



Annual Epidemiological Report

October 2019

Mumps in Ireland, 2018

Key Facts

There was an increase in mumps in 2018 with 573 (12/100,000) mumps cases notified. In comparison 291 cases were notified in 2017, 491 mumps cases were notified in 2016 and 2,012 cases were notified in 2015.

The increase in 2018 was first observed in August 2018.

The highest age specific incidence rates in 2018 were in those aged 15-19 years. The median age of cases was 20 years, ranging from nine months to 94 years.

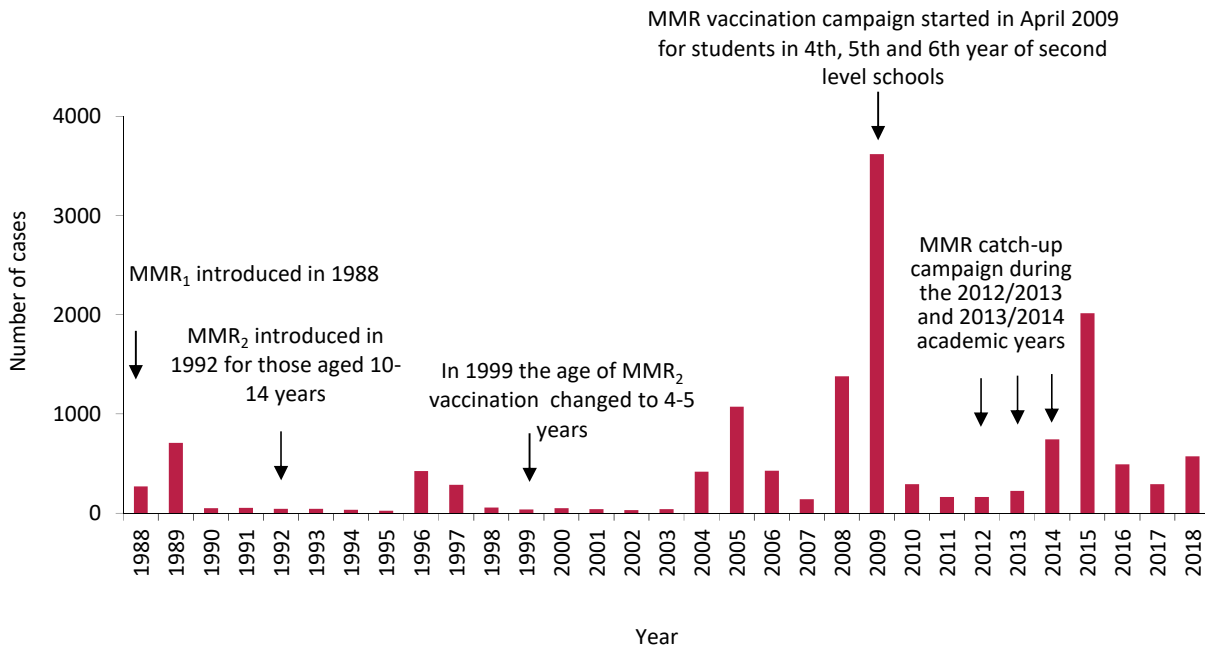
Four per cent (n=22/573) of cases in 2018 were hospitalised.

Epidemiology

There was an increase in mumps in 2018 with 573 (12/100,000) mumps cases notified (figure 1). In comparison 291 cases were notified in 2017, 491 mumps cases were notified in 2016 and 2,012 cases were notified in 2015.

The increase in 2018 was first observed in August 2018 (figure 2) in the HSE W.

Figure 1. Number of mumps cases by year



A MMR catch-up campaign was conducted during the 2012/2013 and 2013/2014 academic years for children/students attending primary schools, second level schools and special schools and home-schooled students who had not completed (or were not sure they had) their two dose MMR vaccination schedule

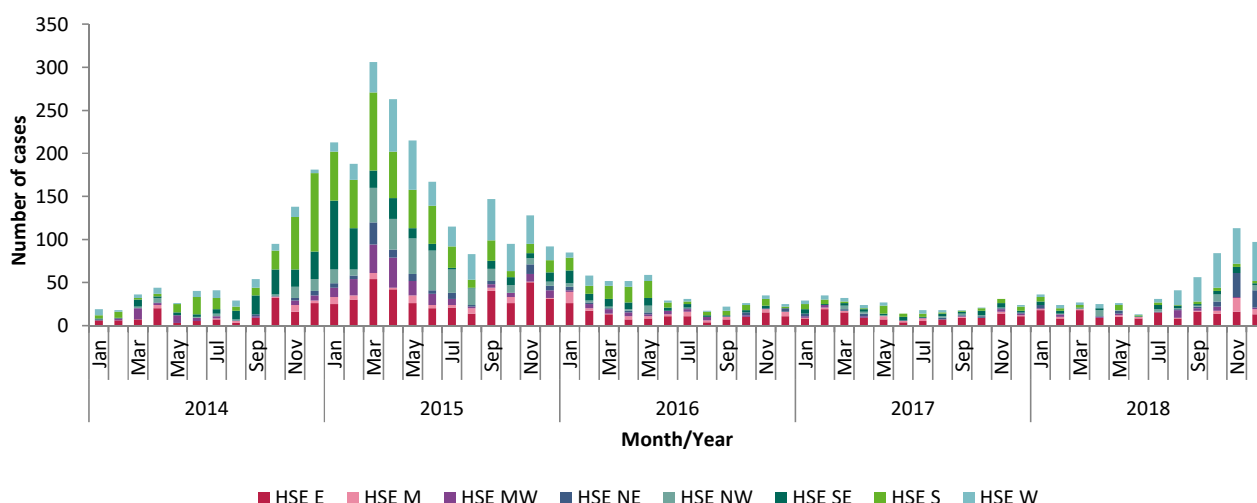
MMR₁- first dose of MMR

MMR₂- second dose of MMR

1988-June 2000 data collated by DoHC

July 2000-2018 data collated in the CIDR system

Figure 2. Number of mumps cases from 2014 to 2018 by month and HSE Area



In 2017, the largest number of cases was notified in the HSE W (table 1) with the majority (89%, n=171/193) of these cases notified during August to December.

Table 1. Number of mumps cases and the crude incidence rate per 100,000 population (CIR) by HSE Area in 2018

HSE Area	Number	CIR
HSE E	153	8.9
HSE M	35	12.0
HSE MW	27	7.0
HSE NE	66	14.3
HSE NW	29	11.3
HSE SE	34	6.6
HSE S	36	5.2
HSE W	193	42.6
Total	573	12.0

Of the 573 mumps cases notified 55% (n=317) were classified as confirmed, five percent (n=29) as probable and 40% (n=227) were classified as possible.

The median age of cases was 20 years (mean age was 24 years) with cases ranging in age from nine months to 94 years. The largest number of cases and the highest age specific incidence rates were in those aged 15-19 years (figure 3 and figure 4). Forty seven per cent (n=268) of cases were female and 53% (n=305) were male.

Figure 3. Number of mumps cases in 2018 by age group and case classification

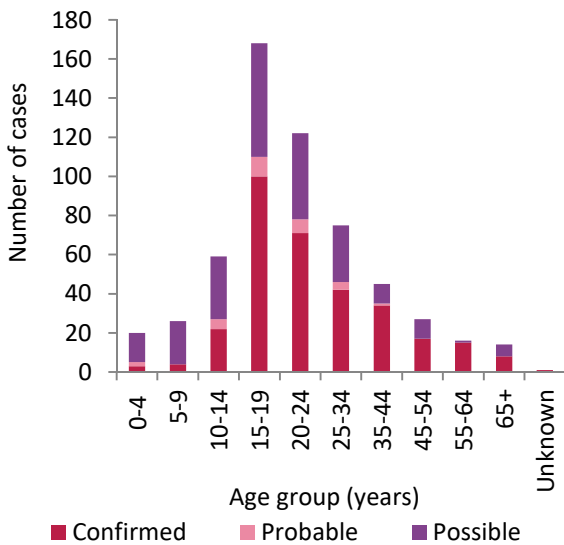
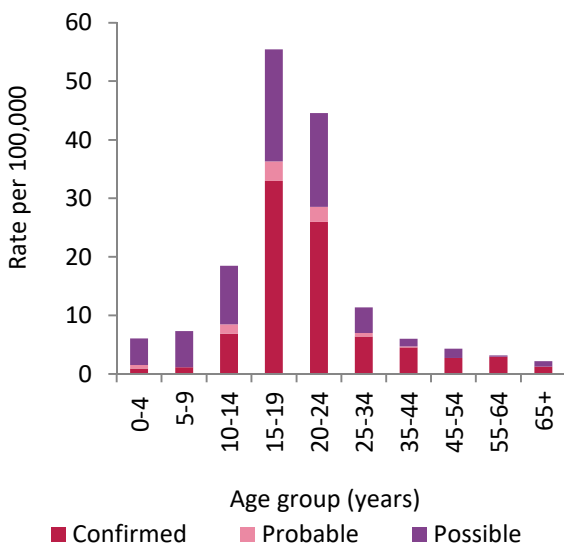


Figure 4. The age specific incidence rate (per 100,000) of mumps cases in 2018 by age group and case classification



Mumps vaccine in Ireland is available as part of the combined Measles-Mumps-Rubella (MMR) vaccine. In Ireland, vaccination with the first dose of MMR is routinely recommended at twelve months of age and the second dose at four to five years of age. A MMR vaccination campaign started in April 2009 for students in fourth, fifth and sixth year of second level schools. A MMR catch up campaign started during the academic year 2012/2013 and continued during the academic year 2013/2014 for children/students attending primary schools, second level schools and special schools and home-schooled students who had not completed (or were not sure they had) their two dose MMR vaccination schedule. Additionally, MMR vaccine continued to be recommended for students in college or universities if not previously vaccinated.

Of the 573 mumps cases, 8% (n=45) were unvaccinated with MMR, 10% (n=57) had one dose of MMR, 30% (n=170) were reported to have received two doses of MMR, 1% (n=4) were reported to have received three doses of MMR, while for 52% (n=297) of cases the number of doses of MMR were not reported. The vaccination date was reported for 60% (n=34/57) of cases reported to have received one dose of MMR. Both vaccination dates were reported for 39% (n=66/170) of cases vaccinated with two doses of MMR. Forty six per cent (n=78/170) of the cases reported to have received two doses of MMR were classified as confirmed; 36% (n=28/78) of these cases had both MMR vaccination dates reported. Three of the four cases reported to have three doses of MMR had all three dates reported; one of these was classified as confirmed.

The country of birth was recorded as Ireland for 28% (n=159) of cases, was recorded as being a country other than Ireland for 5% (n=28) of cases and was unknown or not specified for the remainder.

Twenty two cases were hospitalised, representing four per cent (n=22/573) of all cases. The number of days hospitalised was reported for 10 of the hospitalised cases; the median number of days hospitalised was four days (range 0 to 32 days).

The reported complications of mumps included orchitis (n=12), meningitis (n=3), pancreatitis (n=3), deafness (n=2), and encephalitis (n=1).

The setting where the case most likely acquired mumps was reported for 26% (n=151/573) of cases. The identified settings were: university/college (11%, n=61), secondary school (6%, n=35), social setting (5%, n=28), family/household (3%, n=15), primary school (1%, n=5), military (0.3%, n=2), work (0.3%, n=2) and day-care/pre-school (0.2%, n=1), other healthcare facility (0.2%, n=1) and international travel (0.2%, n=1).

The probable countries of infection were recorded as Ireland (n=184), United Kingdom (n=3), United States (n=2), Canada (n=1), Hungary (n=1), Romania (n=1), Spain (n=1) and was unknown or not specified for the remainder.

Fourteen localised outbreaks of mumps were notified during 2018 with a total of 111 associated cases of illness. The outbreak locations included five schools (with 60 ill), three community outbreaks (with 29 ill), three universities/colleges (with 16 ill), two private houses (with four ill) and one residential institution (with two ill). In addition the HSE W reported a regional outbreak.

The figures presented in this summary are based on data extracted from the Computerised Infectious Disease Reporting (CIDR) system between 27th October 2019 (case based data) and 1st November 2019 (outbreak data). The 2018 data cleaning and validation were not completed in all areas at the time of writing this report. The figures may differ slightly from those published previously due to ongoing updating of notification data on CIDR. The 2016 census data was used here to calculate rates.

Acknowledgements

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