



Annual Epidemiological Report

August 2018

Rotavirus in Ireland, 2017

Key Facts

2017:

- 2,308 cases of rotavirus were notified
- crude incidence rate (CIR) of 48.5 per 100,000 population.
- remains stable compared to 2,371 cases (CIR 49.8) notified in 2016

Background

Rotavirus is the commonest global cause of paediatric gastrointestinal infection and causes sporadic, seasonal and occasionally severe gastroenteritis of infants and young children, characterised by vomiting, fever and watery diarrhoea. Transmission is usually person-to-person, mainly via the faecal-oral route. Children less than two years of age are most susceptible to infection, although cases are often seen in elderly and immunocompromised adults, particularly in institutional settings. By the age of six years, virtually all children will have had at least one episode of rotavirus infection. Symptoms usually last for only a few days but in severe cases hospitalisation may be required due to dehydration.

Rotarix™ vaccine was introduced in Ireland in December 2016 for all babies born from 1st October 2016 onwards. Rotarix™ is a live attenuated monovalent vaccine. Vaccine is administered orally in two doses at 2 months and 4 months. Both doses must be administered by 8 months old.

Methods

Rotavirus is a notifiable disease in Ireland under the Infectious Disease Regulations and cases should be notified to the Medical Officer of Health. The [case definition](#) is outlined on the HPSC website.

Prior to 2004, rotavirus cases were notified under the “Gastroenteritis in children under two years” disease category. From 2004 to 2010, rotavirus was notifiable in all age groups under the “Acute Infectious Gastroenteritis” (AIG) disease category, until it became notifiable as a disease in its own right under the Infectious Diseases (Amendment) Regulations 2011 (S.I. No. 452 of 2011).

Notifications are reported using the Computerised Infectious Disease Reporting system (CIDR) which is described [here](#). Further information on the process of reporting notifiable infectious diseases is available [here](#).

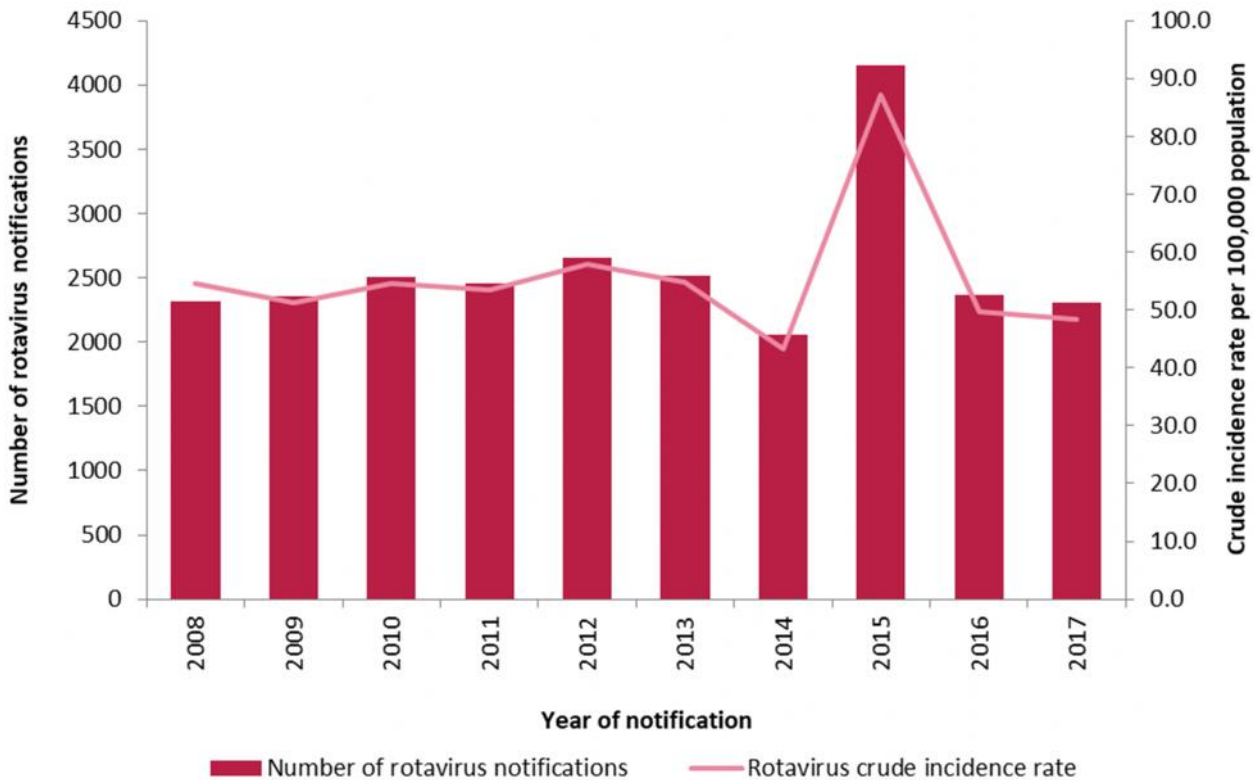
Between March 2013 and July 2017, rotavirus notifications from HSE-East were based on laboratory testing results rather than patient episodes. During this period, notifications from HSE-E may also refer to area of laboratory testing rather than area of patient residence.

All crude incidence rates were calculated using the 2016 Census unless otherwise specified.

Epidemiology

During 2017, there were 2,308 cases of rotavirus notified in Ireland, corresponding to a national crude incidence rate (CIR) of 48.5 per 100,000 population (figure 1). This remains stable compared to 2016 (49.8) and is a decrease of 13.7% compared to the mean CIR during 2007-2016 (56.2).

Figure 1: Number of rotavirus notifications and rotavirus crude incidence rate in Ireland by year

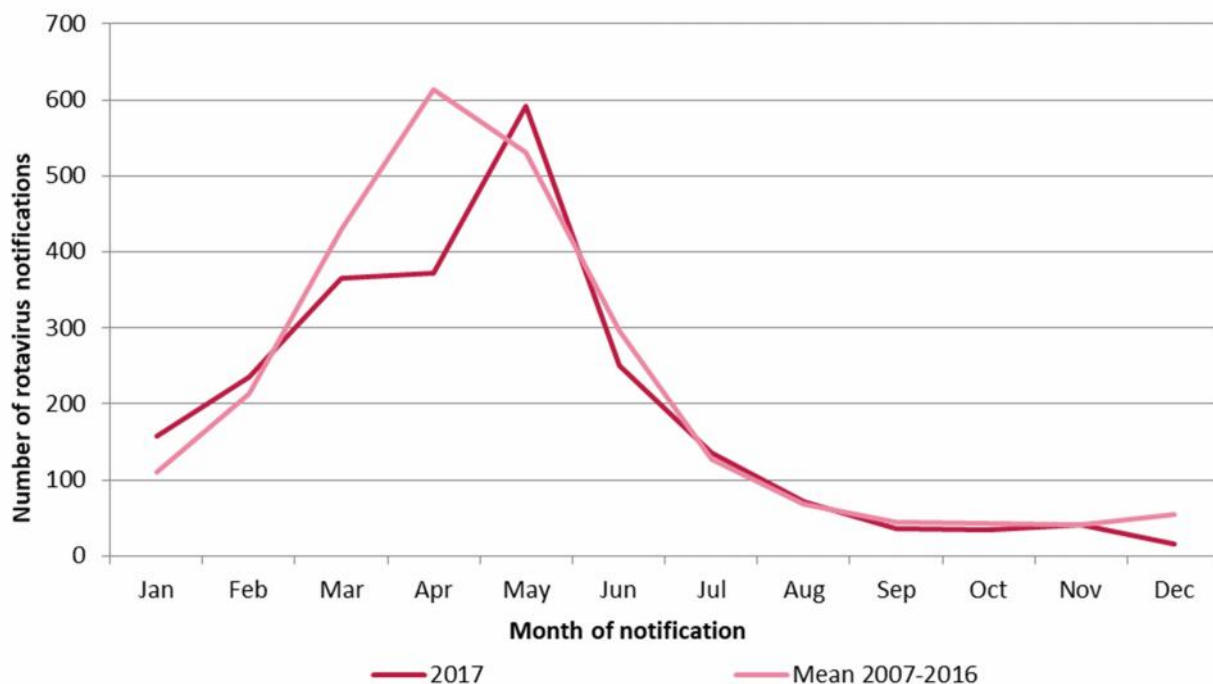


Significant geographical variation was observed in regional rotavirus CIR. The highest regional CIRs were observed in HSE-M (78.0), -S (75.4) and -NW (62.8). The lowest regional CIR was observed in HSE-NE (33.9), -MW (38.4) and -SE (39.2).

During 2017, 1,093 cases (47.4%) were female and 1,215 (52.6%) were male.

Rotavirus infection has a well-documented seasonal pattern in Ireland with the number of cases typically peaking during March to May. During 2017, rotavirus notifications peaked during May (n=591). Figure 2 illustrates the seasonal variation in rotavirus cases by month of notification for 2017 compared to the mean monthly number of notifications reported during 2007 to 2016.

Figure 2: Number of rotavirus notifications in Ireland by month of notification and year



Sixteen outbreaks of rotavirus were notified during 2017 with 102 cases of associated illness, 13 of whom were hospitalised. Eight general outbreaks occurred, three in child-care facilities, two in nursing homes and one each in a community hospital/long stay unit, a residential institution and in a community setting. The remaining eight outbreaks were family outbreaks that occurred in private homes. Ten outbreaks reported mode of transmission as person to person or airborne spread while mode of transmission was unknown for the remaining six outbreaks.

Further information available on HPSC website

<http://www.hpsc.ie/a-z/gastroenteric/rotavirus/>

Acknowledgements

Sincere thanks are extended to all those who participated in the collection of data used in this report. This includes the notifying physicians, public health doctors, surveillance scientists, microbiologists, nurses, laboratory staff and administrative staff.

Report prepared by:

Sarah Jackson