

# Communicable diseases surveillance

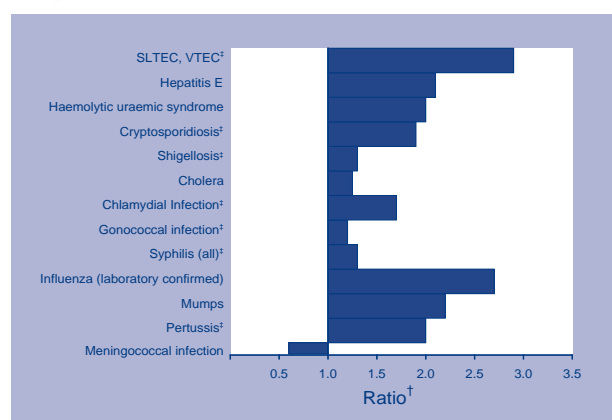
## Highlights for 2nd quarter, 2005

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 select disease notifications with an onset in the second quarter of 2005 compared with a five-year mean for the same period. The number of notifications received in the quarter was above the five-year mean for haemolytic uraemic syndrome (HUS), cholera, influenza (laboratory-confirmed) and mumps. The following diseases were above the five-year mean for the same period and exceeded two standard deviations from the five-year mean: Shiga-like toxin producing *Escherichia coli*/verotoxin producing *E. coli* (SLTEC/VTEC), hepatitis E, cryptosporidiosis, shigellosis, chlamydial infection, gonococcal infection, syphilis (all categories) and pertussis. The number of notifications received was below the five-year mean for meningococcal infection (Figure 1).

**Figure 1. Selected\* diseases from the National Notifiable Diseases Surveillance System, comparison of provisional totals for the period 1 April to 30 June 2005 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.

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

### Gastrointestinal illnesses

#### Botulism

One case of infant botulism in a four-month-old female was reported in this quarter from rural Victoria. The source of the botulism was unknown.

#### Cryptosporidiosis

There were 828 notifications of cryptosporidiosis during the quarter which is 1.9 times the five-year mean for the same period. The majority of cases were reported by Queensland (283/828), New South Wales (269/828) and Victoria (143/828).

Five hundred and nineteen of the notifications (63%) were identified as *Cryptosporidium parvum* infection; there was no species information provided for the remaining 37 per cent. Children aged under five years accounted for 46 per cent (383/828) of the total number of notifications.

Queensland reported an outbreak in March 2005 in a child care facility where 20 children and eight adult staff were affected.

In New South Wales, 105 of the 269 cases were reported in May 2005 and the notification rates for *Cryptosporidium* spp have been higher than usual since March 2005, with a peak in late April of more than 35 cases per week. Of the cases reported since May, 162 cases have been investigated for risk factors. The most common risk factor during the exposure period was found to be swimming in a public pool. The increased notification rates of cryptosporidia also appear to relate to increased testing of stools for *Cryptosporidium* spp by private laboratories since late 2004.

### Haemolytic uraemic syndrome

There were four notifications of HUS during this reporting period, which is two times the five-year mean for the same period. Three of the notifications were reported from Victoria, while the fourth case was reported from South Australia.

### Hepatitis E

Eight notifications of hepatitis E were received for the quarter, which is two times the five-year mean for the same period. Six of the eight cases were acquired overseas and the place of acquisition in the other cases was unknown.

### Shiga-like toxin producing *Escherichia coli* verotoxin producing *E. coli*

Twenty-nine notifications of SLTEC/VTEC were received during the quarter, which is almost three times the five-year mean for the same period. Nineteen of the 29 notifications were reported from South Australia.

A case of HUS was notified from South Australia in late April. An *E. coli* serotype O111 was isolated. This case attended the same church as another SLTEC/VTEC case (also serotype O111), although the two cases did not report attending the church at the same time or eating common food. A third SLTEC/VTEC case occurred in a sibling of the HUS case and transmission was thought to be person-to-person. Both church cases had the same pulsed field gel electrophoresis pattern. Information on SLTEC/VTEC disease transmission and prevention was provided and discussed with the Elders of the church and the family of cases.

From 3–13 May, the Institute of Medical and Veterinary Science expanded the screening of bloody stools to include diarrhoeal stools. Ten SLTEC/VTEC cases were notified during this period including the sibling of the HUS case.

### Shigellosis

There were 177 notifications of shigellosis during the quarter, which is 1.3 times the five-year mean for the same period. The notifications were mainly from the Northern Territory (48), New South Wales (35), and Victoria and Western Australia (32 each).

Fourteen per cent were reported as imported from overseas, 16 per cent were locally acquired and the places of acquisition of the rest were unknown.

Sixty-four per cent (114/177) of the cases had species recorded. The most frequently notified species was *Shigella sonnei* biotype A, with a further 25 notifications of *Shigella sonnei* of unknown biotype (Table 1).

Previously published work has shown that the prevalent species of shigellae in New South Wales over a four month period in 2000, was *Shigella sonnei* biotype G.<sup>1</sup> *Shigella sonnei* biotype G has also been associated with an outbreak in a child care centre in Victoria in 2000.<sup>2</sup>

### Quarantinable diseases

#### Cholera

There was one notification of cholera from Western Australia in a 49-year-old female returning from Indonesia. The isolate was identified as *Vibrio cholerae* O1 Ogawa, a toxin-producing strain, as confirmed by polymerase chain reaction for the presence of the ctx A gene.

**Table 1. Notifications of shigellosis, 1 April to 30 June 2005, by species and type**

<i>Shigella</i> species	Subtype/biotype	Number of notifications	Per cent of notifications (%)
<i>Shigella boydii</i>	Not typed	2	2
<i>Shigella flexneri</i>	1	2	2
<i>Shigella flexneri</i>	2	1	1
<i>Shigella flexneri</i>	2A	13	11
<i>Shigella flexneri</i>	4	9	8
<i>Shigella flexneri</i>	4a	1	1
<i>Shigella flexneri</i>	4a mannitol neg	7	6
<i>Shigella flexneri</i>	4b	6	5
<i>Shigella flexneri</i>	6	4	4
<i>Shigella flexneri</i>	Not typed	8	7
<i>Shigella sonnei</i>	biotype A	29	25
<i>Shigella sonnei</i>	biotype F	1	1
<i>Shigella sonnei</i>	biotype G	6	5
<i>Shigella sonnei</i>	Not typed	25	22
Total		114	100

*Sexually transmissible infections***Chlamydial infection**

During the quarter there were 10,856 notifications of chlamydial infection received from all jurisdictions, which is 1.7 times the five-year mean for the same period. The majority of these notifications were reported by New South Wales (2,823), Queensland (2,746) and Victoria (2,339).

Seventy-eight per cent of the notifications were reported from the 15–29 year age group. Sixty per cent of the chlamydial infection notifications were reported from females.

*Vaccine preventable diseases***Influenza (laboratory-confirmed)**

There were 740 cases of laboratory-confirmed influenza in the second quarter of 2005. This was nearly three times the average number of notifications for this time of year. New South Wales, Queensland and Victoria each contributed 31 per cent toward the total number of notifications. Seventy-seven per cent of the national laboratory-confirmed influenza notifications were type A, 21 per cent type B and two per cent were of unknown type.

**Mumps**

There were 73 notifications of mumps in the quarter, which is 2.2 times the five-year mean for the same period. The majority of cases were reported from New South Wales (31) and Queensland (32). Of the 73 cases, 51 cases (70%) were reported from the 20–34 year age group.

**Pertussis**

For the second quarter, 2,370 pertussis notifications were received, from which 1,395 (60%) were reported by New South Wales. Three per cent of the notifica-

tions were reported in infants aged less than one year. Pertussis activity in the quarter was two times the average number of notifications for this time of year.

*Other bacterial infections***Meningococcal infections**

There were 75 notifications of meningococcal infection during the quarter, which was two-thirds the average number reported in the quarter over the previous five years. Of the 75 cases, meningococcal serogroup data were available for 62 cases. There were 47 cases of serogroup B (62%), eight cases of serogroup C (11%), four cases of serogroup Y and two cases of serogroup W135 (Table 2). Thirteen cases were not typed (17%).

One case of serogroup A received from Victoria was in an Ethiopian refugee. This was only the third notification of serogroup A received over the past five years, the last one occurring in 2004.

Table 2 shows that during the quarter, there were three deaths from meningococcal infections, two from serogroup B and one from serogroup Y. There were no reported deaths during the quarter from *Neisseria meningitidis* serogroup C, for which a vaccine is currently available as part of the Australian Standard Vaccination Schedule.<sup>3</sup>

**References**

1. O'Sullivan B, Delpech V, Pontivivo G, Karagiannis T, Marriott D, Harkness J, *et al.* Shigellosis linked to sex venues, Australia. *Emerg Infect Dis* 2002;8:862–864.
2. Genobile D, Gaston J, Tallis GF, Gregory JE, Griffith JM, Valcanis M, *et al.* An outbreak of shigellosis in a child care centre. *Commun Dis Intell* 2004;28:225–229.
3. National Health and Medical Research Council. *The Australian Immunisation Handbook*. 8th edn. Canberra; 2003.

**Table 2. Notifications and deaths due to meningococcal infection, 1 April to 30 June 2005, by State and serogroup**

Jurisdiction	Notification by serogroup							Death(s) by serogroup						
	A	B	C	W135	Y	NT	Total	A	B	C	W135	Y	NT	Total
ACT	0	1	1	0	0	0	2	0	0	0	0	0	0	0
NSW	0	17	2	2	2	10	33	0	1	0	0	1	0	2
NT	0	1	1	0	0	2	4	0	0	0	0	0	0	0
Qld	0	10	2	0	0	1	13	0	1	0	0	0	0	1
SA	0	3	0	0	0	0	3	0	0	0	0	0	0	0
Tas	0	3	0	0	0	0	3	0	0	0	0	0	0	0
Vic	1	8	2	0	1	0	12	0	0	0	0	0	0	0
WA	0	4	0	0	1	0	5	0	0	0	0	0	0	0
Total	1	47	8	2	4	14	75	0	2	0	0	1	0	3

NT Not typed.