

Communicable diseases surveillance

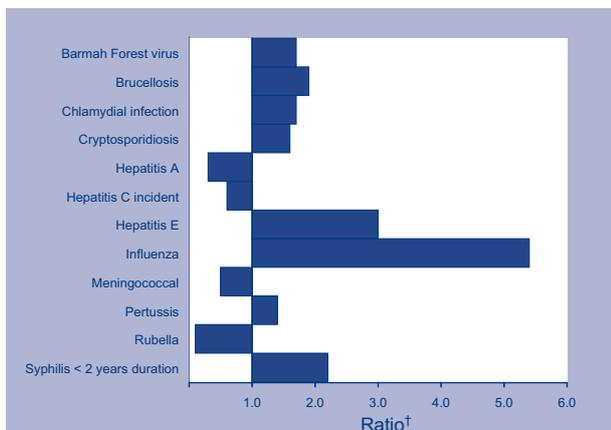
Highlights for fourth quarter, 2004

Communicable disease 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 or 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', and those from ASPREN are referred to as 'consultations' or 'encounters' while data from the LabVISE scheme are referred to as 'laboratory reports'.

Figure 1 shows the changes in disease notifications with an onset in the fourth quarter 2004 compared with a 5-year mean for the same period. The number of notifications received in the quarter was above the five year mean for Barmah Forest virus infection, brucellosis, chlamydial infection, cryptosporidiosis, hepatitis E, influenza, pertussis and syphilis (less than 2 years duration). The number of notifications received was below the five year mean for hepatitis A, hepatitis C (incident), meningococcal infections and rubella.

Figure 1. Selected* diseases from the National Notifiable Diseases Surveillance System, comparison of provisional totals for the period 1 October to 31 December 2004 with historical data†



* Selected diseases are chosen each quarter according to current activity.

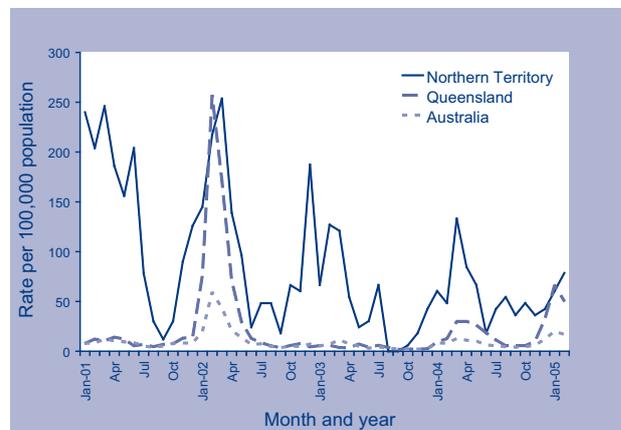
† Ratio of current quarter total to mean of corresponding quarter for the previous five years.

Gastrointestinal illness

Cryptosporidiosis

There were 443 notifications of cryptosporidiosis infections during the quarter. This was 60 per cent above the historical mean (Table 2). One hundred and ninety-two notifications (43% of the total for the quarter) were reported from Queensland, giving a rate of 19.8 cases per 100,000 population. Rates in the Northern Territory were also high in the quarter – 44 cases per 100,000 population (22 cases). Rates in the Northern Territory and Queensland from 2001 to 2004 by month of onset, compared with national notification rates are shown in Figure 2.

Figure 2. Notification rates of cryptosporidiosis, the Northern Territory, Queensland compared with national rates, 2001 to 2004, by month of onset



Hepatitis E

There were eight cases of hepatitis E infection in the quarter – two from New South Wales, three from Queensland, two from Victoria and one from Western Australia. This was three times the average number of cases reported in this period over the past five years. All cases are assumed to have acquired their infection overseas.

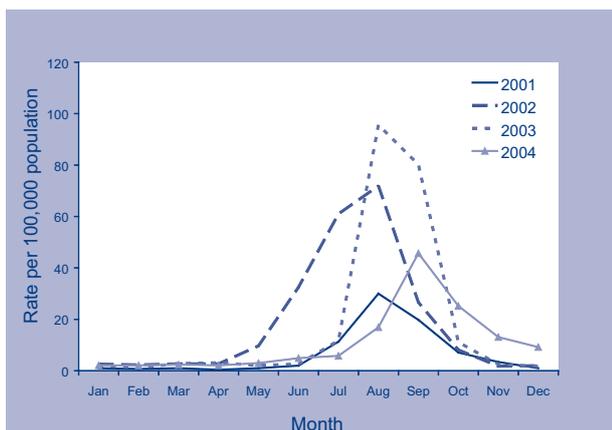
Vaccine preventable diseases

Influenza

There were 756 cases of laboratory-confirmed influenza in the fourth quarter of 2004. This was more than five times the average number of cases for this time of the year. Three hundred and fifty-eight cases (47% of total reports) were from New South Wales. A number of these cases may have been diagnosed on the basis of a single high titre of antibodies to influenza virus and may not have had influenza. The national surveillance case definition for influenza is currently under review.

The rates of influenza by month are shown in Figure 3. In 2004, the peak of influenza was significantly lower and later in the year than in previous years, while rates in the fourth quarter were higher than in the previous three years.

Figure 3. Notification rates of laboratory-confirmed influenza, Australia, 2001 to 2004, by month of notification



Measles

There were 15 cases of measles reported during the quarter, which was only half the five-year average for this quarter.

Gary Dowse of the Communicable Disease Control Branch, Health Department of Western Australia provided the following comments on the response to an outbreak of measles in the Pilbara region during the quarter. 'An outbreak of six cases of confirmed measles occurred in November, all in Aboriginal residents of the Pilbara region town of Port Hedland. Five cases were women ranging in age from 19 to 36 years, and the final case was a 7-month-old boy. None of the cases had travelled, and the source for the outbreak was not identified. Each of the cases had multiple visits to the outpatients department of the local hospital and/or to the Aboriginal Medical Service clinic, necessitating considerable contact tracing, and provision of post-exposure measles-mumps-rubella (MMR) vaccine or immunoglobulin where appropriate. Because of concerns about levels of measles immunity in young adults, and particularly among Aboriginal people, MMR vaccine was offered at a number of special community clinics in the town, including shopping centres, and through general practitioners, resulting in vaccination of around 1,000 adults.'

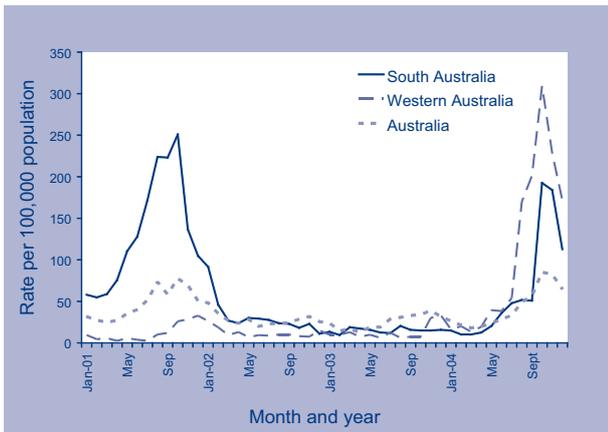
A measles case in a 25-year-old traveller, who travelled widely in northern Australia while infectious, was reported in the Northern Territory. Extensive follow-up of possible contacts did not identify any secondary cases.

In Victoria, a cluster of three cases of measles was reported in unvaccinated persons; two men aged 26 and 30 years and a two-year-old child.

Pertussis

There were 3,156 cases of pertussis reported in the fourth quarter most of which were reported from New South Wales (1,007 notifications), Queensland (445 notifications) and Western Australia (904 notifications). The notification rates were highest in Western Australia (182 cases per 100,000 population) and South Australia (103 cases per 100,000 population, Table 3). Trends in notification rates of pertussis in South Australia and Western Australia are shown against the national rates in Figure 4.

Figure 4. Rates of pertussis in South Australia and Western Australia compared with national rates, 2001 to 2004, by month of onset



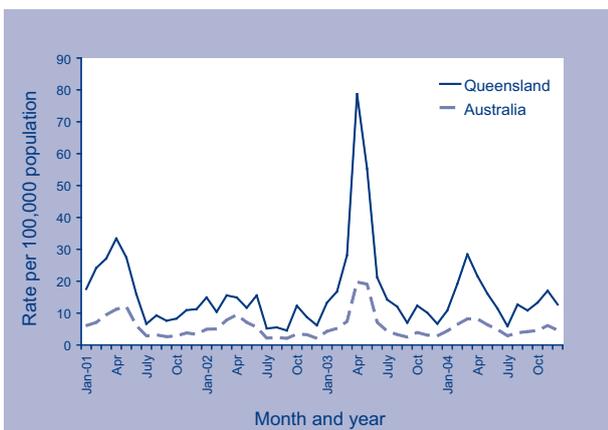
Vectorborne diseases

Barmah Forest virus infection

There were 257 notifications of Barmah Forest virus infection in the quarter, which was 70 per cent higher than the five year mean for the quarter. One hundred and thirty-nine notifications (54%) were from Queensland, which reported rates above 5-year mean in southern Queensland and Cairns.

Rates of Barmah Forest virus infection in Queensland are shown in Figure 5.

Figure 5. Notification rates of Barmah Forest virus infections, Queensland, compared to national rates, 2001 to 2004, by month of onset



Japanese encephalitis virus

A single case of Japanese B encephalitis was reported from Queensland. The case was probably exposed to Japanese encephalitis (JEV) on Thursday Island or in Papua New Guinea and had been vaccinated against JEV one year previously.

Zoonoses

Ornithosis

There were 48 cases of ornithosis during the quarter, 28 of which were from Victoria. In the fourth quarter of 2004, Victoria reported an outbreak of ornithosis in a poultry and game bird processing plant in Victoria.

Q fever

There were 101 cases of Q fever notified during the quarter. While New South Wales reported the largest number of cases (52), the highest rates were reported from South Australia (6.3 cases per 100,000 population; 24 cases).

An outbreak of Q fever occurred among persons attending sheep saleyards in rural South Australia in December 2004. In total, 23 persons were linked to this outbreak. An analytical study identified a statistically significant association between human illness and attendance at the saleyard. Intervention strategies including vaccination and dust control were implemented. Many of the cases were unvaccinated sheep and grain farmers.

Other bacterial infections

Meningococcal infections

There were 96 notifications of meningococcal infection during the quarter, which was half the average number reported in the quarter over the previous 5 years. Of the 96 cases, meningococcal serogroup data were available for 65 cases. There were 56 serogroup B (86%), eight serogroup C (12%) and a single case of serogroup W135.

With thanks to: Gary Dowse (Health Department of Western Australia) and Ingrid Tribe, Department of Health South Australia.