



# Communicable Diseases Intelligence

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Editor *Dr Ian Welch*

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**VIRUSES, CHLAMYDIAS, COXIELLAS, RICKETTSIAS AND MYCOPLASMAS REPORTING SCHEME:** A total of 1,149 reports were processed during this period.

Six cases of Q fever (3 males, 1 female, 2 sex not stated) were reported during this period. Ages ranged from 21 to 69 years. Occupational exposure details were not provided.

Adenovirus type 1 was isolated from a lymph node biopsy specimen from a 31-year-old woman who presented with a painless non-tender submental lymph node and who was otherwise well. Adenovirus type 1 is known to be able to produce latent infection in lymphatic tissue.

Increased rubella activity continues to be observed, with 49 reports received during this period, making a progressive total of 494 reports for 1989 so far. The highest incidence for the year occurred in October (111 reports) and November (110 reports). Reports for this period included:

- . serological confirmation (IgM detected) of infection in an infant (age and sex not stated) with intrauterine growth retardation and osteopathy of the knees. The mother had had no evidence of clinical infection during pregnancy.

Other Editorial Staff: Ms Evon Bowler, Dr Lance Sanders, Mr Lundy Keo.

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- . serological confirmation of infection in a 22-year-old female with clinical rubella when 9 weeks pregnant. Rubella virus was isolated from the amniotic fluid and the pregnancy was terminated. The mother had been vaccinated at school during year 6.

**OVERSEAS BRIEF: DENGUE IN VENEZUELA**

In the latest official report of the outbreak of dengue haemorrhagic fever in Venezuela (dated 28 December 1989) 845 cases including 27 deaths have been notified. Approximately a quarter of both cases and deaths are in children under 5 years of age. Dengue types 2 and 4 have been positively identified; a further isolate has been tentatively identified as dengue type 1.

Cases of dengue haemorrhagic fever have been reported in 16 out of 22 states of Venezuela, but the largest number of cases have been reported from the Aragua and Falcon Provinces.

**SEROLOGICAL DIAGNOSIS OF INFANTS WITH HIV DISEASE**

(Reproduced with acknowledgement from Infectious Disease Alert Vol.9/No.5, 1 December 1989).

In 1983, the first evidence of AIDS in infants was presented. Since then, more than 1,300 cases of paediatric AIDS have been reported in the United States. Many HIV-infected children have milder or no apparent disease. The major difficulty in diagnosing HIV infection in infants results from placental transfer of maternal IgG to the fetal circulation, which prevents routine diagnosis by ELISA or Western blot. It has been estimated that 15 months are required before infant antibody can be used to determine infection. Determination of infection may be even more difficult because of delayed or absent synthesis of anti-HIV antibody in infected infants. Recently, Johnson and colleagues [1] conducted a prospective study of the diagnostic, clinical, and laboratory findings in 20 children born to HIV-infected women.

Between September 1985 and March 1986, all women presenting to the University of Maryland obstetric service were screened for risk factors for HIV infection by written questionnaire. Women who identified a risk factor for HIV infection were asked to participate in the study:

- . approximately 25% of these at-risk women were HIV-seropositive;
- . 90% of the mothers were black, with a mean age of 28.5 years;
- . 80% were multiparous;
- . 50% continued to abuse drugs during pregnancy; and
- . none had AIDS.

The offspring of the first 20 seropositive women were evaluated at birth and at 2,4,6,9,12 and 18 months. None of the children were breastfed, and none received prophylactic medications. Antibody titre against HIV was estimated using DuPont HTLV-III enzyme-linked immunosorbent assay according to manufacturer's instructions. Western blot and p24 antigen assay were also performed.

A total of 17 positive assays could be documented in eight of the 20 children:

- . five children had increasing HIV antibody during the first year of life;
- . three children had decreasing anti-HIV antibody despite evidence of HIV infection:
  - one child seroconverted at 22 months of age;
  - one child had HIV antigen in her serum; and
  - one child synthesised IgM against HIV.

Endogenous antibody synthesis of HIV was demonstrated by acquisition of new bands on Western blot:

- . in one child, p55, p51/66, and gp 41 developed at four and six months of age;
- . two of 20 children developed new bands, confirming HIV infection;
- . four of the 20 children had evidence of anti-HIV IgM synthesis:
  - two children had IgM against HIV at birth;
  - the other two children synthesised IgM against HIV by four months of age.

Of these four children with IgM antibody:

- three developed IgG class antibodies, and
- the other child lost antibody positivity by one year of age but has slow growth and a low T4:T8 ratio.

Five of 20 children had antigenemia by four months of age. Four of these children subsequently developed clinical criteria for P2D classification by one year of age.

A total of 17 positive assays could be documented in eight of the 20 children by six months of age:

- . increasing antibody titre against HIV and antigen detection were equally sensitive (ie, positive in 5 children by 1 year of age);
- . IgM testing confirmed infection in four children and was the first positive test in three; and
- . acquisition of new IgG bands confirmed infection in two children.

No significant differences were noted between HIV infected and noninfected infants at birth:

- . five of the 20 infants (25%) had low birth weights - two of these developed HIV infection;
- . drug withdrawal symptoms were observed one infected and nine noninfected children;
- . adenopathy was the most frequent abnormality seen in HIV-infected infants;
- . hepatomegaly was observed in five infected children, compared with one of 12 noninfected children;
- . seborrhoeic rash, which was seen only in infected children, persisted in three children for several months; and
- . four infected children who had failed motor milestone assessments had hypertonicity and hyperreflexia.

Four infected children had infections meeting the diagnostic criteria for AIDS:-

- . two developed *Pneumocystis carinii* pneumonia; and
- . two other children developed recurrent serious bacterial infections, including septic arthritis in one and recurrent sepsis and pneumonia in the other.

Two infected children had evidence of lymphoid interstitial pneumonitis during the study period.

The most common laboratory abnormality in infected infants was hypergamma globulinemia. The next most frequent abnormality was an inverted T4:T8 ratio; this could be found in half of the infected children by nine months of age.

Six of the eight infected children developed HIV-mediated disease by six months of age, as did a seventh child by one year of age:

- . four of these patients developed AIDS; and
- . one child remained-asymptomatic during the study [1].

#### Comment

The problem of infant AIDS is growing at an alarming rate. The ability to diagnose this disease early in its course has many ramifications. Definition of illness in infants is especially important; the rapidity of development and severity of disease in this age group require therapeutic intervention as early as possible. A combination of Western blot band acquisition, changing levels of IgG and IgM, and antigen levels can already define this illness in most infants. Unfortunately, little therapy for infants has been effective thus far.

#### REFERENCES

1. Johnson JP, Nair P, Hines SE, et al. Natural history and serological diagnosis of infants born to human immunodeficiency virus-infected women. *Am J Dis Child* 1989;143:1147-53.

#### TAXONOMIC NOTE - NAME CHANGE FOR *CAMPYLOBACTER PYLORI*.

Curved spirochete-like bacteria have been observed in the gastric mucosa of several animal species since the late nineteenth century. Similar microorganisms were found in corresponding human tissue early in the twentieth century, and in 1975 Steer and Colin-Jones reported an association between these organisms and gastroduodenal disease [1].

Warren reported an association between gastritis and the presence of small S-shaped bacilli in gastric epithelium [2]. The organism resembled *Campylobacter jejuni* by light microscopy but could not be identified positively at that time. The first reports of successful culture of the bacteria were made by Marshall [3] and Marshall and Warren [4]. On the basis of DNA base composition and light microscopy the organism was named *Campylobacter pyloridis* [5] and later renamed *Campylobacter pylori* [6]. Since then, evidence has been accumulated which

indicates that *C pylori* is a common and important cause of gastritis, and infections with this organism have been associated with gastric and duodenal ulcer, non-ulcer dyspepsia and gastric cancer. Several reviews of *C pylori* and its role in human disease have been published [7-13].

Other studies have suggested that *C pylori* does not belong in the genus *Campylobacter*. Examination of the ultrastructure and fatty acid composition of *C pylori* together with studies of rRNA sequences indicated that this species more closely resembles *Wolinella succinogenes*, a vibrioid organism found in the bovine rumen. However, more recent studies have revealed multiple phenotypic differences between *C pylori* and *W succinogenes* [14, 15].

For these reasons, *C pylori* has been renamed *Helicobacter pylori*. The new name has been validated by its publication in the *International Journal of Systematic Bacteriology* [15]. The genus name has been derived from two morphological variations of the organism - helical *in vivo*, and frequently rod-like *in vitro*. Simultaneously, a gastric organism from the ferret has been renamed *Helicobacter mustelae*.

The importance of *H pylori* in the pathogenesis of human gastrointestinal disease remains to be fully elucidated, and as a recent *Lancet* editorial stated, 'Microbiologists and gastroenterologists will need to cooperate to unravel the secrets of what may be the commonest chronic human bacterial infection in the world' [16].

#### REFERENCES

1. Steer HW, Colin-Jones DG. Mucosal changes in gastric ulceration and their response to carbenoxolone sodium. *Gut* 1975;16:590-7.
2. Warren JR. Unidentified curved bacilli on gastric epithelium in active chronic gastritis. *Lancet* 1983;1:1273.
3. Marshall B. Unidentified curved bacilli on gastric epithelium in active chronic gastritis. *Lancet* 1983;1:1273-5.
4. Marshall BJ, Warren JR. Unidentified curved bacilli in the stomach of patients with gastritis and peptic ulceration *Lancet* 1984;1:1311-5.
5. Marshall BJ, Royce H, Annear DI, et al. Original isolation of *Campylobacter pyloridis* from human gastric mucosa. *Microbios Lett* 1984;25:83-8.
6. Marshall BJ, Goodwin CS. Revised nomenclature of *Campylobacter pyloridis* from human gastric mucosa. *Int J Syst Bacteriol* 1987;37:68.
7. Goodwin CS, Armstrong JA and Marshall BJ. *Campylobacter pyloridis*, gastritis and peptic ulceration. *J Clin Pathol* 1986;39:353-65.
8. Marshall BJ. Peptic ulcer: An infectious disease? *Hospital Practice* 1987;22:87-96.
9. Walker SJ, Murray AE. A review of *Campylobacter pylori* in upper gastrointestinal disease. *Br J Hosp Med* 1988;40:27, 30-6.
10. Dooley CP, Cohen CH. The clinical significance of *Campylobacter pylori*. *Ann Intern Med.* 1988;108:70-9.
11. Czinn SJ, Speck WT. *Campylobacter pylori*: A new pathogen. *J Pediatrics* 1989;114:670-2.
12. Graham DJ. *Campylobacter pylori* and peptic ulcer disease. *Gastroenterology* 1989;96:615-25.
13. Cover TL, Blaser MJ. The pathobiology of *Campylobacter* infections in humans. *Annu Rev Med* 1989;40:269-85.
14. Owen JR. Taxonomy of *Campylobacter pylori*. In: Rathbone BJ and Heathy RV, eds. *Campylobacter pylori* and gastroduodenal disease. Oxford:Blackwell 1989 p12-23.
15. Goodwin CS, Armstrong JA, Chilvers T, et al. Transfer of *Campylobacter pylori* and *Campylobacter mustelae* to *Helicobacter* gen nov as *Helicobacter pylori* comb nov and *Helicobacter mustelae* comb nov, respectively. *Int J Syst Bacteriol* 1989;39:397-405.
16. *Campylobacter pylori* becomes *Helicobacter pylori*. *Lancet* 1989;2:1019-20.

AIDS UPDATE, INTERNATIONAL - DATA AS AT 30 SEPTEMBER 1989  
(Based on WER 1990;65:1-2)

Country/Area	Number of cases	Date of report	Country/Area	Number of cases	Date of report
<u>Africa</u>			<u>Africa, cont.</u>		
Algeria	13	26/03/88	Uganda	7,375	15/04/89
Angola	104	31/12/88	United Republic of Tanzania	4,158	31/12/88
Benin	36	31/03/89	Zaire	4,636	31/12/88*
Botswana	49	31/03/89	Zambia	1,892	01/05/89
Burkina Faso	555	31/03/89	Zimbabwe	1,148	30/09/89
Burundi	2,355	30/06/89			
Cameroon	78	31/03/89			
Cape Verde	25	30/11/89			
Central African Republic	662	31/12/88	Total	38,248	
Chad	14	30/06/89			
Comoros	1	06/10/89	<u>Americas</u>		
Congo	1,250	09/12/87*	Anguilla	3	31/03/89
Cote d'Ivoire	1,010	23/10/89	Antigua and Barbuda	3	31/03/89
Djibouti	6	31/07/89	Argentina	377	30/06/89
Egypt	8	30/07/89	Bahamas	350	30/06/89
Equatorial Guinea	3	27/06/89	Barbados	93	30/06/89
Ethiopia	236	06/11/89	Belize	11	30/09/88
Gabon	35	30/06/89	Bermuda	122	30/06/89
Gambia	62	31/12/88	Bolivia	11	30/06/89
Ghana	921	31/08/89	Brazil	8,064	30/09/89
Guinea	82	10/10/89	British Virgin Islands	1	31/03/89
Guinea-Bissau	76	18/05/89	Canada	3,130	06/11/89
Kenya	6,004	30/06/89	Cayman Islands	4	31/12/88
Lesotho	8	15/09/89	Chile	149	30/06/89
Liberia	2	11/03/88	Colombia	471	30/06/89
Libyan Arab Jamahiriya	-	31/10/89	Costa Rica	113	30/06/89
Madagascar	-	01/02/89	Cuba	61	30/06/89
Malawi	2,586	30/06/88	Dominica	8	31/03/89
Mali	29	14/01/88	Dominican Republic	1,028	30/06/89
Mauritania	-	31/07/88	Ecuador	45	30/06/88
Mauritius	4	05/10/89	El Salvador	98	30/06/89
Morocco	38	07/11/89	French Guiana	150	30/06/89
Mozambique	48	20/10/89	Grenada	14	30/06/89
Niger	56	31/03/89	Guadeloupe	133	31/03/89
Nigeria	35	02/08/89	Guatemala	56	30/06/89
Reunion	40	03/11/89	Guyana	70	30/06/89
Rwanda	1,806	31/08/89	Haiti	2,215	30/06/89
Sao Tome and Principe	2	14/04/89	Honduras	344	30/06/89
Senegal	269	11/11/89	Jamaica	121	30/06/89
Seychelles	-	20/04/89	Martinique	79	31/03/89
Sierra Leone	21	30/06/89	Mexico	2,683	30/06/89
Somalia	7	30/09/89	Montserrat	-	31/12/88
South Africa	310	26/10/89	Nicaragua	3	30/06/89
Sudan	113	31/08/89	Panama	84	31/12/88
Swaziland	14	16/06/88	Paraguay	12	31/03/89
Togo	23	22/06/89	Peru	210	30/06/89
Tunisia	43	28/08/89	Saint Kitts and Nevis	18	31/12/88

\* The date of report has been modified.

Country/Area	Number of cases	Date of report	Country/Area	Number of cases	Date of report
<u>Americas, cont.</u>			<u>Europe</u>		
Saint Lucia	16	31/03/89	Albania	-	30/09/89
Saint Vincent and the Grenadines	19	30/06/89	Austria	332	30/09/89
Suriname	11	30/09/88	Belgium	563	30/09/89
Trinidad and Tobago	456	30/06/89	Bulgaria	6	30/09/89
Turks and Caicos Islands	7	31/12/88	Czechoslovakia	18	30/09/89
United States of America	113,211	13/12/89	Denmark	494	30/11/89
Uruguay	66	30/06/89	Finland	49	30/09/89
Venezuela	419	30/06/89	France	8,025	30/09/89
			German Democratic Republic	17	30/09/89
			Germany, Federal Republic of	4,220	30/11/89
<b>Total</b>	<b>134,539</b>		Greece	249	30/09/89
			Hungary	31	30/11/89
<u>Asia</u>			Iceland	13	30/09/89
Afghanistan	-	04/10/89	Ireland	108	30/09/89
Bahrain	-	28/08/89	Italy	4,663	30/09/89
Bangladesh	-	30/09/89	Luxembourg	20	30/09/89
Bhutan	-	30/09/89	Malta	14	30/09/89
Brunei Darussalam	1	01/06/89	Monaco	6	30/09/89
Burma <u>see</u> Myanmar			Netherlands	1,044	30/11/89
China	3	30/09/88	Norway	139	30/11/89
China (Province of Taiwan)	14	30/09/89	Poland	25	30/11/89
Cyprus	15	20/10/89	Portugal	333	30/11/89
Democratic People's Republic of Korea	-	30/09/89	Romania	13	30/09/89
Democratic Yemen	-	31/12/88	San Marino	1	30/09/89
Hong Kong	22	25/07/89	Spain	3,965	30/09/89
India	40	15/11/89	Sweden	346	30/09/89
Indonesia	6	01/10/89	Switzerland	1,046	30/09/89
Iran (Islamic Republic of)	5	31/12/88*	USSR	18	30/09/89
Iraq	-	11/10/89	United Kingdom	2,717	31/10/89
Israel	92	30/09/89	Yugoslavia	101	30/11/89
Japan	108	26/09/89			
Jordan	7	24/07/89	<b>Total</b>	<b>28,576</b>	
Kuwait	1	04/09/89			
Lebanon	11	31/12/88	<u>Oceania</u>		
Malaysia	11	10/11/89	Australia	1,707	31/12/89
Maldives	-	30/09/89	Cook Islands	-	08/09/87
Mongolia	-	30/09/89	Fiji	2	21/06/89
Myanmar	-	30/09/89	French Polynesia	8	17/07/89
Nepal	2	03/10/89	Kiribati	-	18/01/88
Oman	14	30/06/89	Mariana Islands	-	05/08/87
Pakistan	12	15/10/89	New Caledonia and Dependencies	2	01/08/88
Philippines	26	31/07/89	New Zealand	154	27/11/89
Qatar	23	29/08/89	Papua New Guinea	13	28/06/89
Republic of Korea	4	10/09/88	Samoa	-	18/10/88
Singapore	13	26/07/89	Solomon Islands	-	08/09/87
Sri Lanka	3	31/12/88	Tonga	1	01/08/88
Syrian Arab Republic	5	23/09/89	Tuvalu	-	08/09/87
Thailand	25	30/09/89	Vanuatu	-	25/01/89
Turkey	31	31/10/89			
Vietnam	-	08/09/87	<b>Total</b>	<b>1,742</b>	
Yemen	-	31/12/88			
<b>Total</b>	<b>494</b>		<b>WORLD TOTAL</b>	<b>203,599</b>	

\* The date of report has been modified.



NOTIFIABLE DISEASES REPORTED IN AUSTRALIA

NOTIFICATIONS FROM THE NORTHERN TERRITORY, PERIODS 1-3, 1989.

DISEASE	PERIOD		
	1 1/1/89-28/1/89	2 29/1/89-25/2/89	3 26/2/89-25/3/89
Arbovirus infection (a)	8	29	5
Campylobacter infection (a)	24	48	39
Donovanosis (a)	6	0	4
Genital herpes	2	0	0
Gonorrhoea (a)	54	54	67
Hepatitis A (infectious)	4	2	0
Hepatitis B (serum) (a)	1	5	1
Leprosy	0	1	2
Malaria (a)	2	0	0
Non-specific urethritis	5	5	2
Q fever (a)	0	1	0
Salmonella infections (a)	17	48	14
Shigella infections (a)	8	20	12
Syphilis (a)	25	41	29
Tuberculosis (all forms) (a)	1	3	4

(a) Confirmed by appropriate diagnostic tests.

C08-2480B

NOTIFIABLE DISEASES REPORTED IN AUSTRALIA

Period 5: 23 April 1989 - 20 May 1989

DISEASE	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	CUMULATIVE	
									TOTAL	TOTAL
Amoebiasis (a)	1	1	2	-	1	-	-	-	5	32
Ankylostomiasis (a)	-	-	(b)	-	12	2	(b)	-	14	38
Anthrax (a)	-	-	-	-	-	-	-	-	-	-
Arbovirus infection (a)	20	8	297	6	62	5	4	-	402	2119
Brucellosis (a)	1	-	1	-	-	-	-	-	2	8
Campylobacter infection (a)	127	(b)	(b)	100	37	(b)	34	-	298	1573
Chancroid (a)	-	-	-	(b)	-	(b)	-	(b)	-	-
Cholera	-	-	-	-	-	-	-	-	-	-
Congenital rubella syndrome	-	(b)	(b)	-	-	(b)	-	(b)	-	-
Diphtheria (a)	-	-	-	-	-	-	-	-	-	-
Donovanosis (a)	-	(b)	8	(b)	3	(b)	3	(b)	14	49
Giardiasis (a)	63	(b)	(b)	81	40	(b)	(b)	1	185	897
Genital herpes	82	(b)	148	(b)	(b)	(b)	-	4	234	1059
Gonococcal ophthalmia neonatorum	1	-	-	-	(b)	(b)	-	(b)	1	1
Gonorrhoea (a)	45	-	88	11	-	1	45	3	193	1433
Hepatitis A (infectious)	1	1	11	2	5	-	4	-	24	205
Hepatitis B (serum) (a)	63	16	128	4	57	2	1	-	271	900
Hepatitis - unspecified	2	(b)	-	-	(b)	(b)	-	1	3	11
Hydatid disease (a)	1	-	1	-	-	1	-	-	3	7
Lassa fever	-	-	-	-	-	-	-	-	-	-
Legionnaires disease (a)	4	-	4	1	3	(b)	-	(b)	12	55
Leprosy	1	1	-	-	1	-	-	-	3	15
Leptospirosis (a)	1	-	(b)	2	1	-	-	-	4	40
Lymphogranuloma venereum (a)	-	(b)	-	(b)	(b)	(b)	-	(b)	-	-
Malaria (a)	8	5	63	2	5	-	-	-	83	296
Marburg disease	-	-	-	-	-	-	-	-	-	-
Measles	1	(b)	4	-	1	(b)	(b)	3	9	51
Meningococcal infections (a)	6	1	-	1	1	(b)	-	-	9	42
Non-specific urethritis	90	(b)	(b)	(b)	(b)	(b)	-	(b)	90	733
Ornithosis (a)	2	-	-	2	-	-	-	-	4	11
Pertussis (whooping cough)	9	4	(b)	3	11	(b)	-	-	27	126
Plague	-	-	-	-	-	-	-	-	-	-
Polioomyelitis (a)	-	-	-	-	-	-	-	-	-	-
Q fever (a)	13	-	14	1	-	-	1	-	29	165
Rabies	-	(b)	-	-	-	(b)	-	(b)	-	-
Salmonella infections (a)	112	15	141	40	65	11	24	3	411	2236
Shigella infections (a)	8	1	15	8	19	-	20	-	71	262
Smallpox	(b)	(b)	-	-	-	-	-	-	-	-
Syphilis (a)	36	-	102	6	15	(b)	28	-	187	772
Tetanus	-	-	(b)	-	-	-	-	-	-	1
Trachoma	-	(b)	(b)	-	69	(b)	(b)	-	69	325
Tuberculosis (all forms) (a)	34	20	9	10	10	-	4	2	89	444
Typhoid fever (a)	1	2	1	1	1	-	-	-	6	24
Typhus (all forms) (a)	-	-	-	-	-	-	-	-	-	1
Vibrio parahaemolyticus infections (a)	-	(b)	(b)	-	-	(b)	-	(b)	-	7
Yellow fever	-	-	-	-	-	-	-	-	-	-
Yersinia infections (a)	11	(b)	(b)	5	-	(b)	-	(b)	16	95

(a) Confirmed by appropriate diagnostic tests.

(b) Not notifiable.

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

VIRAL IDENTIFICATIONS FROM CONTRIBUTING LABORATORIES  
BASED ON DATE OF REPORTING

PERIOD 4/1/90 TO 17/1/90

- |                              |                              |
|------------------------------|------------------------------|
| 1. CODE 019 - FAIRFIELD(VIC) | 6. CODE 112 - ICPMR(NSW)     |
| 2. CODE 065 - STATE LAB(WA)  | 7. CODE 113 - PHH POW(NSW)   |
| 3. CODE 066 - PMH(WA)        | 8. CODE 114 - RAHC(NSW)      |
| 4. CODE 110 - IHVS(SA)       | 9. CODE 115 - STATE LAB(QLD) |
| 5. CODE 111 - RCH(VIC)       | 10. CODE 116 - WVH(ACT)      |

	019	065	066	110	111	112	113	114	115	116	TOTAL
0100 ADENOVIRUS NOT TYPED	0	0	14	1	2	0	1	1	4	0	23
0101 ADENOVIRUS TYPE 1	2	1	0	5	0	2	0	0	0	0	10
0102 ADENOVIRUS TYPE 2	2	1	0	5	0	3	0	0	0	0	11
0103 ADENOVIRUS TYPE 3	5	1	0	17	0	0	0	0	0	0	23
0104 ADENOVIRUS TYPE 4	2	0	0	0	0	0	0	0	0	0	2
0105 ADENOVIRUS TYPE 5	1	0	0	1	0	2	0	0	0	0	4
0106 ADENOVIRUS TYPE 6	0	0	0	1	0	0	0	0	0	0	1
0119 ADENOVIRUS TYPE 19	1	0	0	0	0	0	0	0	0	0	1
0122 ADENOVIRUS TYPE 22	1	0	0	0	0	0	0	0	0	0	1
0135 ADENOVIRUS TYPE 35	1	0	0	0	0	0	0	0	0	0	1
0199 ADENOVIRUS TYPING PENDING	0	0	0	0	8	0	2	1	0	0	11
0201 INFLUENZA A VIRUS	0	1	0	0	0	0	1	0	0	2	4
0202 INFLUENZA A VIRUS SUBTYPE H3N2	0	0	0	0	1	0	0	0	0	0	1
0203 INFLUENZA B VIRUS	0	0	0	0	0	1	1	0	0	0	2
0302 PARAINFLUENZA VIRUS TYPE 2	0	0	0	0	0	1	0	0	0	0	1
0303 PARAINFLUENZA VIRUS TYPE 3	1	2	1	3	21	6	1	0	9	0	44
0400 RESPIRATORY SYNCYTIAL VIRUS (R	0	0	0	0	7	1	0	0	1	0	9
0500 RHINOVIRUS (ALL TYPES)	3	12	0	4	14	3	1	0	0	0	37
0600 MYCOPLASMA PNEUMONIAE	3	1	0	14	9	2	2	0	0	1	32
0700 ORNITHOSIS-PSITTACOSIS	1	0	0	0	0	0	0	0	0	0	1
0800 COXSACKIEVIRUSES GROUP A - NOT	0	1	0	0	0	0	0	0	0	0	1
0902 COXSACKIEVIRUS B2	0	1	0	0	0	0	0	0	0	0	1
0903 COXSACKIEVIRUS B3	1	0	0	1	0	0	0	0	0	0	2
0905 COXSACKIEVIRUS B5	1	0	0	0	0	0	0	0	0	0	1
1003 ECHOVIRUS TYPE 3	0	3	0	0	0	0	0	0	0	0	3
1009 ECHOVIRUS TYPE 9	1	0	0	0	0	0	0	0	0	0	1
1011 ECHOVIRUS TYPE 11	2	0	0	0	0	0	0	0	0	0	2
1014 ECHOVIRUS TYPE 14	1	0	0	0	0	0	0	0	0	0	1
1028 ECHOVIRUS TYPE 28 = RHINO VIRU	0	0	0	0	0	0	0	1	0	0	1
1029 ECHOVIRUS TYPE 29	0	0	0	1	0	0	0	0	0	0	1
1100 POLIOVIRUS NOT TYPED	0	0	0	0	0	0	6	0	0	0	6
1101 POLIOVIRUS TYPE 1	2	0	0	0	0	0	0	0	0	0	2
1102 POLIOVIRUS TYPE 2	0	0	0	0	0	1	0	0	0	0	1
1104 POLIOVIRUS - MIXED VACCINAL ST	0	4	0	0	0	0	0	0	0	0	4
1200 MUMPS VIRUS	0	0	0	0	0	0	2	0	0	0	2
1300 HERPES VIRUS GROUP - NOT TYPED	0	0	0	1	0	0	3	0	0	8	12
1301 HERPES SIMPLEX VIRUS - NOT TYP	0	0	3	0	0	30	0	0	37	0	70
1302 EPSTEIN-BARR VIRUS (EB VIRUS)	2	5	0	17	6	27	1	2	0	0	60
1303 VARICELLA-ZOSTER VIRUS	3	3	1	0	1	2	6	0	2	0	18
1306 HERPES SIMPLEX TYPE 1	37	31	0	32	0	5	6	0	0	0	111
1307 HERPES SIMPLEX TYPE 2	42	63	0	33	0	39	28	0	2	0	207
1366 HERPES VIRUS TYPE 6	0	0	0	0	1	0	0	0	0	0	1
1399 HERPES VIRUS TYPING PENDING	0	0	0	0	5	0	0	0	0	0	5
1401 COXIELLA BURNETII	0	0	0	0	0	6	0	0	0	0	6
1502 PICORNIA VIRUS - NOT TYPED = E	0	0	0	0	0	2	2	0	6	0	10
1521 MEASLES VIRUS	4	0	0	0	1	1	2	0	0	0	8
1522 RUBELLA VIRUS	13	5	0	10	1	15	4	1	0	0	49
1532 HEPATITIS B ANTIGEN	9	18	0	22	0	18	5	1	0	2	75
1535 HEPATITIS A ANTIBODY	1	7	0	0	0	1	1	0	0	0	10
1541 CHLAMYDIA A - C. TRACHOMATIS	0	43	0	20	2	5	2	0	22	5	99
1556 CHV:- CYTOMEGALOVIRUS	17	2	1	6	6	14	4	0	11	0	61
1564 ROTAVIRUS	1	0	3	7	34	0	5	0	0	0	50
1566 NORWALK AGENT	0	0	0	1	1	0	0	0	0	0	2
1599 ENTEROVIRUS TYPING PENDING	0	0	0	0	19	0	11	0	0	0	30
9903 NON-A, NON-B HEPATITIS	0	0	0	0	0	0	0	0	0	1	1
9992 ROSS RIVER VIRUS	0	4	0	5	0	4	0	0	0	0	13
9994 SMALL VIRUS (LIKE) PARTICLE	0	0	0	0	0	0	1	0	0	0	1
9995 DENGUE	0	0	0	0	0	1	0	0	0	0	1
9996 PARAMYXO	0	0	0	0	0	0	0	1	0	0	1
TOTAL	160	209	23	207	139	192	97	9	94	19	1149

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

VIRAL IDENTIFICATIONS FROM CONTRIBUTING LABORATORIES BY STATE OF CONTRIBUTING LABORATORY

PERIOD 4/1/90 TO 17/1/90

NSW: ICPMR; PHH POW; RACH; ST GEORGE HOSP, KOGARAH; ROYAL NEWCASTLE HOSP.  
 VIC: FAIRFIELD; RCH.  
 QLD: STATE LAB, BRIS; TOOWOOMBA PATH LAB; ROYAL BRIS HOSP.  
 WA: STATE LAB, PERTH; PMH.  
 SA: IMVS.  
 TAS: ROYAL HOBART HOSP; DIAGNOSTIC SERVICES, LAUNCESTON; LAUNCESTON GEN HOSP;  
 DIAGNOSTIC SERVICES, HOBART; HOBART PATH; HERSEY GEN HOSP, LATROBE.  
 ACT: WVH.

	NSW	VIC	QLD	WA	SA	ACT	TOTAL
0100 ADENOVIRUS NOT TYPED	2	2	4	14	1	0	23
0101 ADENOVIRUS TYPE 1	2	2	0	1	5	0	10
0102 ADENOVIRUS TYPE 2	3	2	0	1	5	0	11
0103 ADENOVIRUS TYPE 3	0	5	0	1	17	0	23
0104 ADENOVIRUS TYPE 4	0	2	0	0	0	0	2
0105 ADENOVIRUS TYPE 5	2	1	0	0	1	0	4
0106 ADENOVIRUS TYPE 6	0	0	0	0	1	0	1
0119 ADENOVIRUS TYPE 19	0	1	0	0	0	0	1
0122 ADENOVIRUS TYPE 22	0	1	0	0	0	0	1
0135 ADENOVIRUS TYPE 35	0	1	0	0	0	0	1
0199 ADENOVIRUS TYPING PENDING	3	8	0	0	0	0	11
0201 INFLUENZA A VIRUS	1	0	0	1	0	2	4
0202 INFLUENZA A VIRUS SUBTYPE H3N2	0	1	0	0	0	0	1
0203 INFLUENZA B VIRUS	2	0	0	0	0	0	2
0302 PARAINFLUENZA VIRUS TYPE 2	1	0	0	0	0	0	1
0303 PARAINFLUENZA VIRUS TYPE 3	7	22	9	3	3	0	44
0400 RESPIRATORY SYNCYTIAL VIRUS (R	1	7	1	0	0	0	9
0500 RHINOVIRUS (ALL TYPES)	4	17	0	12	4	0	37
0600 MYCOPLASMA PNEUMONIAE	4	12	0	1	14	1	32
0700 ORNITHOSIS-PSITTACOSIS	0	1	0	0	0	0	1
0800 COXSACKIEVIRUSES GROUP A - NOT	0	0	0	1	0	0	1
0902 COXSACKIEVIRUS B2	0	0	0	1	0	0	1
0903 COXSACKIEVIRUS B3	0	1	0	0	1	0	2
0905 COXSACKIEVIRUS B5	0	1	0	0	0	0	1
1003 ECHOVIRUS TYPE 3	0	0	0	3	0	0	3
1009 ECHOVIRUS TYPE 9	0	1	0	0	0	0	1
1011 ECHOVIRUS TYPE 11	0	2	0	0	0	0	2
1014 ECHOVIRUS TYPE 14	0	1	0	0	0	0	1
1028 ECHOVIRUS TYPE 28 = RHINO VIRU	1	0	0	0	0	0	1
1029 ECHOVIRUS TYPE 29	0	0	0	0	1	0	1
1100 POLIOVIRUS NOT TYPED	6	0	0	0	0	0	6
1101 POLIOVIRUS TYPE 1	0	2	0	0	0	0	2
1102 POLIOVIRUS TYPE 2	1	0	0	0	0	0	1
1104 POLIOVIRUS - MIXED VACCINAL ST	0	0	0	4	0	0	4
1200 MUMPS VIRUS	2	0	0	0	0	0	2
1300 HERPES VIRUS GROUP - NOT TYPED	3	0	0	0	1	8	12
1301 HERPES SIMPLEX VIRUS - NOT TYP	30	0	37	3	0	0	70
1302 EPSTEIN-BARR VIRUS (EB VIRUS)	30	8	0	5	17	0	60
1303 VARICELLA-ZOSTER VIRUS	8	4	2	4	0	0	18
1306 HERPES SIMPLEX TYPE 1	11	37	0	31	32	0	111
1307 HERPES SIMPLEX TYPE 2	67	42	2	63	33	0	207
1366 HERPES VIRUS TYPE 6	0	1	0	0	0	0	1
1399 HERPES VIRUS TYPING PENDING	0	5	0	0	0	0	5
1401 COXIELLA BURNETII	6	0	0	0	0	0	6
1502 PICORNIA VIRUS - NOT TYPED = E	4	0	6	0	0	0	10
1521 MEASLES VIRUS	3	5	0	0	0	0	8
1522 RUBELLA VIRUS	20	14	0	5	10	0	49
1532 HEPATITIS B ANTIGEN	24	9	0	18	22	2	75
1535 HEPATITIS A ANTIBODY	2	1	0	7	0	0	10
1541 CHLAMYDIA A - C. TRACHOMATIS	7	2	22	43	20	5	99
1556 CHV - CYTOMEGALOVIRUS	18	23	11	3	6	0	61
1564 ROTAVIRUS	5	35	0	3	7	0	50
1566 NORWALK AGENT	0	1	0	0	1	0	2
1599 ENTEROVIRUS TYPING PENDING	11	19	0	0	0	0	30
9903 NON-A, NON-B HEPATITIS	0	0	0	0	0	1	1
9992 ROSS RIVER VIRUS	4	0	0	4	5	0	13
9994 SMALL VIRUS (LIKE) PARTICLE	1	0	0	0	0	0	1
9995 DENGUE	1	0	0	0	0	0	1
9996 PARAMYXO	1	0	0	0	0	0	1
TOTAL	298	299	94	232	207	19	1149

NOTE: DIRECT COMPARISON BETWEEN STATES IS NOT POSSIBLE SINCE:  
 - SOME STATES HAVE MORE THAN ONE CONTRIBUTING LABORATORY; AND  
 - INTERSTATE REFERRALS OCCUR REGULARLY.

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

VIRAL IDENTIFICATIONS BY CLINICAL INFORMATION TABLE 1

PERIOD 4/1/90 TO 17/1/90

- 1. CODE 00, 99 ..... - NO ILL OR DATA
- 2. CODE 01, 02, 11, 12 - RESPIRATORY
- 3. CODE E3 ..... - ENCEPHALITIS
- 4. CODE M3 ..... - MENINGITIS
- 5. CODE 04 ..... - PARALYSIS
- 6. CODE 05, 13 ..... - CNS OTHER UNSPEC
- 7. CODE 07, 49 - GASTRO INTESTINAL
- 8. CODE 17, 47 - HEPATIC
- 9. CODE 19 ... - CVS
- 10. CODE 89 ... - URINARY TRACCT
- 11. CODE 06 ... - SKIN MUCOUS

	1	2	3	4	5	6	7	8	9	10	11	TOTAL
0100 ADENOVIRUS NOT TYPED	1	12	0	0	0	0	6	0	0	0	0	19
0101 ADENOVIRUS TYPE 1	1	6	0	0	0	0	1	0	0	0	0	8
0102 ADENOVIRUS TYPE 2	2	4	0	0	0	0	3	0	0	0	2	11
0103 ADENOVIRUS TYPE 3	1	7	0	1	0	0	3	0	0	0	1	13
0105 ADENOVIRUS TYPE 5	0	3	0	0	0	0	1	0	0	0	0	4
0106 ADENOVIRUS TYPE 6	0	1	0	0	0	0	0	0	0	0	0	1
0122 ADENOVIRUS TYPE 22	0	0	0	0	0	0	1	0	0	0	0	1
0199 ADENOVIRUS TYPING PENDING	0	8	0	0	0	0	2	0	0	0	0	10
0201 INFLUENZA A VIRUS	0	4	0	0	0	0	0	0	0	0	0	4
0202 INFLUENZA A VIRUS SUBTYPE H3N2	0	1	0	0	0	0	0	0	0	0	0	1
0203 INFLUENZA B VIRUS	0	1	0	0	0	0	0	0	0	0	0	1
0302 PARAINFLUENZA VIRUS TYPE 2	1	0	0	0	0	0	0	0	0	0	0	1
0303 PARAINFLUENZA VIRUS TYPE 3	0	43	0	0	0	0	0	0	0	0	0	43
0400 RESPIRATORY SYNCYTIAL VIRUS (R	0	9	0	0	0	0	0	0	0	0	0	9
0500 RHINOVIRUS (ALL TYPES)	1	35	0	0	0	0	0	0	0	0	0	36
0600 MYCOPLASMA PNEUMONIAE	1	27	0	0	0	0	0	0	0	0	1	29
0700 ORNITHOSIS-PSITTACOSIS	0	1	0	0	0	0	0	0	0	0	0	1
0800 COXSACKIEVIRUSES GROUP A - NOT	0	0	0	0	0	0	0	0	0	0	1	1
0902 COXSACKIEVIRUS B2	0	1	0	0	0	0	0	0	0	0	0	1
0903 COXSACKIEVIRUS B3	1	0	0	1	0	0	0	0	0	0	0	2
0905 COXSACKIEVIRUS B5	0	0	0	1	0	0	0	0	0	0	0	1
1003 ECHOVIRUS TYPE 3	0	2	0	0	0	0	0	0	0	0	1	3
1009 ECHOVIRUS TYPE 9	0	0	0	1	0	0	0	0	0	0	0	1
1011 ECHOVIRUS TYPE 11	0	0	0	2	0	0	0	0	0	0	0	2
1014 ECHOVIRUS TYPE 14	0	0	0	1	0	0	0	0	0	0	0	1
1028 ECHOVIRUS TYPE 28 = RHINO VIRU	0	1	0	0	0	0	0	0	0	0	0	1
1029 ECHOVIRUS TYPE 29	0	1	0	0	0	0	0	0	0	0	0	1
1100 POLIOVIRUS NOT TYPED	0	0	0	0	0	0	6	0	0	0	0	6
1101 POLIOVIRUS TYPE 1	0	1	0	0	0	0	0	0	0	0	0	1
1102 POLIOVIRUS TYPE 2	0	0	0	0	0	0	1	0	0	0	0	1
1104 POLIOVIRUS - MIXED VACCINAL ST	0	0	0	0	0	0	3	0	0	0	0	3
1200 MUMPS VIRUS	2	0	0	0	0	0	0	0	0	0	0	2
1300 HERPES VIRUS GROUP - NOT TYPED	3	1	0	0	0	0	0	0	0	0	3	7
1301 HERPES SIMPLEX VIRUS - NOT TYP	6	2	0	0	0	0	0	0	0	0	39	47
1302 EPSTEIN-BARR VIRUS (EB VIRUS)	12	3	0	0	0	0	0	1	0	0	0	16
1303 VARICELLA-ZOSTER VIRUS	5	1	1	0	0	0	1	0	0	0	10	18
1306 HERPES SIMPLEX TYPE 1	2	3	0	0	0	0	0	0	0	1	68	74
1307 HERPES SIMPLEX TYPE 2	2	0	0	0	0	0	1	0	0	0	67	70
1366 HERPES VIRUS TYPE 6	0	0	0	0	0	0	1	0	0	0	0	1
1399 HERPES VIRUS TYPING PENDING	0	0	0	0	0	0	0	0	0	0	5	5
1401 COXIELLA BURNETII	4	0	0	0	0	0	0	0	0	0	0	4
1502 PICORNIA VIRUS - NOT TYPED = E	1	4	0	0	0	0	4	0	0	0	1	10
1521 MEASLES VIRUS	1	1	0	0	0	1	0	0	0	0	3	6
1522 RUBELLA VIRUS	10	0	0	0	0	0	0	0	0	0	19	29
1532 HEPATITIS B ANTIGEN	54	0	0	0	0	0	0	18	0	0	0	72
1535 HEPATITIS A ANTIBODY	1	0	0	0	0	0	0	9	0	0	0	10
1541 CHLAMYDIA A - C. TRACHOMATIS	13	1	0	0	0	0	0	0	1	0	0	15
1556 CMV - CYTOMEGALOVIRUS	6	12	0	0	1	0	1	6	1	6	0	33
1564 ROTAVIRUS	0	0	0	0	0	0	50	0	0	0	0	50
1566 NORWALK AGENT	1	1	0	0	0	0	0	0	0	0	0	2
1599 ENTEROVIRUS TYPING PENDING	0	10	0	3	0	0	12	0	0	0	1	26
9903 NON-A, NON-B HEPATITIS	0	0	0	0	0	0	0	1	0	0	0	1
9992 ROSS RIVER VIRUS	4	0	0	0	1	0	0	0	0	0	1	6
9994 SMALL VIRUS (LIKE) PARTICLE	0	0	0	0	0	0	1	0	0	0	0	1
TOTAL	136	207	1	10	2	1	98	35	2	7	223	722

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

VIRAL IDENTIFICATIONS BY CLINICAL INFORMATION TABLE 2

PERIOD 4/1/90 TO 17/1/90

- |                                      |                             |
|--------------------------------------|-----------------------------|
| 12. CODE 10 - EYE                    | 17. CODE 69 - CONGENITAL    |
| 13. CODE 59 - GENITAL                | 18. CODE P8 - PUO           |
| 14. CODE 39 - ENDOCRINE/SALIVARY GL. | 19. CODE G8 - FEVER/MALAISE |
| 15. CODE 38 - RETICULO-ENDOTHELIAL   | 20. CODE 09 - OTHER         |
| 16. CODE 29 - MUSCLE/JOINT           | 21. CODE A1 - SIDS          |

	12	13	14	15	16	17	18	19	20	21	TOTAL
0100 ADENOVIRUS NOT TYPED	4	0	0	0	0	0	0	0	0	0	4
0101 ADENOVIRUS TYPE 1	1	0	0	0	0	0	0	0	0	1	2
0103 ADENOVIRUS TYPE 3	8	0	0	0	0	0	0	1	1	0	10
0104 ADENOVIRUS TYPE 4	1	0	0	0	0	0	0	1	0	0	2
0119 ADENOVIRUS TYPE 19	1	0	0	0	0	0	0	0	0	0	1
0135 ADENOVIRUS TYPE 35	0	0	0	0	0	0	0	0	1	0	1
0199 ADENOVIRUS TYPING PENDING	0	0	0	0	0	0	0	1	0	0	1
0203 INFLUENZA B VIRUS	0	0	0	0	0	0	0	0	1	0	1
0303 PARAINFLUENZA VIRUS TYPE 3	0	0	0	0	0	0	0	0	1	0	1
0500 RHINOVIRUS (ALL TYPES)	0	0	0	0	0	0	0	0	0	1	1
0600 MYCOPLASMA PNEUMONIAE	0	0	0	0	1	0	1	0	1	0	3
1101 POLIOVIRUS TYPE 1	0	0	0	0	0	0	0	0	0	1	1
1104 POLIOVIRUS - MIXED VACCINAL ST	0	0	0	0	0	0	0	0	0	1	1
1300 HERPES VIRUS GROUP - NOT TYPED	0	5	0	0	0	0	0	0	0	0	5
1301 HERPES SIMPLEX VIRUS - NOT TYP	2	21	0	0	0	0	0	0	0	0	23
1302 EPSTEIN-BARR VIRUS (EB VIRUS)	0	0	33	2	1	0	3	3	2	0	44
1306 HERPES SIMPLEX TYPE 1	7	26	0	0	0	0	0	1	3	0	37
1307 HERPES SIMPLEX TYPE 2	1	135	0	0	0	0	0	0	1	0	137
1401 COXIELLA BURNETII	0	0	0	0	0	0	1	1	0	0	2
1521 MEASLES VIRUS	0	0	0	0	0	0	0	2	0	0	2
1522 RUBELLA VIRUS	0	0	3	0	2	2	0	2	11	0	20
1532 HEPATITIS B ANTIGEN	0	0	0	0	0	0	0	0	3	0	3
1541 CHLAMYDIA A - C. TRACHOMATIS	2	82	0	0	0	0	0	0	0	0	84
1556 CMV - CYTOMEGALOVIRUS	0	1	3	1	0	3	1	5	14	0	28
1599 ENTEROVIRUS TYPING PENDING	0	0	0	0	0	0	0	3	1	0	4
9992 ROSS RIVER VIRUS	0	0	0	0	7	0	0	0	0	0	7
9995 DENGUE	0	0	0	0	0	0	1	0	0	0	1
9996 PARAMYXO	0	0	0	0	0	0	0	1	0	0	1
TOTAL	27	270	39	3	11	5	7	21	40	4	427