

Additional reports

Australian Sentinel Practice Research Network

The Australian Sentinel Practices Research Network (ASPREN) is a national surveillance system that is owned and operated by the Royal Australian College of General Practitioners and directed through the Discipline of General Practice at the University of Adelaide.

The network consists of general practitioners who report presentations on a number of defined medical conditions each week. ASPREN was established in 1991 to provide a rapid monitoring scheme for infectious diseases that can alert public health officials of epidemics in their early stages as well as play a role in the evaluation of public health campaigns and research of conditions commonly seen in general practice. Electronic data collection was established in 2006 and currently, further development of ASPREN is in progress to create an automatic reporting system.

The list of conditions is reviewed annually by the ASPREN management committee and an annual report is published. In 2008, four conditions are being monitored. They include influenza like illness, gastroenteritis and varicella infections (chickenpox and shingles). Definitions of these conditions are described in *Surveillance systems reported in CDI*, published in *Commun Dis Intell* 2008;32:135.

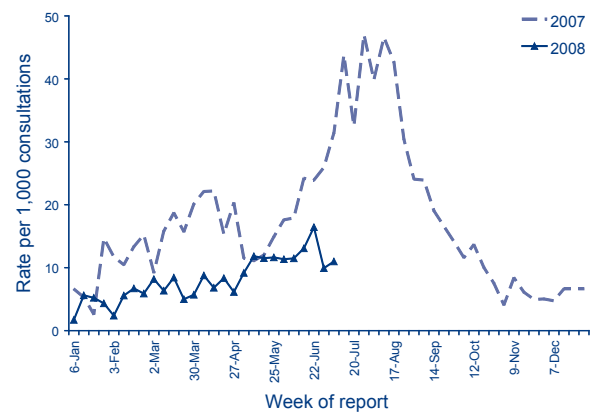
Data on influenza-like illness, gastroenteritis, chickenpox and shingles from 1 April to 30 June 2008 compared with 2007, are shown as the rate per 1,000 consultations in Figures 1, 2, 3 and 4, respectively.

Reporting period 1 April to 30 June 2008

Sentinel practices contributing to ASPREN were located in all jurisdictions other than the Northern Territory. A total of 96 general practitioners contributed data to ASPREN in the second quarter of 2008. Each week an average of 68 general practitioners provided information to ASPREN at an average of 7,160 (range 5,307 to 7,850) consultations per week.

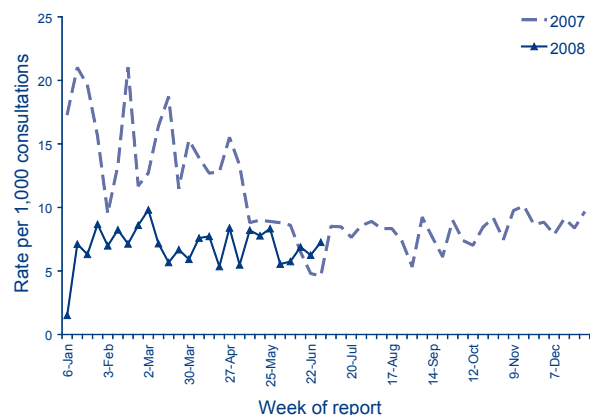
In the first quarter of 2008, influenza like illness (ILI) rates ranged from 6 to 17 cases per 1,000 consultations. For the same reporting period in 2007 reported rates were higher at 11 to 26 cases per 1,000 consultations (Figure 1).

Figure 1. Consultation rates for influenza-like illness, ASPREN, 1 January 2007 to 30 June 2008, by week of report



Reports of gastroenteritis from 1 April to 30 June 2008 were lower compared to the same period in 2007 (Figure 2). During this reporting period, consultation rates for gastroenteritis ranged from 5 to 8 cases per 1,000 consultations.

Figure 2. Consultation rates for gastroenteritis, ASPREN, 1 January 2007 to 30 June 2008, by week of report



Reports of varicella infections were reported at a lower rate for the second quarter of 2008 compared with the same period in 2007. From 1 April to 30 June 2008, recorded rates for chickenpox were between 0 to 0.4 cases per 1,000 consultations (Figure 3).

In the second quarter of 2008, rates for shingles fluctuated between less than 1 to 1.5 cases per 1,000 consultations (Figure 4).

Figure 3. Consultation rates for chickenpox, ASPREN, 1 January 2007 to 30 June 2008, by week of report

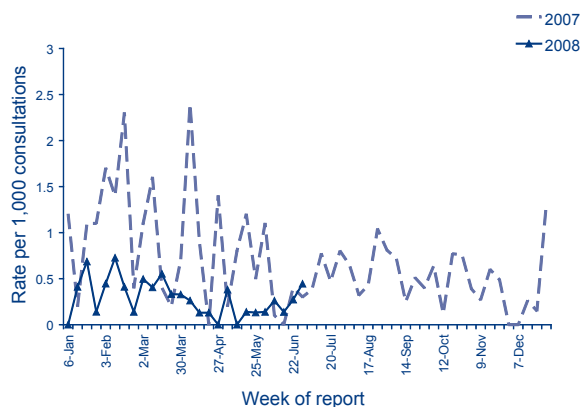
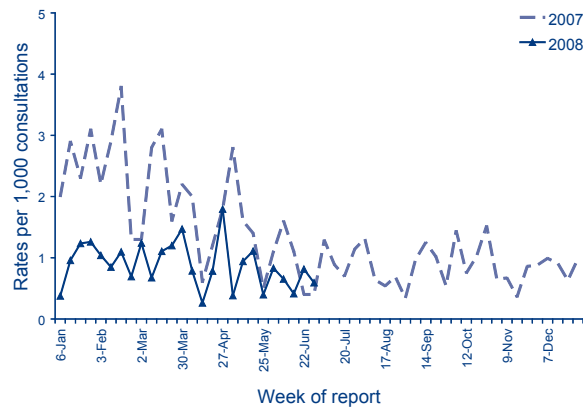


Figure 4. Consultation rates for shingles, ASPREN, 1 January 2007 to 30 June 2008, by week of report



Australian childhood immunisation coverage

Tables 1, 2 and 3 provide the latest quarterly report on childhood immunisation coverage from the Australian Childhood Immunisation Register (ACIR).

The data show the percentage of children fully immunised at 12 months of age for the cohort born between 1 January and 31 March 2007, at 24 months of age for the cohort born between 1 January and 31 March 2006, and at and at 5 years of age for the cohort born between 1 January and 31 March 2003 according to the National Immunisation Program Schedule. However from March 2002 to December 2007, coverage for vaccines due at 4 years of age was assessed at the 6-year milestone age.

For information about the Australian Childhood Immunisation Register see *Surveillance systems reported in CDI*, published in *Commun Dis Intell*

2008;32:134–135 and for a full description of the methodology used by the Register see *Commun Dis Intell* 1998;22:36-37.

Commentary on the trends in ACIR data is provided by the National Centre for Immunisation Research and Surveillance of Vaccine Preventable Diseases (NCIRS). For further information please contact the NCIRS at telephone: +61 2 9845 1435, Email: brynleyh@chw.edu.au

‘Fully immunised’ at 12 months of age is defined as a child having a record on the ACIR of 3 doses of a diphtheria (D), tetanus (T) and pertussis-containing (P) vaccine, 3 doses of polio vaccine, 2 or 3 doses of *Haemophilus influenzae* type b (Hib) vaccine, and 2 or 3 doses of hepatitis B vaccine. ‘Fully immunised’ at 24 months of age is defined as a child having a record on the ACIR of 3 or 4 doses of a DTP-containing vaccine, 3 doses of polio vaccine, 3 or 4 doses of Hib vaccine, 2 or 3 doses of hepatitis B vaccine and 1 dose of a measles, mumps

Table 1. Percentage of children immunised at 1 year of age, preliminary results by disease and state or territory for the birth cohort 1 January to 31 March 2007; assessment date 30 June 2008

| Vaccine | State or territory | | | | | | | | Australia |
|--|--------------------|--------|------|--------|-------|-------|--------|-------|-----------|
| | ACT | NSW | NT | Qld | SA | Tas | Vic | WA | |
| Total number of children | 1,156 | 24,042 | 960 | 15,365 | 4,880 | 1,596 | 17,530 | 7,558 | 73,087 |
| Diphtheria, tetanus, pertussis (%) | 93.7 | 91.6 | 92.4 | 91.6 | 91.8 | 91.4 | 92.8 | 90.5 | 91.8 |
| Poliomyelitis (%) | 93.8 | 91.5 | 92.3 | 91.6 | 91.8 | 91.3 | 92.8 | 90.5 | 91.8 |
| <i>Haemophilus influenzae</i> type b (%) | 95.8 | 94.7 | 95.6 | 93.9 | 94.3 | 94.0 | 94.8 | 94.2 | 94.5 |
| Hepatitis B (%) | 95.6 | 94.8 | 96.2 | 93.8 | 94.2 | 94.0 | 94.7 | 93.9 | 94.4 |
| Fully immunised (%) | 93.5 | 91.3 | 91.6 | 90.8 | 91.0 | 91.0 | 91.8 | 90.1 | 91.2 |
| Change in fully immunised since last quarter (%) | -0.4 | -0.3 | +1.5 | -0.4 | +0.6 | -1.7 | -0.1 | +1.1 | -0.1 |

and rubella-containing (MMR) vaccine. 'Fully immunised' at 5 years of age is defined as a child having a record on the ACIR of 4 or 5 doses of a DTP-containing vaccine, 4 doses of polio vaccine, and 2 doses of an MMR-containing vaccine.

Immunisation coverage for children 'fully immunised' at 12 months of age for Australia decreased marginally by 0.1 percentage point to 91.2 (Table 1). There were no important changes in coverage for any individual vaccines due at 12 months of age or by jurisdiction.

Immunisation coverage for children 'fully immunised' at 24 months of age for Australia did not change and remained at 92.8% (Table 2). There were also no important changes in coverage for any individual vaccines due at 24 months of age or by jurisdiction.

Immunisation coverage for 'fully immunised' at 5 years of age for Australia decreased for the second consecutive quarter, by 0.9 percentage points, to 87.2% (Table 3). For 'fully immunised' and all individual vaccines, there were important decreases

of greater than 1.5 percentage points in South Australia, New South Wales and the Australian Capital Territory, with a 2 percentage decrease in MMR coverage in New South Wales and the Australian Capital Territory. This decrease in coverage is likely due to the change in the coverage calculation algorithm, which, since the beginning of 2008, now calculates coverage for vaccines due at 4 years of age at the 5-year milestone, not the 6-year milestone. This means late immunisations given to a child aged between 5 and 6 years are no longer included in the assessment.

Figure 5 shows the trends in vaccination coverage from the first ACIR-derived published coverage estimates in 1997 to the current estimates. There is a clear trend of increasing vaccination coverage over time for children aged 12 months, 24 months and 6 years, although the rate of increase has slowed over the past few years for all age groups. However, there is a noticeable dip in recent coverage at 6 years of age after a second consecutive quarterly decrease. It should also be noted that, currently, coverage for the vaccines added to the NIP since 2003 (varicella at 18 months, meningococcal C conjugate at

Table 2. Percentage of children immunised at 2 years of age, preliminary results by disease and state or territory for the birth cohort 1 January to 31 March 2006; assessment date 30 June 2008*

| Vaccine | State or territory | | | | | | | | Australia |
|--|--------------------|--------|------|--------|-------|-------|--------|-------|-----------|
| | ACT | NSW | NT | Qld | SA | Tas | Vic | WA | |
| Total number of children | 1,204 | 22,941 | 932 | 14,687 | 4,608 | 1,601 | 16,598 | 7,182 | 69,753 |
| Diphtheria, tetanus, pertussis (%) | 96.7 | 94.9 | 96.1 | 94.9 | 95.4 | 95.1 | 95.9 | 93.8 | 95.1 |
| Poliomyelitis (%) | 96.6 | 94.8 | 96.1 | 94.8 | 95.3 | 95.1 | 95.8 | 93.7 | 95.1 |
| <i>Haemophilus influenzae</i> type b (%) | 96.6 | 95.4 | 95.4 | 93.9 | 94.4 | 95.4 | 94.6 | 93.6 | 94.6 |
| Measles, mumps, rubella (%) | 95.5 | 93.7 | 96.4 | 94.0 | 94.7 | 94.5 | 95.0 | 92.9 | 94.2 |
| Hepatitis B (%) | 97.2 | 95.7 | 97.3 | 95.6 | 96.2 | 96.2 | 96.4 | 94.8 | 95.9 |
| Fully immunised (%) | 94.8 | 92.5 | 94.7 | 92.6 | 93.3 | 93.4 | 93.6 | 91.2 | 92.8 |
| Change in fully immunised since last quarter (%) | +0.8 | -0.2 | +0.8 | +0.1 | +0.6 | -0.7 | +0.0 | -0.5 | -0.0 |

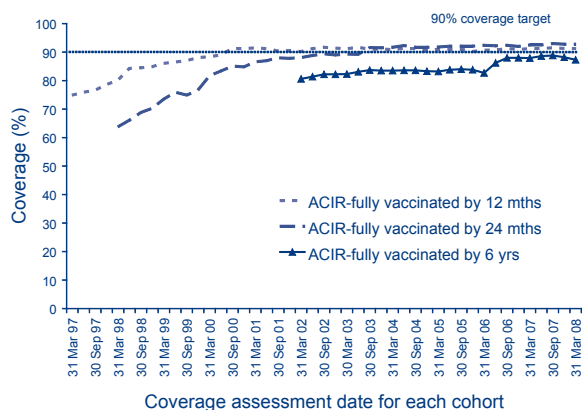
* The 12 months age data for this cohort was published in *Commun Dis Intell* 2007;31:333.

Table 3. Percentage of children immunised at 5 years of age, preliminary results by disease and state or territory for the birth cohort 1 January to 31 March 2003; assessment date 30 June 2008

| Vaccine | State or territory | | | | | | | | Australia |
|--|--------------------|--------|------|--------|-------|-------|--------|-------|-----------|
| | ACT | NSW | NT | Qld | SA | Tas | Vic | WA | |
| Total number of children | 1,028 | 21,494 | 942 | 13,525 | 4,293 | 1,420 | 15,502 | 6,615 | 64,819 |
| Diphtheria, tetanus, pertussis (%) | 89.9 | 87.4 | 88.5 | 88.0 | 84.7 | 90.5 | 91.1 | 85.2 | 88.1 |
| Poliomyelitis (%) | 89.6 | 87.2 | 88.5 | 87.8 | 84.7 | 90.5 | 91.0 | 84.9 | 88.0 |
| Measles, mumps, rubella (%) | 89.0 | 86.9 | 88.3 | 87.8 | 84.7 | 90.3 | 90.8 | 85.1 | 87.8 |
| Fully immunised (%) | 88.9 | 86.4 | 87.9 | 87.3 | 84.2 | 89.8 | 90.5 | 84.1 | 87.3 |
| Change in fully immunised since last quarter (%) | -1.7 | -1.9 | -0.4 | -1.1 | -1.5 | +3.4 | +0.1 | +0.2 | -0.9 |

12 months and pneumococcal conjugate at 2, 4, and 6 months) are not included in the 12 or 24 months coverage data respectively.

Figure 5. Trends in vaccination coverage, Australia, 1997 to 31 March 2008, by age cohorts



Gonococcal surveillance

John Tapsall, *The Prince of Wales Hospital, Randwick NSW 2031 for the Australian Gonococcal Surveillance Programme.*

The Australian Gonococcal Surveillance Programme (AGSP) reference laboratories in the various states and territories report data on sensitivity to an agreed 'core' group of antimicrobial agents quarterly. The antibiotics currently routinely surveyed are penicillin, ceftriaxone, ciprofloxacin and spectinomycin, all of which are administered as single dose regimens and currently used in Australia to treat gonorrhoea. When *in vitro* resistance to a recommended agent is demonstrated in 5 per cent or more of isolates from a general population, it is usual to remove that agent from the list of recommended treatment.¹ Additional data are also provided on other antibiotics from time to time. At present all laboratories also test isolates for the presence of high level (plasmid-mediated) resistance to the tetracyclines, known as TRNG. Tetracyclines are however, not a recommended therapy for gonorrhoea in Australia. Comparability of data is achieved by means of a standardised system of testing and a program-specific quality assurance process. Because of the substantial geographic differences in susceptibility patterns in Australia, regional as well as aggregated data are presented. For more information see *Commun Dis Intell* 2008;32:134.

Reporting period 1 January to 31 March 2008

The AGSP laboratories received a total of 799 isolates in the first quarter of 2008 of which 783 underwent susceptibility testing. This approximates the 856 isolates reported in this period in 2007. Approximately 28% of this total was from New South Wales, 17.5% from Victoria, 16.1% from Queensland, 12.8% from Western Australia and South Australia and 11.7% from the Northern Territory. Small numbers of isolates were also received from Tasmania and the Australian Capital Territory.

Penicillins

In this quarter, 350 (44.7%) of all isolates examined were penicillin resistant by one or more mechanisms. Ninety-six (12.3%) were penicillinase producing *Neisseria gonorrhoeae* (PPNG) and 254 (32.4%) were penicillin resistant by chromosomal mechanisms, (CMRP). The proportion of all strains resistant to the penicillins by any mechanism ranged from nil in the Northern Territory and Australian Capital Territory to 75% in South Australia. In the corresponding quarter in 2007, 38.7% of isolates were penicillin resistant by any mechanism. The increase in penicillin resistant strains was in gonococci with chromosomally mediated resistance.

Figure 6 shows the proportions of gonococci fully sensitive (MIC \leq 0.03 mg/L), less sensitive (MIC 0.06–0.5 mg/L), relatively resistant (MIC \geq 1 mg/L) or else PPNG aggregated for Australia and by state and territory. A high proportion of those strains classified as PPNG or else resistant by chromo-

Figure 6. Categorisation of gonococci isolated in Australia, 1 January to 31 March 2008, by penicillin susceptibility and region



- FS Fully sensitive to penicillin, MIC \leq 0.03 mg/L.
- LS Less sensitive to penicillin, MIC 0.06–0.5 mg/L.
- RR Relatively resistant to penicillin, MIC \geq 1 mg/L.
- PPNG Penicillinase producing *Neisseria gonorrhoeae*.

somal mechanisms fail to respond to treatment with penicillins (penicillin, amoxicillin, ampicillin) and early generation cephalosporins.

The highest number of PPNG and CMRP were found in New South Wales where there were 46 (21%) PPNG and 94 (43%) CMRP. South Australia had the highest proportion of penicillin resistant strains with 5 (5%) PPNG and 70 (70.7%) CMRP. Victoria had 63 (46%) CMRP and 11 (8%) PPNG. Queensland had higher numbers of PPNG, 21 (16.5%), but fewer CMRP, 11 (9%). Western Australia had equal numbers of PPNG and CMRP, each 12 (12%). No penicillin resistant strains were found in the Northern Territory or the Australian Capital Territory. There were 4 CMRP and 1 PPNG reported from Tasmania.

Ceftriaxone

Eight isolates with decreased susceptibility to ceftriaxone (MIC range 0.06–0.12 mg/L) were detected; 6 in New South Wales and 1 each in Western Australia and Queensland. A similar number was seen nationally in the first quarter of 2007.

Spectinomycin

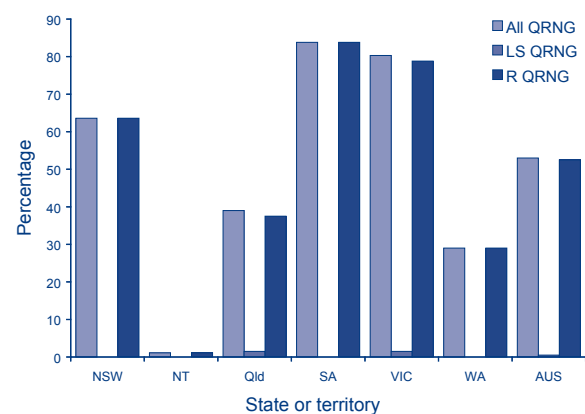
All isolates were susceptible to this injectable agent.

Quinolone antibiotics

The total number (415) and proportion (53%) of quinolone resistant *N. gonorrhoeae* (QRNG) was consistent with data reported in recent quarters showing high levels of resistance to this group of antibiotics. In the equivalent period in 2007, there were 436 (51.6%) QRNG. All but 4 of the 415 QRNG detected in this quarter had ciprofloxacin MICs of 1 mg/L or more and 379 had ciprofloxacin MICs of 4 mg/L or more. QRNG are defined as those isolates with an MIC to ciprofloxacin equal to or greater than 0.06 mg/L. QRNG are further subdivided into less sensitive (ciprofloxacin MICs 0.06–0.5 mg/L) or resistant (MIC \geq 1 mg/L) groups.

QRNG were present in all jurisdictions except the Australian Capital Territory (Figure 7). The highest number of QRNG was found in New South Wales (140) and this represented 63.6% of all isolates. The 83 (83.8%) QRNG in South Australia was the highest proportion of QRNG by jurisdiction. The 110 QRNG in Victoria also represented a high (80.3%) proportion of all isolates there. In Queensland, there were 28 (22%), and in Western Australia 24 (24%) QRNG. A single QRNG was detected in the Northern Territory and 3 in Tasmania.

Figure 7. The distribution of quinolone resistant isolates of *Neisseria gonorrhoeae* in Australia, 1 January to 31 March 2008, by jurisdiction



LS QRNG Ciprofloxacin MICs 0.06–0.5 mg/L.

R QRNG Ciprofloxacin MICs \geq 1 mg/L.

High level tetracycline resistance

Nationally, the number (135) and proportion (17.2%) of high level tetracycline resistance (TRNG) detected increased when compared with the 2007 data (125 TRNG, 14.8%). TRNG were found in all states and territories except the Australian Capital Territory and elsewhere represented between 8% (South Australia and the Northern Territory) and 24% of isolates (Western Australia) in mainland states.

Reference

1. Management of sexually transmitted diseases. World Health Organization 1997; Document WHO/GPA/TEM94.1 Rev.1 p 37.

HIV and AIDS surveillance

National surveillance for HIV disease is coordinated by the National Centre in HIV Epidemiology and Clinical Research (NCHECR), in collaboration with State and Territory health authorities and the Commonwealth of Australia. Cases of HIV infection are notified to the National HIV Database on the first occasion of diagnosis in Australia, by either the diagnosing laboratory (Australian Capital Territory, New South Wales, Tasmania, Victoria) or by a combination of laboratory and doctor sources (Northern Territory, Queensland, South Australia, Western Australia). Cases of AIDS are notified through the State and Territory health authorities to the National AIDS Registry. Diagnoses of both HIV infection and AIDS are notified with the person's date of birth and name code, to minimise duplicate notifications while maintaining confidentiality.

Tabulations of diagnoses of HIV infection and AIDS are based on data available three months after the end of the reporting interval indicated, to allow for reporting delay and to incorporate newly available information. More detailed information on diagnoses of HIV infection and AIDS is published in the quarterly *Australian HIV Surveillance Report*, and annually in 'HIV/AIDS, viral hepatitis and sexually transmissible infections in Australia, annual surveillance report'. The reports are available from the National Centre in HIV Epidemiology and Clinical Research, 376 Victoria Street, Darlinghurst NSW 2010. Internet: <http://www>.

med.unsw.edu.au/ncheccr. Telephone: +61 2 9332 4648. Facsimile: +61 2 9332 1837. For more information see *Commun Dis Intell* 2005;29:91–92.

HIV and AIDS diagnoses and deaths following AIDS reported for 1 October to 31 December 2007, as reported to 31 March 2008 are included in this issue of *Communicable Diseases Intelligence* (Tables 4, and 5).

Table 4. New diagnoses of HIV infection, new diagnoses of AIDS and deaths following AIDS occurring in the period 1 October to 31 December 2007, by sex and state or territory of diagnosis

| | Sex | State or territory | | | | | | | | Totals for Australia | | | |
|----------------|--------------|--------------------|-----|----|-----|----|-----|-----|----|----------------------|------------------|----------|----------|
| | | ACT | NSW | NT | Qld | SA | Tas | Vic | WA | This period 2007 | This period 2006 | YTD 2007 | YTD 2006 |
| HIV diagnoses | Female | 0 | 14 | 0 | 5 | 3 | 0 | 11 | 3 | 36 | 45 | 140 | 146 |
| | Male | 0 | 84 | 1 | 50 | 7 | 1 | 58 | 12 | 213 | 238 | 910 | 858 |
| | Not reported | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Total* | 0 | 98 | 1 | 55 | 10 | 1 | 59 | 15 | 249 | 284 | 1,051 | 1,007 |
| AIDS diagnoses | Female | 0 | 3 | 0 | 0 | 0 | 0 | 3 | 0 | 6 | 4 | 15 | 20 |
| | Male | 0 | 14 | 0 | 4 | 1 | 0 | 10 | 0 | 29 | 50 | 137 | 193 |
| | Total* | 0 | 17 | 0 | 4 | 1 | 0 | 13 | 0 | 35 | 54 | 153 | 216 |
| AIDS deaths | Female | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 8 | 7 |
| | Male | 0 | 2 | 1 | 2 | 0 | 0 | 5 | 2 | 12 | 17 | 45 | 74 |
| | Total* | 0 | 3 | 1 | 2 | 0 | 0 | 5 | 2 | 13 | 19 | 53 | 83 |

* Totals include people whose sex was reported as transgender.

Table 5. Cumulative diagnoses of HIV infection, AIDS, and deaths following AIDS since the introduction of HIV antibody testing to 31 December 2007, and reported by 31 March 2008, by sex and state or territory

| | Sex | State or territory | | | | | | | | Australia |
|----------------|--------------|--------------------|--------|-----|-------|-------|-----|-------|-------|-----------|
| | | ACT | NSW | NT | Qld | SA | Tas | Vic | WA | |
| HIV diagnoses | Female | 32 | 928 | 23 | 298 | 111 | 12 | 400 | 221 | 2,025 |
| | Male | 261 | 13,823 | 137 | 2,897 | 979 | 112 | 5,503 | 1,275 | 24,987 |
| | Not reported | 0 | 228 | 0 | 0 | 0 | 0 | 22 | 0 | 250 |
| | Total* | 293 | 15,009 | 160 | 3,204 | 1,091 | 124 | 5,947 | 1,503 | 27,331 |
| AIDS diagnoses | Female | 10 | 262 | 4 | 73 | 32 | 4 | 116 | 42 | 543 |
| | Male | 92 | 5,509 | 45 | 1,055 | 412 | 55 | 2,049 | 434 | 9,651 |
| | Total* | 102 | 5,789 | 49 | 1,130 | 445 | 59 | 2,178 | 478 | 10,230 |
| AIDS deaths | Female | 7 | 138 | 1 | 43 | 20 | 2 | 64 | 29 | 304 |
| | Male | 73 | 3,597 | 30 | 676 | 280 | 33 | 1,426 | 299 | 6,414 |
| | Total* | 80 | 3,746 | 31 | 721 | 300 | 35 | 1,499 | 329 | 6,741 |

* Totals include people whose sex was reported as transgender.

National Enteric Pathogens Surveillance System

The National Enteric Pathogens Surveillance System (NEPSS) collects, analyses and disseminates data on human enteric bacterial infections diagnosed in Australia. Communicable Diseases Intelligence NEPSS quarterly reports include only Salmonella. NEPSS receives reports of Salmonella isolates that have been serotyped and phage typed by the five Salmonella typing laboratories in Australia. Salmonella isolates are submitted to these laboratories for typing by primary diagnostic laboratories throughout Australia.

A case is defined as the isolation of a Salmonella from an Australian resident, either acquired locally or as a result of overseas travel, including isolates detected during immigrant and refugee screening. Second and subsequent identical isolates from an individual within six months are excluded, as are isolates from overseas visitors to Australia. The date of the case is the date the primary diagnostic laboratory isolated Salmonella from the clinical sample.

Quarterly reports include historical quarterly mean counts. These should be interpreted cautiously as they may be affected by outbreaks and by surveillance artefacts such as newly recognised and incompletely typed Salmonella.

NEPSS may be contacted at the Microbiological Diagnostic Unit, Public Health Laboratory, Department of Microbiology and Immunology, The University of Melbourne; by telephone: +61 3 8344 5701, facsimile: +61 3 8344 7833 or email joanp@unimelb.edu.au

Scientists, diagnostic and reference laboratories contribute data to NEPSS, which is supported by state and territory health departments and the Australian Government Department of Health and Ageing.

Reports to the National Enteric Pathogens Surveillance System of Salmonella infection for the period 1 April to 30 June 2008 are included in Tables 6 and 7. Data include cases reported and entered by 18 July 2008. Counts are preliminary, and subject to adjustment after completion of typing and reporting of further cases to NEPSS. For more information see Commun Dis Intell 2008;32:137.

Reporting period 1 April to 30 June 2008

There were 1,712 reports to NEPSS of human Salmonella infection in the second quarter of 2008, approximately 25% fewer than in the first quarter of 2008. Limited second quarter data from Western Australia were available at the time of preparing this report. Taking this into account, the overall count of cases for the remainder of Australia appears to be around 10% more than the recent historical mean incidence of salmonellosis at this time of each year.

During the second quarter of 2008, the 25 most common Salmonella types in Australia accounted for 1,103 cases, 64% of all reported human Salmonella infections. Twenty of the 25 most common Salmonella infections in the second quarter of 2008 were also among those most commonly reported in the preceding quarter.

Increases above the historical average of *S. Typhimurium* phage type 135 (particularly in Victoria, New South Wales and South Australia) and *S. Typhimurium* phage type 44 (in Victoria and New South Wales) account for the greatest proportion of the overall national increase in salmonellosis.

Smaller, more localised increases during the second quarter of 2008 included *S. Typhimurium* phage types 126 and 120, and *S. Johannesburg* (all in Victoria), *S. Paratyphi B* biovar Java phage type Dundee, *S. Typhimurium* phage type U290, *S. Montevideo* and *S. Wangata* (in New South Wales), and *S. Typhimurium* phage type 9 (in the Australian Capital Territory).

Cases of *S. Virchow* phage type 8 were largely confined to Queensland during the second quarter of 2008. This contrasts with the first quarter when this typically Queensland Salmonella was reported widely from the other states and territories.

Acknowledgement: We thank scientists, contributing laboratories, state and territory health departments, and the Australian Government Department of Health and Ageing for their contributions to NEPSS.

Table 6. Reports to the National Enteric Pathogens Surveillance System of Salmonella isolated from humans during the period 1 April to 30 June 2008, as reported to 18 July 2008

| | State or territory | | | | | | | | Australia |
|-------------------------------------|--------------------|-----|----|-----|-----|-----|-----|----|-----------|
| | ACT | NSW | NT | Qld | SA | Tas | Vic | WA | |
| Total all Salmonella for quarter | 28 | 505 | 86 | 417 | 144 | 38 | 455 | 39 | 1,712 |
| Total contributing Salmonella types | 13 | 104 | 33 | 101 | 48 | 14 | 99 | 23 | 210 |

* Limited second quarter data from Western Australia were available at the time of preparing this report.

Table 7. Top 25 *Salmonella* types identified in Australia, 1 April to 30 June 2008, by state or territory

| National rank | Salmonella type | State or territory | | | | | | | | Total 2nd quarter 2008 | Last 10 years mean 2nd quarter | Year to date 2008 | Year to date 2007 |
|---------------|----------------------------------|--------------------|-----|----|-----|----|-----|-----|----|------------------------|--------------------------------|-------------------|-------------------|
| | | ACT | NSW | NT | Qld | SA | Tas | Vic | WA | | | | |
| 1 | S. Typhimurium PT 135 | 4 | 115 | 0 | 35 | 22 | 5 | 86 | 0 | 267 | 144 | 649 | 446 |
| 2 | S. Typhimurium PT 9 | 8 | 40 | 1 | 14 | 18 | 0 | 46 | 0 | 127 | 124 | 260 | 558 |
| 3 | S. Typhimurium PT 44 | 1 | 24 | 0 | 9 | 3 | 3 | 76 | 0 | 116 | 25 | 224 | 294 |
| 4 | S. Typhimurium PT 170 | 3 | 31 | 0 | 14 | 0 | 0 | 21 | 0 | 69 | 79 | 167 | 199 |
| 5 | S. Saintpaul | 0 | 5 | 8 | 34 | 3 | 0 | 3 | 4 | 57 | 94 | 162 | 227 |
| 6 | S. Birkenhead | 0 | 14 | 0 | 27 | 0 | 0 | 0 | 0 | 41 | 62 | 126 | 143 |
| 7 | S. Infantis | 0 | 16 | 5 | 3 | 9 | 0 | 7 | 0 | 40 | 38 | 118 | 97 |
| 8 | S. Typhimurium PT 126 | 2 | 17 | 0 | 1 | 0 | 0 | 15 | 0 | 35 | 27 | 87 | 28 |
| 9 | S. Chester | 0 | 4 | 2 | 15 | 5 | 2 | 3 | 3 | 34 | 41 | 93 | 111 |
| 10 | S. Mississippi | 0 | 0 | 0 | 2 | 1 | 18 | 4 | 0 | 25 | 21 | 83 | 110 |
| 11 | S. Aberdeen | 0 | 0 | 0 | 22 | 0 | 0 | 1 | 0 | 23 | 35 | 52 | 91 |
| 12 | S. Muenchen | 0 | 2 | 2 | 11 | 2 | 0 | 3 | 3 | 23 | 35 | 68 | 88 |
| 13 | S. Stanley | 0 | 8 | 0 | 0 | 3 | 0 | 9 | 3 | 23 | 14 | 49 | 67 |
| 14 | S. Montevideo | 2 | 11 | 1 | 9 | 0 | 0 | 0 | 0 | 23 | 12 | 55 | 83 |
| 15 | S. Anatum | 0 | 6 | 5 | 6 | 2 | 0 | 1 | 2 | 22 | 22 | 46 | 41 |
| 16 | S. Hvitvingfoss | 0 | 1 | 4 | 15 | 0 | 0 | 0 | 1 | 21 | 36 | 54 | 80 |
| 17 | S. Waycross | 0 | 7 | 0 | 14 | 0 | 0 | 0 | 0 | 21 | 31 | 58 | 68 |
| 18 | S. Paratyphi B bv Java PT Dundee | 1 | 19 | 0 | 0 | 1 | 0 | 0 | 0 | 21 | 3.1 | 31 | 7 |
| 19 | S. Virchow PT 8 | 0 | 0 | 1 | 18 | 0 | 1 | 0 | 0 | 20 | 71 | 116 | 161 |
| 20 | S. Typhimurium PT 197 | 2 | 6 | 0 | 5 | 3 | 1 | 1 | 0 | 18 | 25 | 73 | 135 |
| 21 | S. Typhimurium PT U290 | 1 | 16 | 0 | 1 | 0 | 0 | 0 | 0 | 18 | 13 | 40 | 26 |
| 22 | S. Agona | 0 | 6 | 0 | 2 | 2 | 0 | 3 | 2 | 15 | 17 | 28 | 40 |
| 23 | S. Weitevreden | 0 | 1 | 7 | 4 | 1 | 0 | 1 | 1 | 15 | 14 | 42 | 40 |
| 24 | S. Typhimurium PT 135a | 0 | 0 | 2 | 0 | 13 | 0 | 0 | 0 | 15 | 8 | 31 | 36 |
| 25 | S. Ball | 0 | 1 | 13 | 0 | 0 | 0 | 0 | 0 | 14 | 13 | 25 | 20 |

* Limited second quarter data from Western Australia were available at the time of preparing this report.

Meningococcal surveillance

John Tapsall, The Prince of Wales Hospital, Randwick, NSW, 2031 for the Australian Meningococcal Surveillance Programme.

The reference laboratories of the Australian Meningococcal Surveillance Programme report data on the number of laboratory confirmed cases confirmed either by culture or by non-culture based techniques. Culture positive cases, where a Neisseria meningitidis is grown from a normally sterile site or skin, and non-culture based diagnoses, derived from results of nucleic acid amplification assays and serological techniques,

are defined as invasive meningococcal disease (IMD) according to Public Health Laboratory Network definitions. Data contained in the quarterly reports are restricted to a description of the number of cases per jurisdiction, and serogroup, where known. A full analysis of laboratory confirmed cases of IMD is contained in the annual reports of the Programme, published in Communicable Diseases Intelligence. For more information see Commun Dis Intell 2008;32:135.

Laboratory confirmed cases of invasive meningococcal disease for the period 1 April to 30 June 2008, are included in this issue of Communicable Diseases Intelligence (Table 8).

Table 8. Number of laboratory confirmed cases of invasive meningococcal disease, Australia, 1 April to 30 June 2008, by serogroup and state or territory

| State or territory | Year | Serogroup | | | | | | | | | | | | | |
|------------------------------|------|-----------|-----|----|-----|----|-----|----|-----|------|-----|----|-----|-----|-----|
| | | A | | B | | C | | Y | | W135 | | ND | | All | |
| | | Q2 | YTD | Q2 | YTD | Q2 | YTD | Q2 | YTD | Q2 | YTD | Q2 | YTD | Q2 | YTD |
| Australian Capital Territory | 08 | | 2 | 2 | | | | | | | | | | 2 | 2 |
| | 07 | | 0 | 1 | | | | | | 1 | | | | 0 | 2 |
| New South Wales | 08 | | 9 | 13 | 2 | 3 | 1 | 2 | 1 | 1 | | | | 13 | 19 |
| | 07 | | 5 | 17 | 3 | 6 | 2 | 2 | 1 | 1 | 3 | 4 | | 14 | 30 |
| Northern Territory | 08 | | | | 1 | 2 | | | | | | | | 1 | 2 |
| | 07 | | | 1 | 1 | 1 | | | | | | | | 1 | 2 |
| Queensland | 08 | | 25 | 41 | 0 | 2 | | | 1 | 1 | | | | 26 | 44 |
| | 07 | | 8 | 19 | 1 | 1 | | | | | 1 | 1 | | 10 | 21 |
| South Australia | 08 | | 5 | 7 | | | | | | | | | | 5 | 7 |
| | 07 | | 3 | 4 | | | | | | | | | | 3 | 4 |
| Tasmania | 08 | | | | | | | | | | | | | 0 | 0 |
| | 07 | | | | | | | | 1 | 1 | | | | 1 | 1 |
| Victoria | 08 | | 20 | 24 | | | 1 | 1 | | | 3 | 3 | | 24 | 28 |
| | 07 | | 15 | 21 | 2 | 2 | 3 | 3 | 1 | 1 | 1 | 1 | | 22 | 28 |
| Western Australia | 08 | | 5 | 8 | | | | | | | | 1 | | 5 | 9 |
| | 07 | | 4 | 7 | | | | | | | | | | 4 | 7 |
| Total | 08 | | 65 | 95 | 3 | 7 | 2 | 3 | 2 | 2 | 3 | 4 | | 76 | 111 |
| | 07 | | 35 | 70 | 7 | 10 | 5 | 5 | 3 | 3 | 5 | 6 | | 55 | 94 |