COMMUNICABLE DISEASES SURVEILLANCE

National Notifiable Diseases Surveillance System

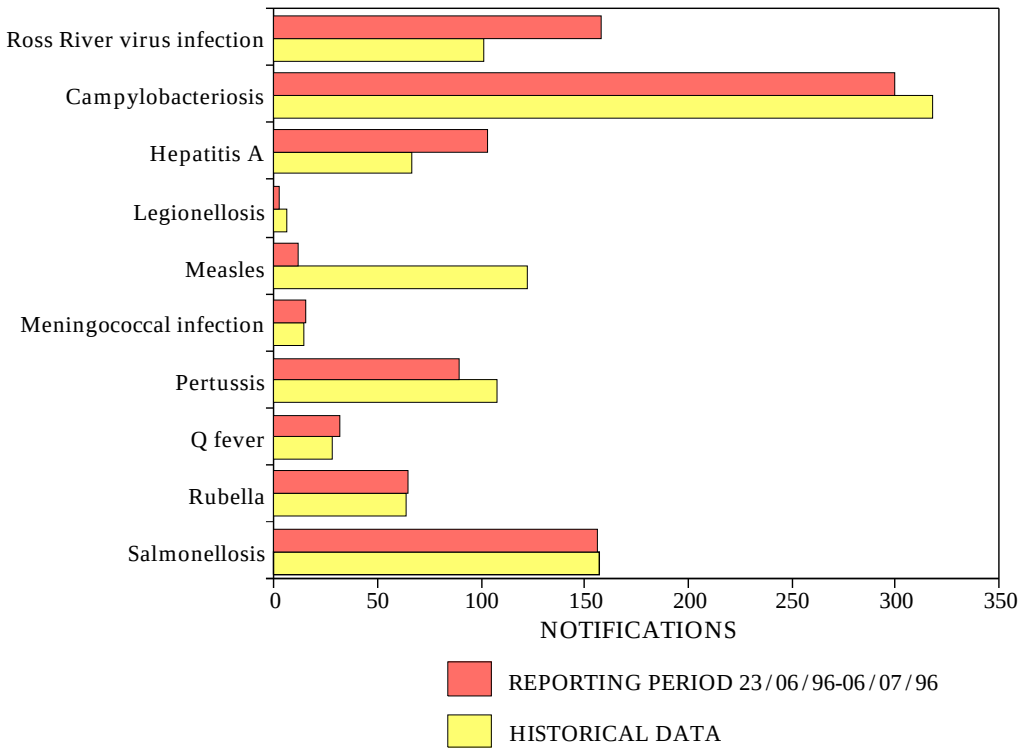
The NNDSS is conducted under the auspices of the Communicable Diseases Network Australia-New Zealand. The system coordinates the national surveillance of 41 communicable diseases or disease groups endorsed by the National Health and Medical Research Council (NHMRC). Notifications of these diseases are 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.

Reporting period 23 June to 6 July 1996

There were 1,855 notifications received for this two-week period (Tables 1, 2 and 3). The numbers of reports for selected diseases have been compared with averaged data for this time of year in the previous three years (Figure 1).

A further 158 notifications of **Ross River virus infection** were received during the current period bringing the total number of cases reported in 1996 to more than 7,000. However, the epidemic has now declined. There is still some activity in northern and south-eastern Queensland.

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

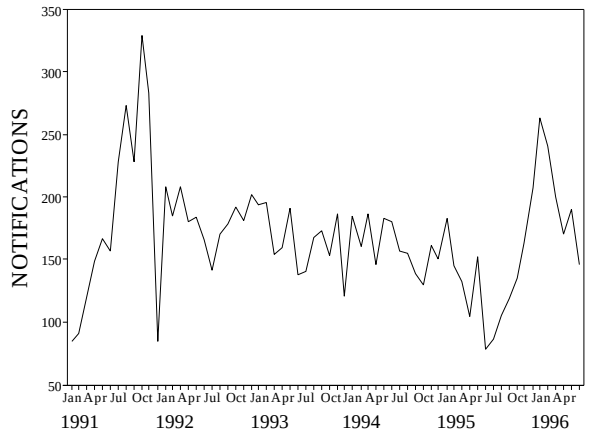
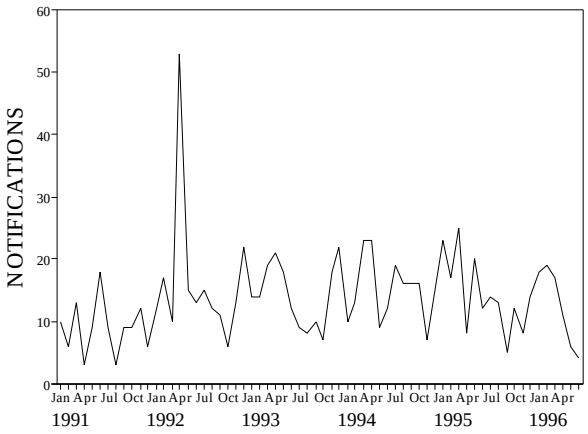


Figure 3. Legionellosis notifications 1991 to 1996, by month of onset



There were 103 reports of **hepatitis A** for the period. The epidemic experienced earlier this year, mainly in the Metropolitan Statistical Divisions of Brisbane, Melbourne and Sydney, has declined towards average levels (Figure 2). Current reports include 22 notifications from the Victorian central northern Statistical Division of Goulburn, bringing to 66 the number of cases notified from this area since mid-April. This is approximately 10 times the average national rate of reporting. Of early cases reported in this outbreak, more than 60% were children; recent cases are mostly young adult males.

Sporadic cases of **legionellosis** continue to be reported, three being notified for the current period. Legionellosis has been notifiable in some States and Territories since the early 1980s. National data first became available in 1991. A seasonal distribution of cases is apparent, with higher numbers in summer and autumn months (Figure 3), in common with experience in other countries. *Legionella* species data are not currently available. Most reports are from metropolitan statistical divisions, with average annual rates between 0.6 and 1.7 per 100,000 population (for Brisbane and Adelaide respectively). However, many regions outside capital cities experience similar rates. In 913 cases notified since January 1991, the male:female ratio was 2.3:1; the ratio has been fairly constant throughout the period. More than 70% of cases were in persons over 50 years of age (Figure 4).

Figure 4. Legionellosis notifications 1991 to 1996, by sex and age group

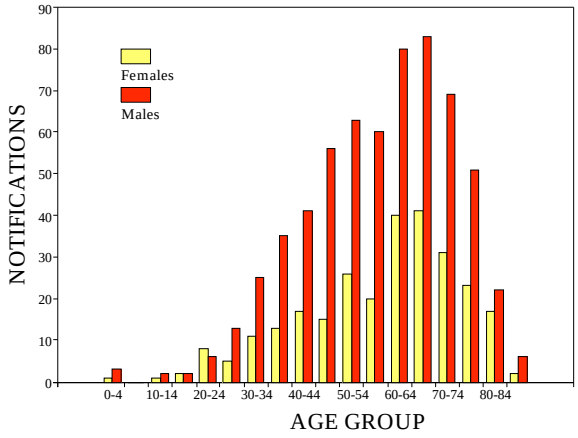


Table 1. Notifications of diseases preventable by vaccines recommended by the NHMRC for routine childhood immunisation, received by State and Territory health authorities in the period 23 June to 6 July 1996

DISEASE	ACT	NSW	NT	Qld	SA	Tas	Vic	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	0
Haemophilus influenzae B infection	0	0	1	0	0	0	0	0	1	1	35	44
Measles	0	3	0	1	0	2	6	0	12	40	243	880
Mumps	0	1	0	NN	0	0	0	0	1	5	57	74
Pertussis	2	21	0	17	24	2	21	3	90	128	1570	2221
Poliomyelitis	0	0	0	0	0	0	0	0	0	0	0	0
Rubella	4	7	0	33	2	0	18	1	65	54	1410	1235
Tetanus	0	0	0	0	0	0	0	0	0	1	1	3

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 23 June to 6 July 1996

DISEASE	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	TOTALS FOR AUSTRALIA[2] This period 1996	This period 1995	Year to date 1996	Year to date 1995
Arbovirus Infection (NEC)[3,4]	0	1	2	0	0	0	1	0	4	7	123	355
Barmah Forest virus infection	0	7	-	13	1	0	-	-	21	13	573	284
Ross River virus infection	0	14	3	134	1	-	2	4	158	91	7153	2121
Dengue	0	0	0	0	0	-	0	0	0	0	22	14
Campylobacteriosis[5]	11	-	18	89	109	7	6	60	300	345	5619	5322
Chlamydial infection (NEC)[6]	5	NN	51	140	0	16	0	47	259	224	3731	3347
Donovanosis	0	NN	0	0	NN	0	0	0	0	2	26	48
Gonococcal infection[7]	0	20	51	40	0	0	0	15	126	142	1937	1624
Hepatitis A	1	34	5	17	2	0	40	4	103	42	1340	875
Hepatitis B incident	0	0	1	0	0	0	1	0	2	28	119	202
Hepatitis B unspecified	4	0	0	59	0	1	0	12	76	45	786	898
Hepatitis C incident	0	0	0	-	0	-	-	-	0	7	14	55
Hepatitis C unspecified	3	NN	3	182	NN	2	2	29	221	641	3983	4582
Hepatitis (NEC)	0	0	0	0	0	0	0	NN	0	2	11	16
Legionellosis	0	1	0	0	1	0	1	0	3	5	93	114
Leptospirosis	0	0	0	2	0	0	1	0	3	3	130	60
Listeriosis	0	0	0	1	0	0	0	0	1	0	31	38
Malaria	0	15	0	47	0	3	7	4	76	14	464	355
Meningococcal infection	0	4	0	5	0	0	5	1	15	13	149	176
Ornithosis	0	NN	0	4	0	0	0	0	4	4	55	72
Q fever	0	21	0	9	0	0	2	0	32	21	280	232
Salmonellosis (NEC)	4	30	13	50	17	1	27	14	156	141	3514	3864
Shigellosis[5]	0	-	7	6	2	0	1	5	21	32	360	456
Syphilis	0	24	17	15	0	0	0	0	56	83	762	1050
Tuberculosis	0	12	1	5	1	0	15	1	35	40	592	582
Typhoid[8]	0	0	0	0	0	0	0	0	0	0	46	38
Yersiniosis (NEC)[5]	0	-	1	4	2	0	1	1	9	8	140	201

1. For HIV and AIDS, see *CDI* 1996;20:289. 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. NT, Vic and WA: 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.
NEC Not Elsewhere Classified.
- Elsewhere Classified.

Table 3. Notifications of rare[1] diseases received by State and Territory health authorities in the period 23 June to 6 July 1996

DISEASES	Total this period	Reporting States or Territories	Year to date 1996
Botulism	0		0
Brucellosis	4	Qld	19
Chancroid	0		1
Cholera	0	Qld	4
Hydatid infection	1	Qld	23
Leprosy	0		7
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 1995.

National Influenza Surveillance

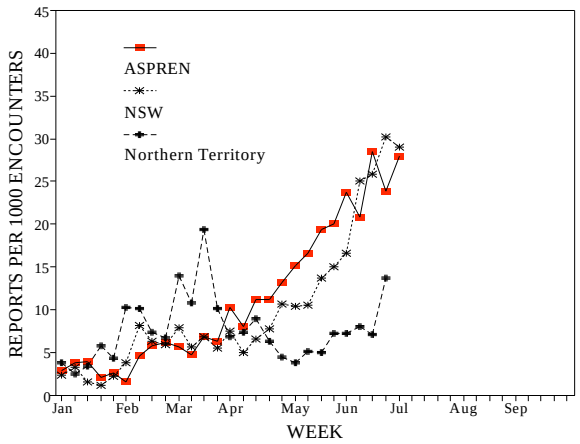
Australian Sentinel Practice Research Network; Communicable Diseases Intelligence Virology and Serology Reporting Scheme Contributing Laboratories, New South Wales Department of Health; Victorian Department of Health; World Health Organisation Collaborating Centre for Influenza Reference and Research.

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 1996;20:9-12.

National influenza surveillance 1996

The consultation rate for influenza-like illness recorded by ASPREN has fluctuated this fortnight and dropped slightly in New South Wales after a rapid increase over the preceding weeks (Figure 5). The absenteeism rate for Australia Post has dropped marginally (Figure 6).

Figure 5. Sentinel general practitioner influenza consultation rates per 1,000 encounters, 1996, by week



A total of 189 laboratory reports of influenza A have been received so far this year. The number of reports has continued to increase markedly but remains below the number reported last year (Figure 7). One hundred and seventeen reports of influenza A were received this fortnight, diagnosed by antigen detection (53), virus isolation (48), single high titre (11), four fold rise in titre (4) and IgM detection (1). Of these 63% (74/117) were for children under five years of age and 8% (9/117) were for adults over 65 years of age. A further seven reports of influenza A (H3N2) were received. Four reports were for children under five years of age.

One report of influenza B has been received this fortnight, diagnosed by single high titre (Figure 8).

The World Health Organization (WHO) Collaborating Centre for Influenza Reference Research, Melbourne has received 30 isolates of Influenza H3N2. Six of these are closest autogenically to A/Johannesburg/33/94, 17 are closest to A/Wuhan/359/95. Two isolates of Influenza B have been received, one strain has been characterised as B/Beijing/184/93. Total reports of laboratory-confirmed influenza are, as yet, not high.

Figure 6. Australia Post absenteeism, 1996, by week

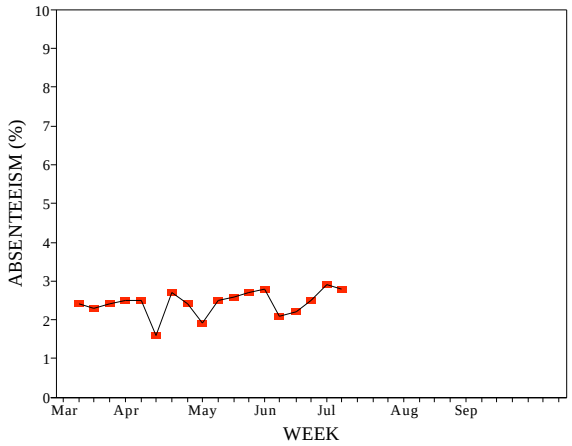


Figure 7. Influenza A laboratory reports, 1995 and 1996, by week of specimen collection

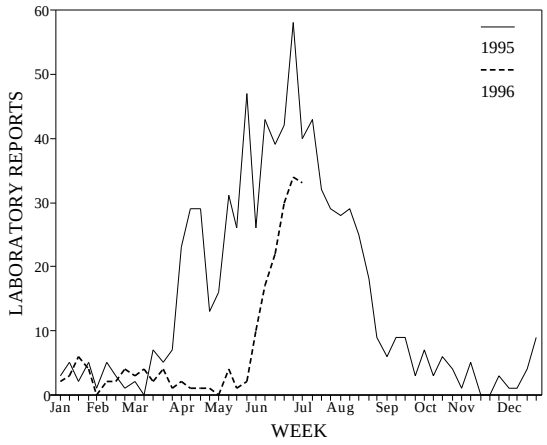
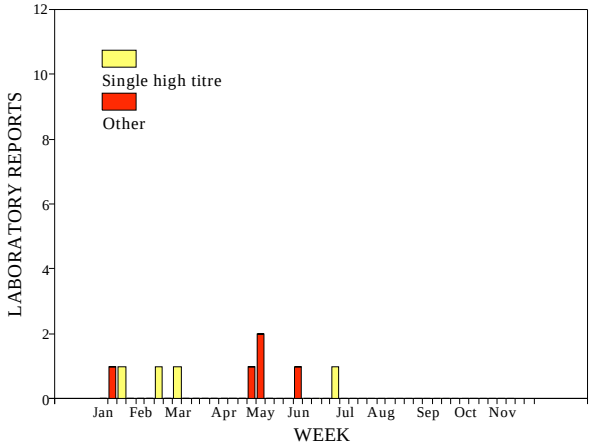


Figure 8. Influenza B laboratory reports, 1996, by method of diagnosis and week of specimen collection



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, pertussis and gastroenteritis. For further information including case definitions see CDI 1996;20:98-99.

Data for weeks 26 and 27 ending 30 June and 7 July respectively are included in this issue of *CDI* (Table 4). The rate of reporting of influenza-like illness remains at the levels seen in the previous 3 reporting weeks, and is similar to the rates seen during June, July and August 1995. Slight increases in rates of chickenpox and gastroenteritis have been reported for the current reporting weeks, compared with previous weeks. The rates of reporting of rubella, measles and pertussis continue to be at low levels.

Table 4. Australian Sentinel Practice Research Network reports, weeks 26 and 27, 1996

Condition	Week 26, to 30 June 1996		Week 27, to 7 July 1996	
	Reports	Rate per 1000 encounters	Reports	Rate per 1000 encounters
Influenza	198	23.9	241	27.9
Rubella	4	0.5	7	0.8
Measles	0	0.0	1	0.1
Chickenpox	13	1.6	15	1.7
Pertussis	3	0.4	2	0.2
Gastroenteritis	93	11.2	115	13.3

Serious Adverse Events Following Vaccination Surveillance Scheme

The Serious Adverse Events Following Vaccination Surveillance Scheme is a national surveillance scheme which monitors the serious adverse events that occur rarely following vaccination. More details of the scheme were published in CDI 1995:19; 273-274.

Acceptance of a report does not imply a causal relationship between administration of the vaccine and the medical outcome, or that the report has been verified as to the accuracy of its contents.

It is estimated that 250,000 doses of vaccines are administered every month to Australian children under the age of six years.

Surveillance reports for the Serious Adverse Events Following Vaccination Surveillance Scheme, which have been previously published every month in *CDI*, will in future be published quarterly. This will allow more meaningful presentation of the data. This decision has been supported by the *CDI* Editorial Advisory Board and the National Childhood Immunisation Committee.

Results for the reporting period 9 June to 6 July 1996

There were 14 reports of serious adverse events following vaccination for this reporting period. Reports were received from New South Wales (7), The Northern Territory (1) Queensland (1), South Australia (3) and Western Australia (2).

Of the 14 reports 4 were cases of persistent screaming, 5 of hypotonic / hyporesponsive episodes, 4 of convulsions, and one was of fever and rash following DTP vaccination (Table 5).

Four children were hospitalised. All children had recovered at the time the initial report was submitted.

LabDOSS

LabDOSS is a passive surveillance scheme that reports on significant bacterial and fungal isolates from normally sterile sites. Twenty laboratories currently forward reports of sterile site isolates to the Department of Health and Family Services. LabDOSS is published in alternate issues of CDI. Data from the LabDOSS scheme should be interpreted with caution. There is a potential for geographical, testing and referral pattern biases. In addition, risk factors and clinical information are not consistently provided by laboratories. For further information, see CDI 1996;20:9-10.

Data for this four weekly period have been provided by 7 laboratories. There were 467 reports of significant sepsis:

New South Wales: Prince of Wales Hospital 67; Royal North Shore Hospital 39; Hunter Area Pathology Service 173.
Tasmania: Royal Hobart Hospital 32.

Table 5. Adverse events following vaccination for the period 9 June to 6 July 1996

Event	Vaccines			Reporting States or Territories	Total reports for this period
	DTP	DTP / OPV / Hib	MMR		
Persistent screaming	3	1		NSW, WA	4
Hypotonic / hyporesponsive episode	1	2	2	NSW, SA	5
Convulsions	2	2		NT, SA, WA	4
Other	1			Qld	1
Total	7	5	2		14

Table 6. LabDOSS reports of blood isolates, by organism and clinical information

Organism	Clinical information						Risk factors					Total[1]
	Bone / Joint	Lower respiratory	Endocarditis	Gastrointestinal	Urinary tract	Skin	Surgery	Immunosuppressed	IV line	Hospital acquired	Neonatal	
Enterobacter cloacae				1	1		2	1		3		5
Enterobacter species				1	1	1	1	2		3		5
Enterococcus faecalis				3			3	1	1	5		8
Enterococcus species				4			1	2	1	3		6
Escherichia coli		2		26	31	1	8	20	1	23		98
Klebsiella pneumoniae				4	1		1	8		7		17
Proteus mirabilis				2	2	2	1	1	1	5		8
Pseudomonas aeruginosa		3		2	6	1	4	6		9		23
Serratia marcescens				1			2			4		5
Staphylococcus aureus	8	5	1	1		18	12	29	9	37	2	88[2]
Staphylococcus coagulase negative		5	2	1	1	2	3	12	6	14	5	50[3]
Streptococcus pneumoniae	1	20		1	1		2	2		3		36
Streptococcus viridans				1		1		1		0		5
Streptococcus species		2	1				2	2		1		8

1. Only organisms with 5 or more reports are included in this table.
2. MRSA 12.
3. Includes Staphylococcus epidermidis.

Table 7. LabDOSS reports of meningitis and/or CSF isolates, by organism and age group

	1-11 months	1-4 years	5-14 years	15-24 years	45-54 years	55-64 years	TOTAL
Cryptococcus neoformans					1		1
Enterococcus faecalis				1			1
Neisseria meningitidis		1		2			3
Staphylococcus aureus			1				1
Straphylococcus coagulase negative	1				1		2
Streptococcus Group B	1						1
Streptococcus pneumoniae	1	1				1	3
Streptococcus species						1	1

Queensland: Sullivan and Nicholaides and Partners 50.
Western Australia: Sir Charles Gairdner Hospital 33.
South Australia: Institute of Medical and Veterinary Science 73.

Blood isolates

Organisms reported 5 or more times from blood are detailed in Table 6. Other blood isolates not included in Table 6 were:

Gram-positive: 1 *Bacillus* species, 2 *Corynebacterium* species, 3 *Enterococcus faecium*, 1 *Enterococcus* species, 2 *Listeria monocytogenes*, 1 *Staphylococcus lugdenensis*, 1 *Staphylococcus simulans*, 4 *Streptococcus* Group A, 4 *Streptococcus* Group B, 1 *Streptococcus* Group F, 2 *Streptococcus* 'milleri', 1 *Streptococcus salivarius* and 1 *Streptococcus sanguis.*

Gram-negative: 1 *Acinetobacter* species, 1 *Aeromonas hydrophila*, 1 *Aeromonas sobria*, 1 *Aeromonas* species, 1 *Chromobacterium violoaceum*, 1 *Citribacter diversus*, 1 *Citrobacter freundii*, 2 *Citrobacter* species, 3 *Enterobacter aerogenes*, 1 *Escherichia vulneris*, 4 *Haemophilus influenzae*, 4 *Klebsiella oxytoca*, 1 *Pasteurella* species, *1 Pseudomonas cepacia*, 1 *Pseudomonas* species, 1 *Salmonella paratyphi*, 1 *Salmonella* species, 3 *Serratia liquefaciens*, 1 *Xanthomonas maltophilia and* 1 *Yersinia enterocolitica.*

Anaerobes: 2 *Bacteroides fragilis*, 1 *Bacteroides* species, 2 *Clostridium perfringens*, 1 *Clostridium* species, 1 *Fusobacterium* species and 4 *Propionibacterium acnes.*

Fungi: 3 *Candida albicans*, 3 *Candida* species and 1 *Cryptococcus neoformans.*

There were 276 (63% of total) blood isolates reported for patients over the age of 54 years (Figure 9).

Isolates from sites other than blood

Organisms reported to cause meningitis or isolated from CSF are detailed in Table 7.

Joint fluid: Two reports were received this period involving *Serratia marcescens* and *Streptococcus pneumoniae.*

Peritoneal dialysate: Four reports were received this period. Included was 1 *Candida albicans* and 3 *Staphylococcus* coagulase negative.

Pleural fluid: Four reports were received this period. Included was 1 *Pseudomonas* species, 2 *Streptococcus* species and 1 *Staphylococcus lugdenensis.*

Other: A total of 7 reports was received. Included was 2 *Escherichia coli,* 1 *Nocardia* species, 1 *Pseudomonas* species, 1 *Staphylococcus aureus* and 2 *Streptococcus* 'milleri'.

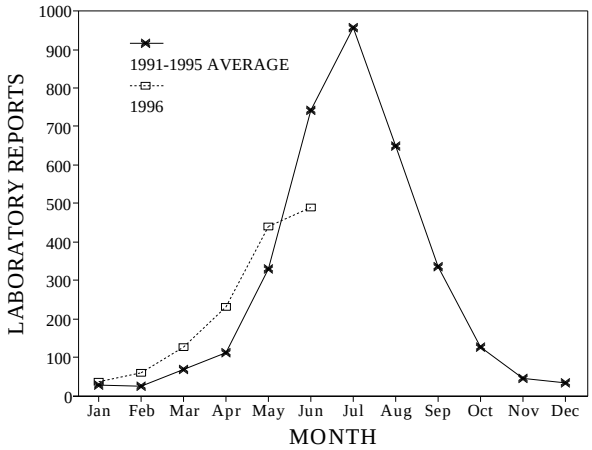
LabVISE

The Virology and Serology 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 1996;20:9-12.

There were 1,411 reports received in the *CDI* Virology and Serology Reporting Scheme this period (Tables 8 and 9).

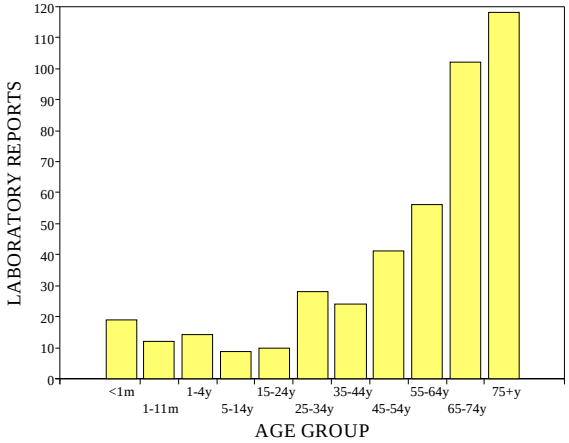
Over the last two reporting periods, 87% of reports for **rubella** (45 / 52) have been from Queensland. Twenty-nine reports were received this fortnight. Diagnosis was by IgM detection (27) and single high titre (2). Eighteen reports were for males (nine aged 15 to 30 years) and 11 were for females (six aged 15 to 44 years).

Figure 10. Respiratory syncytial virus laboratory reports, 1991 to 1995 average and 1996, by month of specimen collection[1]



1. Data for June may be incomplete.

Figure 9. LabDOSS reports of blood isolates, by age group



Reports of **respiratory syncytial virus** are increasing as expected but appear to have dropped below average for this time of year (Figure 10). A total of 465 reports were received in the last fortnight. Diagnosis was by antigen detection (303), virus isolation (160) and nucleic acid detection (2). Ninety-six per cent of reports (446 / 465) were for children under five years of age and of these 65% (288 / 446) were under one year of age.

Although reports of **Ross River virus** in 1996 remain above average, reports have continued to decline since the peak in February (Figure11). Forty-three reports were received this period. Diagnosis was by IgM detection (34), single high titre (8) and four fold rise in titre (1).

Figure 11. Ross River virus laboratory reports, 1990 to 1995 average and 1996, by month of specimen collection

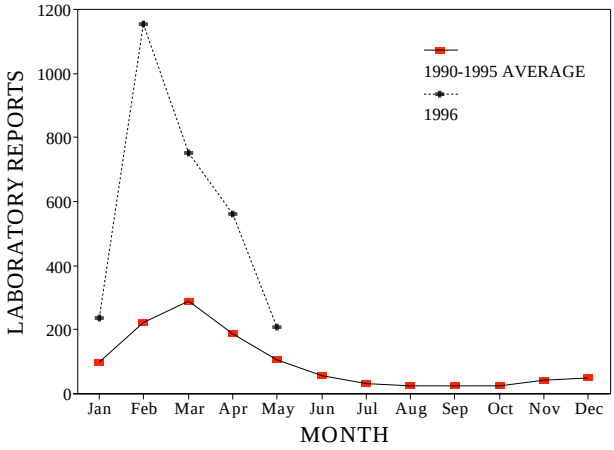


Table 8. Virology and serology laboratory reports by State or Territory[1] for the reporting period 27 June to 10 July 1996, historical data[2], and total reports for the year

	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	2	14.5	30
Mumps virus						2		2	2.8	27
Rubella virus	1		27				1	29	10.3	319
HEPATITIS VIRUSES										
Hepatitis A virus	1	5	10				5	21	18.8	286
Hepatitis D virus							1	1	.8	9
ARBOVIRUSES										
Ross River virus	2	2	23		1	1	14	43	37.5	2,994
Barmah Forest virus			8					8	10.8	152
ADENOVIRUSES										
Adenovirus type 7						1		1	.3	18
Adenovirus type 35						1		1	.2	2
Adenovirus type 40		1				2		3	.0	20
Adenovirus type 41						1		1	.0	4
Adenovirus not typed / pending	7		21			1	18	47	35.8	781
HERPES VIRUSES										
Cytomegalovirus	10	2	29	1		5	17	64	63.8	966
Varicella-zoster virus	4	2	21			6	11	44	40.2	703
Epstein-Barr virus	10	2	57			7	11	87	57.7	1,184
OTHER DNA VIRUSES										
Parvovirus	1		5			3	3	12	5.0	88
PICORNA VIRUS FAMILY										
Coxsackievirus A9					1			1	.3	11
Coxsackievirus A16						1		1	1.7	4
Coxsackievirus B4						1		1	.2	1
Rhinovirus (all types)	1		31			3	1	36	27.0	390
Enterovirus not typed / pending			29				12	41	44.8	511
ORTHO / PARAMYXOVIRUSES										
Influenza A virus	17		25			30	45	117	70.7	228
Influenza A virus H3N2			7					7	2.5	8
Influenza B virus							1	1	10.5	29
Parainfluenza virus type 1			3			3	4	10	24.7	194
Parainfluenza virus type 2	1		1					2	9.5	46
Parainfluenza virus type 3	1		1			2	2	6	24.5	302
Respiratory syncytial virus	95		178		2	93	99	467	458.5	1,678
OTHER RNA VIRUSES										
Rotavirus	10				1	16	25	52	78.8	600
Norwalk agent						2		2	.8	31
OTHER										
Chlamydia trachomatis not typed	6	32	77		4	11	68	198	108.3	2,225
Mycoplasma pneumoniae	4		22			1	4	31	23.7	341
Coxiella burnetii (Q fever)	3		3			4		10	9.3	104
Rickettsia tsutsugamushi			1					1	.0	4
GRAM NEGATIVE BACTERIA										
Neisseria gonorrhoeae							15	15	.0	15
Bordetella pertussis						7	4	11	22.7	283
Bordetella species	1		19					20	3.2	169
Legionella species							2	2	.0	3
Leptospira species			5					5	.7	34
Schistosoma species		1				3	4	8	4.2	184
TOTAL	175	47	603	1	9	208	368	1,411	1,225.2	14,978

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 9. Virology and serology laboratory reports by contributing laboratories for the reporting period 27 June to 10 July 1996

STATE OR TERRITORY	LABORATORY	REPORTS
New South Wales	Institute of Clinical Pathology & Medical Research, Westmead	50
	Royal Prince Alfred Hospital, Camperdown	17
	South West Area Pathology Service, Liverpool	91
Queensland	Queensland Medical Laboratory, West End	386
	State Health Laboratory, Brisbane	250
Tasmania	Northern Tasmanian Pathology Service, Launceston	2
	Royal Hobart Hospital, Hobart	6
Victoria	Microbiological Diagnostic Unit, University of Melbourne	2
	Monash Medical Centre, Melbourne	141
	Unipath Laboratories	9
	Victorian Infectious Diseases Reference Laboratory, Fairfiel	58
Western Australia	PathCentre Virology, Perth	150
	Princess Margaret Hospital, Perth	167
	Royal Perth Hospital	10
	Western Diagnostic Pathology	72
TOTAL		1411