

1.2 Measles

Summary

Number of cases, 2012: 103
 Number of confirmed cases, 2012: 26
 Crude incidence rate, 2012: 2.2/100,000
 Crude confirmed incidence rate, 2012: 0.6/100,000

In 2012, there were 103 measles cases (2.2/100,000) notified compared to 267 cases (5.8/100,000) in 2011 and 403 cases (8.8/100,000) in 2010. Measles cases by HSE Area and week and month of notification in 2012 are shown in figure 1. Sixty-eight percent (n=70/103) of cases in 2012 were notified from early May to late June (Weeks 18-25). This increase in cases was mainly due

to a measles cluster (n=59) in teenagers in West Cork in the HSE-S. The probable country of infection of the first case in the outbreak was Portugal. The infection then spread to their relatives and school contacts. Ninety-percent (n=53/59) of cases in this outbreak were unvaccinated. The HSE-S outbreak and control measures are described in detail in Epi-Insight.¹ The majority (62%, n=64/103) of cases notified in Ireland in 2012 and the highest crude incidence rate was in the HSE-S (table 1).

In 2012, new case definitions were introduced in Ireland. Two of the changes to the measles case definition include a change to the definition of a confirmed case and introduction of a probable case classification.

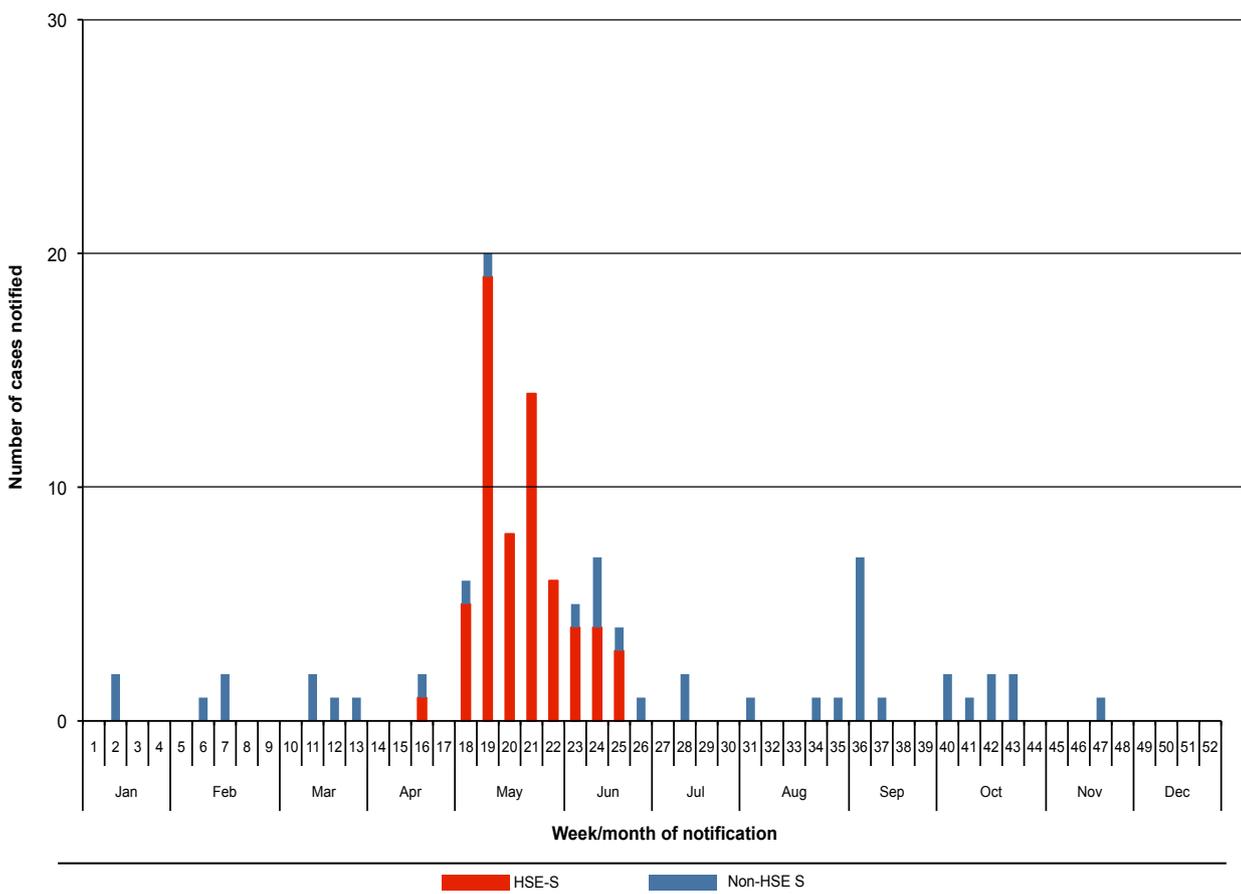


Figure 1. Number of notified measles cases by week and month in 2012 and by HSE Area
 HSE-S indicates measles cases notified in the HSE-S
 Non HSE-S indicates measles cases notified in the HSE-E, M, MW, NE, NW, SE and W

Under the previous case definition a measles case classified as confirmed was a case that was laboratory confirmed in absence of recent vaccination or a clinically compatible case which was epidemiologically linked to a laboratory confirmed case. Under the new 2012 measles case definition a measles case classified as confirmed is any person not recently vaccinated and meeting the clinical and the laboratory criteria. A probable case is any person meeting the clinical criteria and with an epidemiological link to a laboratory confirmed case. The case definitions are available at www.hpsc.ie. Of the 103 measles cases notified in 2012, 23% (n=24) were classified as possible, 51% (n=53) were classified as probable while 25% (n=26) were classified as confirmed, giving a crude confirmed incidence rate of 0.6 per 100,000 population.

In 2012, measles cases ranged in age from five months to 40 years; with a mean age of twelve years and a median age of thirteen years. The number of cases by age group and the age specific incidence rates are shown in figures 2 and 3. The largest number of cases and the highest age specific incidence rates were in those aged 10-14 years and 15-19 years (figures 2 and 3). Of the 103 measles cases, 54% (n=56) were female and 46% (n=47) were male.

Laboratory results were provided for 34% (n=35/103) of cases in 2012. Twenty-five percent (n=26/103) of cases were laboratory test positive for measles. The laboratory results for four percent (n=4/103) were recorded as inconclusive/weakly positive.

Five percent (n=5/103) of cases were laboratory negative for measles, however, for 40% (n=2/5) of these the specimens were not taken at the optimal time following disease onset. Sixty percent (n=3/5) of the cases that were laboratory negative for measles were known to have a specimen collected at the optimal time. All of these were classified as possible 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.

Vaccination data were reported for 88% (n=91/103) of measles cases in 2012. Seventy-three percent (n=75/103) of cases were unvaccinated; of these only five percent (n=4/75) were less than 12 months of age.

Fourteen percent (n=14/103) of cases were reported to have one dose of MMR vaccine; the majority (71%, n=10/14) of these were less than six years of age. Sixty-four percent (n=9/14) of those reported to have one dose of MMR were classified as confirmed or probable. Ninety-three percent (n=13/14) with one dose of MMR had a vaccination date reported.

Two percent (n=2/103) of cases were reported as having received two doses of MMR. One of these cases had both vaccination dates reported and was classified as confirmed.

Seven cases were reported as hospitalised, representing seven percent (n=7/103) of all cases. The median and mean age of hospitalised cases was 16 years (range one to 33 years). Four (57%, n=4/7) hospitalised cases were classified as confirmed, two were classified as probable (29%, n=2/7) and one (14%, n=1/7) as possible. Length of hospitalisation was reported for all seven cases with a median duration of stay of two days (range one to five days). Of the seven hospitalised cases, two (29%) had no MMR details reported while four (57%) were unvaccinated. One case (14%) was reported to have one dose of MMR; this case had a vaccination date recorded.

Reported complications of measles included pneumonia (3%, n=1/31), chest infection (n=2), dehydration (n=1) and ear infection (n=1).

Table 1. Number of notified measles cases and the crude incidence rate per 100,000 population (CIR) by HSE Area in 2012

HSE Area	Number	CIR
HSE-E	24	1.5
HSE-M	0	0.0
HSE-MW	2	0.5
HSE-NE	5	1.1
HSE-NW	3	1.2
HSE-SE	0	0.0
HSE-S	64	9.6
HSE-W	5	1.1
Total	103	2.2

Of the 103 cases, the setting where the case most likely acquired measles was reported as secondary school (34%, n=35), home (26%, n=27), day-care or pre-school (7%, n=7), overseas (4%, n=4), summer camp/school (1%, n=1), third level (1%, n=1) and was unreported for the remainder (27%, n=28).

Three localised measles outbreaks were notified during 2012, with 68 associated cases of illness. The outbreak locations included one general outbreak (family and school outbreak) with 59 ill, one outbreak in a childminders with 6 ill and one crèche outbreak with 3 ill.

The figures presented in this summary are based on data extracted from the Computerised Infectious Disease Reporting (CIDR) system on 30th August 2013. These figures may differ slightly from those published previously due to ongoing updating of notification data on CIDR.

1. Cotter S, Ryan F, MacSweeney Mary, Coughlan H. Measles outbreak West Cork May 2012. Epi-Insight. 2012;13(6). Available online: <http://ndsc.newsweaver.ie/epiinsight/dllmrzt7dc07guh3jcrzt?a=1&p=24661455&t=17517774>

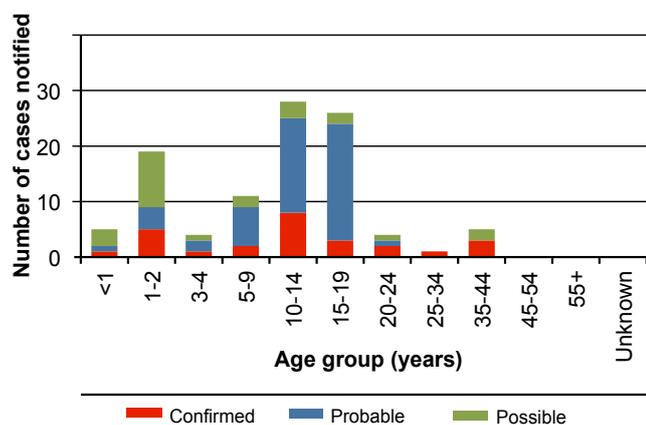


Figure 2. Number of notified measles cases in 2012 by age group and case classification

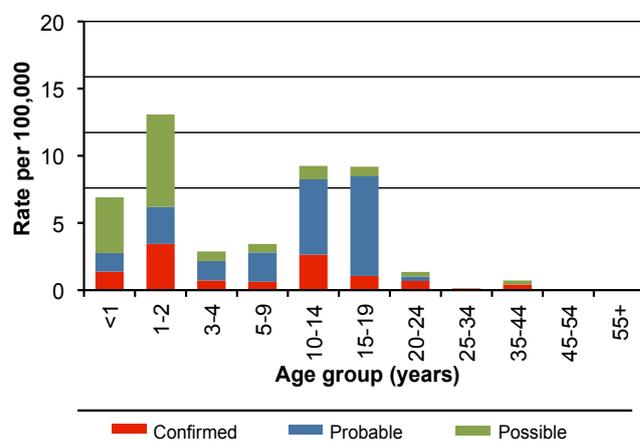


Figure 3. The age specific incidence rate (per 100,000) of notified measles cases in 2012 by case classification