

Notifications of vaccine preventable diseases in Australia.

Quarterly report (January-March 2000)

Heather F Gidding, Janaki Amin, Peter B McIntyre

National Centre for Immunisation Research and Surveillance of Vaccine Preventable Diseases,
Royal Alexandra Hospital for Children, Westmead, NSW¹

Abstract

Vaccine preventable disease notifications for Australia with disease onset dates between January and March 2000 are reviewed. During this quarter, numbers of notifications for *Haemophilus influenzae* type b disease and measles were the lowest ever recorded, while those for rubella were the lowest recorded since before the epidemic of spring 1992. These are promising trends that are likely to represent a true reduction in disease incidence. Numbers of pertussis notifications declined compared with the last quarter of 1999, but remain high, making up 88% of notifications for the vaccine preventable diseases reported here. *Commun Dis Intell* 2000;24:239-241

Keywords: vaccine, immunisation, *Haemophilus influenzae* type b, measles, pertussis, rubella, mumps, tetanus

Introduction

This is the first quarterly report on notification data for diseases targeted by the current standard childhood vaccination schedule (excluding hepatitis B). It includes notifications with disease onset dates between January and March 2000 that were notified by 23 May 2000. Comparisons were made with the first quarters of the previous five years, the last quarter of 1999 and historical data recorded on the current NNDSS database (established in 1991).

Vaccine preventable diseases (VPDs)

Invasive *Haemophilus influenzae* type b disease

There have been 10 or less notifications of *Haemophilus influenzae* type b (Hib) disease per month since 1995. In the first quarter of 2000 there were 3 cases, the lowest number recorded in any quarter. The cases were aged 7 and 10 months and 3 years with one case each from New South Wales, Queensland and Western Australia. The age specific data for invasive Hib disease in the age groups targeted for immunisation (children aged less than 10 years) are shown in Figures 1 and 2.

Figure 1. *Haemophilus influenzae* type b disease notifications, 0 to 4 years age group, Australia, 1995-2000, by quarter

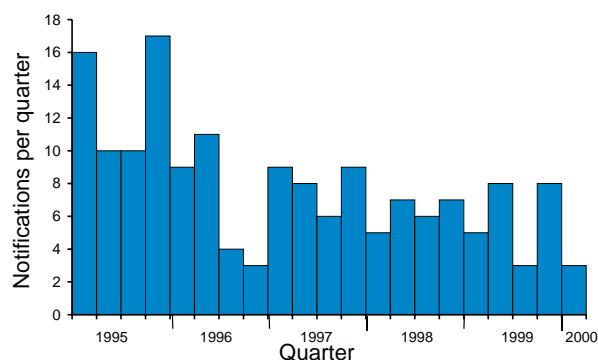
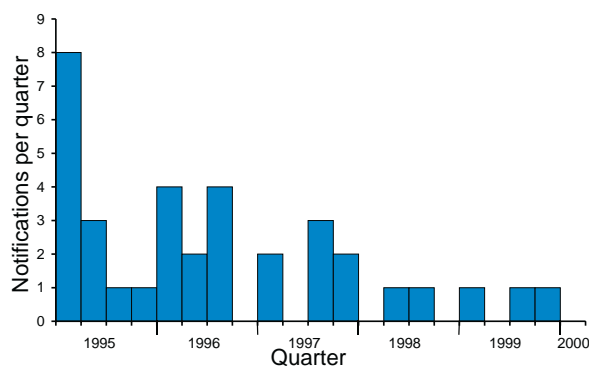
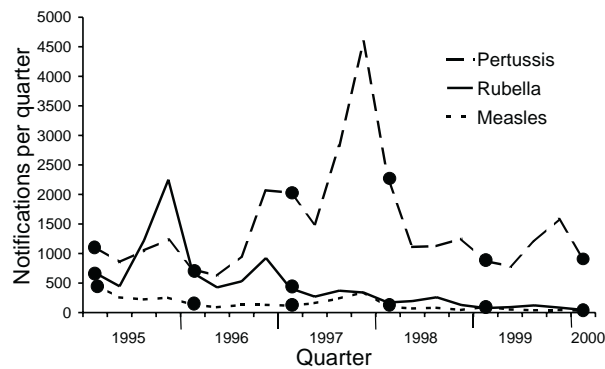


Figure 2. *Haemophilus influenzae* type b disease notifications, 5 to 9 year age group, Australia, 1995-2000, by quarter



1. Corresponding author: Heather F Gidding, The National Centre for Immunisation Research and Surveillance of Vaccine Preventable Diseases, PO Box 3515, Parramatta, NSW, Australia 2124. Telephone: (02) 9845 1255. Fax: (02) 9845 3082. E-mail: heatherg@nch.edu.au

Figure 3. Notifications of measles, pertussis and rubella, Australia, 1995-2000, by quarter¹



1. . indicates first quarter

Measles

Measles notifications for the first quarter of each year have been declining steadily over the past 6 years (Figure 3). There were 31 notifications of measles with an onset date in this quarter. This is the lowest number of notifications ever recorded for any quarter and is less than a third of that for the same quarter last year. Most cases (58%) were aged 15-29 years, with three cases each in the less than one year, 1-4 year and 5-14 year age groups. The remaining four cases were aged 30 to 49 years. There were more males than females (M:F ratio 1.6:1), especially in the adult (>15 years) groups (M:F ratio 2.7:1). A decline in cases from the same quarter last year was seen in all States and Territories except Queensland. Victoria showed the most dramatic decrease as this State experienced a measles outbreak at the beginning of 1999.

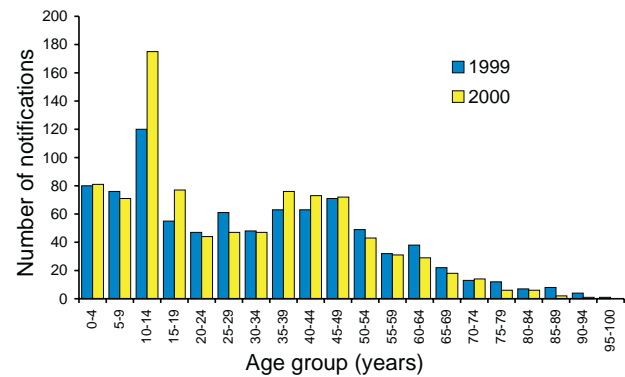
Pertussis

There were 915 notifications for pertussis this quarter, a slight increase overall from the same quarter last year (Figure 3). This increase was most evident in the 10-14 year age group (Figure 4) and in Tasmania, where high numbers of cases were reported for the second half of 1999 and first quarter of this year. However, total numbers this quarter are substantially lower than the peaks in the first quarters of 1997 and 1998 (Figure 3) and the 1,581 notifications for quarter 4 of 1999. Falls from the fourth quarter of 1999 were greatest in Tasmania and Victoria, while Western Australia had the lowest number of cases reported for a quarter since 1992 (seven cases). Most notified cases were aged 10 to 14 years (19%) and 26 (3%) were aged less than 6 months. Females predominated in almost all age groups and overall (M:F ratio 1:1.2).

Rubella

There were 46 cases of rubella notified this quarter (Figure 3). This is the lowest number of cases reported for any quarter since 1992. Equal numbers of males and females

Figure 4. Notifications of pertussis, Australia, first quarters of 1999 and 2000, by age group



were notified overall. However, in the 0-4 year age group, six of the seven cases were female, and males predominated in older age groups. Case numbers peaked in the 20-24 year age group (14 cases), with most cases (60%) aged 15-30 years. Queensland and Victoria recorded fewer than half the number of notifications than they had recorded in the last quarter of 1999, while other States and Territories had similar numbers in these two periods. Compared with the first quarter of 1999, there were fewer cases in all jurisdictions except New South Wales.

Mumps

Numbers of mumps notifications have fluctuated between 28 and 59 per quarter over the past 6 years, with no overall trend either at a State and Territory level or nationally. The number reported this quarter (45 cases) is similar to that for the previous quarter (41 cases), but is higher than for the first quarter of last year (28 cases). All States and Territories except Queensland had similar or increased numbers of notifications compared with quarter 1 in 1999. Western Australia had the greatest increase (from 8 to 15 cases) and reported one third of the cases for this quarter. This is in contrast to the past 5 years in which Victoria reported most (29-51%) of the mumps notifications. Four of the 44 cases with a known age were aged less than 10 years, with the highest number (11 cases) reported in the 20-24 year age group. This is a change from previous years when cases aged less than 10 years predominated. There were slightly more males overall (M:F ratio 1.1:1) and in most age groups.

Other VPDs

There were no cases of polio or diphtheria and three cases of tetanus reported for this quarter. The tetanus cases were notified from New South Wales, Queensland and South Australia. One case was aged 50 years whilst the other two cases were aged at least 75 years; two were male. The number and age distribution of the tetanus cases is similar to that reported in each quarter of the previous 5 years where there were between one and four cases each quarter and 85% were aged at least 50 years.