COMMUNICABLE DISEASES SURVEILLANCE

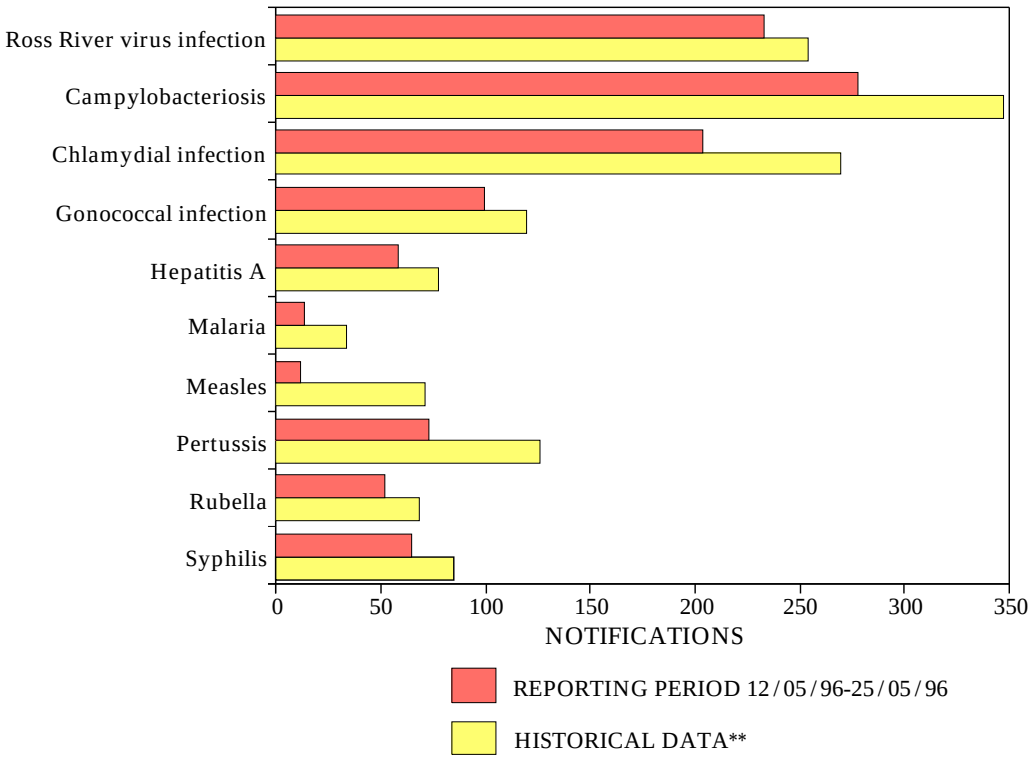
National Notifiable Diseases Surveillance System

The NNDSS is conducted under the auspices of the Communicable Diseases Network Australia-New Zealand. The system coordinates the national surveillance of 41 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 legislation. De-identified core unit data are supplied fortnightly for collation, analysis and dissemination. For further information see *CDI* 1996; 20: 9-10.

There were 1,604 notifications received for this two week period (Tables 1, 2 and 3). The numbers of reports for selected diseases has been compared with averaged data for previous years (Figure 1). No reports were received from Victoria for the current period. This should be taken into account in interpreting the figure.

The recent epidemic of **Ross River virus infection** continues to decline (Figure 2). There were 233 reports received for the current period, the highest number of reports being from the Queensland Statistical Divisions of Brisbane (68) and Northern (38). The age group distribution for cases during the epidemic is similar to that observed over the last year and a half (Figure 3).

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



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.

Figure 2. Ross River virus infection notifications 1993 to 1996, by month of onset

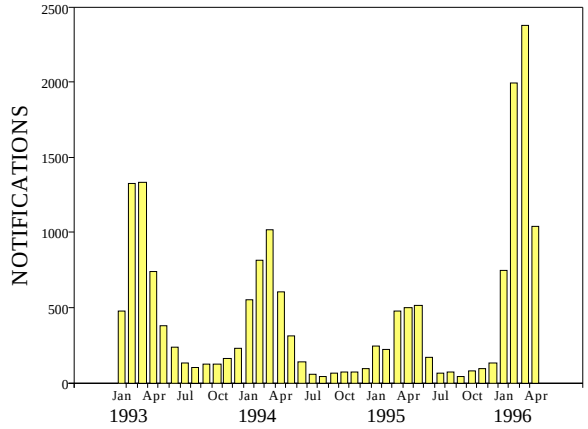


Figure 3. Ross River virus infection notifications 1995 and 1996, by age group and sex

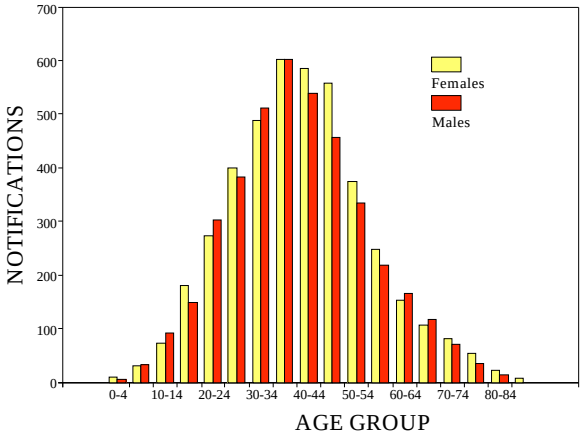


Figure 4. Campylobacteriosis notifications 1995 and 1996, by age group and sex

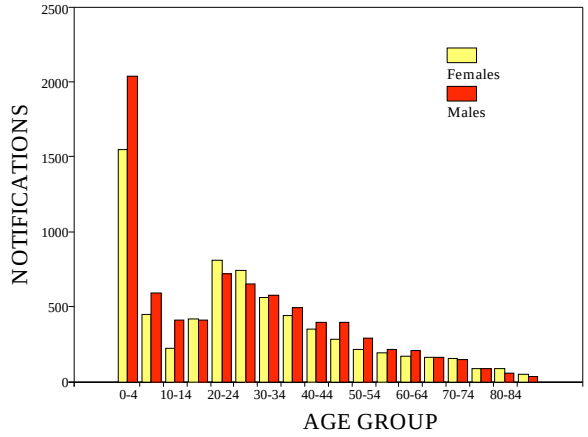


Figure 5. Hepatitis A notifications 1991 to 1996, by month of onset

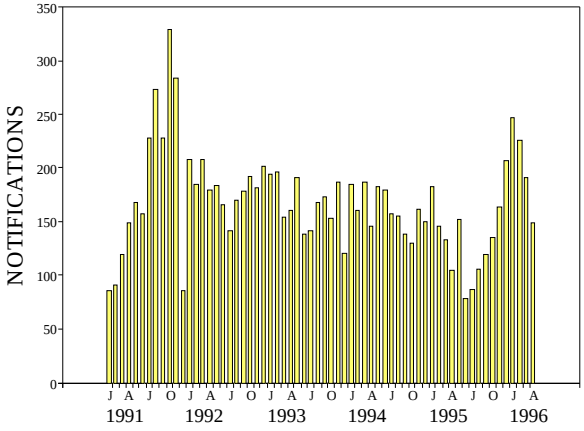


Figure 6. Measles notifications 1993 to 1996, by month of onset

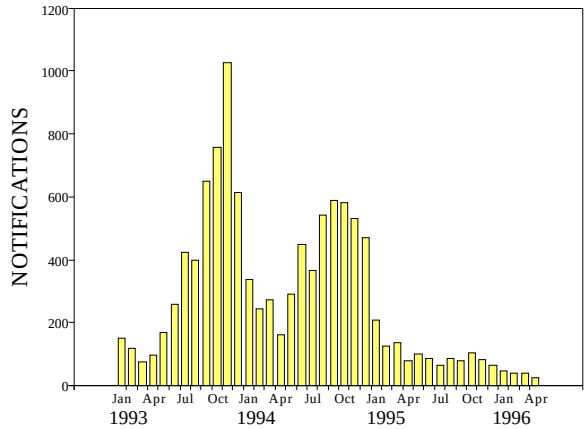
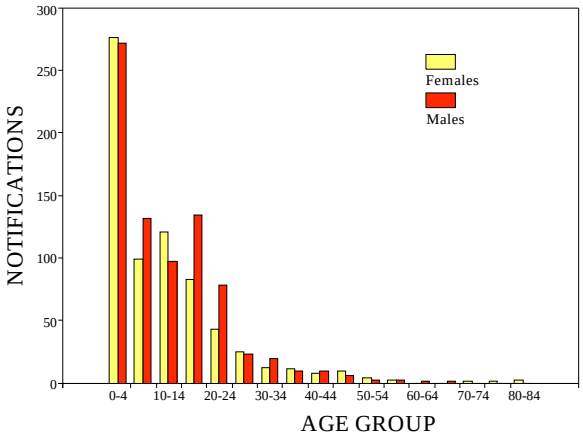


Figure 7. Measles notifications 1995 and 1996, by age group and sex



There were 278 reports of **campylobacteriosis** for the period, bringing the number received since January 1995 to 15,023 cases. The highest rate of notification was from South Australia. The predominant age group was 0-4 years. A smaller second peak in numbers of notifications was seen in young adults (Figure 4). This age group distribution is typical of patterns seen in other developed countries. In developing countries the majority of notifications are for children in the first two years of life. In these countries, most persons have numerous symptomatic campylobacter infections in early childhood, and there are few symptomatic infections in later life.

The number of reports of **hepatitis A**, 58 for the period, is returning to average levels (Figures 1 and 5). Twenty-eight cases (48% of the total) were reported for the age range 20-34 years (20 males and 8 females).

There were 12 reports of **measles** received during the period. The number of reports has remained low since the beginning of 1995 (Figure 6). During this period 48% of reported cases were in persons over the age of ten years (Figure 7); 11% of cases were in children under one year of age. The overall male:female ratio was 1.1:1; however for the age range 15 to 24 years the ratio was 1.7:1.

Since the end of the reporting period, a case of **cholera** (*V. cholerae* serogroup O1, biotype El Tor, serotype Ogawa) has been reported from Queensland. The case was a female who visited Penang, Malaysia during the epidemic period in May 1996.

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 12 to 25 May 1996

DISEASE	ACT	NSW	NT	Qld	SA	Tas	WA	TOTALS FOR AUSTRALIA[1]			
								This period 1996	This period 1995	Year to date 1996	Year to date 1995
Diphtheria	0	0	0	0	0	0	0	0	0	0	0
Haemophilus influenzae B infection	0	0	0	0	0	0	0	0	1	22	35
Measles	0	6	0	3	1	0	2	12	43	183	746
Mumps	0	0	0	NN	2	0	0	2	5	48	52
Pertussis	1	38	1	3	28	0	2	73	145	1114	1783
Poliomyelitis	0	0	0	0	0	0	0	0	0	0	0
Rubella	6	9	0	27	3	3	4	52	71	1156	1036
Tetanus	0	0	0	0	0	0	0	0	0	1	2

1. 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.

NN Not Notifiable.

Table 2. Notifications of other diseases[1] received by State and Territory health authorities in the period 12 to 25 May 1996

DISEASE	ACT	NSW	NT	Qld	SA	Tas	WA	TOTALS FOR AUSTRALIA[1]			
								This period 1996	This period 1995	Year to date 1996	Year to date 1995
Arbovirus Infection (NEC)[3,4]	0	6	2	2	0	0	1	11	17	287	302
Barmah Forest virus infection	0	0	-	17	0	0	-	17	32	379	190
Ross River virus infection	1	30	6	177	0	-	19	233	304	6486	1590
Dengue	1	0	1	0	0	-	0	2	5	21	13
Campylobacteriosis[5]	10	-	12	78	90	13	75	278	373	4399	4207
Chlamydial infection (NEC)[6]	3	NN	24	127	0	13	37	204	261	2691	2581
Donovanosis	0	NN	3	1	NN	0	0	4	0	23	37
Gonococcal infection[7]	0	11	46	38	0	0	4	99	77	1408	1212
Hepatitis A	2	25	6	18	1	0	6	58	46	1003	703
Hepatitis B incident	0	0	1	1	0	0	1	3	9	93	147
Hepatitis B unspecified	4	0	0	32	0	4	13	53	68	601	707
Hepatitis C incident	0	0	0	-	0	-	-	0	10	8	39
Hepatitis C unspecified	16	NN	8	68	NN	3	37	132	329	3340	3278
Hepatitis (NEC)	0	0	0	0	0	0	NN	0	0	9	11
Legionellosis	0	4	0	2	0	0	0	6	7	75	90
Leptospirosis	0	4	0	5	0	0	0	9	8	102	52

Table 2. Notifications of other diseases[1] received by State and Territory health authorities in the period 12 to 25 May 1996, continued

DISEASE	ACT	NSW	NT	Qld	SA	Tas	WA	TOTALS FOR AUSTRALIA[1]			
								This period 1996	This period 1995	Year to date 1996	Year to date 1995
Listeriosis	0	0	0	0	0	0	0	0	0	23	34
Malaria	1	8	0	0	2	0	2	13	20	315	238
Meningococcal infection	0	3	0	2	1	0	1	7	11	100	122
Ornithosis	0	NN	0	0	0	0	0	0	3	35	63
Q fever	0	9	0	3	0	0	0	12	24	183	179
Salmonellosis (NEC)	1	32	35	100	17	3	17	205	214	2809	3253
Shigellosis[5]	0	-	14	10	0	0	2	26	25	269	360
Syphilis	0	33	12	19	0	0	1	65	73	590	794
Tuberculosis	0	3	2	8	8	0	1	22	35	429	467
Typhoid8	0	0	0	0	0	0	1	1	3	35	34
Yersiniosis (NEC)5	0	-	0	3	0	0	0	3	9	105	161

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. Tas: includes Ross River virus and dengue.
4. WA, NT and Vic: includes Barmah Forest virus.
5. NSW: only as 'foodborne disease' or 'gastroenteritis in an institution'.
6. WA: genital only.
7. NT, Qld, SA and Vic: includes gonococcal neonatal ophthalmia.
8. NSW, Vic: includes paratyphoid.

NN Not Notifiable.

Table 3. Notifications of rare[1] diseases received by State and Territory health authorities in the period 12 to 25 May 1996

DISEASES	Total this period	Reporting States or Territories	Year to date 1996
Botulism	0		0
Brucellosis	1	NSW	13
Chancroid	0		1
Cholera	0		2
Hydatid infection	1	WA	17
Leprosy	0		6
Lymphogranuloma venereum	0		0
Plague	0		0
Rabies	0		0
Yellow fever	0		0
Other viral haemorrhagic fevers	0		0

1. Fewer than 60 cases of each of these diseases were notified each year during the period 1988 to 1994.

HIV and AIDS Surveillance

Methodological note

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.

Table 4. New diagnoses of HIV infection, new diagnoses of AIDS and deaths following AIDS occurring in the period 1 to 31 December 1995, by sex and State or Territory of diagnosis

		ACT	NSW	NT	Qld	SA	Tas	Vic	WA	TOTALS FOR AUSTRALIA			
										This period 1995	This period 1994	Year to date 1995	Year to date 1994
HIV diagnoses	Female	0	4	0	0	0	0	0	0	4	9	72	81
	Male	1	27	0	1	1	0	14	2	46	59	744	854
	Sex not reported	0	0	0	0	0	0	0	0	0	0	9	9
	Total[1]	1	31	0	1	1	0	14	2	50	68	827	945
AIDS diagnoses	Female	0	0	0	1	0	0	0	0	1	2	27	41
	Male	0	17	0	1	0	0	5	0	23	67	619	864
	Total[1]	0	17	0	2	0	0	5	0	24	69	648	909
AIDS deaths	Female	0	0	0	0	0	0	1	0	1	2	36	36
	Male	1	12	1	5	5	0	10	0	34	59	556	676
	Total[1]	1	12	1	5	5	0	11	0	35	61	593	717

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 31 December 1995, by sex and State or Territory

		ACT	NSW	NT	Qld	SA	Tas	Vic	WA	AUSTRALIA
HIV diagnoses	Female	15	547	4	94	44	4	157	69	934
	Male	167	9908	80	1549	557	70	3322	746	16399
	Sex not reported	0	2047	0	0	0	0	42	0	2089
	Total[1]	182	12509	84	1648	601	74	3530	817	19445
AIDS diagnoses	Female	5	130	0	28	18	2	47	17	247
	Male	71	3708	25	626	260	32	1307	270	6299
	Total[1]	76	3848	25	656	278	34	1361	289	6567
AIDS deaths	Female	2	96	0	21	13	2	32	9	175
	Male	50	2610	20	432	177	21	1024	199	4533
	Total[1]	52	2712	20	455	190	23	1062	209	4723

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

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) 332 4648 Facsimile: (02) 332 1837.

HIV and AIDS diagnoses and deaths following AIDS reported for December 1995, as reported to 31 March 1996, are included in this issue of *CDI* (Tables 4 and 5).

National Influenza Surveillance

Australian Sentinel Practice Research Network; Communicable Diseases Intelligence Virology and Serology Reporting Scheme Contributing Laboratories, New South Wales Department of Health; Victorian Department of Health; World Health Organisation Collaborating Centre for Influenza Reference and Research.

National Influenza Surveillance is conducted from May to September each year. Data are combined from a number of sources to provide an indication of influenza activity. Included are sentinel general practitioner surveillance, absenteeism data from a national employer, and laboratory data from LabVISE and the World Health Organization Collaborating Centre for Influenza Reference and Research. For further information, see *CDI* 20 1996, pages 9-12.

Figure 8. Sentinel general practitioner influenza reports per 1,000 encounters 1996, by week

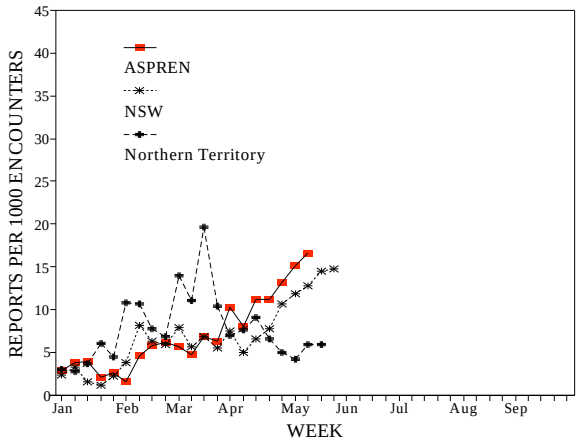


Figure 9. Australia Post absenteeism, 1996, by week

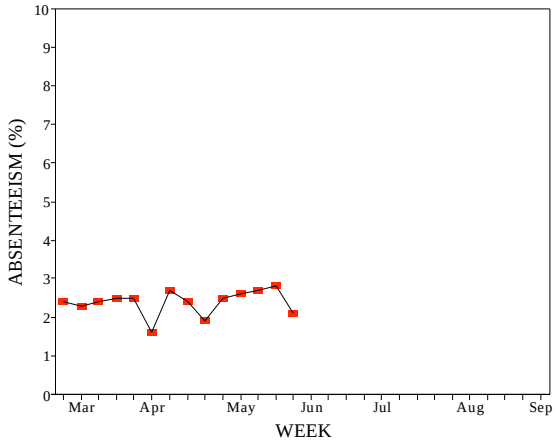


Figure 10. Influenza A laboratory reports, 1996, by method of diagnosis and week of specimen collection

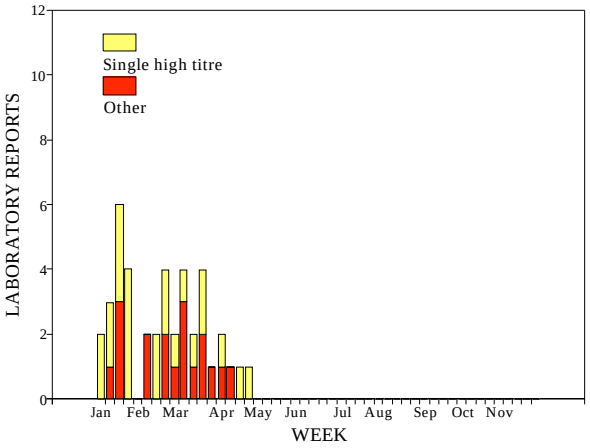
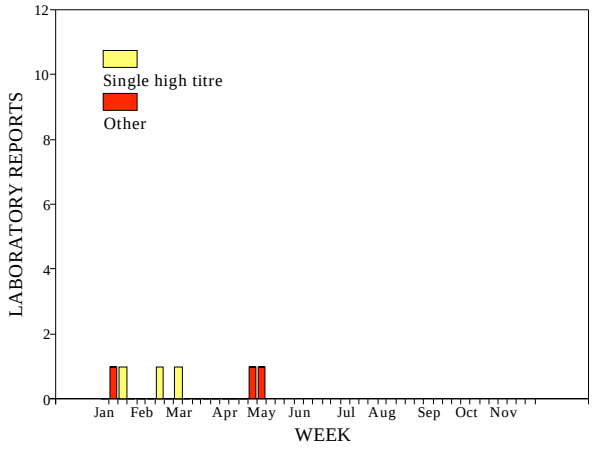


Figure 11. Influenza B laboratory reports, 1996, by method of diagnosis and week of specimen collection



The consultation rates for influenza like illness recorded by the ASPREN and New South Wales sentinel general practitioners schemes continues to rise (Figure 8). However that for the Northern Territory has declined after peaking in mid March. The absenteeism rate for a national employer remains stable (Figure 9). With respect to laboratory based surveillance low numbers of reports continue to be received (Figures 10 and 11).

The World Health Organization (WHO) Collaborating Centre For Influenza Reference Research, Melbourne has received few viruses for further identification so far this season. All of the influenza A strains have been of the H_3N_2 sub-type. Two of the four analysed were identical to the A / Johannesburg vaccine strain. A further two appear closer to A / Wuhan / 359 / 95, a variant which shows some antigenic drift from A / Johannesburg (serological studies at the Centre indicate that vaccines containing an A / Johannesburg-like strain produce good responses to the A / Wuhan virus).

The two influenza B isolates are antigenically close to the B / Beijing vaccine strain.

Australian Sentinel Practice Research Network

The Australian Sentinel Practice Research Network (ASPREN) comprises 99 sentinel general practitioners from throughout the country. A total of approximately 9,000 consultations are recorded each week for 12 conditions. Of these, *CDI* reports the consultation rate for influenza, rubella, measles, chickenpox, pertussis and gastroenteritis. For further information including case definitions see *CDI* 1996;20:98-99.

Data for week 20 ending 19 May are included in this issue of *CDI* (Table 6). The rate of reporting of influenza-like illness has continued to rise to 16.6 per 1000 consultations for week 20 (Figure 8), the highest rate recorded by the scheme this year. The rate of reporting of pertussis continues at a low level, while that for gastroenteritis is also lower than in recent weeks.

Table 6. Australian Sentinel Practice Research Network, week 20, 1996

Condition	Week 20, to 19 May 1996	
	Reports	Rate per 1000 encounters
Influenza	137	16.6
Rubella	10	0.1
Measles	0	0
Chickenpox	17	2.1
Pertussis	5	0.6
Gastroenteritis	105	12.7

Australian Encephalitis: Sentinel Chicken Surveillance Programme serological results; March and April 1996

AK Broom[1], *J Azuolas*[2], *JS Mackenzie*[3], *L Melville*[4], *DW Smith*[5] *and PI Whelan*[6]

Sentinel chicken serology was carried out for 21 of the 22 flocks in Western Australia in March and April 1996. There were no seroconversions during this period.

Eight flocks of sentinel chickens from the Northern Territory were also tested in March and April. During this period there were a number of seroconversions to flaviviruses in the flock from Coastal Plains Research Station approximately 100 kilometres south-east of Darwin. In March, one chicken seroconverted to both Murray Valley encephalitis and Kunjin viruses and one to Murray Valley encephalitis. In April, two more chickens seroconverted to Murray Valley encephalitis.

There were no seroconversions to flaviviruses in the sentinel chicken flocks in Victoria during March and April 1996.

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2. Veterinary Research Institute, Victoria
3. Department of Microbiology, The University of Queensland
4. Berrimah Agricultural Research Centre, Darwin, NT
5. Pathcentre, Perth
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Virology and Serology Reporting Scheme

The Virology and Serology Reporting Scheme, LabVISE, is a sentinel reporting scheme. Twenty-three 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* 20 1996, pages 9-12.

There were 780 reports received in the *CDI* Virology and Serology Reporting Scheme this period (Tables 7 and 8).

Ross River virus was reported for 146 patients this fortnight all diagnosed by IgM detection. Seventy-seven percent of the patients were between the ages of 25 and 64 years. The number of reports has continued to drop since the peak in February (Figure 12).

Figure 12. Ross River virus laboratory reports, 1995 and 1996, by state and month of specimen collection

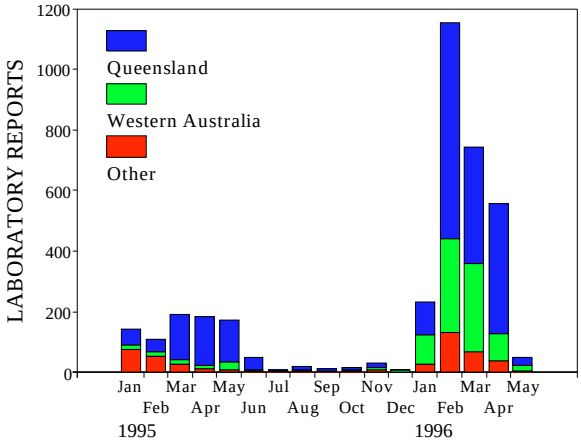
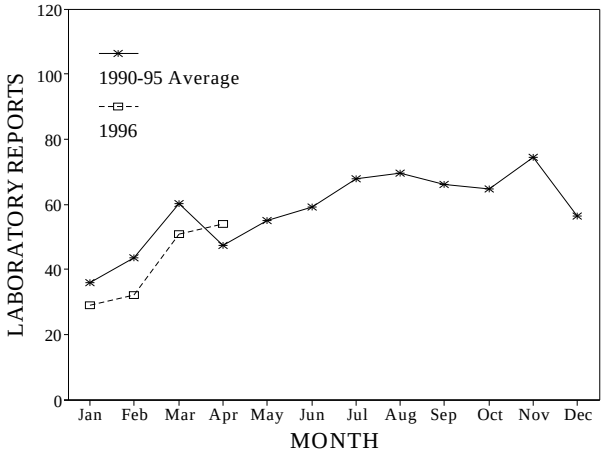


Figure 13. Rhinovirus laboratory reports, 1990 to 1995 average and 1996, by month of specimen collection



Parainfluenza virus type 1 was reported for 19 patients this period. Diagnosis was by antigen detection (17) and virus isolation (2). Eighteen patients were below the age of 4 years.

Repiratory syncytial virus was reported for 72 patients this period. Diagnosis was by antigen detection (48) and virus isolation (24). Reports came from New South Wales (35), Western Australia (25), Victoria (23), the Northern Territory (11) and South Australia (one). Sixty-nine of the patients (96%) were below 4 years of age.

Twenty two reports of **rhinovirus** were received this fortnight all being diagnosed by virus isolation. All age groups between 1 month and 75 years were represented. Reports have continued to increase in recent months which is usual for the time of year (Figure 13).

Rotavirus was reported for 80 patients this period all diagnosed by antigen detection. Seventy-nine of the reports were for patients below the age of 4 years. Reports are below average for the time of year (Figure 14).

Ten reports of **parvovirus** were received this fortnight. Diagnosis was by IgM detection (8) and nucleic acid detection (2). Reports came from Victoria (8) and Western Australia (2). For 1996, 26 patients (58%) have been between the ages of 25 and 44 years (Figure 15). Included were 21 females.

Figure 14. Rotavirus laboratory reports, 1990 to 1995 average and 1996, by month of specimen collection

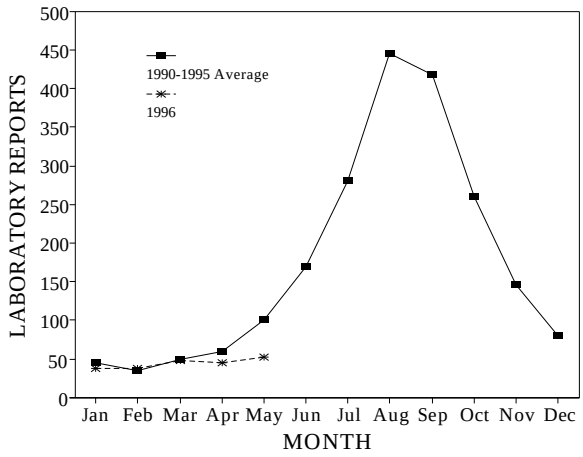


Figure 15. Parvovirus laboratory reports, 1996, by sex and age group

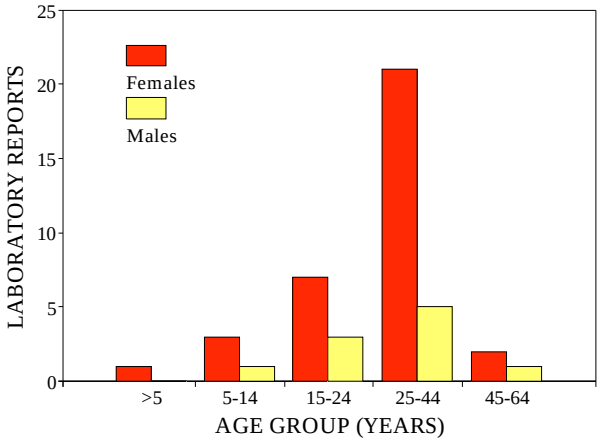


Table 7. Virology and serology laboratory reports by State or Territory[1] for the reporting period 16 to 29 May 1996, historical data[2], and total reports for the year

	State or Territory[1]							Total this fortnight	Historical data[2]	Total reported this year
	NSW	NT	Qld	SA	Tas	Vic	WA			
MEASLES, MUMPS, RUBELLA										
Measles virus							1	1	18.7	28
Mumps virus							1	1	4.5	20
Rubella virus			1			2	2	5	13.2	261
HEPATITIS VIRUSES										
Hepatitis A virus		4				3	11	18	16.8	241
ARBOVIRUSES										
Ross River virus	1	3	113			1	28	146	101.7	2,779
Barmah Forest virus		1	2					3	15.7	128
Dengue not typed		1	1					2	.2	8
Kunjin virus							1	1	.0	5
ADENOVIRUSES										
Adenovirus type 1						1		1	1.7	9
Adenovirus type 3						1		1	3.2	56

Table 7. Virology and serology laboratory reports by State or Territory[1] for the reporting period 16 to 29 May 1996, historical data[2], and total reports for the year, continued

	State or Territory[1]							Total this fortnight	Historical data[2]	Total reported this year
	NSW	NT	Qld	SA	Tas	Vic	WA			
Adenovirus type 37						1		1	.0	4
Adenovirus type 40							5	5	.0	16
Adenovirus not typed / pending	3		5			8	18	34	46.5	646
HERPES VIRUSES										
Cytomegalovirus	1		1		1	10	30	43	73.2	735
Varicella-zoster virus						10	5	15	46.3	578
Epstein-Barr virus		3	2			9	28	42	64.7	913
OTHER DNA VIRUSES										
Molluscum contagiosum							1	1	.2	2
Parvovirus	1					7	2	10	1.3	64
PICORNA VIRUS FAMILY										
Coxsackievirus A16						2		2	1.2	3
Poliovirus type 1 (uncharacterised)						1		1	3.3	7
Rhinovirus (all types)	6			1		9	6	22	34.7	291
Enterovirus not typed / pending						3	15	18	38.0	408
ORTHO / PARAMYXOVIRUSES										
Influenza A virus			2					2	24.8	80
Influenza B virus			1					1	5.5	26
Parainfluenza virus type 1						14	5	19	34.3	125
Parainfluenza virus type 2			1				3	4	9.8	36
Parainfluenza virus type 3						8		8	21.2	284
Parainfluenza virus typing pending						2	1	3	2.8	9
Respiratory syncytial virus	19	11		1		23	18	72	168.7	658
OTHER RNA VIRUSES										
Rotavirus	1	34		3		9	33	80	40.5	411
OTHER										
Chlamydia trachomatis not typed	2	83				10	58	153	89.3	1,665
Chlamydia psittaci						2		2	2.5	60
Chlamydia species			3					3	7.3	63
Mycoplasma pneumoniae			3			7	2	12	20.8	245
Coxiella burnetii (Q fever)						1		1	16.2	60
Rickettsia tsutsugamushi			1					1	.0	3
Rickettsia spp - other							1	1	.2	2
Bordetella pertussis						17	2	19	15.2	234
Legionella pneumophila			1					1	.0	5
Leptospira pomona			1					1	.0	1
Leptospira grippotyphosa	1		1					2	.0	2
Leptospira hardjo			6					6	.8	13
Leptospira australis			1					1	.2	4
Leptospira species			6					6	.8	25
Schistosoma species		1			1	6	1	9	2.2	160
TOTAL	35	141	152	5	2	167	278	780	948.0	11373

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 16 to 29 May 1996

STATE OR TERRITORY	LABORATORY	REPORTS
New South Wales	Royal Alexandra Hospital for Children, Camperdown	27
	Royal Prince Alfred Hospital, Camperdown	5
Northern Territory	Alice Springs Hospital	49
Queensland	State Health Laboratory, Brisbane	153
Victoria	Microbiological Diagnostic Unit, University of Melbourne	4
	Monash Medical Centre, Melbourne	34
	Royal Children's Hospital, Melbourne	71
	Unipath Laboratories	6
	Victorian Infectious Diseases Reference Laboratory, Fairfield Hospital	57
Western Australia	PathCentre Virology, Perth	114
	Princess Margaret Hospital, Perth	65
	Royal Perth Hospital	21
	Western Diagnostic Pathology	174
TOTAL		780