

# 1.4 Mumps

## Summary

Number of cases, 2009: 3,629  
 Number of cases, 2008: 1,380  
 Number of cases, 2007: 142  
 Crude incidence rate, 2009: 85.6/100,000

Mumps notifications had declined in 2007 following a national mumps outbreak that began at the end of 2004, however, mumps notifications increased in the later part of 2008 and increased dramatically in the first half of 2009. In total, there were 142 cases (3.3/100,000) notified in 2007, 1,380 cases (32.5/100,000) notified in 2008 and 3,629 cases (85.6/100,000) notified in 2009 (figure 1). Sixty percent (n=826/1,380) of cases in 2008 were notified between late September and the end of December and 83% (n=3,016/3,629) of cases in 2009 were notified between January and May 2009.

A national outbreak control team was convened in 2009 to address the issue of ongoing transmission of mumps virus. Control measures implemented included an MMR vaccination campaign for students in fourth, fifth and sixth year in all second level schools during the final term of the 2008/2009 academic year concluding

in September 2009. The decision was based on the fact that efforts to control mumps outbreaks among students in third level colleges had failed and that students in senior cycle of second level schools were the cohort most susceptible to mumps. The uptake of MMR, based on school/clinic session reports, among this cohort was 70.8% (source HSE-National Immunisation Office).

Near the end of March 2009, the mumps outbreak control team recognised that due to the large number of cases (180 cases were notified on average each week in March) it may not be possible to collect enhanced data and laboratory specimens on all cases. Enhanced data was collected on approximately 30% of cases during January to March and approximately 12% of cases during April to December. However, the percentage of cases classified as confirmed was 38% both during January to March (n=593/1,546) and during April to December (n=782/2,083).

In 2009, of the 3,629 mumps cases notified 38% (n=1,375) were classified as confirmed, 11% (n=417) were classified as probable, 50% (n=1,803) were classified as possible and one percent (n=34) had no case classification specified.

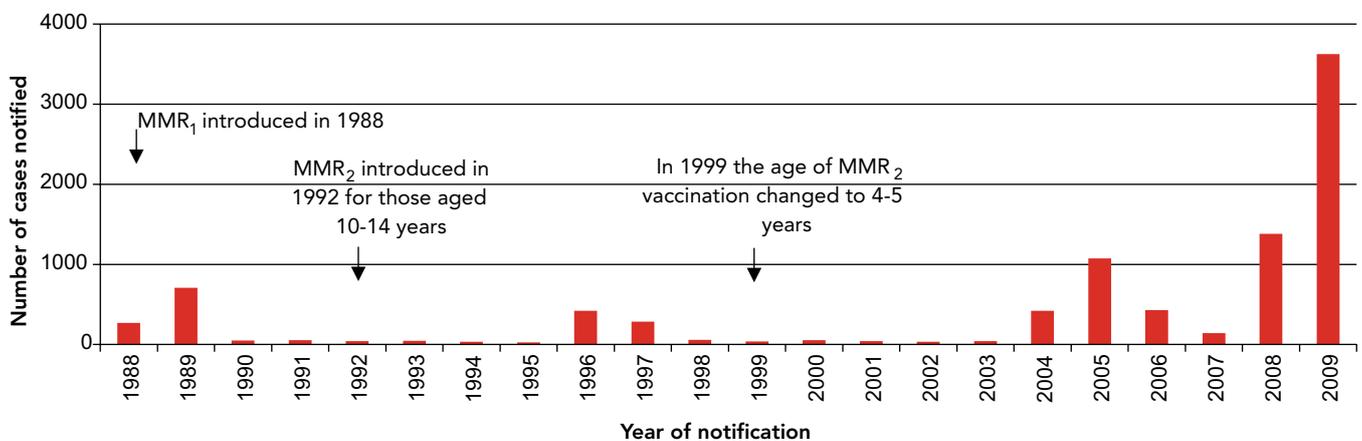


Figure 1. Number of mumps notifications by year and year of introduction of the measles-mumps-rubella (MMR) vaccine in Ireland

MMR<sub>1</sub>- first dose of MMR  
 MMR<sub>2</sub>- second dose of MMR  
 1988-June 2000 data collated by DoHC  
 July 2000-2009 data collated by HPSC

The largest number of cases was notified in the HSE-E followed by the HSE-W, while the highest crude incidence rate was in the HSE-W (table 1).

In 2009, cases ranged in age from seven months to 96 years; with a mean age of 22 years and a median age of 21 years (age was unknown for 34 cases). The largest number of cases and the highest age specific incidence rates (figures 2 and 3) were in those aged 15-19 years and 20-24 years. Of the 3,629 mumps cases, 54% (n=1,964) were male and 45% (n=1,649) were female (gender was unreported for 16 cases).

Of the 3,629 mumps cases, seven percent (n=257) were unvaccinated, 10% (n=381) had one dose of the measles-mumps-rubella vaccine (MMR), 15% (n=562) were reported to have received two doses of MMR while for 67% (n=2,429) of cases the number of doses of MMR were not reported. The vaccination date was reported for 37% (n=141/381) of cases reported to have received one dose of MMR. Both vaccination dates were reported for 25% (n=140/562) of cases vaccinated with two doses of MMR. Twenty-one percent (n=116/562) of the cases reported to have received two doses of MMR were classified as confirmed.

Seventy-five cases were reported to have been hospitalised, representing two percent (n=75/3,629) of all cases and 10% (n=75/771) of cases where

Table 1. Number of mumps cases notified and the crude incidence rate per 100,000 population (CIR) by HSE Area in 2009

HSE Area	Number	CIR
HSE-E	974	64.9
HSE-M	142	56.4
HSE-MW	341	94.5
HSE-NE	333	84.5
HSE-NW	156	65.8
HSE-SE	300	65.1
HSE-S	559	90.0
HSE-W	824	198.9
<b>Total</b>	<b>3,629</b>	<b>85.6</b>

hospitalisation data were provided. The number of days hospitalised was reported for 40% (n=30/75) of these hospitalised cases. The number of days the cases were hospitalised ranged from one to 12 with a median and a mean of three days.

Reported complications of mumps included orchitis (21%, n=88/412), pancreatitis (2.9%, n=19/656), meningitis (1.5%, n=10/671), deafness (1.1%, n=7/652), encephalitis (0.9%, n=6/663) and mastitis (0.6%, n=4/655).

The setting where the case most likely acquired mumps was reported for 20% (n=711/3,629) of cases. University/college was reported as the setting where the case most likely acquired mumps for 59% (n=418/711) of cases where this information was provided and social setting was reported for 20% (n=139/711) of these cases.

Thirty-two localised outbreaks of mumps were notified during 2009 with 280 associated cases of illness. The majority of these cases were associated with outbreaks in educational settings. The outbreak locations included 13 private houses (with 37 ill), nine universities/colleges (with 181 ill), six schools (with 46 ill), one crèche (with two ill), an outbreak associated with a public house (with four ill), an outbreak associated with a residential institution (with four ill) and an outbreak associated with a sports team (with six ill). As there was a national mumps outbreak in 2009 with widespread mumps activity many outbreaks, including community outbreaks, were not specifically notified.

The figures presented in this summary are based on data extracted from the Computerised Infectious Disease Reporting (CIDR) system on 09<sup>th</sup> September 2010. These figures may differ slightly from those published previously due to ongoing updating of notification data on CIDR.

EU data are available at [www.euvac.net](http://www.euvac.net).

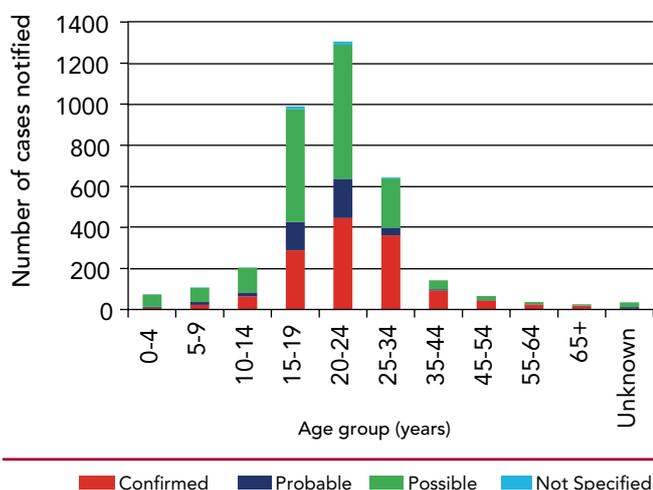


Figure 2. Number of notified mumps cases in 2009 by age group and case classification

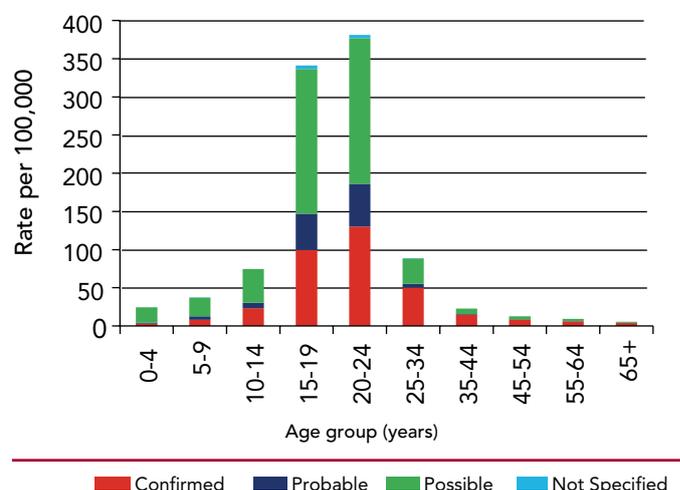


Figure 3. The age specific incidence rates (per 100,000) of notified mumps cases in 2009 (age is unknown for 34 cases)