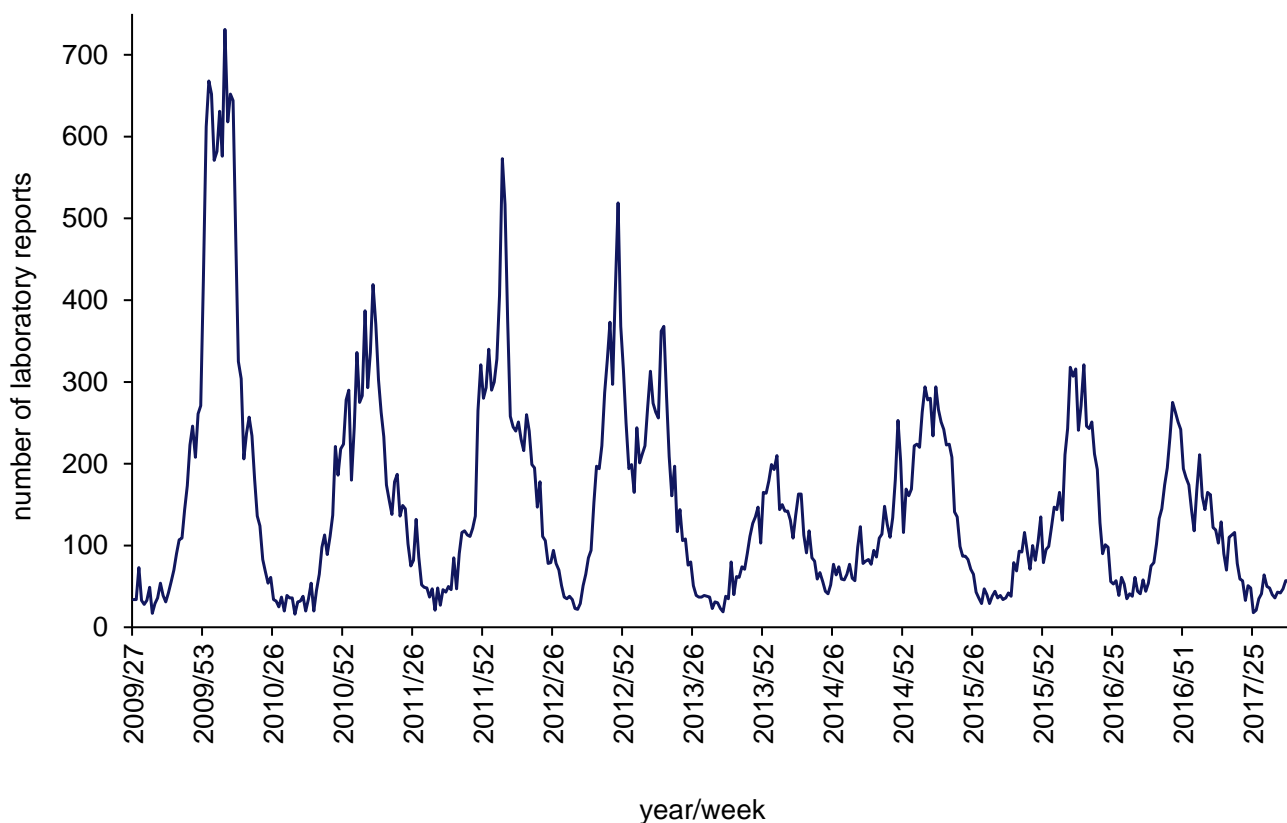


Figure 4: Laboratory reports of norovirus by week 2009-2017 (England and Wales)



Laboratory Surveillance Update – Virus Reference Department (VRD) – England and Wales

Data for this section of the report are currently unavailable.

Activity in prisons and other places of detention - England

No outbreaks of diarrhoea and vomiting were reported in prisons between weeks 39 and 40 2017.

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>

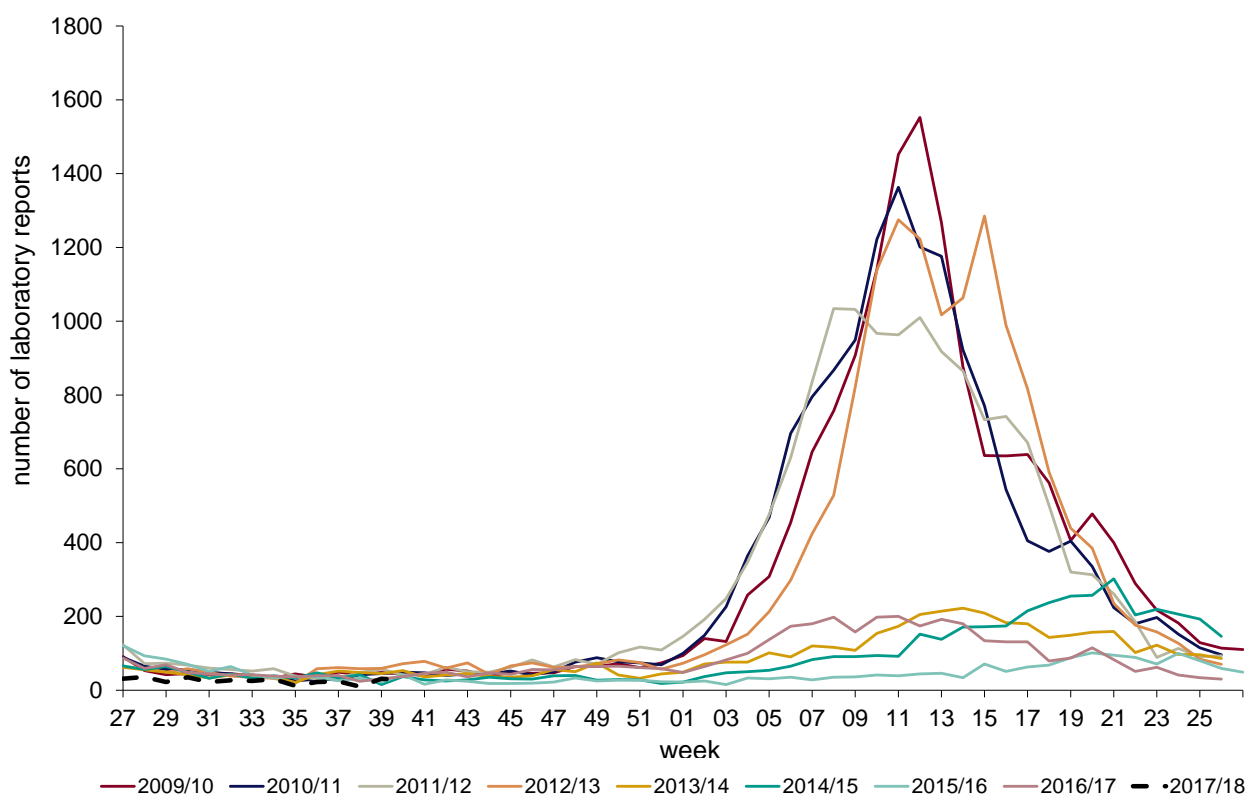
Rotavirus Laboratory Reporting – England and Wales

The number of laboratory reports of rotavirus in England and Wales as reported to Public Health England, in this season* (week 27 2017 to week 40 2017) is 354. This is 39 per cent lower than the ten season average for the same period in the seasons 2003/04 to 2012/13 (583)**, and 45 per cent lower than the four season average for the same period in the post vaccine seasons 2013/14 to 2016/17 (649).

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. In the first season following the introduction of the rotavirus vaccine in July 2013, a 77 per cent decline in laboratory-confirmed rotavirus infections in infants was observed (Atchison et al, 2016). The total number of laboratory-confirmed rotavirus infections each season has since remained low compared to the pre-vaccine period.

Most laboratory tests in use do not distinguish vaccine from wild-type rotavirus. In the post-vaccine period, further characterisation of laboratory-confirmed rotavirus infections and considering broader testing of cases among eligible infants for other enteric pathogens are increasingly important to avoid over-attributing rotavirus as a cause of infectious intestinal disease in young children. 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 by week (England and Wales)



*In order to capture the winter peak of rotavirus activity in one season, for reporting purposes, the rotavirus 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. Data for 2009 and 2015 exclude week 53.

**Comparison is made with this ten season period as it is prior to the vaccine introduction.

Acknowledgements

This report was prepared by the Gastrointestinal Infections Department, Centre for Infectious Disease Surveillance and Control, Public Health England. We are grateful to all who provided data for this report including infection control staff in hospitals who take the time to contribute data to HNORS and the Health and Justice Team, Public Health England.

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