

Communicable Diseases Surveillance

Q fever

Q fever is a zoonotic disease caused by the rickettsia, *Coxiella burnetii*. The disease in humans has an incubation period ranging from two to four weeks and is most often characterised by an acute onset of chills, fever, sweating, headache, malaise and myalgia, and less commonly cough, nausea, vomiting and arthralgia. Transient mild rash occurs in a minority of cases for two to five days. Serious chronic complications are uncommon, although a relapsing debilitating syndrome may occur.

Inapparent infection with this organism occurs in a wide range of wild and domestic animals. Infection in wild animals is largely maintained by vectors (especially ticks) that also provide a source of infection for domestic animals. By contrast with other rickettsiae, infection in humans is usually acquired by inhalation, rather than by contact with infected vectors. Transmission most often occurs via inhalation of aerosols or dust contaminated with *C. burnetii* from infected ruminants. This frequently occurs in or near abattoirs or establishments handling animal by-products, and also by contact with infected animals and contaminated articles such as straw, wool, hair and hides. Products of conception, particularly the placenta, are the most potent source of *C. burnetii*, with milk and faeces of minor importance. Direct transmission from person-to-person rarely occurs.

In Australia, Q fever is essentially an occupational disease. This is reflected by the age - sex distribution of notifications for 1996 (Figure 1), with 62% of cases being reported in males aged 20 to 44 years. Cases of Q fever occur throughout the year with no apparent seasonal distribution (Figure 2). The majority of notifications of Q fever are reported from Queensland and New South Wales, and these two States represented 83% to 93% of the total reports for the years 1992 to 1996.

Preventative measures for Q fever include educating the public on the sources of infection and appropriate disinfection procedures. Other important measures include disposal of animal products of conception, pasteurisation of milk, the use of special isolation rooms within abattoirs for

the incision of gravid uteri, and vaccination of occupationally exposed people such as abattoir workers, veterinarians, and laboratory personnel.

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 17 September to 14 October 1997

There were 4103 notifications received for this four 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 3).

The number of reports for hepatitis A is 35% higher than for the previous four-week period, but remains low by comparison with numbers reported earlier in the year. Most of the current notifications were received from New South Wales and Queensland.

There were 34 notifications of meningococcal infection for the current period, bringing the total number of cases for the year so far to 378. This represents 50 more notifications than for the corresponding year to date number last year. Cases have been reported during the last month from all jurisdictions except the Australian Capital Territory and Tasmania. In each of the last 6 years, the number of reports of cases has declined after October. The number of notifications received for measles has increased markedly in

Figure 1. Q fever notifications, 1996, by age group and sex

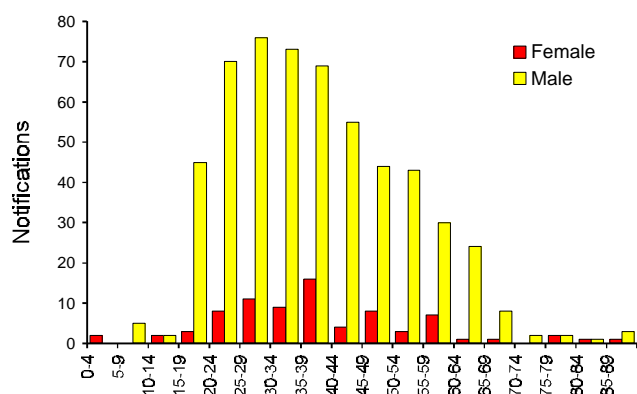


Figure 2. Q fever notifications, 1992 to 1996, by month of onset

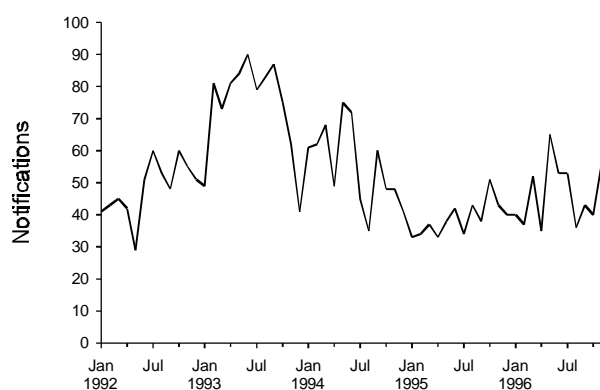


Table 1. Notifications of diseases preventable by vaccines recommended by the NHMRC for routine childhood immunisation, received by State and Territory health authorities in the period 17 September to 14 October 1997

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	0	0
<i>Haemophilus influenzae</i> type B infection	0	0	0	3	0	0	0	0	3	2	41	47
Measles	15	6	2	61	1	0	16	1	102	39	535	374
Mumps	2	1	1	2	6	0	3	1	16	6	161	97
Pertussis	11	174	3	244	90	6	107	105	740	287	6468	2326
Rubella	1	0	0	64	31	5	62	3	166	214	1085	2014
Tetanus	0	0	0	0	0	0	0	0	0	0	7	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 17 September to 14 October 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	4	0	0	0	1	0	6	2	114	43
Barmah Forest virus infection	0	6	-	17	0	0	3	-	29	37	563	752
Campylobacteriosis ⁴	14	-	15	314	132	30	244	72	821	810	8956	9218
Chlamydial infection (NEC) ⁵	5	NN	43	191	0	17	78	105	439	530	6308	6554
Dengue	0	1	0	0	0	0	0	0	1	1	196	30
Donovanosis	0	NN	1	0	NN	0	0	1	2	0	26	37
Gonococcal infection ⁶	5	38	73	56	0	0	6	74	252	271	3457	3270
Hepatitis A	2	34	4	85	9	0	15	6	155	109	2498	1815
Hepatitis B incident	0	1	2	2	0	0	12	0	17	25	196	186
Hepatitis C incident	0	0	0	-	0	0	-	-	0	6	12	49
Hepatitis C unspecified	25	NN	15	254	NN	39	276	31	640	608	7531	7599
Hepatitis (NEC)	0	0	0	0	0	0	0	NN	0	1	14	15
Legionellosis	0	1	0	0	3	0	2	0	6	12	116	149
Leptospirosis	0	2	0	2	0	0	1	0	5	8	96	176
Listeriosis	0	2	0	1	1	0	0	0	4	14	63	55
Malaria	0	5	0	39	1	0	6	3	54	40	663	688
Meningococcal infection	0	9	2	6	5	0	8	4	34	41	378	328
Ornithosis	0	NN	0	0	0	0	2	0	2	2	41	64
Q Fever	0	13	0	26	0	0	4	0	43	32	470	431
Ross River virus infection	0	13	3	19	0	0	2	6	43	43	6396	7512
Salmonellosis (NEC)	3	71	19	92	23	8	63	23	302	265	5502	4517
Shigellosis ⁴	1	-	16	14	6	0	8	5	50	36	644	526
Syphilis	1	28	26	28	0	1	0	2	86	75	955	1214
Tuberculosis	2	16	6	8	8	3	16	6	65	95	756	846
Typhoid ⁷	0	0	0	0	0	0	2	0	2	7	55	74
Yersiniosis (NEC) ⁴	1	-	1	6	1	0	0	0	9	19	199	201

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: 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.

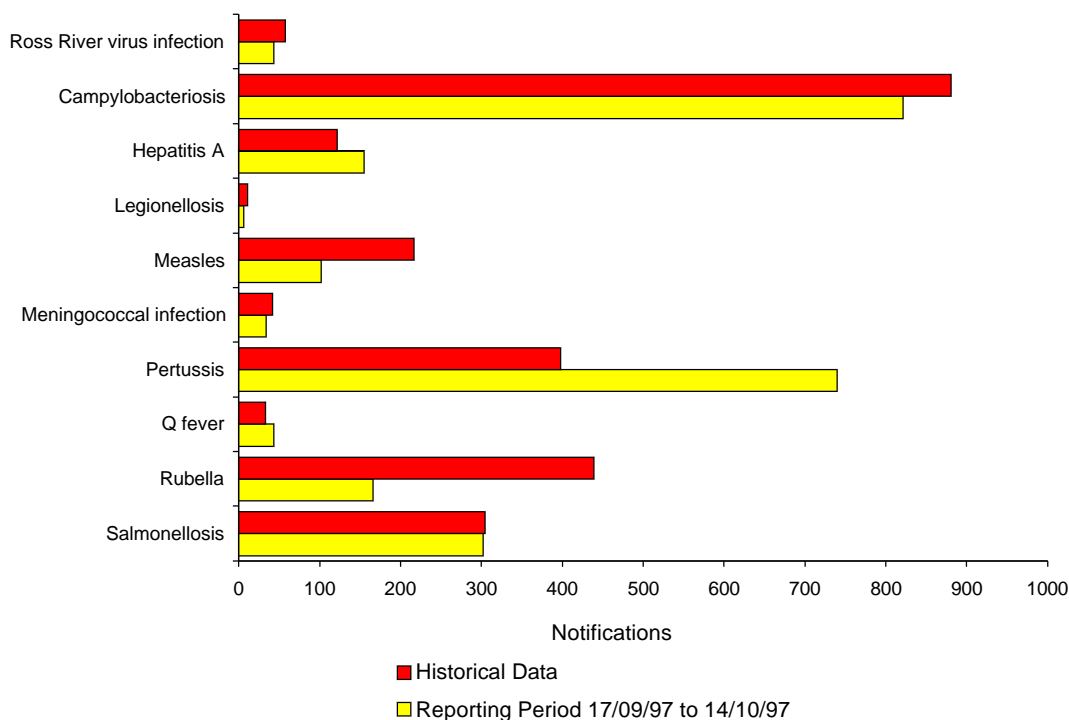
7. NSW, Qld, Vic: includes paratyphoid.

NN Not Notifiable.

NEC Not Elsewhere Classified

- Elsewhere Classified.

Figure 3. 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 17 September to 14 October 1997

Disease ²	Total this period	Reporting States or Territories	Total notifications 1997
Brucellosis	4	Qld, WA	32
Chancroid			1
Cholera			2
Hydatid infection	5	Vic, WA	44
Leprosy			10

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.

recent weeks. The total of 102 cases for the current four-week period is nearly three times the number of reports for the same period last year. The total for the year to date is also greater than 40% higher than last year, but much lower than the numbers of cases reported in 1994 and 1995 (Figure 4). Most reported cases are in young children (Figure 5). During 1997, 81 cases (15%) were reported in infants less than 1 year old, and a further 95 (18%) in children less than 2 years old.

The number of notifications of pertussis has continued to increase (Figure 6), 740 reports being received for the current four-week period. Recent increases have been seen in all jurisdictions except the Northern Territory. For 1997, the highest numbers of cases have been in children 8 and 9 years old, who together account for 14% of the total,

although all age groups are affected (Figure 7). Infants under 1 year of age account for about 5% of cases.

A slight increase in notifications of rubella has been noted for the current period, compared with the previous four weeks, though the incidence remains lower than in 1996 (Figure 8). Of the current 166 cases, 76 (46%) were in males 15 - 24 years of age; this is consistent with data for 1997 as a whole (Figure 9).

Correction: In the last issue of CDI (21:298) the rate of pertussis for children less than 1 year old in 1996 should read 74.7 per 100,000 population.

Figure 4. Notifications of measles, 1991-1997, by month of onset

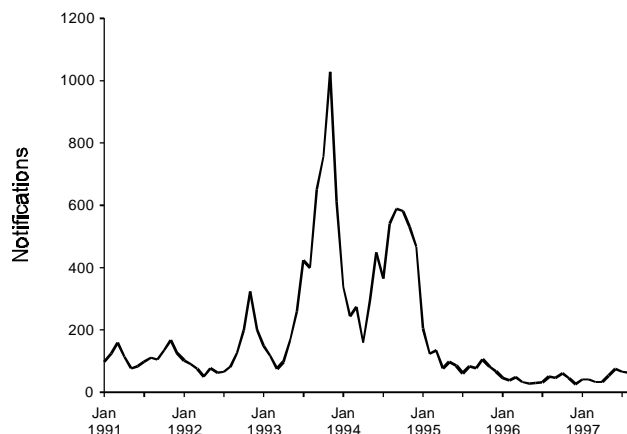
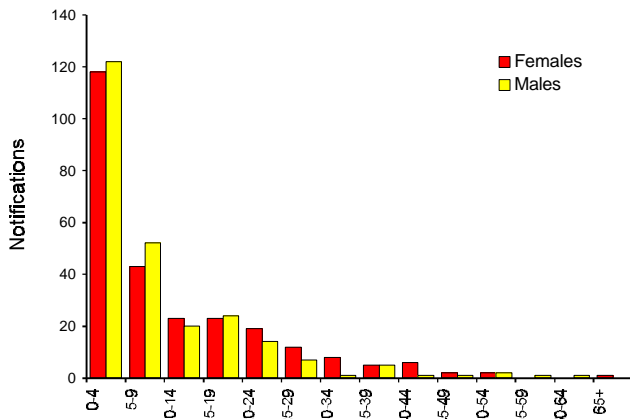


Figure 5. Notifications of measles, 1997, by age group and sex



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*.

Figure 6. Notifications of pertussis, 1993-1997, by month of onset

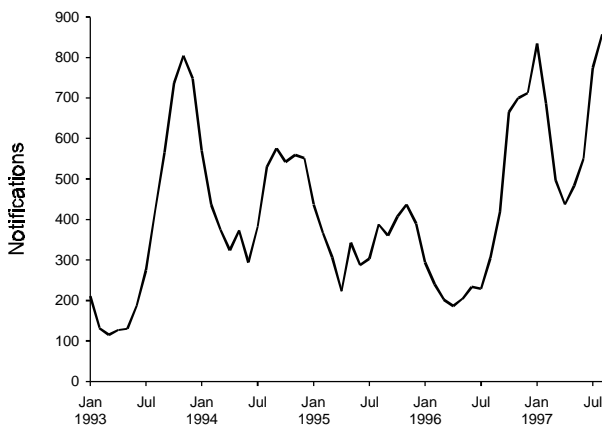


Figure 7. Notifications of pertussis, 1997, by age group and sex

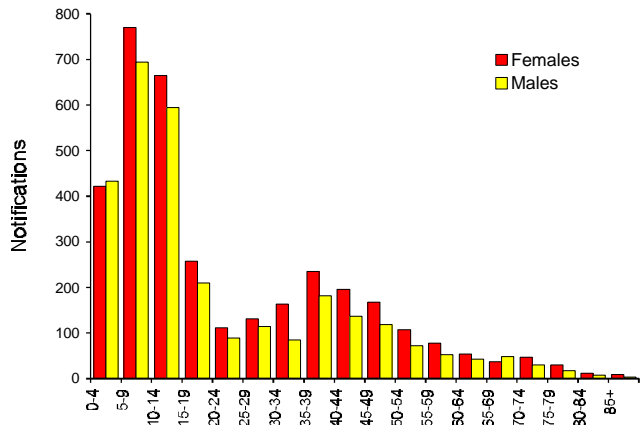


Figure 8. Notifications of rubella, 1991-1997, by month of onset

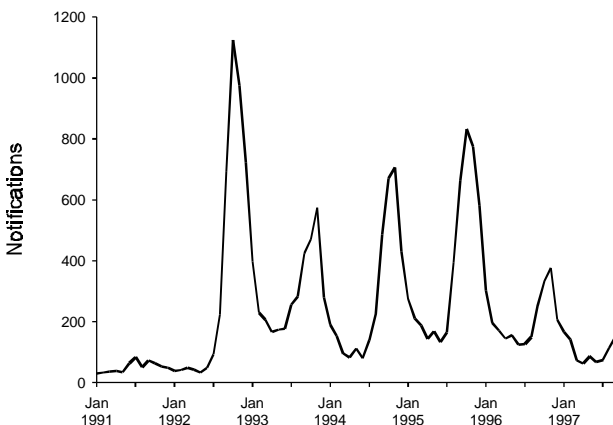


Figure 9. Notifications of rubella, 1997, by age group and sex

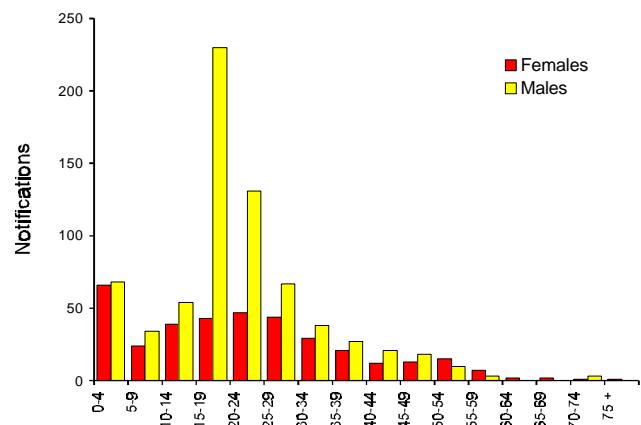
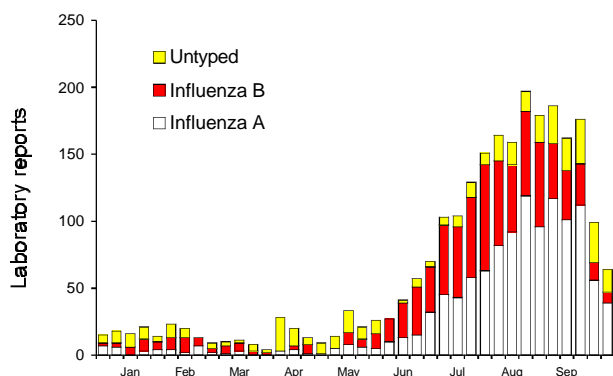


Figure 10. Laboratory reports of influenza, 1997, by type and week of specimen collection



This is the final report of the National Influenza Surveillance for this season. Influenza activity continued to decline throughout most of Australia during September. However, the Northern Territory continued to show high activity throughout the month. The majority of laboratory reports for this period were for influenza A.

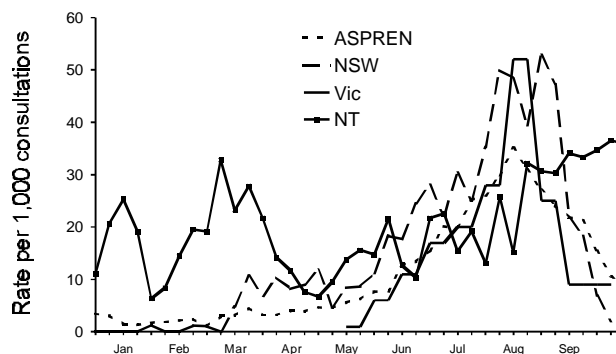
Laboratory Surveillance

A total of 318 reports of influenza virus were recorded by the LabVISE scheme this month. Of these, 191 were for influenza A, 68 for influenza B and 59 were untyped (Figure 10). Most reports during September were for influenza A. Reports for influenza A increased through July and August and have been decreasing since early September.

Sentinel General Practitioner Surveillance

Reports of consultation rates for influenza-like illness from the New South Wales scheme, the Department of Human Services Victoria, and the ASPREN scheme continued to decline throughout September, having reached a peak rate in late July to early August (Figure 11). The Northern

Figure 11. Sentinel general practitioner influenza consultation rates, 1997, by week and scheme



Territory scheme, however, continued to show a high level of influenza activity throughout September.

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

Table 4. New diagnoses of HIV infection, new diagnoses of AIDS and deaths following AIDS occurring in the period 1 June to 30 June 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	1	0	0	0	1	0	2	2	34	37
	Male	2	13	0	5	4	0	15	0	39	78	335	405
	Sex not reported	0	2	0	0	0	0	0	0	2	0	13	3
	Total ¹	0	24	0	3	3	0	14	5	49	77	340	365
AIDS diagnoses	Female	0	0	0	0	0	0	0	1	1	3	13	14
	Male	0	8	0	1	2	0	1	1	13	48	106	325
	Total ¹	0	8	0	1	2	0	1	2	14	51	119	339
AIDS deaths	Female	0	1	0	0	0	0	0	0	1	2	6	13
	Male	0	3	0	2	1	0	1	1	8	47	84	251
	Total ¹	0	4	0	2	1	0	1	1	9	49	90	264

1. Persons whose sex was reported as transgender 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 30 June 1997, by sex and State or Territory

		ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Australia
HIV diagnoses	Female	21	491	6	110	46	4	186	77	941
	Male	180	10,521	91	1,759	616	78	3,586	820	17,651
	Sex not reported	0	2,056	0	0	0	0	28	0	2,084
	Total ¹	201	13,081	97	1,874	662	82	3,809	900	20,706
AIDS diagnoses	Female	7	152	0	37	19	2	59	23	299
	Male	80	4,159	28	718	308	40	1,478	328	7,139
	Total ¹	87	4,322	28	757	327	42	1,544	353	7,460
AIDS deaths	Female	2	109	0	27	14	2	40	14	208
	Male	52	2,940	22	503	208	26	1,161	235	5,147
	Total ¹	54	3,055	22	532	222	28	1,207	250	5,370

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

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 June 1997, as reported to 30 September 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 38 to 41 ending 21 and 28 September, and 5 and 12 October are included in this issue of *CDI* (Table 6). During the current reporting period, the consultation rate for pertussis has continued to rise, and is higher than previously seen this year. The consultation rate for influenza-like illness has declined markedly over the last six weeks. The gastroenteritis consultation rate has remained at a low level since the beginning of June. The consultation rate for chickenpox has remained steady since June. Measles, rubella and Ross River virus infection consultation rates have remained low for several months. The consultation rates associated with HIV testing have remained at moderate levels throughout the year.

Table 6. Australian Sentinel Practice Research Network reports, weeks 38, 39, 40 and 41, 1997

Condition	Week 38, to 21 September 1997		Week 39, to 28 September 1997		Week 40, to 5 October 1997		Week 41, to 12 October 1997	
	Reports	Rate per 1,000 encounters	Reports	Rate per 1,000 encounters	Reports	Rate per 1,000 encounters	Reports	Rate per 1,000 encounters
Chickenpox	12	1.8	5	0.9	19	3.2	7	1.4
Gastroenteritis	64	9.8	64	11.8	71	12.0	53	10.3
HIV testing (doctor initiated)	7	1.1	5	0.9	3	0.5	3	0.6
HIV testing (patient initiated)	7	1.1	12	2.2	7	1.2	11	2.1
Influenza	65	9.9	40	7.4	44	7.5	26	5.1
Measles	1	0.2	1	0.2	0	0.0	0	0.0
Pertussis	4	0.6	2	0.4	3	0.5	5	1.0
Ross River virus infection	2	0.3	1	0.2	0	0.0	1	0.2
Rubella	3	0.5	0	0.0	2	0.3	0	0.0

Figure 12. Rubella virus laboratory reports, 1995 to 1997, by month of specimen collection

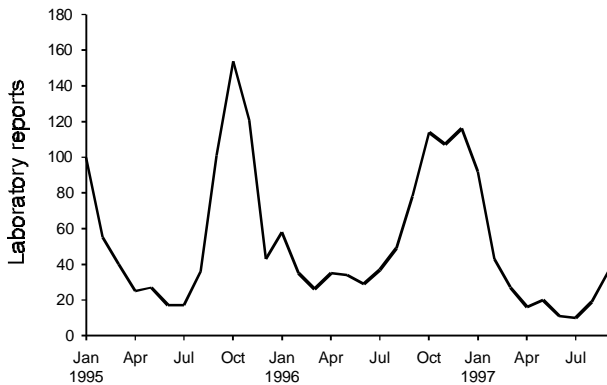
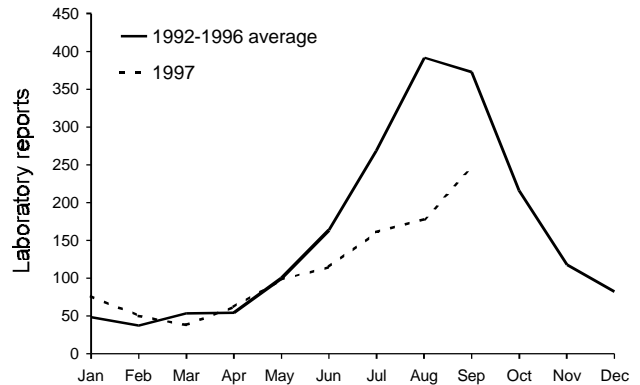


Figure 13. Rotavirus laboratory reports, 1992 to 1996 average and 1997, by month of specimen collection



Sentinel Chicken Surveillance Programme

Sentinel chicken flocks are used to monitor flavivirus activity in Australia. The main viruses of concern are Murray Valley encephalitis (MVE) and Kunjin which cause the potentially fatal disease Australian encephalitis in humans. Currently 24 flocks are maintained in the north of Western Australia, ten in the Northern Territory, ten in New South Wales and ten in Victoria. The flocks in Western Australia and the Northern Territory are tested year round but those in New South Wales and Victoria are tested only from November to March, during the main risk season.

Results are coordinated by the Arbovirus Laboratory in Perth and reported bimonthly. For more information see *CDI 1997;21:6*

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Sentinel chicken serology was carried out for 20 of the 24 flocks in Western Australia in August and September 1997. There were 4 seroconversions to flaviviruses in the Derby flock from Western Australia in August. Three of the seroconversions were to MVE virus and one to a flavivirus that does not react with the MVE and Kunjin monoclonal antibodies. Most of the chicken flocks in Western Australian have now been replaced in preparation for the next wet season. Four new flocks have been added in the Gascoyne region of Western Australian. This will allow determination of the southerly limit of MVE and Kunjin virus activity in the state.

Five flocks of sentinel chickens from the Northern Territory were tested in August and September 1997. During this period there were 2 seroconversions to flaviviruses. One chicken from the Coastal Plains flock serconverted to Kunjin virus in August, and one from the Leanyer flock (in Darwin) serconverted to both MVE and Kunjin viruses in

September. The Leanyer seroconversion has not yet been confirmed.

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*.

There were 2,220 reports received in the *CDI* Virology and Serology Laboratory Reporting Scheme this 4-week period (Tables 7 and 8).

Laboratory reports of rubella virus have increased as expected for this time of year (Figure 12). There were 38 reports for this period, 24 (66%) were from Queensland. Eight reports were for females aged from 15 to 31 years, the remainder were males.

Figure 14. Parainfluenza virus type 2 and type 3 laboratory reports, 1995 to 1997, by month of specimen collection

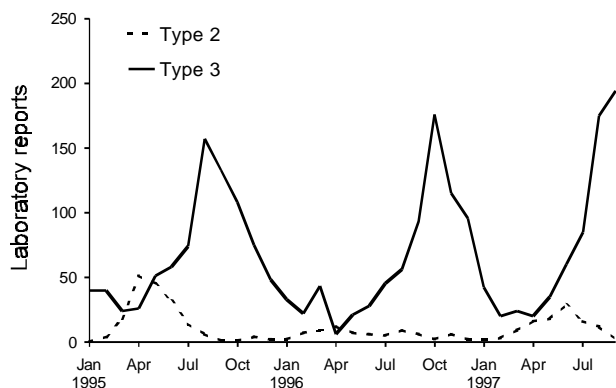


Table 7. Virology and serology laboratory reports by State or Territory¹ for the reporting period 11 September to 8 October 1997, and total reports for the year

	State or Territory ¹								Total this period	Total reported in <i>CDI</i> in 1997
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA		
Measles, mumps, rubella										
Measles virus		1	1		2		1	2	7	53
Mumps virus							1	2	3	41
Rubella virus		1		25	11			1	38	481
Hepatitis viruses										
Hepatitis A virus		1	1	26	3			8	39	628
Hepatitis D virus					1				1	18
Arboviruses										
Ross River virus			2	13	1		2	3	21	2,050
Barmah Forest virus		2	2	10				1	15	213
Dengue type 2				1					1	49
Dengue not typed								1	1	58
Adenoviruses										
Adenovirus type 1					1				1	21
Adenovirus type 2					3				3	31
Adenovirus type 40								4	4	16
Adenovirus not typed/pending		17		30	29		9	18	103	848
Herpes viruses										
Herpes virus type 6								1	1	5
Cytomegalovirus		24		18	3	1	14	5	65	964
Varicella-zoster virus		2	2	23	9	1	24	23	84	1,131
Epstein-Barr virus		25	3	20	35		12	28	123	2,057
Other DNA viruses										
Contagious pustular dermatitis (Orf virus)								1	1	3
Poxvirus group not typed							1		1	3
Parvovirus				4			20	2	26	302
Picornavirus family										
Poliovirus type 2 (uncharacterised)					1				1	11
Rhinovirus (all types)		15		20			5	14	54	541
Enterovirus not typed/pending				14				30	44	538
Ortho/paramyxoviruses										
Influenza A virus		6		40	29		41	70	186	1,244
Influenza A virus H3N2				5					5	96
Influenza B virus		4		24	10		19	11	68	889
Influenza virus - typing pending					59				59	431
Parainfluenza virus type 1		1		1	1			4	7	60
Parainfluenza virus type 2				3	1				4	116
Parainfluenza virus type 3		52		25	8		16	74	175	935
Parainfluenza virus typing pending					18				18	229
Respiratory syncytial virus		26	1	47	83	3	26	96	282	4,282
Paramyxovirus (unspecified)							1		1	22
Other RNA viruses										
Rotavirus		136		1	22	3	22	35	219	1,240
Norwalk agent							7		7	77
Other										
<i>Chlamydia trachomatis</i> not typed		19	45	33	20	2	14	101	234	3,885
<i>Chlamydia pneumoniae</i>		1							1	3

Table 7. Virology and serology laboratory reports by State or Territory¹ for the reporting period 11 September to 8 October 1997, and total reports for the year, continued

	State or Territory ¹								Total this period	Total reported in CDI in 1997
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA		
<i>Chlamydia psittaci</i>							3		3	54
<i>Chlamydia</i> species		2		1					3	28
<i>Mycoplasma pneumoniae</i>		16	2	37	8	2	27	15	107	1,469
<i>Coxiella burnetii</i> (Q fever)		4		5			3	1	13	269
<i>Rickettsia tsutsugamushi</i>				2					2	26
<i>Salmonella</i> species								1	1	1
<i>Bordetella pertussis</i>			1	61			53	68	183	1,485
<i>Bordetella</i> species							1		1	23
<i>Legionella longbeachae</i>								1	1	24
<i>Cryptococcus</i> species				1					1	18
<i>Leptospira pomona</i>				1					1	13
<i>Leptospira australis</i>				1					1	5
TOTAL		355	60	492	358	12	322	621	2,220	26,986

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

Compared to the previous five years, the number of laboratory reports for rotavirus has been well below average (Figure 13). There were 219 reports this reporting period, 136 (62%) were from New South Wales. Most reports (196) were for children aged less than five years, of these 61 (28% of total) were aged less than one year.

Laboratory reports of parainfluenza virus type 2 have declined, but reports of type 3 are the highest recorded in recent years (Figure 14). The number of reports of parainfluenza virus type 3 is high, as expected for this time of year. There were 4 reports of parainfluenza virus type 2 this period and 175 reports of type 3.

Table 8. Virology and serology laboratory reports by contributing laboratories for the reporting period 11 September to 8 October 1997

State or Territory	Laboratory	Reports
New South Wales	Institute of Clinical Pathology & Medical Research, Westmead	54
	New Children's Hospital, Westmead	133
	Royal Prince Alfred Hospital, Camperdown	41
	South West Area Pathology Service, Liverpool	114
Queensland	Queensland Medical Laboratory, West End	303
	State Health Laboratory, Brisbane	205
South Australia	Institute of Medical and Veterinary Science, Adelaide	356
Tasmania	Northern Tasmanian Pathology Service, Launceston	10
Victoria	Microbiological Diagnostic Unit, University of Melbourne	11
	Royal Children's Hospital, Melbourne	144
	Victorian Infectious Diseases Reference Laboratory, Fairfield	172
Western Australia	PathCentre Virology, Perth	399
	Princess Margaret Hospital, Perth	171
	Western Diagnostic Pathology	107
TOTAL		2,220