

Communicable Diseases Surveillance

Rotavirus

Rotaviruses are a major cause of morbidity and mortality, and a common cause of gastroenteritis in infants and young children. By the age of three most children worldwide have been infected with this virus. Neonatal infection is frequently asymptomatic, whilst disease is reported most commonly for those in the 6 months to 2 years age group. Symptoms include vomiting, fever and watery diarrhoea. The virus is transmitted by the faecal-oral route although spread by the respiratory route has also been suggested. The virus is shed for up to seven days following the onset of symptoms. Outbreaks in daycare centres are common. These can be controlled by excluding children with diarrhoea and vomiting until their symptoms have ceased, and by the practice of good handwashing and cleaning procedures.

The Virology and Serology Laboratory Reporting Scheme, LabVISE, records outbreaks of rotavirus in the winter months each year (Figure 1). The number of laboratory diagnoses recorded by LabVISE has risen in recent weeks, consistent with the time of year. We can expect a further rise in the coming months. For 1996, 92% of reports were for children under 5 years of age (Figure 2).

National Notifiable Diseases Surveillance System

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 1997;21:5*.

Reporting period 11 June to 24 June 1997

There were 2,417 notifications received for this two week period (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 4).

There were 20 notifications of meningococcal disease during this period. Of the notifications for the year to date (171), the majority were from New South Wales (61, 36%) and Victoria (39, 23%). A peak in the number of notifications of meningococcal disease is usually seen in the winter months (Figure 3).

There were 33 cases of measles reported in this period, bringing the total for the year to 253. Most reports for 1997 so far were from New South Wales (67, 26%), Victoria (65, 26%) and Queensland (49, 19%). The number of notifications has remained low since early 1995, following the epidemic which occurred from 1992 to 1994. (Figure 5).

Figure 1. Rotavirus laboratory reports, 1995 to 1997, by month of specimen collection

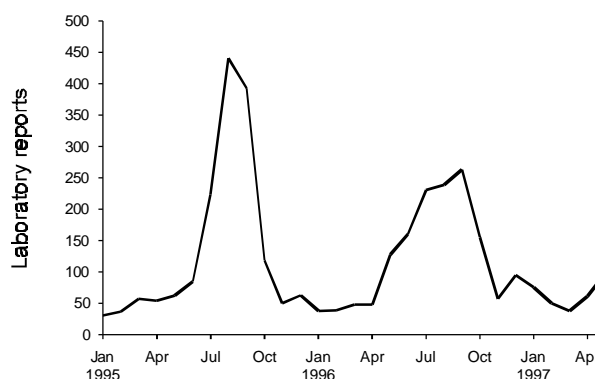


Figure 2. Rotavirus laboratory reports, 1996, by age group and sex

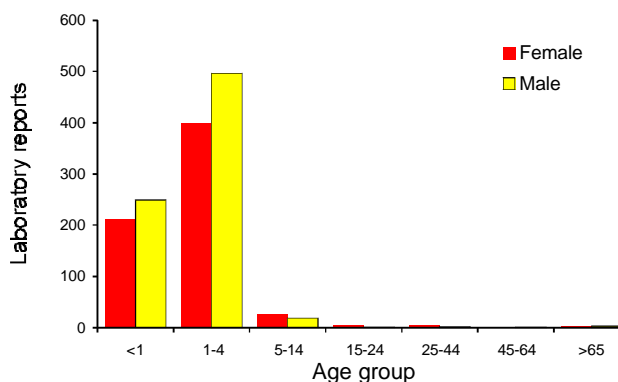


Figure 3. Meningococcal infection notifications, 1992 to 1997, by month of onset

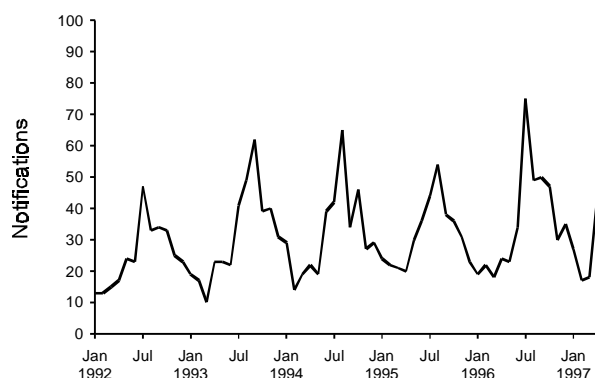


Table 1. Notifications of diseases preventable by vaccines recommended by the NHMRC for routine childhood immunisation, received by State and Territory health authorities in the period 11 to 24 June 1997

Disease ^{1,2}	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	This period 1997	This period 1996	Year to date 1997	Year to date 1996
Diphtheria	0	0	0	0	0	0	0	0	0	0	1	0
<i>Haemophilus influenzae</i> type b	0	0	0	0	0	1	1	0	2	5	25	32
Measles	1	4	0	3	4	0	15	6	33	14	253	225
Mumps	0	0	1	NN	0	0	3	1	5	4	95	53
Pertussis	0	64	0	22	44	5	47	21	203	98	3523	1489
Rubella	0	1	1	16	1	0	12	1	32	78	668	1288
Tetanus	0	0	0	2	0	0	0	0	2	0	6	1

NN. Not Notifiable

1. No notifications of poliomyelitis have been reported 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.

Table 2. Notifications of other diseases received by State and Territory health authorities in the period 11 to 24 June 1997

Disease ^{1,2}	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	This period 1997	This period 1996	Year to date 1997	Year to date 1996
Arbovirus infection (NEC) ³	0	1	2	0	0	0	1	1	5	3	107	72
Barmah Forest virus infection	0	4	0	14	0	0	0	-	18	35	455	583
Campylobacteriosis ⁴	14	-	7	147	78	13	118	53	430	382	5643	5521
Chlamydial infection (NEC) ⁵	7	NN	23	152	0	4	76	68	330	318	3990	3502
Dengue	0	0	0	1	0	0	0	0	1	0	190	23
Donovanosis	0	NN	0	0	NN	0	0	1	1	1	15	26
Gonococcal infection ⁶	0	10	58	37	0	0	10	49	164	142	2224	1827
Hepatitis A	1	68	6	28	3	0	4	1	111	87	1755	1235
Hepatitis B incident	0	1	2	0	0	0	2	3	8	6	188	110
Hepatitis C incident	0	0	0	-	0	0	-	-	0	0	5	16
Hepatitis C unspecified	11	NN	12	133	NN	10	154	15	335	486	4379	4543
Hepatitis (NEC)	0	0	0	0	0	0	1	NN	1	0	10	10
Legionellosis	0	3	0	1	2	0	0	4	10	5	87	91
Leptospirosis	0	0	0	10	0	0	0	0	10	16	68	125
Listeriosis	0	0	0	0	0	0	0	0	0	3	44	27
Malaria	0	4	7	31	0	0	1	4	47	37	412	388
Meningococcal infection	1	6	1	4	0	0	5	3	20	18	171	132
Ornithosis	0	NN	0	0	0	0	2	0	2	2	34	42
Q fever	0	14	0	19	0	0	2	1	36	35	293	249
Ross River virus infection	0	71	10	99	8	0	8	7	203	168	5929	7098
Salmonellosis (NEC)	5	17	12	58	13	2	34	21	162	209	4249	3290
Shigellosis ⁴	0	-	1	7	1	1	6	16	32	31	463	336
Syphilis	2	19	7	11	0	0	0	4	43	48	613	709
Tuberculosis	0	6	4	4	1	0	13	2	30	56	472	559
Typhoid ⁷	0	0	0	0	0	0	2	0	2	1	42	50
Yersiniosis (NEC) ⁴	0	-	0	4	2	0	1	0	7	14	150	131

1. For HIV and AIDS, see Tables 4 and 5. For rarely notified diseases, see Table 3.

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. NT and WA: includes Barmah Forest virus.

4. NSW: only as 'foodborne disease' or 'gastroenteritis in an institution'.

5. WA: genital only.

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

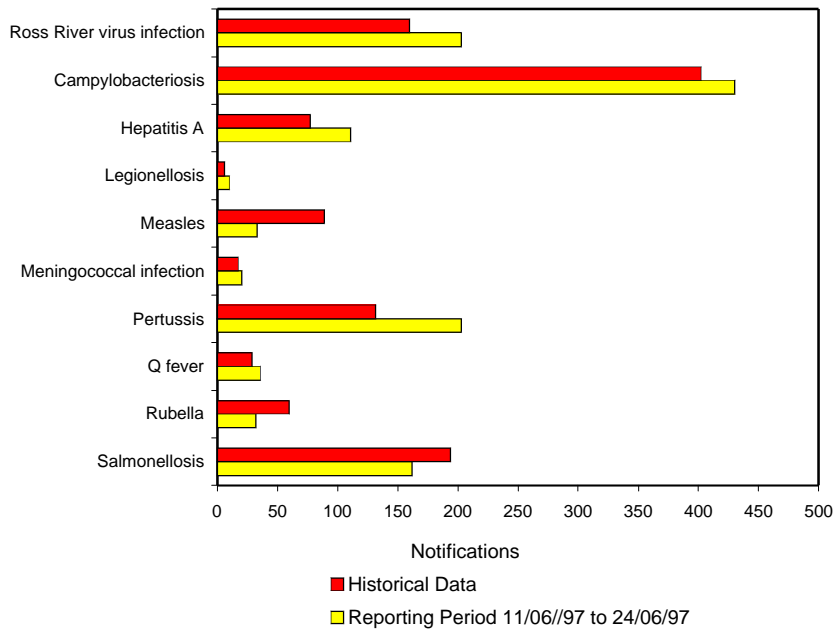
7. NSW, Vic: includes paratyphoid.

NN Not Notifiable.

NEC Not Elsewhere Classified

- Elsewhere Classified.

Figure 4. Selected National Notifiable Diseases Surveillance System reports, and historical data¹



1. The historical data are the averages of the number of notifications in 9 previous 2-week reporting periods, the corresponding periods of the last 3 years and the periods immediately preceding and following those.

Table 3. Notifications of rare¹ diseases received by State and Territory health authorities in the period 11 to 24 June 1997

Disease ²	Total this period	Reporting States or Territories	Total notifications 1997
Brucellosis			16
Chancroid			1
Cholera			1
Hydatid infection	2	Qld, WA	18
Leprosy			7

1. Fewer than 60 cases of each of these diseases were notified each year during the period 1988 to 1996.
 2. No notifications have been received during 1997 for the following rare diseases: botulism, lymphogranuloma venereum, plague, rabies, yellow fever, or other viral haemorrhagic fevers.

Figure 5. Measles notifications, 1992 to 1997, by month of onset

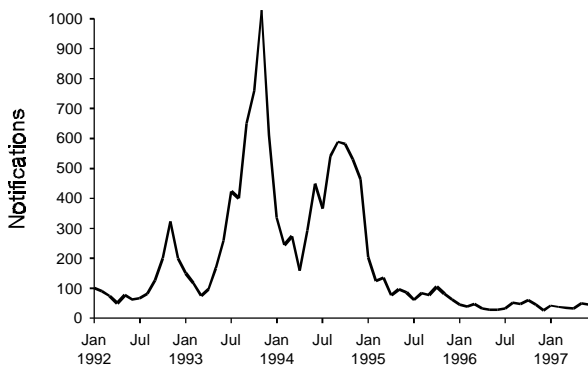


Figure 6. Q fever notifications, 1995 to 1997, by month of onset

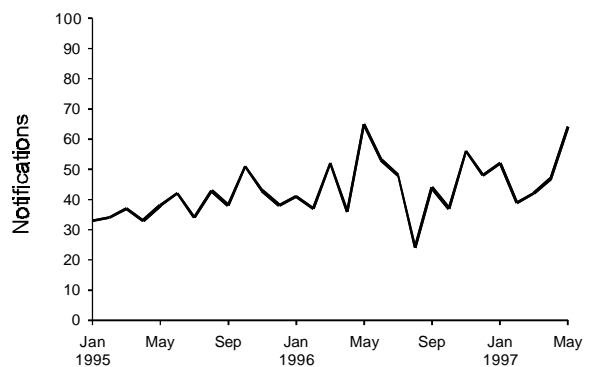


Figure 7. Sentinel general practitioner influenza consultation rates, 1997, by week and scheme

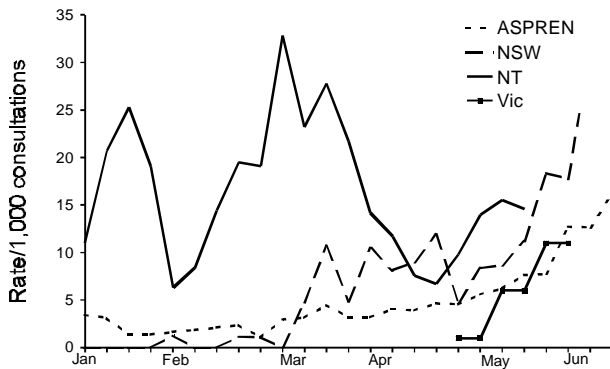


Figure 8. Laboratory reports of influenza, 1997, by type and week of specimen collection

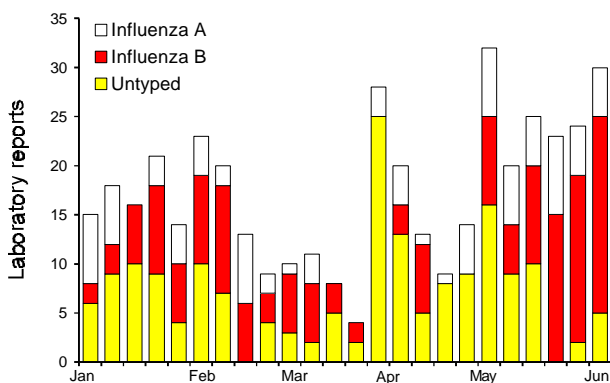
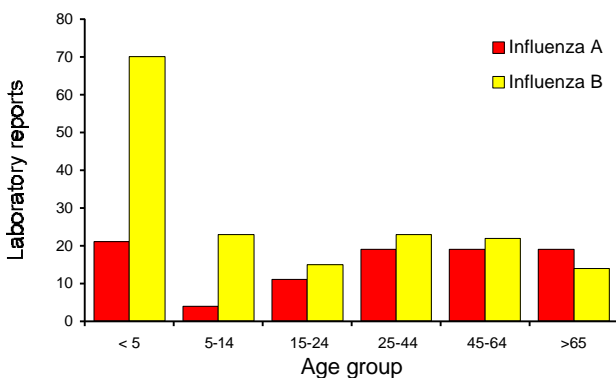


Figure 9. Laboratory reports of influenza, 1997, by type and age group



Thirty-six notifications of Q fever were received this period. The number of cases has risen in recent months (Figure 6).

National Influenza Surveillance, 1997

Three types of data are included in National Influenza Surveillance, 1997. 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 Department of Health and Community Services, 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 1997*; 21:126.

Overall influenza activity rose markedly this fortnight, particularly the sentinel general practitioner consultation rate recorded by the Department of Health, New South Wales. Reports of both influenza A and B are being received.

Sentinel General Practitioner Surveillance

The New South Wales scheme reported a sharp rise in the consultation rate for influenza-like illness this fortnight (Figure 7). The ASPREN consultation rate rose to 16 per 1,000 encounters during this period. No new data are available from the Northern Territory. The Department of Human Services Victoria, recorded a rate of 11 consultations per 1,000 encounters in early June.

Laboratory Surveillance

CDI Virology and Serology Laboratory Reporting Scheme

Ninety-nine reports of influenza virus were recorded by the LabVISE scheme this fortnight. Of these, 35% were for influenza A, 58% for influenza B and 7% untyped. Of the influenza B reports, 35% were for children in the 1 to 4 years age group. For influenza A the age group distribution was more widely spread with only 17% of reports being for this age group (Figure 9). Fifteen per cent of all influenza reports were for adults over the age of 65 years. The number of reports remained high through May and early June (Figure 8). More reports of influenza B were received for May 1997, than were recorded by this scheme for May in previous years.

WHO Collaborating Centre for Reference and Research on Influenza

A total of 64 isolates of influenza A and 30 of influenza B have been received so far this year by the centre for analysis. The majority of these (42 influenza A, and 28 influenza B) were from Victoria. The number of influenza A isolates received has increased recently, with 20 in the past week. All of the influenza A isolates have been confirmed to be of the H₃ subtype. To date there is no indication of significant antigenic drift from the strains which circulated widely in Australia last year. All of the H₃ isolates tested react well with antisera to the A/Wuhan/359/95 reference strain and the current vaccine

Table 4. New diagnoses of HIV infection, new diagnoses of AIDS and deaths following AIDS occurring in the period 1 to 28 February 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	2	0	0	0	0	1	0	3	7	15	13
	Male	0	28	1	11	3	0	15	3	61	56	132	124
	Sex not reported	0	5	0	0	0	0	0	0	5	0	6	2
	Total ¹	0	35	1	11	3	0	16	3	69	63	153	139
AIDS diagnoses	Female	0	0	0	0	0	0	0	0	0	1	2	2
	Male	0	5	0	3	2	0	6	1	17	52	40	108
	Total ¹	0	5	0	3	2	0	6	1	17	53	42	110
AIDS deaths	Female	0	1	0	0	0	0	0	0	1	5	3	8
	Male	0	9	0	1	0	1	4	0	15	47	35	81
	Total ¹	0	10	0	1	0	1	4	0	16	52	38	89

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

Table 5. Cumulative diagnoses of HIV infection, AIDS and deaths following AIDS since the introduction of HIV antibody testing to 28 February 1997, by sex and State or Territory

		ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Australia
HIV diagnoses	Female	19	484	4	106	45	4	180	76	918
	Male	177	10414	89	1732	605	78	3531	806	17432
	Sex not reported	0	2049	0	0	0	0	28	0	2077
	Total ¹	196	12961	93	1843	650	82	3748	885	20458
AIDS diagnoses	Female	7	149	0	34	19	2	56	19	286
	Male	80	4115	27	710	301	39	1462	319	7053
	Total ¹	87	4274	27	746	320	41	1525	340	7360
AIDS deaths	Female	2	107	0	27	14	2	39	13	204
	Male	52	2909	22	496	205	26	1147	230	5087
	Total ¹	54	3022	22	525	219	28	1192	244	5306

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

Table 6. Australian Sentinel Practice Research Network reports, weeks 24 and 25, 1997

Condition	Week 24, to 15 June 1997		Week 25, to 22 June 1997	
	Reports	Rate per 1,000 encounters	Reports	Rate per 1,000 encounters
Chickenpox	24	3.6	16	2.4
Gastroenteritis	61	9.2	59	8.8
HIV testing (doctor initiated)	5	0.8	2	0.3
HIV testing (patient initiated)	13	2.0	11	1.6
Influenza	84	12.6	108	16.1
Measles	0	0.0	1	0.1
Pertussis	2	0.3	1	0.1
Ross River virus infection	0	0.0	0	0.0
Rubella	1	0.2	1	0.1

strain A/Nanchang/933/95. Similarly, all of the influenza B isolates received react strongly with antisera to the B/Beijing/184/93 reference strain and B/Harbin/7/94 vaccine strain.

The centre wishes to remind clinical laboratories that it would like to receive samples of all influenza isolates for antigenic analysis. This is important to determine the formulation of influenza vaccines for the next season. Enquiries regarding this should be directed to Robert Shaw on (03) 9389 1231.

Absenteeism Surveillance

Australia Post recorded a national absenteeism rate of 2.7% and 2.3% in the last two weeks. This has remained stable throughout the season so far.

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 February 1997, as reported to 31 May 1997, are included in this issue of *CDI* (Tables 4 and 5).

Australian Sentinel Practice Research Network

The Australian Sentinel Practice Research Network (ASPREN) currently comprises 107 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. Of these, *CDI* reports the consultation rates for chickenpox, gastroenteritis, HIV testing (doctor initiated), HIV testing (patient initiated), influenza, measles, pertussis, Ross River virus infection and rubella. For further information, including case definitions, see *CDI* 1997;21:6.

Data for weeks 24 and 25 ending 15 and 22 June are included in this issue of *CDI* (Table 6). The consultation rate for chickenpox has risen in recent weeks. The consultation rate for gastroenteritis for the current period is slightly lower than in recent weeks. Consultation rates for doctor and patient initiated HIV testing have been steady for the last two months. Consultation rates for Ross River virus infection, measles, rubella and pertussis remain very low.

LabVISE

The Virology and Serology Laboratory Reporting Scheme, 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* each fortnight. 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* 1997;21:8-9.

Figure 10. *Mycoplasma pneumoniae* laboratory reports, 1995 to 1997, by month of specimen collection

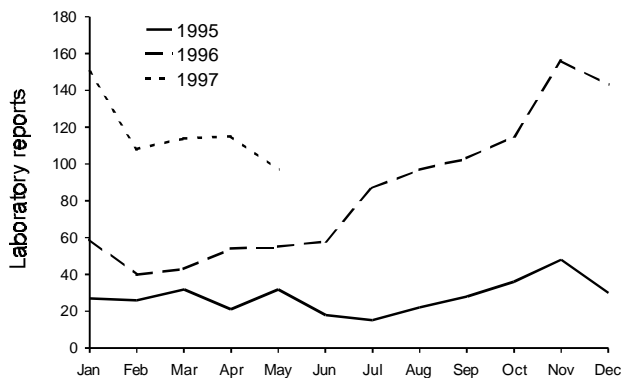
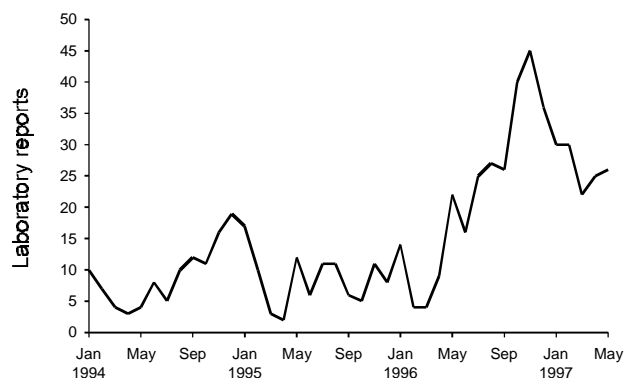


Figure 11. Parvovirus laboratory reports, 1994 to 1997, by month of specimen collection



There were 1,401 reports received in the *CDI* Virology and Serology Laboratory Reporting Scheme this period (Tables 7 and 8).

Although declining, laboratory reports of *Mycoplasma pneumoniae* remain well above those reported in corresponding periods over the last two years (Figure 10). There were 73 reports received in the last fortnight.

Laboratory reports of parvovirus have remained high over the last 12 months. Although declining in the early part of this year, reports have risen again during April and May (Figure 11). Thirteen reports were received this period.

There were 35 reports of parainfluenza virus type 3 received this period and seven reports of type 2. The number of reports for both types has increased during May, and we can expect the increase to continue (Figure 12).

Figure 12. Parainfluenza virus type 2 and type 3 laboratory reports, 1995 to 1997, by month of specimen collection

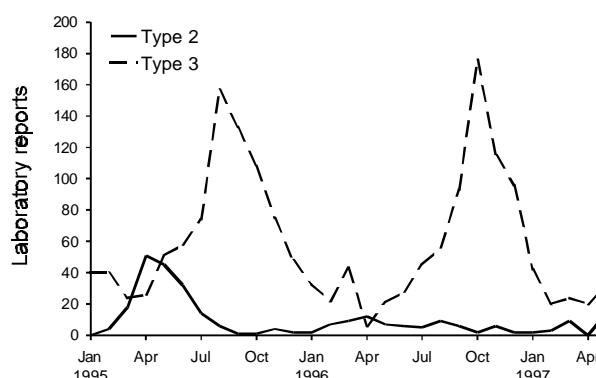


Table 7. Virology and serology laboratory reports by State or Territory¹ for the reporting period 5 to 18 June 1997, historical data², and total reports for the year

	State or Territory ¹						Total this fortnight	Historical data ²	Total reported in <i>CDI</i> in 1997
	NSW	NT	Qld	SA	Vic	WA			
Measles, mumps, rubella									
Measles virus					2		2	1.3	33
Mumps virus						2	2	1.8	22
Rubella virus			3	2		2	7	13.8	391
Hepatitis viruses									
Hepatitis A virus	2		2	1	1	9	15	14.8	454
Arboviruses									
Ross River virus		2	52	6		52	112	51.2	1,930
Barmah Forest virus	1		3			8	12	6.8	182
Dengue type 2			1				1	0.2	48
Dengue not typed						3	3	0.3	42
Murray Valley encephalitis virus						3	3	0	3
Kunjin virus						3	3	0.3	6
Adenoviruses									
Adenovirus type 1					1		1	0.7	14
Adenovirus type 2				2			2	0.3	24
Adenovirus type 3					2		2	1.7	18
Adenovirus type 10			1				1	0	1
Adenovirus type 40						2	2	0.7	10
Adenovirus not typed/pending			14	3	7	13	37	38.8	485
Herpes viruses									
Cytomegalovirus	1		8	3	7	22	41	64.7	648
Varicella-zoster virus	5		21	8	8	22	64	37.2	780
Epstein-Barr virus	7		14	24	3	45	93	67.8	1,516

Table 7. Virology and serology laboratory reports by State or Territory¹ for the reporting period 5 to 18 June 1997, historical data², and total reports for the year, continued

	State or Territory ¹						Total this fortnight	Historical data ²	Total reported in <i>CDI</i> in 1997
	NSW	NT	Qld	SA	Vic	WA			
Other DNA viruses									
Molluscum contagiosum						4	4	0	6
Parvovirus	1		2	1	7	2	13	6.8	213
Picornavirus family									
Rhinovirus (all types)					1	34	35	28.7	327
Enterovirus not typed/pending		2				46	48	40	346
Ortho/paramyxoviruses									
Influenza A virus	1		18		9	7	35	59.7	203
Influenza B virus	1		4	1	18	33	57	6.8	211
Influenza virus - typing pending				2		5	7	0.5	189
Parainfluenza virus type 1						1	1	12.3	40
Parainfluenza virus type 2	1		1	1	4		7	9.2	58
Parainfluenza virus type 3	5		3	7	8	12	35	14.5	411
Respiratory syncytial virus	147		9	7	125	50	338	335.8	1,121
Paramyxovirus (unspecified)					3		3	1.2	3
Other RNA viruses									
HTLV-1						1	1	0.2	9
Rotavirus	2			11	23	12	48	52.2	505
Norwalk agent					2		2	0.8	60
Other									
<i>Chlamydia trachomatis</i> not typed	10	1	21	10	6	147	195	132.5	2,705
<i>Chlamydia psittaci</i>					1		1	2	42
<i>Chlamydia</i> species	1						1	0.5	19
<i>Mycoplasma pneumoniae</i>	26		21	3	8	15	73	20	938
<i>Coxiella burnetii</i> (Q fever)	4		15			3	22	8.8	202
<i>Rickettsia australis</i>			1				1	1	12
<i>Rickettsia tsutsugamushi</i>			1				1	0.2	16
<i>Rickettsia</i> spp - other						3	3	0.7	6
<i>Bordetella pertussis</i>			7		30	9	46	24	1,040
<i>Legionella pneumophila</i>			2	1		1	4	0	13
<i>Legionella longbeachae</i>						6	6	1.5	16
<i>Legionella</i> species			2				2	0.3	11
<i>Cryptococcus</i> species			1				1	0.5	12
<i>Leptospira pomona</i>			3				3	0	11
<i>Leptospira hardjo</i>			1			1	2	0.2	14
<i>Leptospira australis</i>			2				2	0	4
TOTAL	215	5	233	93	276	579	1,401	1,063.30	15,371

1. State or Territory of postcode, if reported, otherwise State or Territory of reporting laboratory.
2. The historical data are the averages of the numbers of reports in 6 previous 2 week reporting periods, the corresponding periods of the last 2 years and the periods immediately preceding and following those.

Table 8. Virology and serology laboratory reports by contributing laboratories for the reporting period 5 to 18 June 1997

State and Territory	Laboratory	Reports
New South Wales	Institute of Clinical Pathology & Medical Research, Westmead	68
	New Children's Hospital, Westmead	52
	Royal Prince Alfred Hospital, Camperdown	28
	South West Area Pathology Service, Liverpool	57
Queensland	Queensland Medical Laboratory, West End	137
	State Health Laboratory, Brisbane	106
South Australia	Institute of Medical and Veterinary Science, Adelaide	92
Victoria	Microbiological Diagnostic Unit, University of Melbourne	4
	Monash Medical Centre, Melbourne	65
	Royal Children's Hospital, Melbourne	138
	Victorian Infectious Diseases Reference Laboratory, Fairfield	69
Western Australia	PathCentre Virology, Perth	486
	Princess Margaret Hospital, Perth	99
TOTAL		1,401