

Communicable Diseases Surveillance

Highlights

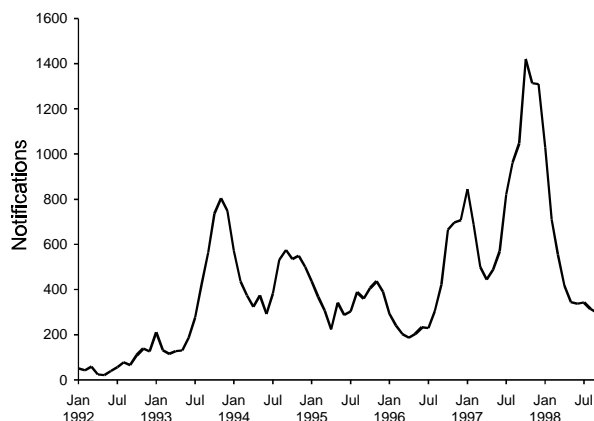
Communicable Diseases Surveillance consists of data from various sources. The National Notifiable Diseases Surveillance System (NNDSS) is conducted under the auspices of the Communicable Diseases Network Australia New Zealand. The *CDI* Virology and Serology Laboratory Reporting Scheme (LabVISE) is a 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

Pertussis notifications continue to fall slightly when examined by date of onset (Figure 1). The downward trend has continued for each month of this year. This is encouraging, given that the rise towards the peak in late 1997 began in May 1997. Most notifications having onset in 1998 are in children aged 5 to 9 years (17%), 10 to 14 years (16%) and 0 to 4 years (11%).

Numbers of notifications for other vaccine preventable diseases also remain low.

Figure 1. Notifications of Pertussis, January 1992 to September 1998, by month of onset.



Arboviruses

9 notifications of dengue have been recorded for the current reporting period compared with 24 in the previous reporting period. This brings the total reported in 1998 to 390.

The numbers of new notifications for Ross River virus infection have also continued to decline for several months as expected for the time of year.

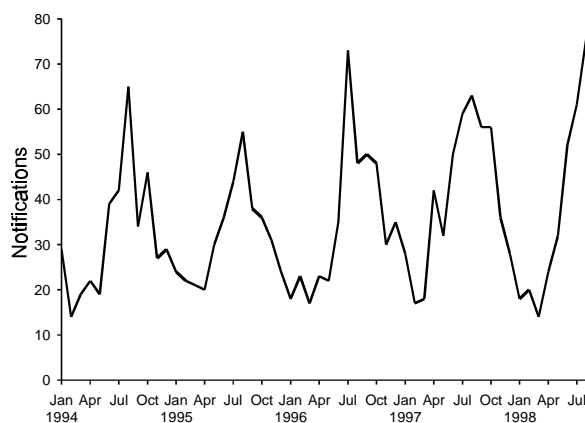
Hepatitis A

Numbers of notifications of hepatitis A remain lower than those seen in the first 6 months of 1998.

Meningococcal infection

The number of notifications of meningococcal infection reflects the higher level usually recorded in Australia during Winter and Spring (Figure 2).

Figure 2. Notifications of meningococcal disease, Australia, January 1994 to September 1998, by month of onset.



SLTEC infections, HUS and TTP

Reporting of these conditions commenced in the previous issue of *CDI* which includes the case definitions (*Commun Dis Intell* 1998;22:223). No cases have been reported for the current period.

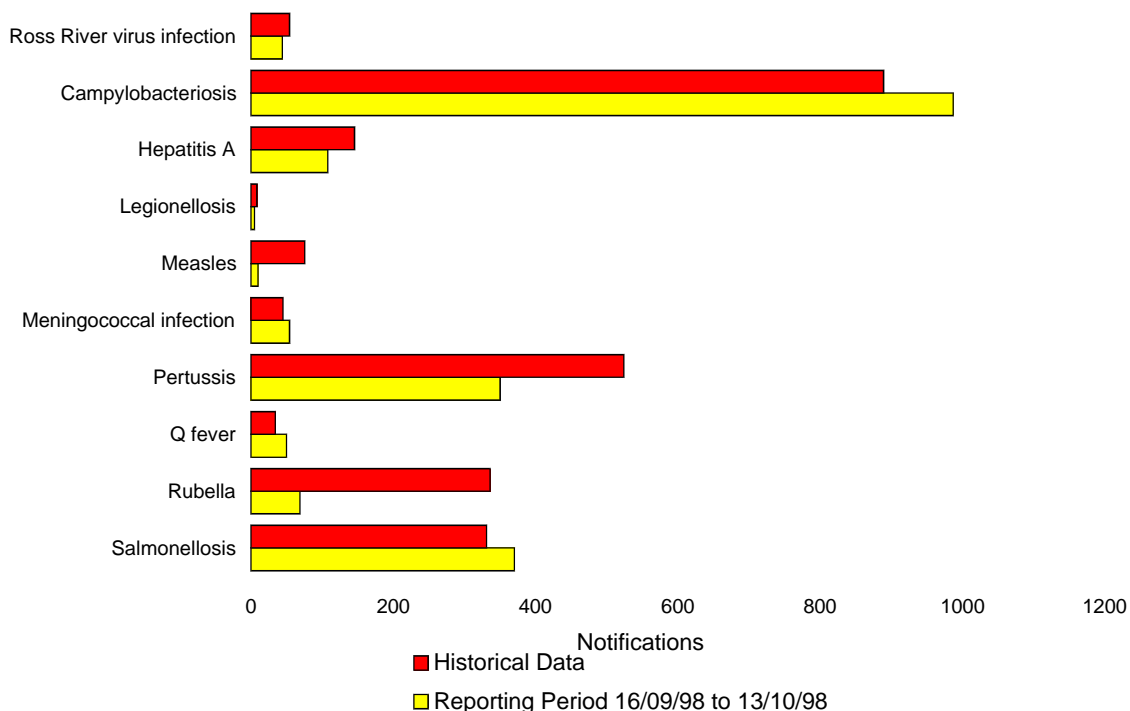
Tables

There were 3,932 notifications to the National Notifiable Diseases Surveillance System (NNDSS) in the four week period, 16 September to 13 October 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 3).

There were 2,201 reports received by the *CDI* Virology and Serology Laboratory Reporting Scheme (LabVISE) in the four week period, 10 September to 7 October 1998 (Tables 3 and 4).

The Australian Sentinel Practice Research Network (ASPREN) data for weeks 36 to 39, ending 4 October 1998, are included in this issue of *CDI* (Table 5).

Figure 3. Selected National Notifiable Diseases Surveillance System reports, and historical data.¹



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 16 September to 13 October 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	1	0	2	0	0	0	0	3	4	24	41
Measles ³	1	2	0	1	0	1	3	2	10	95	282	516
Mumps	1	1	0	1	0	0	2	2	7	13	147	158
Pertussis	10	158	1	75	29	2	67	8	350	824	5,321	6,555
Rubella ⁴	2	7	1	44	0	0	13	2	69	161	666	1,147
Tetanus	0	0	0	1	0	0	0	0	1	0	5	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 16 September to 13 October 1998.

Disease ^{1,2,3,4}	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	This period 1998	This period 1997	Year to date 1998 ⁵	Year to date 1997
Arbovirus infection (NEC) ⁶	0	2	0	3	0	0	0	1	6	6	65	114
Barmah Forest virus infection	0	13	3	14	0	0	0	0	30	30	476	568
Brucellosis												
Campylobacteriosis ⁷	16	-	21	320	201	27	286	116	987	738	8,855	8,737
Chlamydial infection (NEC) ⁸	20	NN	75	294	80	10	166	100	745	508	8,487	7,185
Cholera												
Dengue	0	4	0	4	1	0	0	0	9	1	390	196
Donovanosis	0	NN	0	0	NN	0	0	0	0	2	28	26
Gonococcal infection ⁹	2	60	108	104	18	0	58	47	397	240	4,248	3,494
Hepatitis A	3	29	2	44	5	0	14	11	108	172	2,211	2,507
Hepatitis B incident ⁵	0	5	2	1	1	0	4	0	13	18	184	203
Hepatitis C incident ¹⁰	0	5	1	-	4	0	-	-	16	4	251	55
Hepatitis C unspecified ⁵	17	NN	15	249	NN	22	13	70	386	611	6,724	7,498
Hepatitis (NEC)	0	0	0	0	0	0	0	NN	0	0	4	15
Haemolytic uraemic syndrome ¹¹	NN	0	NN	0	0	0	NN	0	0	0	10	0
Hydatid infection												
Legionellosis	0	0	0	1	2	0	0	2	5	5	181	115
Leprosy												
Leptospirosis	0	5	0	7	0	0	3	0	15	7	131	96
Listeriosis	0	1	0	0	0	0	0	0	1	4	41	62
Malaria	1	3	3	14	0	0	6	1	28	58	596	670
Meningococcal infection	1	18	0	16	3	1	9	6	54	42	371	380
Ornithosis	0	NN	0	0	0	0	0	0	0	0	28	39
Q Fever	0	28	0	16	5	0	1	0	50	37	449	468
Ross River virus infection	0	16	1	24	0	0	0	3	44	40	2,482	6,404
Salmonellosis (NEC)	3	73	24	124	14	5	87	40	370	316	6,165	5,483
Shigellosis ⁷	0	-	9	8	3	0	8	4	32	45	480	638
SLTEC, VTEC ¹²	NN	0	NN	NN	0	0	NN	NN	0	0	14	0
Syphilis ¹³	2	32	16	49	2	0	0	1	102	71	1,203	1,010
Tuberculosis	0	14	0	3	2	0	18	2	39	82	773	808
Typhoid ¹⁴	0	1	0	0	0	0	2	1	4	2	61	59
Yersiniosis (NEC) ⁷	0	-	0	6	2	0	2	1	11	9	180	199

1. Diseases preventable by routine childhood immunisation are presented in 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 and Vic 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 Territory¹ for the reporting period 10 September to 7 October 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	52
Mumps virus		2			1			3		6	37
Rubella virus				4	1		1			6	96
Hepatitis viruses											
Hepatitis A virus		1		4	4		1	6		16	327
Hepatitis D virus					1					1	5
Arboviruses											
Ross River virus				9	1		1	5		16	597
Barmah Forest virus				1				1		2	28
Dengue not typed			2					2		4	32
Flavivirus (unspecified)				1			3			4	60
Adenoviruses											
Adenovirus type 1					24					24	39
Adenovirus type 2					1		1			2	20
Adenovirus type 3					7		1			8	38
Adenovirus type 4							1			1	2
Adenovirus type 6					5					5	10
Adenovirus type 7					1					1	16
Adenovirus type 8							1			1	5
Adenovirus type 22							1			1	1
Adenovirus type 40							2			2	11
Adenovirus not typed/pending		16		3	49	1	6	12		87	647
Herpes viruses											
Cytomegalovirus		8		7	15		30	8		68	626
Varicella-zoster virus		2		14	16	1	25	21		79	998
Epstein-Barr virus		11	2	41	85		18	16		173	1,418
Other DNA viruses											
Papovavirus group							1			1	2
Parvovirus				3	4		8	7		22	188
Picorna virus family											
Coxsackievirus B4					1		1			2	6
Coxsackievirus B5							1			1	3
Echovirus type 18					1					1	6
Poliovirus type 1 (uncharacterised)							1			1	6
Rhinovirus (all types)		12						8		20	373
Enterovirus not typed/pending			3	4	1	1		20		29	397
Ortho/paramyxoviruses											
Influenza A virus		42	1	3	129	3	29	33		240	2,499
Influenza B virus					11		1			12	152
Parainfluenza virus type 1					5					5	270
Parainfluenza virus type 2					1					1	31
Parainfluenza virus type 3		4			16		2	14		36	280
Respiratory syncytial virus		85		7	283	80	267	49		771	3,850
Other RNA viruses											
HTLV-1			1					1		2	16
Rotavirus		38	3		52	17	87	13		210	896
Norwalk agent							5			5	30

Table 3. Virology and serology laboratory reports by State or Territory¹ for the reporting period 10 September to 7 October 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		5	8	29	58	11	12	56	179	2,883
<i>Chlamydia psittaci</i>							3	1	4	40
<i>Mycoplasma pneumoniae</i>		13		16	35		36	6	106	1,089
<i>Coxiella burnetii</i> (Q fever)		1		2	1		1	2	7	97
<i>Bordetella pertussis</i>				15			19	2	36	832
<i>Legionella longbeachae</i>					1				1	28
TOTAL		240	20	163	811	114	566	287	2,201	19,047

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 10 September to 7 October 1998.

State or Territory	Laboratory	Reports
New South Wales	New Children's Hospital, Westmead	119
	South West Area Pathology Service, Liverpool	115
Queensland	Queensland Medical Laboratory, West End	167
	Townsville General Hospital	8
South Australia	Institute of Medical and Veterinary Science, Adelaide	811
Tasmania	Northern Tasmanian Pathology Service, Launceston	27
	Royal Hobart Hospital, Hobart	85
Victoria	Monash Medical Centre, Melbourne	48
	Royal Children's Hospital, Melbourne	399
	Victorian Infectious Diseases Reference Laboratory, Fairfield	123
	PathCentre Virology, Perth	258
Western Australia	Princess Margaret Hospital, Perth	25
	Western Diagnostic Pathology	16
TOTAL		2,201

Table 5. Australian Sentinel Practice Research Network reports, weeks 36 to 39, 1998.

Week number	36		37		38		39	
Week ending on	13 September 1998		20 September 1998		27 September 1998		4 October 1998	
Doctors reporting	62		60		56		48	
Total encounters	8136		7639		6773		5996	
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	96	11.8	69	9.0	59	8.7	41	6.8
Rubella	1	0.1	1	0.1	0	0.0	4	0.7
Measles	1	0.1	1	0.1	1	0.1	1	0.2
Chickenpox	9	1.1	9	1.2	11	1.6	9	1.5
Pertussis	1	0.1	7	0.9	2	0.3	1	0.2
HIV testing (patient initiated)	17	2.1	11	1.4	20	3.0	8	1.3
HIV testing (doctor initiated)	6	0.7	5	0.7	4	0.6	4	0.7
Td (ADT) vaccine	57	7.0	44	5.8	42	6.2	38	6.3
Pertussis vaccination	35	4.3	41	5.4	41	6.1	33	5.5
Reaction to pertussis vaccine	0	0.0	1	0.1	1	0.1	1	0.2
Ross River virus infection	0	0.0	1	0.1	0	0.0	0	0.0
Gastroenteritis	73	9.0	80	10.5	91	13.4	78	13.0

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

Reports of influenza-like illness reported by the ASPREN, Tropical Influenza Surveillance Scheme (Northern Territory, Top End) and the Victorian and New South Wales Sentinel Practitioner Schemes have declined over the month of September. Peak activity was reported by the ASPREN and the Victorian Sentinel Practitioner Schemes in July, and by the New South Wales and Tropical Surveillance Schemes in August (Figure 4). The peak number of reports for this year has been lower across all schemes compared to 1997.

Laboratory Surveillance

There have been 2540 laboratory reports of influenza for the year to date. Of these, 2415 (95%) are influenza A and 125 (5%) influenza B. Weekly reports of influenza A peaked in late July and early August (Figure 5). The number of influenza A reports for this year is greater than those reported over the same period for all years dating

Figure 4. Sentinel general practitioner consultation rates 1998, by week and scheme.

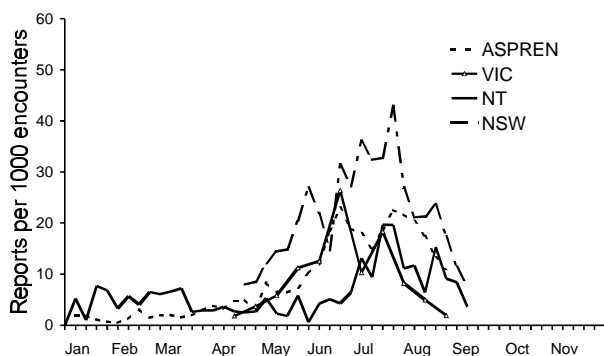


Figure 5. Influenza laboratory reports, 1998, by virus type and week of specimen collection.

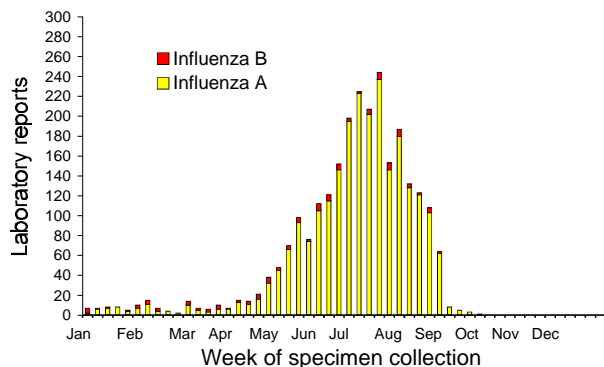
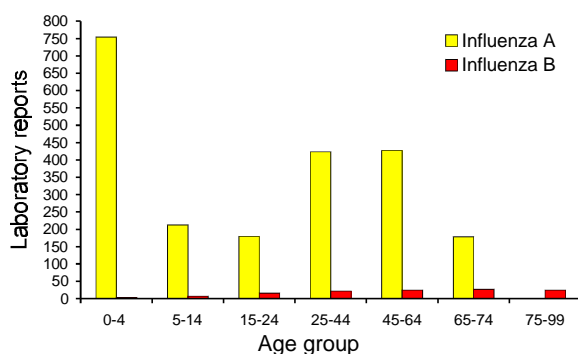
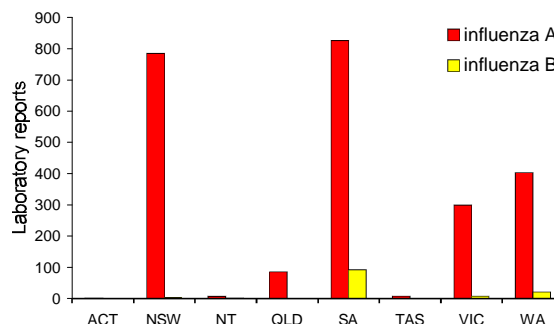


Figure 6. Influenza A and B laboratory reports, 1998, by age group.



back to 1993. 754 (31%) of influenza A and 3 (2.4%) of influenza B laboratory reports have been in children less than 4 years of age (Figure 6). 52 (41%) of all influenza B reports have been in those over the age of 65 years. Ninety-two (74%) of influenza B reports are from South Australia and 21(16%) from Western Australia, with relatively few influenza B reports from laboratories in the east and north of Australia (Figure 7).

Figure 7. Influenza A and B laboratory reports, 1998, by State and Territory.



The WHO Centre for Reference and Research has received 678 isolates of influenza A and 16 of influenza B for the year to date. All the influenza A viruses analysed have been H3N2 strains related to A/Sydney /5/97. One influenza B strain has been identified as B/Beijing/184/93-like. Thirty percent of influenza A strains analysed have shown reduced reactivity with A/Sydney/5/97 antiserum but this does not appear to indicate antigenic shift. A representative sample of these low avidity cell cultured strains regained reactivity with specific antisera when directly isolated in eggs.

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 0.23% per week. Rates for September have averaged 0.15% which is slightly lower than what has been observed since April.

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 1 to 31 May 1998, as reported to 31 August 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 May 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	2	0	2	0	0	1	1	7	5	33	33
	Male	1	23	2	7	5	0	9	1	48	52	287	320
	Sex not reported	0	2	0	0	0	0	0	0	2	1	8	10
	Total ¹	2	27	2	9	5	0	10	2	57	58	328	364
AIDS diagnoses	Female	1	0	0	0	0	0	0	0	1	2	5	15
	Male	1	9	1	1	1	0	0	0	13	20	76	139
	Total ¹	2	9	1	1	1	0	0	0	14	22	81	154
AIDS deaths	Female	0	0	0	0	0	0	0	0	0	2	2	7
	Male	0	3	0	1	2	0	1	0	7	17	35	106
	Total ¹	0	3	0	1	2	0	1	0	7	19	37	113

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 May 1998, by sex and State or Territory.

		ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Australia
HIV diagnoses	Female	22	552	7	128	52	4	194	88	1,047
			10,31							
	Male	183	8	96	1,821	633	77	3,728	857	17,713
	Sex not reported	0	263	0	0	0	0	25	0	288
	Total ¹	205	2	103	1,955	685	81	3,958	948	19,087
AIDS diagnoses	Female	8	159	0	45	19	2	64	23	320
	Male	82	4,373	32	766	321	41	1,527	337	7,479
	Total ¹	90	4,543	32	813	340	43	1,598	362	7,821
AIDS deaths	Female	2	112	0	28	14	2	45	16	219
	Male	62	3,049	23	529	219	27	1,205	241	5,355
	Total ¹	64	3,168	23	559	233	29	1,256	258	5,590

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