

1.2 Measles

Summary

Number of cases, 2013: 51
Number of confirmed cases, 2013: 33
Crude incidence rate, 2013: 1.1/100,000
Crude confirmed incidence rate, 2013: 0.7/100,000

There were 51 measles cases (1.1/100,000) in 2013. This is a decline compared to previous years (figure 1).

In 2013, the largest number of cases and the highest crude incidence rate was in the HSE SE (table 1). Twenty of the cases in the HSE SE were notified during October to mid November and were associated with a school outbreak. These 20 outbreak cases ranged in age from one year to five years with a mean age and a median age of four years. The majority (80%, n=16/20) of the cases were vaccinated with one dose of MMR. Measles positive samples from six of the 20 cases were genotyped by the NVRL and were genotype D8.

In 2013, the second highest number of cases and crude incidence rate was in the HSE E (table 1). Nine of the cases in the HSE E were notified in May and were associated with an outbreak in an extended family. The nine outbreak cases ranged in age from one year

to 17 years with a mean age and median age of seven years. Five of the nine cases were unvaccinated; three were reported to have one dose of MMR while the vaccination status of one case was unknown. All three vaccinated with one dose of MMR were vaccinated between three and 10 days prior to onset. As the incubation period for measles ranges from seven to 21 days from exposure to onset of fever these three cases were probably incubating measles at the time of vaccination. The measles virus from one of the cases was genotyped by the NVRL and was genotype D4.

Two other localised measles outbreaks were notified during 2013. One of these was an outbreak in a private house with two ill; one of these cases was genotyped by the NVRL and was genotype D4. One was a travel related (United Kingdom) family outbreak with two ill; measles virus from both of these cases were genotyped by the NVRL and were genotype D8.

Of the 51 measles cases in 2013, 16% (n=8) were classified as possible, 20% (n=10) were classified as probable while 65% (n=33) were classified as confirmed, giving a crude confirmed incidence rate of 0.7 per 100,000 population.

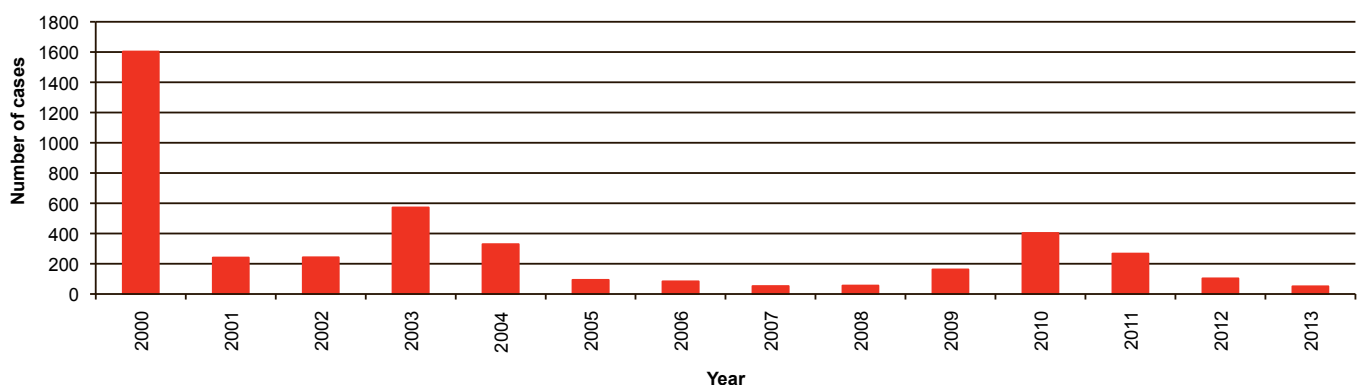


Figure 1. Number of measles cases by year, 2000-2013

The 51 measles cases ranged in age from six months to 35 years; the mean age was six years and the median age was four years. The largest number of cases and the highest age specific incidence rates were in those aged 3-4 years (figures 2 and 3). Of the 51 measles cases, 51% (n=26) were female and 49% (n=25) were male.

Laboratory results were provided for 37 cases in 2013. Sixty-five percent (n=33/51) of cases were laboratory test positive for measles. Four cases were laboratory negative for measles, however, for two of these the specimens were not taken at the optimal time following disease onset. Two of the cases that were laboratory negative for measles were known to have a specimen collected at the optimal time; both of these cases were recorded as epidemiologically linked to a laboratory confirmed case.

Isolates from 13 cases were genotyped by the NVRL. Eleven were genotype D8 and two were genotype D4.

The country of infection was recorded as Ireland for 43 cases, United Kingdom for three cases and was unknown or not reported for five cases.

Measles 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 catch up campaign started in October 2012 and continued during 2013. During the MMR catch up campaign the HSE offered a dose of MMR vaccine to second level students and primary school children who had not completed (or were not sure they had) their two dose MMR vaccination schedule.

Vaccination data were reported for 90% (n=46/51) of measles cases in 2013. Twenty-nine percent (n=15/51) of cases were unvaccinated; of these only six percent (n=3/51) were less than 12 months of age.

Fifty-three percent (n=27/51) of cases were reported to have one dose of MMR vaccine; the majority (93%, n=25/27) of these were less than six years of age. Eighty one percent (n=22/27) of those reported to have one dose of MMR were classified as confirmed or probable. Ninety three percent (n=26/27) with one dose of MMR had a vaccination date reported. Fifteen percent (n=4/26) of these were vaccinated between one and 10 days prior to onset and were probably incubating measles at the time of vaccination.

Four cases (8%, n=4/51) were reported as having received two doses of MMR. Three of these cases had both vaccination dates reported; one of these was vaccinated with the second dose one day prior to onset. One of the cases with two MMR doses was classified as confirmed.

Five cases were reported as hospitalised, representing ten percent (n=5/51) of all cases. The mean age of hospitalised cases was 10 years while the median age was four years (range two to 35 years). All five cases were classified as confirmed. Length of hospitalisation was reported for all five cases with a median duration of stay of four days (range one to seven days). One hospitalised case had no MMR details reported, one was unvaccinated, two cases had one dose of MMR and one case had two doses of MMR.

Reported complications of measles included pneumonia (2%, n=1/43) and ear infection (n=2).

Of the 51 cases, the setting where the case most likely acquired measles was reported as home (29%, n=15), primary school (24%, n=12), overseas (6%, n=3), day-care or pre-school (2%, n=1), work (2% n=1), and was unreported for the remainder (37%, n=19).

The figures presented above are based on data extracted from the Computerised Infectious Disease Reporting (CIDR) system on 10th September 2014, however, this report excludes two cases that were laboratory negative for measles and were not

Table 1. Number of measles cases and the crude incidence rate per 100,000 population (CIR) by HSE Area in 2013

HSE Area	Number	CIR
HSE E	19	1.2
HSE M	1	0.4
HSE MW	2	0.5
HSE NE	1	0.2
HSE NW	1	0.4
HSE SE	22	4.4
HSE S	2	0.3
HSE W	3	0.7
Total	51	1.1

epidemiologically linked to a confirmed measles case. These figures may differ slightly from those published previously due to ongoing updating of notification data on CIDR.

WHO require information on discarded measles cases ie measles cases investigated and who were found not to meet the case definition. A method for capturing the number of these cases is in place since July 1st 2013. The HSE Areas reported the number of discarded CIDR cases to HPSC. For July to December 2013 41 cases were discarded from CIDR as following investigation they were not considered to be measles cases. Discarded cases are not available in CIDR for reporting and are therefore not included in the analysis above.

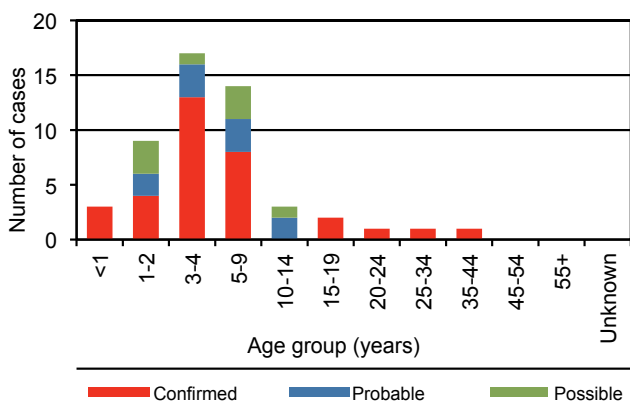


Figure 2. Number of measles cases in 2013 by age group and case classification

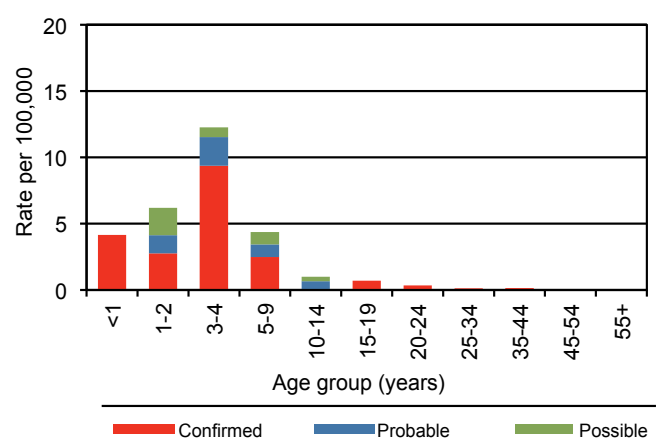


Figure 3. The age specific incidence rate (per 100,000) of measles cases in 2013 by case classification