

# 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 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 1997;21:5.

### Reporting period 3 to 16 September 1997

There were 2,098 notifications received for this two week period (Tables 1, 2 and 3). The numbers of reports for selected diseases have been compared with historical data for corresponding periods in the previous three years (Figure 1).

The number of reports for hepatitis A remains low compared with numbers reported earlier in the year. There were 57 notifications received this fortnight; the majority of these were from New South Wales and Queensland.

There were 23 notifications of meningococcal infection for the current period, bringing the total for the year so far to

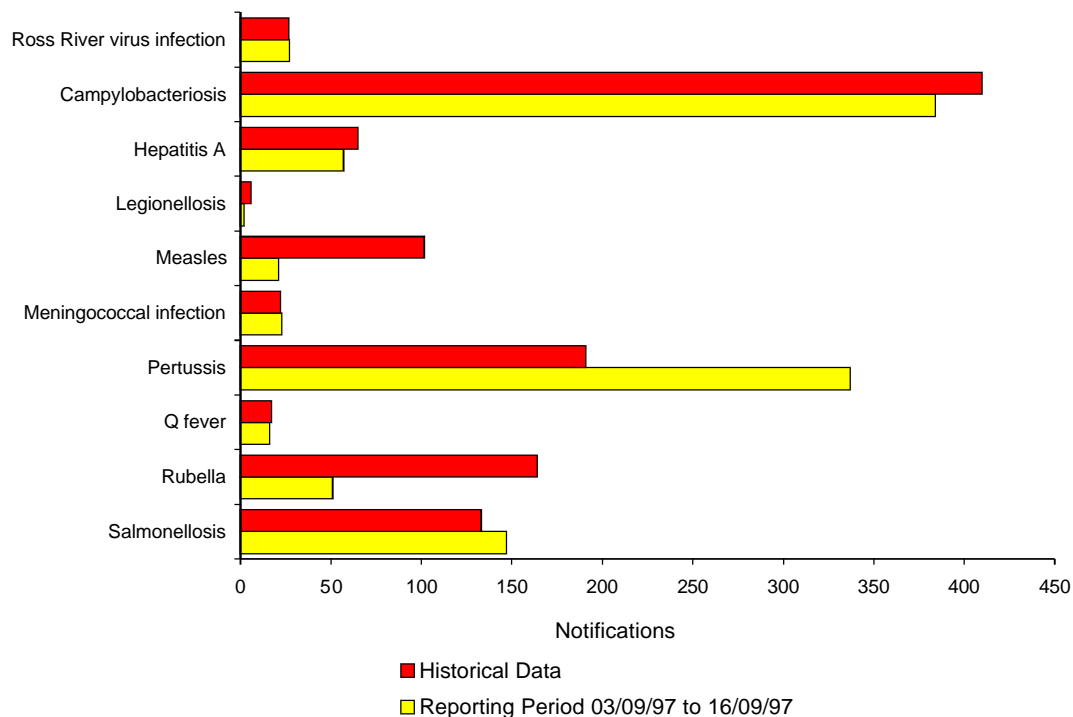
336. Since the beginning of August, fortnightly numbers of reports have been more than 50% higher than the average fortnightly numbers for the months May to July.

The number of notifications of pertussis has continued to increase, with 337 reports received this reporting period. The increases were seen in several States. Eighty-five reports (25% of the total) were received for children in the 10 - 14 years age group, and 80 (24%) for the 5 - 9 years age group. Seventeen notifications (5%) were for infants under one year of age.

## National Influenza Surveillance, 1997

Three types of data are included in National Influenza Surveillance, 1997. 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 Department of Health and Community Services, 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 1997; 21:126.

**Figure 1. Selected National Notifiable Diseases Surveillance System reports, and historical data<sup>1</sup>**



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.

**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 3 to 16 September 1997**

Disease <sup>1,2</sup>	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	This period 1997	This period 1996	Year to date 1997	Year to date 1996
Diphtheria	0	0	0	0	0	0	0	0	0	0	0	0
<i>Haemophilus influenzae</i> type b	0	1	0	1	0	0	0	0	2	3	38	45
Measles	0	4	0	2	0	3	10	2	21	15	419	335
Mumps	0	0	1	0	3	0	3	1	8	12	145	91
Pertussis	0	91	1	80	68	7	49	41	337	157	5,531	2,211
Rubella	0	0	0	20	9	2	18	2	51	94	918	1,800
Tetanus	0	0	0	0	0	0	0	0	0	0	7	1

1. No notifications of poliomyelitis have been reported since 1986.

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.

**Table 2. Notifications of other diseases received by State and Territory health authorities in the period 3 to 16 September 1997**

Disease <sup>1,2</sup>	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	This period 1997	This period 1996	Year to date 1997	Year to date 1996
Arbovirus Infection (NEC) <sup>3</sup>	0	0	0	0	0	0	0	0	0	0	111	41
Barmah Forest virus infection	0	5	-	6	0	0	0	0	11	13	534	715
Campylobacteriosis <sup>4</sup>	7	-	9	128	66	18	117	39	384	483	8,011	8,408
Chlamydial infection (NEC) <sup>5</sup>	0	NN	53	105	0	7	71	48	284	347	5,852	6,024
Dengue	0	0	0	1	0	-	0	0	1	1	196	29
Donovanosis	0	NN	1	0	NN	0	0	0	1	4	24	37
Gonococcal infection <sup>6</sup>	0	30	50	22	0	0	0	38	140	169	3,212	2,999
Hepatitis A	1	19	1	30	1	0	2	3	57	73	2,320	1,706
Hepatitis B incident	1	2	1	1	0	0	3	0	8	8	173	161
Hepatitis C incident	1	0	0	-	0	0	-	-	1	5	12	43
Hepatitis C unspecified	75	NN	19	94	NN	8	232	14	442	292	6,898	6,991
Hepatitis (NEC)	0	0	0	0	0	0	0	NN	0	1	14	14
Legionellosis	0	0	0	0	0	0	1	1	2	6	107	137
Leptospirosis	0	0	0	5	0	0	0	0	5	2	90	168
Listeriosis	0	1	0	0	0	0	0	0	1	2	58	41
Malaria	0	4	0	33	0	1	2	0	40	46	604	648
Meningococcal infection	0	14	0	4	1	0	4	0	23	25	337	287
Ornithosis	0	NN	0	0	0	0	0	0	0	3	39	62
Q Fever	0	7	0	9	0	0	0	0	16	8	425	399
Ross River virus infection	0	9	0	13	1	0	1	3	27	33	6,360	7,469
Salmonellosis (NEC)	2	36	9	43	14	4	24	15	147	162	5,149	4,252
Shigellosis <sup>4</sup>	0	-	6	2	2	0	1	4	15	19	594	490
Syphilis	1	6	7	14	0	0	0	1	29	64	863	1,139
Tuberculosis	0	3	0	9	5	0	10	0	27	38	681	751
Typhoid <sup>7</sup>	0	0	0	0	0	0	0	0	0	1	51	67
Yersiniosis (NEC) <sup>4</sup>	0	-	1	3	0	0	2	0	6	8	191	182

1. For HIV and AIDS, see CDI 1997;21:274. 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. NT: includes Barmah Forest virus.

4. NSW: only as 'foodborne disease' or 'gastroenteritis in an institution'.

5. WA: genital only.

6. NT, Qld, SA and Vic: includes gonococcal neonatal ophthalmia.

7. NSW, Vic: includes paratyphoid.

NN Not Notifiable.

NEC Not Elsewhere Classified

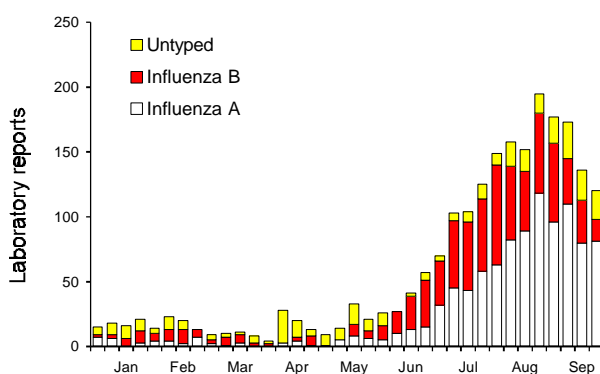
- Elsewhere Classified.

**Table 3. Notifications of rare<sup>1</sup> diseases received by State and Territory health authorities in the period 3 to 16 September 1997**

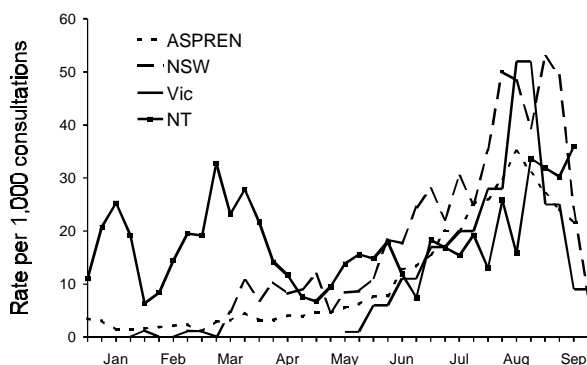
Disease <sup>2</sup>	Total this period	Reporting States or Territories	Total notifications 1997
Brucellosis	6	Qld	28
Chancroid			1
Cholera			2
Hydatid infection	5	Qld, Vic, WA	38
Leprosy	1	Qld	9

1. Fewer than 60 cases of each of these diseases were notified each year during the period 1988 to 1996.
2. No notifications have been received during 1997 for the following rare diseases: botulism, lymphogranuloma venereum, plague, rabies, yellow fever, or other viral haemorrhagic fevers.

**Figure 2. Laboratory reports of influenza, 1997, by week and type**



**Figure 3. Sentinel general practitioner influenza consultation rates, 1997, by week and scheme**



Influenza activity continued to decline throughout most of Australia during late August to early September. The Northern Territory continued to show high activity. The majority of laboratory reports for this period were for influenza A.

### Laboratory Surveillance

A total of 358 reports of influenza virus were recorded by the LabVISE scheme this fortnight. Of these 227 were for influenza A, 80 for influenza B and 51 were untyped. Although the epidemic of influenza B for this season is declining, the number of influenza B reports received during August were still considerably higher than in previous influenza B epidemic years. The majority of reports currently being received are for influenza A. Reports for influenza A rose sharply through July and declined slightly during August (Figure 2).

### Sentinel General Practitioner Surveillance

Reports of consultation rates for influenza-like illness from the New South Wales scheme, the Department of Human Services Victoria, and the ASPREN scheme continued to decline through August and early September, having reached a peak rate in late July and early August (Figure 3). The Northern Territory scheme, however, continues to show a high level of influenza activity.

## Australian Sentinel Practice Research Network

The Australian Sentinel Practice Research Network (ASPREN) currently comprises 107 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. Of these, CDI reports the consultation rates for chickenpox, gastroenteritis, HIV testing (doctor initiated), HIV testing (patient initiated), influenza, measles, pertussis, Ross River virus infection and rubella. For further information, including case definitions, see CDI 1997;21:6.

Data for weeks 36 and 37 ending 7 and 14 September respectively are included in this issue of CDI (Table 4). In this reporting period, the consultation rate for pertussis was the highest for 1997. In week 37, 50 % of reports were from Queensland. The consultation rate for gastroenteritis has remained at a low level since the beginning of June. The consultation rate for chickenpox remained lower than the rate seen during June. Measles, rubella and Ross River virus infection consultation rates have remained low for several months. The consultation rates associated with HIV testing have remained at moderate levels throughout the year.

## 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 1997;21:8.

**Table 4. Australian Sentinel Practice Research Network reports, weeks 36 and 37, 1997**

Condition	Week 36, to 7 September 1997		Week 37, to 14 September 1997	
	Reports	Rate per 1,000 encounters	Reports	Rate per 1,000 encounters
Chickenpox	10	1.5	6	0.9
Gastroenteritis	64	9.5	70	10.4
HIV testing (doctor initiated)	1	0.1	2	0.3
HIV testing (patient initiated)	17	2.5	8	1.2
Influenza	145	21.6	97	14.4
Measles	1	0.1	0	0.0
Pertussis	3	0.4	10	1.5
Ross River virus infection	0	0.0	1	0.1
Rubella	0	0.0	1	0.1

**Table 5. Adverse events following vaccination for the period 6 June to 16 September 1997**

Event	Vaccines									Reporting States or Territories	Total reports for this period
	DTP	DTP/Hib	DTP/OPV/Hib	DTP/OPV	DTP/Hib/Hep B	Hib	MMR	Hep B	Other <sup>1</sup>		
Persistent screaming	33	4	14	1		1				ACT, NT, Qld, SA, Vic, WA	53
Hypotonic/hyporesponsive episode	6	1	13						2	ACT, NT, Qld, SA, Vic	22
Temperature of 40.5°C or more	2	1	3							ACT, Qld, SA	6
Convulsions		3	3		1		1			Qld, SA, ACT, WA	8
Anaphylaxis			1						1	Vic	2
Shock			1							Vic	1
Death										NT <sup>2</sup>	1
Other	3	4	8				1	3	4	ACT, SA	23
<b>TOTAL</b>	<b>45</b>	<b>13</b>	<b>43</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>7</b>		<b>116</b>

1. Includes influenza vaccination, DTPa, CDT, OPV, pneumococcal vaccination, BCG, ADT and rabies immunoglobulin (HRIG)

2. SIDS according to the Coroner's report

*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 6 June to 16 September 1997.**

There were 116 reports of serious adverse events following vaccination for this reporting period. The events occurred over the last 3 years with the majority (79%) in 1997. Reports were received from the Australian Capital Territory (19), the Northern Territory (6), Queensland (36), South Australia (49), Victoria (4) and Western Australia (2).

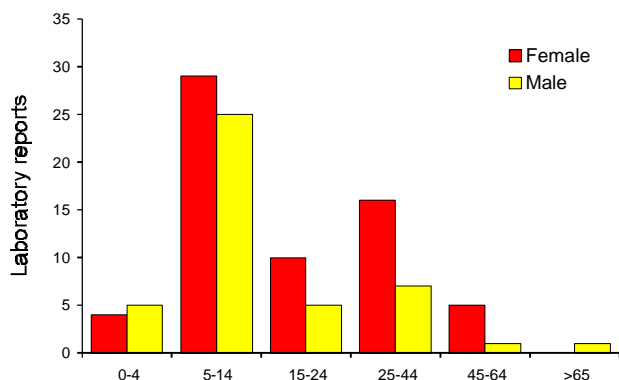
The most frequently reported events following vaccination were persistent screaming (53 cases, 46%) and hypotonic/hyporesponsive episodes (22 cases, 19%)(Table 5). One child died of sudden infant death syndrome (SIDS) within 30 days of immunisation. Twenty-seven cases were hospitalised. There was incomplete information on follow-up of four cases. All of the other cases had recovered at the time of reporting.

Ninety-six reports of adverse events (83% of total) were associated with DTP either alone or in combination with other vaccines. Of these, 45 reports were associated with the first dose of DTP and 34 with the second dose.

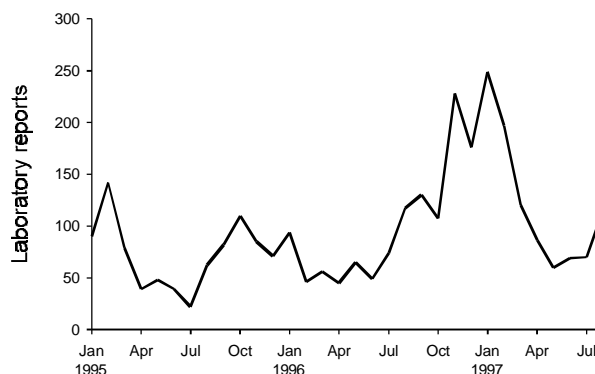
**LabVISE**

*The Virology and Serology Laboratory Reporting Scheme, LabVISE, is a sentinel reporting scheme. Twenty-one*

**Figure 4. *Mycoplasma pneumoniae* laboratory reports, current reporting fortnight, by age group and sex.**



**Figure 5. Pertussis laboratory reports, 1995 to 1997, by month of specimen collection**



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 1997;21:8-9.

There were 1,771 reports received in the CDI Virology and Serology Laboratory Reporting Scheme this period (Tables 6 and 7).

There were 108 reports of parainfluenza virus type 3 this fortnight; more than twice the historical figure for this period. There has been a steady increase in the number of reports since April, with a peak of 166 reports in August; the highest monthly total since the beginning of this scheme. This trend is consistent with the characteristic annual peaks in September and October. Eighty-two per cent of reports this period were for the 0 - 4 years age group.

The number of reports of respiratory syncytial virus is continuing to decline, after reaching the usual peak in July.

Nearly twice as many reports (398) were received this fortnight compared with the historical figure for the period. The highest numbers were recorded in Victoria (30%) and South Australia (28%), followed by Western Australia (14%) and Queensland (13%).

Reports of *Mycoplasma pneumoniae* during 1997 have been the highest since 1993. The numbers have remained high since late last year. There were 116 cases reported this fortnight. Forty-nine per cent of reports were for the 5 - 14 years age group, and the overall male to female ratio was 1:1.5 (Figure 4). There were more reports from Queensland (57% of total reports) than other states.

There were 90 reports of pertussis received this fortnight. This is approximately three-times the historical figure, and is consistent with the steady increase in reports since May (Figure 5). The number of reports for 1997 to date is higher than the total for any year in the history of this scheme. Forty-three per cent of reports were from Queensland. The male to female ratio was 1.2:1 this fortnight, with 48% of reports from the 5 - 14 years age group.

**Table 6. Virology and serology laboratory reports by State or Territory<sup>1</sup> for the reporting period 28 August to 10 September 1997, historical data<sup>2</sup>, and total reports for the year**

	State or Territory <sup>1</sup>								Total this fortnight	Historical data <sup>2</sup>	Total reported in CDI in 1997
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA			
<b>Measles, Mumps, Rubella</b>											
Measles virus			1		1			1	3	2	46
Mumps virus					2		1	3	6	1.8	38
Rubella virus				13	4		1		18	20.5	443
<b>Hepatitis viruses</b>											
Hepatitis A virus		2	3	16				5	26	11.7	589
Hepatitis D virus				1				1	2	0.7	17
Hepatitis E virus				1					1	0.3	3
<b>Arboviruses</b>											
Ross River virus		1		2	1		1	1	6	8.7	2,029
Barmah Forest virus			1	3					4	3.3	198

**Table 6. Virology and serology laboratory reports by State or Territory<sup>1</sup> for the reporting period 28 August to 10 September 1997, historical data<sup>2</sup>, and total reports for the year, continued**

	State or Territory <sup>1</sup>								Total this fortnight	Historical data <sup>2</sup>	Total reported in CDI in 1997
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA			
<b>Adenoviruses</b>											
Adenovirus type 2							1		1	1.7	28
Adenovirus type 4							1		1	0.2	5
Adenovirus not typed/pending		1		12	13	2	8	5	41	44.2	745
<b>Herpes viruses</b>											
Cytomegalovirus		9		14	4	1	10	1	39	48.5	899
Varicella-zoster virus		1		21	3		11	12	48	32	1,047
Epstein-Barr virus		5	2	14	29		7	20	77	46.5	1,934
<b>Other DNA viruses</b>											
Parvovirus	1	1		1			7		10	6.7	276
<b>Picornavirus Family</b>											
Coxsackievirus A9							1		1	0.2	8
Coxsackievirus B3		1					2		3	0.2	8
Rhinovirus (all types)		2		10			3	3	18	29.7	487
Enterovirus not typed/pending		2		22				4	28	34	494
<b>Ortho/paramyxoviruses</b>											
Influenza A virus		30		33	40		42	51	196	61.3	1,058
Influenza A virus H3N2				31					31	3.3	91
Influenza B virus		6	1	23	20		20	10	80	18	821
Influenza virus - typing pending					51				51	0	372
Parainfluenza virus type 1					1		1		2	4.2	53
Parainfluenza virus type 2					2				2	2	112
Parainfluenza virus type 3		25		23	9		26	25	108	45.7	760
Parainfluenza virus typing pending					10	1			11	2	211
Respiratory syncytial virus		39	1	54	110	19	118	57	398	202.3	4,000
Paramyxovirus (unspecified)							6		6	0.2	21
<b>Other RNA viruses</b>											
HTLV-1			1					1	2	0.3	12
Rotavirus		48			15	2	53	17	135	129.2	1,021
Norwalk agent							2		2	2.2	70
<b>Other</b>											
<i>Chlamydia trachomatis</i> not typed	1	5	24	65	25	5	4	53	182	95.2	3,651
<i>Chlamydia psittaci</i>							2		2	4.3	51
<i>Chlamydia</i> species				2					2	0.7	25
<i>Mycoplasma pneumoniae</i>		3	1	67	7	3	22	13	116	22.3	1,362
<i>Coxiella burnetii</i> (Q fever)		4		10			1		15	3.8	256
<i>Rickettsia tsutsugamushi</i>				3					3	0.7	24
<i>Bordetella pertussis</i>		1	2	39			26	22	90	30.8	1,302
<i>Bordetella</i> species								1	1	8.5	22
<i>Legionella pneumophila</i>					1				1	0	18
<i>Legionella longbeachae</i>					1				1	0.7	23
<i>Cryptococcus</i> species		1							1	0.2	17
TOTAL	2	187	37	480	349	33	377	306	1,771	930.5	24,647

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 7. Virology and serology laboratory reports by contributing laboratories for the reporting period 28 August to 10 September 1997**

State or Territory	Laboratory	Reports
New South Wales	Institute of Clinical Pathology & Medical Research, Westmead	16
	New Children's Hospital, Westmead	108
	South West Area Pathology Service, Liverpool	46
Queensland	Queensland Medical Laboratory, West End	340
	State Health Laboratory, Brisbane	165
South Australia	Institute of Medical and Veterinary Science, Adelaide	347
Tasmania	Northern Tasmanian Pathology Service, Launceston	10
	Royal Hobart Hospital, Hobart	25
Victoria	Monash Medical Centre, Melbourne	58
	Royal Children's Hospital, Melbourne	212
	Victorian Infectious Diseases Reference Laboratory, Fairfield	112
Western Australia	PathCentre Virology, Perth	165
	Princess Margaret Hospital, Perth	110
	Western Diagnostic Pathology	57
TOTAL		1,771