

1.6 Pertussis

Summary

Number of cases, 2011: 229
 Number of cases, 2010: 114
 Crude incidence rate, 2011: 5.0/100,000

Following the introduction of pertussis vaccine in the 1950s the number of pertussis cases notified declined, however, following a pertussis vaccine scare in the mid-1970s with decline in pertussis vaccination uptake the notifications started to increase again (figure 1). This trend was reversed in the 1990s as notifications decreased again to a low of 40 cases in 2003 (figure 1). Between 2004 and 2010 there was on average 87 cases notified each year. In 2011, the number of pertussis cases notified doubled compared to 2010 with two

hundred and twenty nine cases (5.0/100,000) notified in 2011 compared to 114 cases in 2010 (figure 2).

Of the 229 cases in 2011, 113 (49%) were classified as confirmed, 31 (14%) were classified as probable and 85 (37%) were classified as possible.

In 2011, the largest number of cases (n=85, 37%) and the highest age-specific incidence rate (117/100,000) were in children aged less than one year with a third (n=79/229, 34%) of all cases aged less than six months (figures 3 and 4). One death occurred in a one month old. One hundred and thirty six cases (59%) were female and 92 (40%) were male while gender was unknown for one.

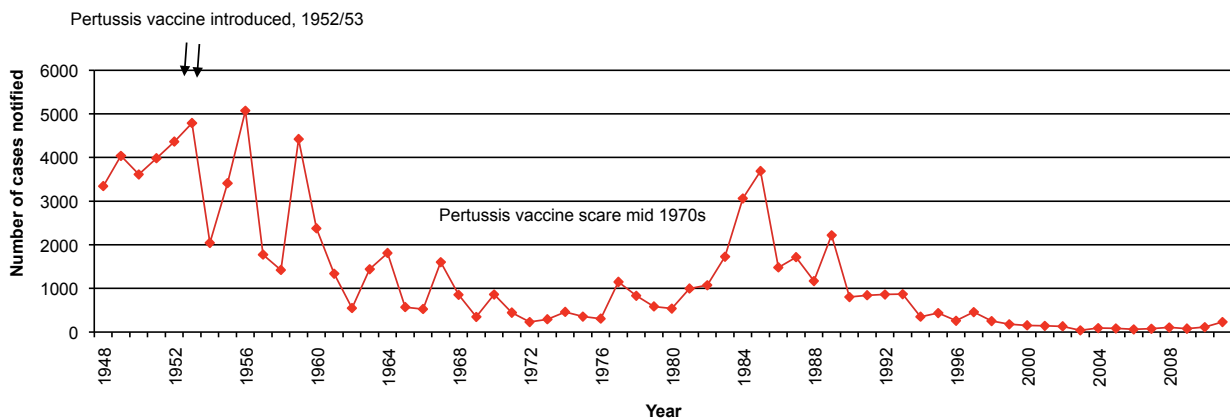


Figure 1. Number of notified pertussis cases in Ireland by year, 1948-2011
 1948-June 2000 data collated by DoHC
 July 2000-2011 data collated by HPSC

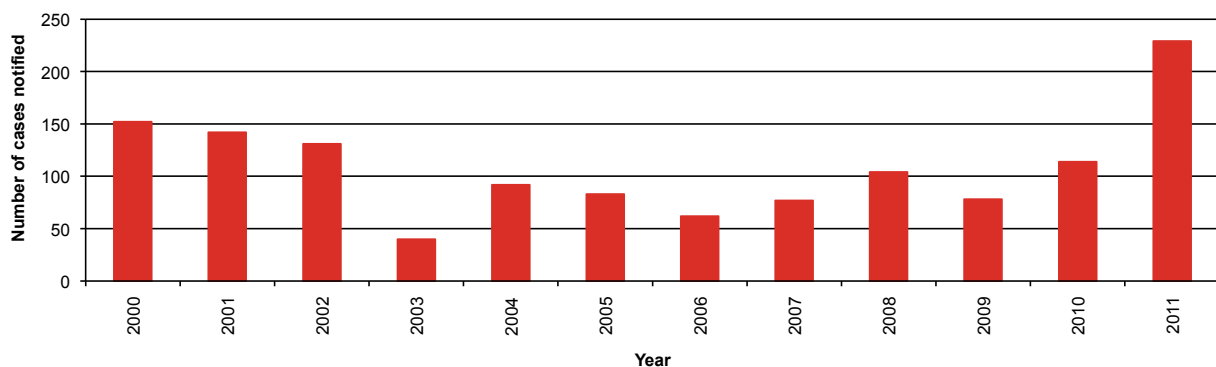


Figure 2. Number of notified pertussis cases in Ireland by year, 2000-2011

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 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 parts of the country) in 2011 and is being rolled out to all schools in 2012.

In 2011, the vaccination status was reported for 148 (65%) pertussis cases. Nearly one third of cases (n=74/229, 32%) were unvaccinated; these cases ranged in age from three weeks to 74 years, with over a half (n=42/74, 57%) of these cases aged less than six months. Nearly one third of the unvaccinated cases (n=23/74, 31%) were less than two months of age and were therefore not eligible for pertussis vaccine in the Irish schedule. Thirty-six (n=36/229, 16%) cases were reported as incompletely vaccinated, but these included 21 cases (n=21/36, 58%) who were less than six months of age and were therefore not eligible for three doses of pertussis vaccine in the Irish schedule. Thirty-eight (n=38/229, 17%) cases were reported as completely vaccinated for their age; 16 of these were reported

to have had three doses of pertussis vaccine, 14 were reported as having four doses, one was known to have the booster dose while the number of doses was not specified for the remainder. Of the 14 cases reported as having four doses, four (29%) were classified as confirmed.

Twenty-two localised pertussis outbreaks were notified during 2011, with 90 associated cases of illness. Eighteen were family outbreaks (with 69 ill), two were community outbreaks (with 12 ill) and two were school outbreaks (with nine ill).

The figures presented in this summary are based on data extracted from the Computerised Infectious Disease Reporting (CIDR) system on 4th September 2012. These figures may differ slightly from those published previously due to ongoing updating of notification data on CIDR.

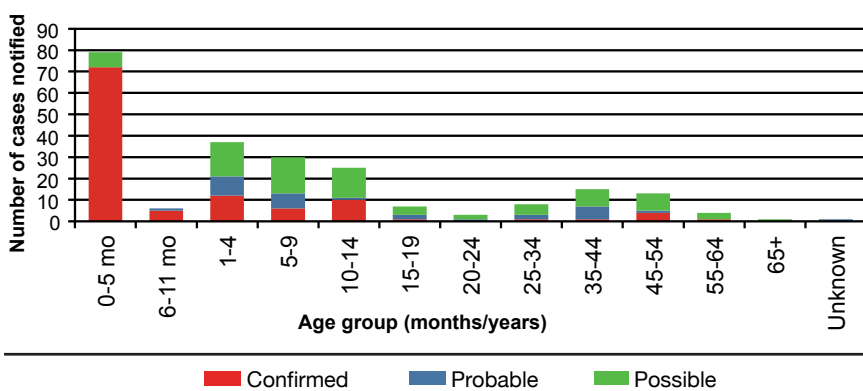


Figure 3. Number of notified pertussis cases in 2011 by age group and case classification.

"Mo" in graph indicates months i.e. 0-5 months and 6-11 months, the remaining age groups are in years

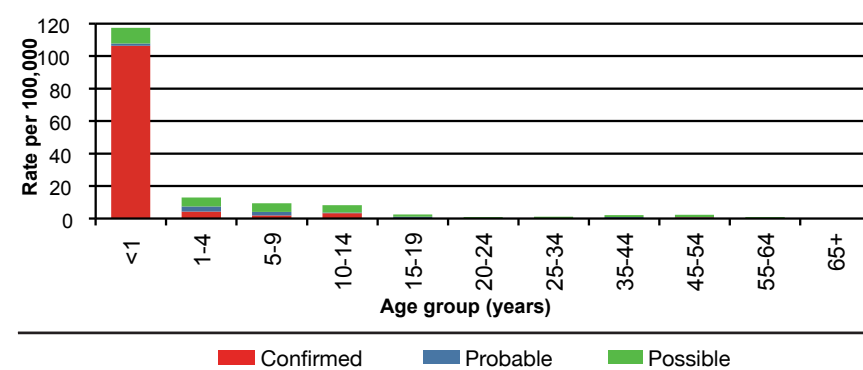


Figure 4. The age specific incidence rate (per 100,000 population) of notified pertussis cases in 2011 by case classification