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 440 notifications for vaccine preventable diseases were received during this reporting period, the figure was lower than the same period in 1998 (498). A rise in the number of measles notifications occurred in this reporting period (37) when compared with the previous period (26) and the same period in 1998 (14). However, the number of year to date notifications was similar for this year (273) and the previous year (269). Of the total of 37 measles notifications 76% (28) were from Victoria. All notified cases were aged 0 to 28 years, and 81 % (30) were in the 0- 9 years age group. One case reportedly occurred in a person previously fully immunised against measles.

Meningococcal infection

Notifications of meningococcal infection (62) were similar in this reporting period when compared with the previous period (58) and the same period in 1998 (62). Overall, the number of notifications for the year to date (462) was higher than for the previous year to date (362). Of the 62 notifications, 24 (39%) were reported from New South Wales and 23 (37%) were reported from Victoria (23). Preliminary data on serogroups was available for 31 cases (47%) of which 10 (32%) were serogroup B, 9 (29%) were serogroup C and 12 (39%) were classified as unknown or other. There was a predominance of males amongst the 43 cases for whom gender were recorded, with a male to female ratio of 1.4:1. The age of cases ranged from 0 to 85 years, with 38% (25) in the 0- 4 years age group, 15% (10) in the 15-19 years age group, and 12% (8) in the 5-9 years age group. Three cases (5%) were older than 80 years.

Vectorborne disease

Notifications of Ross River virus infection (66) increased when compared with the previous period (34) and the same period in 1998 (54). An even greater rise of 53% was seen in the number of notifications for the year to date (4,116) when compared with the previous year to date (2,455). The greatest number of notifications (49) were received from Queensland. There was a predominance of females amongst the 65 cases for whom gender was recorded, with a male to female ratio of 1.2:1. The age of cases ranged from 12 to 95 years with a mean of 44 years (SD=17 years), a median of 43 years and a mode of 28 years.

Malaria notifications increased in this reporting period (47) when compared with the previous period (31) and the same period last year (25). Overall the number of notifications for the year to date (631) also increased when compared with the previous year to date (589). Of the 47 cases, 47% (22) were reported from the Northern Territory. It is possible that this rise may have been associated with the intake and screening of the East Timorese refugees. Cases were aged from 0 to 63 years with a mean of 13 years (SD=16 years), median of 23 years and a mode of 42 years. There was a predominance of males amongst the 40 cases for whom gender was specified, with a male to female ratio of 3:1. Data on the species were available for 43% (20) of cases, among these 20 cases: 60% (12) were *P. vivax*, 30% (6) were *P. falciparum,* 5% (1) was *P. Ovale* and 5% (1) was classified as unknown or other.

Zoonoses

Notifications of brucellosis jumped markedly in this period with 9 cases reported compared with 1 case in the previous period and 3 cases for the same period last year. Overall the number of notifications for the year to date remain similar for this year (36) as for the previous year (33). All notifications were reported from Queensland. Cases ranged from 20 to 53 years of age and all were male.

Sexually transmitted diseases

The first notifications for 1999 of chancroid were received in this period. Two cases were reported in this period compared with none for the same period in the previous year.

These 2 cases were reported from Western Australia, were aged 15 to 19 years, and included 1 male and 1 female.

The number of chlamydial infection notifications for this period (960) was increased when compared with the previous period (688) and the same period in 1998 (852). Overall the year to date number of notifications have also increased markedly (10,962) when compared with the year to date for the previous year (8,535). Most notifications were received from Queensland. Cases were aged 0 to 64 years, and with 34% (324) of cases in the 20-24 years age group. Females predominated (60%) amongst cases with a male to female ratio of 1.5:1.

Foodborne disease

A marked increase in the number of notifications of listeriosis (14) occurred for this period compared with the previous period (3) and the same period for 1998 (2). Overall there was a slight increase in the number of year to date notifications (50) compared with the previous year to date figure (44). The increase in notifications may represent the beginning of the recently reported listeriosis outbreak. Of the notifications, 50% (7) was reported from New South Wales, and 21% (3) from Western Australia. Cases were mostly aged from 17 to 65 years with a mean of 45 years (SD=18 years), median of 39 years and a mode of 32 years. Three cases were aged less than 1 year. Of those cases where gender has been reported there were 4 males and 8 females.

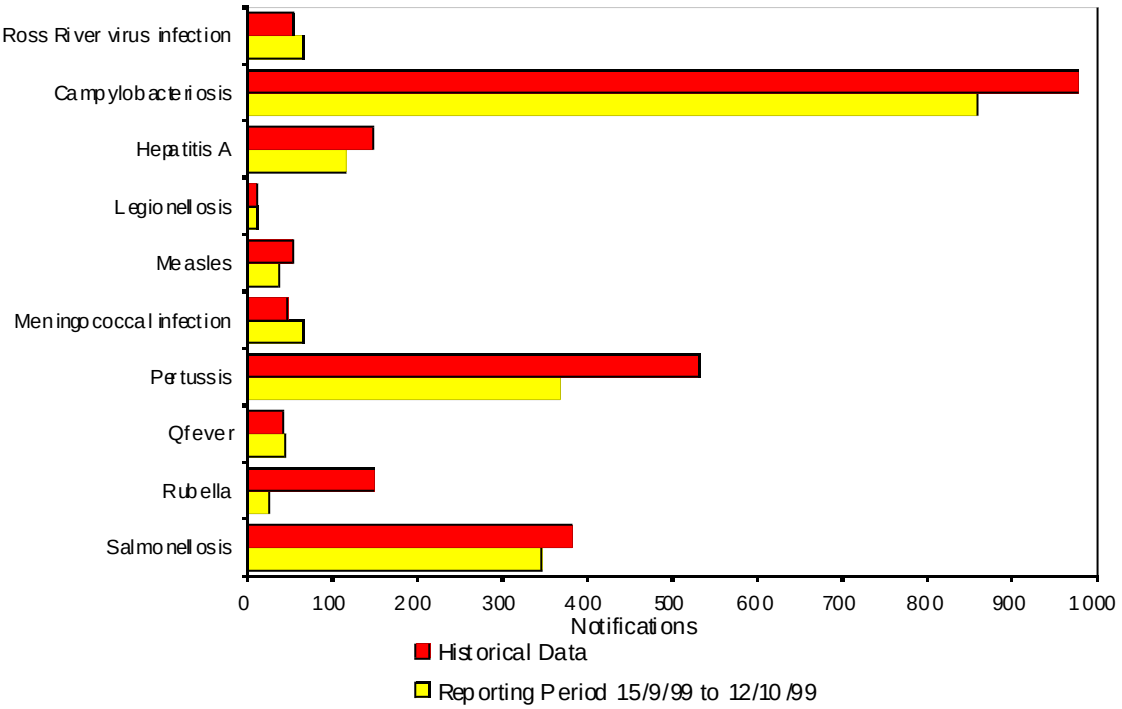
Tables

There were 5,374 notifications to the National Notifiable Diseases Surveillance System (NNDSS) in the four week period, 15 September to 12 October 1999 (Tables 1 and 2). The numbers of reports for selected diseases have been compared with historical data for corresponding periods in the previous three years (Figure 1).

There were 4,310 reports received by the *CDI* Virology and Serology Laboratory Reporting Scheme (LabVISE) in the four week period, 9 September to 6 October 1999 (Tables 3 and 4).

The Australian Sentinel Practice Research Network (ASPREN) data for weeks 37 to 40, ending 10 October 1999, are included in this issue of *CDI* (Table 5).

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 the corresponding 4 week periods of the last 3 years and the 2 week periods immediately preceding and following those.

Table 1. Notifications of diseases received by State and Territory health authorities in the period 15 September to 12 October 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	0	0	0	0	0	0	5	70	57
Barmah Forest virus infection	0	7	0	8	0	0	1	1	17	32	543	467
Brucellosis	0	0	0	9	0	0	0	0	9	3	36	33
Campylobacteriosis[5]	22	-	20	212	136	18	355	96	859	1,078	9,847	9,418
Chancroid	0	0	0	0	0	0	0	2	2	0	2	1
Chlamydial infection (NEC)[6,7]	13	114	98	333	70	10	206	116	960	852	10,962	8,535
Cholera	0	0	0	0	0	0	0	0	0	1	3	4
Dengue	0	0	0	0	0	0	0	0	0	17	166	395
Donovanosis[7]	0	0	0	0	NN	0	0	0	0	3	14	29
Gonococcal infection[8]	0	66	101	84	19	0	56	63	389	402	4,424	4,134
Haemolytic uraemic syndrome[9]	NN	0	0	0	0	0	NN	0	0	0	13	10
Hepatitis A	0	25	8	16	10	0	30	27	116	122	1,321	2,189
Hepatitis B incident	1	4	1	1	4	0	6	6	23	20	230	210
Hepatitis B unspecified[10]	6	166	0	67	0	1	212	26	478	563	5,590	5,029
Hepatitis C incident	1	2	0	-	7	0	0	8	18	23	241	236
Hepatitis C unspecified[10]	17	401	21	266	74	14	385	74	1,252	1,533	15,869	15,092
Hepatitis (NEC)[11]	0	0	0	0	0	0	0	NN	0	3	28	15
Hydatid infection	0	NN	0	1	0	0	0	1	2	3	24	35
Legionellosis	1	0	2	4	0	0	4	1	12	10	215	186
Leprosy	0	0	0	0	0	0	0	0	0	0	5	2
Leptospirosis	0	3	0	3	0	0	1	0	7	17	296	134
Listeriosis	0	7	0	2	1	0	1	3	14	2	50	44
Malaria	0	7	22	10	2	1	4	1	47	25	631	589
Meningococcal infection	0	24	0	7	0	2	23	10	66	54	462	362
Ornithosis	0	NN	0	NN	0	0	3	1	4	0	64	27
Q Fever	0	14	0	23	1	0	2	4	44	57	435	443
Ross River virus infection	0	5	2	49	0	0	1	9	66	43	4,116	2,455
Salmonellosis (NEC)	7	55	16	112	43	3	74	36	346	443	6,258	6,119
Shigellosis[5]	0	-	10	4	6	0	13	8	41	30	460	475
SLTEC, VTEC[12]	NN	0	0	NN	0	0	NN	NN	0	0	20	9
Syphilis[13]	1	33	24	53	1	0	0	5	117	139	1,598	1,236
TTP[14]	0	0	0	0	0	0	0	0	0	0	0	0
Tuberculosis	0	15	1	8	0	1	0	4	29	63	725	756
Typhoid[15]	0	4	0	1	0	0	1	0	6	5	67	57
Yersiniosis (NEC)[5]	0	-	0	7	1	0	2	0	10	12	126	176

1. Diseases preventable by routine childhood immunisation are presented in Table 2.
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.

Table 2. Notifications of diseases preventable by vaccines recommended by the NHMRC for routine childhood immunisation, received by State and Territory health authorities in the period 15 September to 12 October 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	0	0	0	0	0	0	0	1	1	4	42	26
Measles	1	0	3	1	0	1	28	3	37	14	273	269
Mumps	0	3	0	0	0	0	3	3	9	8	141	147
Pertussis	4	100	0	46	15	132	69	2	368	395	3,086	5,289
Rubella[3]	0	1	0	10	0	1	11	2	25	76	312	654
Tetanus	0	0	0	0	0	0	0	0	0	1	3	5

NN. Not Notifiable

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 3. Virology and serology laboratory reports by State or Territory[1] for the reporting period 9 September to 6 October 1999, and total reports for the year

	State or Territory[1]								Total this period	Total reported in 1999[2,3]
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA		
Measles, mumps, rubella										
Measles virus						1	5	5	11	154
Mumps virus								6	6	46
Rubella virus		3		52		1		2	58	122
Hepatitis viruses										
Hepatitis A virus			16	21			3	24	64	327
Hepatitis D virus				1					1	5
Arboviruses										
Ross River virus		7	12	96		1		3	119	1,252
Barmah Forest virus		1		21			1		23	144
Dengue not typed		1						3	4	44
Flavivirus (unspecified)			1				1		2	17
Adenoviruses										
Adenovirus type 1							2		2	20
Adenovirus type 2							1		1	14
Adenovirus type 3							1		1	29
Adenovirus type 4							1		1	14
Adenovirus type 5							1		1	4
Adenovirus type 40								4	4	63
Adenovirus not typed/pending		3		11			29	53	96	986
Herpes viruses										
Cytomegalovirus		9		56		1	42	18	126	931
Varicella-zoster virus		11	10	165	1	1	17	29	234	1,354
Epstein-Barr virus		12	6	310		4	15	23	370	1,882
Other DNA viruses										
Contagious pustular dermatitis								1	1	9
Parvovirus		1		33		5	19	16	74	382

Table 3. Virology and serology laboratory reports by State or Territory[1] for the reporting period 9 September to 6 October 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		
Picorna virus family										
Coxsackievirus A16		3					1		4	16
Coxsackievirus B2							1		1	1
Coxsackievirus B5							1		1	5
Echovirus type 11		11	2						13	132
Echovirus type 22		1							1	19
Rhinovirus (all types)		7					5	6	18	358
Enterovirus type 71 (BCR)							2		2	17
Enterovirus not typed/pending			1	11			1	45	58	669
Ortho/paramyxoviruses										
Influenza A virus		8	5	138		2	83	134	370	1,680
Influenza A virus H3N2							2		2	29
Influenza B virus		6	1	14			16	14	51	224
Parainfluenza virus type 1				1			3	1	5	40
Parainfluenza virus type 2							5	1	6	101
Parainfluenza virus type 3		5		30			19	53	107	652
Parainfluenza virus type 4								1	1	4
Respiratory syncytial virus		14	2	166		23	235	164	604	2,753
Other RNA viruses										
Rotavirus		60	1			16	78	86	241	1,747
Norwalk agent							6		6	66
Other										
Chlamydia trachomatis not typed		45	78	418		5	16	61	623	2,548
Chlamydiapsittaci							3		3	76
Chlamydia species		2		4					6	17
Mycoplasma pneumoniae		5	1	141		3	63	7	220	966
Coxiella burnetii (Q fever)		8	1	54			1	3	67	170
Rickettsia spp - other								1	1	11
Streptococcus group A		5	21	132					158	200
Yersinia enterocolitica				1					1	10
Brucella species				3					3	5
Bordetella pertussis		3		159		2	12	5	181	574
Legionella pneumophila								2	2	19
Legionella longbeachae								1	1	32
Leptospira species		2		14					16	31
Treponema pallidum		8	208	120					336	432
Entamoeba histolytica				1				1	2	3
Total		241	366	2,173	1	65	691	773	4,310	21,406

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 9 September to 6 October 1999

State or Territory	Laboratory	Reports
New South Wales	Institute of Clinical Pathology & Medical Research, Westmead	129
Queensland	Queensland Medical Laboratory, West End	2,646
	Townsville General Hospital	16
Tasmania	Northern Tasmanian Pathology Service, Launceston	58
Victoria	Monash Medical Centre, Melbourne	303
	Royal Children's Hospital, Melbourne	207
	Victorian Infectious Diseases Reference Laboratory, Fairfield	171
Western Australia	PathCentre Virology, Perth	588
	Princess Margaret Hospital, Perth	192
TOTAL		4,310

Table 5. Australian Sentinel Practice Research Network reports, weeks 37 to 40, 1999

Week number	37		38		39		40	
Week ending on	19 September 1999		26 September 1999		3 October 1999		10 October 1999	
Doctors reporting	51		44		45		42	
Total encounters	6,989		5,406		5,675		5,181	
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	39	5.6	16	3.0	21	3.7	14	2.7
Rubella	1	0.1	3	0.6	1	0.2	1	0.2
Measles	0	0.0	0	0.0	0	0.0	0	0.0
Chickenpox	1	1.6	10	1.8	11	1.9	8	1.5
New diagnosis of asthma	1	1.6	6	1.1	2	0.4	6	1.2
Post operative wound sepsis	2	0.3	3	0.6	10	1.8	5	1.0
Gastroenteritis	69	9.9	54	10.0	61	10.7	55	10.6

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.

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.

Additional Reports

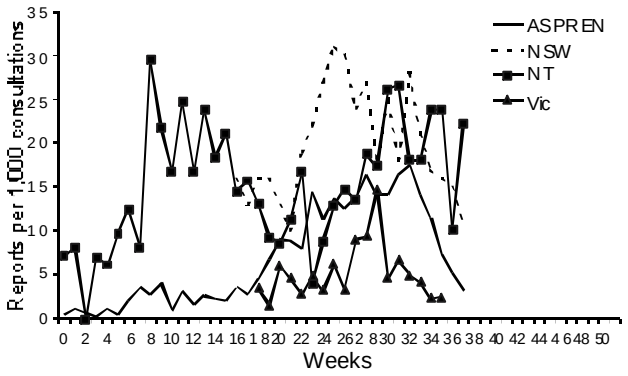
National Influenza Surveillance, 1999

Three types of data are included in National Influenza Surveillance, 1999. These are sentinel general practitioner surveillance conducted by the Australian Sentinel Practice Research Network, Department of Human Services (Victoria), Department of Health (New South Wales) and the Tropical Influenza Surveillance Scheme, Territory Health (Northern Territory); laboratory surveillance data from the Communicable Diseases Intelligence Virology and Serology Laboratory Reporting Scheme, LabVISE, and the World Health Organization Collaborating Centre for Influenza Reference and Research; and absenteeism surveillance conducted by Australia Post. For further information about these schemes, see CDI 1999; 23:56.

Sentinel general practitioner surveillance

Sentinel general practice influenza surveillance finished in Victoria on 6 September while other GP surveillance continued until 30 September 1999. Over the last 4 week reporting period the rate of reports of influenza consultations decreased in all sentinel reporting schemes except for the Northern Territory (Figure 2).

Figure 2. Sentinel general practitioner influenza consultation rates, 1999, by scheme

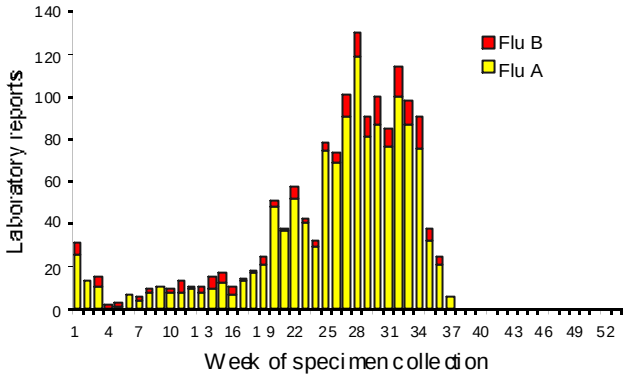


The rate of influenza consultations decreased to 3.2 per 1,000 consultations for the ASPREN surveillance scheme, 2.5 per 1,000 consultations for the Victorian surveillance scheme and 11.0 per 1,000 consultations for the New South Wales surveillance. In the Northern Territory the rate of influenza reporting decreased in the third week of the reporting period to 10.1 per 1,000 consultations but then increased again in the final week to 22.3 per 1,000 consultations. By the end of the reporting period influenza rates had almost returned to baseline levels for the Victorian and ASPREN surveillance schemes.

Laboratory surveillance

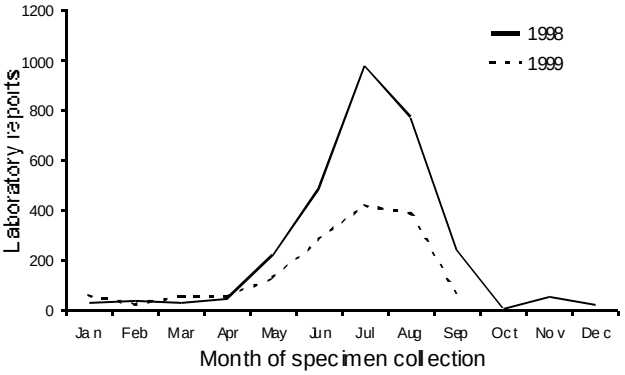
For the year to date until 19 September 1999, a total of 1,497 laboratory reports of influenza have been received. Of these, 1,323 (88%) were influenza A and 174 (12%) influenza B (Figure 3). For this reporting period, a total of 39 laboratory reports were received. Twenty-nine of these, (74%), were influenza A and 10 (26%) influenza B, representing a decrease in the number of laboratory reports of influenza and an increase in the proportion of influenza B reports (Figure 3).

Figure 3. Laboratory reports of influenza, 1999, by type and by week of specimen collection



Overall, the number of influenza laboratory reports has returned to baseline level. The peak level of laboratory reports occurred at a similar time but was much lower than in 1998.

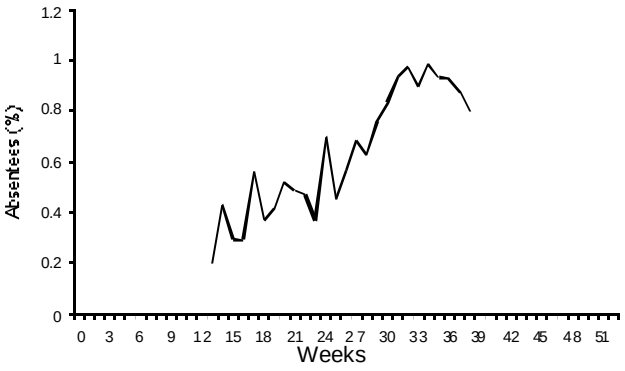
Figure 4. Laboratory reports of influenza, 1998-99, by month of specimen collection



Absenteeism surveillance

The average rates for the last 4 week reporting period until 29 September 1999 were 0.9% (0.88%) and the maximum rate 0.9% (0.93%). The trend was for the percentage of absentees to decrease from early September. The rate at the end of this reporting period (0.8%) remained higher than at the beginning of the reporting period (0.2%) (Figure 5).

Figure 5. Absenteeism rates in Australia Post, 1999



Sentinel Chicken Surveillance Programme

Sentinel chicken flocks are used to monitor flavivirus activity in Australia. The main viruses of concern are Murray Valley encephalitis (MVE) and Kunjin which cause the potentially fatal disease Australian encephalitis in humans. Currently 26 flocks are maintained in the north of Western Australia, seven in the Northern Territory, nine in New South Wales and ten in Victoria. The flocks in Western Australia and the Northern Territory are tested year round but those in New South Wales and Victoria are tested only from November to March, during the main risk season.

Results are coordinated by the Arbovirus Laboratory in Perth and reported bimonthly. For more information see CDI 1999;23:57-58

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Sentinel chicken serology was carried out for 22 of the 27 flocks in Western Australia in July and August 1999. There were a number of seroconversions to MVE and Kunjin viruses in the Kimberley, Pilbara and Gascoyne flocks during this period. The number of chickens positive for flavivirus antibodies by ELISA at each site, and the virus (or viruses) they were infected with is shown in Table 6. Not all of these seroconversions have been confirmed. In response to the unusually late activity of MVE virus in the north of Western Australia the Health Department of Western Australia issued a media warning in mid September to warn residents and visitors to the region of the on-going risk of disease. Additional health warnings were sent via the Regional Public Health Units to Aboriginal communities in the region.

Table 6. Flavivirus seroconversions in Western Australian sentinel chicken flocks in July and August, 1999

Location	July 1999			August 1999			
Kimberley	MVE	MVE/KUN	FLAVI	MVE	KUN	MVE/KUN	FLAVI
Kalumburu		1					
Derby				1	1	1	
Broome	2						
Pilbara							
Port Hedland	1						
Harding Dam*	2		1	4		1	1
Karratha						1	
Newman	2						
Onslow				1	1		
Exmouth				1			
Gascoyne							
Carnarvon	1						

* 2 flocks of 12 chickens at these sites

MVE Antibodies to Murray Valley encephalitis virus detected by ELISA

KUN Antibodies to Kunjin virus detected by ELISA

MVE/KUN Antibodies to both MVE and KUN viruses detected by ELISA

FLAVI Antibodies to a flavivirus only (not MVE or KUN) detected by ELISA

Serum samples from all of the seven Northern Territory sentinel chicken flocks were tested in our laboratory in July and August 1999. There were two new, confirmed seroconversions to flaviviruses at Katherine in July 1999, one to MVE virus and one to Kunjin virus.

Childhood Immunisation Coverage

Tables 7 and 8 provide the latest quarterly report on childhood immunisation coverage from the Australian Childhood Immunisation Register (ACIR).

The data show the percentage of children fully immunised at age 12 months for the cohort born between 1 May and 30 June 1998 and at 24 months of age for the cohort born between 1 May and 30 June 1997, according to the Australian Standard Vaccination Schedule.

A full description of the methodology used can be found in CDI 1998;22:36-37.

Table 7. Percentage of children immunised at 1 year of age, preliminary results by disease and State for the birth cohort 1 April to 30 June 1998; assessment date 30 September 1999.

	State or Territory								
Vaccine	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Australia
Total number of children	1,027	21,794	941	12,427	4,638	1,479	15,153	6,492	63,951
Diphtheria, Tetanus, Pertussis (%)	89.5	86.1	85.9	89.3	90.0	88.2	89.3	87.2	88.0
Poliomyelitis (%)	89.5	86.0	85.2	89.2	90.1	88.0	89.2	87.3	87.9
Haemophilus influenzae type b (%)	89.1	85.4	88.9	89.7	89.8	87.6	88.6	87.2	87.7
Fully Immunised (%)	89.0	84.2	82.9	88.4	89.0	87.0	87.7	86.2	86.5
Change in fully immunised since last quarter (%)	+0.3	+0.7	+5.6	+0.4	+0.4	-0.7	-0.2	+0.3	-0.4

Table 8. Proportion of children immunised at 2 years of age, preliminary results by disease and State for the birth cohort 1 April to 30 June 1997; assessment date 30 September 1999[1]

	State or Territory								
Vaccine	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Australia
Total number of children	1,106	22,007	931	12,559	4,674	1,547	15,504	6,256	64,584
Diphtheria, Tetanus, Pertussis (%)	87.0	81.9	75.0	86.7	85.4	85.1	84.7	81.8	83.8
Poliomyelitis (%)	91.7	87.9	86.9	91.3	92.2	91.8	91.0	88.3	89.8
Haemophilus influenzae type b (%)	86.7	82.0	82.8	87.0	83.9	83.8	84.4	82.0	83.8
Measles, Mumps, Rubella (%)	91.2	86.5	87.3	90.8	90.1	90.2	89.7	87.8	88.7
Fully Immunised (%)[2]	83.8	72.2	67.1	81.1	76.8	77.1	77.3	73.4	75.9
Change in fully immunised since last quarter (%)	+2.4	+1.8	+9.3	+0.8	+5.2	+2.3	+2.6	+2.9	+2.4

1. The 12 months age data for this cohort was published in *CDI* 1998;22:123.
2. These data relating to 2 year old children should be considered as preliminary. The proportions shown as "fully immunised" appear low when compared with the proportions for individual vaccines. This is at least partly due to poor identification of children on immunisation encounter forms.

Acknowledgment: These figures were provided by the Health Insurance Commission (HIC), to specifications provided by the Commonwealth Department of Health and Aged Care. For further information on these figures or data on the Australian Childhood Immunisation Register please contact the Immunisation Section of the HIC: Telephone 02 6124 6607.

Rotavirus Surveillance

The National Rotavirus Reference Centre (NRRC) undertakes surveillance and characterisation of rotavirus strains causing annual epidemics of severe diarrhoea in young children throughout Australia.

There are currently twelve laboratories contributing data and rotavirus specimens for the characterisation of representative rotavirus serotypes.

The NRRC is happy to give and receive notifications of rotavirus outbreaks Australia-wide. The NRRC can be contacted at the Department of Gastroenterology and Clinical Nutrition, Royal Children's Hospital, Flemington Road, Parkville, Victoria 3052. Telephone: (03) 9345 5069, Facsimile: (03) 9345 6240, Email: masendyp@cryptic.fch.unimelb.edu.au.

January - July, 1999

This is the first of a quarterly report series on rotavirus surveillance.

Laboratory based rotavirus surveillance has commenced with the establishment of twelve sentinel centres collecting rotavirus positive specimens Australia-wide. In the first twelve months, it is estimated approximately 1,800 rotavirus positive specimens will be collected and forwarded to the National Rotavirus Reference Centre (NRRC) for analysis. The Centre will serotype representative rotavirus specimens with an in-house enzyme immunoassay (EIA) that uses a panel of monoclonal antibodies specific for the four major infecting serotypes (types G1, G2, G3 and G4). Specimens unable to be assigned a serotype by EIA will be analysed by reverse transcription/ polymerase chain reaction (PCR) using primers specific for the important human serotypes. Rotavirus serotypes detected, will be reported regularly in Communicable Diseases Intelligence quarterly.

Monthly reports of rotavirus positive cases for January-July 1999 (Figure 6) show three Australian regions that share similar rotavirus seasons. Townsville, Brisbane, Sydney, Melbourne and Hobart have been grouped together as the eastern region. All appear to have a distinct rotavirus peak beginning in June 1999. The central region (Darwin, Alice Springs and Adelaide) experienced a rotavirus peak in March-April 1999. Both adults and children were affected in the Northern Territory, with several adults in Alice Springs suffering severe rotavirus infection and requiring intravenous rehydration. Two collaborating centres represent the Western Australian region: the Princess Margaret Hospital, which screens Perth specimens, and the PathCentre, which receives specimens north of Perth.

Preliminary serotyping results for specimens received for June and July have shown serotypes G1 and G2 circulating in Perth, Melbourne and Alice Springs. The Australia-wide rotavirus serotype picture should become clearer when more rotavirus positive specimens are received from other collaborating centres.

Figure 6. Rotavirus laboratory reports, January to July, by month of specimen collection and region