Communicable Diseases Surveillance

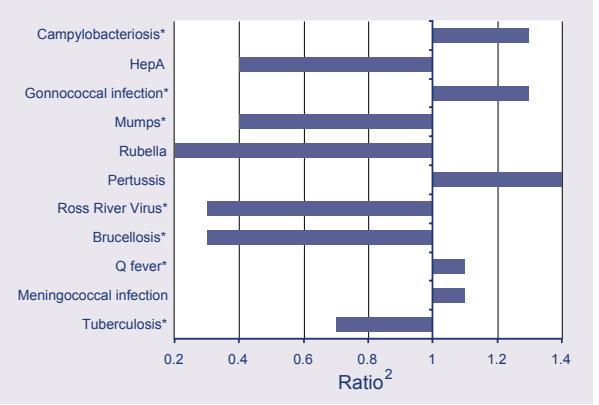
Highlights for 4th quarter, 2001

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 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, 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', 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 date in the final quarter of 2001, compared with the 5-year final quarter mean. Disease notifications above or below the 5-year mean, plus- or minus- two standard deviations are marked with an asterisk. Diseases where the number of cases reported was two standard deviations above the mean of the same reporting period in the last 5 years include campylobacteriosis, gonococcal infection and Q fever. Diseases where the number of reports were two standard deviations below the 5 year mean include Ross River virus infection, brucellosis, tuberculosis and mumps. It should be noted, however, that these data are provisional and subject to revision. Delayed reporting of chronic or late presenting diseases may occur, and updating of notification data in 2002 may increase the numbers of these diseases in the future. These and other disease trends are discussed below, with additional commentary provided by representatives from State and Territory health authorities.

Figure 1. Selected[1] diseases from the National Notifiable Diseases Surveillance System, comparison of provisional totals for the period 1 October to 31 December 2001 with historical data[2]



1. Selected diseases are chosen each quarter according to current activity
2. Ratio of current quarter total to the mean of the corresponding quarter for the previous five years

* Notifications above or below the 5-year mean for the same period plus - or minus - two standard deviations.

Bloodborne viruses

Carolein Giele from Communicable Disease Control, Health Department of Western Australia reported that the increase of incident hepatitis C cases from Western Australia in this quarter reflected a recent download of anti-HCV results from a large laboratory in Perth. This enabled the search and linkage of previous negative anti-HCV results, used to identify recent seroconversions.

Gastrointestinal diseases

Haemolytic uraemic syndrome

One case of HUS with an onset date in the final quarter of 2001 was reported to the NNDSS. The case was an 11-month-old infant from New South Wales. Robert Menzies from the Communicable Disease Surveillance and Control Unit, NSW Department of Health indicated that an infective cause was not laboratory-confirmed. Consumption of sausage was the suspected source.

Campylobacteriosis

As for the third quarter of 2001, notifications of campylobacter infections were above the mean of the same period for the previous 5 years. There were 4,693 cases reported with an onset date in the final quarter of 2001, giving an overall rate of 146 cases per 100,000 population. Jurisdictions with reporting rates above the Australian rate included South Australia (247 cases per 100,000 population), Tasmania (197 cases per 100,000 population) and Western Australia (169 cases per 100,000 population).

Foodborne illness is notoriously under-reported. In the United Kingdom it has been estimated that only 1 in 8 cases of camplyobacteriosis is reported.[1] Notification rates for camplyobacter infections may be affected by microbiology laboratory screening protocols. This issue is being investigated by OzFoodNet.

Hepatitis A

There were 155 cases of hepatitis A reported with an onset date in the final quarter of 2001, giving a national notification rate of 3.2 cases per 100,000 population. The highest reporting rates were received from the Northern Territory (10.1 cases per 100,000 population), the Australian Capital Territory (7.6 cases per 100,000 population) and New South Wales (4.8 cases per 100,000 population).

Kerry-Ann O'Grady from Communicable Diseases Section, Department of Human Services Victoria, reported that cases from that jurisdiction were predominantly travel related. In New South Wales there was an increase in hepatitis A notifications reported in the last quarter of 2001; 80 cases compared with 57 in the third quarter. The increase was in men living in central and south-eastern Sydney (13 in the third quarter, up to 40 in the fourth quarter). The most commonly reported risk exposures during the quarter were male-to-male sex (16 cases, 20%), eating in a restaurant or gathering (16 cases, 20%), overseas travel (13 cases, 16%) and recreational drug use (8 cases, 10%). Risk exposures were unknown or not available for 23 cases (29%). Robyn Pugh, from the Communicable Diseases Unit, Queensland Department of Health, reported that there were fewer notifications of hepatitis A in 2001 than in the previous 4 years. Of the 99 notifications from Queensland in 2001 where information about injecting drug use was recorded, 7 (7%) of 99 were injecting drug users. In the last quarter of 2001, there were 3 injecting drug users (12%) who acquired hepatitis A in Queensland.

Hepatitis E

In late October the Department of Human Services Victoria received one notification of hepatitis E for a non-pregnant female who had arrived in Australia from India. The woman was well on the plane, but within 2 days of arrival experienced nausea, vomiting, and abdominal pain, developing jaundice 6 days later. She presented to hospital 10 days after onset of illness and was admitted for 3 days. Blood tests were negative for hepatitis A, B and C. Serological testing by Victorian Infectious Diseases Reference Laboratory confirmed the diagnosis with a strongly positive hepatitis E IgG titre. Other family members in India, her travel companions and partner remained well.

Typhoid

Fifteen cases of typhoid were reported with an onset date in the reporting period, including 7 from New South Wales, 3 from Victoria, 3 from Queensland and 1 case from both South Australia and Western Australia. Of the 15 cases, 6 were males and 9 were females, and the age range was 5 to 50 years.

All typhoid infection reported in the period were associated with overseas travel. The Department of Human Services Victoria reported 2 cases which were acquired in Indonesia, and a third acquired in Pakistan. All 3 cases were unrelated and of different strains. Of the 3 cases of typhoid notified in Queensland one was acquired in Papua New Guinea, one in Bangladesh and one in Indonesia. All 7 typhoid cases reported in New South Wales were acquired overseas, and there were no links between the cases.

Gary Dowse, from Communicable Disease Control, Health Department of Western Australia reported that in Western Australia a single case of typhoid was notified during the quarter, in a 31-year-old asylum seeker in detention on Christmas Island. It is most likely that the organism was acquired in Indonesia. Of 14 cases of typhoid notified in Western Australia during 2001, 9 (64%) were in asylum seekers travelling via Indonesia. Other cases reported in 2001 included 2 overseas students returning from Indonesia, a visiting seaman, a refugee from Africa, and a child returning from a visit to Pakistan.

Listeria

There were 14 reports of listeriosis, including 5 cases from Queensland, 3 cases from both New South Wales and Western Australia, 2 cases from Victoria and a single case from South Australia.

Of the 3 cases of listeriosis notified in December in Western Australia, two involved foetal death-in-utero (at 18 and 23 weeks, respectively) in women with febrile illnesses. Both the latter cases were serogroup 4, but no commonalities in food histories were identified.

Salmonellosis

There were 1,825 notifications of salmonellosis infections received nationally in the final quarter of 2001. *Salmonella* reports of note in the final quarter of 2001 included an increase in *Salmonella* Typhimurium phage type 170 in a number of jurisdictions, an outbreak of *Salmonella* Typhimurium phage type 126 in South Australia, and the appearance of a rare serovar in the Northern Territory. OzFoodNet was invited to further investigate these outbreaks, with the assistance of State and Territory health authorities. Further information can be obtained from OzFoodNet. (contact Martyn Kirk, Coordinating Epidemiologist, OzFoodNet, c/o National Public Health Partnership, 589 Collins St, Melbourne 3000, Australia, telephone: +61 3 9616 1522, facsimile: +61 3 9616 1500, E-mail: martyn.kirk@dhs.vic.gov.au).

In previous quarters of 2001 the emergence of *Salmonella* Typhimurium phage type 126 in jurisdictions across Australia has been noted (see OzFoodNet quarterly report, this issue). Cases continue to be reported in the current reporting period. Jane Raupach, from the Communicable Disease Control Branch of the Department of Human Services, South Australia, reported 23 cases of *Salmonella* Typhimurium phage type 126 with dates of onset from 1 October to 31 December 2001. A case control study found an association between cases and the consumption of chicken. The association was supported by descriptive epidemiology and microbiological evidence.

In Queensland other *Salmonella* clusters of note included a small cluster of *Salmonella* Singapore cases predominantly among adult females who reside in Brisbane and surrounding metropolitan areas. There were 12 cases of *S*. Singapore notified during the final quarter of 2001, 8 of whom were female, and seven of the 8 cases were older than 18 years. Six of the cases were notified over a one week period in December. A common link has not yet been identified and investigations are continuing.

Peter Markey, from Centre for Disease Control, Northern Territory Department of Health and Community Services, reported that from October to November there was a cluster of 15 cases of *Salmonella* Mgulani. This serovar is rarely identified in the Northern Territory. In 2000 the National Enteric Pathogen Surveillance System identified 44 cases with this serovar, 31 of whom resided in Queensland, 9 from New South Wales, 3 from Victoria and 1 from the Australian Capital Territory.[2] The majority of cases in Queensland are thought to be sporadic, although in New South Wales clusters have been described.[3]

Cases of *Salmonella* Mgulani reported from the Northern Territory in the current period were dispersed over a wide geographical area in the Top End. Cases ranged in age from 5 months to 52 years, and 13 of the 15 cases were non-Aboriginal people. The outbreak was investigated using telephone interviews and a standard questionnaire; 14 cases were interviewed but no particular source was identified. There have been no further cases since November.

Cryptosporidiosis

David Coleman and colleagues, from the Department of Health and Human Services, Tasmania, investigated a cluster of 45 cases of *Cryptosporidium* infection amongst residents in northern Tasmania in November 2001. Case patients were primarily children aged between 1 and 9 years and adults between 20 and 34 years (range: 1 to 41 years). The distribution of cases was spread over 7 local council districts. Investigations suggest that in the majority of cases farm animals were the likely source of infection. While cases reported various settings where animal contact occurred, the majority had attended an animal nursery at a local agricultural show. Of the first 19 cases, 16 (84%) attended the agricultural show with 14 of the 16 (88%) also reporting visiting the animal nursery. Person-to-person secondary transmission appears to be the likely mode of spread for later cases, with 10 of the 13 cases (77%) in a second peak reporting that at least one member of the household or a close contact had been ill prior to their own illness.

Sexually transmitted infections

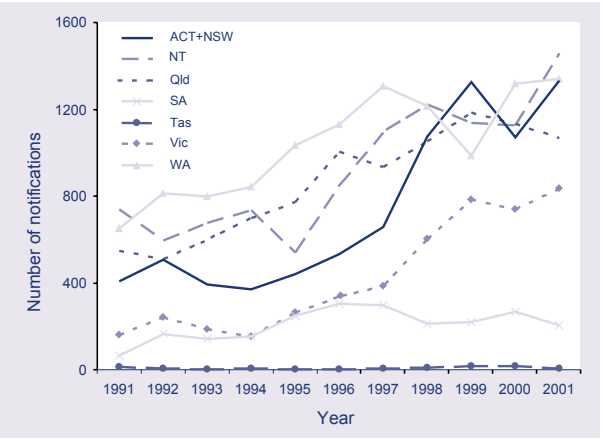
Congenital syphilis

A case of congenital syphilis was reported from the Kimberley region of Western Australia in a baby born in September. The mother had been diagnosed with infectious syphilis late in the third trimester of pregnancy. The last case of congenital syphilis notified in Western Australia was in 1992. The Kimberley region has experienced a resurgence of syphilis over the past several months.

Gonococcal infection

A total of 1,539 cases of gonococcal infection were notified in the final quarter of 2001, giving a notification rate of 32 cases per 100,000 population. This is an increase above the 5 year mean for the same reporting period (Figure 2). The highest notification rates were seen in the Northern Territory (757 cases per 100,000 population) and in Western Australia (79 cases per 100,000 population). There was no increase in case numbers in Tasmania and a decrease compared to 2000 in South Australia and Queensland. The increase seen in the Northern Territory reverses a decreasing trend from 1998 to 2000. Jan Savage from the AIDS/STD program of the Centre for Disease Control, Northern Territory Department of Health and Community Services, reported that the increases observed since 1995 in the Northern Territory are believed to reflect more acceptable (less invasive) methods of specimen collection, improved test sensitivity with the availability of PCR testing, and increased screening as part of 'well persons' health checks'.

Figure 2. Notifications of gonococcal infections, Australia, 1991 to 2001, by jurisdiction

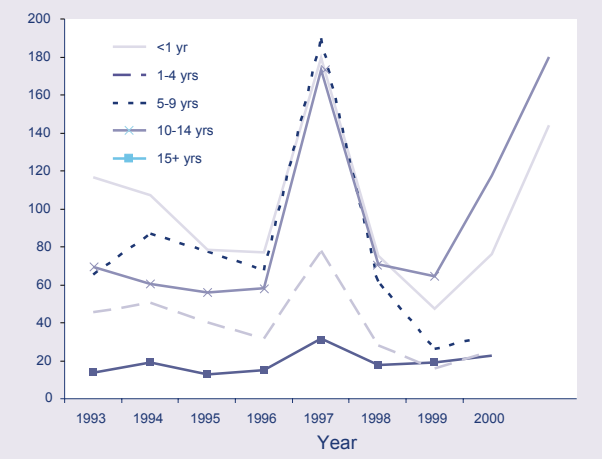


Vaccine preventable diseases

Pertussis

To date, a total of 3,210 cases of pertussis with an onset in the last quarter of 2001 have been reported to NNDSS, giving a national rate of 66 cases per 100,000 population. All jurisdictions showed an increase in pertussis notifications in the second half of 2001, apart from the Australian Capital Territory, where the three-year cyclic peak in notifications was observed in 2000. Highest notification rates for the final quarter of 2001 were received from South Australia (152 cases per 100,000 population), the Northern Territory (142 cases per 100,000 population), New South Wales (82 cases per 100,000 population) and Queensland (77 cases per 100,000 population). At the end of November 2001 the Communicable Diseases Network Australia issued a media release regarding pertussis, in response to the large number of notifications.

Figure 3. Rate of notification for pertussis, Australia, 1993 to 2001, by age group



Previous highlights for 2001 have noted the increase in pertussis notifications from all jurisdictions (apart from the Australian Capital Territory) for the current year. The notification rates by age group, from 1993 to 2001 are shown in Figure 3 (figure and commentary prepared by Heather Gidding, National Centre for Immunisation Research and Surveillance of Vaccine Preventable Diseases). The three-year cycle of peaks in the notification rate for pertussis is evident, with high reporting rates in 1997 and 2001. As in 1997, all age groups have shown an increase in pertussis notifications in 2001, with the increase most evident in infants less than one year of age, and in the 10-14 year age group. The 1-4 year age group have shown a modest rise since 1999, attributed to

vaccine (DTP) given as part of the infant vaccination schedule. As at 31 December 2001, DTP uptake in Australian children 12-14 months inclusive was 92.2 per cent (3 doses) and 90.3 per cent for children 24-26 months (4 doses).[4] The rate for the 5- 9 year age group has not increased as dramatically in 2001 compared with the rise in 1997. This may be attributed to the introduction of a booster dose for 4-year-olds in 1994.

In Victoria, 852 notifications of pertussis were received in 2001, 85 per cent of which were received in the second half of the year. Notifications began to increase rapidly in September/October. Of the 622 notifications received in this 6 month period, 30 were in infants aged less than 6 months. There was one death in a 6-week-old infant in July.

In Queensland the largest number of pertussis cases for the 4-year period 1998 to 2001 occurred in 2001. There were 3 pertussis related deaths; one in the final quarter of 2001. Of the deaths, two were children under 1 year of age and one was a child in the 1-5 age range.

In the Northern Territory there were 72 cases of pertussis in the final quarter, including one death. This diagnosis was made on microbiological evidence at postmortem in a 5-month-old child for whom diagnosis of SIDS was being considered.

There have been no pertussis related deaths in Western Australia in the current reporting period and New South Wales reported there have been no pertussis related deaths in 2001.

Tetanus

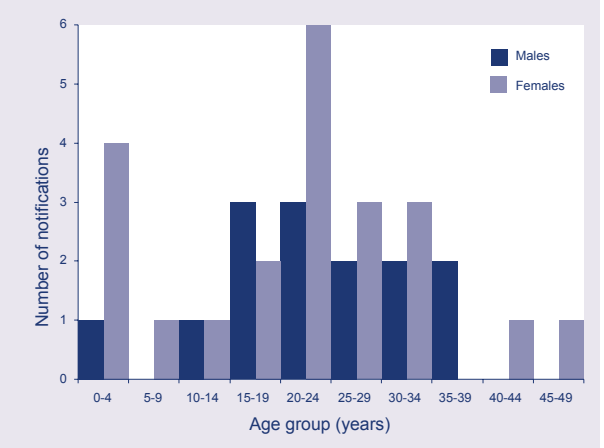
Two cases of tetanus with an onset in the final quarter of 2001 were reported to NNDSS, including an 82-year-old female from South Australia, and a 49-year-old male from Victoria. The vaccination history of both cases was uncertain.

Measles

There were 37 cases of measles reported with an onset of disease in the final quarter of 2001. The age and sex distribution of the 36 cases where the gender was recorded is shown in Figure 4. One additional case (whose gender was unrecorded) was in the 20-24 year age group.

The majority (22 of the 36 cases, 61%) were notified in Victoria. In that jurisdiction between 21 October and 31 December, 18 laboratory-confirmed measles cases were notified, of whom nine (50%) were hospitalised. All but one case (whose infection was acquired overseas) were epidemiologically linked, and were of the same genotype (D5), thus considered to be part of the same outbreak. Of the total number of cases from this jurisdiction, 88 per cent were aged 18 to 34 years, none of whom had a documented history of measles vaccination. A source for the outbreak was not identified.

Figure 4. Notification of measles, Australia 1 October to 31 December 2001, by age and sex



An outbreak of measles occurred in Western Australia after a 25-year-old woman became ill in late November, shortly after returning from a holiday in Bali. This woman infected 4 other individuals, who in turn each infected one other person. Of the 9 cases, 5 were aged 20-25 years, and the remaining 4 were older teenagers who had not been vaccinated. Four of the cases required hospitalisation.

There has been no endemic measles circulation in Western Australia for 3 years. In this period all 41 cases of measles occurring in Western Australia have been either imported by overseas visitors or returning holiday-makers, or transmitted from these imported cases to local residents. There have been 14 separate importations responsible for these cases.

While 2 cases of measles were recorded from New South Wales in the reporting period, they were not epidemiologically linked.

Mumps

There were 13 cases of mumps notified in the final quarter of 2001, including 7 cases from New South Wales, 4 cases from Western Australia and 2 cases from South Australia. Of the 13 cases, nine were males, and four were females. All but one (a 4-year-

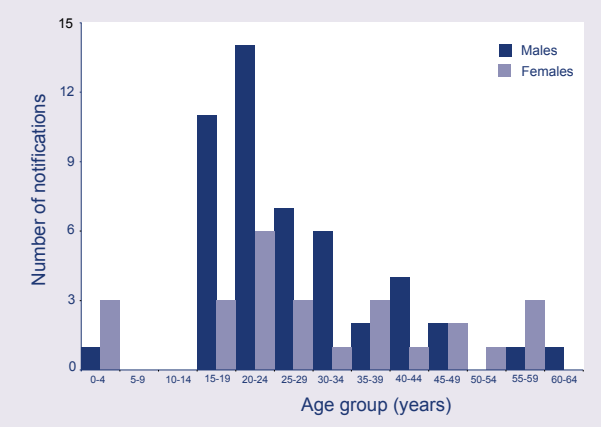
old male case notified in New South Wales) were aged over 20 years. The number of notifications in the current reporting period is lower than the average number of notifications received nationally in the same reporting period for the previous 5 years.

Rubella

There were 75 notifications of rubella with an onset in the final quarter of 2001. The majority of cases (65%) were males. The age/sex distribution of cases is shown in Figure 5. Seventeen cases (23% of all rubella notifications) were females of child bearing age (aged between 15 and 45 years). None of the 4 cases in the 0-4 year age group were congenitally acquired.

The notification rate of rubella for Queensland remains higher than all other jurisdictions, and 44 of the 75 cases (59%) reported during this period were from that jurisdiction. Of the 44 notifications from Queensland, 11 were in the age range 15-19 years and the remaining 33 were over 20 ages of age.

Figure 5. Notification of rubella, Australia 1 October to 31 December 2001, by age and sex



Influenza

Laboratory-confirmed influenza cases are now reported to NNDSS by all jurisdictions. While New South Wales and Victoria have ceased sentinel GP influenza surveillance for the season, national surveillance data consisting of laboratory reports through NNDSS and LabVISE and national and sentinel general practice schemes in the Northern Territory are reported fortnightly on the Communicable Diseases Australia web site http://www.health.gov.au/pubhlth/cdi/ozflu/flucurr.htm

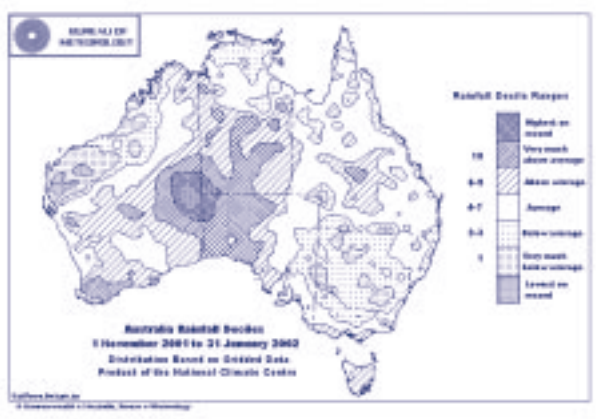
Haemophilus influenzae type b

There were 2 cases of *Haemophilus influenzae* type B infection (Hib) with an onset in the final quarter of 2001. Both cases were from Victoria. Further information was provided on one of these cases. A 5-year-old non-Aboriginal child from rural Victoria had documented evidence of 4 doses of Hib vaccine. The child initially had fever and red cheeks, and presented to a GP 2 days later with sore throat, dyspnoea and drooling. They were transferred to hospital with a provisional diagnosis of epiglottitis. While the child's throat swab was negative, blood cultures were positive for Hib (septicaemia). The child was treated successfully with intravenous ceftriaxone.

Vectorborne diseases

A number of jurisdictions have reported that the expected rise in arbovirus infections did not occur at the end of 2001. This was attributed to the cooler weather conditions and lack of rain in some

Figure 6. Australia rainfall deciles, 1 November 2001 to 31 January 2002



areas of the country (Figure 6).

Source: Australian Bureau of Meterology Website: http://www.bom.gov.au

According to the Bureau of Meterology:

'November to January rainfall shows above to well above average over the southern two-thirds of the Northern Territory, the western two-thirds of South Australia, and the southern half of Western Australia. The highest on record rainfall area covering the tri-state border area of Western Australia, the Northern Territory, and South Australia derives mainly from

record rains in December. Victoria's far south and Tasmania were also wetter than average. There were two significant areas of below average falls for the three months. The first covered the northern areas of Western Australia and the far north of the Northern Territory. After a promising start to the monsoon in November, both December and January were generally much drier than average. The second region covers most of New South Wales and northern Victoria, together with some parts of eastern South Australia.'

Figure 7 shows the number of Ross River and Barmah Forest virus disease notifications. Comparisons to the previous 4 years are shown in Figure 8 and 9 for Ross River and Barmah Forrest, respectively. Interestingly, it does appear that notifications of Ross River virus disease are down compared to previous years, but numbers of Barmah Forest virus disease, which peak later in the season compared with Ross River virus cases do not appear unusually low.

No reports of Murray Valley encephalitis virus infection were recorded with an onset in the final quarter of 2001. Information regarding sentinel chicken activity in the reporting period is available in this issue (see page 86).

Figure 7. Notifications of Ross River and Barmah Forrest virus, Australia, 2001, by month

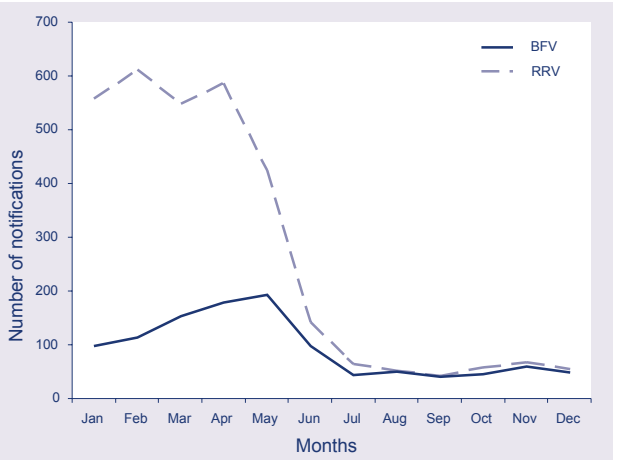


Figure 8. Notifications of Ross River virus, Australia, 1997 to 2001, by month

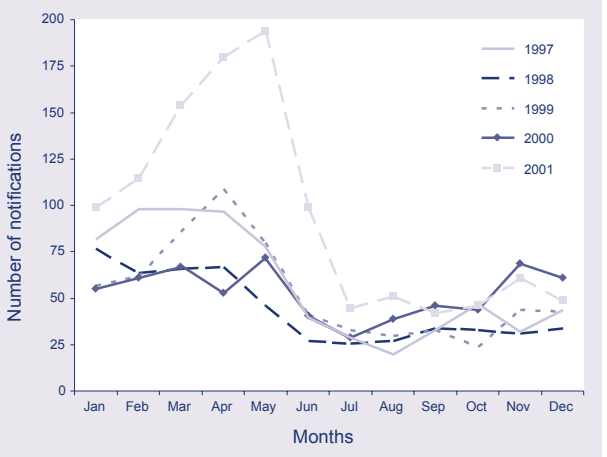
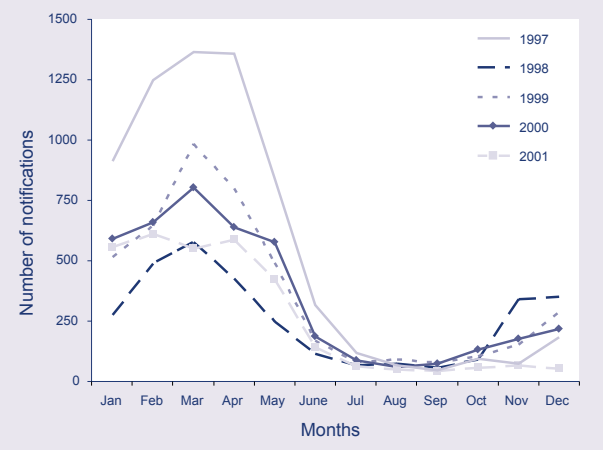


Figure 9. Notifications of Barmah Forrest virus, Australia, 1997 to 2001, by month



Other bacterial infections

Legionellosis

There were 76 cases of legionellosis reported to NNDSS with an onset in the final quarter of 2001, including 22 cases from Victoria. In this jurisdiction an outbreak of 3 cases of *Legionella pneumophila* serogroup 1 (diagnosed by urinary antigen) was detected in October 2001. Two of the cases were confirmed by culture. Despite extensive environmental investigation, no source was identified. Enhanced surveillance was undertaken but no further cases were identified.

In the Northern Territory there was one case of legionellosis in a 66-year-old Aboriginal man. The organism was identified as *L. longbeachae*.

While there were no outbreaks of legionellosis in New South Wales in the last quarter of 2001, there were 16 sporadic cases including 7 cases identified as *L. longbeachae*, 1 *L. pneumophila* type 2, 6 *L. pneumophila* not further specified, and two with typing information unavailable.

Meningococcal infection

The increasing number of meningococcal cases reported nationally continued in the final quarter of 2001, with 148 cases received nationally. Overall, the national reporting rate for this period was 3.1 cases per 100,000 population. Jurisdictions with rates higher than the national rate included Tasmania (7.7 cases per 100,000 population), the Northern Territory (6.1 cases per 100,000 population), South Australia (4.8 cases per 100,000 population), Queensland (3.7 cases per 100,000 population) and Victoria (3.3 cases per 100,000 population).

Queensland reported the highest proportion of cases (27%) in the reporting period. The number of notifications of invasive meningococcal diseases was the highest Queensland has recorded for 4 years. Apart from a small cluster of 2 cases in a boarding school, all were sporadic cases.

In Tasmania during the period 23 September to 15 October 2001 a total of 10 confirmed cases of invasive meningococcal disease were reported from greater Hobart (population 194,000, giving a cumulative incidence of 52 per 100,000 population for this period). Three patients presented with clinical meningitis while the remainder developed septicaemia. Three female patients aged 18, 21 and 60 years subsequently died. The age range was 18 to 60 years with 8 cases aged between 18 and 22 years. Blood cultures from 6 cases were confirmed as serogroup C. All had identical pulse field gel electrophoresis (PFGE) patterns and have been shown to belong to a hyperinvasive strain C (2a:P1.5,2). Two cases were diagnosed on the basis of PCR from cerebrospinal fluid and two using serology alone. Molecular typing of 5 serogroup C isolates from patients earlier in 2001 (also from greater Hobart) showed that these were identical to the outbreak strain. One of these cases (a female aged 25) also died. Group C isolates obtained from cases from elsewhere in Tasmania were different than the Hobart cases. Since October there have been 2 further cases (including one death) of invasive group C meningococcal disease. Molecular typing is in progress on these isolates. In the September/October period a common factor was attendance at nightclubs in Hobart and numerous public warnings were made in relation to the sharing of drinks, cigarettes and other smoking activities.

Other non-notifiable diseases

VRE outbreak, Perth

Western Australia experienced Australia's largest yet recorded outbreak of vancomyin resistant *Enterococcus* (VRE) in the latter part of 2001. In late July, 2001 a vancomycin resistant *Enterococcus* spp was isolated, from a patient in the Intensive Care Unit at Royal Perth Hospital. Screening of the patients' contacts revealed further VRE colonised individuals, leading to the investigation of contacts of VRE colonised patients. A specialised computer system was used to track approximately 4,000 patients who had contact with colonised individuals during the outbreak. In October, contact tracing was broadened to include screening of all hospital patients.

Vancomycin resistant *Enterococcus faecium* (vanB) was isolated among 165 patients (4 infections, 161 colonised), the vast majority of which were detected through an active screening program. No deaths were associated with VRE infection. Cases were originally detected among renal and intensive care patients with later spread to other wards such as the Haematology Unit. Antibiotic usage among this patient population appeared to be high. Patient cohorting, screening and extensive ward cleaning was employed to control the outbreak. A case control study is now in progress to assess the risk factors for VRE acquisition during this outbreak.

The outbreak had been terminated by early January 2002, following implementation of a co-ordinated control program at Royal Perth Hospital and across other Western Australian health-care facilities. VRE was first detected in Western Australia in 1996, and only around 20 isolates, mostly sporadic, had previously been identified.

Restaurant-associated Norwalk-like virus outbreaks in Western Australia

Two separate outbreaks, a week apart, of apparent foodborne illness were reported in December by work groups that had attended the same Perth restaurant. The nature of illness in both groups was similar, with onset of nausea, vomiting and diarrhoea within 12-48 hours of the meal, and relatively short duration of illness of 1-2 days.

Initial microbiological investigations, including PCR for calicivirus genotype 2 in food and faecal specimens, did not reveal a cause. However, several faecal specimens were subsequently re-tested at the Victorian Infectious Disease Reference Laboratory, revealing a genotype 1 Norwalk-like virus was responsible for illness in both outbreaks. Epidemiological investigations did not conclusively indicate a suspect food source.

LabVISE

There were 6,212 reports to LabVISE from 14 laboratories in final quarter of 2001 (Table 4). In this reporting period, there were 4,171 viral infections recorded (67% of all reports) and 2,041 reports of bacteria and other microorganisms (33% of all reports). Rotavirus was the most regularly identified virus in this period, with a total of 531 reports, followed by varicella zoster (524 reports). Among the bacterial isolates the largest numbers of reports were of *Chlamydia* spp (928 reports) and *Treponema pallidum* (347 reports). The reports of *Treponema pallidum* equate well with the number of syphilis notifications (n=342) received by NNDSS during the same period while the number of *Chlamydia* infections reported to NNDSS was approximately 4 times that received via LabVISE. This may be due to the majority of diagnoses of syphilis being undertaken in public health laboratories that report to LabVISE. In comparison, the availability of nucleic acid tests for *Chlamydia* in a large number of public and private laboratories leads to a large proportion of diagnoses being undertaken outside the LabVISE network.

References

1. Wheeler JG. Sethi D. Cowden JM. Wall PG. Rodrigues LC. Tompkins DS. Hudson MJ. Roderick PJ. Study of infectious intestinal disease in England: rates in the community, presenting to general practice, and reported to national surveillance. The Infectious Intestinal Disease Study Executive. BMJ 1999;318:1046-50.

2. National Enteric Pathogen Surveillance Scheme. Human annual report 2000 NEPSS issue 2, 2001 available from Microbiological Diagnostic Unit, University of Melbourne. E-mail joanp@unimelb.edu.au.

3. Lesjak M, Delpech V, Ferson M, Morgan K, Paraskevopoulos P, McAnulty J. A Salmonella Mgulani cluster in New South Wales. Comm Dis Intell 2000;24:304-305.

4. Australian Childhood Immunisation Register statistical tables. Table 4 http://www.hic.gov.au/annualreport/statistics/acir_table4.htm.