Communicable Diseases Surveillance

Presentation of NNDSS data

In the March 2000 issue an additional summary table was introduced. Table 1 presents 'date of notification' data, which is a composite of three components: (i) the true onset date from a clinician, if available, (ii) the date the laboratory test was ordered, or (iii) the date reported to the public health unit. Table 2 presents data by report date for information only. In Table 2 the report date is the date the public health unit received the report.

Table 1 now includes the following summary columns: total current month 2000 data; the totals for previous month 2000 and corresponding month 1999; a 5 year mean which is calculated using previous, corresponding and following month data for the previous 5 years (*Morb Mortal Wkly Rep*, 2000:49;139-146); year to date (YTD) figures; the mean for the year to date figures for the previous 5 years; and the ratio of the current month to the mean of the last 5 years.

Highlights for July, 2000

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 who have recently formed a Data Management Network. This additional information has enabled the reporting of more informative highlights each month.*

The NNDSS is conducted under the auspices of the Communicable Diseases Network Australia New Zealand and the CDI *Virology and Serology Laboratory Reporting Scheme (LabVISE) is a sentinel surveillance scheme. In this report, data from the NNDSS are referred to as 'notifications' or 'cases', whereas those from ASPREN are referred to as 'consultations' or 'encounters' while data from the LabVISE scheme are referred to as 'laboratory reports'.*

Three types of data are included in National Influenza Surveillance, 2000. These are sentinel general practitioner surveillance conducted by the Australian Sentinel Practice Research Network (ASPREN), the Department of Human Services (Victoria), the Department of Health (New South Wales) and the Tropical Influenza Surveillance Scheme, Territory Health Services (Northern Territory); laboratory surveillance data from the Communicable Diseases Intelligence *Virology and Serology Laboratory Reporting Scheme (LabVISE); and the World Health Organization Collaborating Centre for Influenza Reference and Research; and absenteeism surveillance conducted by Australia Post. Data from ASPREN are referred to as 'consultations' or 'encounters'. For further information about these schemes, see* Commun Dis Intell *2000;24:9-10.*

Figure 1 illustrates the July 2000 totals for selected diseases as ratios to the mean of their June to August levels for the previous 5 years.

Hepatitis B

There were 30 incident cases of hepatitis B infection in July 2000 - a notification rate of 1.9/100,000 population. Conversely, the notification rate of unspecified hepatitis B decreased from 30-40/100,000 population in previous years to 25.9/100,000 for this month.

Foodborne illness

There was an outbreak of *Salmonella* Ball in the Northern Territory in July 2000 but, to date, no common source has been identified. Eight cases this month is clearly higher than the background rate of *Salmonella* Ball in that region. The 'outbreak' cases have been restricted to eight in Darwin/Palmerston.

Shigella

Six of the 26 notifications in July 2000 were cases of *Shigella sonnei* biotype g in Victoria; five were in males aged between 20 and 40 years and one was of unspecified gender. Between 27 and 36 cases of *S. sonnei* biotype g are notified in Victoria each year. In the first six-month period of this year, there were 12 cases of locally acquired *S. sonnei* biotype g, which was similar to the expected number. However, the antibiogram of faecal isolates was identical to that of the recent Sydney outbreak strain associated with gay men (see Special Report below). To prevent the spread of shigellosis, the Department of Human Services distributed targeted preventive advice to local sex-on-premises venues and through the gay press. Unlike in the other States, there was no recognised association with gay men in the nine cases of shigellosis in Western Australia in July 2000.

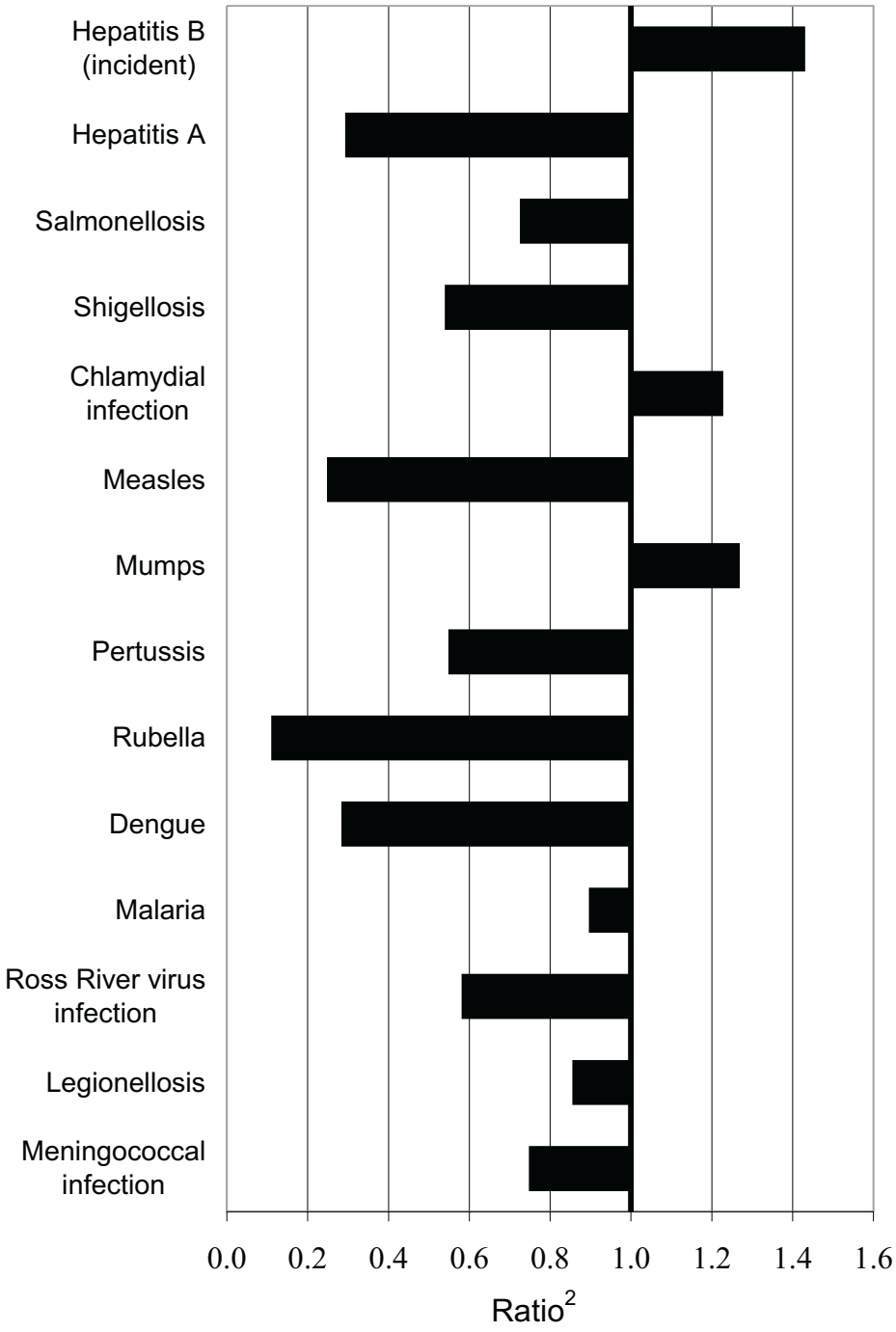
SLTEC/VTEC

There were two notifications in July 2000 from South Australia of Shiga-like toxin-producing *Escherichia coli* (SLTEC)/ verotoxigenic *Escherichia coli* (VTEC), one in a 15-year-old male and one in a 78-year-old female.

Typhoid

There were seven notifications of typhoid in July 2000 with five cases in New South Wales and two cases in Victoria. Two were associated with travel to Indonesia and five with

Figure 1. Selected[1] diseases from the National Notifiable Diseases Surveillance System, comparison of provisional totals for the period 1 to 31 July 2000 with historical data[2]



1. Selected diseases are chosen each calendar month according to current activity
2. Ratio of current month total to mean of June to August data for the previous five years

travel to India. Two of these cases (a mother and baby) were linked; both travelled to India but it is unknown whether their exposure was there or whether household transmission occurred (the mother was asymptomatic).

Vaccine Preventable Diseases

All vaccine preventable diseases except mumps had fewer reports this month than for the 5-year-mean for July: there were no reports of diphtheria, *Haemophilus influenzae* type b, poliomyelitis and tetanus.

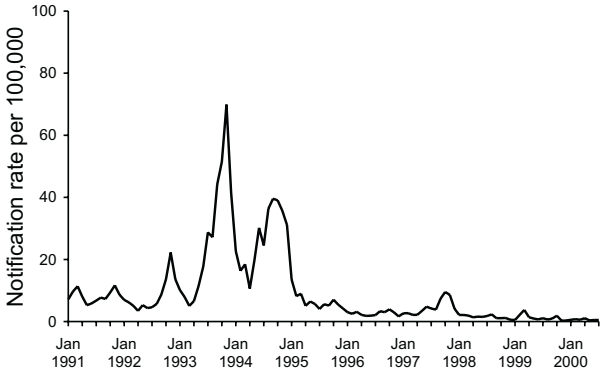
Mumps

The increase in the notification rate (1.2/100,000 population) for mumps was due to five reports in the Australian Capital Territory (19.2/100,000 population), two male and three female. There was no obvious epidemiological linkage between these five cases.

Measles

Measles cases continue to be at their lowest level since the national notification system began (Figure 2). Of the eleven cases in July 2000, five were reported in Victoria, two each in Western Australian and New South Wales and one each in South Australia and Queensland. Of the Victorian cases, four were linked to a receptionist at a doctor's surgery; all had measles virus of identical genotypes. The fifth case had no link to others and the virus was of a different genotype. Four of the five cases were in adults aged between 18 and 30 years; the remaining case was an infant less than 1-year-old. Of the Western Australian cases, one was a 25-year-old Thai postgraduate student, and one was a 24-year-old Malaysian postgraduate student, both studying in Perth, and both independently infected in their countries of origin before returning from holidays on separate flights via Singapore. These cases required extended follow-up of contacts as both went to general practices and public hospitals (one admitted) before the diagnosis was recognised. No secondary cases have been reported. One New South Wales case was a student whose siblings in Japan had measles. The student had measles on arrival and then travelled as part of a tour-group around Australia. Follow-up of potential cases is occurring. An unvaccinated individual in Queensland acquired measles locally.

Figure 2. Notification rate of measles, Australia, 1 January 1991 to 31 July 2000, by month of notification



Pertussis

The crude notification rate of pertussis in July 2000 was 14.5/100,000 population - less than the notification rates for July in previous years (20-60/100,000 population). Notification rates increased in New South Wales and the Australian Capital Territory (24.0/100,000 and 46.0/100,000 respectively; Figure 3).

No deaths have been reported so far this year in Australia. Preschool-aged children (1-4 years old) and infants (<1 year old) had the highest rates of reported disease (Figure 4). According to New South Wales Health press releases regarding the recent increase in pertussis year to date, to the end of July 1,370 cases were reported in New South Wales compared with 1,414 for all of 1999, 2,312 for all of 1998, and 4,251 for all of 1997. They advised that:

- All parents and doctors should ensure all children are fully immunised against pertussis (doses are due at 2, 4, 6, and 18 months, and at 4 years of age).
- Persons with symptoms of pertussis should seek medical diagnosis.
- Pertussis cases are infectious to others for up to 3 weeks after onset. Treatment with erythromycin given within 3 weeks of onset should render cases non-infectious after 5 days. Cases should not attend preschool or school (or other settings where there are susceptible persons, especially young children) while infectious.
- Pertussis can be prevented among household contacts of infectious cases with erythromycin.
- The treatment of choice for cases and their household contacts is erythromycin 40 to 50 mg/kg per day in 4 divided doses up to 1 gram per day for 10 days.
- Doctors, laboratories and hospitals should notify suspected cases to the local public health unit.

Figure 3. Notification rate of pertussis, New South Wales, Australian Capital Territory and Australia, 1 January 1991 to 31 July 2000, by month of notification

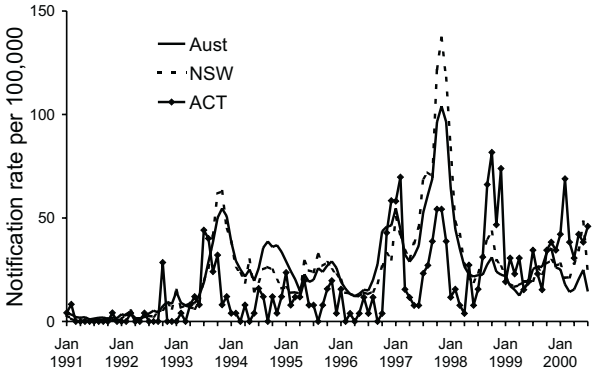
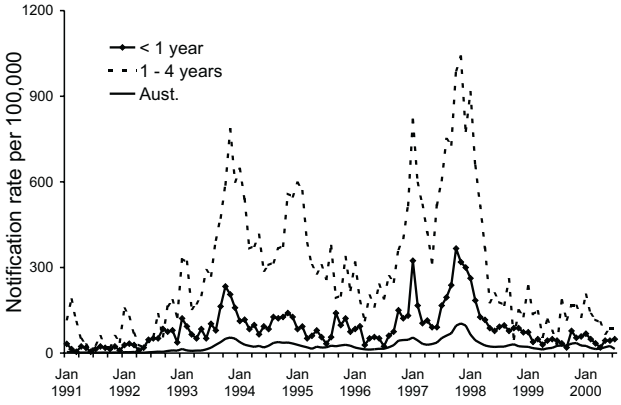


Figure 4. Notification rate of pertussis, Australia, 1 January 1991 to 31 July 2000, by month of notification



Encephalitis

The Health Department of Western Australia issued a press release warning people about the continued risk of mosquito-borne Australian Encephalitis in some northern regions of the State. This followed the worst recorded outbreak of the disease in Western Australia with 11 confirmed cases this season, two more than in the previous worst outbreak in 1993.

Legionellosis

In response to the increased number of legionella cases in Victoria, in June the Department of Human Services Working Party released a report entitled 'Legionnaires Disease: Managing the health risk associated with cooling towers'. The Victorian Government response to the report was released in July.

Meningococcal infections

There were 42 notifications of meningococcal infection in July 2000 - an incidence of 2.9/100,000 population (Figure 5). Of these cases, 17% were under 5 years of age, 21% were in the 5-14 year age group and 29% were in the 15-24 year age groups. The serogroups were available for 27 cases; of these 36%, 37% and 2% were serogroup B, C and W respectively. One sporadic case in Victoria involved an 18-year-old student for whom approximately 34 contacts were identified. The Communicable Disease Control Branch and Department of Human Services, Victoria, assessed the need for contacts to receive antibiotic chemoprophylaxis according to the National Health and Medical Research Council guidelines. Ten contacts were directed to metropolitan hospitals to receive medical assessment and antibiotic chemoprophylaxis.

Influenza

There were 183 laboratory reports of influenza for July 2000, a decrease from 687 in July 1999, but an increase from 111 in June 2000 (Figure 6). Of the laboratory reports received in July 2000 (weeks 27-30), 116 were influenza A and 55 were influenza B, with the weekly proportion of influenza B varying from 28% to 35% (Figure 7). The weekly percentage of influenza B has increased from the same period last year when it varied between 6% and 9%. Through the regular fortnightly teleconference of CDNANZ, the jurisdictions reported 82 laboratory confirmed influenza cases of which 48 were influenza A and 29 were influenza B.

Compared with June 2000, the percentage of Australia Post employees absent in July 2000 for 3 or more consecutive days was little changed (weeks 27-30, Figure 8). The Tropical influenza Surveillance Scheme (Northern Territory) reported the highest rate of influenza-like illness consultations (18/1,000 consultations) in July 2000 (weeks 27-30). In contrast, data from the Australian Sentinel Practice Research Network (ASPREN), New South Wales, Victoria and Northern Territory Sentinel Surveillance Schemes indicated that the influenza activities remained moderately low compared with last year (Figure 9).

Figure 5. Notification rate of meningococcal infection, Australia, 1 January 1991 to 31 July 2000, by month of notification

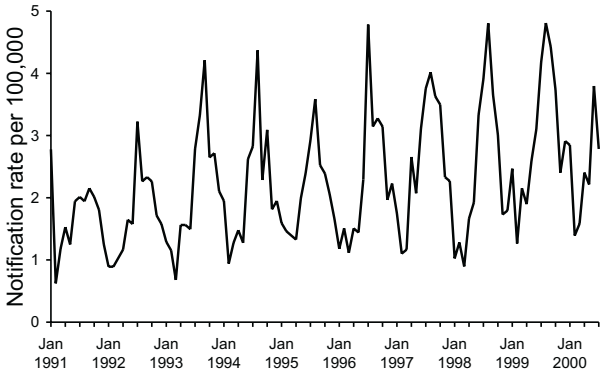


Figure 6. Laboratory reports of influenza, 1999 to 2000, by month of specimen collection

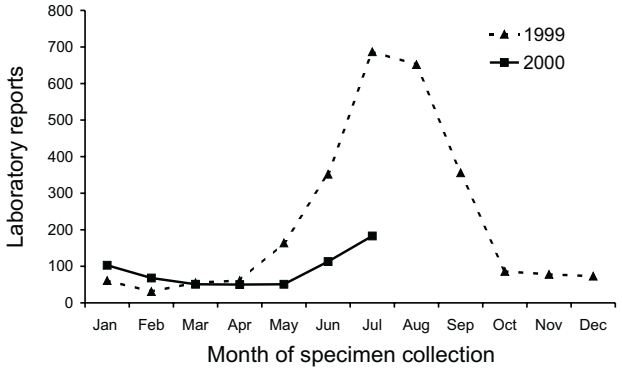


Figure 7. Laboratory reports of influenza, Australia, week 31 1999 to week 30 2000, by week of specimen collection

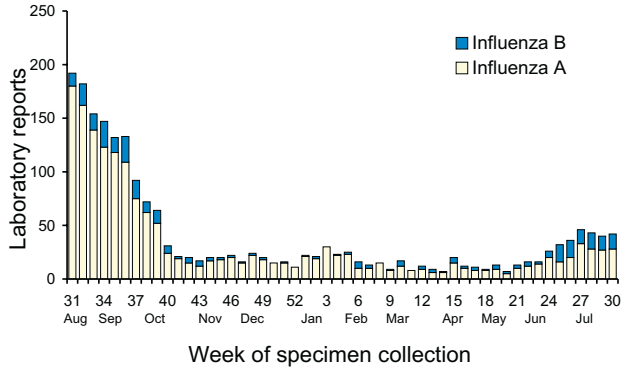


Figure 8. Absenteeism rates in Australia Post, 1999 and 2000 to July 31

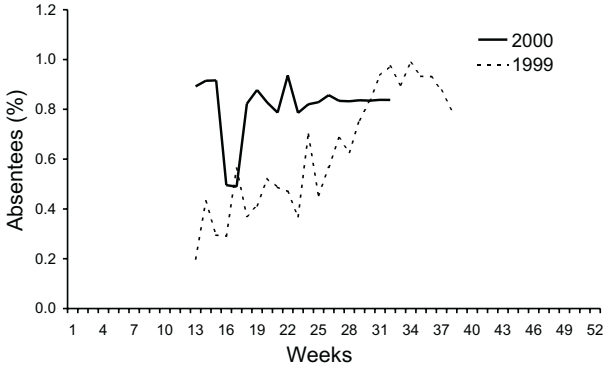
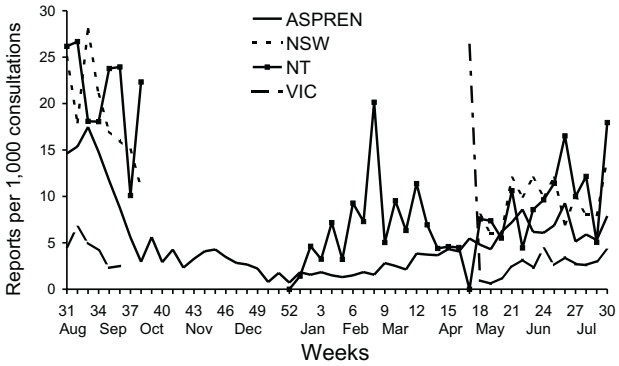


Figure 9. Sentinel general practitioner influenza consultation rates, week 31 1999 to week 30 2000, by scheme



Special report from Rob Menzies, Senior Surveillance Officer, New South Wales Health Department: Shigellosis outbreak among inner-Sydney men

Shigellosis is relatively uncommon in New South Wales, with fewer than five isolates received each month for serotyping by ICPMR laboratory, Westmead Hospital. In the last few weeks, New South Wales Health investigated an outbreak of shigellosis among inner-Sydney gay men.

Local doctors and laboratories reported that an increase in *Shigella sonnei* serotype g infections began in March 2000. Over 80 cases were identified from early March 2000 until mid-June 2000, compared to 21 cases in all of 1997. Over 90% of cases have been males mostly thought to be gay men between 20 and 40 years. Interviews with cases identified casual sex at sex-on-premises-venues as a likely risk factor for infection.

In response, New South Wales Health developed a prevention plan that included an education campaign among gay men, increased awareness among local doctors, and advice to sex-on-premises-venues on improving infection control. The number of reported cases has since declined.

Editorial comment. At present Shigellosis is not reportable in NSW but may be identified following notification of 'foodborne disease' or 'gastroenteritis in an institution'. This outbreak was brought to the attention of the NSW Public Health Unit by vigilant general practitioners and laboratory staff.