

# 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'.

### *Meningococcal disease*

The number of notifications of meningococcal disease has increased again this reporting period. However, the

number of cases reported to date in 1998 (248) remains lower than for the same period in 1997 (273).

### *Vaccine preventable diseases*

The number of pertussis notifications remains low in most States, although a relatively high number continue to be reported from Queensland. There has been a decrease in the number of cases for Australia (by onset date) in each successive month from October 1997 to July 1998.

With the exception of a relatively high number of rubella cases in Queensland the number of notifications for all other vaccine preventable diseases also remains low.

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.

## Tables

There were 3,368 notifications to the National Notifiable Diseases Surveillance System (NNDSS) for this four week period, 22 July to 18 August 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 1).

There were 2,563 reports received by the *CDI* Virology and Serology Laboratory Reporting Scheme (LabVISE) this four week period, 16 July to 12 August 1998 (Tables 3 and 4).

The Australian Sentinel Practice Research Network (ASPREN) data for weeks 28 to 31 ending 9 August 1998 are included in this issue of *CDI* (Table 5).

**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 22 July to 18 August 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	1	0	0	0	0	1	5	22	33
Measles <sup>3</sup>	2	8	0	6	0	4	3	5	28	62	236	371
Mumps	1	3	1	4	1	1	2	2	15	9	107	125
Pertussis	3	72	0	83	37	3	66	5	269	794	4,556	4,861
Rubella <sup>4</sup>	3	5	0	44	2	1	10	4	69	85	487	868
Tetanus	0	0	0	0	0	0	0	0	0	1	3	7

NN. Not Notifiable

- No notification of poliomyelitis has been received 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.

- 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.

- Includes congenital rubella.

**Table 2. Notifications of diseases received by State and Territory health authorities in the period 22 July to 18 August 1998 (diseases preventable by routine childhood immunisation are presented in Table 1)**

Disease <sup>1,2,3</sup>	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	This period 1998	This period 1997	Year to date 1998 <sup>4</sup>	Year to date 1997
Arbovirus infection (NEC) <sup>5</sup>	0	0	0	0	0	0	4	1	5	1	70	104
Barmah Forest virus infection	0	5	0	14	0	0	3	0	22	26	402	515
Brucellosis	0	2	0	2	0	0	0	0	4	2	28	19
Campylobacteriosis <sup>4,6</sup>	31	-	11	290	195	24	165	101	817	855	6,358	7,188
Chancroid	0	0	0	0	0	0	0	0	0	0	1	1
Chlamydial infection (NEC) <sup>7</sup>	7	NN	60	260	63	25	103	131	649	697	6,684	5,900
Cholera	0	0	0	0	0	0	0	0	0	1	3	2
Dengue	1	2	2	7	1	0	0	1	14	1	359	193
Donovanosis	0	NN	0	0	NN	0	0	2	2	6	24	23
Gonococcal infection <sup>8</sup>	1	58	100	81	9	2	47	86	384	304	3,438	2,892
Hepatitis A	3	41	7	65	7	0	5	8	136	210	1,977	2,163
Hepatitis B incident <sup>4</sup>	0	1	3	1	0	1	6	0	12	18	143	158
Hepatitis C incident <sup>9</sup>	0	5	0	-	5	0	-	-	10	4	104	49
Hepatitis C unspecified <sup>4</sup>	22	NN	22	201	NN	28	8	74	355	786	4,158	6,086
Hepatitis (NEC)	0	0	0	0	0	0	0	NN	0	1	4	14
Hydatid infection	0	0	0	2	0	0	2	1	5	4	26	28
Legionellosis	0	1	0	1	1	0	0	1	4	6	159	104
Leprosy	0	0	0	0	0	0	0	0	0	0	2	7
Leptospirosis	0	1	1	10	0	0	1	0	13	5	109	80
Listeriosis	0	2	0	0	0	0	0	0	2	8	36	56
Malaria	2	11	3	25	3	1	8	3	56	52	545	536
Meningococcal infection	0	19	6	9	4	5	5	7	55	51	248	273
Ornithosis	0	NN	0	0	0	0	3	1	4	2	24	37
Q Fever	1	8	0	14	3	0	4	0	30	47	346	395
Ross River virus infection	0	6	5	26	1	1	0	3	42	121	2,366	6,296
Salmonellosis (NEC)	2	44	14	100	20	4	61	26	271	321	5,235	4,839
Shigellosis <sup>6</sup>	3	-	4	4	4	3	7	7	32	51	406	553
Syphilis <sup>10</sup>	1	36	33	30	7	0	0	6	113	100	891	821
Tuberculosis	4	8	2	16	0	0	15	4	49	74	616	650
Typhoid <sup>11</sup>	0	2	0	0	0	0	0	0	2	6	52	55
Yersiniosis (NEC) <sup>6</sup>	0	-	0	8	3	0	0	0	11	20	162	179

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

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. 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. Two notifications of infant botulism have been received in 1998.

4. Data from Victoria for 1998 are incomplete.

5. NT: includes Barmah Forest virus.

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

7. WA: genital only

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

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

10. Includes congenital syphilis

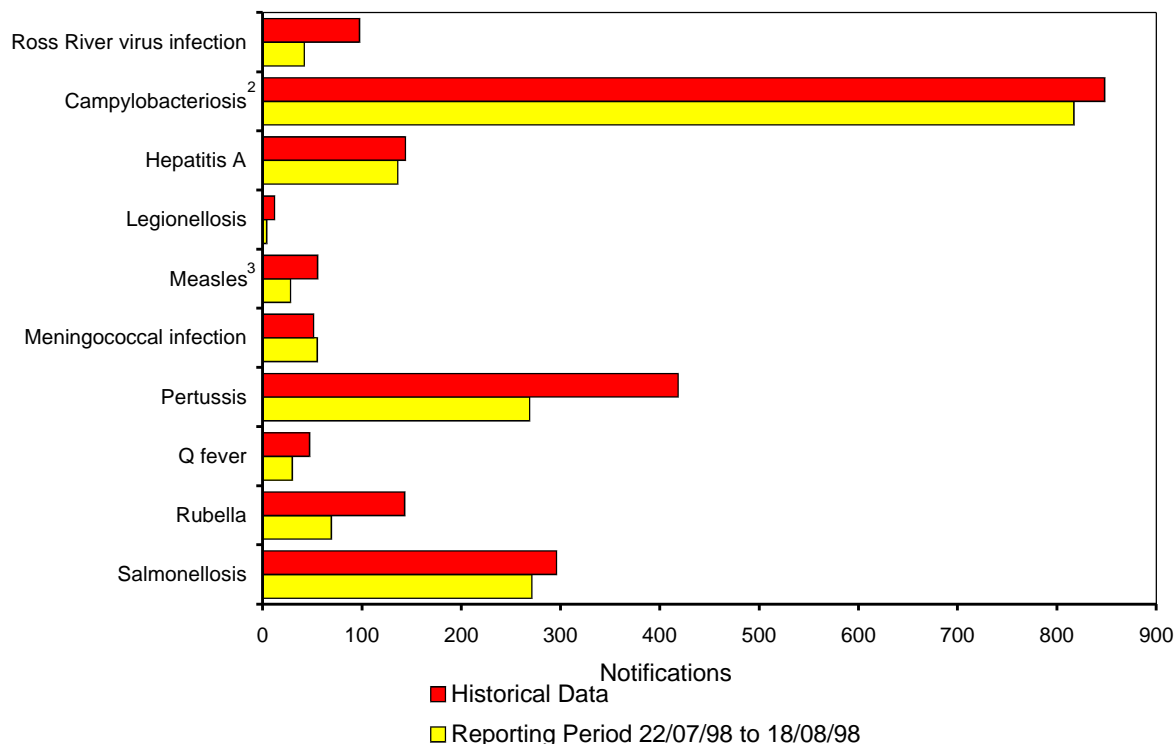
11. NSW, Qld, Vic: includes paratyphoid.

NN Not Notifiable.

NEC Not Elsewhere Classified

- Elsewhere Classified.

Figure 1. 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.
2. Data from Victoria for 1998 are incomplete.
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.

Table 3. Virology and serology laboratory reports by State or Territory<sup>1</sup> for the reporting period 16 July to 12 August 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		3	3	7	46
Mumps virus		1						4	5	27
Rubella virus		1		8	2			1	12	75
<b>Hepatitis viruses</b>										
Hepatitis A virus		5	1	12	6	1		11	36	288
<b>Arboviruses</b>										
Ross River virus			2	12	1			10	25	554
Barmah Forest virus				2					2	24
Dengue not typed								2	2	25
Murray Valley encephalitis virus								1	1	2
Japanese encephalitis virus								1	1	1
Flavivirus (unspecified)				5					5	49

**Table 3. Virology and serology laboratory reports by State or Territory<sup>1</sup> for the reporting period 16 July to 12 August 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>Adenoviruses</b>										
Adenovirus type 3							5		5	26
Adenovirus type 7							1		1	15
Adenovirus type 40							1		1	5
Adenovirus not typed/pending		12		7	15		4	13	51	471
<b>Herpes viruses</b>										
Herpes virus type 6								1	1	3
Cytomegalovirus		13	1	17	2		21	9	63	492
Varicella-zoster virus		6	1	25	9		39	23	103	818
Epstein-Barr virus		6	3	38	23	2	8	39	119	1,109
<b>Other DNA viruses</b>										
Papovavirus group		1							1	1
Molluscum contagiosum								1	1	2
Contagious pustular dermatitis (Orf virus)								1	1	8
Parvovirus				4	2		1	8	15	129
<b>Picornavirus family</b>										
Coxsackievirus B4							1		1	4
Echovirus type 5							1		1	2
Echovirus type 11							1		1	24
Poliovirus type 2 (uncharacterised)							1		1	5
Poliovirus type 3 (uncharacterised)							1		1	1
Rhinovirus (all types)		6			6		3	21	36	309
Enterovirus not typed/pending				5				23	28	308
<b>Ortho/paramyxoviruses</b>										
Influenza A virus		43	3	37	169		88	130	470	1,545
Influenza B virus		1			5		2	8	16	125
Influenza virus - typing pending								1	1	2
Parainfluenza virus type 1					10			2	12	244
Parainfluenza virus type 2					2			1	3	29
Parainfluenza virus type 3		1		1	2		1	12	17	223
Respiratory syncytial virus		207		28	78	10	229	328	880	2,081
<b>Other RNA viruses</b>										
HTLV-1								1	1	13
Rotavirus		20			18	12	64	75	189	533
<b>Other</b>										
<i>Chlamydia trachomatis</i> not typed		39	31	44	28	3	7	117	269	2,555
<i>Chlamydia psittaci</i>								1	1	33
<i>Mycoplasma pneumoniae</i>		17	3	50	15	3	27	1	116	905
<i>Coxiella burnetii</i> (Q fever)				6	1				7	79
<i>Bordetella pertussis</i>			3	14			30	5	52	762
<i>Legionella longbeachae</i>								2	2	27
TOTAL		379	48	315	395	31	539	856	2,563	13,979

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 16 July to 12 August 1998**

State or Territory	Laboratory	Reports
New South Wales	Royal Prince Alfred Hospital, Camperdown	122
	South West Area Pathology Service, Liverpool	243
Queensland	Queensland Medical Laboratory, West End	331
	Townsville General Hospital	20
South Australia	Institute of Medical and Veterinary Science, Adelaide	392
Tasmania	Northern Tasmanian Pathology Service, Launceston	31
Victoria	Monash Medical Centre, Melbourne	158
	Royal Children's Hospital, Melbourne	194
	Victorian Infectious Diseases Reference Laboratory, Fairfield	184
Western Australia	PathCentre Virology, Perth	474
	Princess Margaret Hospital, Perth	329
	Western Diagnostic Pathology	85
TOTAL		2,563

**Table 5. Australian Sentinel Practice Research Network reports, weeks 28 to 31, 1998**

Week number	28		29		30		31	
Week ending on	19 July 1998		26 July 1998		2 August 1998		9 August 1998	
Doctors reporting	59		60		57		55	
Total encounters	7,729		8,152		7,208		7,483	
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	139	18.0	121	14.8	135	18.7	163	21.8
Rubella	0	0.0	0	0.0	3	0.4	0	0.0
Measles	1	0.1	2	0.2	0	0.0	0	0.0
Chickenpox	13	1.7	14	1.7	14	1.9	13	1.7
Pertussis	1	0.1	1	0.1	1	0.1	2	0.3
HIV testing - patient initiated	12	1.6	13	1.6	15	2.1	23	3.1
HIV testing - doctor initiated	6	0.8	7	0.9	3	0.4	3	0.4
Td (ADT) vaccine	36	4.7	28	3.4	46	6.4	54	7.2
Pertussis vaccination	36	4.7	54	6.6	44	6.1	34	4.5
Reaction to pertussis vaccine	2	0.3	0	0.0	0	0.0	0	0.0
Ross River virus infection	0	0.0	0	0.0	1	0.1	1	0.1
Gastroenteritis	57	7.4	85	10.4	81	11.2	80	10.7

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. 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

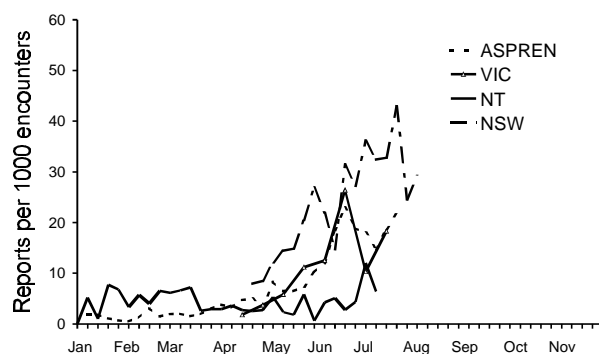
Three types of data are included in National Influenza Surveillance, 1998. These are sentinel general practitioner surveillance conducted by the Australian Sentinel Practice Research Network, Department of Human Services (Victoria), Department of Health (New South Wales) and the Tropical Influenza Surveillance 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.

Rates of influenza-like illness reported by the General Practitioner Surveillance Schemes for 1998 have been lower than reports over the same period in 1997. This is in contrast with the laboratory surveillance data that shows higher than normal reports of influenza A compared to all previous years dating back to 1993.

#### Sentinel General Practitioner Surveillance

Consultation rates for influenza-like illness recorded by the ASPREN scheme showed a decline in the month of July but this trend did not continue for the first two weeks of August (Figure 1), and rates are still around 20 per 1,000 consultations. The New South Wales Sentinel Scheme reported the highest rates of 42.9 per 1,000 in early August and the winter peak of influenza activity is still not over. Reported consultation rates for influenza-like illness across all schemes were less than the 50 per 1,000 consultations reported in late July and early August of last year. The Tropical Influenza Surveillance Programme has reported weekly consultation rates that have been consistently less than 13 per 1,000 for the year to the end of July. This contrasts with 1997, when there was an early peak of 30 per 1,000 consultations in the month of March and a late winter peak that reached the same levels.

**Figure 1.** Sentinel general practitioner consultation rates, 1998, by week and scheme



#### Laboratory Surveillance

There have been 1,559 laboratory reports of influenza for the year to date. Of these, 1,461 (91%) were influenza A and 98 (9%) influenza B (Figure 2). 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. As the rates of clinical disease have not risen, the laboratory figures are likely to reflect an increase in rates of laboratory testing, rather than a true increase in influenza A. Of laboratory reports of influenza A, a total of 420 (29%) were in children less than 4 years of age. By contrast, children less than 4 years of age accounted for only 3% of reports of all influenza B laboratory reports (Figure 3).

#### WHO Collaborating Centre for Influenza Reference and Research

To date this season, 448 influenza isolates from Australian laboratories have been analysed. All of these viruses are influenza A (H3N2) subtype strains, no influenza A (H1N1) isolates have been reported and no viable influenza B isolates have been received.

The isolates, which are all cell-culture grown viruses, are antigenically related to the vaccine strain A/Sydney/5/97. However, approximately 30% of the viruses demonstrate some reduction in reactivity with A/Sydney/5/97 antiserum. Further analysis of these less reactive strains is continuing.

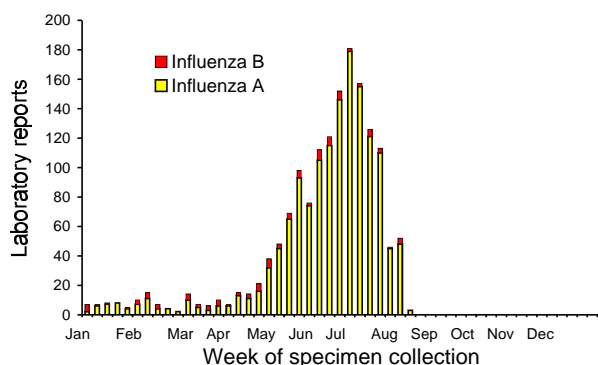
#### Absenteeism surveillance

Rates of absenteeism in Australia Post employees for three consecutive days of each week have been reported on a weekly basis since late April. Absenteeism rates for the year have averaged 0.26% per week. Rates for this reporting period have been no greater than 0.29% (Figure 4).

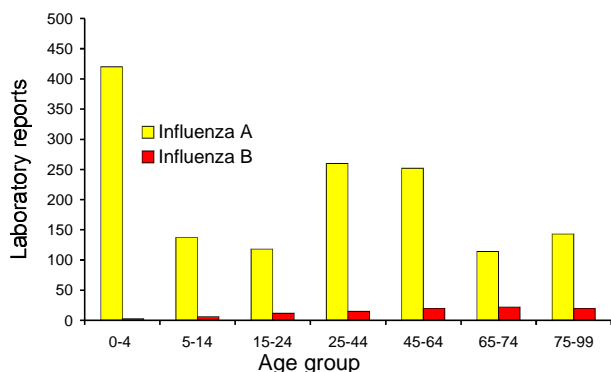
### HIV and AIDS Surveillance

National surveillance for HIV disease is coordinated by the National Centre in HIV Epidemiology and Clinical

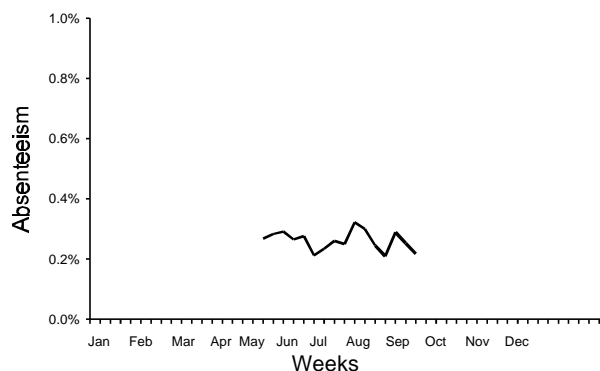
**Figure 2.** Influenza laboratory reports, 1998, by virus type and week of specimen collection



**Figure 3. Influenza laboratory reports, 1998, by virus type and age group**



**Figure 4. Australia Post absenteeism rates, May to September 1998, by week**



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 31 March 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	0	6	0	2	0	0	1	1	10	9	18	23
	Male	0	33	0	8	4	2	10	3	60	53	177	197
	Sex not reported	0	1	0	0	0	0	0	0	1	2	4	7
	Total <sup>1</sup>	0	40	0	10	4	2	11	4	71	64	199	227
AIDS diagnoses	Female	0	0	0	1	0	0	0	0	1	5	2	9
	Male	0	1	1	3	1	0	1	0	7	20	31	88
	Total <sup>1</sup>	0	1	1	4	1	0	1	0	8	25	33	97
AIDS deaths	Female	0	0	0	0	0	0	1	1	2	0	2	4
	Male	0	1	0	1	0	0	3	0	5	23	20	76
	Total <sup>1</sup>	0	1	0	1	0	0	4	1	7	23	22	80

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 31 March 1998, by sex and State or Territory**

		ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Australia
HIV diagnoses	Female	20	546	7	123	52	4	193	86	1,031
	Male	180	10,262	93	1,790	627	77	3,710	850	17,589
	Sex not reported	0	260	0	0	0	0	28	0	288
	Total <sup>1</sup>	200	11,088	100	1,919	679	81	3,941	939	18,947
AIDS diagnoses	Female	7	157	0	45	19	2	64	23	317
	Male	80	4,333	31	759	320	41	1,526	337	7,427
	Total <sup>1</sup>	87	4,501	31	806	339	43	1,597	362	7,766
AIDS deaths	Female	2	112	0	28	14	2	45	16	219
	Male	62	3,040	23	527	216	27	1,204	241	5,340
	Total <sup>1</sup>	64	3,159	23	557	230	29	1,255	258	5,575

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