



# Communicable Diseases Intelligence

Bulletin number 85/16

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## Contents:

. CDI Reports - 1984

### VIRUS REPORTING SCHEME

A total of 1702 reports was processed this period. Continuing evidence of influenza A activity is noted in this generation of reports; 246 infections were reported (105 subtyped H<sub>3</sub>N<sub>2</sub>, three H<sub>1</sub>N<sub>1</sub> and 138 untyped). Five of the 21 H<sub>3</sub>N<sub>2</sub> subtype isolations reported from the State Health Laboratory, Brisbane, were identified as A/Vic/3/85. A/Wellington/3/84 was isolated from 4 one year old children by the Royal Alexandra Hospital for Children, Camperdown. Seasonal influenza A activity is markedly greater than that for similar time periods of 1984:-

	<u>1984</u>	<u>1985</u>
Influenza A reports, generation 14, 20 June - 3 July	-	41
Influenza A reports, generation 15, 4 July - 17 July	6	121
Influenza A reports, generation 16, 18 July - 31 July	-	246

There has been no seasonal increase in the incidence of parainfluenza virus infections during these periods compared with the same periods in 1984.

There were 16 reports of influenza B virus for this period; one of these infections, isolated from a five month old male by the State Health Laboratory, Brisbane, was identified by the OIC WHO Reference Centre, Melbourne, as B/Vic/102/83.

A case of dengue fever (serotype 4) was reported in a Townsville resident who had recently returned from Tahiti.

### CDI REPORTS - 1984

A total of 32374 reports was received by CDI for 1984 (up to 5 July 1985) compared with 29 224, 27 324 and 19 535 for 1983, 1982 and 1981 respectively. A percentage separation of the reports together with corresponding figures for 1983 is given in Figure 1. Reports of the same organism collected on different dates, and of further identification of reports pending typing, were deleted whenever identified.

The greater number of reports in 1984 was due both to genuine increases in disease incidence and to increased availability of

diagnostic facilities with concomitant referral of specimens. Hepatitis A, respiratory syncytial virus, influenza A virus, rhinovirus infections, Mycoplasma pneumoniae and echovirus infections were reported less in 1984. Genital infections (9920 reports) comprised 30.6% of reports; 66.8% of these were due to herpes simplex and 27.2% to C. trachomatis.

HERPES SIMPLEX VIRUS - The 10955 herpes virus reports consisted of 7.4% herpes virus untyped, 2.5% herpes virus type pending, 1.0% herpes simplex virus (HSV) untyped, 25.6% HSV type 1 (HSV-1) and 63.5% HSV type 2 (HSV-2). Of the HSV-1 reports, 46.4% were classified as skin/mucous membrane infections, 35.9% genital, 5.4% respiratory tract, 3.6% conjunctival, 1.0% urinary tract and 0.7% encephalitis. Similarly, the HSV-2 presentations constituted 16.4% skin/mucous membrane infections, 80.6% genital, respiratory 0.13%, with conjunctival, urinary and encephalitis each constituting less than 0.1%. Only 0.2% of HSV-2 infections occurred in patients up to 15 years (8 cases in infants under six months) compared with 22.8% of HSV-1 infections (20 cases in infants under six months). The male : female ratios were 1039:1717 for HSV-1 and 3051:3785 for HSV-2 infections. Twenty-one genital infections (4 of HSV-1, 13 of HSV-2 and 4 of HSV untyped) were recorded in pregnant women. Thirty-six infections were diagnosed in renal transplant recipients (30 of HSV-1, 2 of HSV-2 and 4 of HSV untyped) and three in bone-marrow recipients (all HSV-1).

CHLAMYDIA - The male : female ratio of the C. trachomatis infections was 1173:1570; 22 infections occurred in infants below six months of age. Thirty-seven patients presented with conjunctivitis and 14 with respiratory disease. There were six lymphogranuloma venereum reports and 57 reports of C. psittaci.

ROTA VIRUS - Rotavirus infections were diagnosed in patients of all age groups. However the majority (88.6%) occurred in children under 5 years. Peak virus activity occurred in July-August with reports extending into spring (Figure 2E).

HEPATITIS B - Of the 3034 HBsAg reports received, 27.9% were in patients aged 15-24 years, 40.3% aged 25-59 years and 0.40% (12 reports) in children less than one year. The male : female ratio was 1658:915. When ethnicity was indicated, 131 were recorded as Indochinese (70 Vietnamese) and 63 as Aborigines.

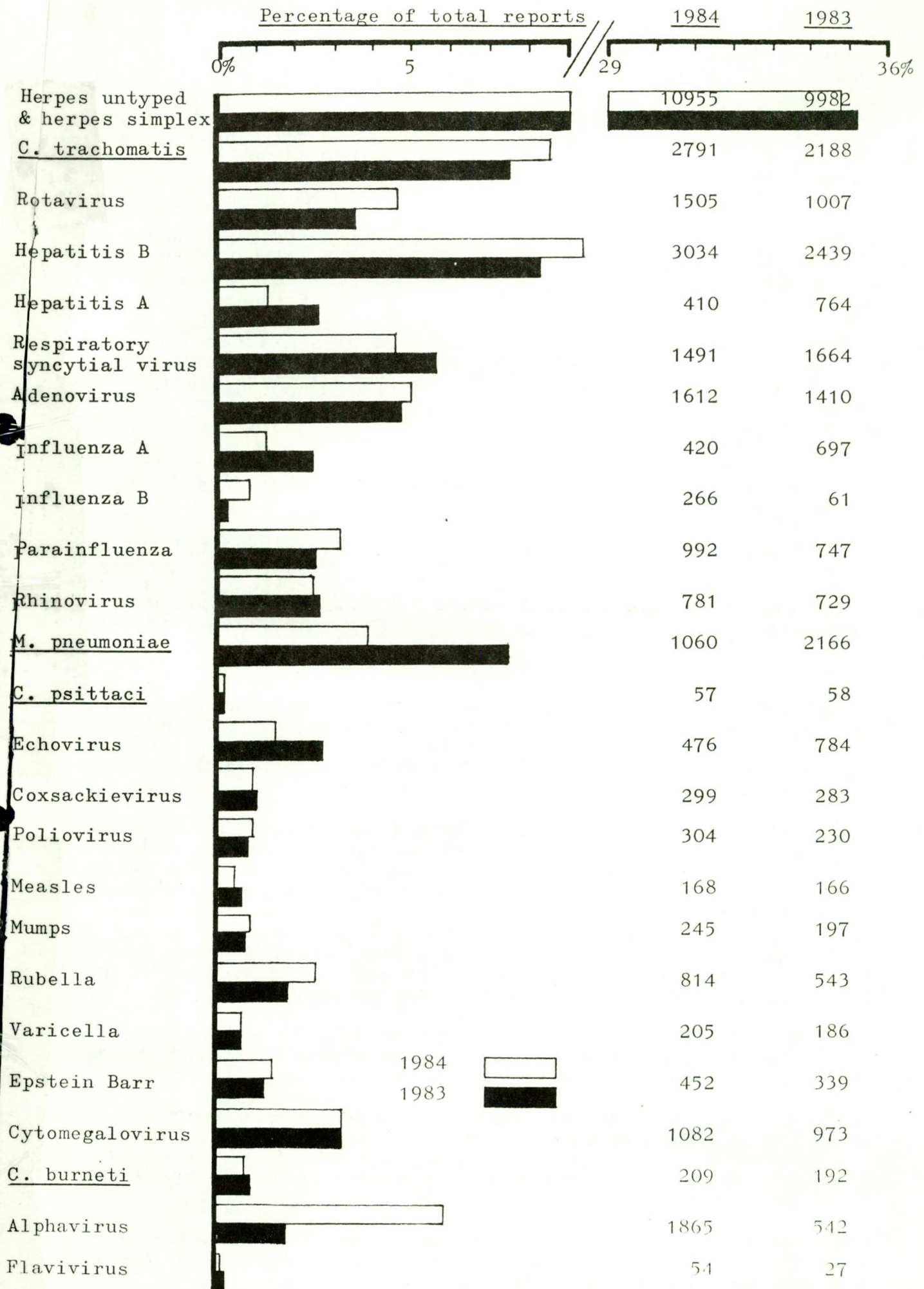
Carrier status was identified in 77 cases. Ninety-nine cases were homosexual males, 56 were abusers of intravenous drugs, 13 were prison inmates and four were patients in institutes for the mentally retarded. Nineteen reports were in pregnant females, one in a renal transplant recipient and two following needle-stick injuries.

HEPATITIS A - Clinical infections predominated in adults, (69.5% of reports in patients aged more than 15 years) with a male : female ratio of 216:189. One case was reported in an abuser of intravenous drugs and one in an Aborigine.

RESPIRATORY SYNCYTIAL VIRUS (RSV) - 88.3% of the reports were in children aged under five years, 46.7% in infants under six months of age. The male : female ratio was 857:608. The seasonal activity of the virus is depicted in Figure 2C.

ADENOVIRUS - Of the 1612 reports, 38.3% were of adenovirus untyped and 13.3% were of type pending. The predominant serotypes were type 1 (9.7%), type 3 (8.4%), type 2 (7.6%),

FIGURE 1. Frequency distribution of 32374 isolations and identifications reported to CDI - 1984.



type 37 (4.5%) and type 5 (4.4%). Whereas types 1, 3 and 2 presented primarily with respiratory (54.5%, 44.4% and 50.8% respectively) and gastrointestinal (21.8%, 11.1% and 25.4%) symptoms in children, type 37 infection was prevalent in adults (93.2% in patients aged over 15 years with a male : female ratio of 49:24) occurring as ocular (26.0%) or genital (74.0%) infections. Other serotypes causing conjunctivitis were type 8 (45 cases), 3 (41 cases), 19 (40 cases), 7 (6 cases), 1 (3 cases) and types 4 and 18 (2 cases each). Other serotypes causing conjunctivitis were type 8 (78.9%, 45 cases) type 3 (30.4%, 41 cases), type 19 (76.9%, 40 cases), type 7 (20.7%, 6 cases), type 1 (1.9%, 3 cases), type 4 (13.3%, 2 cases) and type 18 (40.0%, 2 cases).

INFLUENZA A - The seasonal activity of the virus is shown in Figure 2A. H<sub>3</sub>N<sub>2</sub> subtype was reported by laboratories in Sydney (4 cases), Melbourne (107) and Adelaide (39) whereas all of the seven H<sub>1</sub>N<sub>1</sub> isolates were reported from Melbourne.

Antigenic analysis of the influenza isolates collected by the OIC WHO Influenza Reference Centre, Melbourne, indicated that the H<sub>1</sub>N<sub>1</sub> strains reacted equally well with A/England/333/80 and A/India/6263/80 antisera, but not with any of the antisera prepared against the 1983 H<sub>1</sub>N<sub>1</sub> isolates. This was also true for the H<sub>1</sub>N<sub>1</sub> isolates forwarded to the Reference Centre from other laboratories, with the exception of A/Perth/1/84 which closely resembled A/Victoria/7/83. H<sub>3</sub>N<sub>2</sub> isolates resembled A/Philippines/2/82.

INFLUENZA B - Moderate influenza B activity was reported during 1984 (see Figure 2A) with reports coming from Sydney, Melbourne, Adelaide, Brisbane and Perth laboratories.

PARAINFLUENZA - The seasonal activities of three parainfluenza types (1, 2 and 3) are shown in Figure 2B. 77.3% of infections were in children less than five years of age.

RHINOVIRUS - 70.6% of infections were in children aged less than five years. The male : female ratio was 407:307 with the Royal Children's Hospital, Melbourne, and the Institute of Medical and Veterinary Science, Adelaide, each reporting 27.3% of the total number of cases.

M. PNEUMONIAE - M. pneumoniae infections (98.9% diagnosed by complement fixation) were detected in all age groups although 34.9% were in children aged 5-14 years and 28.3% occurred in patients 25-59 years of age. The seasonal activity of this virus is represented in Figure 2C.

ECHOVIRUS - The prevalent serotypes were 19.3% type 9, 14.1% type 6, 7.4% type 22, 6.7% types 11 and 17, 6.1% type 7 and 5.9% type 30. Other serotypes occurred sporadically.

COXSACKIEVIRUS - Coxsackievirus type A9 (21.4%) and B5 (40.1%) were the prevalent serotypes predominantly affecting young children in spring and summer.

POLIOVIRUS - 66.1% of the 304 isolations were cultured from infants less than one year of age.

MEASLES - 47.1% of reports were in children aged 5-14 years and 22.6% in children 1-4 years old.

MUMPS - 40.0% of the mumps diagnoses were in patients 5-14 years of age and 24.1% in patients aged from 25-59 years. Overall, the male : female ratio was 160:76.



RUBELLA - 33.5% of cases were in patients 25-59 years of age, 26.4% in the 5-14 years age group and 23.2% in patients 15-24 years old. The male : female ratio was 344:443.

VARICELLA - 46.8% of infections were in patients over 25 years. Five cases presented with meningitis and two with encephalitis. Varicella was also diagnosed in an immunosuppressed patient, an AIDS patient in whom cytomegalovirus was also detected, in a renal transplant patient and in three patients with Ramsay Hunt syndrome.

EPSTEIN - BARR VIRUS - The male : female ratio was 234:207, with 59.3% of the cases being patients older than 15 years.

CYTOMEGALOVIRUS - Reports were received from all participating laboratories with 17.0% of infections in infants under six months, 30.1% in patients older than 25 years and a male : female ratio of 515:528. Presentations comprised 20.8% respiratory, 8.5% urinary, 14.0% genital, 7.1% congenital, and 4.2% hepatic infections. Forty-four reports were of infections in renal transplant recipients and 11 in bone-marrow recipients. Thirty-four isolations were made from seminal fluid, fourteen from pregnant females and three from breast milk. Two patients had Guillain-Barré syndrome.

COXIELLA BURNETII - Reports were received from all States; 46.4% Queensland, 37.3% New South Wales, 8.1% Western Australia, 4.8% Victoria and 3.4% South Australia. The reports exhibited a male : female distribution of 182:25 indicative of the occupational disease transmission. 90.4% of patients were older than 15 years.

ALPHAVIRUS - Epidemic polyarthrititis was widespread during the summer (Figure 2F). A total of 1623 reports was received. The distribution by State of origin, where this was known, was New South Wales 33.2%, Queensland 25.9%, Western Australia 9.6%, Victoria 5.1%, South Australia 2.5% and Northern Territory 1.0%. The male to female ratio of cases was 707:893, with 84.3% of the patients being older than 15 years.

FLAVIVIRUS - Of the 27 confirmed and 17 clinical dengue cases reported, ten were known to have been acquired overseas (Papua New Guinea 5, Kiribati 1, Philippines 1, Thailand 1, Bali 1, Solomon Islands 1). Indigenous cases of dengue were reported from Townsville (20), Innisfail (1), Lansvale (1), Roma (1) and Bowen (1). The source of infection was not available for ten cases. Kunjin virus infections were reported from Trinity Beach (Queensland), Echuca (Victoria), Merbein (Victoria) and Oonoonba (Queensland). The geographical source of infection was unknown in four cases.

POXVIRUS - Molluscum contagiosum comprised 9 of the 28 poxvirus reports.

OTHER VIRUS GROUPS - These groups incorporated numerous virus reports, each forming less than 1% of the total; picornavirus not typed (279 reports), reovirus (6), coronavirus (23), calici virus (2), norwalk agent (1), enterovirus type 68 (1), enterovirus type 71 (1), enterovirus type pending (371), Australian encephalitis (2), astrovirus 19, small virus (like) particles (66) and paramyxovirus (23).

Copies of the 1984 tables are available from the Editor on request. These are computer printouts of the type and number of reports received from each laboratory, the patient's age and sex, the clinical presentation, the specimen tissue and month of collection, and the method of diagnosis.

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE  
 REPORTING PERIOD - 18/7/85 to 31/7/85 BULLETIN NUMBER 85/16  
 VIRAL IDENTIFICATIONS FROM CONTRIBUTING LABORATORIES

VIRUS OR VIRAL ANTIGEN	ICPMR (NSW)/ MVH (ACT)	RAHC (NSW)	PHH/ POW (NSW)	FAIR- FIELD (VIC)	RCH (VIC)	IMVS (SA)	STATE LAB (QLD)	STATE LAB (WA)	Total
0100 ADENOVIRUS NOT TYPED.....	2	1	9		3	1	10		26
0101 ADENOVIRUS TYPE 1.....	2				2	3		1	8
0102 ADENOVIRUS TYPE 2.....	2			3	5	4		3	17
0103 ADENOVIRUS TYPE 3.....						3		2	5
0105 ADENOVIRUS TYPE 5.....						3		1	4
0106 ADENOVIRUS TYPE 6.....	1								1
0107 ADENOVIRUS TYPE 7.....					2	2			4
0108 ADENOVIRUS TYPE 8.....	1								1
0121 ADENOVIRUS TYPE 21.....								1	1
0124 ADENOVIRUS TYPE 24.....				1					1
0137 ADENOVIRUS TYPE 37.....				1					1
0199 ADENOVIRUS TYPING PENDING.....		3	1		2	2			8
0201 INFLUENZA A VIRUS.....	16		25	1		18	42	36	138
0202 INFLUENZA A VIRUS SUBTYPE H3N2.....	6	4		18	29	27	21		105
0203 INFLUENZA B VIRUS.....			3	3		5	1	4	16
0206 INFLUENZA A VIRUS SUBTYPE H1N1.....				3					3
0299 INFLUENZA VIRUS.....		4				1			5
0301 PARAINFLUENZA VIRUS TYPE 1.....						9			9
0302 PARAINFLUENZA VIRUS TYPE 2.....						1		1	2
0303 PARAINFLUENZA VIRUS TYPE 3.....				1	6	2	1	4	14
0399 PARAINFLUENZA VIRUS TYPING PENDING.....				1		2			3
0400 RESPIRATORY SYNCYTIAL VIRUS (RS).....	22	12	15	41	30	79	38	39	276
0500 RHINOVIRUS (ALL TYPES).....				3	12	10			25
0600 MYCOPLASMA PNEUMONIAE.....	4		3	3			1	4	15
0700 ORNITHOSIS-PSITTACOSIS.....			1	3		1			5
0809 COXSACKIEVIRUS A9.....						1			1
0816 COXSACKIEVIRUS A16.....				2					2
0904 COXSACKIEVIRUS B4.....	1				1	4			6
0906 COXSACKIEVIRUS B6.....						1			1
1007 ECHOVIRUS TYPE 7.....	2			4	2				8
1011 ECHOVIRUS TYPE 11.....	1								1
1020 ECHOVIRUS TYPE 20.....	1								1
1021 ECHOVIRUS TYPE 21.....	1								1
1022 ECHOVIRUS TYPE 22.....		1				1			2
1100 POLIOVIRUS NOT TYPED.....			3		1			2	6
1101 POLIOVIRUS TYPE 1.....	1	1				1		1	4
1102 POLIOVIRUS TYPE 2.....	1	1				3			5
1104 POLIOVIRUS-VACCINAL STRAIN.....							1		1
1200 MUMPS VIRUS.....		1							1
1300 HERPES VIRUS GROUP-NOT TYPED.....	23		1	3			2		29
1301 HERPES SIMPLEX VIRUS NOT-TYPED.....	1	2		8					11
1302 EPSTEIN-BARR VIRUS (EB VIRUS).....	6			1	1	2		4	14
1303 VARICELLA-ZOSTER VIRUS.....	7			2		1	1		11
1306 HERPES SIMPLEX TYPE 1.....	10		6	45		18	39	16	134
1307 HERPES SIMPLEX TYPE 2.....	45		22	49		26	59	49	250
1399 HERPES VIRUS TYPING PENDING.....				1	2				3
1401 COXIELLA BURNETI.....	2						16		18
1502 PICORNA VIRUS-NOT TYPED.....	1		4				2		7
1521 MEASLES VIRUS.....		1		1					2
1522 RUBELLA VIRUS.....	4		1		1		3	2	11
1532 HEPATITIS B ANTIGEN.....	49		6		1	18	8	11	93
1535 HEPATITIS A ANTIBODY.....	3					5		8	16
1541 CHLAMYDIA A - C TRACHOMATIS.....	34		2			24	26	56	142
1543 CHLAMYDIA A - LGV TYPE.....								1	1
1556 CMV - CYTOMEGALOVIRUS.....	4		3	19	9	2	9	4	50
1563 CORONAVIRUS.....	1								1
1564 ROTAVIRUS.....	18	5	23	12	16	39		2	115
1599 ENTEROVIRUS TYPING PENDING.....			12		3				15
9992 ROSS RIVER VIRUS.....				1			39	1	41
9993 ASTROVIRUS.....	1								1
9994 SMALL VIRUS (LIKE) PARTICLE.....	2	1							3
9995 DENGUE.....							1		1
Total.....	275	37	140	230	128	319	320	253	1,702

## AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

PERIOD : 18/7/85 to 31/7/85 ....

Viral Identifications by Clinical Information Table 1.

Code 00,99 -No ill or data; 01,02,11,12 -Respiratory; E3 -Encephalitis; M3 -Meningitis; 04 -Paralysis; 05,13 -CNS other unspec.; 07,49 -GI; 17,47 -Hepatic; 19 -CVS; 89 -Urinary; 06 -Skin/mucous.

VIRUS OR VIRAL ANTIGEN	No-ill or data	Respiratory	Encephalitis	Meningitis	Paralysis	CNS other unspec	GI	Hepatic	CVS	Urinary	Skin/ mucous memb
0100 ADENOVIRUS NOT TYPED.....		8					9			1	
0101 ADENOVIRUS TYPE 1.....		3			1	1	3				
0102 ADENOVIRUS TYPE 2.....		8				1	3				
0103 ADENOVIRUS TYPE 3.....		2					1				
0105 ADENOVIRUS TYPE 5.....		4									
0106 ADENOVIRUS TYPE 6.....		1									
0107 ADENOVIRUS TYPE 7.....		1					2				
0108 ADENOVIRUS TYPE 8.....	1										
0121 ADENOVIRUS TYPE 21.....		1									
0201 INFLUENZA A VIRUS.....	10	109	2	1		1	1	1	5		2
0202 INFLUENZA A VIRUS SUBTYPE H3N2		98		1		2	1				
0203 INFLUENZA B VIRUS.....	1	14									
0206 INFLUENZA A VIRUS SUBTYPE H1N1		2									
0299 INFLUENZA VIRUS.....		1									
0301 PARAINFLUENZA VIRUS TYPE 1....		9									
0302 PARAINFLUENZA VIRUS TYPE 2....		2									
0303 PARAINFLUENZA VIRUS TYPE 3....		14		1							
0400 RESPIRATORY SYNCYTIAL VIRUS (RS).....	6	262		1		2		1			
0500 RHINOVIRUS (ALL TYPES).....	2	18									1
0600 MYCOPLASMA PNEUMONIAE.....	2	9									
0700 ORNITHOSIS-PSITTACOSIS.....	1		1								
0809 COXSACKIEVIRUS A9.....		1									
0816 COXSACKIEVIRUS A16.....		2									
0904 COXSACKIEVIRUS B4.....	2				1	1	1				
1007 ECHOVIRUS TYPE 7.....		3	1	2							
1011 ECHOVIRUS TYPE 11.....							1				
1020 ECHOVIRUS TYPE 20.....		1									
1021 ECHOVIRUS TYPE 21.....	1										
1022 ECHOVIRUS TYPE 22.....		1					1				
1100 POLIOVIRUS NOT TYPED.....		1					4				
1101 POLIOVIRUS TYPE 1.....		2				1					
1102 POLIOVIRUS TYPE 2.....		3					1				
1104 POLIOVIRUS-VACCINAL STRAIN....							1				
1200 MUMPS VIRUS.....				1							
1300 HERPES VIRUS GROUP-NOT TYPED..	8	1	1								14
1301 HERPES SIMPLEX VIRUS NOT-TYPED	1	1									1
1302 EPSTEIN-BARR VIRUS (EB VIRUS).	2							1			
1303 VARICELLA-ZOSTER VIRUS.....			1			1					8
1306 HERPES SIMPLEX TYPE 1.....	3	19						1	1	1	66
1307 HERPES SIMPLEX TYPE 2.....	4	3									56
1401 COXIELLA BURNETI.....	2	6							1		
1502 PICORNA VIRUS-NOT TYPED.....						1	5		1		
1521 MEASLES VIRUS.....											2
1522 RUBELLA VIRUS.....		1									7
1532 HEPATITIS B ANTIGEN.....	47							32			
1535 HEPATITIS A ANTIBODY.....	4							10			
1541 CHLAMYDIA A - C.TRACHOMATIS...	1										
1556 CMV - CYTOMEGALOVIRUS.....	2	12					1	1		2	
1564 ROTAVIRUS.....	4						97				
9992 ROSS RIVER VIRUS.....	6	7									12
9993 ASTROVIRUS.....							1				
9994 SMALL VIRUS (LIKE) PARTICLE...	1						1				
9995 DENGUE.....											1
Total.....	112	630	6	9	1	10	134	47	8	4	170

## AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

PERIOD : 18 / 7 / 85 to 31 / 7 / 85 ...

Viral Identifications by Clinical Information Table 2.

Code 10 -Eye; 59 -Genital; 39 -Endo/sal gland;

38 -RES; 29 -Muscle/joint; 69 -Congenital; P8 -PUO;

G8 -Fever/malaise; 09 -Other; A1 -SIDS ...

VIRUS OR VIRAL ANTIGEN	Eye	Gen-ital	Endo/sal gland	RES	Muscle/joint	Con-genital	PUO	Fever/malaise	Other	SIDS
0100 ADENOVIRUS NOT TYPED.....								2	2	
0101 ADENOVIRUS TYPE 1.....							1			
0102 ADENOVIRUS TYPE 2.....								3	3	1
0103 ADENOVIRUS TYPE 3.....	1							1		
0105 ADENOVIRUS TYPE 5.....								1		
0107 ADENOVIRUS TYPE 7.....										1
0124 ADENOVIRUS TYPE 24.....									1	
0137 ADENOVIRUS TYPE 37.....	1									
0201 INFLUENZA A VIRUS.....			1	1			3	32	2	
0202 INFLUENZA A VIRUS SUBTYPE H3N2								11		
0203 INFLUENZA B VIRUS.....								2	1	
0206 INFLUENZA A VIRUS SUBTYPE H1N1								1		
0303 PARAINFLUENZA VIRUS TYPE 3....								1		
0400 RESPIRATORY SYNCYTIAL VIRUS (RS).....	1		1		3		5	3	1	1
0500 RHINOVIRUS (ALL TYPES).....										1
0600 MYCOPLASMA PNEUMONIAE.....							1	2		
0904 COXSACKIEVIRUS B4.....							1			
0906 COXSACKIEVIRUS B6.....										1
1007 ECHOVIRUS TYPE 7.....							2			
1100 POLIOVIRUS NOT TYPED.....									1	
1101 POLIOVIRUS TYPE 1.....									1	
1102 POLIOVIRUS TYPE 2.....									1	
1300 HERPES VIRUS GROUP-NOT TYPED..		4					1			
1301 HERPES SIMPLEX VIRUS NOT-TYPED								1		
1302 EPSTEIN-BARR VIRUS (EB VIRUS)..			7	1				1	2	
1303 VARICELLA-ZOSTER VIRUS.....					1		1			
1306 HERPES SIMPLEX TYPE 1.....	1	38	1		1		1	6	1	
1307 HERPES SIMPLEX TYPE 2.....		186								
1401 COXIELLA BURNETI.....					1		1	12		
1522 RUBELLA VIRUS.....			1		2	2	2			
1532 HEPATITIS B ANTIGEN.....								1	12	
1535 HEPATITIS A ANTIBODY.....									2	
1541 CHLAMYDIA A - C.TRACHOMATIS... 1	1	140								
1543 CHLAMYDIA A - LGV TYPE.....		1		1						
1556 CMV - CYTOMEGALOVIRUS.....		5				5	1	4	15	3
1563 CORONAVIRUS.....									1	
1564 ROTAVIRUS.....									4	
9992 ROSS RIVER VIRUS.....					27			7		
9994 SMALL VIRUS (LIKE) PARTICLE... 1									1	
9995 DENGUE.....	1									
Total.....	6	374	11	3	35	7	20	91	51	8