Communicable Diseases Surveillance

Highlights

Communicable Diseases Surveillance consists of data from various sources. The National Notifiable Diseases Surveillance System (NNDSS) is conducted under the auspices of the Communicable Diseases Network Australia New Zealand. The *CDI* Virology and Serology Laboratory Reporting Scheme (LabVISE) is a sentinel surveillance scheme. The Australian Sentinel Practice Research Network (ASPREN) is a general practitioner-based sentinel surveillance scheme. In this report, data from the NNDSS are referred to as 'notifications' or 'cases', whereas those from ASPREN are referred to as 'consultations' or 'encounters' while data from the LabVISE scheme are referred to as 'laboratory reports'.

Vaccine preventable diseases

A total of 466 notifications for vaccine preventable diseases was received during this reporting period, similar to the last period (440) and again lower than the same period in 1998 (498). The total number of notifications for the year to date for 1999 (4,323) was reduced by 37% compared with 1998 (6,896), primarily due to a decrease in pertussis and rubella notifications (Table 1). The number of measles notifications decreased from 37 cases in the last reporting period to 17 cases in this period, mostly reflecting a decrease in notifications from Victoria. Overall the number of year to date cases of measles for 1999 (274) was similar to 1998 (280).

The number of notifications of *Haemophilus influenzae* type b for this period increased from 1 case in the previous reporting period to 4 cases. Overall, the number of year to date cases of *Haemophilus influenzae* type b was higher in 1999 (46) than for the same period in 1998 (29). This was mainly due to an early outbreak in June 1999 in New South Wales in which 12 cases were notified. The ratio of males to females for *Haemophilus influenzae* type b so far this year was the same as the ratio for cases in 1998, 1:1.3 (*CDI* 1999;23:11).

The total number of pertussis notifications to date in 1999 was 3,499 cases, a 39% decrease from the same period in 1998 (5,721) (Figure 1). The number of cases notified in this reporting period decreased in all States (Figure 2), including Tasmania where an outbreak was recently reported. There were more notifications for females than males (male to female ratio 1:1.4), especially for females aged 25 to 69 years old (Figure 3). The number of notifications peaked in the 10-14 year age group (616; 18%).

Figure 1. Notifications of pertussis, Australia, 1998 and 1999, by month of onset

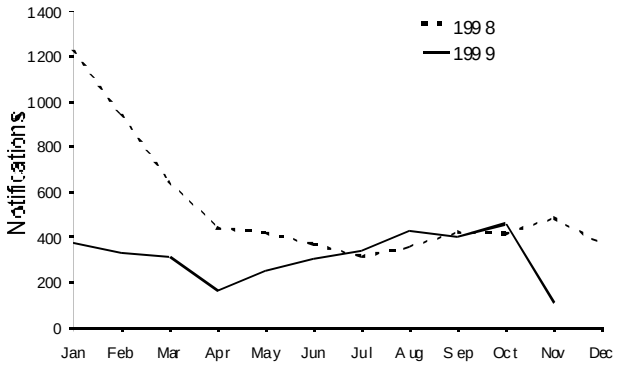


Figure 2. Notifications of pertussis, Australia, 1999, by State and month of onset

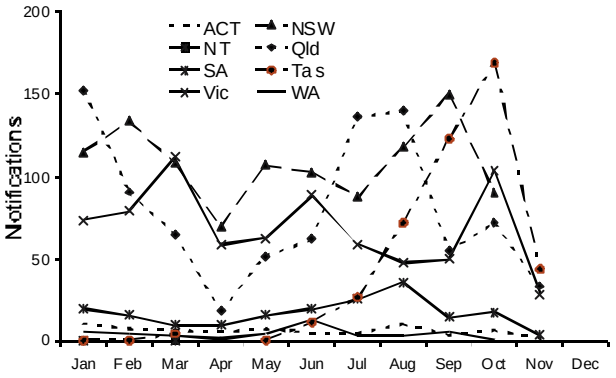
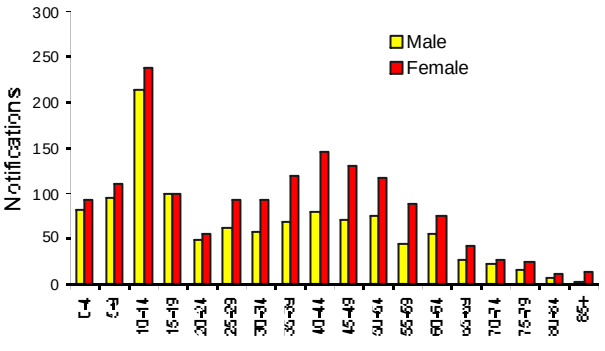


Figure 3. Notifications of pertussis, Australia, 1999, by age group and sex



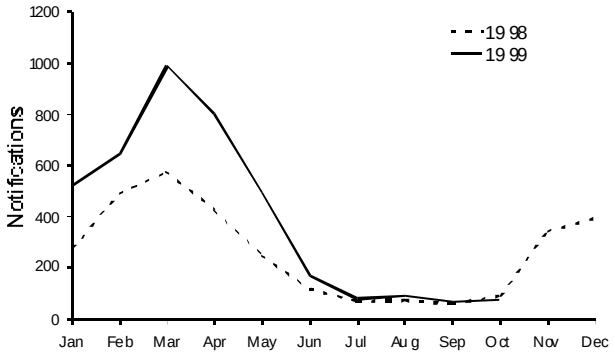
Meningococcal infection

The number of meningococcal infection notifications fell in this reporting period to 33 from 66 in the previous period, representing a reverse in the trend for increasing numbers of notifications in the previous three reporting periods. The reduction in the number of meningococcal infection notifications occurred in all States and Territories, except the Northern Territory and South Australia. The overall number of meningococcal infection notifications for the year to date in 1999 (498) was higher than for the corresponding year to date in 1998 (394). The highest number of notified cases occurred in New South Wales (208; 41%), followed by Victoria (118; 24%) and Queensland (71; 14%). The male to female ratio was 1.4:1. Notifications were highest in the 0-4 (183; 37%) and 15-19 (84; 17%) year age groups.

Vectorborne disease

Notifications of Ross River virus infection remained steady in this period (72) and were similar to the previous two reporting periods (66 and 67 respectively) and the same period in 1998 (79). Most notifications (73%) were received from Queensland. Overall, the number of year to date cases for 1999 (4,188) increased by 65% compared with the number of year to date cases for 1998 (2,534). This was the result of higher numbers in the months of January to May (Figure 4). The laboratory reports for Ross River virus were also mostly received from Queensland (78%) and reflected the seasonal trend for onset of disease. This showed a similar pattern to previous years.

Figure 4. Notifications of Ross River virus infection, Australia, 1998 and 1999, by month of onset



Other

The number of notified cases of tuberculosis (TB) in this period (46) increased compared with the previous period (29), but decreased compared with the same period in 1998 (73). Most cases were from the Northern Territory (9) and New South Wales (21). Those cases from the Northern Territory represented an increase due to a backlog of reports caused by the diversion of resources during the East Timorese crisis. None of these notifications were from the East Timorese as these data have been stored separately and not included in the NNDSS data to date. Overall, the number of year to date cases of TB has decreased in 1999 (793) compared with 1998 (829).

Foodborne diseases

The number of listeriosis notifications has returned to normal level with 5 notifications in this period.

The decrease was seen in those States with the most reports in the previous period, that is, New South Wales and Western Australia.

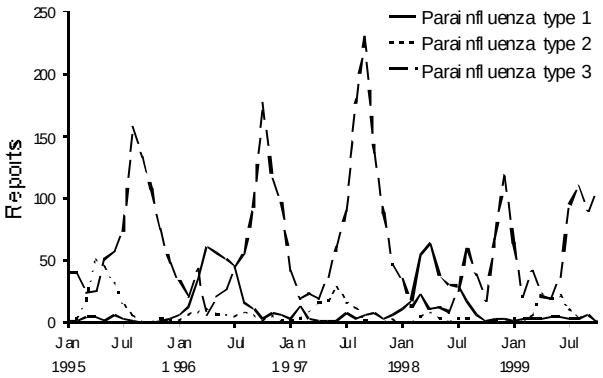
Laboratory reports

Parainfluenza virus type 3 laboratory reports were high in this period. Australia records a peak of parainfluenza type 3 activity in the latter months of each year (Figure 5).

LabVISE received 18 reports of measles from Western Australia, however, only 3 cases were detected during this reporting period.

The large number of reports of Varicella-zoster virus, Group A *Streptococcus* and *Trepenoma pallidium* (Table 3) represent presentation of the data by the date reported to *CDI*. They do not indicate an increase in recent cases, but are results from the previous months that were reported in this period. The date of collection of the specimen, indicating as close as possible the date of illness, is available in LabVISE data, and from January 2000 the presentation of LabVISE data will be by date of specimen collection.

Figure 5. Laboratory reports of parainfluenza, Australia, 1995-1999, by type and month of specimen collection



Tables

There were 5,110 notifications to the National Notifiable Diseases Surveillance System (NNDSS) in the four week period, 13 October to 9 November 1999 (Tables 1 and 2). The number of reports for selected diseases have been compared with historical data for corresponding periods in the previous three years (Figure 6).

There were 4,610 reports received by the *CDI* Virology and Serology Laboratory Reporting Scheme (LabVISE) in the four week period, 7 October to 3 November 1999 (Tables 3 and 4).

The Australian Sentinel Practice Research Network (ASPREN) data for weeks 41 to 44, ending 7 November 1999, are included in this issue of *CDI* (Table 5).

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 1999;23:55.

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 13 October to 9 November 1999

Disease[1]	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	This period 1999	This period 1998	Year to date 1999[2]	Year to date 1998
Diphtheria	0	0	0	0	0	0	0	0	0	0	0	0
H. influenzae type b infection	1	2	0	1	0	0	0	0	4	3	46	29
Measles	0	1	1	2	1	0	10	2	17	11	274	280
Mumps	0	2	0	0	0	1	10	2	15	4	160	151
Pertussis	6	53	0	84	19	145	94	0	401	432	3,499	5,721
Rubella[3]	0	2	0	15	0	2	9	1	29	55	341	709
Tetanus	0	0	0	0	0	0	0	0	0	1	3	6

1. No notification of poliomyelitis has been received since 1978.
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. Includes congenital rubella.

Table 2. Notifications of diseases received by State and Territory health authorities in the period 13 October to 9 November 1999

Disease[1,2,3]	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	This period 1999	This period 1998	Year to date 1999[4]	Year to date 1998
Arbovirus infection (NEC)	0	0	0	1	0	0	0	0	1	1	71	58
Barmah Forest virus infection	0	5	0	10	0	0	0	0	15	23	560	490
Brucellosis	0	0	0	8	0	0	1	0	9	6	45	39
Campylobacteriosis[5]	12	-	10	209	160	37	282	99	809	1,379	10,672	10,797
Chancroid	0	0	0	0	0	0	0	0	0	0	0	1
Chlamydial infection (NEC)[6,7]	19	76	77	398	67	21	203	83	944	1,020	11,956	9,587
Cholera	0	0	0	0	0	0	0	0	0	0	3	4
Dengue	0	0	1	0	0	0	0	0	1	37	169	432
Donovanosis[7]	0	0	1	0	NN	0	0	1	2	1	17	30
Gonococcal infection[8]	0	32	75	102	23	0	57	40	329	401	4,789	4,535
Haemolytic uraemic syndrome[9]	NN	2	0	0	0	0	NN	0	2	2	15	12
Hepatitis A	1	13	10	24	11	0	34	12	105	134	1,425	2,323
Hepatitis B incident	0	1	0	5	1	0	3	1	11	18	247	228
Hepatitis B unspecified[10]	6	118	0	68	0	1	152	10	355	608	6,169	5,637
Hepatitis C incident	2	2	0	-	4	0	0	2	10	44	255	280
Hepatitis C unspecified[10]	28	351	16	271	50	37	436	51	1,240	1,392	17,419	16,484
Hepatitis (NEC)[11]	0	2	0	2	0	0	0	NN	4	0	34	15
Hydatid infection	0	NN	0	0	0	1	2	0	3	2	27	37
Legionellosis	0	1	0	3	2	0	1	2	9	39	224	225
Leprosy	0	0	0	0	0	0	1	0	1	0	6	2
Leptospirosis	0	6	0	3	0	0	0	1	10	24	306	158
Listeriosis	0	2	0	0	0	0	2	1	5	4	56	48
Malaria	1	3	1	15	3	1	8	1	33	38	667	627
Meningococcal infection	0	11	1	2	1	0	14	4	33	32	498	394
Ornithosis	0	NN	0	NN	1	0	2	1	4	6	69	33
Q Fever	0	5	0	34	1	0	1	1	42	44	481	487
Ross River virus infection	1	11	1	51	0	0	5	3	72	79	4,188	2,534
Salmonellosis (NEC)	6	39	24	145	32	11	84	27	368	595	6,626	6,714
Shigellosis[5]	1	-	4	7	9	0	10	4	35	58	497	533
SLTEC, VTEC[12]	NN	0	0	NN	3	0	NN	NN	3	0	23	9
Syphilis[13]	0	16	11	100	6	0	0	1	134	138	1,733	1,376
TTP[14]	0	0	0	0	0	0	0	0	0	0	0	0
Tuberculosis	1	21	9	9	1	0	0	5	46	73	793	829
Typhoid[15]	0	2	0	0	0	0	0	0	2	6	68	63
Yersiniosis (NEC)[5]	0	-	0	4	2	0	1	0	7	10	133	186

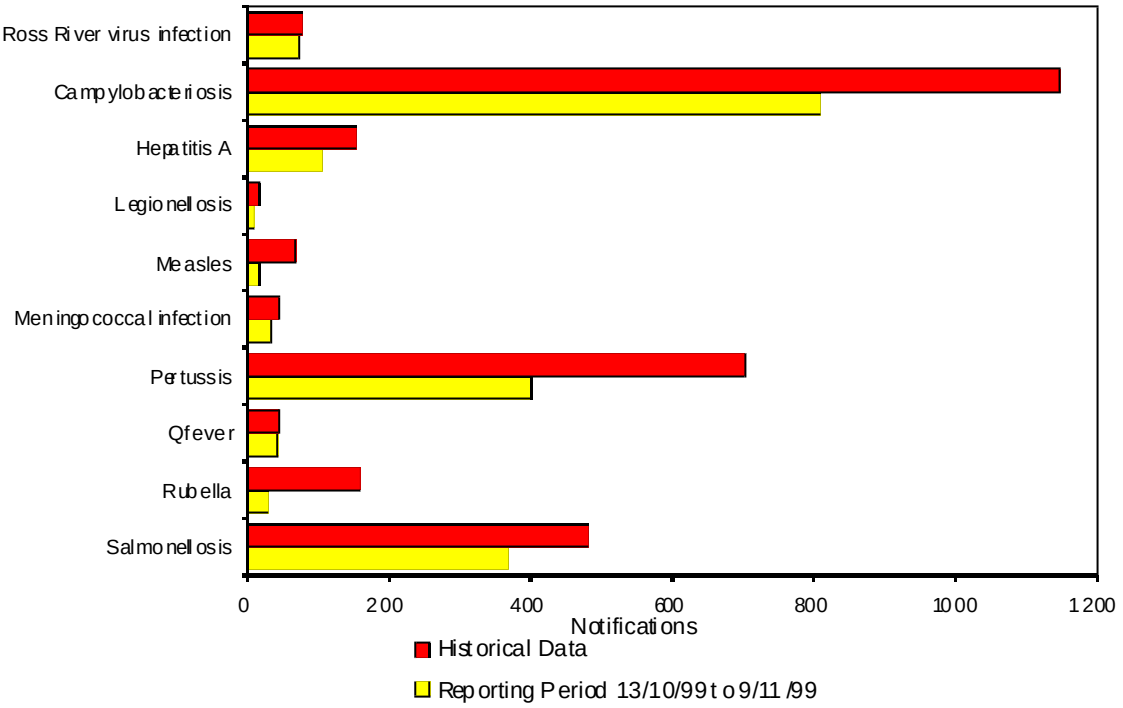
1. Diseases preventable by routine childhood immunisation are presented in Table 1.
2. No HIV and AIDS Tables this issue.
3. No notifications have been received during 1999 for the following rare diseases: lymphogranuloma venereum, plague, rabies, yellow fever, or other viral haemorrhagic fevers.
4. 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.
5. Not reported for NSW because it is only notifiable as 'foodborne disease' or 'gastroenteritis in an institution'.
6. WA: genital only.
7. Notifications from NSW have been received since September 1998, and were first reported in *CDI* in Issue 23(9).
8. NT, Qld, SA and Vic: includes gonococcal neonatal ophthalmia.
9. Nationally reportable from August 1998.
10. Unspecified numbers should be interpreted with some caution as the magnitude may be a reflection of the numbers of testings being carried out.
11. Includes hepatitis D and E.
12. Infections with *Shiga*-like toxin (verotoxin) producing *E. Coli* (SLTEC/VTEC) became nationally reportable in August 1998.
13. Includes congenital syphilis.
14. Thrombotic thrombocytopaenic purpura became nationally reportable in August 1998.
15. NSW, Qld: includes paratyphoid.

NN Not Notifiable.

NEC Not Elsewhere Classified.

- Elsewhere Classified.

Figure 6. Selected National Notifiable Diseases Surveillance System reports, and historical data[1]



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. Virology and serology laboratory reports by State or Territory[1] for the reporting period 7 October to 3 November 1999, and total reports for the year

	State or Territory[1]									
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Total this period	Total reported in 1999[2,3]
Measles, mumps, rubella										
Measles virus							5	18	23	177
Mumps virus								5	5	51
Rubella virus		3		58		1		1	63	131
Hepatitis viruses										
Hepatitis A virus			18	23			1	14	56	346
Hepatitis D virus				1					1	5
Hepatitis E virus				1					1	1
Arboviruses										
Ross River virus		8	13	129		1		15	166	1,303
Barmah Forest virus		2		21				3	26	149
Dengue not typed			3					5	8	52
Flavivirus (unspecified)			1	6					7	23
Adenoviruses										
Adenovirus type 2							1		1	15
Adenovirus type 3							1		1	30
Adenovirus type 4							1		1	15
Adenovirus type 7							1		1	3
Adenovirus type 40								4	4	67
Adenovirus not typed/pending		15		13			21	56	105	1,082

Table 3. Virology and serology laboratory reports by State or Territory[1] for the reporting period 7 October to 3 November 1999, and total reports for the year (continued)

	State or Territory[1]								Total this period	Total reported in 1999[2,3]
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA		
Herpes viruses										
Herpes virus type 6								1	1	11
Cytomegalovirus		28		67			27	14	136	1,008
Varicella-zostervirus		15	12	208	2		28	56	321	1,493
Epstein-Barr virus		21	8	378		2	5	35	449	2,003
Other DNA viruses										
Parvovirus		1		37			6	17	61	409
Picorna virus family										
Coxsackievirus A9		1	1						2	8
Coxsackievirus B2							1		1	2
Echovirus type 9		3							3	47
Echovirus type 11		19	1						20	151
Poliovirus type 1 (uncharacterised)		1							1	22
Rhinovirus (all types)		40					8	11	59	417
Enterovirus not typed/pending		3	4	11			2	55	75	732
Ortho/paramyxoviruses										
Influenza A virus		10	1	149			17	70	247	1,777
Influenza A virus H3N2							4		4	33
Influenza B virus		8		12			13	7	40	250
Parainfluenza virus type 1		2		1				1	4	43
Parainfluenza virus type 2								2	2	103
Parainfluenza virus type 3		15		33			24	88	160	779
Respiratory syncytial virus		38	2	187		1	60	94	382	2,956
Other RNA viruses										
HTLV-1								2	2	12
Rotavirus		62	1				66	90	219	1,966
Norwalk agent		1					1		2	68
Other										
Chlamydia trachomatis not typed		55	105	510			5	104	779	2,805
Chlamydia psittaci								2	2	78
Chlamydia species		3		4					7	18
Mycoplasma pneumoniae		7	2	170			37	6	222	1,039
Mycoplasma hominis		1							1	6
Coxiella burnetii (Q fever)		9	1	61			2	7	80	191
*Rickettsia*spp - other								2	2	13
Streptococcus group A		6	32	157					195	241
Yersinia enterocolitica				1					1	10
*Brucella*species				4					4	6
Bordetella pertussis		5		185		1	22	5	218	630
Legionella pneumophila								1	1	20
Legionella longbeachae								8	8	40
Leptospira species		2		17			1	4	24	39
Treponema pallidum		18	235	147				1	401	507
Entamoeba histolytica				2					2	4
Toxoplasma gondii							1		1	6
Echinococcus granulosus								2	2	2
Total		402	440	2,593	2	6	361	806	4,610	23,395

1. State or Territory of postcode, if reported, otherwise State or Territory of reporting laboratory.
2. In 1999, data from the Institute of Clinical Pathology & Clinical Research, Westmead were under reported up to September.
3. Totals comprise data from all laboratories. 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 4. Virology and serology laboratory reports by contributing laboratories for the reporting period 7 October to 3 November 1999

State or Territory	Laboratory	Reports
New South Wales	Institute of Clinical Pathology & Medical Research, Westmead	86
	New Children's Hospital, Westmead	93
	Royal Prince Alfred Hospital, Camperdown	38
	South West Area Pathology Service, Liverpool	56
Queensland	Queensland Medical Laboratory, West End	3,158
	Townsville General Hospital	11
Victoria	Monash Medical Centre, Melbourne	61
	Royal Children's Hospital, Melbourne	184
	Victorian Infectious Diseases Reference Laboratory, Fairfield	105
Western Australia	PathCentre Virology, Perth	666
	Princess Margaret Hospital, Perth	152
TOTAL		4,610

Table 5. Australian Sentinel Practice Research Network reports, weeks 41 to 44, 1999

Week number	41		42		43		44	
Week ending on	17 October 1999		24 October 1999		31 October 1999		7 November 1999	
Doctors reporting	48		51		49		50	
Total encounters	6,548		6,019		5,915		5,673	
Condition	Reports	Rate per 1,000 encounters	Reports	Rate per 1,000 encounters	Reports	Rate per 1,000 encounters	Reports	Rate per 1,000 encounters
Influenza	28	4.3	14	2.3	20	3.4	25	4.4
Rubella	0	0.0	1	0.2	1	0.2	1	0.2
Measles	1	0.2	0	0.0	0	0.0	0	0.0
Chickenpox	10	1.5	12	2.0	13	2.2	13	2.3
New diagnosis of asthma	7	1.1	12	2.0	9	1.5	9	1.6
Post operative wound sepsis	10	1.5	8	1.3	11	1.9	10	1.8
Gastroenteritis	66	10.1	63	10.5	69	11.7	62	10.9

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 every four weeks. 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 1999;23:58.

ASPREN currently comprises about 100 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 in 1999. CDI reports the consultation rates for seven of these. For further information, including case definitions, see CDI 1999;23:55-56.

There are no additional reports in this issue of *CDI*.