

# 1.6 Pertussis

## Summary

Number of cases, 2013: 174  
 Number of cases, 2012: 458  
 Crude incidence rate, 2013: 3.8/100,000

Following an increase in pertussis in 2012 with 458 notifications, pertussis declined in 2013 with 174 cases (3.8/100,000) notified (figures 1 and 2). The majority (62%) of cases were notified in the first five months of 2013 (figure 3).

Of the 174 cases in 2013, 64% (n=112) were classified as confirmed, five percent (n=9) were classified as probable and 30% (n=53) were classified as possible.

The largest number of cases was notified in the HSE E while the highest crude incidence rate was in the HSE SE (table 1).

In 2013, the largest number of cases (n=51/174, 29%) and the highest age-specific incidence rate (70/100,000) were in children aged less than one year with a quarter (n=43/174, 25%) of all cases aged less than six months (figures 4 and 5). Fifty-two percent of cases (n=90) were female and 48% (n=84) were male.

One death occurred in a child aged less than one year; this child was reported to have several underlying conditions.

In Ireland it is recommended that children be vaccinated with an acellular pertussis containing vaccine at two, four and six months of age and a booster dose at four to five years of age. In 2008, the National Immunisation Advisory

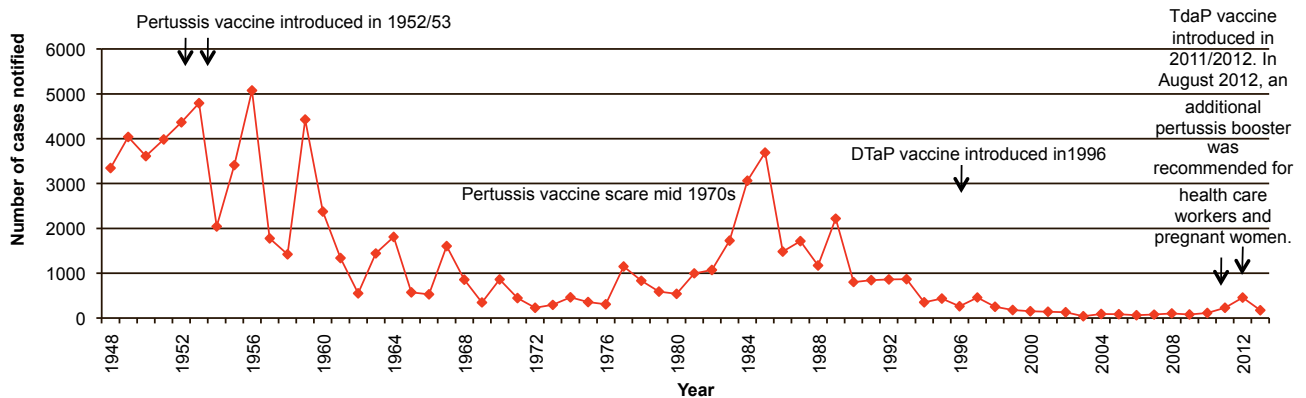


Figure 1. Number of notified pertussis cases in Ireland by year, 1948-2013  
 1948-June 2000 data collated by DoHC  
 July 2000-2013 data collated by HPSC

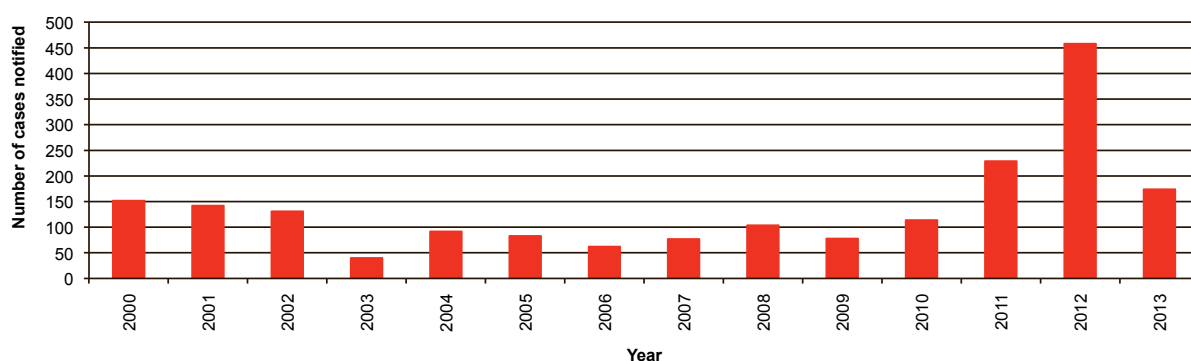


Figure 2. Number of notified pertussis cases in Ireland by year, 2000-2013

Committee (NIAC) recommended a booster with low dose acellular pertussis vaccine for children aged 11-14 years. The adolescent pertussis booster was introduced into the school programme, in 19 LHOs, in 2011 and to all schools in 2012. In August 2012, an additional pertussis booster was recommended for health care workers and pregnant women; please see [www.immunisation.ie](http://www.immunisation.ie) for additional information on pertussis vaccination recommendations.

In 2013, the vaccination status was reported for nearly two thirds (n=111/174, 64%) of pertussis cases. Twenty eight percent of cases (n=49/174) were unvaccinated; these cases ranged in age from three weeks to 62 years, with 63% (n=31/49) of these cases aged less than six months. Twenty-seven percent of the unvaccinated cases (n=13/49) were less than two months of age and were therefore not eligible for pertussis vaccine in the Irish schedule.

Fourteen percent (n=25/174) of cases were reported as incompletely vaccinated, with 40% (n=10/25) of these less than six months of age and were therefore not eligible for three doses of pertussis vaccine in the Irish schedule.

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

HSE Area	Number	CIR
HSE E	68	4.2
HSE M	4	1.4
HSE MW	11	2.9
HSE NE	8	1.8
HSE NW	8	3.1
HSE SE	39	7.8
HSE S	23	3.5
HSE W	13	2.9
<b>Total</b>	<b>174</b>	<b>3.8</b>

Twenty-one percent (n=37/174) of cases were reported as completely vaccinated for their age; 54% (n=20/37) of these were reported to have had three doses of pertussis vaccine, 27% (n=10/37) were reported as having four doses while the number of doses was not specified for the remainder.

Ten localised pertussis outbreaks were notified during 2013, with 28 associated cases of illness. Nine were family outbreaks (with 25 ill) and one was a school outbreak (with three ill).

The figures presented in this summary are based on data extracted from the Computerised Infectious Disease Reporting (CIDR) system on 5<sup>th</sup> September 2014. These figures may differ slightly from those published previously due to ongoing updating of notification data on CIDR.

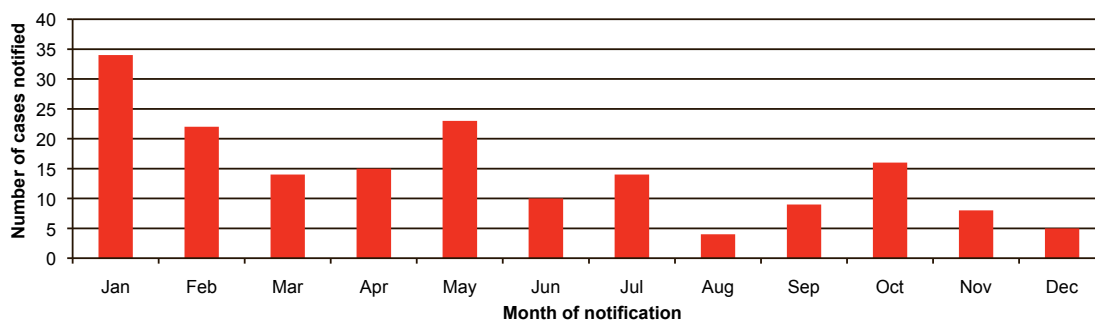


Figure 3. Number of notified pertussis cases in 2013 by month of notification

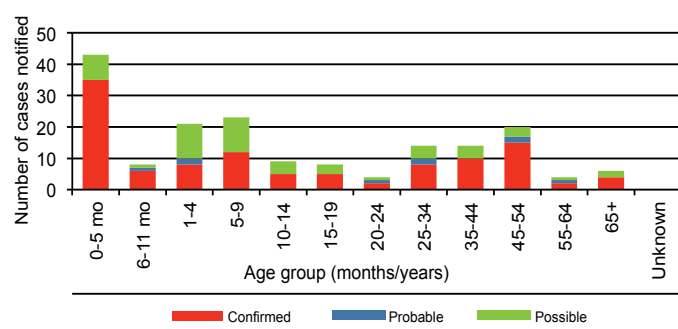


Figure 4. Number of notified pertussis cases in 2013 by age group and case classification. 'Mo' in graph indicates months i.e. 0-5 months and 6-11 months, the remaining age groups are in years

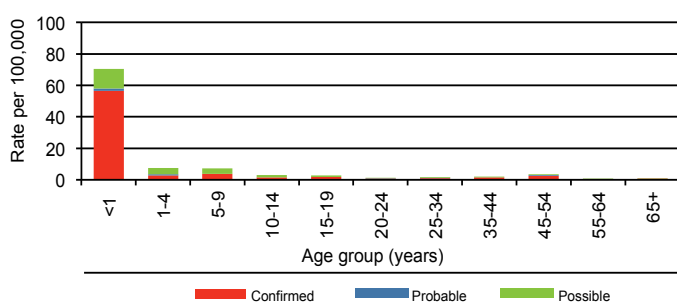


Figure 5. The age specific incidence rate (per 100,000 population) of notified pertussis cases in 2013 by case classification