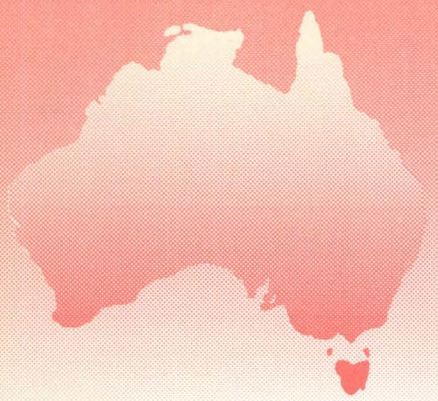

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COMMUNICABLE DISEASES NETWORK-AUSTRALIA
A National Network for Communicable Diseases Surveillance

ANNUAL REPORT OF THE *CDI* VIROLOGY AND SEROLOGY REPORTING SCHEME, 1992

(Jenny Hargreaves, AIDS/Communicable Diseases Branch, Commonwealth Department of Health, Housing, Local Government and Community Services)

Introduction

The *Communicable Diseases Intelligence*'s Virology and Serology Laboratory Reporting Scheme has been operating since 1977. It is based on reports contributed by a sample of laboratories around Australia and covers viruses and other organisms diagnosed in virology and serology laboratories. This is the annual report for the Scheme for 1992.

Each report contibuted to the Scheme includes the laboratory identification, the date of specimen collection, the organism identification and data on the source specimen and methods of isolation, direct identification and serology, as appropriate. Partial or coded patient identification is also included to enable duplicate reports of a single infection to be deleted or amalgamated. The reports usually also include data on the sex and age of the patient, the clinical diagnosis and a laboratory specimen identifying code.

In the past, reports have also contained additional relevant information on patient location and risk factors such as occupation, travel history or immunocompromisation, on an *ad hoc* basis. During 1992, most laboratories changed their report format to include a formal risk factor field, and reported location information routinely as postcode.

During 1992, the Scheme was broadened from the original 'viruses, chlamydias, coxiellas, rickettsias and mycoplasmas' to include other organisms, such as *Bordetella pertussis, Legionella* species, *Treponema pallidum* and *Toxoplasma gondii*, as diagnosed in virology and serology laboratories. At the same time, the *CDI* 'Pathogens' Reporting Scheme was discontinued, and reports from it were incorporated into the Virology and Serology Scheme or into LabDOSS (the *CDI* Laboratory Database or Organisms from Sterile Sites), as appropriate.

The laboratory reports published fortnightly in *CDI* are based on the date of reporting, that is, the date on which the reports are received by *CDI*. In contrast, this annual report is based on the date of specimen collection for each report. The data may therefore differ from those published fortnightly, but will more accurately reflect the time of occurrence of each reported case, as there can sometimes be significant delays between the time of specimen collection and the time of report.

The number of reports of the disease agents made in the Scheme is influenced by various factors, including the number, type and location of participating laboratories, and current diagnostic techniques and habits, as well as the actual occurrence of infections. These fac-

Table 1. Laboratory reports with 1992 specimen collection dates, by contributing laboratories and State or Territory

State or Territory	Laboratory	Reports
Australian Capital Territory	Woden Valley Hospital, Canberra	613
New South Wales	Institute of Clinical Pathology & Medical Research, Westmead	4132
	New England Pathology, Tamworth	151
	Prince Henry/Prince of Wales Hospitals, Sydney	1327
	Royal Alexandra Hospital for Children, Camperdown	845
	South Western Area Pathology Service, Liverpool	792
Queensland	Dr T B Lynch, Pathologist, Rockhampton	1540
	Queensland Medical Laboratory, West End	3750
	State Health Laboratory, Brisbane	5581
	Toowoomba Pathology Laboratory	17
South Australia	Institute of Medical and Veterinary Science, Adelaide	5195
Tasmania	Northern Tasmanian Pathology Service, Launceston	76
	Royal Hobart Hospital	273
Victoria	Victorian Infectious Diseases Reference Laboratory, Fairfield Hospital	4991
	Microbiological Diganostic Unit, University of Melbourne	318
	Royal Children's Hospital, Melbourne	2104
Western Australia	Princess Margaret Hospital, Perth	1385
	State Health Laboratory Services, Perth	5889
Total		38,833

tors must be taken into account and the data interpreted with caution.

Contributing laboratories

The reports for 1992 were contributed by 18 laboratories in all States and in the Australian Capital Territory

Table 2. Total laboratory reports by State or Territory[1], 1992

	State or Territory[1]								Total	Average 1989-91
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA		
MEASLES, MUMPS, RUBELLA										
Measles virus	4	39		42	89		21	9	204	182.0
Mumps virus		23		7	1		11	6	48	48.7
Rubella virus	10	51		384	35	1	149	123	753	376.0
HEPATITIS VIRUSES										
Hepatitis A virus	10	99		112	65		44	41	371	309.0
Hepatitis B virus	40	821	2	687	96	6	328	323	2303	2741.3
Hepatitis C virus	176	52		384	1088	67		836	2603	442.7
Hepatitis D virus				39				6	45	12.7
Hepatitis E virus							1		1	0
Non-A, non-B hepatitis (other)						7			7	8.3
ARBOVIRUSES										
Ross River virus		21	5	899	43	1	22	328	1319	1192.7
Barmah Forest virus		2	1	159			2	87	251	17.3
Dengue type 1				8				1	9	5.0
Dengue type 2				295				2	297	1.3
Dengue type 3				5					5	0.3
Dengue not typed				38			7	29	74	38.3
MVE virus				1					1	4.3
Kunjin virus				8				2	10	6.3
Flavivirus (unspecified)				27			19	1	47	25.7
ADENOVIRUSES										
Adenovirus type 1	1	62			16	2	30		111	119.3
Adenovirus type 2	1	74			12	1	41		129	157.3
Adenovirus type 3	1	47			26		22		96	162.3
Adenovirus type 4		25			62		16		103	65.0
Adenovirus type 5	2	18			11		7		38	46.7
Adenovirus type 6		3			4				7	12.7
Adenovirus type 7		1			2		1		4	15.3
Adenovirus type 8		1					32		33	38.0
Adenovirus type 9		6					1		7	8.3
Adenovirus type 10					1		1		2	6.3
Adenovirus type 11		5					6	1	12	33.3
Adenovirus type 12		3							3	2.3
Adenovirus type 19		1					19		20	8.0
Adenovirus type 22							1		1	2.7
Adenovirus type 28							1		1	6.0
Adenovirus type 30							2		2	8.7
Adenovirus type 34					2				2	0
Adenovirus type 35								1	1	3.3
Adenovirus type 37							3		3	5.0
Adenovirus type 40		6							6	1.3
Adenovirus type 46							3		3	1.0
Adenovirus type 47							2		2	0.7
Adenovirus not typed/pending	2	180		242	314		198	200	1136	799.3

Table 2. Total laboratory reports by State or Territory[1], 1992, continued

	State or Territory[1]									Average
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Total	1989-91
HERPES VIRUSES										
Herpes simplex virus type 1	9	289		958	525	24	1044	653	3502	3121.3
Herpes simplex virus type 2	7	611		1179	492	16	817	1208	4330	4339.0
Herpes simplex not typed/pending	123	510		55	8	1	57	71	825	1545.7
Herpes virus type 6		2							2	1.7
Cytomegalovirus	12	337		536	38	14	589	202	1728	1748.0
Varicella-zoster virus	11	149		192	36	2	134	160	684	469.3
Epstein-Barr virus	11	253		635	330	1	167	228	1625	1207.3
Herpes virus group - not typed	3			1	2		14	16	36	230.0
OTHER DNA VIRUSES										
Papovavirus group		7					3	1	11	9.0
Molluscum contagiosum				6				4	10	10.3
Contagious pustular dermatitis (Orf virus)		1						6	7	2.3
Parvovirus		3				3	163	9	178	9.7
PICORNA VIRUS FAMILY										
Coxsackievirus A9		14			1		4		19	29.0
Coxsackievirus A16		6		1			11	3	21	15.0
Coxsackievirus A untyped/pending		3							3	2.3
Coxsackievirus B1		20			1	1	27		49	3.3
Coxsackievirus B2		2							2	23.3
Coxsackievirus B3		2		2				2	6	22.7
Coxsackievirus B4	1							3	4	57.3
Coxsackievirus B5	2	14			6		15	28	65	23.7
Coxsackievirus B6					1				1	1.7
Coxsackievirus B untyped/pending							1		1	2.3
Echovirus type 1		1							1	4.0
Echovirus type 2		1							1	1.7
Echovirus type 4					1		13		14	16.7
Echovirus type 5		1			1				2	3.0
Echovirus type 6		3					4	78	85	14.0
Echovirus type 7		7		3	1		27		38	4.0
Echovirus type 8	1	1							2	0
Echovirus type 9	20	66			6		25	99	216	36.0
Echovirus type 11	1	5					7		13	37.0
Echovirus type 14	1	13					1		15	12.7
Echovirus type 16		2					7		9	4.7
Echovirus type 17		16			3		19		38	20.0
Echovirus type 18		1					2		3	5.7
Echovirus type 19					1		1		2	1.0
Echovirus type 20		2						1	3	0
Echovirus type 21							3	1	4	1.3
Echovirus type 22		5					6	2	13	17.7
Echovirus type 24								1	1	1.7
Echovirus type 25		23			1		7		31	7.0
Echovirus type 30							3		3	81.3
Echovirus type 31		1							1	0.3
Echovirus not typed/pending				1					1	5.0
Poliovirus type 1 (uncharacterised)		52			4	1	14		71	47.0

Table 2. Total laboratory reports by State or Territory[1], 1992, continued

	State or Territory[1]								Total	Average 1989-91
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA		
Poliovirus type 2 (uncharacterised)		36			5		3	1	45	51.3
Poliovirus type 3 (uncharacterised)		26		2	2		2		32	29.3
Poliovirus not typed/pending		36						1	37	91.0
Rhinovirus (all types)	6	118		101	16	3	367	72	683	627.3
Enterovirus type 71 (BCR)	2	2					11		15	12.7
Enterovirus not typed/pending		136		334	5	1	141	172	789	651.0
ORTHO/PARAMYXOVIRUSES										
Influenza A virus	21	122		174	442	3	127	255	1144	215.3
Influenza A virus H_1N_1		1		3	2		2		8	2.3
Influenza A virus H_3N_2	2	42		15	1		110		170	78.0
Influenza B virus		13		11	49		5	48	126	294.7
Influenza virus - typing pending				1					1	5.3
Parainfluenza virus type 1	2	39		27	41		112	60	281	168.3
Parainfluenza virus type 2		3		8	9		31	9	60	127.0
Parainfluenza virus type 3	13	86		152	49	1	160	93	554	508.0
Parainfluenza virus typing pending	3	2					67	8	80	66.3
Respiratory syncytial virus	60	875		563	378	114	941	623	3554	2917.7
Paramyxovirus (unspecified)								1	1	1.3
OTHER RNA VIRUSES										
HIV-1		1		12				32	45	61.3
HTLV-1								2	2	3.7
Rotavirus		803		395	301	60	286	289	2134	2070.3
Astrovirus		13						1	14	18.0
Reovirus (unspecified)		2					8	2	12	9.3
Calici virus		19							19	25.7
Norwalk agent		1					4	1	6	18.0
Coronavirus		21					5		26	19.0
Small virus (like) particle		42					13	9	64	46.7
OTHER										
Chlamydia trachomatis - A-K				9	1	1			11	19.7
Chlamydia trachomatis not typed	63	352		839	407	22	198	682	2563	3053.7
Chlamydia pneumoniae					5		9		14	0.7
Chlamydia psittaci	2	6		8	4		77		97	105.7
Chlamydia species typing pending		4			6				10	0.3
Chlamydia species		4			1			1	6	0
Mycoplasma pneumoniae	7	494		445	137		365	131	1579	495.3
Mycoplasma hominis				1	1		2		4	0.7
Coxiella burnetii (Q fever)		104		128	8		24	6	270	239.0
Rickettsia australis				7			1		8	0
Rickettsia - Spotted fever group						1	20		21	0
Rickettsia species - other							2		2	2.3
Streptococcus group A		12		61					73	0
Streptococcus group B		2		3					5	0
Streptococcus species		7		43					50	0
Thermoactinomyces species				1					1	0
Yersinia enterocolitica				5					5	0
Brucella species				15					15	0
Bordetella pertussis		3		13			4		20	0

Table 2. Total laboratory reports by State or Territory[1], 1992, continued

	State or Territory[1]									Average
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Total	1989-91
Bordetella species		1		72					73	0
Legionella pneumophila				1					1	0
Legionella longbeachae				1					1	0
Legionella species				3					3	0
Cryptococcus species		2		11					13	0
Leptospira canicola				1					1	0
Leptospira icterohaemorrhagiae				2					2	0
Leptospira pomona				5					5	0
Leptospira hardjo				8					8	0
Leptospira australis				2					2	0
Leptospira species		2		8					10	0
Treponema pallidum		70		197					267	0
Entamoeba histolytica				3					3	0
Toxoplasma gondii				26			9		35	0
Echinococcus granulosus				7					7	0
TOTAL	630	7465	8	10629	5195	354	7281	7271	38833	32243.3

1. State or Territory of postcode, if reported, otherwise State or Territory of reporting laboratory.

(Table 1). In 1992 the South Western Area Pathology Service, Liverpool, New South Wales, Queensland Medical Laboratory, West End, Queensland and the Northern Tasmanian Pathology Service, Launceston, Tasmania contributed for the first time.

Total reports

There was a total of 38,833 reports with 1992 specimen collection dates, more than ever previouly received in the Scheme (Figure 1, Table 2) and reflecting the participation of the three new laboratories in 1992. The extent of the increase attributable to the new laboratories is not able to be accurately determined, as some cases reported by them would have previously been reported by reference laboratories. The broadening of the Scheme to include additional organisms resulted in an extra 600 reports.

Seasonality

The reports showed a seasonal trend (Figure 2), with the most reports for specimens collected between June and November. This corresponded with seasonal peaks in the number of reports of respiratory syncytial virus (June-July), influenza A (June-July), rotavirus (September), *Mycoplasma pneumoniae* (September-Octo-

Figure 1. Total laboratory reports, by year of specimen collection, 1982 to 1992

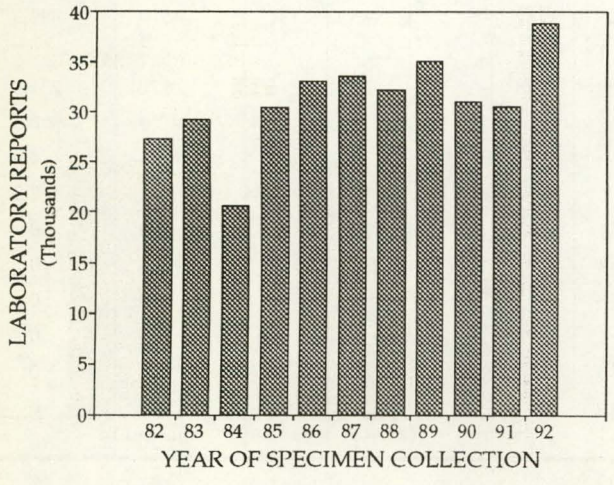


Figure 2. Total laboraotry reports, 1992, by month of specimen collection

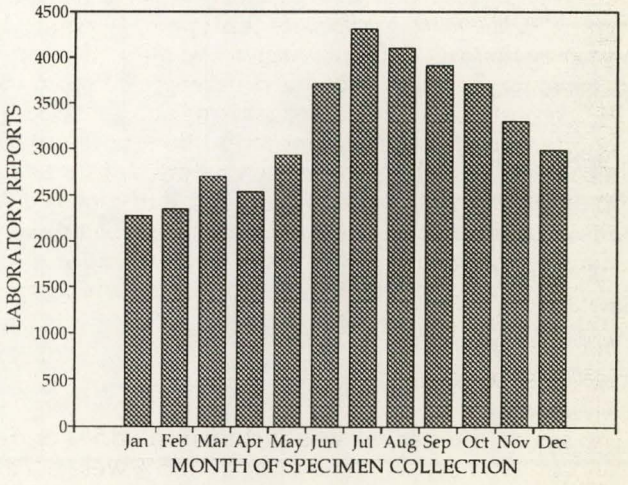
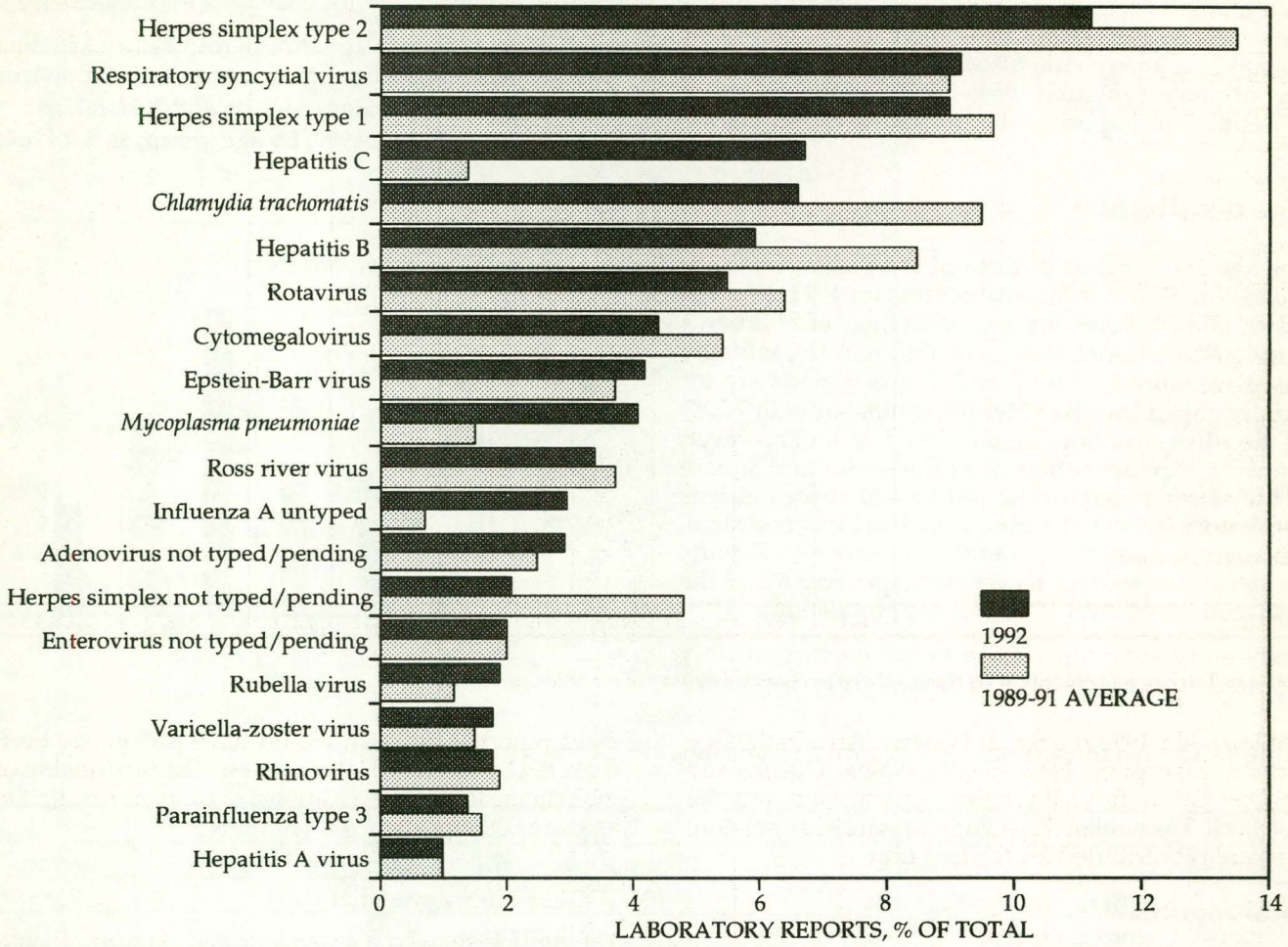


Figure 3. The top 20 organisms reported, 1992 and 1989-91 average, as % of total reports



ber), rhinoviruses (October) and rubella virus (October-November).

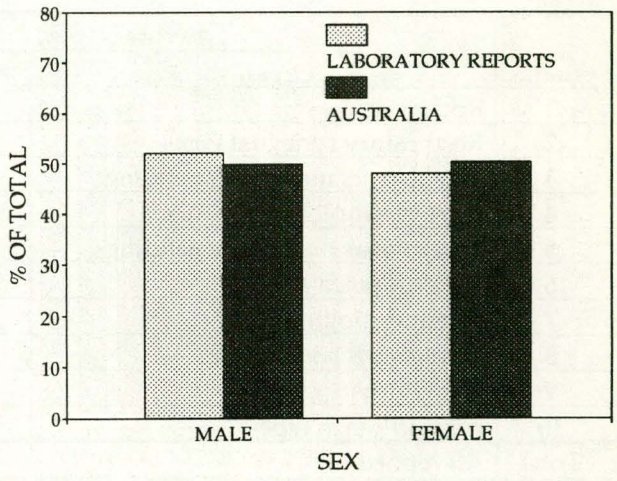
The top 20 organisms

Reports of the 20 most commonly reported organisms comprised 34,179 or 88.0% of the reports, compared with an average of 89.5% for 1989-91 (Figure 3). As for the average for the 3 years 1989 to 1991, the most commonly reported organism in 1992 was herpes simplex type 2. Respiratory syncytial virus, herpes simplex type 1, *Chlamydia trachomatis* (untyped), hepatitis B, cytomegalovirus and rotavirus were all in the top 7 organisms reported. Notable differences between the 1992 reports of the top 20 organisms and the 1989-91 reports were the much larger proportions of reports of hepatitis C (which has only been reported since 1990), *Mycoplasma pneumoniae* and influenza A untyped (1992 was an epidemic year for influenza A). There were smaller proportions of reports of herpes simplex type 2, *Chlamydia trachomatis* untyped, hepatitis B and herpes simplex not typed/pending.

Sex distribution

The sex of the patient was included in 98.5% of the reports. Of those with known sex, 51.95% were males, compared with 49.83% of the Australian population (Figure 4) (Australian population data used are Australian Bureau of Statistics' preliminary estimated resident population at 30 June 1992.) This reflects the facts that males comprise a larger proportion of the younger population of Australia (for example, 51.28%

Figure 4. Total laboratory reports and Australian population, 1992, by sex, as % of total



of persons aged less than 5 years), and that a disproportionately high proportion of children's hospital laboratories is possibly involved in the Scheme. It also reflects the higher attack rates known to be experienced by males for many viral diseases, and the larger number of males infected with HIV, and thus more susceptible to opportunistic infections with other viruses.

Age distribution

The age and/or date of birth of the patient was provided with 96.0% of the total reports for 1992. The age distribution reflects the representation of children's hospital laboratories in the Scheme (Figure 5), as for the sex distribution. A total of 29.1% of reports are for children aged less than 5 years, compared with 7.32% of the Australian population. Children are, however, known to experience high rates of infection and disease as they are exposed for the first time to viruses such as respiratory syncytial virus, rotavirus, enteroviruses, adenoviruses and the parainfluenza viruses. Reports for persons aged over 65 years comprised 3.5% of the total, compared with 11.47% of the population.

Respiratory syncytial virus was the most commonly reported virus for children in the age group less than 1 month (Table 3). Rotavirus was also common, as were organisms which are acquired congenitally or perinatally (cytomegalovirus, *Chlamydia trachomatis*).

In the 1 to 11 month age group, respiratory syncytial virus was the most commonly reported and rotavirus,

Figure 5. Total laboratory reports and Australian population, 1992, by age group, as % of total

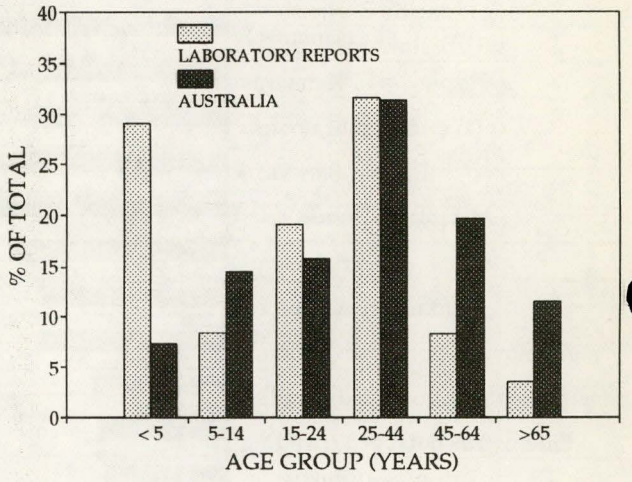


Table 3. The ten most frequently reported organisms, 1992, by age group[1]

	< 1 month		1-11 months	
Rank	Organism	Reports	Organism	Reports
1	Respiratory syncytial virus	106	Respiratory syncytial virus	2385
2	Cytomegalovirus	34	Rotavirus	610
3	Rotavirus	24	Cytomegalovirus	394
4	*Chlamydia trachomatis* not typed	19	Adenovirus not typed/pending	367
5	Enterovirus not typed	18	Rhinovirus	357
6	Adenovirus not typed	11	Enterovirus not typed/pending	322
7	Rhinovirus	7	Parainfluenza type 3	294
8	Parainfluenza type 3	5	Parainfluenza type 1	84
9			Influenza A untyped	73
10			Herpes simplex type 1	62
Total	All reports	279	All reports	5713

	1-4 years		5-14 years	
Rank	Organism	Reports	Organism	Reports
1	Rotavirus	1219	*Mycoplasma pneumoniae*	666
2	Respiratory syncytial virus	800	Herpes simplex type 1	332
3	Adenovirus not typed/pending	404	Epstein-Barr virus	326
4	Herpes simplex type 1	359	Rubella virus	156
5	Enterovirus not typed/pending	231	Influenza A untyped	135
6	Parainfluenza type 3	181	Rotavirus	131
7	Cytomegalovirus	180	Hepatitis B virus	118
8	*Mycoplasma pneumoniae*	169	Adenovirus not typed/pending	103
9	Rhinovirus	158	Respiratory syncytial virus	88
10	Parainfluenza type 1	154	Varicella-zoster virus	85
Total	All reports	4861	All reports	3118

Table 3. The ten most frequently reported organisms, 1992, by age group[1], continued

	15-24 years		25-44 years	
Rank	Organism	Reports	Organism	Reports
1	*Chlamydia trachomatis* not typed	1450	Herpes simplex type 2	2452
2	Herpes simplex type 2	1098	Hepatitis C virus	2004
3	Herpes simplex type 1	1000	Hepatitis B virus	1186
4	Epstein-Barr virus	809	Herpes simplex type 1	1051
5	Hepatitis B virus	505	*Chlamydia trachomatis* not typed	779
6	Rubella virus	339	Ross River virus	697
7	Hepatitis C virus	319	Cytomegalovirus	524
8	*Mycoplasma pneumoniae*	192	*Mycoplasma pneumoniae*	393
9	Ross River virus	154	Herpes simplex not typed	254
10	Cytomegalovirus	145	Epstein-Barr virus	243
Total	All reports	7133	All reports	11760

	45-64 years		65-74 years	
Rank	Organism	Reports	Organism	Reports
1	Herpes simplex type 2	449	Influenza A untyped	165
2	Herpes simplex type 1	360	Herpes simplex type 1	117
3	Ross River virus	340	Varicella-zoster virus	70
4	Cytomegalovirus	273	Herpes simplex type 2	65
5	Hepatitis B virus	246	Hepatitis B virus	42
6	Influenza A untyped	216	Ross River virus	42
7	Hepatitis C virus	124	Hepatitis C virus	41
8	Herpes simplex not typed	90	Cytomegalovirus	36
9	Varicella-zoster virus	88	Herpes simplex not typed	22
10	Barmah Forest virus	88	Respiratory syncytial virus	22
			Mycoplasma pneumoniae	22
Total	All reports	3103	All reports	826

	> 75 years	
Rank	Organism	Reports
1	Influenza A untyped	114
2	Herpes simplex type 1	64
3	Varicella-zoster virus	55
4	Herpes simplex type 2	27
5	Respiratory syncytial virus	24
6	Hepatitis B virus	21
	Hepatitis C virus	21
	Cytomegalovirus	21
9	Ross River virus	16
10	*Mycoplasma pneumoniae*	13
Total	All reports	470

1. Only organisms reported for 5 or more patients in an age group.

cytomegalovirus, adenoviruses, enteroviruses and parainfluenza type 3 were also common.

Rotavirus became the most common report for children aged from 1 to 4 years, but respiratory syncytial virus, adenoviruses and enteroviruses were also common. Herpes simplex type 1 was the tenth most common report in the 1 to 11 month age group, but the fourth most common in the 1 to 4 year age group. *Mycoplasma pneumoniae* was the eighth most common report for this age group.

In the 5 to 14 years age group, *Mycoplasma pneumoniae* was the most common, followed by herpes simplex type 1. Epstein-Barr virus, rubella virus, hepatitis B virus and varicella-zoster virus were in the top ten for the 5 to 14 year age group, but not for younger age groups.

In the 15 to 24 year age group, agents which are sexually transmissible were the top 3 organisms reported: *Chlamydia trachomatis*, herpes simplex type 2 and herpes simplex type 1. Epstein-Barr virus, hepatitis B, hepatitis C and rubella virus were also commonly reported.

Sexually transmissible organisms also dominated in the 25 to 44 years age group: herpes simplex types 1, 2 and untyped, hepatitis B, *Chlamydia trachomatis* and cytomegalovirus. Hepatitis C and Ross River virus were also common.

In the 45 to 64 year age group, the herpes simplex were important again, as was Ross river virus, cytomegalovirus, hepatitis B and C and influenza A untyped. Varicella-zoster virus and Barmah Forest virus also featured inthe top 10.

In the older adult groups (65 to 74 years, and 75 years), influenza A untyped herpes simplex types 1 and 2 and varicella-zoster virus comprised the top 4. Respiratory syncytial virus and *Mycoplasma pneumoniae* were also included inthe top 10, as for the age groups under 14 years.

Clinical diagnoses

Information on the clinical diagnosis was provided for 32,227 reports (83.0%) in 1992. For 2122 of these, the reported diagnosis was 'other', for 1154 it was general malaise and/or mild fever, for 342 it was PUO or high fever and for 405 it was healthy/screening/no illness. For the remaining 28,204 reports, skin and/or mucous membrane disease was the most commonly reported clinical diagnosis (Table 4), with 5857 reports. Herpes

Table 4. The ten most frequently reported organisms, by frequently reported clinical diagnoses, 1992[1]

	Skin and/or mucous membrane disease		Lower respiratory tract disease	
Rank	Organism	Reports	Organism	Reports
1	Herpes simplex type 1	2078	Respiratory syncytial virus	2339
2	Herpes simplex type 2	1853	*Mycoplasma pneumonia*	831
3	Varicella-zoster virus	510	Influenza A untyped	492
4	Herpes simplex not typed	383	Rhinovirus	281
5	Rubella virus	313	Cytomegalovirus	263
6	Measles virus	138	Parainfluenza type 3	222
7	Ross River virus	122	Adenovirus not typed/pending	186
8	Enterovirus not typed/pending	37	Parainfluenza type 1	95
9	Epstein-Barr virus	35	Influenza A H_3N_2	78
10	Barmah Forest virus	33	*Chlamydia psittaci*	77
Total	All reports	5857	All reports	5373

	Genital disease		Upper respiratory tract disease	
Rank	Organism	Reports	Organism	Reports
1	Herpes simplex type 2	2277	Respiratory syncytial virus	831
2	*Chlamydia trachomatis* not typed	1961	Rhinovirus	283
3	Herpes simplex type 1	835	Parainfluenza type 3	257
4	Herpes simplex not typed	117	Adenovirus not typed/pending	205
5	*Treponema pallidum*	30	Enterovirus not typed/pending	203
6	Cytomegalovirus	10	Cytomegalovirus	199
7	*Chlamydia trachomatis* A-K	7	Influenza A untyped	166
8	Herpes group not typed	5	Herpes simplex type 1	154
9			Epstein-Barr virus	141
10			Parainfluenza type 1	129
Total	All reports	5262	All reports	2961

	Gastrointestinal disease		Hepatitis	
Rank	Organism	Reports	Organism	Reports
1	Rotavirus	1880	Hepatitis B virus	766
2	Adenovirus not typed/pending	385	Hepatitis C virus	642
3	Enterovirus not typed/pending	187	Hepatitis A virus	225
4	Small virus (like) particle	58	Cytomegalovirus	66
5	Cytomegalovirus	33	Epstein-Barr virus	46
6	Adenovirus type 2	33	Hepatitis D virus	40
7	Adenovirus type 1	32		
8	Poliovirus not typed	27		
9	Adenovirus type 3	23		
10	Coronavirus	16		
Total	All reports	2890	All reports	1922

Table 4. The ten most frequently reported organisms, by frequently reported clinical diagnoses, 1992[1], continued

Rank	Muscle/joint disease		Eye disease	
	Organism	Reports	Organism	Reports
1	Ross River virus	512	Herpes virus type 1	148
2	Barmah Forest virus	67	*Chlamydia trachomatis* untyped	72
3	Parvovirus	28	Adenovirus not typed/pending	64
4	Rubella virus	22	Adenovirus type 4	52
5	Epstein-Barr virus	21	Cytomegalovirus	47
6	Dengue 2	15	Adenovirus type 8	32
7	Influenza A untyped	10	Adenovirus type 3	28
8	Cytomegalovirus	9	Adenovirus type 19	20
9	*Mycoplasma pneumoniae*	8	Herpes simplex not typed	14
10	*Coxiella burnetti* (Q fever)	7	Herpes simplex type 2	5
			Enterovirus not typed	5
Total	All reports	739	All reports	509

Rank	Meningitis		Reticuloendothelial disease	
	Organism	Reports	Organism	Reports
1	Echovirus type 9	150	Epstein-Barr virus	330
2	Echovirus type 6	63	Cytomegalovirus	35
3	Enterovirus not typed/pending	59	Rubella virus	22
4	Coxsackievirus type B5	30	Mumps virus	8
5	Echovirus type 17	23	Adenovirus not typed/pending	8
6	Echovirus type 7	22	Ross River virus	7
7	Coxsackievirus type A9	11	Herpes simplex type 2	6
8	Coxsackievirus type B1	11	Herpes simplex not typed	6
9	Herpes simplex not typed	10	Herpes simplex type 1	5
10	Influenza A not typed	10	*Mycoplasma pneumoniae*	5
Total	All reports	480	All reports	458

1. Only organisms with 5 or more reports of a diagnosis have been included.

simplex types 1, 2 and untyped were the organisms most commonly reported, with varicella-zoster virus, rubella, measles and Ross River virus.

Lower respiratory tract disease was the second most common clinical diagnosis, with 5373 reports. Respiratory syncytial virus, *Mycoplasma pneumoniae*, influenza A H_3N_2 and untyped, rhinovirus, parainfluenza viruses, cytomegalovirus, adenoviruses and *Chlamydia psittaci* were commonly reported.

Genital disease was the third most commonly reported syndrome with 5262 reports. Identifications of herpes group viruses, *Chlamydia trachomatis* and *Treponema pallidum* were the most frequently reported for cases of genital disease.

There were 2961 reports of upper respiratory tract disease. The most common organisms in this group were respiratory syncytial virus, rhinovirus, parainfluenza type 3 and untyped adenoviruses andenteroviruses.

Gastrointestinal disease (excluding hepatitis) was reported for 2890 cases. It was most often associated with rotavirus, adenoviruses, enteroviruses and small virus (like) particles.

A total of 1922 of the reports were of clinically diagnosed hepatitis. Hepatitis B was the most commonly reported diagnosis, followed by hepatitis C and hepatitis A.

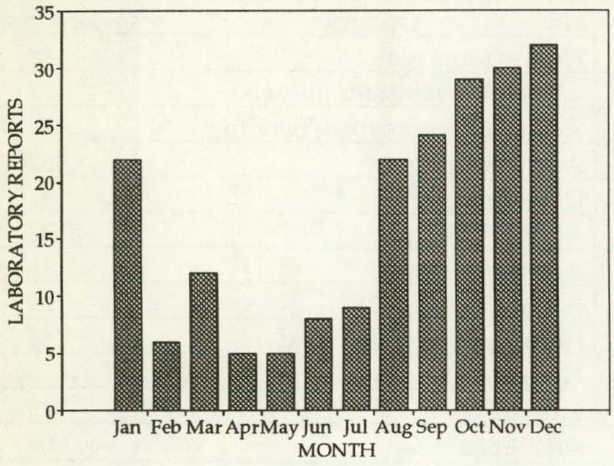
Muscle/joint disease was the next most common report (739 cases). Ross River virus, Barmah Forest virus, parvovirus and rubella were the most commonly reported organisms for this group.

The 509 eye disease reports were most commonly associated with herpes group viruses, several adenoviruses and *Chlamydia trachomatis* untyped.

Meningitis was reported for 480 patients. The causative organism was identified as echovirus type 9 for 150, echovirus type 6 for 63 and as other enteroviruses for 199.

Reticuloenduothelial disease was the tenth most common report (458 cases). Epstein-Barr virus was identified for 330 of these and cytomegalovirus for 35.

Figure 6. Measles laboratory reports, 1992, by month of specimen collection



Reports by organism

The remainder of this report comprises selected details for the organisms and/or organism groups included in the Scheme, presented in the same order as in Table 2.

Measles, mumps, rubella

Measles virus

The number of measles reports (204) was higher than the average for 1989-91, but not as high as for 1991 (256). There was a seasonal peak in spring-summer (Figure 6). Most of the reports were from South Australia (89), Queensland (42) and New South Wales (39). The largest number of reports (71) was in the age group 5 to 14 years and 25 of the reports were in infants aged less than 12 months (Figure 7). The male:female ratio was 1:1.32. Skin disease was the most commonly reported and there were 3 cases of SSPE and one of meningitis

Figure 7. Measles laboratory reports, 1992, by age group and sex

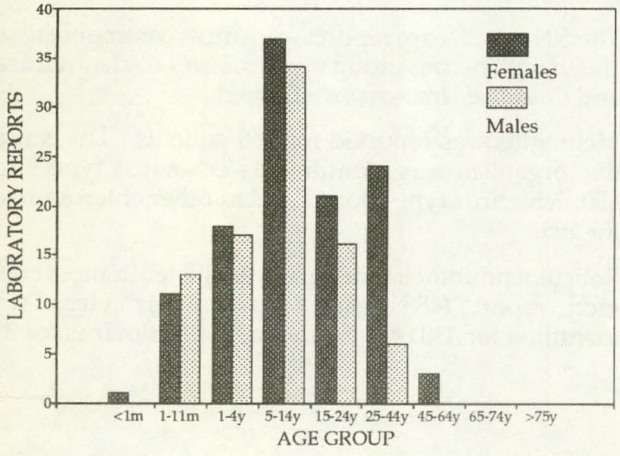
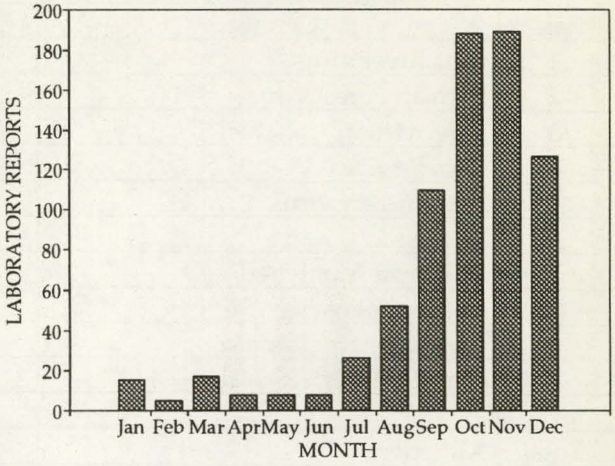


Figure 8. Rubella laboratory reports, 1992, by month of specimen collection



reported. There were 6 measles virus isolations, 10 antigen detections and 188 serological diagnoses.

Mumps virus

Mumps virus was reported for 48 patients, in all age groups. Two cases of encephalitis, 4 of meningitis and one of other CNS symptoms were reported. The virus was isolated from 2 patients; the other diagnoses were serological.

Rubella virus

There was a large increase in the number of rubella reports during 1992 and a seasonal peak in October-November (Figure 8), reflecting peaks in reports from New South Wales, Queensland, Victoria and Western Australia. The largest numbers of reports were received for young adult males (who would not have been vaccinated) and in women of child-bearing age (in whom infection is likely to be detected more often, in connection with antenatal screening; Figure 9). The sex ratio overall was male:female 1:0.50. A total of 142 reports

Figure 9. Rubella laboratory reports, 1992, by age group and sex

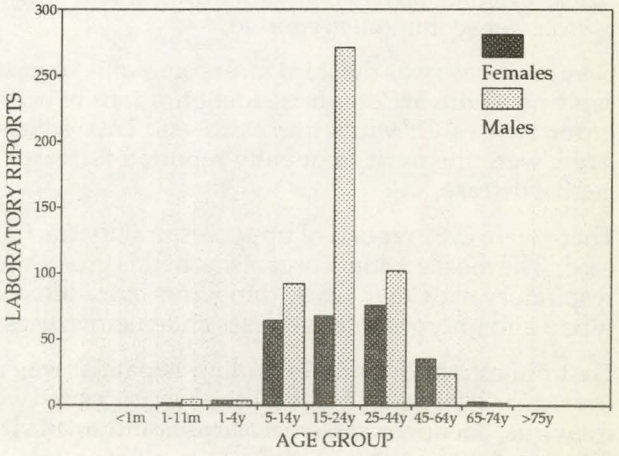
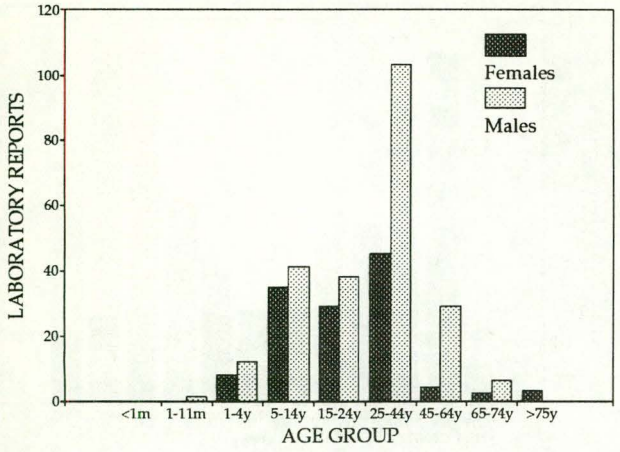


Figure 10. Hepatitis A laboratory reports, 1992, by month of specimen collection



were for females in the 15 to 44 year age group, including 2 for whom viral isolation from conception products was reported (one after a termination), 3 other pregnant females and one female whose baby had been still born with myocarditis. Skin manifestations were the most common clinical feature (313 cases), and there were 22 cases with muscle/joint manifestations, 2 with encephalitis and one with meningitis reported. Diagnosis was on the basis of virus isolation for 24 patients and serology for the others.

Hepatitis viruses

Hepatitis A virus

Hepatitis A was reported for 371 patients. There was a slight seasonal peak over the spring months (Figure 10). The largest number of reports was received for the 25 to 44 year age group and the M:F ratio was 1:0.55 (Figure 11), higher than the 1:0.41 recorded for the reports for 1991, when there were outbreaks in male homosexual communities in several States.

Figure 11. Hepatitis A laboratory reports, 1992, by age group and sex

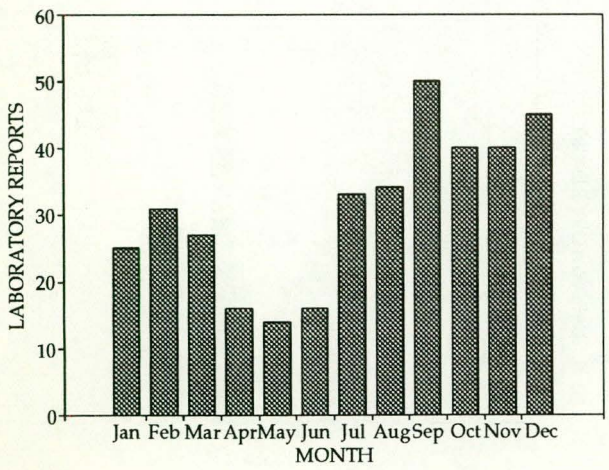
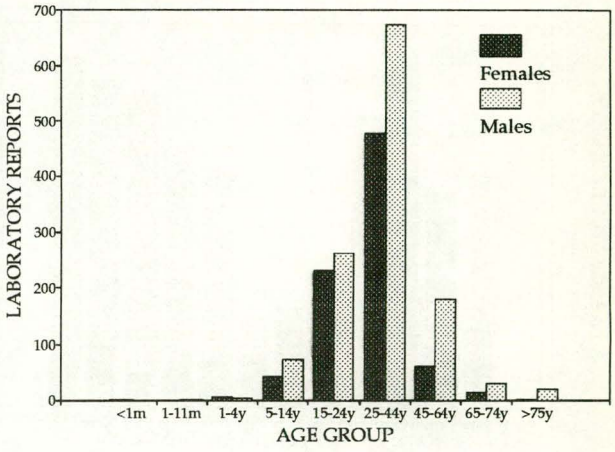


Figure 12. Hepatitis B laboratory reports, 1992, by age group and sex



Hepatitis B virus

Most of the reports of this virus are based on detection of hepatitis B surface antigen (HBsAg), so little is known about whether reported cases are new or chronic infections. A total of 2303 reports was received. The male:female ratio was 1:1.66, and the largest numbers of cases were reported for the age groups 25 to 44 years (1186 cases) and 15 to 24 years (505 cases; Figure 12). There were 3 cases detected in infants aged less than one month and 65 in pregnant women.

Hepatitis C virus

Hepatitis C was reported for the first time only in 1990 and the number of reports has been increasing since. As the hepatitis C tests cannot distinguish between new and old infections, some laboratories have not reported their hepatitis C results. The male:female ratio of the reports was 1:0.61, and 2004 (77.0%) were in persons in the age group 25 to 44 years (Figure 13). Injecting drug use was reported a a risk factor for 242 patients, and 12 patients were pregnant.

Figure 13. Hepatitis C laboratory reports, 1992, by age group and sex

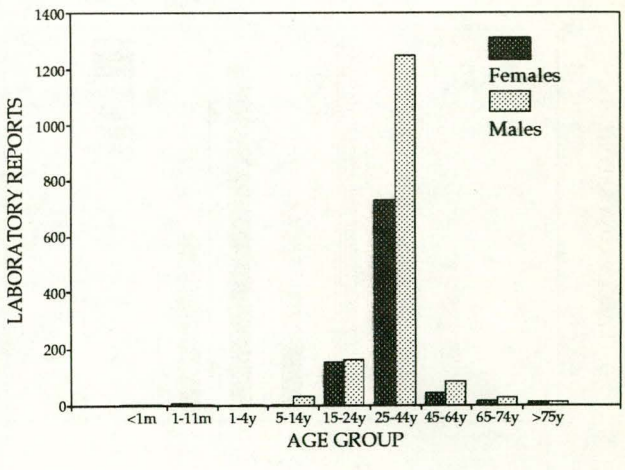


Figure 14. Ross River virus laboratory reports, 1992, by month of specimen collection

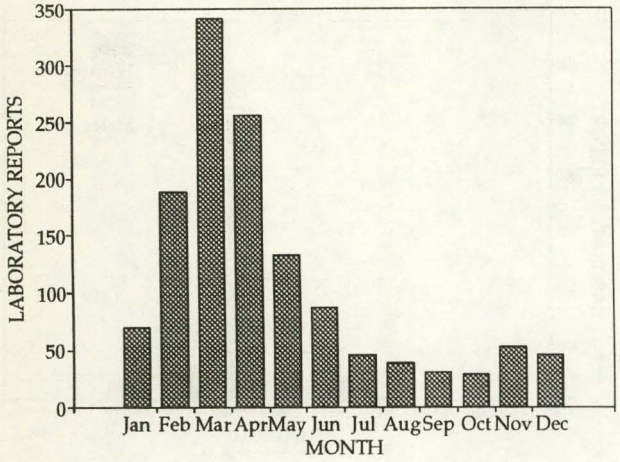
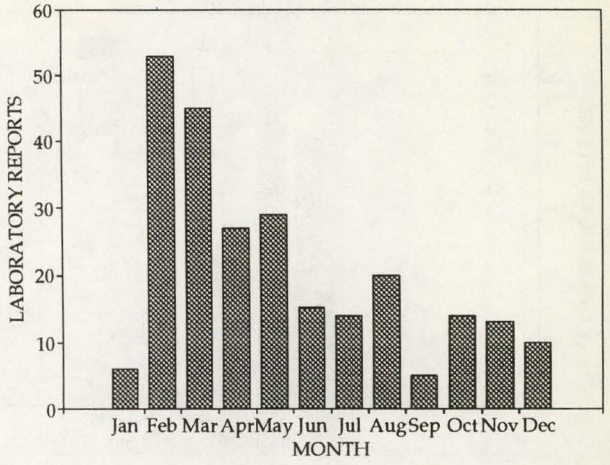


Figure 16. Barmah Forest virus laboratory reports, 1992, by month of specimen collection



Hepatitis D virus

Hepatitis D virus was reported for 45 patients, 38 males, 5 females and 2 males. Thirty-nine were in the age group 25 to 44 years.

Hepatitis E virus

Hepatitis E was reported to the *CDI* Laboratory Reporting Scheme for the first time in 1992. The patient was a 10 year old male who had a history of overseas travel. The diagnosis was by demonstration of hepatitis E particles in faeces by electron microscopy and rising titres of IgG.

Hepatitis A (non-A, non-B, other)

This report was received for 7 patients, 5 males and 2 females.

Arboviruses

Ross River virus

More Ross River virus reports (1319) were received than in any year since 1989. There was an overall seasonal peak in March (Figure 14), reflecting peaks in Queensland in March-April and Western Australia in February-March. Most diagnoses were presumptive (IgM); only 17 were confirmed (fourfold change in titre). Reports were received for patients in all age groups over the age of 1 year (Figure 15). Most (697 or 52.8%) were in the 25 to 44 years age group. The male:female ratio was 1: 1.09. Skin disease was reported for 122 patients, muscle/joint disease for 512 and general malaise/fever for 124.

Barmah Forest virus

Barmah Forest virus was reported for 251 patients, a large increase over the 36 in 1991. Most were in the age groups 25 to 64 years (Figure 16) and the male:female ratio was 1:1.26. There was a seasonal peak in reports in autumn (Figure 17), with peaks in Queensland in March-April and in the Northern Territory in February-March. Twenty-three diagnoses were confirmed (fourfold change). Sixty-seven patients reported muscle/joint disease, 33 skin disease and 24 general malaise/fever.

Figure 15. Ross River virus laboratory reports, 1992, by age group and sex

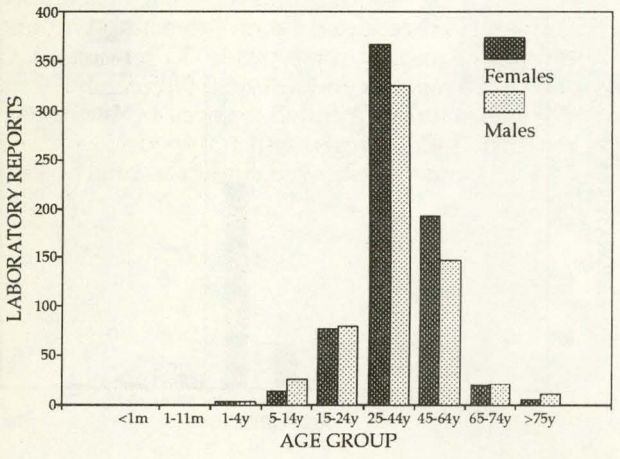


Figure 17. Barmah Forest virus laboratory reports, 1992, by age group and sex

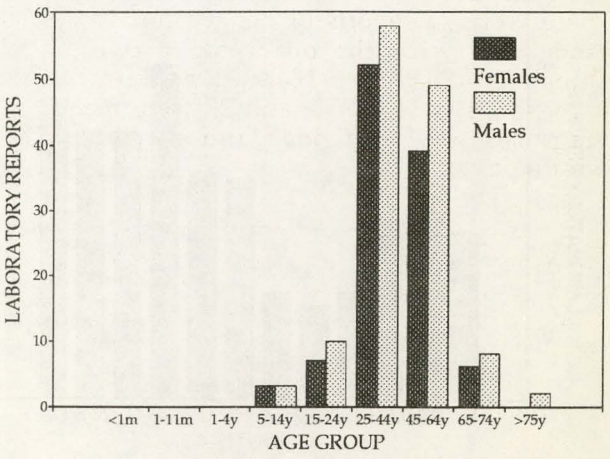


Figure 18. Dengue 2 and dengue untyped laboratory reports, 1992, by month of specimen collection

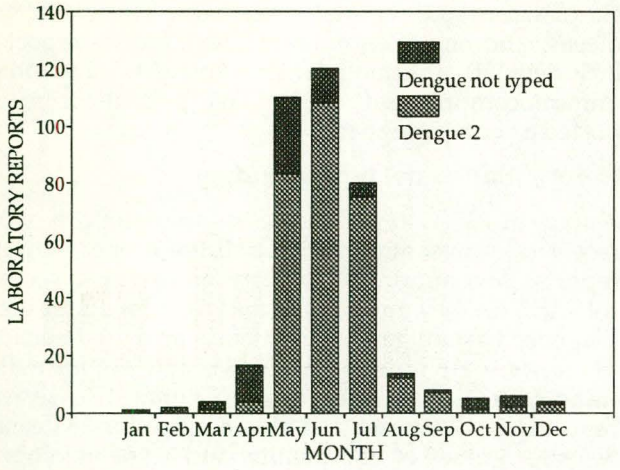
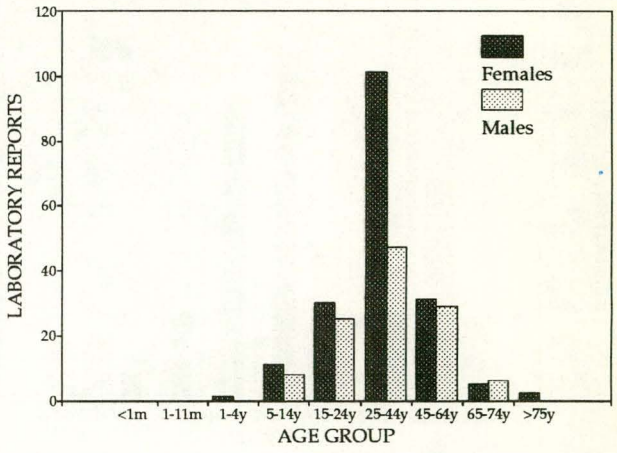


Figure 19. Dengue 2 laboratory reports, 1992, by age group and sex



Dengue 1

Dengue 1 was reported for 9 patients, 4 females and 5 males. None of the infections was known to have been acquired in Australia. All were diagnosed by demonstration of IgM.

Dengue 2

There was a large outbreak of dengue 2 in and around Townsville in northern Queensland in the middle of 1992 (Figure 18). This was the first outbreak of dengue in Australia since 1981-82, when dengue 1 had been the causative strain. A total of 297 cases were reported, all but one presumptive. Most reports were for patients in the 15 to 63 years age groups, and the male:female ratio was 1:1.58 (Figure 19). Muscle/joint disease was reported for 15 patients, skin disease for 19 amd general malaise/fever for 52.

Dengue 3

Five reports of dengue 3 were received, 4 male and 1 female. None were known to have been acquired in Australia. All were diagnosed by demonstration of IgM.

Dengue not typed

There were 74 reports of dengue not typed, most associated with the outbreak of dengue 2 in Queensland (Figure 18) and peaking in May. Forty-seven were female and 27 were males. One diagnosis was confirmed and the others were presumptive.

Kunjin virus

Ten reports of Kunjin virus were received, 8 from Queensland and 2 from Western Australia. All were presumptive. Five were males and five were females, all in age groups over the age of 15 years.

Flavivirus (untyped)

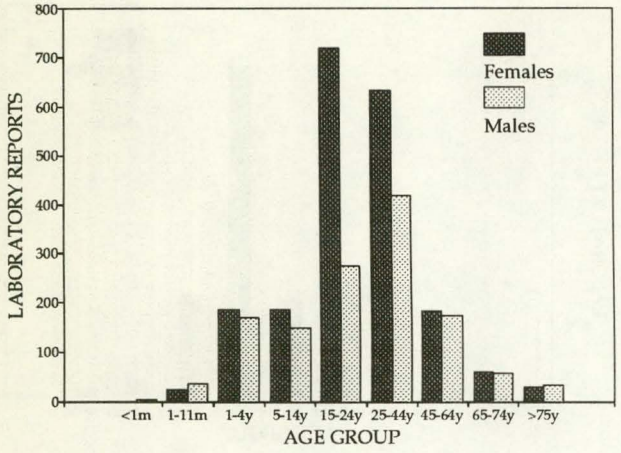
There were 47 reports of untyped flavivirus, with 27 reported from Queensland and 19 from Victoria. Thirteen were known to have had a history of overseas travel, and 16 to have come from the Townsville area. All but 2 were presumptive diagnoses. Muscle/joint disease was reported for 4 of the patients and general malaise/fever for 13. Encephalitis was reported for one patient. All the patients were over the age of 14 years.

Adenoviruses

A total of 1722 reports of adenoviruses was received, and of these, 586 (34.0%) were typed. Overall, there were 983 reports in males and 716 reports in females (ratio 1:0.73). Type 2 was the most commonly reported type (129 or 22.0% of those typed), followed by type 1 (111 or 18.9%) and type 3 (103 or 17.6%).

Respiratory symptoms were caused mainly by types 2 (48 reports), 1 (39 reports), 3 (23 reports), 4 (23 reports) and untyped (391 reports). Gastrointestinal symptoms were reported mostly for types 2 (33 reports), 1 (32 reports), 3 (23 reports) and untyped (385 reports). Eye disease was mainly attributed to types 4 (52 reports), 8 (32 reports), 3 (28 reports) and untyped (64 reports). Types 1, 2, 3 and 4 all showed slight seasonal peaks in spring.

Figure 20. Herpes simplex type 1 laboratory reports, 1992, by age group and sex



Herpes viruses

Herpes simplex type 1

A total of 3502 reports of herpes simplex type 1 was received, 1356 for males and 2116 for females (ratio 1:1.56). Reports occurred for persons in all age groups (Figure 20), with the highest numbers in the 15 to 44 years age groups. Skin disease was reported most commonly (2078 reports), followed by genital disease (835 reports), respiratory tract disease (200 reports) and eye disease (148 reports). There were 2 cases of meningitis and 1 of encephalitis reported. Risk factors reported were HIV infection (18), transplant (17), malignancy (5) and other immunocompromisation (4).

Herpes simplex type 2

Herpes simplex type 2 was reported for 4330 patients, 2537 females and 1738 males (ratio 1:1.46). All age groups were represented, but most reports (3550 or 82.0%) were in the 15 to 44 years age group (Figure 21). There were 4 reports in infants aged less than 1 month and 10 in infants 1 to 11 months. Genital disease was reported most commonly (2277 reports), followed by skin disease (1853 reports). There were 5 reports of eye disease and one of encephalitis. Risk factors reported included HIV infection (6), transplant (2) and other immunocompromisation (2). Five patients were reported as being pregnant.

Herpes simplex not typed/pending

A total of 825 untyped herpes simplex reports were received, representing 9.5% of all the herpes simplex reports. One hundred and forty were diagnosed serologically, 660 were isolated and the remainder were diagnosed by antigen (22) or nucleic acid (3) detection. There were 418 reports for females and 374 for males (ratio 1:1.12), in all age groups. Genital disease was reported for 117 cases and skin disease for 383 cases. Seventeen cases of encephalitis and 10 of meningitis were reported.

Cytomegalovirus

There were 1728 reports of cytomegalovirus in 1992. Most reports were in males (1027, compared with 681 in females; ratio 1:0.66). Cases occurred in all age groups (Figure 22), with larger numbers in both the 1 to 11 month age group (394 reports) and in the 25 to 44 year group (524 reports). Respiratory symptoms were reported for 462 cases, genital for 10, hepatic for 66, reticuloendothelial for 35 and eye disease for 47 cases. Congenital infection was reported for 80 children. Reported risk factors were HIV infection (190), transplant (69), other immunocompromisation (10), and 22 patients were pregnant. Isolations were made for 1114 diagnoses, there were 21 diagnoses by antigen detection and 593 by serology.

Figure 21. Herpes simplex type 2 laboratory reports, 1992, by age group and sex

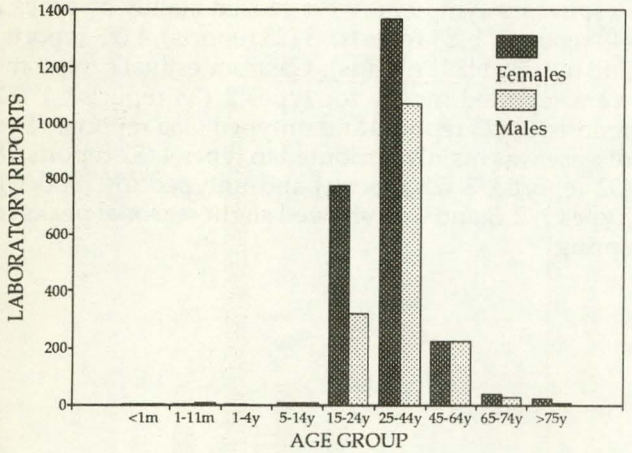


Figure 22. Cytomegalovirus laboratory reports, 1992, by age group and sex

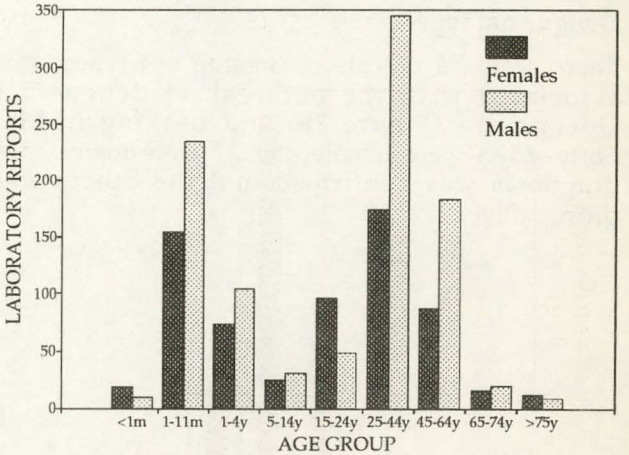
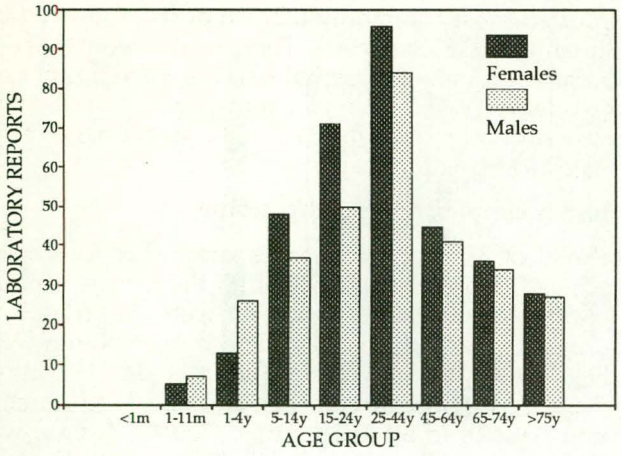


Figure 23. Varicella-zoster virus laboratory reports, 1992, by age group and sex



Herpes simplex type 6

There were 2 reports of this virus in 1992, a male in the 1 to 4 years age group and a female in the 5 to 14 years age group.

Varicella-zoster virus

This virus was reported for 698 patients in 1992, more than for previous years. There were cases reported for all age groups over one month (Figure 23) and an overall male:female ratio of 1:1.11. Skin disease was reported for 510 patients, encephalitis for 15, meningitis for 4 and respiratory tract disease for 17. Diagnosis was by virus isolation for 302 patients, by antigen detection for 180 patients and serologically for the remainder. Five patients were reported as pregnant. There was a slight seasonal peak in the spring.

Epstein-Barr virus

Epstein-Barr virus was also reported more often in 1992 than in previous years. A total of 1625 reports was received, 801 in males and 791 in females. Cases were reported for all age groups but the most reports were for patients in the 15 to 24 years age group (Figure 24).

Figure 24. Varicella-zoster virus laboratory reports, 1992, by age group and sex

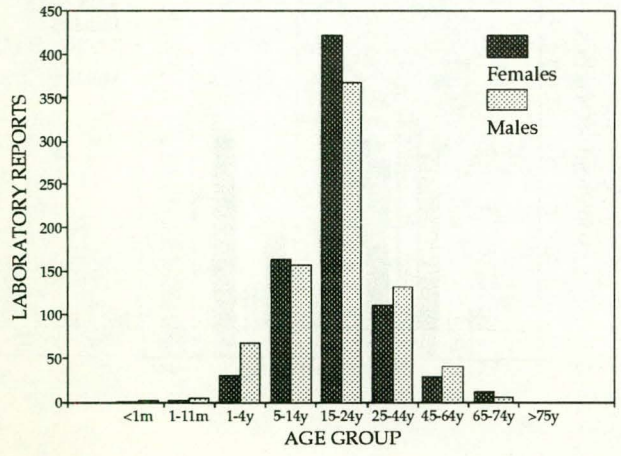
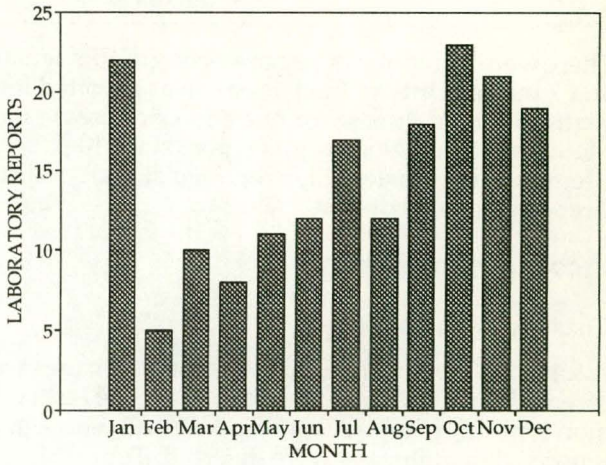


Figure 25. Parvovirus laboratory reports, 1992, by month of specimen collection



Reticuloendothelial disease was reported for 330 cases, respiratory symptoms for 155 cases and skin disease for 35 cases. For 5 cases the virus was isolated, for 6 the diagnosis was by antigen detection and for the remainder the diagnosis was serological. There was a slight seasonal peak over the spring-summer period.

Herpes virus group, not typed

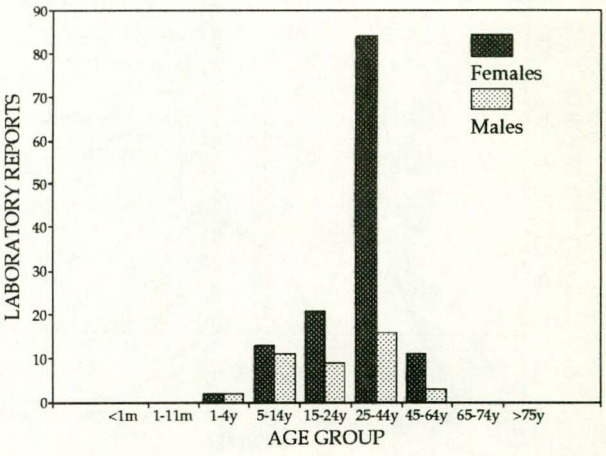
Herpes virus group, not typed was reported for 36 patients. Twenty-six reports were of skin disease, 5 were of genital disease and one was of respiratory tract disease. Eight diagnoses were by virus isolation, 3 were serological, one was by antigen detection and 24 were by electron microscopy.

Other DNA viruses

Parvovirus

There were 178 reports of parvovirus, with a seasonal peak in the spring-summer period (Figure 25). Cases were reported mainly for females of child-bearing age (Figure 26); there were 43 males and 134 females overall (ratio 1:3.12). Ten patients were pregnant and an hy-

Figure 26. Parvovirus laboratory reports, 1992, by age group and sex



dropic infant was reported for another, postnatally. Seventy-three patients reported skin disease and 28 reported muscle/joint disease.

Other

There were 11 reports of papovavirus group, 4 females and 7 males. Urinary tract disease was reported for 5, gastrointestinal disease for one and skin disease for 2. Molluscum contagiosum was reported for 10 patients, 6 females and 4 males. Five reported skin disease and 2 reported genital disease.

Picorna virus family

Coxsackieviruses group A

A total of 43 reports of group A coxsackieviruses were received for 1992. As in previous years, the most common types were type A9 (19 reports) and type A16 (21 reports). No outbreaks were detected. Type 9 affected patients in the age range 1 month to 44 years. It caused meningitis in 11 cases, respiratory symptoms in 2 and gastrointestinal disease in 2. Type 16 affected mainly children between the age of one month and 14 years. Skin disease was reported for 19 of the patients.

Coxsackieviruses group B

Group B coxsackievirus infection was reported for 128 patients. The most common types were type B5 (65 cases) and B1 (49 cases). Type B5 was reported mainly for children in the age groups one month to 14 years, and for 43 males and 21 females overall. Meningitis was the reported symptom for 30 cases, encephalitis for one, respiratory tract infection for 8 and gastrointestinal disease for 4. The peak of reports was in the spring and early summer and was especially apparent in Western Australia and New South Wales. Type B1 was reported mainly for children between the ages of one month and 4 years, and for 27 males and 22 females overall. Meningitis was the reported symptom for 11 cases, encephalitis for one, respiratory tract infection for 11 and gastrointestinal disease for 2. The seasonal peak was in the summer and continued in the early months of 1993.

Figure 27. Echovirus type 6 and echovirus type 9 laboratory reports, 1992, by month of specimen collection and virus

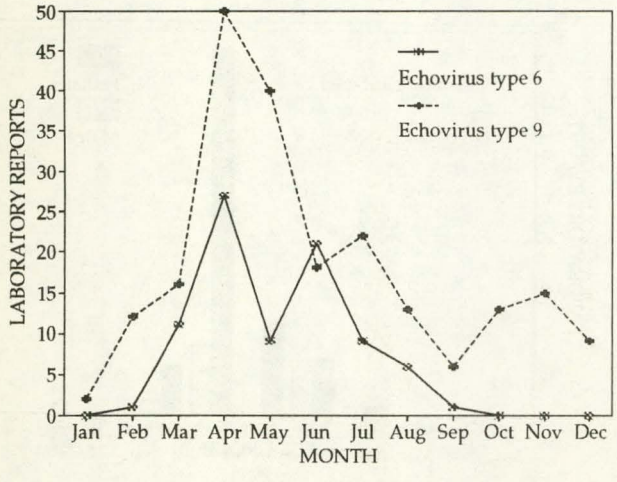
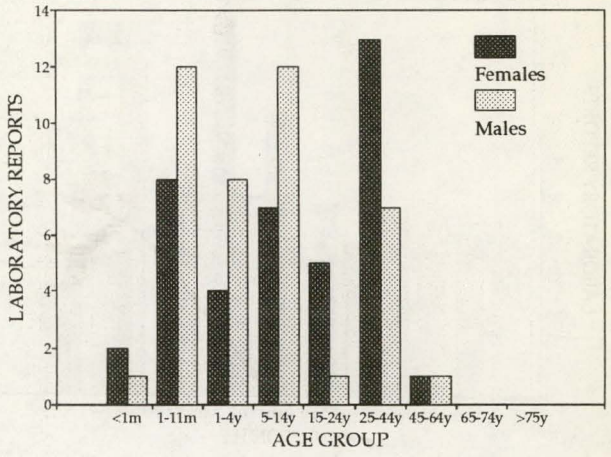


Figure 28. Echovirus type 6 laboratory reports, 1992, by age group and sex



Echovirus type 6

There was an outbreak of echovirus type 6 during 1992 peaking in April-May-June (Figure 27), with 78 of the 85 reports from Western Australia. Most reports were for children under the age of 14 years (Figure 28) and the overall male:female ratio was 1:0.84. Meningitis was reported for 63 patients.

Echovirus type 9

There was also an outbreak of echovirus type 9 in 1992, peaking in April-May. Of the 216 reports (Figure 27), 99 were from Western Australia (April peak), 86 were from New South Wales-ACT (April-May peak) and 25 were from Victoria in the last half of the year. Reports were for all age groups to 64 years (Figure 29) and the overall male:female ratio was 1:0.84. Meningitis was reported for 150 of the patients, encephalitis for 3,

Figure 29. Echovirus type 9 laboratory reports, 1992, by age group and sex

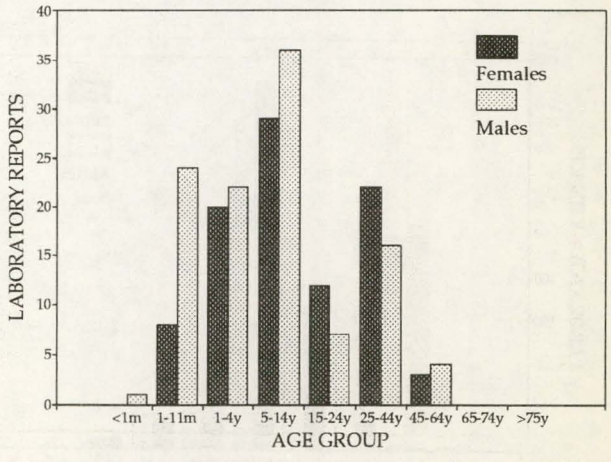
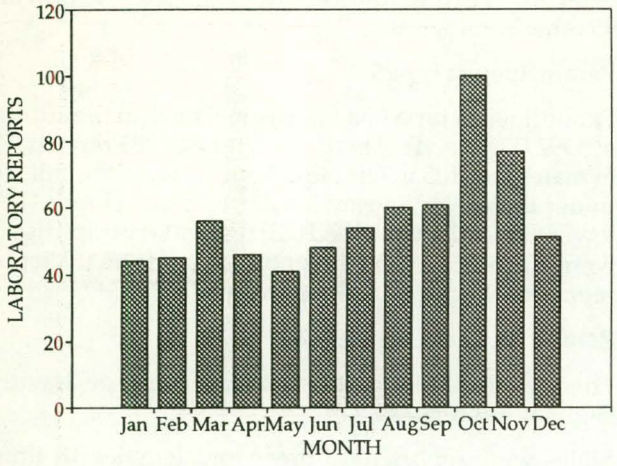


Figure 30. Rhinovirus laboratory reports, 1992, by month of specimen collection



gastrointestinal disease, respiratory tract disease for 10 each and skin disease for 4.

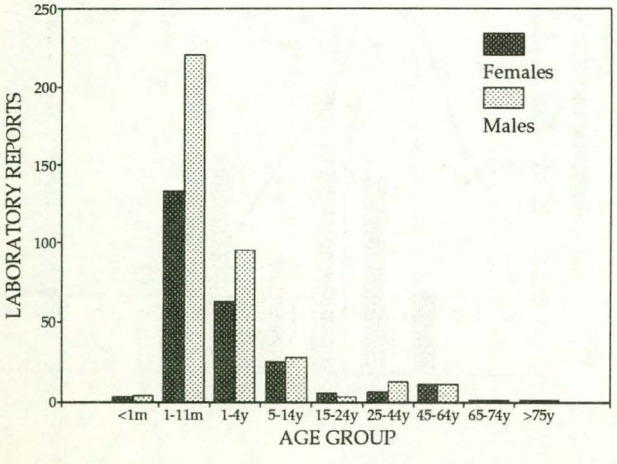
Other echoviruses

Other more commonly reported echoviruses were echovirus type 7 (38 reports with a peak in December and continuing into 1993), type 17 with 38 reports scattered through the year, type 22 (which has a more endemic report pattern; 13 reports) and type 25 (31 reports, mainly from New South Wales, peaking in the spring).

Polioviruses

Polioviruses were reported for 185 patients, about average for recent years. The age group for 140 of the patients was under one year and the overall male:female ratio was 1:0.72. Sixty-seven had gastrointestinal disease as the reported syndrome, respiratory symptoms were reported for 55 patients and 20 were infants who had suffered SIDS (postmortem tissue isolates).

Figure 31. Rhinovirus laboratory reports, 1992, by age group and sex



Rhinoviruses

The 683 reports of rhinoviruses were about the same as the average reported in recent years. There was a slight seasonal peak in the late spring (Figure 30), apparent in the reports from most States. There were 406 reports in males and 268 in females (ratio 1:0.66). Most reports were for young children (Figure 31) with 7 reports for the age group less than 1 month, 357 for the age group 1 to 11 months, and 158 for the age group 1 to 4 years. Respiratory tract disease was reported for 589 cases, with 283 reports of upper respiratory tract disease, 281 of lower respiratory tract disease, and 25 of unspecified respiratory tract disease.

Enterovirus type 71

There were 15 reports of this virus, 10 in children aged less than 5 years. Clinical diagnoses were meningitis for 6 patients, respiratory tract disease for 2 and skin disease for 7.

Enteroviruses not typed/pending

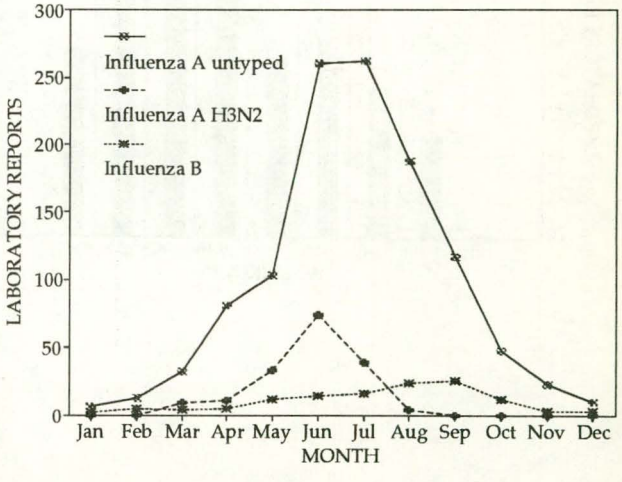
There were 789 reports of untyped enteroviruses, 459 reports in males and 319 in females (ratio 1:0.69). Most reports were for young children, with 18 reports for the age group less than one month, 322 for the age group 1 to 11 months, 231 for the group 1 to 4 years, and 75 for the age group 5 to 14 years. Meningitis was reported for 59 patients, encephalitis for 5, other CNS symptoms for 23, gastrointestinal for 187, respiratory tract disease for 283, eye disease for 10, SIDS for 6 and cardiac symptoms for 11. Isolations were reported for 751 cases, antigen detections for 7 and serological diagnoses for 31. There was no apparent seasonal trend.

Ortho/paramyxoviruses

Influenza A untyped

1992 was an epidemic year for influenza A (influenza A H_3N_2), with a large overall seasonal peak, earlier than is usual for influenza A, in June-July (Figure 32). Reports peaked in June for ACT-New South Wales and

Figure 32. Influenza A untyped, influenza A H_3N_2 and influenza B laboratory reports, 1992, by month of specimen collection



Victoria, June-July in Western Australia, July in South Australia and August in Queensland. All age groups were affected and there were 279 reports for patients over the age of 65 years (Figure 33). The overall male:female ratio was 1:0.84. Lower respiratory tract disease was reported for 492 of the patients and upper or unspecified respiratory tract disease for 291. Meningitis was reported for 10 patients, other CNS symptoms for 6 and muscle/joint disease for 10. Diagnosis was by isolation for 220, by antigen detection for 96, by fourfold change in titre for 109, by IgM for 25 and by other serological criteria for 694.

Influenza A H_1N_1

There were 8 reports of influenza A H_1N_1, 3 in females and 5 in males. Two patients were aged over 65 years.

Influenza A H_3N_2

There were 170 reports of influenza A H_3N_2, more than for any year since 1985. They peaked overall in June (Figure 32), in New South Wales and Victoria in June and in Queensland in July. All age groups were affected and there were 279 reports for patients over the age of 65 years (Figure 33). The overall male:female ratio was 1:0.84. Lower respiratory tract disease was reported for 78 patients and upper or unspecified respiratory tract disease for 59.

Influenza B

There were 126 reports of influenza B (Figure 32). Forty-nine were from South Australia, peaking in May, and 48 were from Western Australia, peaking in September. Similar numbers of males and females were reported (65 males and 58 females). Reports were fairly evenly spread amongst the age groups and there were 21 for patients over the age of 65 years. Lower respiratory tract disease was reported for 43 patients, and upper or unspecified respiratory tract disease for 26. Eleven reports were of virus isolation, 8 were of antigen detection, 11 were fourfold titre changes, one IgM and 95 other serological.

Parainfluenza type 1

Parainfluenza type 1 had a seasonal peak in the autumn of 1992 (Figure 34). There was a total of 281 reports, 172 in males and 105 in females. Reports were for children under the age of 5 years for 239 or 85%. Upper (129), lower (95) and unspecified (23) respiratory tract disease were the most commonly reported symptoms. Victoria reported 112 cases, peaking in April.

Parainfluenza virus type 2

There were 60 reports of parainfluenza type 2, with a slight autumn peak.

Males were reported 40 times and females 18 times. Forty-four reports were in children under the age of 5 years. Upper (36), lower (17) and unspecified (3) respiratory tract disease were commonly reported symptoms.

Parainfluenza virus type 3

Parainfluenza type 3 reports peaked as usual in the spring (New South Wales, Victoria, Queensland, Western Australia), but also showed a smaller peak in autumn (mainly reports from Victoria (Figure 34). Males were reported 320 times, and females 226 times (ratio 1:0.71). There were 5 reports in infants age less than one month, 294 in children aged 1 to 11 months and 181 in those aged 1 to 4 years. Upper (257), lower (222) and unspecified (20) respiratory tract disease were the most commonly reported symptoms.

Figure 33. Influenza A untyped laboratory reports, 1992, by age group and sex

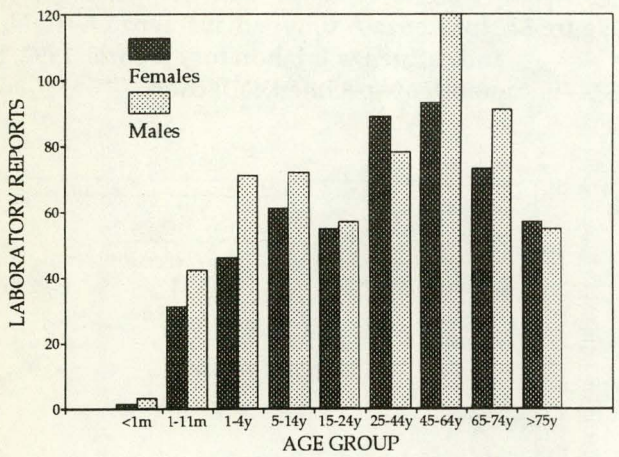


Figure 34. Parainfluenza types 1, 2 and 3 laboratory reports, 1992, by month of specimen collection and virus

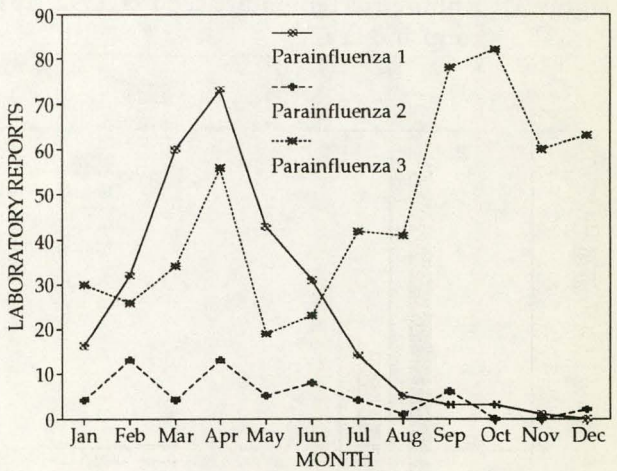
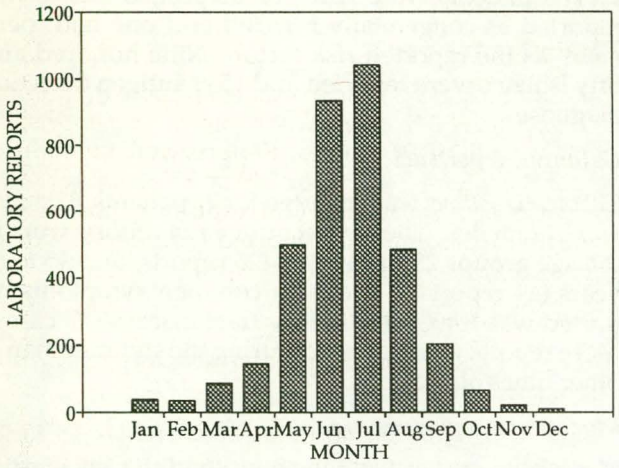


Figure 35. Respiratory syncytial virus laboratory reports, 1992, by month of specimen collection



Respiratory syncytial virus

A total of 3554 reports of respiratory syncytial virus was received for 1992, the highest number ever received for a year by the Scheme. The peak was in July overall (Figure 35), in June in New South Wales and Queensland, in July in the ACT, South Australia, Victoria and Western Australia and in August in Tasmania. The male to female ratio of cases was 1:0.74 (Figure 36). A total of 3291 reports (92.6%) were for children aged less than 5 years, 2385 (67.1%) were for infants aged 1 to 11 months and there were 106 reports for infants aged less than one month. Upper respiratory tract disease was reported for 831, lower for 2339 and unspecified for 221. Viral isolations were reported for 1229 patients, antigen detections for 2238 and serological diagnoses for 87.

Figure 36. Respiratory syncytial virus laboratory reports, 1992, by age group and sex

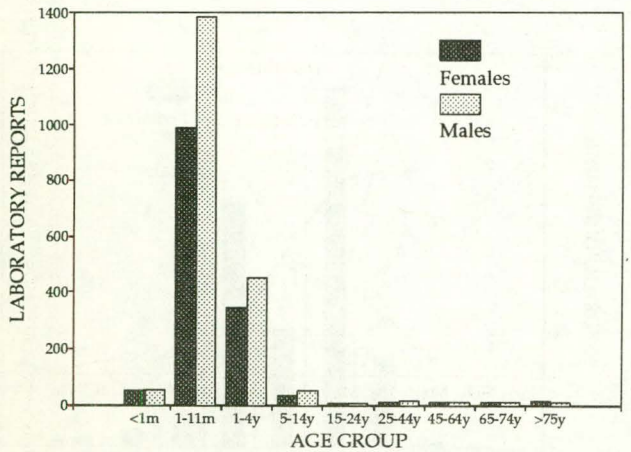
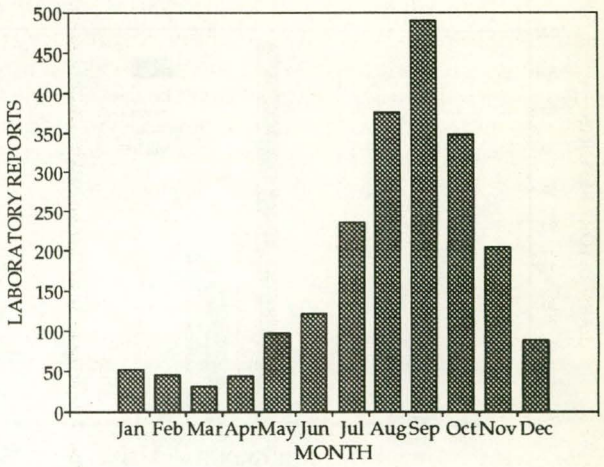


Figure 37. Rotavirus laboratory reports, 1992, by month of specimen collection



Other RNA viruses

HIV

Only some of the Scheme's laboratories report HIV diagnoses. There was a total of 45 reports, 38 in males and 7 in females.

HTLV-1

Human lymphotropic virus type 1 was reported for 3 patients in 1992. One was a male in the 65 to 74 years age group and the other was a female in the 25 to 44 years age group.

Rotavirus

There were 2134 rotavirus reports. Overall, the seasonal peak was in September (Figure 37). It was August-September in Tasmania and Western Australia, September in New South Wales, South Australia and Victoria and in October-November in Queensland. Gastrointestinal symptoms were reported for 1880 patients. The largest numbers of reports were for children aged 1 to 11 months (610) and 1 to 4 years (1219) (Figure 38). There were 1155 males and 945 females (ratio 1:0.82).

Figure 38. Rotavirus laboratory reports, 1992, by age group and sex

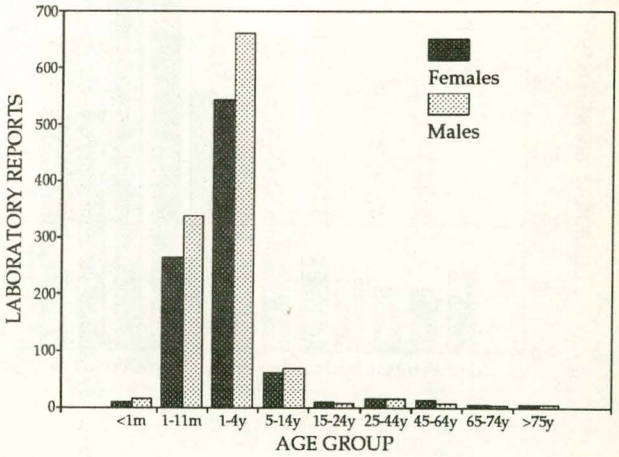
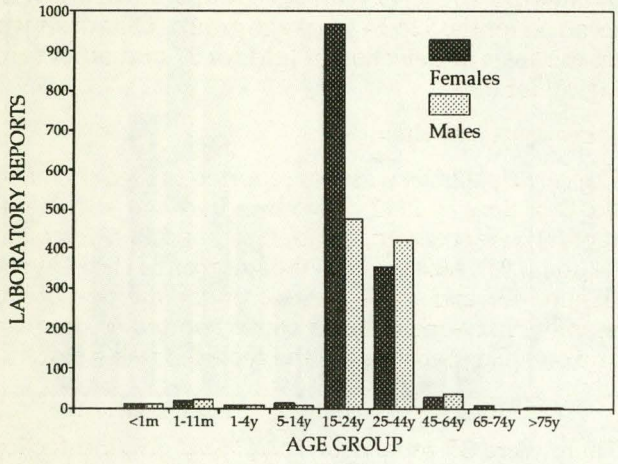


Figure 39. *Chlamydia trachomatis* untyped laboratory reports, 1992, by age group and sex



Other RNA viruses

Other RNA viruses reported were reovirus, coronavirus, astrovirus, calici virus, Norwalk agent and small virus-like particles. Gastrointestinal disease was the reported symptom for 101 of the 142 reports in this group.

Other

Chlamydia trachomatis

Chlamydia trachomatis was reported for 2574 patients. For 2563 it was untyped and for 11, it was typed as A-K. Females were reported more times for untyped (females 1489, males 1058, ratio 1:1.41) and type A-K (females 8, males 3). The untyped *C. trachomatis* occurred mainly in adults in the age groups 15 to 24 years (1450 reports) and 25 to 44 years (779 reports). There were 70 reports in children aged less than 5 years (Figure 39), 19 aged less than one month. Overall, 72 reports (2.8%) were of eye disease, 21 of respiratory tract disease and 1961 (76.5%) of genital disease. Eleven patients were reported as pregnant, one was reported as congenitally infected and one had 'perinatal' as the reported risk factor. Nine hundred and fifty isolates were reported and 1589 antigen detection diagnoses.

Chlamydia psittaci

Chlamydia psittaci was reported for 97 patients, 62 males and 32 females. The largest number of reports were in the age groups 25 to 44 years (25 reports) and 45 to 64 years (44 reports). The most common symptoms reported was lower respiratory tract disease (77 cases). More reports were received during the summer than at other times of the year.

Mycoplasma pneumoniae

Mycoplasma pneumoniae infections tend to peak every 5 years in Australia, and the last peak year was 1988. In 1992, the number of reports increased markedly over 1991, with a large seasonal peak in September-October (Figure 40), reflecting peaks in August-September in New South Wales, September-October in Queensland, October in South Australia and November in Victoria. The largest number of reports was for the age group 5 to 14 years (666 reports), followed by the 25 to 44 year group (393 reports, Figure 41). There were more reports in females (799) than in males (767, ratio 1:1.04). A total of 831 reports were of lower respiratory tract disease, and 230 were of upper or unspecified respiratory tract disease. There were also 4 reports of meningitis, 10 of encephalitis, 2 of other CNS symptoms, 25 of skin disease, and 8 of muscle/joint disease. Diagnosis was by isolation for 3 patients, antigen detection for 4 and serology for 1572.

Figure 40. *Mycoplasma pneumoniae* laboratory reports, 1992, by month of specimen collection

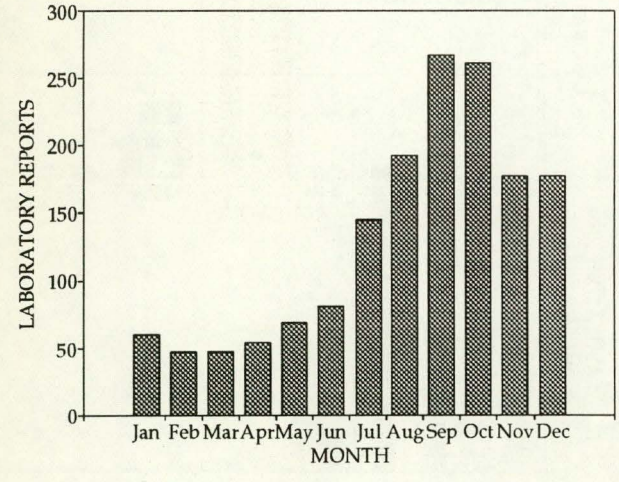
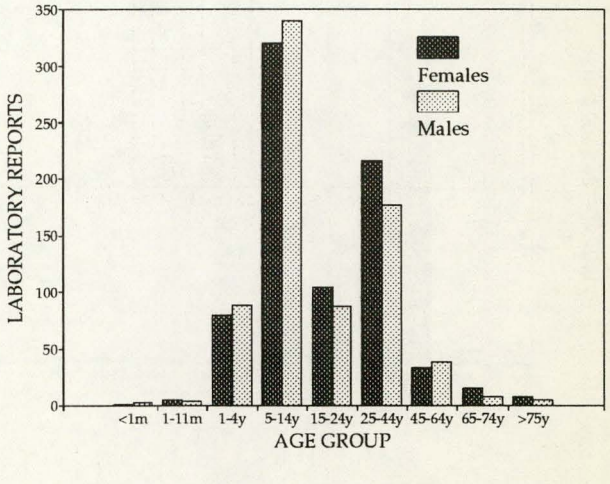


Figure 41. *Mycoplasma pneumoniae* laboratory reports, 1992, by age group and sex



Coxiella burnetii (Q fever)

There were 270 reports of Q fever, more than for any year since 1987. Most were from Queensland (128) or New South Wales (104). Males comprised most of the patients (236 males, 32 females; Figure 42) and most patients were in the age groups 15 to 64 years. Forty patients were described as either meat or farm workers, or had animal contact as the reported risk factor. Respiratory tract (7), muscle/joint (7), gastrointestinal (1), cardiovascular (3) and hepatic symptoms (11) were reported.

Brucella species

There were 15 reports of *Brucella* species infection, 12 males and 3 females. Ages ranged from the 5 to 64 years age groups. General malaise or fever were reported for seven. All diagnoses were single high titres.

Bordetella pertussis

Bordetella pertussis and *Bordetella* species reports were collated by the scheme for the first time in 1992. Twenty reports were received, 11 females and 9 males. Ages ranged from the 1 to 11 months to the 45 to 64 years age groups. Diagnosis was on the basis of antigen detection for 7, IgA for one, IgM for 2 and other serological for 10.

Bordetella species

Bordetella species was reported for 73 patients, 43 females and 30 males. Ages ranged from the 1 to 11 months to the 75 to 99 years age groups; 38 reports were received for the 5 to 14 years age group. Diagnosis was on the basis of detection of IgM for 37 and other serological for 36.

Treponema pallidum

Treponema pallidum was also reported to the Scheme for the first time in 1992. Two hundred and sixty-seven reports were received, 135 for males and 132 for females (ratio 1:0.98). Most were in the age groups 15 to 44 years (Figure 43) and there were 2 under the age of one month. Sixty-one patients were reported as pregnant and one had 'perinatal' as the reported risk factor.

Toxoplasma gondii

There were 35 reports of *Toxoplasma gondii* infection. Twenty-two patients were females, 13 were males and most were in the 15 to 44 years age groups. Two patients were reported as pregnant. Diagnosis was by antigen detection for one, single high titre for one and IgM for 33.

Acknowledgment

The continuing contributions of all the laboratories which are our partners in this surveillance scheme is gratefully acknowledged.

Figure 42. *Coxiella burnetii* (Q fever) laboratory reports, 1992, by age group and sex

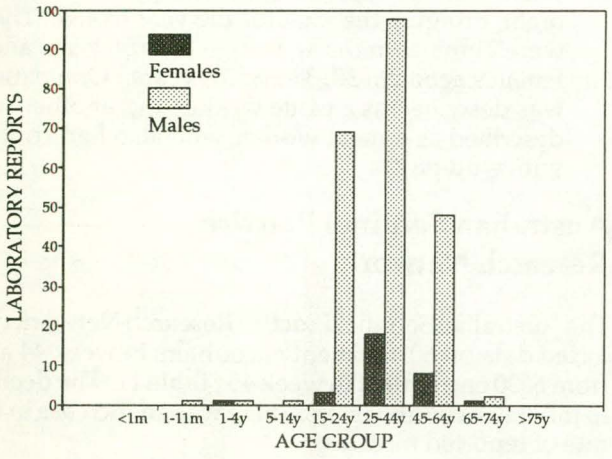
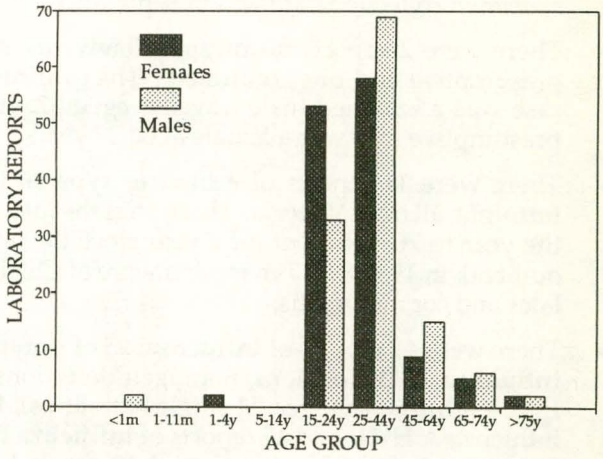


Figure 43. *Treponema pallidum* laboratory reports 1992, by age group and sex



OVERSEAS BRIEFS

In the last fortnight, the following information has been supplied by the World Health Organization.

Cholera Update

The following areas have been removed from the list of infected areas: Pandj, Kolkhosabad, Moscovskij and Kabodijon Districts in the Khatlon Region of Tajikistan.

Influenza Update

The first influenza reported in France this season was an influenza A H_1N_1 isolated from a child hospitalised in the northern part of the country in early October. Influenza A was isolated from a case during an outbreak of acute respiratory disease affecting 400 people in a university campus in Scotland in early October.

COMMUNICABLE DISEASES SURVEILLANCE

Virology and Serology Reporting Scheme

There were 1361 reports received in the *CDI* Virology and Serology Reporting Scheme this fortnight (Tables 9, 10 and 11).

- There were 60 reports of **measles** this fortnight, 14 from Queensland, 40 from New South Wales, 4 from Victoria and two from Tasmania. This brings the total for the year to 333, more than ever previously recorded by the Scheme.
- **Rubella** was reported for 46 patients this fortnight. Included were 6 females in the 15 to 44 year age group.
- There were 6 reports of **Ross River virus** this fortnight, 5 from Queensland and 1 from the Northern Territory. All were presumptive and had specimen collection dates in September (1) or October (5).
- The single report of **Barmah Forest virus** was also presumptive (IgM) and from Queensland. The specimen collection date was in September.
- There were 2 reports of **untyped flavivirus**, one presumptive and one confirmed. The confirmed case was a returned male traveller aged 32. The presumptive case was a female aged 37 years.
- There were 11 reports of **echovirus type 30** this fortnight, all from Victoria. This brings the total for the year to 70, the most for a year since the large outbreak in 1988-89. Ten reports were of CSF isolates and/or meningitis.
- There were 41 reports of **influenza**, 25 of **untyped influenza A** (3 isolations, 6 antigen detections, 1 IgM, 4 fourfold changes, 11 single high titres), 1 of influenza A H_3N_2 and 15 reports of **influenza B** (4 isolations, 1 fourfold change and 10 single high titres). Seven influenza A reports and one influenza B report were for patients aged over 65 years.

  One of the influenza A reports from Western Australia this fortnight was of a postmortem lung isolate. The patient was a 76 year old female.
- **Parainfluenza virus type 3** continues to be reported at a higher rate than usual. This fortnight, there were 31 reports, bringing the total for the year to 418. Reports were received from New South Wales, Queensland, South Australia, Victoria and Western Australia. Eleven were aged between one and 11 months and 13 were aged between one and 4 years.
- **Rotavirus** was reported for 68 patients this fortnight. One was aged less than one month, 16 were aged between one and 11 months and 42 were aged between one and 4 years. The peak in reports was earlier this year than the average for the last five years, in August.
- There were 25 cases of **Q fever** reported this fortnight, bringing the total for the year to 435. There were 21 males in the age range 16 to 58 years and 4 females aged 26, 30, 31 and 70 years. One patient was described as a cattle worker and another was described as a meat worker who also had contact with wild pigs.

Australian Sentinel Practice Research Network

The Australian Sentinel Practice Research Network collected data on 6030 patient encounters in week 44 and from 6030 encounters in week 45 (Table 1). The decline in influenza continues, and there was an increase in the rate of reported measles.

Table 1. Australian Sentinel Practice Research Network, Weeks 44 and 45 1993

Condition	Week 44, to 31 October 1993		Week 45, to 7 November 1993	
	Reports	Rate per 1000 encounters	Reports	Rate per 1000 encounters
Influenza	25	5.4	31	5.1
Measles	5	1.1	2	0.3
Rubella	2	0.4	1	0.2
Pertussis	1	0.2	2	0.3
Genital herpes	3	0.6	3	0.5
Gastroenteritis	69	14.9	66	10.9

HIV and AIDS Surveillance

Methodological note

National surveillance for HIV disease is coordinated by the National Centre in HIV Epidemiology and Clinical Research (NCHECR), in collaboration with State and Territory health authorities and the Commonwealth of Australia. Cases of HIV infection are notified to the National HIV Database on the first occasion of diagnosis in Australia, by either the diagnosing laboratory (ACT, New South Wales, Tasmania, Victoria) or by a combination of laboratory and doctor sources (Northern Territory, Queensland, South Australia, Western Australia). Cases of AIDS are notified through the State and Territory health authorities to the National AIDS Registry. Diagnoses of both HIV infection and AIDS are notified with the person's date of birth and name code, to minimise duplicate notifications while maintaining confidentiality.

Tabulations of diagnoses of HIV infection and AIDS are based on data available three months after the end of the reporting interval indicated, to allow for reporting delay and to incorporate newly available information. More detailed information on diagnoses of HIV infection and AIDS is published in the quarterly *Australian HIV Surveillance Report*, available from the National

Table 2. New diagnoses of HIV infection, new diagnoses of AIDS and deaths from AIDS occurring in the period 1 to 30 June 1993, by sex and State or Territory in which diagnosis was made

		ACT	NSW	NT	Qld	SA	Tas	Vic	WA	TOTALS FOR AUSTRALIA			
										This Period 1993	This Period 1992	Year to Date 1993	Year to Date 1992
HIV Diagnoses	Female	0	5	0	1	1	0	2	1	10	5	46	48
	Male	1	50	0	6	5	0	8	2	72	91	520	627
	Sex not reported	0	0	0	0	0	0	1	0	1	1	6	13
	Total[1]	1	55	0	7	6	0	11	3	83	97	575	690
AIDS Diagnoses	Female	0	1	0	0	0	0	0	0	1	0	10	3
	Male	2	8	0	2	1	0	10	0	23	3	211	162
	Total[1]	2	9	0	2	1	0	10	0	24	3	221	165
AIDS Deaths	Female	0	0	0	0	0	0	0	0	0	0	8	9
	Male	0	10	0	6	4	0	12	0	32	39	224	258
	Total[1]	0	10	0	6	4	0	12	0	32	40	233	269

1. Persons whose sex was reported as transsexual are included in the totals.

Table 3. Cumulative diagnoses of HIV infection, AIDS and deaths from AIDS since the introduction of HIV antibody testing to 30 June 1993, by sex and State or Territory

		ACT	NSW	NT	Qld	SA	Tas	Vic	WA	AUSTRALIA
HIV Diagnoses	Female	10	485	6	71	37	3	129	42	783
	Male	138	9128	67	1207	510	65	2847	619	14581
	Sex not reported	0	2028	0	0	0	0	65	0	2093
	Total[1]	148	11649	73	1281	547	68	3048	662	17476
AIDS Diagnoses	Female	2	87	0	16	11	2	20	9	147
	Male	52	2410	17	358	163	24	895	183	4102
	Total[1]	54	2502	17	375	174	26	918	192	4258
AIDS Deaths	Female	2	49	0	11	4	1	10	3	80
	Male	36	1536	9	253	101	15	629	121	2700
	Total[1]	38	1588	9	265	105	16	641	124	2786

1. Persons whose sex was reported as transsexual are included in the totals.

Centre in HIV Epidemiology and Clinical Research, 376 Victoria Street, Darlinghurst NSW 2010. Telephone: (02) 332 4648 Facsimile: (02) 332 1837.

HIV and AIDS diagnoses and AIDS deaths reported for 1 to 30 June 1993, and cumulative to 30 June 1993 as reported to 30 September 1993, are included in this issue of *CDI* (Tables 2 and 3).

Sterile Sites Surveillance (LabDOSS)

Data for this fortnight have been provided by seven laboratories.

A total of 157 reports have been included: Royal Hobart Hospital 17, Liverpool Hospital 25, Royal North Shore Hospital 41, Northern Tasmania Pathology Service 4, Sullivan and Nicolaides Partners, Queensland 16, Toowoomba Pathology Laboratory 25, Woden Valley Hospital ACT 29.

A further 65 reports were received from Liverpool Hospital with onset date of illness prior to the 1st of October. These records have been merged with 1993 data.

Organisms reported 5 or more times from blood are detailed in Table 3.

Other blood isolates not included in Table 3 were:

Gram positive: 1 *Listeria monocytogenes* (lymphoma) ,2 *Streptococcus* Group A, 2 *Streptococcus* Group B (1 post partum), 2 *Streptococcus* Group G, 1 *Streptococcus* 'milleri', 1 *Streptococcus sanguis*, 2 *Streptococcus mitis*, 1 *Streptococcus* species, 2 *Corynebacterium* species, 2 *Enterococcus faecalis*, 1 *Enterococcus durans*, 2 coagulase negative staphylococci, 1 *Staphylococcus auricularis*, 1 *Staphylococcus lugdunensis* (endocarditis).

Gram negative: 1 *Salmonella* Typhi (from Indonesia), 2 *Acinetobacter* species (1 calcoaceticus), 1 *Serratia marcescens*, 4 *Pseudomonas aeruginosa*, 1 *Pseudomonas paucimobilis*, 2 *Haemophilus influenzae* (1 type b age 56, 1 not type b), 1 *Aeromonas hydrophila*, 1 *Campylobacter jejuni*, 1 *Pasteurella multocida*, 2 *Proteus mirabilis*, 1 *Xanthomonas maltophilia*.

Anaerobes: 1 *Bacteroides fragilis*, 1 *Clostridium perfringens* (neonate), 1 *Fusobacterium mortiferum*.

Fungi: *Candida albicans* 4.

Table 4. LabDOSS reports of blood isolates, by organism and clinical information

Organism	Clinical Information						Risk Factors						
	Bone/joint	Lower respiratory	Endocarditis	Gastrointestinal	Urinary Tract	Skin	Surgery	Immunosuppressed	IV line	Hospital acquired	Neonatal	Total[1]	Total reported this year
Staphylococcus aureus	1		2	1	2	5	5	3	7			25[2]	662[5]
Staphylococcus epidermidis			1	2				1				7	192
Streptococcus pneumoniae		4										5	156
Escherichia coli		1		6			4	7				32	683
Enterobacter species					1			2				5[3]	114
Klebsiella species		1			1	2		3	1	1		9[4]	217

1. Only organisms with 5 or more reports are included in this table.
2. MRSA 2.
3. *Enterobacter aerogenes* 1, cloacoe 3, agglomerens 1.
4. *Klebseilla pneumoniae* 4, oxytoca 2.
5. MRSA 75.

Table 5. LabDOSS meningitis reports, by organism and age group

	1-11 months	1-4 years	5-14 years	35-44 years	65-74 years	75+ years	Total	Total reported this year
Neisseria meningitidis	1	2[1]	1[2]				4	32
Streptococcus Group A						1	1	4
Enterobacter cloacae	1[4]						1	1
Haemophilus influenzae	1[3]			1			2	30
Streptococcus pneumoniae					1		1	15

1. *Neisseria meningitidis* group A.
2. *Neisseria meningitidis* group C.
3. *Haemophilus influenzae* type b.
4. Preterm neonate.

Most reports were for patients over the age of 24 years (Figure 1).

CSF isolates and meningitis reports

Three cases of *Neisseria meningitidis* serogroup C were reported in children in Sydney. The children were from the same family and developed illness on 15 October (Table 4). All three children survived. Chemoprophylaxis was administered to close contacts. The remaining two family members were *Neisseria meningitidis* group C nasopharyngeal carriers. No other carriers were identified in close contacts. No further cases occurred.

(Liverpool Hospital and South West Area Pathology Service, NSW).

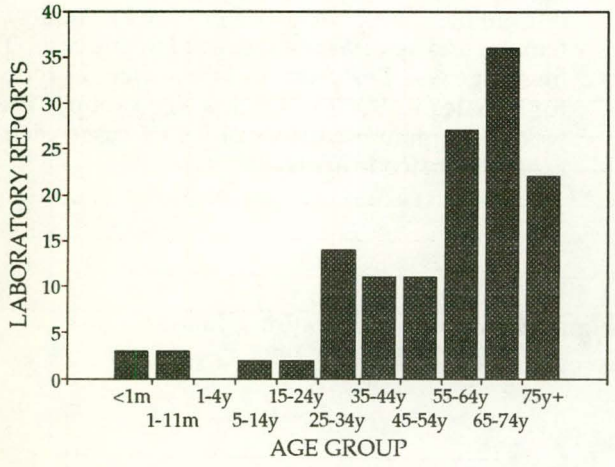
Isolates from sites other than blood or CSF

Joint fluid: 1 *Enterococcus faecalis*, 5 *Staphylococcus aureus*, 1 *Streptococccus* group B.

Peritoneal dialysate: 2 *Escherichia coli*, 1 *Bacteroides fragilis*, 1 *Staphylococcus aureus*, 4 coagulase negative staphylococci.

Other: 1 *Enterococcus faecalis*, 1 coagulase negative *Staphylococcus*, 1 *Staphylococcus aureus*, 1 *Streptococcus* group A.

Figure 1. LabDOSS reports of blood isolates, by age group

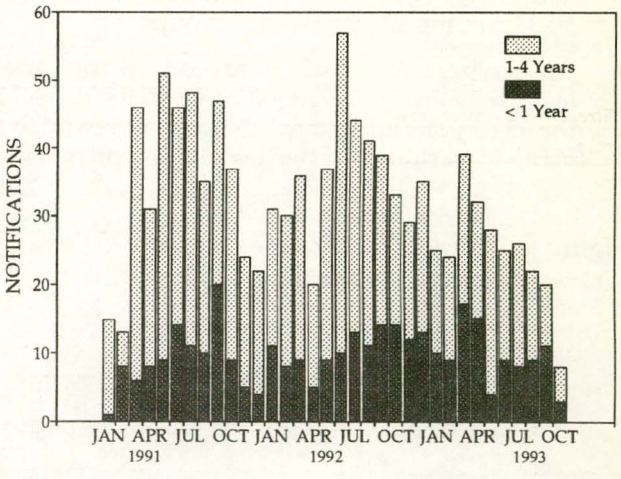


National Notifiable Diseases Surveillance System, 17 to 30 October 1993

There were 2,558 reports received this period (Tables 6, 7 and 8, and Figure 6).

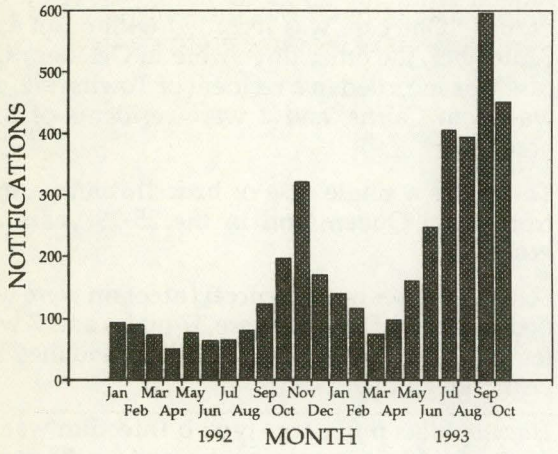
- Fifty-four cases of **Ross River virus infection** were notified, 23 males and 31 females. Ages recorded in these cases ranged from the 5-9 to the 70-74 years age groups. Cases were reported from statistical divisions in much of Queensland, rural Victoria, Southwest Western Australia and Northern New South Wales.
- **Dengue** activity has decreased markedly with 4 notifications received. The total for the year to date is 683 notified cases. Two of these reports were for males and 2 were for females. Ages reported ranged from the 25-29 to the 45-49 years age groups. One case was recorded with onset as in September, the other three were in October. One case was recorded in a resident of Townsville, one was from Cairns, and 2 were residents of Melbourne.
- There was a single case of **brucellosis** in a male from rural Queensland in the 25-29 years age group.
- Sixty-four cases of **gonococcal infection** were notified this period. There were 37 males and 7 were females aged between the 15-19 years and the 75-79 years age groups.
- ***Haemophilus influenzae* type b infection** was reported for 18 cases, to bring the total for the year to date to 355, compared with 423 for the equivalent period last year (Figure 2). Five of the cases had recorded onset dates before 1 October. These notifications were for 10 males and 8 females. Three of the cases were aged less than one year, 11 were less than 5 years and ages ranged up to the 90-94 years age group. There were no apparent clusters of cases.

Figure 2. *Haemophilus influenzae* type b infection notifications, January 1992 to October 1993



- Sixty-five notifications of **hepatitis A** were received this period. They were for 33 males, 31 females and sex was not recorded for one case. Ages ranged from the 0-4 to the 70-74 years age group, peaking in the 25-29 years age group (11 cases).
- A single case of **hydatid infection** was notified, in a male in the 70-74 years age group, from rural Queensland.

Figure 3. Measles notifications, January 1992 to October 1993



- There were 7 cases of **legionellosis** notified this period. Four were males and 3 were females, recorded ages were in the 45-49, 50-54, 55-59, 60-64 (1 case each), 65-69 (2 cases) years age groups. Two cases had recorded onset dates on the same day in the same postcode area.
- Eight cases of **leptospirosis** were reported, all were males. Ages ranged between the 25-29 and the 80-84 years age groups. They were residents of Brisbane, or rural areas of New South Wales, Queensland, Victoria and Western Australia.
- There were 3 notifications of **listeriosis** for a male in the 55-59 years age group and in 2 females in the 30-34 and the 60-64 years age groups.
- Seven reports of **malaria** were received, for 5 males and 2 females. Ages ranged between the 10-14 and the 65-69 years age groups. None were recorded as being for residents of the 'malaria receptive zone'.
- There were 334 notifications of **measles** received, to bring the total for the year to 2,710 (Figure 3). Of these notifications, 183 were for males, 148 were for females and sex was not recorded for 3 cases. Twenty-four cases were aged less than one year, and the mean age was 11.9 years. There were 64 apparent clusters in separate postcode areas with 2 to 11 cases each, 44 of these apparent clusters were in New South Wales, 15 were in Queensland, 3 were in Tasmania and 2 were in Victoria.
- There were 16 notifications of **meningococcal infection**, for 7 males and 9 females. Six cases had recorded ages in the 0-4 years age group, the oldest case was in the 75-79 years age group. There were one apparent cluster of 2 cases with the same onset date in the same postcode area.
- There were 316 cases of **pertussis** notified to bring the total for the year to 2,273 (Figure 4). Thirteen cases were aged less than one year, 29 were aged less than 5 years and ages ranged up to the 90-94 years age group. There were 46 apparent clusters of 2 to 37 cases each in separate postcode areas, with 19 in New South Wales and the Australian Capital Territory, 8 in Queensland, 17 in South Australia, and 2 in Victoria.
- There were 37 notifications of **Q fever**, 25 for males, 10 for females and sex was not recorded for 2 cases. Ages ranged from the 15-19 to the 70-74 years age groups.
- There were 178 notifications of **rubella** received (Figure 5). These reports were for 111 males, 66 females and sex was not recorded in one case. The mean age was 27.7 years and there were 24 reports for females in the 15-44 years age group. There were 31 apparent clusters of 2 to 4 cases each in separate postcode areas.

Figure 4. Pertussis notifications, January 1985 to October 1993

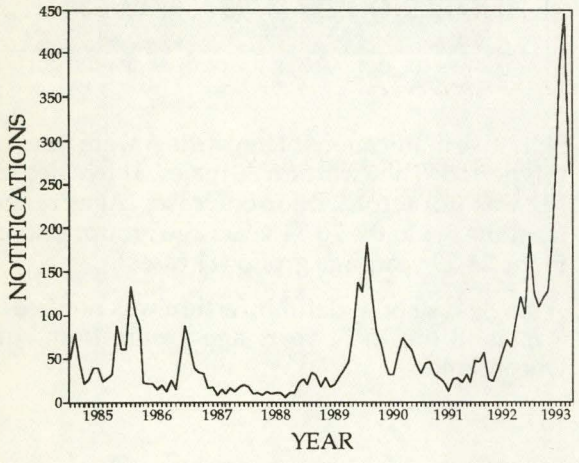
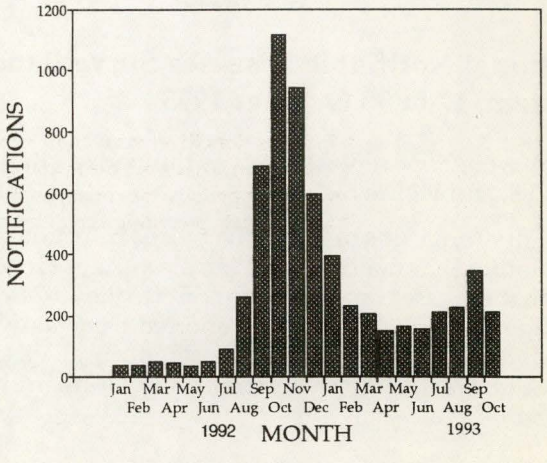
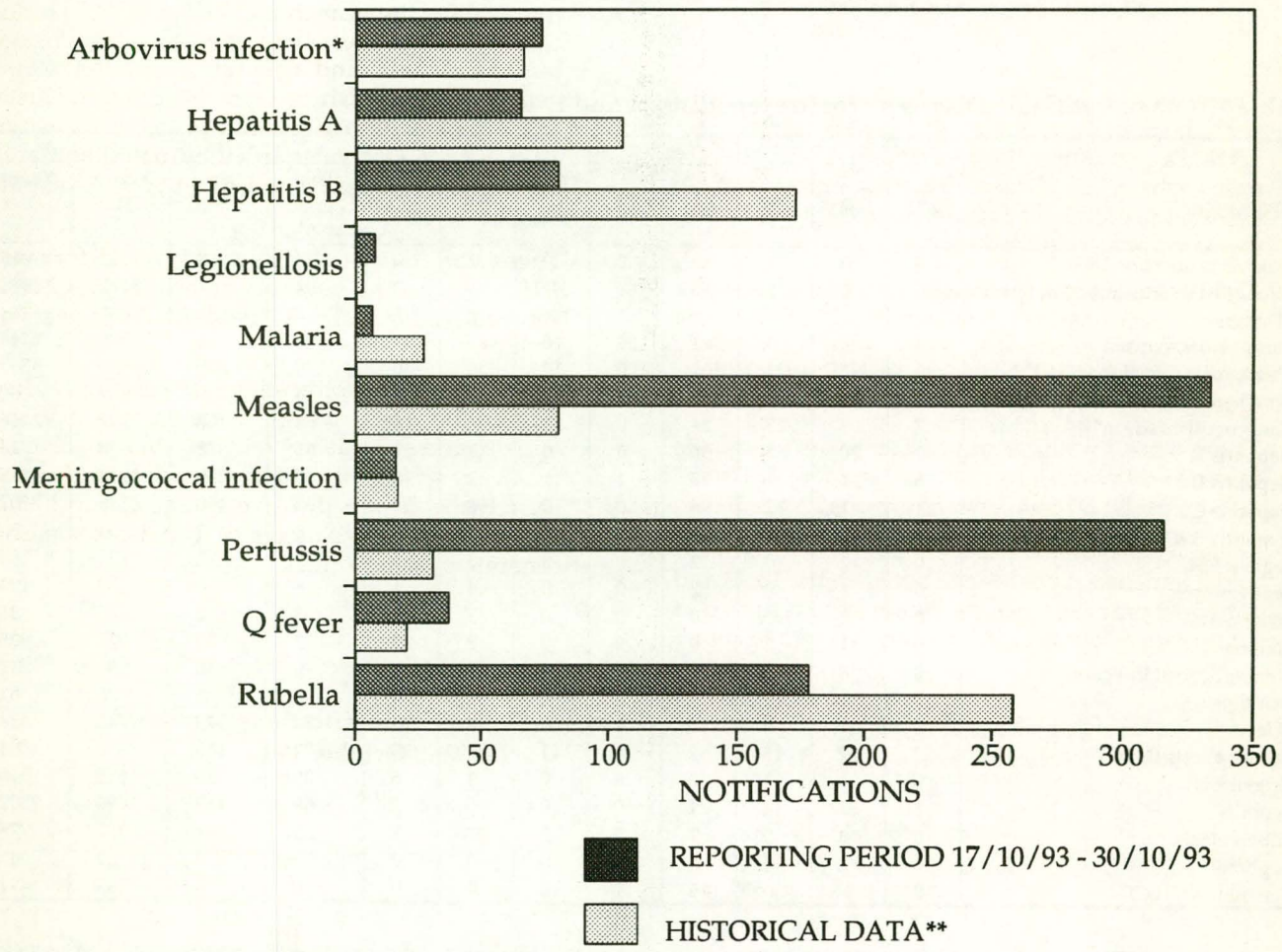


Figure 5. Rubella notifications, January 1992 to October 1993



- There were 69 notifications of **syphilis** received this period. Thirty-five were for males and 34 were for females. Four cases were aged less than one year.
- There were 53 notifications of **tuberculosis**, 27 males, 23 females and sex was not recorded for 3 cases. Onset dates were recorded as January (1), June (1), July (6), August (3), September (6) and October (34). Ages ranged from the 0-4 to the 85-89 years age groups.
- Two cases of **typhoid** were notified. They were both males in the 20-24 years age group, the recorded date of onset was the same day and they were residents of the same postcode area.

Figure 6. Selected National Notifiable Diseases Surveillance System reports, and historical data **



* Includes Ross River virus and Dengue

** The historical data are the averages of the number of notifications in 6 previous 2-week reporting periods: the corresponding periods of the last 2 years and the periods immediately preceding and following those.

Table 6. Notifiable Diseases preventable by vaccines recommended by the NHMRC for routine childhood immunisation for the reporting period 17 to 30 October 1993

DISEASES	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	TOTALS FOR AUSTRALIA[1] This Period 1993	This Period 1992	Year to Date 1993	Year to Date 1992
Diphtheria	0	0	0	0	0	0	0	0	0	0	51	12
Haemophilus influenzae b infection[2]	0	4	1	4	1	0	5	3	18	21	355	423
Measles	18	197	1	78	4	14	20	2	334	93	2710	882
Mumps	0	2	NN	NN	0	NN	0	0	2	0	15	20
Pertussis	0	115	0	51	109	1	32	8	316	59	2273	478
Poliomyelitis	0	0	0	0	0	0	0	0	0	0	0	0
Rubella[3]	4	40	1	80	13	0	20	20	178	438	2517	1996
Tetanus	0	0	0	NN	0	0	0	0	0	2	7	14

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.
2. NT, Tas: CRS only.

NN Not Notifiable.

Table 7. Other Notifiable Diseases[1], for the reporting period 17 to 30 October 1993

DISEASES	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	TOTALS FOR AUSTRALIA[2] This Period 1993	This Period 1992	Year to Date 1993	Year to Date 1992
Arbovirus infection (NEC)[3]	0	0	1	12	0	0	2	0	15	8	500	248
Ross River virus infection	0	1	2	46	-	NN	3	2	54	51	5125	5315
Dengue	0	-	0	2	-	NN	2	NN	4	34	683	344
Campylobacteriosis[4]	3	-	3	101	88	18	125	39	377	471	6590	7146
Chlamydial infection (NEC)[5]	0	NN	21	101	0	14	54	40	230	209	5439	5363
Donovanosis	0	NN	1	0	NN	NN	0	3	4	0	57	62
Gonococcal infection[6]	2	9	13	24	0	0	2	14	64	108	2342	2446
Hepatitis A	0	20	5	36	0	0	3	1	65	78	1638	1724
Hepatitis B	6	1	1	53	1	1	2	15	80	239	1941	4415
Hepatitis C	21	1	17	98	0	0	168	58	363	400	6126	7302
Hepatitis (NEC)	0	0	0	1	0	0	2	NN	3	3	63	52
Legionellosis	0	2	0	2	0	0	3	0	7	2	136	163
Leptospirosis	0	1	0	2	0	0	4	1	8	6	139	104
Listeriosis	0	0	NN	0	0	0	3	0	3	2	45	36
Malaria	0	1	2	0	0	0	2	2	7	20	527	625
Meningococcal infection	0	8	0	3	0	0	3	2	16	16	299	242
Ornithosis	0	NN	0	0	1	0	6	0	7	6	75	82
Q fever	0	21	0	15	1	0	0	0	37	23	742	434
Salmonellosis (NEC)	2	22	13	52	18	11	31	23	172	145	3830	4001
Shigellosis[4]	0	-	1	8	4	0	1	6	20	36	615	545
Syphilis	1	31	14	21	0	0	0	2	69	119	1890	2307
Tuberculosis	0	8	0	7	5	2	28	3	53	54	787	776
Typhoid[7]	0	2	0	0	0	0	0	0	2	0	29	43
Yersiniosis (NEC)[4]	0	-	0	15	1	0	0	0	16	9	383	491

1. For HIV and AIDS, see Tables 2 and 3. For rarely notified diseases, see Table 7.
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. SA, Tas: includes Ross River virus and dengue.
   WA: includes dengue.
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 and Vic: includes paratyphoid.

NN Not Notifiable.

NEC Not Elsewhere Classified.

\- Elsewhere Classified.

Table 8. Rarely Notified Diseases[1] for the reporting period 17 to 30 October 1993

DISEASES	Total This Period	Reporting States or Territories	Year to Date 1993
Botulism	0		0
Brucellosis	1	Qld	17
Chancroid	0		1
Cholera	0		3
Hydatid infection	1	Qld	22
Leprosy	0		10
Lymphogranuloma venereum	0		1
Plague	0		0
Rabies	0		0
Yellow fever	0		0
Other viral haemorrhagic fevers	0		0

1. Fewer than 50 cases of each of these diseases were notified each year during the period 1987 to 1992.

Table 9. Laboratory reports by State or Territory[1] for the reporting period 7 to 20 October 1993, historical data[2], and total reports for the year

	State or Territory[1]								Total this fortnight	Historical data[2]	Total reported this year
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA			
MEASLES, MUMPS, RUBELLA											
Measles virus		40		14		2	4		60	10.2	384
Mumps virus				1					1	1.7	66
Rubella virus	1	10		21	7		1	6	46	48.7	863
HEPATITIS VIRUSES											
Hepatitis A virus				3			2		5	20.0	462
Hepatitis B virus	1	19		22	1		18	8	69	96.3	2,182
Hepatitis C virus	8	13		24	34	14	4	28	125	90.2	3,758
Hepatitis E virus							1		1	.2	8
ARBOVIRUSES											
Ross River virus			1	5					6	13.3	1,725
Barmah Forest virus				1					1	4.2	182
Flavivirus (unspecified)							2		2	2.5	114
ADENOVIRUSES											
Adenovirus type 1		4					5		9	4.7	79
Adenovirus type 2		5			2				7	6.3	107
Adenovirus type 3		6			1		2		9	5.2	211
Adenovirus type 4		1							1	5.3	64
Adenovirus type 5		2							2	3.0	29
Adenovirus type 8							3		3	3.2	25
Adenovirus type 9		1					1		2	.7	4
Adenovirus type 11		1			1				2	.3	8
Adenovirus type 37							1		1	.2	1
Adenovirus not typed/pending		6		2	10		13	14	45	51.0	1,140
HERPES VIRUSES											
Herpes simplex virus type 1		13		40	24	1	37	22	137	152.0	3,589
Herpes simplex virus type 2		22	1	55	27	1	37	47	190	168.0	4,398
Herpes simplex not typed/pending	2	20		3			4	3	32	31.0	615
Cytomegalovirus		8		5			7	5	25	75.8	1,457
Varicella-zoster virus		12		16		1	7	1	37	30.0	859
Epstein-Barr virus		11		5	22		5	8	51	66.7	1,517
Herpes virus group - not typed		1							1	2.7	23
OTHER DNA VIRUSES											
Molluscum contagiosum							1		1	.2	9
Parvovirus				1			1	3	5	6.3	107
PICORNA VIRUS FAMILY											
Coxsackievirus A9		1					4		5	2.2	62
Coxsackievirus A16		1							1	1.3	11
Coxsackievirus B4					1	1			2	.2	8
Coxsackievirus B5	1								1	3.0	46
Echovirus type 11	1	7					1		9	.3	100
Echovirus type 17					1				1	1.5	8
Echovirus type 30							11		11	.2	72
Poliovirus type 1 (uncharacterised)		1							1	2.7	47

Table 9. Laboratory reports by State or Territory[1] for the reporting period 7 to 20 October 1993, historical data[2], and total reports for the year, continued

	State or Territory[1]								Total this fortnight	Historical data[2]	Total reported this year
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA			
Poliovirus type 2 (uncharacterised)		1							1	1.7	31
Poliovirus type 3 (uncharacterised)		1							1	.2	30
Rhinovirus (all types)		10					22	2	34	25.8	719
Enterovirus not typed/pending		1		3			4	17	25	24.3	737
ORTHO/PARAMYXOVIRUSES											
Influenza A virus	1	6			6		5	7	25	17.0	418
Influenza A virus H_3N_2							1		1	.0	27
Influenza B virus	2		2		6		4	1	15	22.8	564
Parainfluenza virus type 3		13		2	4		9	3	31	30.0	514
Respiratory syncytial virus		6		1	4		8	17	36	54.5	3,393
OTHER RNA VIRUSES											
HIV-1				1					1	1.7	66
Rotavirus	9	18			22	7	8	4	68	137.0	1,915
OTHER											
Chlamydia trachomatis not typed	1	3		22	19	4	10	35	94	108.8	2,548
Chlamydia psittaci							10		10	5.8	81
Chlamydia species		2							2	.3	15
Mycoplasma pneumoniae		16		24		3	6	2	51	67.3	1,756
Coxiella burnetii (Q fever)		16		6	2		1		25	9.2	487
Streptococcus group A		1		9					10	.5	258
Bordetella pertussis				1			12		13	.3	252
Bordetella species		2		2					4	2.0	204
Treponema pallidum		6							6	11.7	553
Toxoplasma gondii							1		1	1.3	50
TOTAL	27	307	4	289	194	34	273	233	1,361	1,433.3	38,958

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 10. Laboratory reports by clinical information for the reporting period 7 to 20 October 1993

	Encephalitis	Meningitis	Other CNS	Congenital	Respiratory	Gastrointestinal	Hepatic	Skin	Eye	Muscle/joint	Genital	Other/unknown	Total
MEASLES, MUMPS, RUBELLA													
Measles virus					5			22				33	60
Mumps virus												1	1
Rubella virus								22		2		22	46
HEPATITIS VIRUSES													
Hepatitis A virus							3					2	5
Hepatitis B virus							3					66	69
Hepatitis C virus							1					124	125
Hepatitis E virus												1	1
ARBOVIRUSES													
Ross River virus										2		4	6
Barmah Forest virus												1	1
Flavivirus (unspecified)												2	2
ADENOVIRUSES													
Adenovirus type 1		1			4	1						3	9
Adenovirus type 2					2			1				4	7
Adenovirus type 3		1			3				2			3	9
Adenovirus type 4												1	1
Adenovirus type 5						1						1	2
Adenovirus type 8									3				3
Adenovirus type 9						1		1					2
Adenovirus type 11												2	2
Adenovirus type 37									1				1
Adenovirus not typed/pending					15	20			2			8	45
HERPES VIRUSES													
Herpes simplex virus type 1					9			61	4		47	16	137
Herpes simplex virus type 2					1			42			140	7	190
Herpes simplex not typed/pending	1	1	1					13			6	10	32
Cytomegalovirus	1			2	11		1					10	25
Varicella-zoster virus			1					25				11	37
Epstein-Barr virus					2		1	1				47	51
Herpes virus group - not typed												1	1
OTHER DNA VIRUSES													
Molluscum contagiosum								1					1
Parvovirus								1		1		3	5
PICORNA VIRUS FAMILY													
Coxsackievirus A9		3										2	5
Coxsackievirus A16								1					1
Coxsackievirus B4		1			1								2
Coxsackievirus B5												1	1
Echovirus type 11		4			2	1						2	9
Echovirus type 17							1						1
Echovirus type 30		10						1					11
Poliovirus type 1 (uncharacterised)												1	1
Poliovirus type 2 (uncharacterised)												1	1

Table 10. Laboratory reports by clinical information for the reporting period 7 to 20 October 1993, continued

	Encephalitis	Meningitis	Other CNS	Congenital	Respiratory	Gastrointestinal	Hepatic	Skin	Eye	Muscle/joint	Genital	Other/unknown	Total
Poliovirus type 3 (uncharacterised)						1							1
Rhinovirus (all types)					29	1						4	34
Enterovirus not typed/pending	1	2			9	4						9	25
ORTHO/PARAMYXOVIRUSES													
Influenza A virus					13							12	25
Influenza A virus H3N2					1								1
Influenza B virus					8							7	15
Parainfluenza virus type 3					27							4	31
Respiratory syncytial virus					32			1				3	36
OTHER RNA VIRUSES													
HIV-1												1	1
Rotavirus						66					1	1	68
OTHER													
Chlamydia trachomatis not typed											61	33	94
Chlamydia psittaci					3							7	10
Chlamydia species					1				1				2
Mycoplasma pneumoniae	1				23			1	1			25	51
Coxiella burnetii (Q fever)										1		24	25
Streptococcus group A								2		2		6	10
Bordetella pertussis					13								13
Bordetella species												4	4
Treponema pallidum												6	6
Toxoplasma gondii												1	1
TOTAL	4	23	2	2	214	96	10	196	14	8	255	537	1361

Table 11. Laboratory reports by contributing laboratories for the reporting period 7 to 20 October 1993

STATE OR TERRITORY	LABORATORY	REPORTS
Australian Capital Territory	Woden Valley Hospital, Canberra	25
New South Wales	Institute of Clinical Pathology & Medical Research, Westmead	202
	Royal Alexandra Hospital for Children, Camperdown	29
	South West Area Pathology Service, Liverpool	48
Queensland	Queensland Medical Laboratory, West End	305
	State Health Laboratory, Brisbane	15
South Australia	Institute of Medical & Veterinary Science, Adelaide	194
Tasmania	Northern Tasmanian Pathology Service, Launceston	12
	Royal Hobart Hospital, Hobart	16
Victoria	Microbiological Diagnostic Unit, University of Melbourne	10
	Monash Medical Centre, Melbourne	9
	Royal Children's Hospital, Melbourne	76
	Victorian Infectious Diseases Reference Laboratory, Fairfield Hospital	183
Western Australia	Princess Margaret Hospital, Perth	41
	State Health Laboratory Services, Perth	196
TOTAL		1361