

Communicable diseases surveillance

Highlights for 2nd quarter, 2007

Communicable diseases surveillance highlights report on data from various sources, including the National Notifiable Diseases Surveillance System (NNDSS) and several disease specific surveillance systems that provide regular reports to Communicable Diseases Intelligence. These national data collections are complemented by intelligence provided by state and territory communicable disease epidemiologists and/or data managers. This additional information has enabled the reporting of more informative highlights each quarter.

The NNDSS is conducted under the auspices of the Communicable Diseases Network Australia. NNDSS collates data on notifiable communicable diseases from state and territory health departments. The Virology and Serology Laboratory Reporting Scheme (LabVISE) is a sentinel surveillance scheme which collates information on laboratory diagnosis of communicable diseases. In this report, data from the NNDSS are referred to as 'notifications' or 'cases' while data from the LabVISE scheme are referred to as 'laboratory reports'.

Figure 1 shows the changes in selected disease notifications with an onset in the 2nd quarter (1 April to 30 June) of 2007, compared with the 5-year mean for the same period.

Notifications were above the five-year mean for chlamydia, cholera, hepatitis B (unspecified), leprosy, mumps, Shiga-like toxin-producing *Escherichia coli*/verotoxin-producing *E. coli* (SLTEC/VTEC) and syphilis of less than two years duration. Notifications were below the 5-year mean for hepatitis B (incident), invasive pneumococcal disease, measles and pertussis.

Bloodborne disease

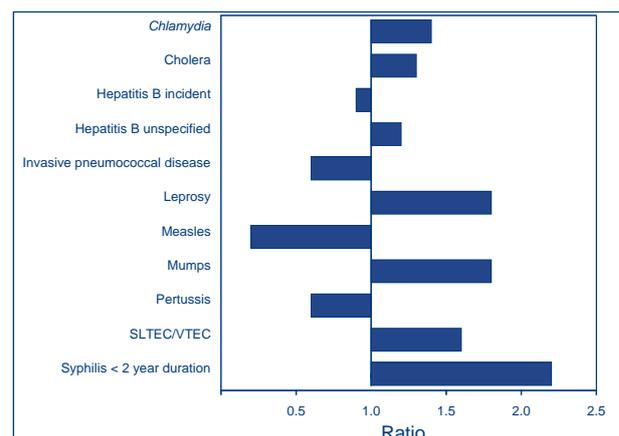
Hepatitis B unspecified

There were 1,802 cases of hepatitis B unspecified infections reported to NNDSS in the second quarter of 2007, giving a national notification rate of 35 cases per 100,000 population. The 30–34 year age group for males (75 cases per 100,000 population) and females (70 cases per 100,000 population) had the highest rate of notification.

Compared with the same period in 2006, hepatitis B (unspecified) notifications have increased by 22%. The major increases have been in New South Wales (29%), Victoria (17%) and Western Australia (46%). The Northern Territory recorded the highest notification rate with 83 cases per 100,000 population, however this was 70% less notifications compared with the same period in 2006. The increase in notifications is thought to be due to the detection of cases among refugee and humanitarian arrivals.

In contrast, hepatitis B (incident) notifications remain below the five-year mean. Rates of hepatitis B incident and hepatitis B unspecified are shown in Figure 2.

Figure 1. Selected* diseases from the National Notifiable Diseases Surveillance System, comparison of provisional totals for the period 1 April to 30 June 2007 with historical data*



* Selected diseases are chosen each quarter according to current activity. Five year averages and the ratios of notifications in the reporting period in the five year mean should be interpreted with caution. Changes in surveillance practice, diagnostic techniques and reporting, may contribute to increases or decreases in the total notifications received over a five year period. Ratios are to be taken as a crude measure of current disease activity and may reflect changes in reporting rather than changes in disease activity. See Table 1 for a list of all diseases.

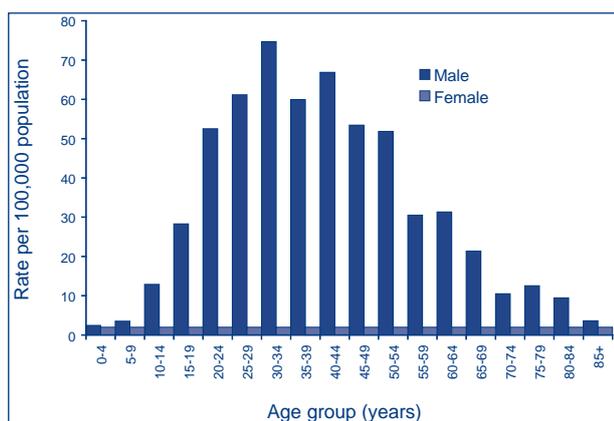
† Ratio of current quarter total to mean of corresponding quarter for the previous five years.

Vaccine preventable diseases

Measles

There were three cases of measles reported in the second quarter, one each from New South Wales, Queensland and Victoria. There were two males

Figure 2. Notification rates of incident hepatitis B and hepatitis B (unspecified), Australia, 1995 to 2007* by year†



* Annualised rate to 30 June 2007.

† Year of diagnosis for incident hepatitis B; year of notification for unspecified hepatitis B.

and one female reported with an age range between 19–30 years. Two cases had returned from an overseas trip (from Vietnam and India). One case had an unknown vaccination history and the other two were unvaccinated.

Mumps

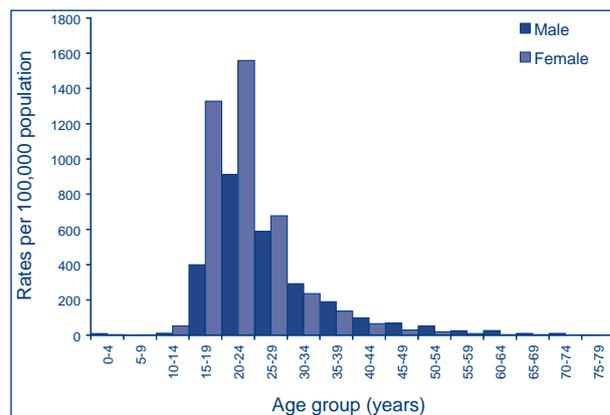
Eighty-seven notifications of mumps were notified during the quarter; this was 1.8 times the 5-year mean for the same period. The majority of notifications were from New South Wales with 53 cases (61%). The age ranged between 3 to 88 years, with the highest notification range in the 25–29 year age group.

Mumps in the 25–29 year age group probably represents a susceptible cohort of individuals who have not been immunised. Mumps vaccine was made available in Australia in 1980 for use at 12–15 months of age and was combined with the measles vaccine in 1982. Therefore, no childhood doses of mumps vaccine were available to individuals in the 25–34 year age group and uptake of vaccine in older individuals from the 15–24 year age group was likely to be poor.

Pertussis

There were 1,185 notifications of pertussis in the quarter, which was only 43% of the number of notifications in the same period in 2006 (2,727). Pertussis notifications have declined since the end of 2006 (Figure 3), largely in New South Wales in part due to changes in the cut-off for positivity in a widely used pertussis serological diagnostic test.

Figure 3. Notifications of pertussis, Australia, 1 January 2005 to 30 June 2007, by week of onset



Quarantinable diseases

Cholera

One case of cholera was notified in the second quarter of 2007. The case was a 44-year-old male from Sydney, New South Wales. The infecting organism was identified as *Vibrio cholerae* 01 El Tor, serotype Ogawa, and was acquired in India.

The average number of cholera cases notified over the last five years is 1.3 cases year-to-date (5 cases in 2002, 1 case in 2003, 5 cases in 2004, 3 cases in 2005, 3 cases in 2006 and 2 cases year-to-date 2007). Apart from the three cases in 2006, all cases since 2002 have been imported.

Cholera is one of seven human diseases subject to quarantine controls in Australia and is one of the diseases reportable to the World Health Organization.

Other bacterial infections

Leprosy

Five cases of leprosy were notified this quarter. Notifications were from New South Wales (1 case), Queensland (2 cases), South Australia (1 case) and Western Australia (1 case). There were four males and one female notified with an age range between 30–83 years. Two cases were in Indigenous people, two in non-Indigenous people and the indigenous status of the fifth case was unknown.

Acknowledgments

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