

# Communicable diseases surveillance

## Highlights for 2nd 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.

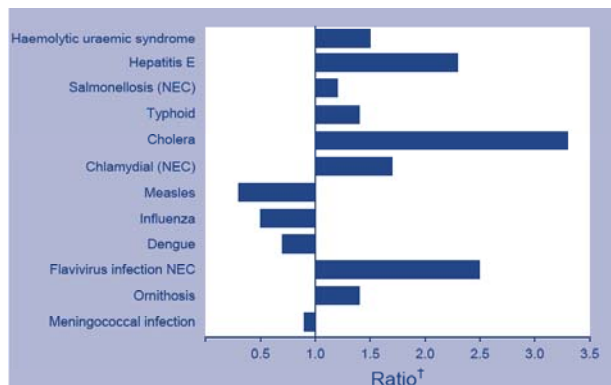
The NNDSS is conducted under the auspices of the Communicable Diseases Network Australia. NNDSS collates data on notifiable communicable diseases from State or Territory health departments. The Virology and Serology Laboratory Reporting Scheme (LabVISE) is a sentinel surveillance scheme which collates 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'.

Please note: Figure 3 published in *Commun Dis Intell* 2004;28:409 was incorrect. The figure has been corrected in this version.

Figure 1 shows the changes in disease notifications with an onset in the second quarter 2004 compared with a 5-year mean for the same period. Diseases notifications outside the 5-year mean plus or minus two standard deviations are marked.

During the second quarter of 2004, there were increases in flavivirus NEC, cholera, chlamydial infections, haemolytic uraemic syndrome and ornithosis. There were declines in measles, dengue and influenza.

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

#### Haemolytic uraemic syndrome

There were three cases of haemolytic uraemic syndrome (HUS) in the second quarter, two from New South Wales and one from Western Australia. The cases were unrelated and no enterohaemorrhagic *Escherichia coli* were isolated.

#### Hepatitis E

There were nine cases of hepatitis E notified in the second quarter, which takes the year to date to 20 cases, well above the 5-year mean. There was a history of overseas travel to endemic areas (South Asia, South America and China) in all cases.

#### Typhoid

There were 15 cases of typhoid notified to the National Notifiable Diseases Surveillance System (NNDSS) in the second quarter. This is also above the 5-year mean for the quarter. Eight cases were reported from New South Wales, three from Western Australia, two from Victoria and one each in Queensland and South Australia. Of the 15 cases, overseas travel was confirmed in eight cases and three cases were born overseas. Of the overseas born, one case, born in China and who had no recent overseas travel was thought to be a carrier. Of the remaining three cases, two occurred in spouses, possibly co-primary and probably locally acquired, since no travel or link to an overseas traveller could be established. There was no information on travel in the remaining two cases.

**Cholera**

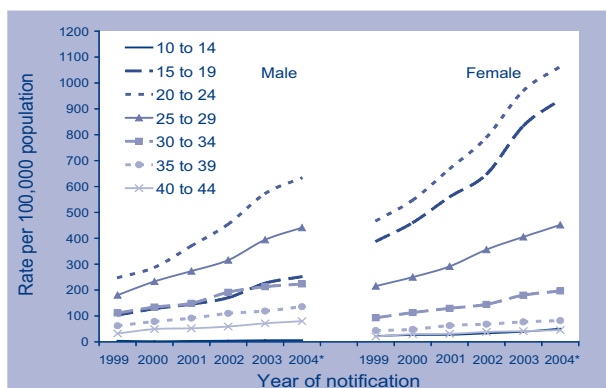
There were two cases of cholera reported in second quarter, one in Queensland and one in Victoria. The Queensland case occurred in a 50-year-old traveller returning from Thailand and was a *Vibrio cholerae* 01. The case reported in Victoria was in a 33-year-old traveller diagnosed with *V. cholerae* 01 Ogawa.

*Sexually transmitted infections*

**Chlamydial infections**

Notifications of chlamydial infections continued to increase in the second quarter. There were 8,904 notifications and a rate of 179.3 notifications per 100,000 population. Increases in *Chlamydia* notifications since 1999 have been greatest in women aged 15–24 years and men aged 20–24 years (Figure 2). The annualised rates for the first half of 2004 reached 1,063 per 100,000 in 20–24 year-old women, 935 per 100,000 in 15–19 year-old women and 633 per 100,000 in 20–24 year men.

**Figure 2. Trends in notification rates of chlamydial infection aged 10 to 44 years, Australia, 1999 to 2004 (YTD), by sex**



*Vaccine preventable diseases*

**Measles**

There were seven cases of measles notified in the second quarter of 2004 all in young adults aged between 18 and 31 years. Four cases were reported from Victoria and one each in New South Wales, South Australia and Western Australia. Two of the cases in Victoria were in an unvaccinated traveller returning from Asia and a contact. The cases in South Australia and Western Australia were also overseas-acquired. In the latter, there was concern that travel during the infectious period may have caused secondary cases, but despite extensive fol-

low-up none were reported. The New South Wales case occurred in a unvaccinated 31-year-old without a history of overseas travel, but with possible workplace exposure to infected travellers.

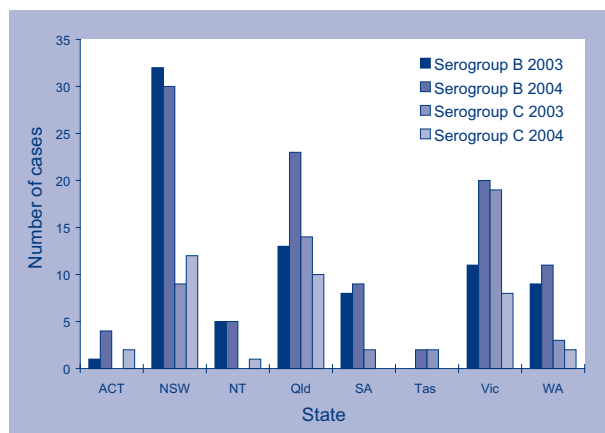
**Flavivirus NEC**

There were 29 cases of flavivirus NEC in second quarter. Twenty-five of these were reported from Queensland. Craig Davis from Queensland Health reported that these were a mixture of imported cases from China, the Philippines, East Timor and Papua New Guinea and serological detection as a result of extra screening as part of control efforts in local dengue outbreaks.

**Meningococcal infection**

There were 120 notifications of meningococcal infection in the second quarter of 2003. Provisional meningococcal serogroup data up to the end of June show that while the overall numbers had not declined there had been a significant change in the proportion of serogroup B and C. Serogroup C notifications have fallen from 26 per cent in the first half of 2003 to 17 per cent of notifications in 2004 (YTD). Conversely, serogroup B notifications increased as a proportion of all notification from 41 per cent in 2003 to 52 per cent (Figure 3). While there is a natural variation in the frequency of meningococcal serogroups, the fall in serogroup C is likely to be the result of the meningococcal serogroup C vaccination (MenCCV) program that commenced in January 2003.

**Figure 3. Notifications of serogroup B and C meningococcal infection, January to June 2003 and January to June 2004, by jurisdiction**

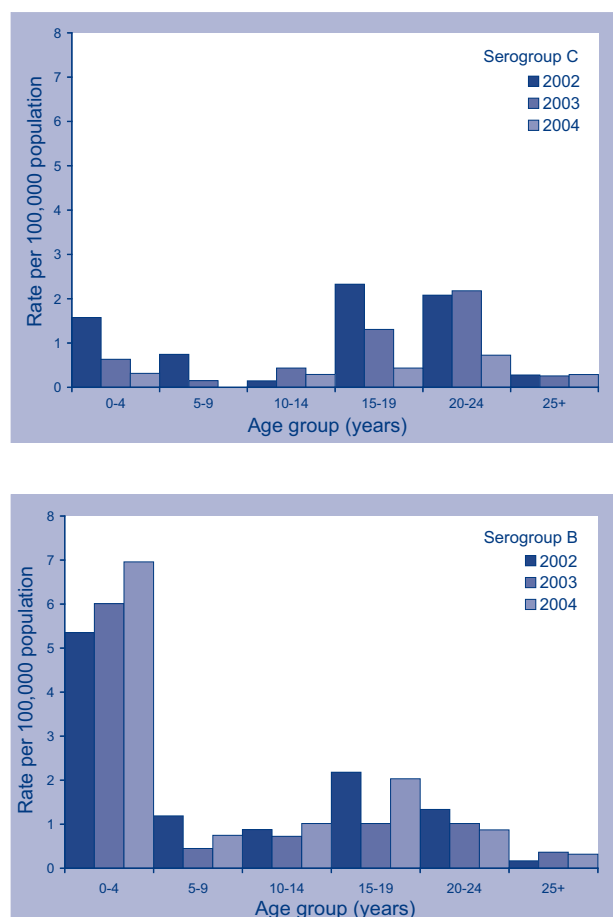


Further analysis of three years data which examined age specific rates of serogroup B and C disease was performed. Figure 4 shows rates of serogroup B and serogroup C meningococcal disease in the first six months of 2002, 2003 and 2004. While a decline in serogroup C disease was evident in all

age groups under 25 years between 2003 and 2004, there were declines in the rates of serogroup C disease between 2002 and 2003 in the under-5s, 5–9 and 15–19 year age groups. An increase in rates of serogroup B disease was seen in all age groups under 20 years in 2003 and 2004. However rates of serogroup B disease also increased in 2002 and 2003 in the under 5 years.

This analysis of rates by age group suggests that some of the change in rates of serogroup B and C disease preceded the implementation of the MenCCV program. Changes in rates since vaccination commenced in 2003 should be interpreted in the light of natural variation in different age groups and jurisdictions.

**Figure 4. Notification rates of meningococcal infection, January to June 2002 to 2004, by age group: Panel A, Serogroup C, Panel B, Serogroup B**



## LabVISE

Laboratory reports from the Virology and Serology Laboratory Reporting Scheme (LabVISE) are shown in Table 4. In the second quarter there were fewer reports of influenza A and B viruses and an increase in reports of respiratory syncytial virus compared with the same period in 2003. The lower rate of influenza reports confirms the low rate of influenza notifications in NNDSS (Table 2) compared with the last three years average (Figure 1).

There were 81 reports of Norovirus to LabVISE in the quarter compared to 13 in the same period in 2003. This increase is likely to reflect increased Norovirus activity in Australia during the quarter. An outbreak of Norovirus affecting 140 passengers on a cruise ship was reported in May<sup>1</sup>. An outbreak in the Royal Hobart Hospital caused the postponement of elective surgery and isolation of gastroenteritis cases in June<sup>2</sup>. In New South Wales, widespread outbreaks of Norovirus were reported in the central-west of the State, that affected hospitals and aged care facilities. OzFoodNet continued investigations of food-borne outbreaks of Norovirus associated with Japanese oysters (see OzFoodNet report).

The increase in norovirus outbreaks worldwide since 2002 has been associated with the emergence of a new predominant variant of norovirus genogroup II4. This variant was detected in nine of 10 European countries<sup>3</sup> and in the United States of America.<sup>4</sup> The Public Health Laboratory Network reported that a local variant of the norovirus II4 genogroup has been identified in recent outbreaks, distinct from the European variant (Greg Smith, Queensland Health Scientific Services, personal communication).

**With thanks to:** Mark Bartlett (NSW Health), Craig Davis (Queensland Health) and Minda Sarna (Health Department of Western Australia).

## References

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