

# Communicable Diseases Surveillance

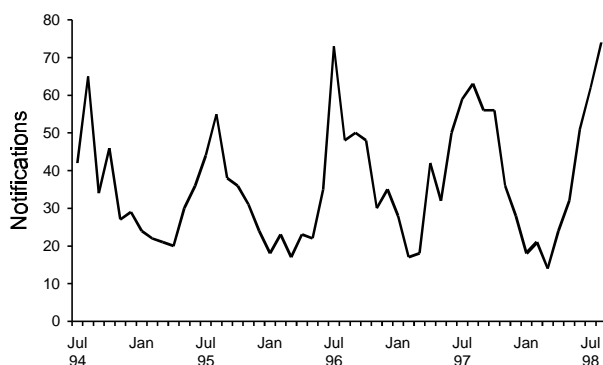
## Highlights

Communicable Diseases Surveillance consists of data from various sources. The National Notifiable Diseases Surveillance System (NNDSS) is conducted under the auspices of the Communicable Diseases Network Australia New Zealand. The CDI Virology and Serology Laboratory Reporting Scheme (LabVISE) is a sentinel surveillance scheme. The Australian Sentinel Practice Research Network (ASPEN) is a general practitioner-based sentinel surveillance scheme. In this report, data from the NNDSS are referred to as 'notifications' or 'cases', whereas those from ASPEN are referred to as 'consultations' or 'encounters' while data from the LabVISE scheme are referred to as 'laboratory reports'.

### Meningococcal disease

There were 59 reports of meningococcal disease in this period, slightly less than the 64 cases reported for the same period in 1997. Of the 316 cases reported to date in 1998, 311 had onset dates between 1 January 1998 and 16 September 1998, compared with 337 cases and 270 cases in the same periods in 1993 and 1994 respectively. The number of cases in August (74) was higher than in July (62), following the usual seasonal trend (Figure 1). The male:female ratio of 1998 cases to date is 1.17:1 and the age groups with the highest numbers of cases continue to be 0-4 years, 15-19 years and 20-24 years. The State and Territory distribution of cases with onset in 1998 is similar to that seen in the same period in 1997.

**Figure 1. Notifications of meningococcal disease, Australia, July 1994 to August 1998, by month of onset**



### Vaccine preventable diseases

The number of notifications of pertussis infection continues to fall. Although there is a slight increase in the number of reports during this period, examination by date of onset shows that the numbers have fallen in each successive month since December 1997. Most notifications with onset in 1998 are in children aged 5 to 9 (17%), 10 to 14 (15%) and 0 to 4 (11%). The decrease is reflected in the reports from the LabVISE system (Table 3).

A small increase in the number of rubella notifications may represent the start of the seasonal variation expected in the spring.

### SLTEC infections, HUS and TTP

With this issue we commence the reporting of *Shiga*-like toxin (verotoxin) producing *Escherichia coli* (SLTEC, VTEC) infections, and the associated syndromes, haemolytic uraemic syndrome (HUS) and thrombotic thrombocytopenic purpura (TTP). The case definitions for national reporting of these conditions are provided on page 223.

While these conditions are not yet notifiable in all States and Territories, the rarity, severity and public health importance of HUS ensures that most cases are voluntarily reported to State and Territory health authorities. The level of voluntary reporting of SLTEC infections is not known. South Australia is currently the only State in which TTP is notifiable as a separate condition.

Although national reporting only commenced in this reporting period, most States and Territories have provided information about all cases in their records for the 1998 year to date.

In this reporting period, 3 sporadic cases of HUS have been recorded by New South Wales and 1 case of SLTEC infection by South Australia. To date in 1998, the total number of HUS cases reported has been 10 (NSW 5, South Australia 3 and Western Australia 2) and the total number of SLTEC infections has been 14 (South Australia 13 and New South Wales 1).

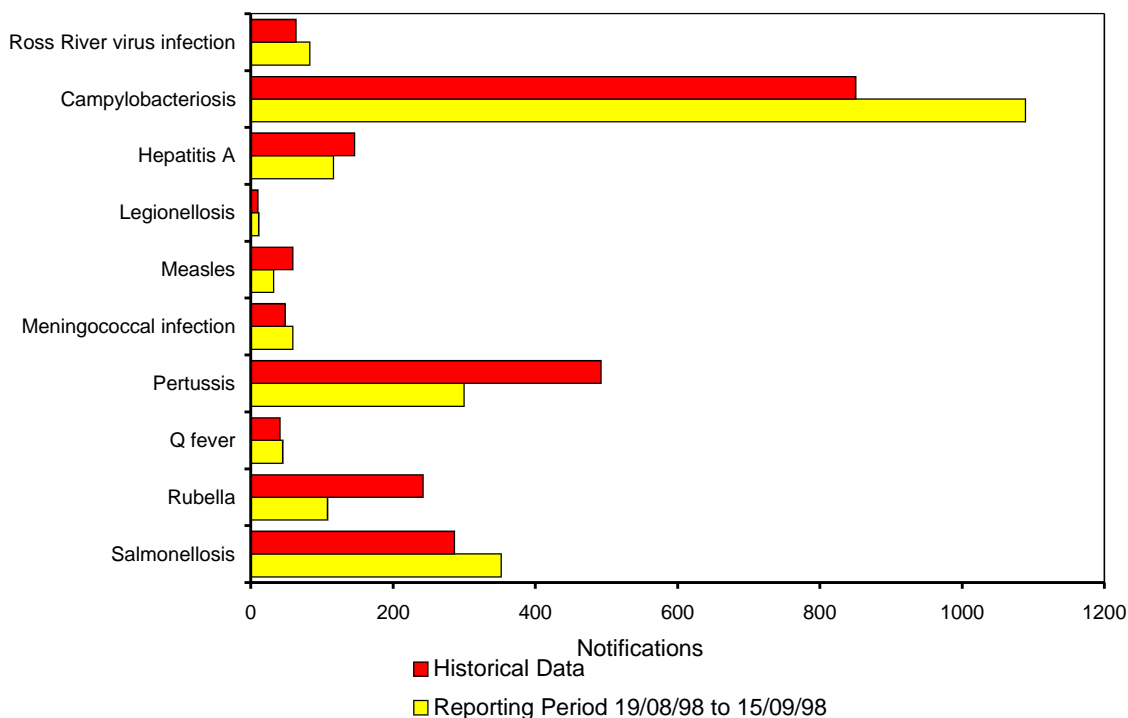
## Tables

There were 4,339 notifications to the National Notifiable Diseases Surveillance System (NNDSS) in the four week period, 18 August to 16 September 1998 (Tables 1 and 2). The numbers of reports for selected diseases have been compared with historical data for corresponding periods in the previous three years (Figure 2).

There were 2,868 reports received by the *CDI* Virology and Serology Laboratory Reporting Scheme (LabVISE) in the four week period, 13 August to 9 September 1998 (Tables 3 and 4).

The Australian Sentinel Practice Research Network (ASPREN) data for weeks 32 to 35, ending 6 September 1998, are included in this issue of *CDI* (Table 5).

**Figure 2. Selected National Notifiable Diseases Surveillance System reports, and historical data<sup>1</sup>**



1. The historical data are the averages of the number of notifications in the corresponding 4 week periods of the last 3 years and the 2 week periods immediately preceding and following those.

**Table 1. Notifications of diseases preventable by vaccines recommended by the NHMRC for routine childhood immunisation, received by State and Territory health authorities in the period 18 August to 16 September 1998**

Disease <sup>1,2</sup>	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	This period 1998	This period 1997	Year to date 1998	Year to date 1997
Diphtheria	0	0	0	0	0	0	0	0	0	0	0	0
<i>H. influenzae</i> type b infection	0	0	0	0	0	1	0	0	1	3	22	36
Measles <sup>3</sup>	1	8	0	0	0	7	9	7	32	49	270	420
Mumps	0	4	1	10	2	0	2	10	29	19	140	144
Pertussis	5	111	1	69	32	6	70	6	300	827	4,955	5,688
Rubella <sup>4</sup>	4	4	0	66	1	0	29	4	108	116	598	984
Tetanus	0	0	0	0	0	0	0	1	1	0	4	7

NN. Not Notifiable

1. No notification of poliomyelitis has been received since 1986.

2. Totals comprise data from all States and Territories. Cumulative figures are subject to retrospective revision, so there may be discrepancies between the number of new notifications and the increment in the cumulative figure from the previous period.

3. The total number of measles notifications for 1998 has been revised downwards because of a reclassification of 79 cases previously notified as measles by Victoria. These cases have been reclassified as not measles following results of serology.

4. Includes congenital rubella.

**Table 2. Notifications of diseases received by State and Territory health authorities in the period 18 August to 16 September 1998**

Disease <sup>1,2,3,4</sup>	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	This period 1998	This period 1997	Year to date 1998 <sup>5</sup>	Year to date 1997
Arbovirus infection (NEC) <sup>6</sup>	0	0	0	1	0	0	1	0	2	4	60	108
Barmah Forest virus infection	1	5	1	21	0	0	1	1	30	23	442	538
Brucellosis	0	0	0	2	0	0	0	0	2	8	30	27
Campylobacteriosis <sup>7</sup>	31	-	14	358	223	37	276	150	1,089	798	7,838	7,986
Chlamydial infection (NEC) <sup>8</sup>	15	NN	57	406	88	12	184	147	909	715	7,669	6,615
Cholera	0	0	0	1	0	0	0	0	1	0	4	2
Dengue	1	4	2	14	0	0	1	2	24	2	380	195
Donovanosis	0	NN	2	0	NN	0	0	0	2	0	27	23
Gonococcal infection <sup>9</sup>	1	60	105	79	12	2	75	73	407	300	3,873	3,192
Hepatitis A	0	31	1	68	7	1	3	5	116	168	2,099	2,331
Hepatitis B incident <sup>5</sup>	0	2	2	4	1	1	5	0	15	27	164	185
Hepatitis C incident <sup>10</sup>	0	9	0	-	4	0	-	-	13	2	124	51
Hepatitis C unspecified <sup>5</sup>	29	NN	34	295	NN	18	5	80	461	746	5,878	6,832
Hepatitis (NEC)	0	0	0	0	0	0	0	NN	0	0	4	14
Haemolytic uraemic syndrome <sup>11</sup>	NN	3	NN	0	0	0	NN	0	3	NA	10	NA
Hydatid infection	0	0	0	4	0	0	3	0	7	11	33	39
Legionellosis	0	2	0	1	3	1	2	2	11	6	174	110
Leprosy	0	0	0	0	0	0	0	0	0	2	2	10
Leptospirosis	0	1	0	3	0	0	2	0	6	9	115	89
Listeriosis	0	1	0	0	0	0	1	1	3	2	41	58
Malaria	1	5	0	12	3	0	4	0	25	76	568	612
Meningococcal infection	0	20	0	11	5	3	8	12	59	64	316	337
Ornithosis	0	NN	0	0	0	0	1	0	1	2	28	39
Q Fever	0	7	0	36	2	0	0	0	45	35	397	430
Ross River virus infection	1	8	4	64	1	1	0	4	83	66	2,436	6,362
Salmonellosis (NEC)	2	72	25	123	26	4	69	31	352	310	5,751	5,149
Shigellosis <sup>7</sup>	0	-	8	5	6	0	9	6	34	37	448	590
SLTEC infections <sup>12</sup>	NN	0	NN	NN	1	0	NN	NN	1	NA	14	NA
Syphilis <sup>13</sup>	1	36	37	91	1	0	0	5	171	108	1,071	929
Tuberculosis	3	25	2	13	8	2	23	5	81	75	725	725
Typhoid <sup>14</sup>	0	1	0	0	0	0	1	1	3	2	56	57
Yersiniosis (NEC) <sup>7</sup>	1	-	0	3	3	0	3	0	10	11	169	190

1. For diseases preventable by routine childhood immunisation, see Table 1

2. For HIV and AIDS, see Tables 6 and 7.

3. Totals comprise data from all States and Territories. Cumulative figures are subject to retrospective revision so there may be discrepancies between the number of new notifications and the increment in the cumulative figure from the previous period.

4. No notifications have been received during 1998 for the following rare diseases: botulism (foodborne), lymphogranuloma venereum, plague, rabies, yellow fever, or other viral haemorrhagic fevers. There have also been no cases of thrombotic thrombocytopenic purpura (TTP), which became nationally reportable in August 1998.

5. Data from Victoria for 1998 are incomplete.

6. NT: includes Barmah Forest virus.

7. Not reported for NSW because it is only notifiable as 'foodborne disease' or 'gastroenteritis in an institution'.

8. WA: genital only

9. NT, Qld, SA and Vic: includes gonococcal neonatal ophthalmia.

10. Qld, Vic and WA incident cases of Hepatitis C are not separately reported.

11. Nationally reportable from August 1998

12. Infections with *Shiga*-like toxin (verotoxin) producing *E. Coli* (SLTEC/VTEC) became nationally reportable in August 1998.

13. Includes congenital syphilis

14. NSW, Qld, Vic: includes paratyphoid.

NN Not Notifiable.

NEC Not Elsewhere Classified

- Elsewhere Classified.

NA Not applicable, as reporting for this condition did not commence until 1998.

**Table 3. Virology and serology laboratory reports by State or Territory<sup>1</sup> for the reporting period 13 August to 9 September 1998, and total reports for the year**

	State or Territory <sup>1</sup>								Total this period	Total reported in <i>CDI</i> in 1998
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA		
<b>Measles, mumps, rubella</b>										
Measles virus		1						4	5	51
Mumps virus								4	4	31
Rubella virus				11	1		2	1	15	90
<b>Hepatitis viruses</b>										
Hepatitis A virus	4	4	1	9	3			2	23	311
Hepatitis D virus				1					1	4
<b>Arboviruses</b>										
Ross River virus		1	1	20	1			4	27	581
Barmah Forest virus							2		2	26
Dengue not typed								3	3	28
Flavivirus (unspecified)				3			4		7	56
<b>Adenoviruses</b>										
Adenovirus type 2							3		3	18
Adenovirus type 3					1		3		4	30
Adenovirus type 8							1		1	4
Adenovirus type 37							1		1	2
Adenovirus type 40								4	4	9
Adenovirus not typed/pending	4	36		4	15		17	13	89	560
<b>Herpes viruses</b>										
Cytomegalovirus		10		10	5		31	11	67	559
Varicella-zoster virus	3	18	1	32	5		22	20	101	919
Epstein-Barr virus		43		48	21		16	8	136	1,245
<b>Other DNA viruses</b>										
Parvovirus				3	2		20	12	37	166
<b>Picornavirus family</b>										
Echovirus type 2							1		1	1
Echovirus type 4	1								1	3
Echovirus type 11		1					1		2	26
Echovirus type 22		1							1	6
Echovirus not typed/pending							1		1	1
Poliovirus type 1 (uncharacterised)		2							2	5
Poliovirus type 2 (uncharacterised)		3					3		6	11
Poliovirus type 3 (uncharacterised)		2							2	3
Rhinovirus (all types)	3	28			2		5	6	44	353
Enterovirus type 71 (BCR)							1		1	1
Enterovirus not typed/pending	2	20		4		1	5	28	60	368
<b>Ortho/paramyxoviruses</b>										
Influenza A virus	1	409	2	42	88	4	134	34	714	2,259
Influenza B virus		1			7		4	3	15	140
Parainfluenza virus type 1	1				16		2	2	21	265
Parainfluenza virus type 2								1	1	30
Parainfluenza virus type 3		4			4		5	8	21	244
Respiratory syncytial virus	107	142	1	25	79	13	489	142	998	3,079
<b>Other RNA viruses</b>										
HTLV-1								1	1	14
Rotavirus	1	49			21	9	52	21	153	686

**Table 3. Virology and serology laboratory reports by State or Territory<sup>1</sup> for the reporting period 13 August to 9 September 1998, and total reports for the year (continued)**

	State or Territory <sup>1</sup>								Total this period	Total reported in <i>CDI</i> in 1998
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA		
<b>Other</b>										
<i>Chlamydia trachomatis</i> not typed		21	6	54	17		2	49	149	2,704
<i>Chlamydia psittaci</i>							3		3	36
<i>Chlamydia</i> species	10	6		1					17	52
<i>Mycoplasma pneumoniae</i>		14	1	27	8		25	3	78	983
<i>Coxiella burnetii</i> (Q fever)		3		4	1		3		11	90
<i>Bordetella pertussis</i>		4		11			16	3	34	796
<i>Cryptococcus</i> species		1							1	12
<b>TOTAL</b>	<b>137</b>	<b>824</b>	<b>13</b>	<b>309</b>	<b>297</b>	<b>27</b>	<b>874</b>	<b>387</b>	<b>2,868</b>	<b>16,858</b>

1. State or Territory of postcode, if reported, otherwise State or Territory of reporting laboratory.

**Table 4. Virology and serology laboratory reports by contributing laboratories for the reporting period 13 August to 9 September 1998**

State or Territory	Laboratory	Reports
Australian Capital Territory	The Canberra Hospital	166
New South Wales	Institute of Clinical Pathology & Medical Research, Westmead	471
	New Children's Hospital, Westmead	188
	Royal Prince Alfred Hospital, Camperdown	48
	South West Area Pathology Service, Liverpool	68
Queensland	Queensland Medical Laboratory, West End	331
	Townsville General Hospital	12
South Australia	Institute of Medical and Veterinary Science, Adelaide	295
Tasmania	Northern Tasmanian Pathology Service, Launceston	24
Victoria	Monash Medical Centre, Melbourne	85
	Royal Children's Hospital, Melbourne	572
	Victorian Infectious Diseases Reference Laboratory, Fairfield	215
Western Australia	PathCentre Virology, Perth	280
	Princess Margaret Hospital, Perth	113
<b>TOTAL</b>		<b>2,868</b>

**Table 5. Australian Sentinel Practice Research Network reports, weeks 32 to 35, 1998**

Week number	32		33		34		35	
Week ending on	16 August 1998		23 August 1998		30 August 1998		6 September 1998	
Doctors reporting	58		46		51		41	
Total encounters	8029		6670		7048		5964	
Condition	Rate per 1,000		Rate per 1,000		Rate per 1,000		Rate per 1,000	
	Reports	encounters	Reports	encounters	Reports	encounters	Reports	encounters
Influenza	174	21.7	136	20.4	123	17.5	79	13.2
Rubella	1	0.1	0	0.0	0	0.0	2	0.3
Measles	0	0.0	0	0.0	0	0.0	1	0.2
Chickenpox	8	1.0	2	0.3	11	1.6	9	1.5
Pertussis	4	0.5	0	0.0	3	0.4	2	0.3
HIV testing (patient initiated)	7	0.9	8	1.2	9	1.3	9	1.5
HIV testing (doctor initiated)	6	0.7	6	0.9	2	0.3	2	0.3
Td (ADT) vaccine	68	8.5	58	8.7	51	7.2	34	5.7
Pertussis vaccination	38	4.7	19	2.8	37	5.2	28	4.7
Reaction to pertussis vaccine	0	0.0	0	0.0	0	0.0	0	0.0
Ross River virus infection	2	0.2	1	0.1	2	0.3	0	0.0
Gastroenteritis	69	8.6	51	7.6	66	9.4	69	11.6

The NNDSS is conducted under the auspices of the Communicable Diseases Network Australia New Zealand. The system coordinates the national surveillance of more than 40 communicable diseases or disease groups endorsed by the National Health and Medical Research Council (NHMRC). Notifications of these diseases are made to State and Territory health authorities under the provisions of their respective public health legislations. De-identified core unit data are supplied fortnightly for collation, analysis and dissemination. For further information, see CDI 1998;22:4-5.

LabVISE is a sentinel reporting scheme. Twenty-one laboratories contribute data on the laboratory identification

of viruses and other organisms. Data are collated and published in *Communicable Diseases Intelligence* every four weeks. These data should be interpreted with caution as the number and type of reports received is subject to a number of biases. For further information, see CDI 1998;22:8.

ASPREN currently comprises about 100 general practitioners from throughout the country. Up to 9,000 consultations are reported each week, with special attention to 12 conditions chosen for sentinel surveillance in 1998. CDI reports the consultation rates for all of these. For further information, including case definitions, see CDI 1998;22:5-6.

## Additional Reports

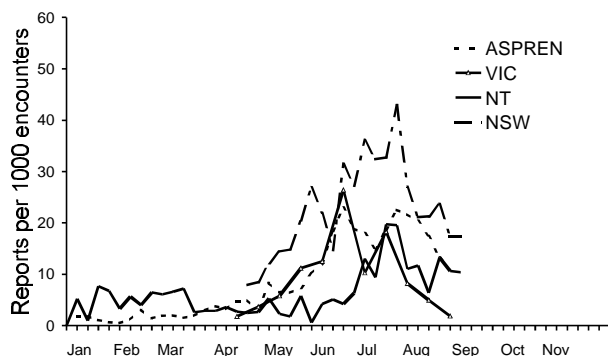
### *National Influenza Surveillance, 1998*

Three types of data are included in *National Influenza Surveillance, 1998*. These are sentinel general practitioner surveillance conducted by the Australian Sentinel Practice Research Network, Department of Human Services (Victoria), Department of Health (New South Wales) and the Tropical Influenza Surveillance Scheme, Territory Health (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*. For further information about these schemes, see CDI 1998; 22:83.

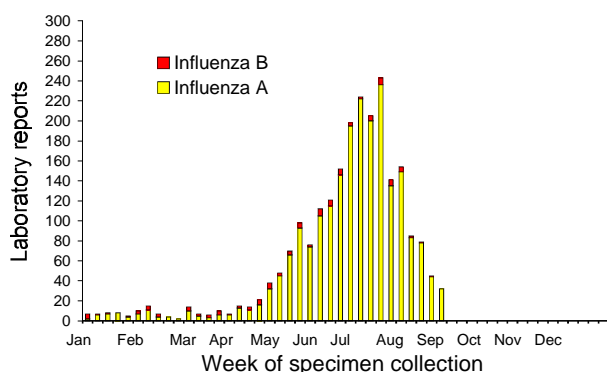
### **Sentinel General Practitioner Surveillance**

Consultation rates for influenza like illness recorded by the New South Wales, Victorian and ASPREN Schemes have declined in the last 4 weeks (Figure 3). The highest consultation rates of 17 per 1,000 have been reported by the New South Wales Sentinel Practitioner Scheme. A late seasonal peak in reports of influenza-like illness was reported by the Tropical Influenza Surveillance Scheme in early August, but over the last month these rates have declined from 19.7 to 10.4 per 1,000. The winter peak for reported consultation rates for influenza-type illness across all schemes has been less than the 50 per 1,000 consultations reported in late July and early August of last year.

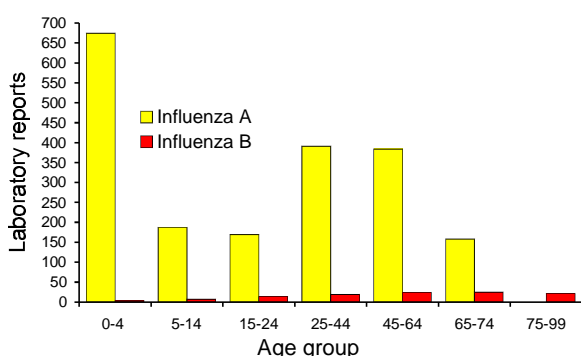
**Figure 3. Sentinel general practitioner consultation rates, Australia, 1998, by week and scheme.**



**Figure 4. Influenza laboratory reports, Australia, 1998, by virus type and week of specimen collection**



**Figure 5. Influenza A and B laboratory reports, Australia, 1998, by age group**



**Laboratory Surveillance**

There have been 2288 laboratory reports of influenza for the year to date. Of these, 2175 (95%) were influenza A and 113 (5 %) influenza B (Figure 4). The number of influenza A reports for this year is greater than those reported over the same period for all years dating back to 1993, reflecting an increase in the level of laboratory testing in 1998. The proportion of influenza A cases is almost as high as was reported in 1996, when 98% of all laboratory reports over the same time period were for influenza A. Of the laboratory reports of influenza A, 674 (31%) were in children less than 4 year of age (Figure 5).

**Absenteeism surveillance**

Rates of absenteeism in Australia Post employees for three consecutive days of each week have been reported since late April. Absenteeism rates to 23 September 1998 have averaged 0.24% per week. There has been no definite peak in absenteeism rates coinciding with the peak levels of influenza reported by the Sentinel General Practitioner or LabVISE schemes.

*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 on a quarterly basis. The antibiotics which are currently routinely surveyed are the penicillins, ceftriaxone, ciprofloxacin and spectinomycin, all of which are administered as single dose regimens. When in vitro resistance to a recommended agent is demonstrated in 5% or more of isolates, it is usual to reconsider the inclusion of that agent in current treatment schedules. 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 resistance to the tetracyclines. Tetracyclines are however not a recommended therapy for gonorrhoea. Comparability of data is achieved by means of a standardised system of testing and a programme-specific quality assurance process. Because of the substantial geographic differences in susceptibility patterns in Australia, regional as well as aggregated data are presented.*

**Reporting period 1 January to 31 March 1998**

The AGSP laboratories examined 877 isolates of *Neisseria gonorrhoeae* for sensitivity to the penicillins, ceftriaxone, quinolones and spectinomycin and for high level resistance to the tetracyclines in the March quarter of 1998.

**Penicillins**

Resistance to this group of antibiotics (penicillin, ampicillin, amoxycillin) was present in a high proportion of isolates examined in Adelaide (40%), Melbourne (39%) and Sydney (37%). In Brisbane and Perth the proportion of penicillin-resistant strains was 15% and 8% respectively. Figure 6 shows the proportion of isolates fully sensitive, less sensitive or relatively resistant to the penicillins by chromosomal mechanisms and the proportion of penicillinase-producing gonococci (PPNG) in different regions and as aggregated data for Australia. PPNG and

relatively resistant isolates usually fail to respond to therapy with the penicillins. Those in the fully sensitive and less sensitive categories (minimal inhibitory concentration, MIC,  $\leq 0.5$  mg/L) usually respond to a regimen of standard treatment with the above penicillins.

There were 57 PPNG identified in this reporting period (6.5% of all isolates). These were distributed widely with 12 PPNG reported from Melbourne, 21 from Sydney, 10 each from Perth and Brisbane and 4 from the Northern Territory. Infections with PPNG were most frequently acquired overseas, particularly in the South East Asian countries often visited by Australians. Among the countries where infections with PPNG were acquired were the Philippines, Thailand, Singapore, Iceland, Indonesia, Vietnam, and Vanuatu. Local acquisition was also recorded in Sydney.

Of relatively greater importance than PPNG were the 164 (19%) of all isolates resistant to the penicillins by separate chromosomal mechanisms. These so called CMRNG were most often seen in Sydney (97 strains, 30%), Melbourne (39 strains, 30%), Brisbane (14 strains, 9%) and Adelaide (10 strains, 40%). Four relatively resistant isolates were seen in the Northern Territory.

#### Ceftriaxone and spectinomycin.

Although all isolates from all parts of Australia were sensitive to these injectable agents, a small number of isolates showed some decreased sensitivity to ceftriaxone.

#### Quinolone antibiotics (Ciprofloxacin, norfloxacin and enoxacin)

Fifty five isolates (6.3%) throughout Australia had altered resistance to this group of antibiotics (QRNG) with 40 of these showing high level resistance. Thirty one QRNG (10%) were detected in Sydney, 11 (7%) in Brisbane and 8 (6%) in Perth, with smaller numbers in the other centres.

An increase in rates of isolation of QRNG has been noted in AGSP reports in 1997. Additionally the appearance of QRNG in infections acquired locally, especially in Sydney but also in Melbourne, was specifically mentioned. The high rate of locally acquired high level resistance to quinolone antibiotics was maintained in Sydney in this quarter but was not confirmed in any other centre. Patients infected with QRNG overseas acquired the infections in Indonesia, Iceland, Vanuatu, Thailand, and the Philippines.

In the corresponding period of 1997, there were 49 QRNG comprising 7.2% of all Australian isolates.

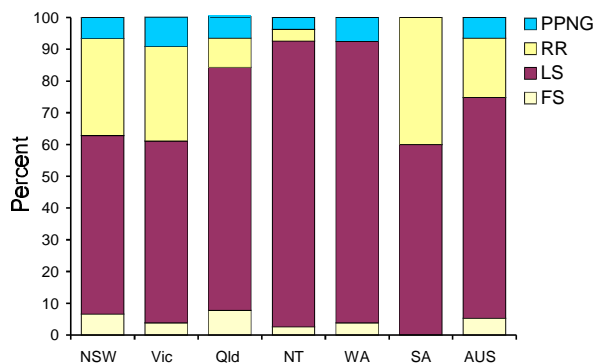
The quinolone agents are the oral agents most often used in centres where penicillins are ineffective. The appearance of quinolone resistance reduces options for successful treatment of gonorrhoea.

#### High level tetracycline resistance (TRNG)

Forty eight TRNG were detected throughout Australia (5.5% of all strains) with isolates of this type again present in most centres. The highest proportion of TRNG was found in Perth where the 11 TRNG represented 8.3% of all isolates. TRNG were also prominent in Brisbane (7 isolates, 4.6%), Sydney (18 isolates, 5.7%), Melbourne (9 isolates, 7%) and the Northern Territory (3 isolates). Indonesia was the overseas source of acquisition most often identified, but TRNG strains were also acquired in

Thailand, the Philippines, Vietnam, Singapore and the USA. Local acquisition was also recorded.

**Figure 6. Penicillin resistance of gonococcal isolates, Australia, 1 January - 31 March 1998, by region**



FS Fully sensitive to penicillin, MIC = 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*

## 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 (ACT, 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, available from the National Centre in HIV Epidemiology and Clinical Research, 376 Victoria Street, Darlinghurst NSW 2010. Telephone: (02) 9332 4648 Facsimile: (02) 9332 1837.

HIV and AIDS diagnoses and deaths following AIDS reported for March 1 to March 31 1998, as reported to 30 June 1998, are included in this issue of CDI (Tables 6 and 7).

**Table 6. New diagnoses of HIV infection, new diagnoses of AIDS and deaths following AIDS occurring in the period 1 to 30 April 1998, by sex and State or Territory of diagnosis**

										Totals for Australia			
		ACT	NSW	NT	Qld	SA	Tas	Vic	WA	This period 1998	This period 1997	Year to date 1998	Year to date 1997
HIV diagnoses	Female	1	3	0	2	0	0	0	1	7	5	25	28
	Male	2	22	1	14	0	0	9	3	51	69	232	266
	Sex not reported	0	3	0	0	0	0	0	0	3	2	6	9
	Total <sup>1</sup>	3	28	1	16	0	0	9	4	61	77	263	384
AIDS diagnoses	Female	0	0	0	0	0	0	0	0	0	4	2	13
	Male	1	0	0	3	0	0	1	0	5	31	36	119
	Total <sup>1</sup>	1	0	0	3	0	0	1	0	5	35	38	132
AIDS deaths	Female	0	0	0	0	0	0	0	0	0	1	2	5
	Male	0	2	0	0	1	0	0	0	3	13	24	89
	Total <sup>1</sup>	0	2	0	0	1	0	0	0	3	14	26	94

1. Persons whose sex was reported as transgender are included in the totals.

**Table 7. Cumulative diagnoses of HIV infection, AIDS and deaths following AIDS since the introduction of HIV antibody testing to 30 April 1998, by sex and State or Territory**

		ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Australia
HIV diagnoses	Female	21	549	7	125	52	4	193	87	1,038
	Male	182	10,288	94	1,805	628	77	3,719	856	17,649
	Sex not reported	0	262	0	0	0	0	28	0	290
	Total <sup>1</sup>	203	11,118	101	1,936	680	81	3,950	946	19,015
AIDS diagnoses	Female	7	157	0	45	19	2	64	23	317
	Male	81	4,331	31	766	320	41	1,527	337	7,434
	Total <sup>1</sup>	88	4,499	31	813	339	43	1,598	362	7,773
AIDS deaths	Female	2	112	0	28	14	2	45	16	219
	Male	62	3,042	23	529	217	27	1,204	241	5,345
	Total <sup>1</sup>	64	3,161	23	559	231	29	1,255	258	5,580

1.559 Persons whose sex was reported as transgender are included in the totals.

## Sentinel Chicken Surveillance Programme

Sentinel chicken flocks are used to monitor flavivirus activity in Australia. The main viruses of concern are Murray Valley encephalitis (MVE) and Kunjin which cause the potentially fatal disease Australian encephalitis in humans. Currently 26 flocks are maintained in the north of Western Australia, seven in the Northern Territory, nine in New South Wales and ten in Victoria. The flocks in Western Australia and the Northern Territory are tested year round but those in New South Wales and Victoria are tested only from November to March, during the main risk season.

Results are coordinated by the Arbovirus Laboratory in Perth and reported bimonthly. For more information see CDI 1998;22:7

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Sentinel chicken serology was carried out for 17 of the 28 flocks in Western Australia in July 1998, and 21 of the 28

flocks in August 1998. There was one new seroconversion in the Kununurra flock to flavivirus only and this was confirmed at a later bleed. There were no other seroconversions in July or August which is what would be expected at this time of the year.

Sentinel chickens from the Northern Territory were also tested in our laboratory; three of 7 flocks in July 1998 and all 7 flocks in August 1998. There was one new seroconversion in the Leanyer flock to flavivirus only which does not appear to be MVE or Kunjin virus. This was confirmed at a later bleed. The seroconversion, to flavivirus only, in the Gove flock in June 1998 was not confirmed at a later bleed and has been removed from the results.

## Childhood Immunisation Coverage

Tables 8 and 9 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 according to the Australian Standard Vaccination Schedule at age 12 months, for the cohort born between 1 January and 30 March 1997, and at age 24 months, for the cohort born between 1 January and 31 March 1996. The assessment date for both cohorts was 31 March 1998. The 12 months age data for the 1996 cohort, and a full description of the methodology used can be found in *CDI 1998;22:36-37*.

**Table 8. Percentage of children immunised at 1 year of age, preliminary results by disease and State for the birth cohort 1 January to 31 March 1997; assessment date 31 March 1998.**

Vaccine	State or Territory								Australia
	ACT	NSW	NT <sup>1</sup>	Qld	SA	Tas	Vic	WA	
Total number of children	1,036	21,809	896	11,648	4,619	1,567	15,273	6,371	63,219
DTP (%)	84.7	80.9	64.3	85.1	82.7	84.0	84.5	78.7	82.4
OPV (%)	84.6	80.7	65.5	85.4	82.9	84.5	84.7	79.1	82.5
Hib (%)	81.9	80.2	69.3	85.9	80.8	83.2	84.3	78.6	82.1
<b>Fully Immunised (%)</b>	81.0	78.5	59.2	83.2	79.3	82.3	83.0	77.0	80.2
Change in fully immunised since last quarter (%)	-0.9	+2.8	-2.4	+0.7	+0.7	+0.6	+1.5	+1.9	+1.6

Acknowledgment: These figures were provided by the Health Insurance Commission (HIC), to specifications provided by the Commonwealth Department of Health and Family Services. For further information on these figures or data on the Australian Childhood Immunisation Register please contact the Immunisation Section of the HIC: Telephone 02 6203 6185

**Table 9. Proportion of children immunised at 2 years of age, preliminary results by disease and State for the birth cohort 1 January to 31 March 1996; assessment date 31 March 1998.<sup>1</sup>**

Vaccine	State or Territory								Australia
	ACT	NSW	NT <sup>1</sup>	Qld	SA	Tas	Vic	WA	
Total number of children	1,065	21,784	954	12,292	4,867	1,623	15,735	6,455	64,775
DTP (%)	78.8	75.6	59.4	78.5	76.3	76.6	76.9	72.5	76.0
OPV (%)	83.9	80.4	69.8	85.9	84.6	84.6	87.2	73.5	82.7
Hib (%)	74.4	76.0	64.0	78.9	76.7	76.9	77.5	72.7	76.5
MMR (%)	86.4	80.2	70.5	86.6	82.3	84.4	85.2	76.3	82.5
<b>Fully Immunised (%)<sup>2</sup></b>	69.0	62.3	48.8	68.3	62.8	63.4	66.9	54.8	63.8

1. The 12 month age data for this cohort was published in *CDI 1998;22:36-37*.

2. These data relating to 2 year old children should be considered as preliminary. The proportions fully immunised appear low compared with the proportions for individual vaccines. HIC are checking these calculations.

## Serious Adverse Events Following Vaccination Surveillance Scheme

The Serious Adverse Events Following Vaccination Surveillance Scheme (SAEFVSS) is a national surveillance scheme which monitors the serious adverse events that occur rarely following vaccination. More details of the scheme were published in *CDI* 1997;21;8.

Acceptance of a report does not imply a causal relationship between administration of the vaccine and the medical outcome, nor that the report has been verified as to the accuracy of its contents. It is estimated that 250,000 doses of vaccines are administered every month to Australian children under the age of six years.

### Results for the period 2 July to 1 September 1998.

There were 322 reports of serious adverse events following vaccination for this reporting period (Table 10). Onset dates were from 1995 to 1998, the majority (78%) being in 1998. Reports were received from the Australian Capital Territory (12), New South Wales (45), the Northern Territory (3), Queensland (78), South Australia (39), Victoria (17) and Western Australia (128). No reports were received from Tasmania for this period.

The most frequently reported events following vaccination were persistent screaming (205 cases, 63%), followed by other reactions (50 cases, 15.5%), temperature of 40.5° C or more (26 cases, 8.1%) and hypotonic/hypo-responsive episodes (24 cases, 7.5%). One death within 30 days of

immunisation was reported from Western Australia. The baby was two months old, and the cause of death was determined to be sudden infant death syndrome (SIDS) by the coroner.

South Australia reported 34 adverse events associated with BCG vaccination of which 20 had lymphadenitis, 11 had a local abscess and 3 had skin lesions around the vaccination site. Onset dates were missing for 2 cases. There was 1 case with an onset date in 1995, 4 cases with onset dates in 1996, 15 cases in 1997 and 12 in 1998. Of the 12 cases in 1998, 10 occurred in the January to April period.

Of the 19 reactions associated with MMR vaccine, 12 occurred after the commencement of the Measles Control Campaign in August 1998. Although the incidence of adverse events is being monitored closely and reported regularly throughout the Campaign (see the Measles Campaign Update on p 220 of this issue of *CDI*), there will be a time lag before all the adverse events associated with the Campaign are reported through the SAEFVSS

Thirty-one of the 322 cases were hospitalised. There was incomplete follow-up information for the 34 cases associated with BCG vaccination in South Australia. All other cases had recovered at the time of reporting.

Two hundred and sixty-five cases (82%) were associated with diphtheria-tetanus-pertussis (DTP) vaccine, either alone or in combination with other vaccines. Of these, 66% were associated with the first dose of DTP and 26% with the second.

**Table 10. Adverse events following vaccination reported in the period 2 July to 1 September 1998.<sup>1</sup>**

Event	Vaccines									Reporting States or Territories	Total reports for this period
	DTP	DTP/Hib	DTP/OPV/Hib	DTP/OPV/other	DTP/OPV	DTP/OPV/Hib/Hep B	MMR	Hep B	Other <sup>2</sup>		
Persistent screaming	151	0	46	1	2	2	3	0	0	ACT, NSW, QLD, Vic, WA	205
Hypotonic/hypo-responsive episode	13	0	6	0	2	0	3	0	0	ACT, NSW, QLD, Vic, WA	24
Temperature of 40.5°C or more	17	1	6	0	1	0	1	0	0	ACT, NSW, QLD, WA	26
Convulsions	4	1	2	0	1	0	5	0	0	NSW, QLD, SA, Vic, WA	13
Anaphylaxis	0	0	0	0	0	0	0	0	0		
Shock	0	0	0	0	0	0	1	0	0	WA	1
Death	0	0	1	0	0	0	0	0	0	WA	1
Other <sup>3</sup>	4	0	4	0	0	0	6	1	35	ACT, NSW, NT, QLD, SA, Vic, WA	50
<b>TOTAL</b>	<b>189</b>	<b>2</b>	<b>65</b>	<b>1</b>	<b>6</b>	<b>2</b>	<b>19</b>	<b>1</b>	<b>35</b>		<b>322<sup>4</sup></b>

1. Events with onset dates from 1995 to 1998 were reported in this period.
2. Includes influenza, DTPa, CDT, OPV, Hepatitis B, pneumococcal, BCG and ADT vaccines and rabies immunoglobulin (HRIG)
3. Includes lymphadenitis, local reactions, fever less than 40.5° and non-specific events such as vomiting.
4. Total includes two reports where the type of event was not stated.