

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 (ASPREN) 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 ASPREN are referred to as 'consultations' or 'encounters' while data from the LabVISE scheme are referred to as 'laboratory reports'.

Vaccine preventable diseases

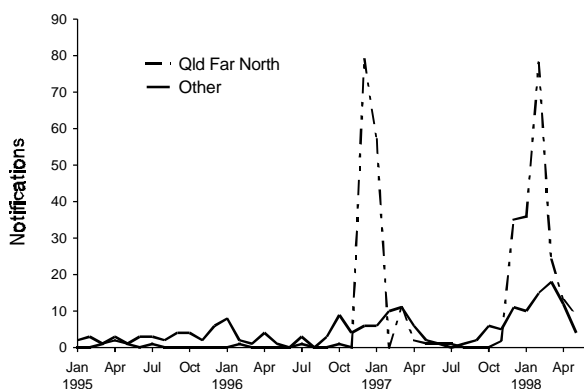
The number of pertussis notifications continued to fall with the number of cases having date of onset in April 1998 being lower than in any month since July 1996. In each of the previous four years (1994-1997), the number of notifications had been at a minimum in April, with an increase in the later months of the year. It will be interesting to observe the notifications in the next couple of months to see whether the downward trend continues, perhaps indicating an end to the current epidemic, or whether the number increases as in previous years.

Haemophilus influenzae type b (Hib) notifications remain low with 14 notifications so far in 1998 compared to 20 in the same period in 1997. Similarly, measles notifications continue to be as low as they were in 1997 with 190 notifications in 1998, compared to 183 in the same period in 1997.

Arboviruses

A further 44 notifications of dengue have been recorded for the current reporting period. The total number of cases with onset in 1998 was 219, of which 180 (82%) were from Queensland. This reflects the outbreak of dengue 3 in

Figure 1. Notifications of dengue, 1995 to 1998, by month of onset, and area of residence



Cairns reported on page 109 (Figure 1). The figure also shows the 1996-97 Torres Strait outbreak of dengue type 2 reported previously (*Comm Dis Intell* 1997;21:33). A small number of cases confirmed elsewhere in Australia appear to be related to the Cairns outbreak, but in most cases the disease was acquired overseas.

The number of new notifications for Barmah Forest virus infection and Ross River virus infection has also declined markedly over the last month (Figures 2 and 3).

Figure 2. Notifications of Barmah Forest virus infection, 1995 to 1998, by month of onset

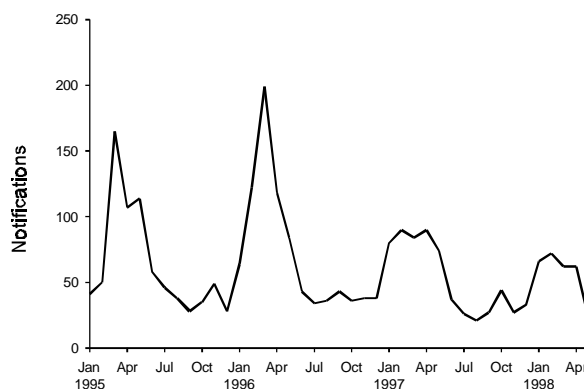
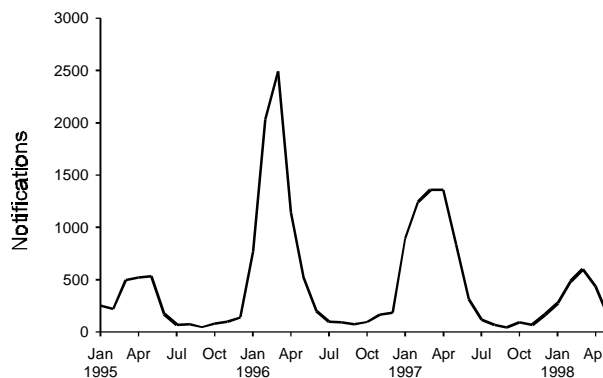


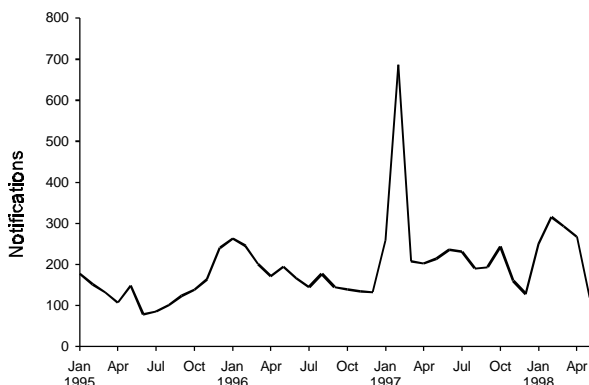
Figure 3. Notifications of Ross River virus infection, 1995 to 1998, by month of onset



Hepatitis A

The number of notifications for hepatitis A has declined since February (Figure 4). Of the 296 cases reported for the current period, 152 (51%) were in the age range 15-34 years; 192 of the 296 notifications (65%) were in males, the male:female (1.8:1 overall) being reflected in all age groups.

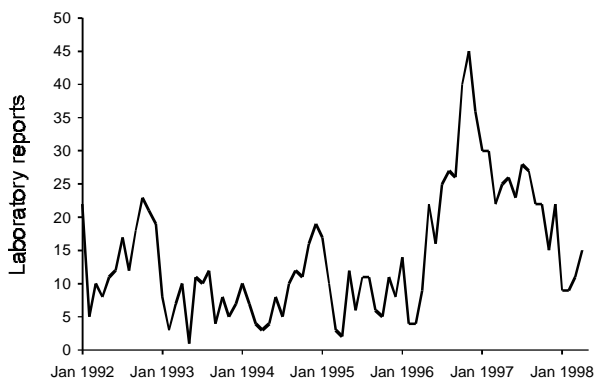
Figure 4. Notifications of hepatitis A, 1995 to 1998, by month of onset



Parvovirus

The number of laboratory reports of parvovirus has risen in recent weeks after falling markedly late last year (Figure 5). A total of 47 reports has been received for the year to date, most of which (43%) were for females in the 25-44 years age group.

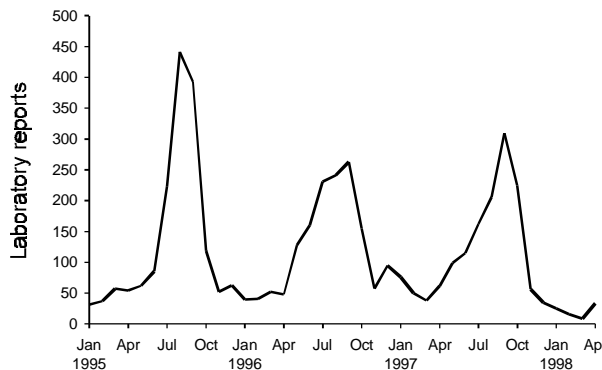
Figure 5. Laboratory reports of parvovirus, 1992 to 1998, by month of specimen collection



Rotavirus

Laboratory reports of rotavirus remain low for the time of year (Figure 6). We can expect a rise in the number of reports in the coming winter months.

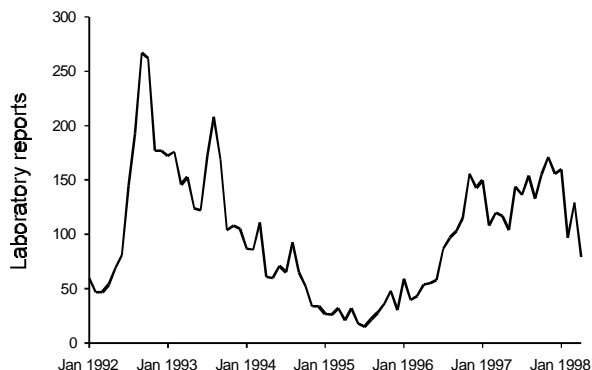
Figure 6. Laboratory reports of rotavirus, 1995 to 1998, by month of specimen collection



Mycoplasma pneumoniae

The LabVISE scheme has recorded a decline in the number of reports of *Mycoplasma pneumoniae* in recent weeks (Figure 7). This follows a sustained rise in reporting throughout 1997.

Figure 7. Laboratory reports of *Mycoplasma pneumoniae*, 1992 to 1998, by month of specimen collection



Tables

There were 6,054 notifications to the National Notifiable Diseases Surveillance System (NNDSS) for this four week period, 29 April to 26 May 1998 (Tables 1, 2 and 3). The numbers of reports for selected diseases have been compared with historical data for corresponding periods in the previous three years (Figure 8).

There were 1,294 reports received by the *CDMirology* and Serology Laboratory Reporting Scheme (LabVISE) this four week period, 23 April to 20 May 1998 (Tables 4 and 5).

The Australian Sentinel Practice Research Network (ASPREN) data for weeks 17 to 20 ending 24 May 1998 are included in this issue of *CDI* (Table 6).

Table 1. Notifications of other diseases received by State and Territory health authorities in the period 29 April to 26 May 1998

Disease ^{1,2}	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	This period 1998	This period 1997	Year to date 1998	Year to date 1997
Arbovirus infection (NEC) ³	0	1	4	7	0	0	2	0	14	10	52	88
Barmah Forest virus infection	0	2	0	70	0	0	0	2	74	94	309	420
Campylobacteriosis ⁴	26	-	16	277	121	16	1	100	557	880	3,279	4,697
Chlamydial infection (NEC) ⁵	34	NN	41	429	0	18	7	179	708	656	3,674	3,336
Dengue	0	1	1	38	0	2	0	2	44	11	270	188
Donovanosis	0	NN	2	0	NN	0	0	0	2	3	16	13
Gonococcal infection ⁶	4	71	88	125	0	2	29	95	414	394	2,074	1,640
Hepatitis A	7	75	7	177	7	0	11	12	296	190	1,295	1,524
Hepatitis B incident	0	0	3	5	0	0	0	0	8	23	64	100
Hepatitis C incident ⁷	1	1	0	-	0	0	-	-	2	2	20	6
Hepatitis C unspecified	26	NN	15	308	NN	30	0	82	461	1,109	2,254	3,889
Hepatitis (NEC)	0	0	0	0	0	0	0	NN	0	1	7	11
Legionellosis	0	1	0	14	5	0	3	0	23	16	103	72
Leptospirosis	0	2	0	23	1	0	0	2	28	8	73	50
Listeriosis	0	0	0	1	0	0	0	2	3	4	25	42
Malaria	4	6	0	0	0	0	5	5	20	118	211	352
Meningococcal infection	1	9	0	5	0	0	2	3	20	25	93	129
Ornithosis	0	NN	0	0	0	0	4	0	4	10	13	32
Q Fever	0	7	0	28	5	0	4	0	44	70	206	242
Ross River virus infection	1	13	4	451	3	3	1	14	490	1,217	2,056	5,430
Salmonellosis (NEC)	4	57	29	330	60	10	38	48	576	494	3,585	3,841
Shigellosis ⁴	0	-	5	32	3	0	5	14	59	58	300	393
Syphilis ⁸	0	28	24	48	0	0	0	2	102	92	495	510
Tuberculosis	3	15	0	19	1	0	8	2	48	86	333	428
Typhoid ⁹	0	1	0	0	0	0	0	2	3	5	39	41
Yersiniosis (NEC) ⁴	0	-	0	17	4	1	2	0	24	18	125	132

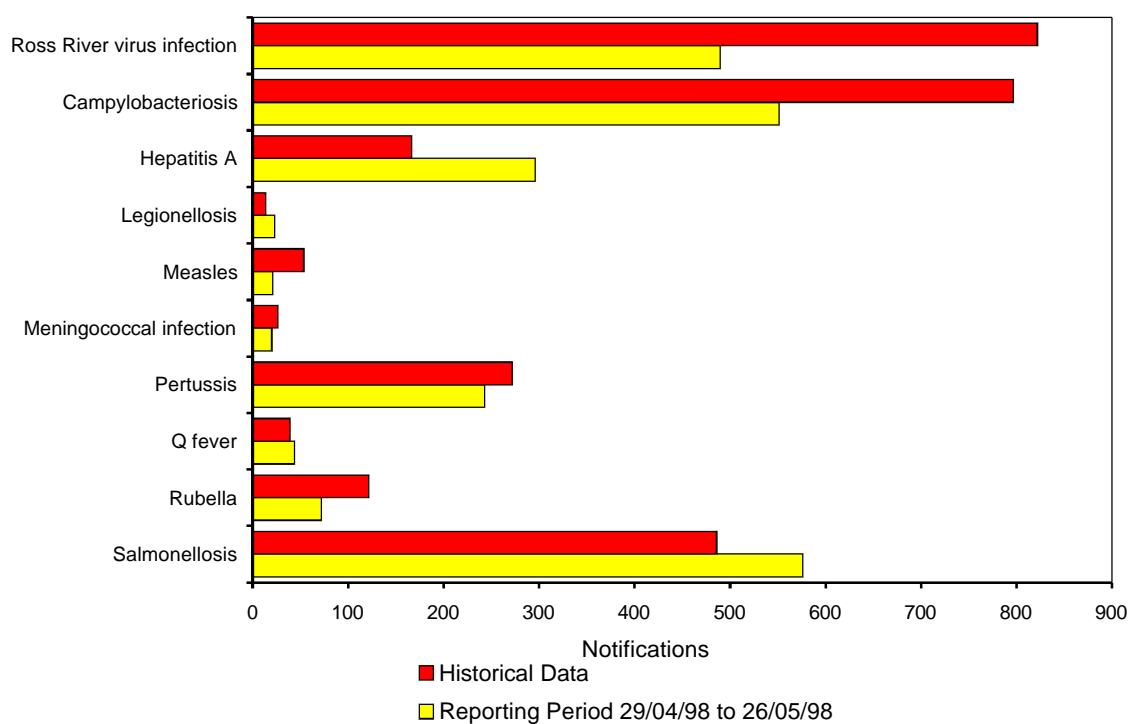
- For HIV and AIDS, see Tables 7 and 8. For rarely notified diseases, see Table 3.
- Totals comprise data from all States and Territories. Cumulative figures are subject to retrospective revision so there may be discrepancies between the number of new notifications and the increment in the cumulative figure from the previous period.
- NT: includes Barmah Forest virus.
- Not reported for NSW because it is only notifiable as 'foodborne disease' or 'gastroenteritis in an institution'.
- WA: genital only.
- NT, Qld, SA and Vic: includes gonococcal neonatal ophthalmia.
- Qld, Vic and WA incident cases of Hepatitis C are not separately reported.
- Includes congenital syphilis
- NSW, Qld, Vic: includes paratyphoid.
- NN Not Notifiable.
- NEC Not Elsewhere Classified
- Elsewhere Classified.

Table 2. Notifications of diseases preventable by vaccines recommended by the NHMRC for routine childhood immunisation, received by State and Territory health authorities in the period 29 April to 26 May 1998

Disease ^{1,2}	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	2	0	2	0	0	2	0	6	5	14	20
Measles	6	4	0	4	0	4	6	3	27	38	190	183
Mumps	1	1	0	2	0	0	2	0	6	22	68	85
Pertussis	6	63	0	111	41	3	36	19	279	389	2,728	3,078
Rubella ³	2	3	0	47	1	2	9	8	72	93	292	633
Tetanus	0	0	0	0	0	0	0	0	0	1	0	4

- NN. Not Notifiable
- No notifications of poliomyelitis have been reported since 1986.
 - 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.
 - Includes congenital rubella

Please note some data for NNDSS not available, see note next page.

Figure 8. Selected National Notifiable Diseases Surveillance System reports, and historical data¹

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 3. Notifications of rare¹ diseases received by State and Territory health authorities in the period 29 April to 26 May 1998

Disease ²	Total this period	Reporting States or Territories	Total notifications 1998
Brucellosis	4	ACT, Qld	19
Cholera			2
Hydatid Infection	4	Qld, Vic, WA	15
Leprosy	1	NSW	2

Please note:

For the National Notifiable Diseases Surveillance System (Tables 1, 2 and 3, and Figure 8):

- sexually transmissible diseases notifications for 1997 and 1998 from South Australia are not available; and
- notifications for the period 13 to 26 May 1998 from Victoria are not available.

1. Fewer than 60 cases of each of these diseases were notified each year during the period 1988 to 1998.
2. No notifications have been received during 1998 for the following rare diseases: botulism, lymphogranuloma venereum, plague, rabies, yellow fever, or other viral haemorrhagic fevers.

Table 4. Virology and serology laboratory reports by State or Territory¹ for the reporting period 23 April to 20 May 1998, and total reports for the year

	State or Territory ¹								Total this period	Total reported in <i>CDI</i> in 1998
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA		
Measles, mumps, rubella										
Measles virus					1			1	2	35
Mumps virus								3	3	13
Rubella virus				5				2	7	61
Hepatitis viruses										
Hepatitis A virus	1	2	2	17	9			6	37	210
Hepatitis D virus					1				1	3
Hepatitis E virus								1	1	2
Arboviruses										
Ross River virus			3	24	2			9	38	508
Barmah Forest virus			3					3	6	21
Dengue not typed			1					5	6	19
Kunjin virus								1	1	3
Flavivirus (unspecified)				3					3	37
Adenoviruses										
Adenovirus type 1					3		1		4	9
Adenovirus type 2					3				3	11
Adenovirus type 3					4		1		5	17
Adenovirus type 7					4				4	11
Adenovirus type 37							1		1	1
Adenovirus not typed/pending		16			54			4	74	308
Herpes viruses										
Cytomegalovirus		2		8	7	2	3	8	30	355
Varicella-zoster virus		10		17	30	2	18	30	107	573
Epstein-Barr virus		5	1	10	78	2	9	26	131	772
Other DNA viruses										
Parvovirus					4			4	8	67
Picornavirus family										
Coxsackievirus B6					1				1	1
Echovirus type 11		6							6	16
Echovirus type 18		5							5	5
Rhinovirus (all types)	1	8			9		2	11	31	188
Enterovirus not typed/pending		9		5			1	27	42	197
Ortho/paramyxoviruses										
Influenza A virus		29		1	45			9	84	230
Influenza B virus					18			3	21	75
Parainfluenza virus type 1	1	5			16		1	3	26	150
Parainfluenza virus type 2		1			5				6	20
Parainfluenza virus type 3		2			1			12	15	189
Parainfluenza virus typing pending						1			1	2
Respiratory syncytial virus		15		7	22	1	2	5	52	316
Other RNA viruses										
Rotavirus		3		1	9	2		10	25	150

Table 4. Virology and serology laboratory reports by State or Territory¹ for the reporting period 23 April to 20 May 1998, and total reports for the year, continued

	State or Territory ¹								Total this period	Total reported in <i>CDI</i> in 1998
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA		
Other										
<i>Chlamydia trachomatis</i> not typed	20	35	52	37	74	10		129	357	1,756
<i>Chlamydia</i> species		6							6	23
<i>Mycoplasma pneumoniae</i>		7		16	29		3	2	57	639
<i>Coxiella burnetii</i> (Q fever)		2		7	2			2	13	52
<i>Rickettsia</i> spp - other								4	4	6
<i>Salmonella</i> species								1	1	6
<i>Bordetella pertussis</i>	1			9			17	32	59	648
<i>Legionella pneumophila</i>					1				1	4
<i>Legionella longbeachae</i>					3				3	19
<i>Cryptococcus</i> species	2								2	11
<i>Leptospira hardjo</i>								1	1	2
TOTAL	26	168	62	167	435	20	60	356	1,294	7,758

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

Table 5. Virology and serology laboratory reports by contributing laboratories for the reporting period 23 April to 20 May 1998

State or Territory	Laboratory	Reports
Australian Capital Territory	Woden Valley Hospital, Canberra	30
New South Wales	Institute of Clinical Pathology & Medical Research, Westmead	102
	New Children's Hospital, Westmead	18
	Royal Prince Alfred Hospital, Camperdown	38
Queensland	Queensland Medical Laboratory, West End	175
South Australia	Institute of Medical and Veterinary Science, Adelaide	435
Tasmania	Northern Tasmanian Pathology Service, Launceston	4
	Royal Hobart Hospital, Hobart	17
Victoria	Royal Children's Hospital, Melbourne	30
	Victorian Infectious Diseases Reference Laboratory, Fairfield	28
Western Australia	PathCentre Virology, Perth	321
	Western Diagnostic Pathology	96
TOTAL		1,294

Table 6. Australian Sentinel Practice Research Network reports, weeks 17 to 20, 1998

Week number	17		18		19		20	
Week ending on	3 May 1998		10 May 1998		17 May 1998		24 May 1998	
Doctors reporting	45		50		46		51	
Total encounters	6,061		6,535		6,650		6,861	
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	30	4.9	19	2.9	55	8.3	43	6.3
Rubella	1	0.2	1	0.2	1	0.2	2	0.3
Measles	0	0.0	0	0.0	1	0.2	0	0.0
Chickenpox	7	1.2	11	1.7	12	1.8	9	1.3
Pertussis	0	0.0	0	0.0	3	0.5	0	0.0
HIV testing (patient initiated)	5	0.8	16	2.4	13	2.0	10	1.5
HIV testing (doctor initiated)	2	0.3	4	0.6	4	0.6	0	0.0
Td (ADT) vaccine	43	7.1	41	6.3	36	5.4	33	4.8
Pertussis vaccination	28	4.6	40	6.1	36	5.4	30	4.4
Reaction to pertussis vaccine	4	0.7	3	0.5	1	0.2	0	0.0
Ross River virus infection	0	0.0	0	0.0	2	0.3	1	0.1
Gastroenteritis	60	9.9	86	13.2	73	11.0	91	13.3

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. 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 ASPREN remained below 9 per 1,000 consultations (Figure 9). The rates for the Northern Territory Tropical Influenza surveillance have shown a modest decline since the beginning of the year to levels below 3 per 1,000 consultations in the last month. These are comparable to those reported by the Victorian scheme. The New South Wales scheme reported the highest levels of influenza activity for the month of May, with consultation rates between 8 and 12 per 1,000 encounters.

Laboratory Surveillance

For the year to date there have been 208 laboratory reports of influenza. Of these, 160 (77%) were influenza A and 48 (23%) influenza B (Figure 10). More influenza A has been reported for the 25 to 44 year old age group than

in the previous month, and influenza B reports continued to be low in children less than 5 years of age.

Figure 9. Sentinel general practitioner influenza consultation rates, 1998, by scheme and week

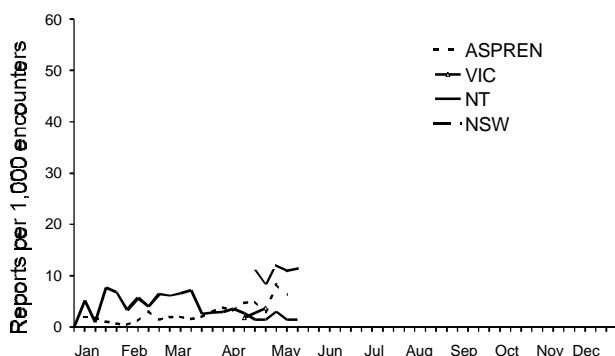
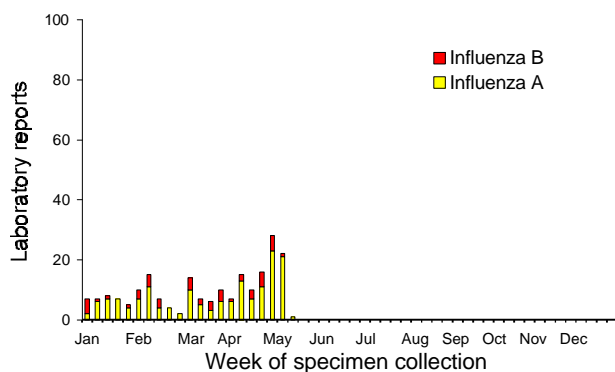


Figure 10. Laboratory reports of influenza, 1998, by type and week of specimen collection



The WHO Collaborating Centre for Influenza Reference and Research has received 36 isolates of influenza A and 6 of influenza B for the year to date. All the influenza A viruses were H3N2 strains related to A/Sydney /5/97. Analysis of type B isolates is pending.

Absenteeism surveillance

Rates of absenteeism for Australia Post employees for three consecutive days of each week have been reported for the four weeks preceding May 27. These rates have remained stable at a level of 0.25% to 0.27% nationally.

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 December 1997, as reported to 31 March 1998, are included in this issue of CDI (Tables 7 and 8).

Childhood immunisation coverage

Table 9 provides 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 age 12 months for the cohort born between 1 July and 30 September 1996 according to the Australian Standard Vaccination Schedule.

A full description of the methodology used can be found in CDI 1998;22:36-37.

Table 7. New diagnoses of HIV infection, new diagnoses of AIDS and deaths following AIDS occurring in the period 1 to 31 December 1997, by sex and State or Territory of diagnosis

										Totals for Australia			
		ACT	NSW	NT	Qld	SA	Tas	Vic	WA	This period 1997	This period 1996	Year to date 1997	Year to date 1996
HIV diagnoses	Female	0	0	0	0	1	0	1	1	3	4	75	69
	Male	0	26	0	10	2	0	15	2	55	64	702	852
	Sex not reported	0	3	0	0	0	0	0	0	3	0	17	5
	Total ¹	0	29	0	10	3	0	16	3	61	68	795	927
AIDS diagnoses	Female	0	0	0	1	0	0	1	0	2	3	25	32
	Male	0	10	0	3	0	0	4	0	17	37	286	609
	Total ¹	0	10	0	4	0	0	5	0	19	40	311	641
AIDS deaths	Female	0	0	0	0	0	0	0	0	0	1	13	17
	Male	0	4	0	1	0	0	2	0	7	26	204	480
	Total ¹	0	4	0	1	0	0	2	0	7	27	218	497

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

Table 8. Cumulative diagnoses of HIV infection, AIDS and deaths following AIDS since the introduction of HIV antibody testing to 31 December 1997, by sex and State or Territory

		ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Australia
HIV diagnoses	Female	20	540	7	119	51	4	191	82	1,014
	Male	178	10,163	93	1,766	620	75	3,674	843	17,412
	Sex not reported	0	260	0	0	0	0	29	1	290
	Total ¹	198	10,983	100	1,891	671	79	3,904	929	18,755
AIDS diagnoses	Female	7	157	0	43	19	2	63	23	314
	Male	80	4,325	30	752	318	41	1,515	334	7,395
	Total ¹	87	4,493	30	797	337	43	1,585	359	7,731
AIDS deaths	Female	2	112	0	28	14	2	43	15	216
	Male	52	3,032	23	523	214	26	1,198	241	5,309
	Total ¹	54	3,151	23	553	228	28	1,247	257	5,541

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

Table 9. Percentage of children immunised at 1 year of age, preliminary results by disease and State for the birth cohort 1 July 1996 to 30 September 1996; assessment date 30 September 1997.

	State or Territory								Australia
	ACT	NSW	NT ¹	Qld	SA	Tas	Vic	WA	
Total number of children	1,123	22,756	886	12,461	4,844	1,737	15,869	6,519	66,195
Vaccine									
DTP (%)	82.7	77.6	59.1	81.5	80.9	80.7	81.6	72.0	78.9
OPV (%)	82.3	77.2	59.4	81.9	80.8	81.6	81.7	72.3	78.9
Hib (%)	81.3	76.8	66.6	82.5	80.8	80.9	81.7	72.4	79.0
Fully Immunised (%)	80.6	74.7	55.0	79.4	78.9	79.2	79.9	70.5	76.7
Change in fully immunised since last quarter (%)	+3.2	+1.5	-6.7	-1.1	+2.0	+3.2	-0.1	+3.6	+0.9

1. Some data from the Northern Territory were not included on the ACIR at the time of these calculations. Northern Territory calculations, using a local database, indicate that the proportions of children immunised at 12 months of age are as follows: DTP - 80.0%, Polio 79.8%, Hib 86.0%, fully immunised - 77.0%.

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 ACIR please contact the Immunisation Section of the HIC: Telephone 02 6203 6185.