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	Reports	Rate per 1,000 encounters	Reports	Rate per 1,000 encounters	Reports	Rate per 1,000 encounters	Reports	Rate per 1,000 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.

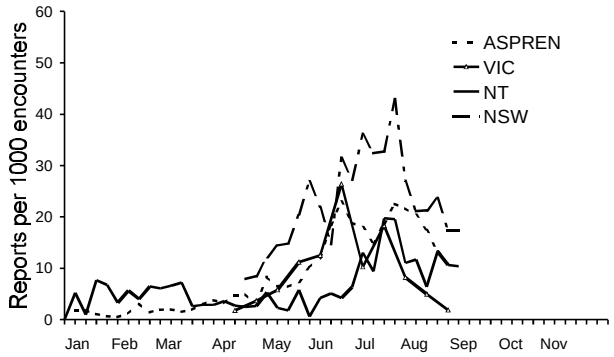


Figure 4. Influenza laboratory reports, Australia, 1998, by virus type and week of specimen collection

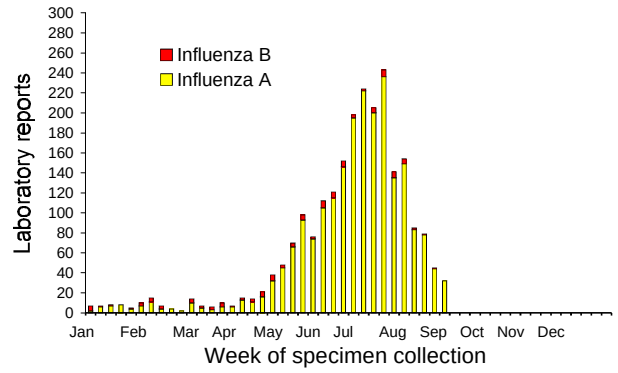
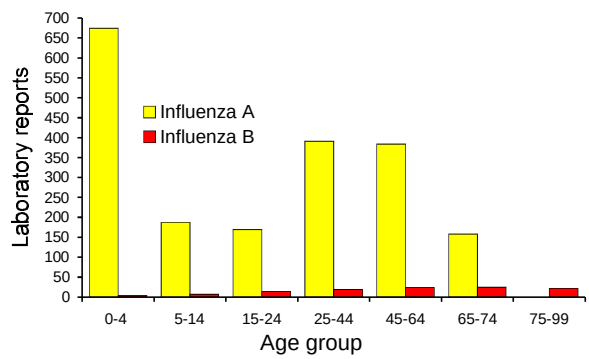


Figure 5. Influenza A and B laboratory reports, Australia, 1998, by age group



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, ≤ 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 counties 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.

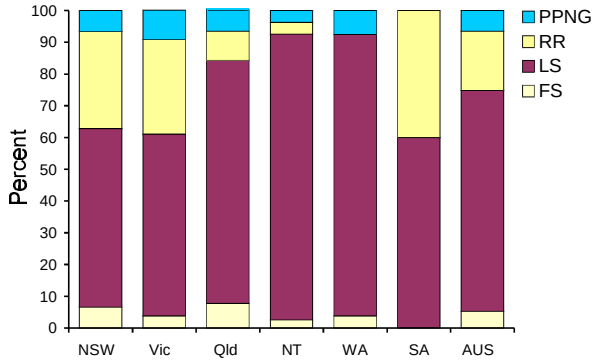
In the corresponding period of 1997, there were 49 QRNG comprising 7.2% of all Australian isolates.

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 ,= 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[1]	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[1]	1	0	0	3		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[1]	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[1]	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[1]	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[1]	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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6. PathCentre, Western Australia
7. Department of Health and Community Services, Northern Territory

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.

	State or Territory								
Vaccine	ACT	NSW	NT[1]	Qld	SA	Tas	Vic	WA	Australia
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
Fully Immunised (%)	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.[1]

	State or Territory								
Vaccine	ACT	NSW	NT[1]	Qld	SA	Tas	Vic	WA	Australia
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
Fully Immunised (%)[2]	69.0	62.3	48.8	68.3	62.8	63.4	66.9	54.8	63.8

1. The 12 month age datea 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^{o} C or more (26 cases, 8.1%) and hypotonic/hyporesponsive 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 occured 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 diptheria-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.[1]

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[2]		
Persistent screaming	151	0	46	1	2	2	3	0	0	ACT, NSW, QLD, Vic, WA	205
Hypotonic/hyporesponsive 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[3]	4	0	4	0	0	0	6	1	35	ACT,NSW, NT, QLD, SA, Vic, WA	50
TOTAL	189	2	65	1	6	2	19	1	35		322[4]

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