

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 legislations. De-identified core unit data are supplied fortnightly for collation, analysis and dissemination. For further information see *CDI 1996;20:9-10*.

Notifications, 26 May to 8 June 1996

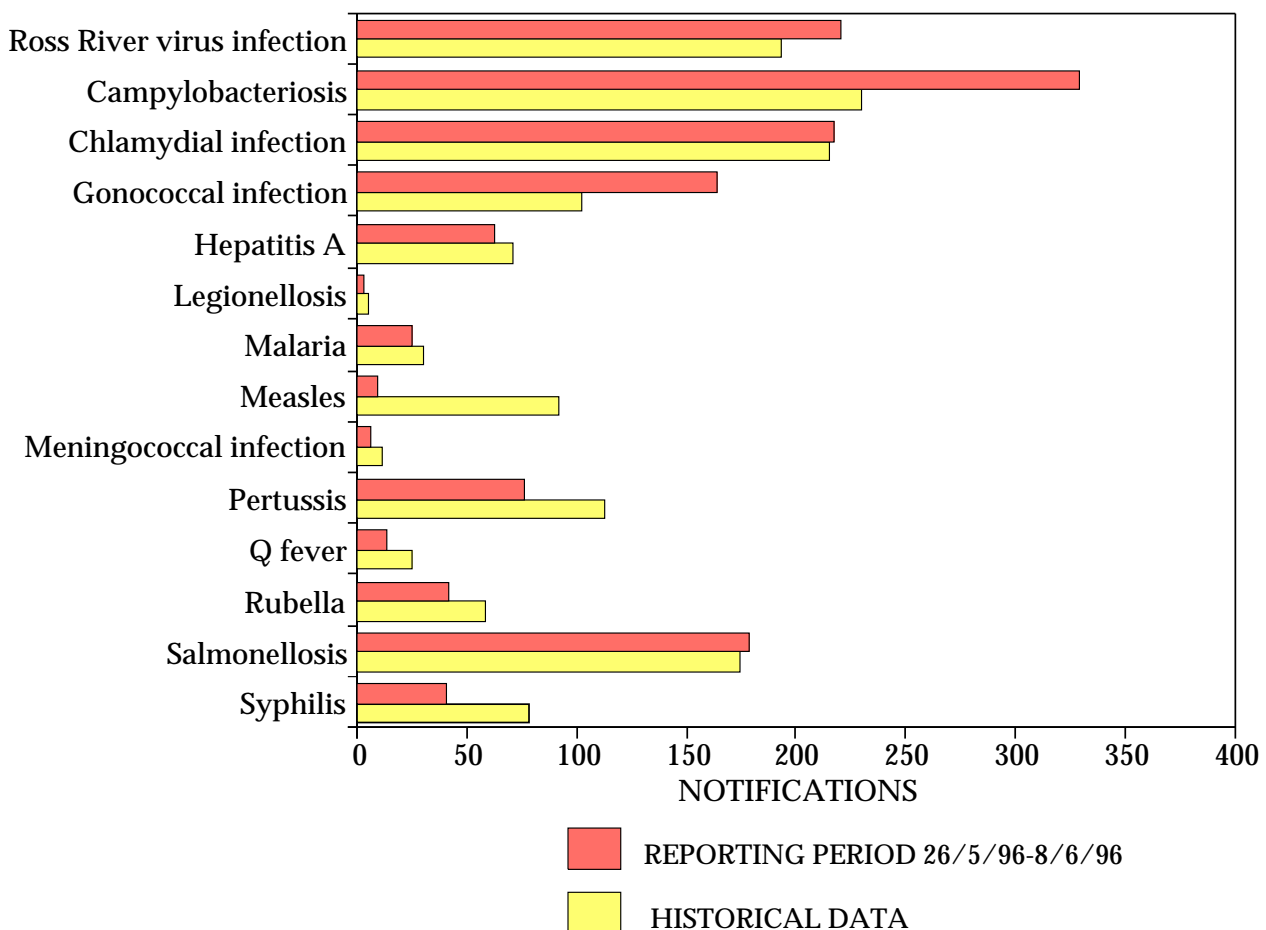
There were 1,687 notifications received for this two-week period (Tables 1, 2 and 3). The numbers of reports for selected diseases have been compared with average data for previous years (Figure 1). As no reports were

received from Victoria for the current period, Victorian data have been excluded from Figure 1.

The recent epidemic of **Ross River virus infection** has continued to abate, although some activity is continuing in the coastal regions of Queensland and northern New South Wales. There were 220 notifications received for the current period, the highest numbers of reports being received from the Queensland Statistical Divisions of Brisbane (61 cases) and Northern (42). The latter region has reported the highest rate.

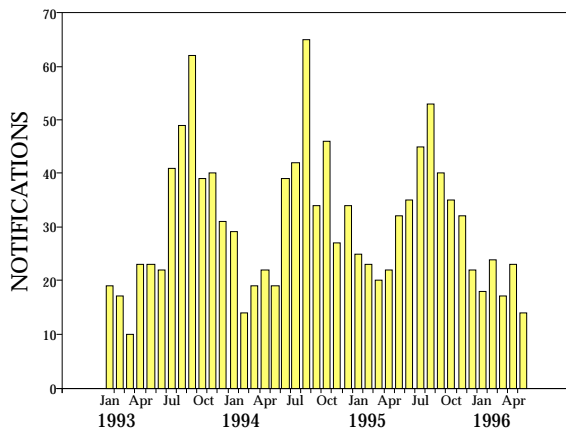
Small numbers of cases of *Haemophilus influenzae* type b continue to be notified. Three reports were received for the current period. The total for this year is now 26, compared to 37 for the first five months of 1995, and 77 for the same period in 1994. Two of the current cases were aged less than one year; the other was one year old.

Figure 1. Selected National Notifiable Diseases Surveillance System reports, and historical data^{1,2}



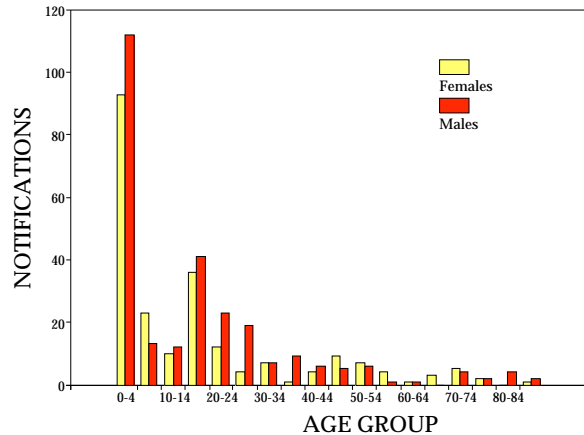
1. The historical data are the averages of the number of notifications in 9 previous 2-week reporting periods: the corresponding periods of the last 3 years and the periods immediately preceding and following those.
2. No data from Victoria are included in this figure.

Figure 2. Meningococcal infection notifications 1993 to 1996, by month of onset



Six cases of **meningococcal infection** were notified during the period from five Statistical Divisions in New South Wales and Queensland. A consistent seasonal distribution of cases has been observed over the last three years (Figure 2), with higher numbers of cases in the winter and spring months. Of 497 cases reported since January 1995, 205 (41%) have been in children under five years of age (Figure 3). Significant numbers of cases were also seen in the age group 15-19 years. The male:female ratio was 1.2:1. During the period, more than 75% of cases (387) were reported from three States: New South Wales (153 cases), Queensland (128) and Victoria (106). However, the highest rate is for the Northern Territory (11 cases, notification rate 4.4 per 100,000 per annum). The rate for Australia as a whole was 1.92 per 100,000 per annum.

Figure 3. Meningococcal infection notifications 1995 and 1996, by age group and sex



There were 76 cases of **pertussis** reported during the period. Notifications this year have remained at a slightly lower level than in recent years (Table 1, Figure 1). Five cases were reported in children under one year, and a further six cases in children under five years. However, age was not recorded for 30 cases (40%).

There were 42 reports of **rubella** received for the period. Over the past three and a half years, a consistent seasonal pattern has been observed (Figure 4), without evidence of any marked change in the overall numbers of cases. The age distribution of cases reported since January 1995 reveals a large proportion of cases in young males between 10 and 29 years of age (Figure 5). The proportion of cases in males in this age group has remained in the range 44% to 52% for each of the years since 1991.

Figure 4. Rubella notifications 1993 to 1996, by month of onset

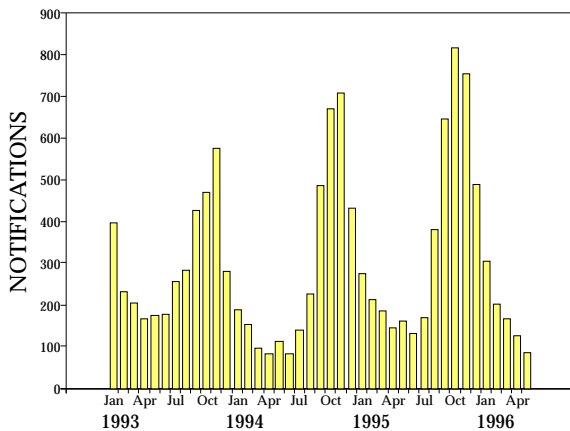


Figure 5. Rubella notifications 1995 and 1996, by age group and sex

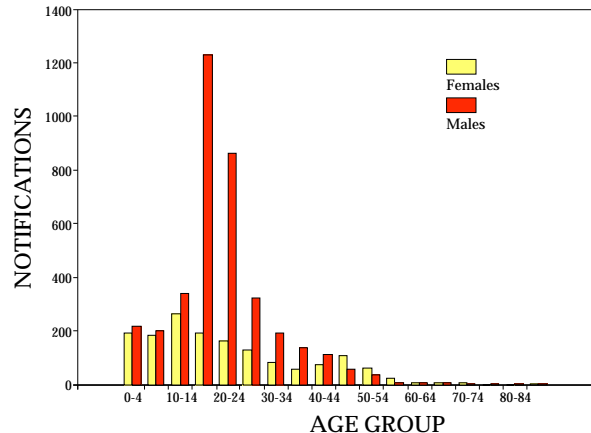


Table 1. Notifications of diseases preventable by vaccines recommended by the NHMRC for routine childhood immunisation, received by State and Territory health authorities in the period 26 May to 8 June 1996

DISEASE	ACT	NSW	NT	Qld	SA	Tas	WA	TOTALS FOR AUSTRALIA ¹			
								This period	This period	Year to date	Year to date
								1996	1995	1996	1995
Diphtheria	0	0	0	0	0	0	0	0	0	0	0
<i>Haemophilus influenzae</i> B infection	0	0	0	3	0	0	0	3	2	26	37
Measles	1	4	0	3	1	0	1	10	59	200	804
Mumps	0	0	0	NN	1	0	0	1	9	50	61
Pertussis	0	21	0	23	30	0	2	76	159	1323	1941
Poliomyelitis	0	0	0	0	0	0	0	0	0	0	0
Rubella	1	5	0	31	2	1	2	42	73	1210	1108
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 diseases¹ received by State and Territory health authorities in the period 26 May to 8 June 1996

DISEASE	ACT	NSW	NT	Qld	SA	Tas	WA	TOTALS FOR AUSTRALIA ²			
								This period	This period	Year to date	Year to date
								1996	1995	1996	1995
Arbovirus Infection (NEC) ^{3,4}	0	0	0	0	0	0	1	1	21	104	323
Barmah Forest virus infection	0	8	-	38	0	0	-	46	38	522	228
Ross River virus infection	0	32	2	171	0	-	15	220	235	6823	1823
Dengue	0	0	0	0	0	-	0	0	0	22	13
Campylobacteriosis ⁵	10	-	5	122	109	20	63	329	375	4827	4581
Chlamydial infection (NEC) ⁶	10	NN	40	115	0	12	40	217	263	3101	2839
Donovanosis	0	NN	1	1	NN	0	0	2	2	25	39
Gonococcal infection ⁷	1	17	55	55	0	1	35	164	138	1649	1347
Hepatitis A	3	34	3	22	0	0	0	62	77	1082	780
Hepatitis B incident	0	0	0	3	0	2	0	5	13	100	160
Hepatitis B unspecified	2	0	0	29	0	1	13	45	80	650	784
Hepatitis C incident	1	1	0	-	0	-	-	2	3	11	42
Hepatitis C unspecified	9	NN	0	80	NN	21	26	136	375	3463	3653
Hepatitis (NEC)	0	0	0	0	0	0	NN	0	3	10	14
Legionellosis	0	1	0	1	1	0	0	3	10	80	100
Leptospirosis	0	2	0	3	1	0	0	6	3	107	55
Listeriosis	0	1	0	0	0	0	0	1	2	24	36
Malaria	0	4	0	18	3	0	0	25	53	343	291
Meningococcal infection	0	2	0	4	0	0	0	6	24	106	146
Ornithosis	0	NN	0	2	0	0	1	3	1	39	64
Q fever	0	6	0	7	1	0	0	14	13	198	191
Salmonellosis (NEC)	0	28	9	108	17	2	15	179	233	3039	3486
Shigellosis ⁵	0	-	3	13	2	0	4	22	33	296	392
Syphilis	1	22	6	7	0	1	4	41	92	651	884
Tuberculosis	0	6	1	5	1	1	3	17	28	458	495
Typhoid ⁸	0	0	0	0	0	0	0	0	2	42	36
Yersiniosis (NEC) ⁵	0	-	0	7	0	0	0	7	13	115	174

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. 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 rare¹ diseases received by State and Territory health authorities in the period 26 May to 8 June 1996

DISEASES	Total this period	Reporting States or Territories	Year to date 1996
Botulism	0		0
Brucellosis	0		13
Chancroid	0		1
Cholera	0		3
Hydatid infection	1	Qld	19
Leprosy	1	NT	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 1994.

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.

The consultation rate for influenza-like illness recorded by ASPREN has continued to rise this fortnight, while that for the New South Wales scheme fell in early June (Figure 6). The absenteeism rate for a national employer remained stable (Figure 7).

The number of laboratory reports of influenza A diagnosed by a method other than single high titre (direct

Figure 6. Sentinel general practitioner influenza consultation rates per 1,000 encounters, 1996, by week

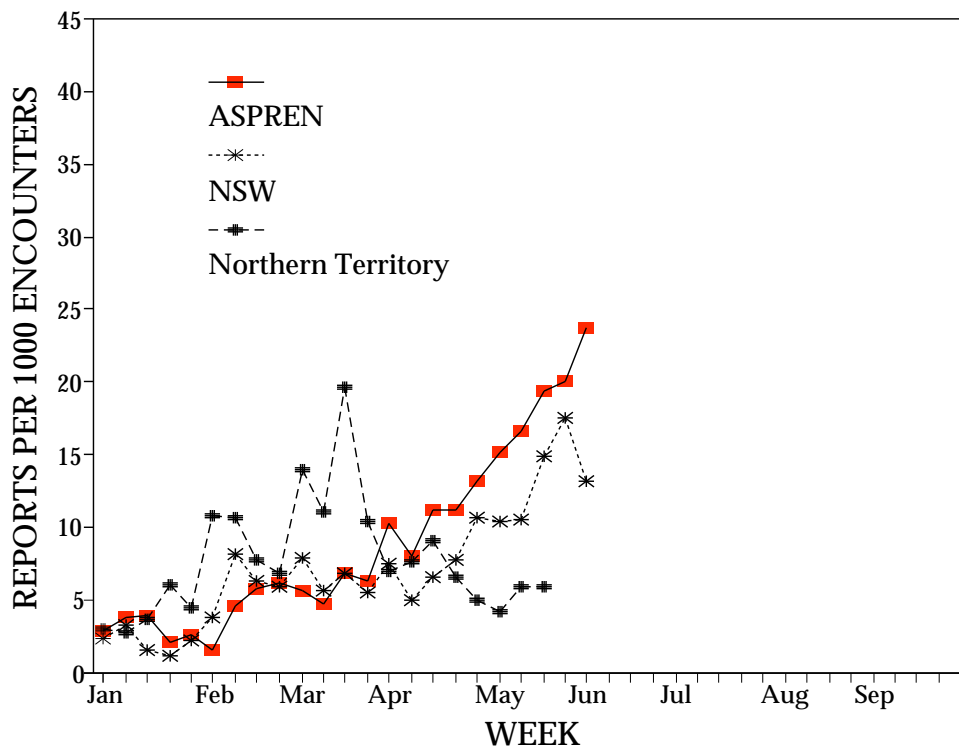
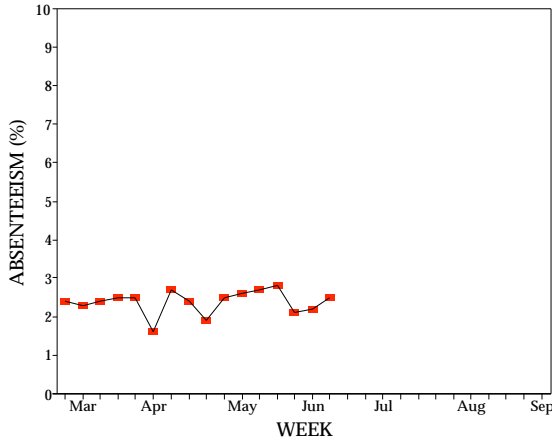


Figure 7. Australia Post absenteeism, 1996, by week

detection, virus isolation or fourfold rise in titre) rose in early June. However the total number of reports received for any week remained at similar levels to those recorded earlier in the year (Figure 8). A total of 55 reports of influenza A have been received so far this year. Of these 29% were for children under the age of 5 years and 13% were for adults over the age of 65 years.

Few reports of influenza B have been received so far this year (Figure 9).

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 weeks 21, 22 and 23 ending 26 May and 2 and 9 June respectively are included in this issue of *CDI* (Table 4). The rate of reporting of influenza-like illness has risen each week, reaching 23.8 per 1,000 consultations for week 23. The rates of reporting of rubella, measles, chickenpox and pertussis continue at low levels. The reporting rate for gastroenteritis has also been low in recent weeks. This is consistent with previous observations for this time of the year (Figure 10).

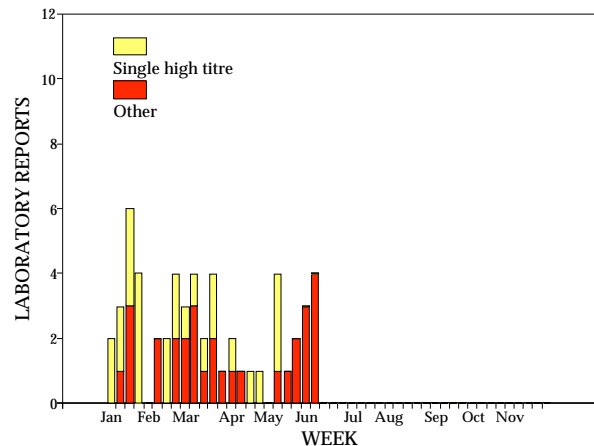
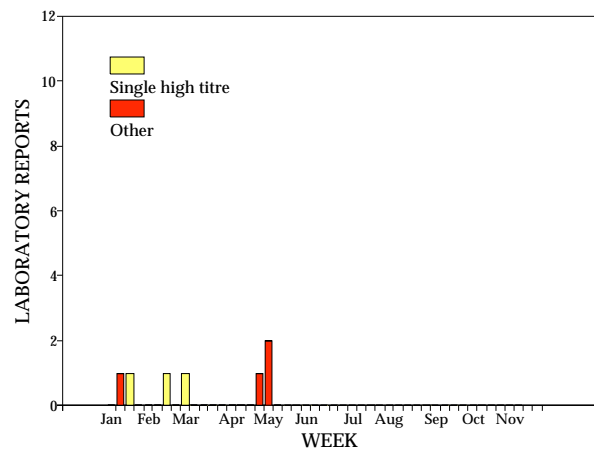
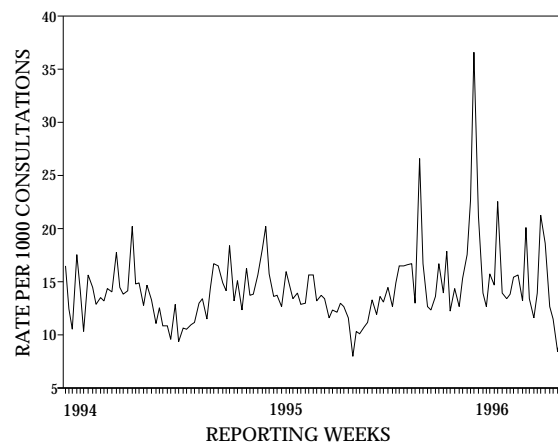
Figure 8. Influenza A laboratory reports, 1996, by method of diagnosis and week of specimen collection**Figure 9. Influenza B laboratory reports, 1996, by method of diagnosis and week of specimen collection****Figure 10. Consultation rates for gastroenteritis, 1994 to 1996, by month**

Table 4. Australian Sentinel Practice Research Network reports, weeks 21 to 23, 1996

Condition	Week 21, to 26 May 1996		Week 22, to 2 June 1996		Week 23, to 9 June 1996	
	Reports	Rate per 1000 encounters	Reports	Rate per 1000 encounters	Reports	Rate per 1000 encounters
Influenza	150	19.3	180	20.1	221	23.8
Rubella	0	0	2	0.2	3	0.3
Measles	0	0	1	0.1	0	0
Chickenpox	11	1.4	16	1.8	8	0.9
Pertussis	6	0.8	0	0	0	0
Gastroenteritis	89	11.5	75	8.4	96	10.3

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.

Results for the reporting period 12 May to 8 June 1996

There were 11 reports of serious adverse events following vaccination for this reporting period. Reports were received from the Australian Capital Territory (4), New South Wales (4), The Northern Territory (1) and Queensland (2).

Of the 11 reports three were cases of persistent screaming, one of a hypotonic/hyporesponsive episode, one of convulsions, two of fever and four were other events temporally associated with vaccination (Table 5). The 'other' events included two episodes of rash, one of loss of consciousness and one of vomiting and pallor.

Events related to DTP vaccine alone or DTP in combination with other vaccines were associated with the

first (3), second (2), fourth (1) and fifth (1) doses (one dose number was not reported). Three 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;20:9-12.

Data for this four weekly period have been provided by 8 laboratories. There were 368 reports of significant sepsis:

New South Wales: Prince of Wales Hospital 43.

Tasmania: Royal Hobart Hospital 27; Northern Tasmania Pathology Service 13.

Queensland: Sullivan and Nicolaides Partners 70; Toowoomba Pathology Laboratory 65.

Northern Territory: Alice Springs Hospital 75.

Western Australia: Princess Margaret Hospital for Children 29; Sir Charles Gairdner Hospital 46.

Table 5. Adverse events following vaccination for the period 12 May to 8 June 1996

Event	Vaccines					Reporting States or Territories	Total reports for this period
	DTP	DTP/OPV	DTP/OPV/ Hib	CDT	Hep B		
Persistent screaming			3			ACT	3
Hypotonic/hyporesponsive episode					1	NSW	1
Temperature of 40.5° C or more	1		1			NSW, Qld	2
Convulsions				1		Qld	1
Other	1	1	1		1	ACT, NSW, NT	4
Total	2	1	5	1	2		11

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	
<i>Enterococcus faecalis</i>			1				1		1	1	6	6
<i>Staphylococcus aureus</i>	2	2		1	3	3	3	9	4	4	2	53 ²
<i>Staphylococcus coagulase negative</i>	1	4					3	16	4	2	5	62 ³
<i>Streptococcus</i> Group A						1						6
<i>Streptococcus</i> Group B		1				2		1			1	8
<i>Streptococcus pneumoniae</i>	1	8		3							1	20
<i>Streptococcus viridans</i>			1					1		1		5
<i>Acinetobacter</i> species							1	5	1	1		9
<i>Enterobacter aerogenes</i>									1	2		5
<i>Enterobacter cloacae</i>		1		1					1			7
<i>Escherichia coli</i>		4		3	13		3	3	1	3	2	48
<i>Klebsiella pneumoniae</i>		1			1			1				11
<i>Klebsiella oxytoca</i>		2						1	1	2		8
<i>Pseudomonas aeruginosa</i>								5	1	1		14
<i>Salmonella</i> species		1		1								7

1. Only organisms with 5 or more reports are included in this table.

2. MRSA 3.

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	25-34 years	35-44 years	55-64 years	75+ years	Total
<i>Cryptococcus neoformans</i>			1		1		2
<i>Enterococcus faecalis</i>						1	1
<i>Haemophilus influenzae</i>		1					1
<i>Klebsiella pneumoniae</i>				1			1
<i>Neisseria meningitidis</i>	1	1					2
<i>Pseudomonas aeruginosa</i>				2			2
<i>Serratia marcescens</i>					2		2
<i>Serratia</i> species	1						1
<i>Staphylococcus epidermidis</i>		1					1
<i>Streptococcus pneumoniae</i>	4					2	6
<i>Streptococcus viridans</i>					1		1
<i>Streptococcus</i> species						2	2

Blood isolates

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

Gram-positive: 2 *Bacillus cereus*, 1 *Bacillus* species, 1 *Corynebacterium* species, 2 *Enterococcus faecium*, 1 *Enterococcus* species, 1 *Staphylococcus saprophyticus*, 1 *Stomatococcus mucilaginosus*, 1 *Streptococcus* Group G, 1 *Streptococcus 'milleri'*, 1 *Streptococcus sanguis* and 4 *Streptococcus* species.

Gram-negative: 1 *Campylobacter jejuni*, 2 *Citrobacter freundii*, 1 *Citrobacter* species, 2 *Enterobacter* species, 1 *Gemella* species, 1 *Haemophilus influenzae*, 4 *Proteus mirabilis*, 1 *Salmonella paratyphi*, 3 *Serratia marcescens* and 2 *Xanthomonas maltophilia*.

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

Fungi: 4 *Candida albicans* and 4 *Candida* species.

There were 205 (64% of total) blood isolates reported for patients over the age of 44 years (Figure 11).

Isolates from sites other than blood

Organisms reported in association with meningitis or isolated from CSF are detailed in Table 7.

Joint fluid: Three reports were received this period all involving *Staphylococcus aureus*.

Peritoneal dialysate: Fourteen reports were received this period. Included were 3 *Escherichia coli*, 1 *Klebsiella oxytoca*, 1 *Klebsiella* species, 3 *Proteus mirabilis*, 2 *Staphylococcus aureus*, 2 *Staphylococcus epidermidis*, 1 *Streptococcus* Group A and 1 *Xanthomonas maltophilia*.

Pleural fluid

Two reports were received, both involving *Staphylococcus aureus* (1 MRSA).

Other: Four reports were received. Included was 1 *Clostridium* species, 1 *Escherichia coli*, 1 *Staphylococcus aureus* and 1 *Staphylococcus coagulase* negative.

LabWISE

The Virology and Serology Reporting Scheme, LabWISE, 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.

Following the evaluation of the Communicable Disease Intelligence Virus and Serology Laboratory Reporting Scheme, LabWISE, a number of changes have been made. Data on hepatitis B and C and herpes simplex virus will no longer be collected. A number of other agents have also been excluded from the scheme. In addition the table which listed agents by clinical diagnosis will be omitted from the fortnightly report in future. These modifications should reduce the number of reports recorded by the scheme while maintaining the collection of quality data.

There were 1,048 reports received in the CDI Virology and Serology Reporting Scheme this period (Tables 8 and 9).

The number of reports of **measles** and **rubella** remain at low levels.

The number of **hepatitis A** reports received has fallen after peaking in January (Figure 12).

Forty-five reports of **parainfluenza virus type 1** were received this period, 90% of which were for children under the age of five years. Epidemics of parainfluenza virus type 1 occur in Australia in the autumn-winter months of alternate years. The number of reports received so far this year is similar to that for the same period in 1992, but lower than the last epidemic year of 1994 (Figure 13). In previous epidemic years reports have peaked in the months of April and May.

Figure 11. LabDOSS reports of blood isolates, by age group

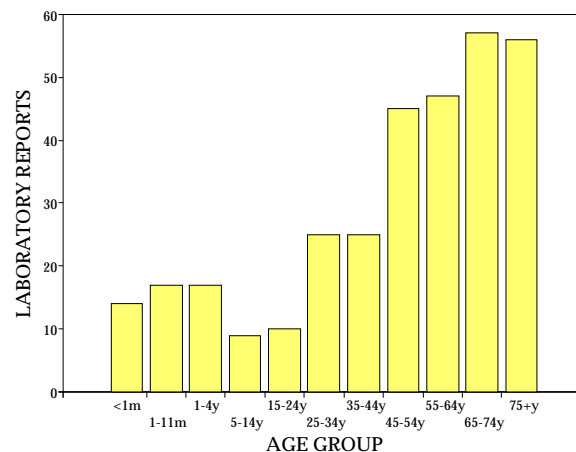


Figure 12. Hepatitis A laboratory reports, 1995 to 1996, by month of specimen collection

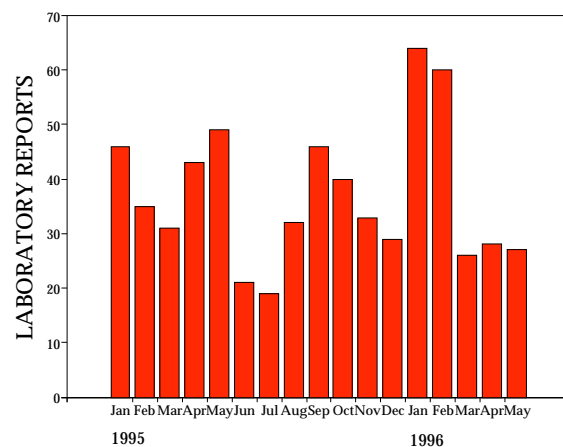
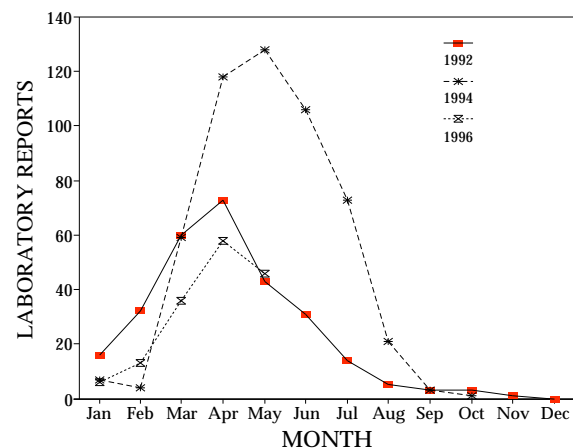


Figure 13. Parainfluenza virus type 1 laboratory reports, 1992, 1994 and 1996, by month of specimen collection



Respiratory syncytial virus was reported for 385 patients this period. Diagnosis was by antigen detection (219) and virus isolation (166). Ninety-six per cent of reports were for children under the age of five years and 73% under the age of one year. The number of reports has risen in recent months but remains average for the time of year (Figure 14)

Eighty-seven reports of **rotavirus** were received this fortnight. This is average for the time of year. The male:female ratio was 1:1 and 80 (92%) were for children under the age of five years, 26 of these (30%) being under one year of age. The peak month for rotavirus reports is August.

Figure 14. Respiratory syncytial virus laboratory reports, 1994 to 1996, by month of specimen collection

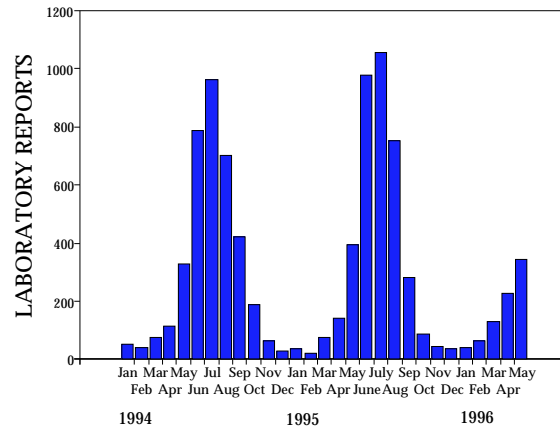


Table 8. Virology and serology laboratory reports by State or Territory¹ for the reporting period 30 May to 12 June 1996, historical data², and total reports for the year

BATCH	TO											
238,	12/06/96											
FROM												
30/05/96												
.	State or Territory	.	.	.	.	.	.	.	Total this fortnight	Historical data ²	Total reported this year	
.	1	ACT	NSW	NT	Qld	SA	Tas	Vic	WA			
MEASLES, MUMPS, RUBELLA												
Rubella virus		4		1				1		6	12.5	267
HEPATITIS VIRUSES												
Hepatitis A virus		2	1					3	1	7	21.2	248
ARBOVIRUSES												

Table 8. Virology and serology laboratory reports by State or Territory¹ for the reporting period 30 May to 12 June 1996, historical data², and total reports for the year, continued

Ross River virus		4	2			1		6	13	83.7	2,792
Barmah Forest virus			1						1	17.0	129
Flaviviruses (unspecified)									1	1.8	21
ADENOVIRUSES											
Adenovirus type 11							1		1	.3	2
Adenovirus type 19							1		1	.0	4
Adenovirus type 37							2		2	.0	6

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 30 May to 12 June 1996

STATE OR TERRITORY	LABORATORY	REPORTS
New South Wales	Institute of Clinical Pathology & Medical Research, Westmead	80
	Prince Henry/Prince of Wales Hospitals, Sydney	34
	Royal Alexandra Hospital for Children, Westmead	60
	Royal Prince Alfred Hospital, Camperdown	28
	South West Area Pathology Service, Liverpool	62
Queensland	State Health Laboratory, Brisbane	299
Tasmania	Royal Hobart Hospital, Hobart	6
Victoria	Microbiological Diagnostic Unit, University of Melbourne	2
	Monash Medical Centre, Melbourne	39
	Royal Children's Hospital, Melbourne	127
	Unipath Laboratories	3
	Victorian Infectious Diseases Reference Laboratory, Fairfield Hospital	69
Western Australia	Princess Margaret Hospital, Perth	146
	Royal Perth Hospital	12
	Western Diagnostic Pathology	81
TOTAL		1049