COMMUNICABLE DISEASES INTELLIGENCE

ISSN 0725-3141 VOLUME 15 NUMBER 24 2 December 1991

CONTENTS

Editor: Robert Hall

Editorial Staff: Jenny Hargreaves, Evon Bowler, David Cheah, Lenore Cupitt and Michelle Jozing.

CDI is produced fortnightly by:

Communicable Diseases Section
Department of Health, Housing and Community Services
GPO Box 9848 Canberra ACT 2601.
Fax: (06) 289 7802 Telephone: (06) 289 1555

DEPARTMENT OF HEALTH, HOUSING AND COMMUNITY SERVICES

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

TUBERCULOSIS BRIEFS 2 - AN ANALYSIS BY COUNTRY OF BIRTH

Introduction

Since 1985, the rate of notification of new cases of tuberculosis (TB) in Australia has been almost static, ranging between 5.34 and 5.71 per 100,000 population per year. The notification rates are not, however, equal in all parts of the community, as the disease is more significant in some groups than in others. The ageing of the Australian population, its changing pattern of ethnicity and the emergence of the problems of acquired immunodeficiency syndrome are reasons why TB will remain an important disease for years to come. This article analyses the country of birth of reported cases from 1986 to 1990 for new cases of tuberculosis.

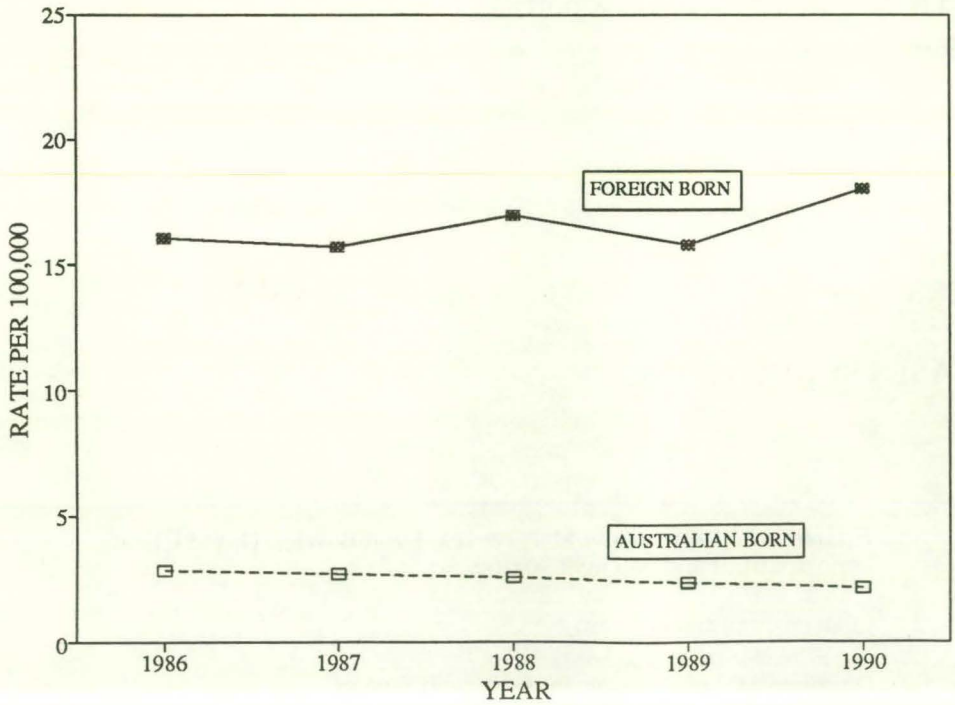
Method

The method of obtaining data was described in the first article in this series[1]. Countries of birth chosen for analysis were those which, in 1985, had high rates in the migrant populations and those from which Australia had accepted refugees or immigrants. Notification rates were calculated for nineteen migrant groups from Asia and Europe. Denominator population by country of birth were obtained from the Australian Bureau of Statistics.

Results

A comparison of the rate of notification of tuberculosis in Australia between 1986 and 1990 by birthplace ('Australian born' or 'Foreign born') shows that the rate in Australian born persons declined from 2.82 to 2.15 per 100,000 per year between 1986 and 1990 (Figure 1). The rate for foreign born cases was much higher and fluctuated between 15.69 (1987) and 17.99 (1990) per 100,000.

Figure 1. Tuberculosis rates in Australia, 1986-1990, 'Australian born' and 'Foreign born'



For Australia as a whole, the proportion of cases in Australian born persons declined, from 39.4% in 1986 to 34.5% in 1990. The proportion in foreign born persons increased from 60.3% in 1986 to 70.3% in 1990 (Table).

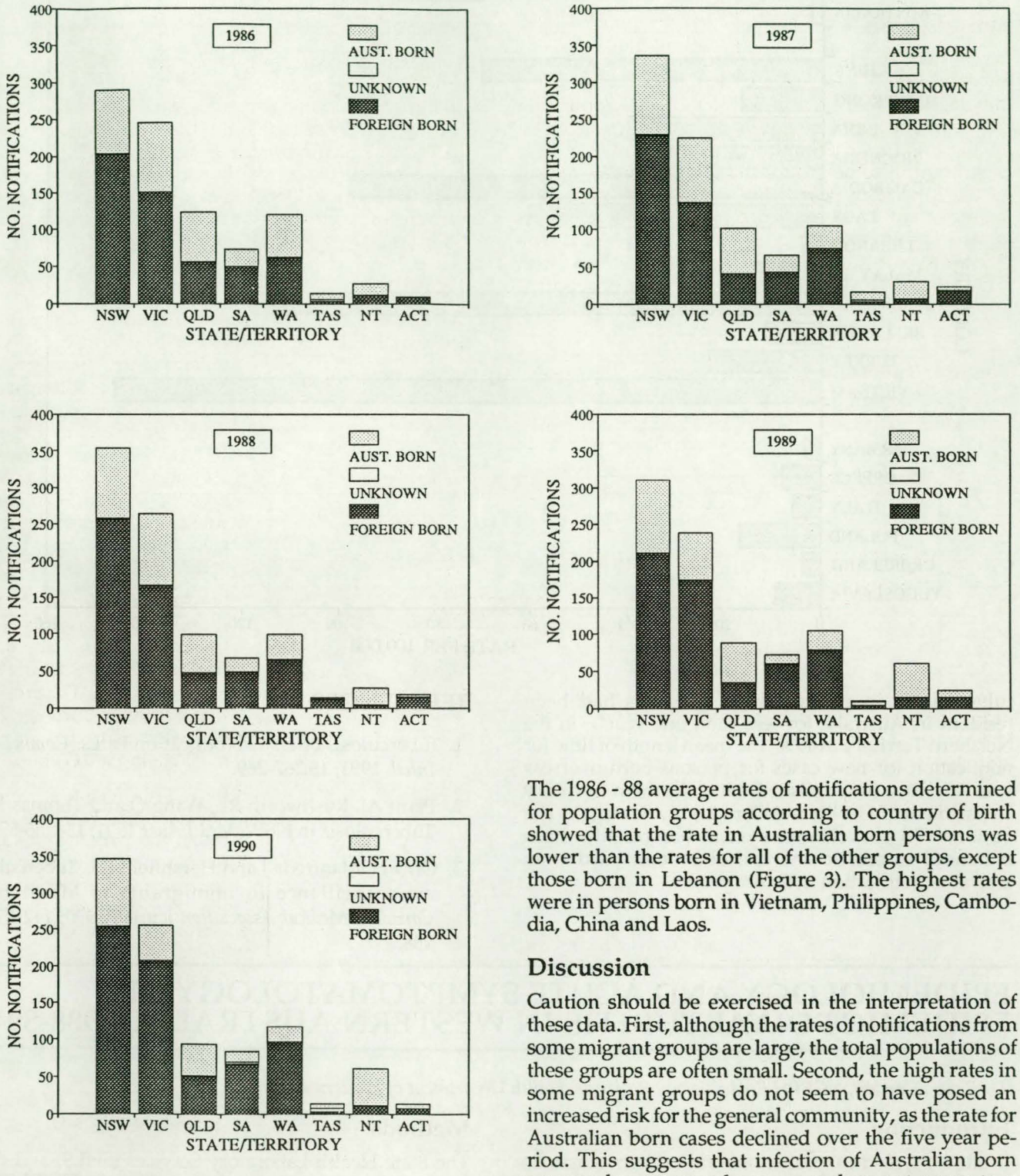
In NSW, Victoria, South Australia and Western Australia, the majority of cases has been in foreign born persons during this period and the tendency was towards increased numbers of reports in foreign born persons (Figure 2).

In the Northern Territory the percentage of Australian born cases increased from 61.5% in 1986 to 83.3% in 1990. This can be attributed to the increase in new cases in Aboriginal Australians during those years (unpublished data, Northern Territory Department of Health and Community Services). In the ACT, in 1986, 100% of cases were for-

Table. Place of birth for cases of tuberculosis in Australia, 1986-1990

Year	Australian born		Foreign Born		Unknown	
	Cases	%Total	Cases	%Total	Cases	%Total
1986	356	39.4	545	60.3	3	0.3
1987	350	38.8	547	60.6	5	0.6
1988	329	34.9	613	65.1	0	0
1989	312	34.4	591	65.1	5	0.5
1990	284	28.8	693	70.4	8	0.8

Figure 2. Tuberculosis notifications by State and Territory and place of birth, 1986 to 1990



eign born, declining to 50% in 1990.

In Queensland, there was a trend toward increased notifications amongst foreign born persons. The small number of cases in Tasmania and the incompleteness of their place of birth data prevents detailed analysis for that State.

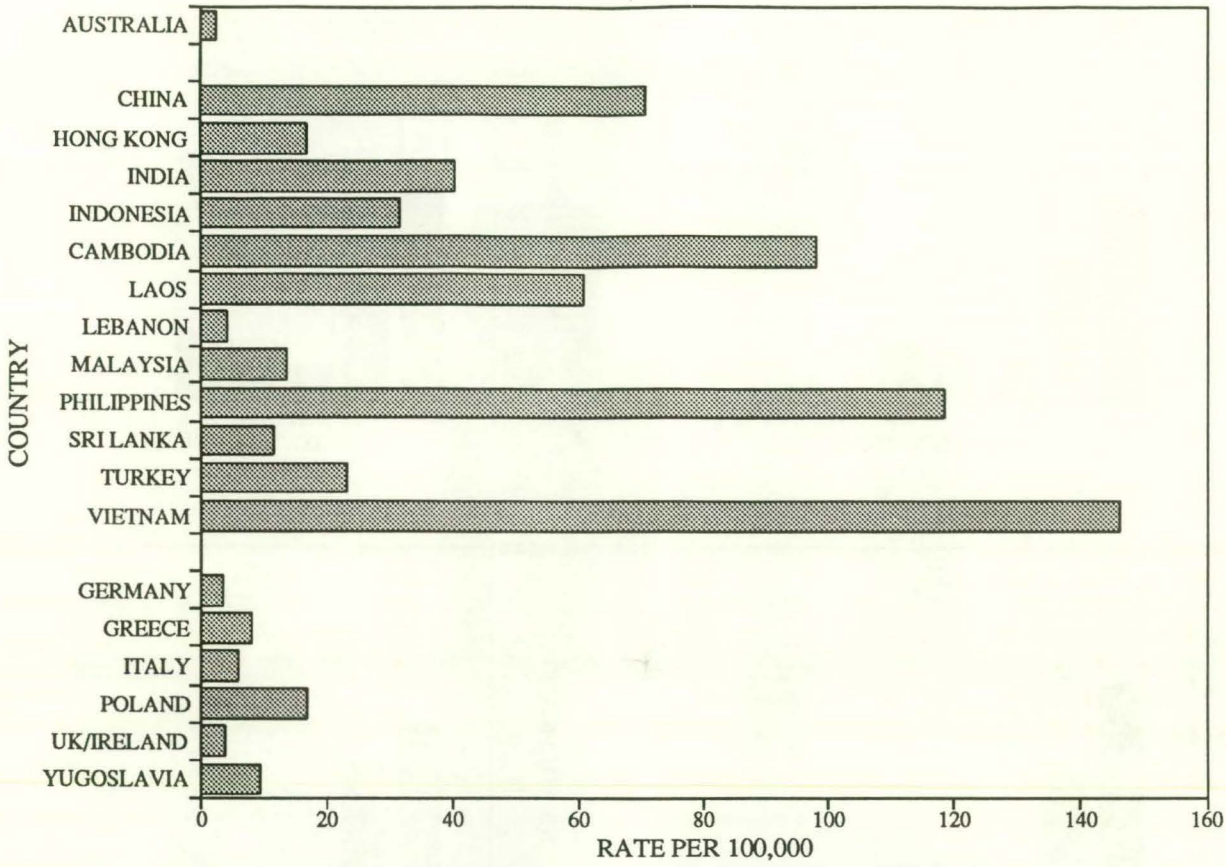
The 1986 - 88 average rates of notifications determined for population groups according to country of birth showed that the rate in Australian born persons was lower than the rates for all of the other groups, except those born in Lebanon (Figure 3). The highest rates were in persons born in Vietnam, Philippines, Cambodia, China and Laos.

Discussion

Caution should be exercised in the interpretation of these data. First, although the rates of notifications from some migrant groups are large, the total populations of these groups are often small. Second, the high rates in some migrant groups do not seem to have posed an increased risk for the general community, as the rate for Australian born cases declined over the five year period. This suggests that infection of Australian born persons by overseas born cases does not occur to a significant extent.

Unfortunately, the data available for analysis in this report do not include the time elapsed between arrival in Australia and the notification of the disease. However, in NSW in 1986, only 11% of reported cases of

Figure 3. Rate of tuberculosis in Australia by country of birth, 1986-88 average



tuberculosis in persons born overseas had been resident in Australia for less than one year[2]. In the Northern Territory in 1990, the mean length of time for notification for new cases for persons born overseas was 7.5 years (unpublished data, Northern Territory Department of Health and Community Services). The national TB surveillance system has recently been enhanced to enable analysis of time elapsed from arrival to notification in future years.

REFERENCES

1. Tuberculosis Briefs 1 - Notification Rates. *Comm Dis Intell* 1991; **15**:267-269.
2. Plant AJ, Rushworth RL, Wang Q and Thomas M. Tuberculosis in NSW. *Med J Aust* 1991; **154** :86-89.
3. Orr PH, Manfreda J and Hershfield ES. Tuberculosis surveillance in immigrants to Manitoba. *Canadian Medical Association Journal* 1990; **142**:453-458.

EPIDEMIOLOGY AND ACUTE SYMPTOMATOLOGY OF EPIDEMIC POLYARTHRITIS IN WESTERN AUSTRALIA, 1988-89

(Dr Robert Condon, NCEPH Epidemiology Registrar, Health Department of Western Australia)

Introduction

In late 1988, medical practitioners in Western Australia began to report increasing numbers of patients with Ross River virus (RRV) infection. Notifications remained above background rates for approximately the next 10 months.

The epidemiology and acute symptoms of RRV infection during this outbreak are described.

Methods

The State Health Laboratory Services (SHLS) and the Epidemiology and Research Branch of the Health Department of Western Australia kept a database of all specimens submitted to the SHLS for RRV serology from 1 January to 31 Decenber 1989. This database includes information on each patient's age, sex, place of residence, the principal clinical features (as recorded on the laboratory request form by the referring doctor),

and the results of RRV serology (haemagglutination inhibition, and fluorescent antibody test for RRV-specific IgM).

I used the Health Department's infectious diseases notification database to describe the demographic features of epidemic polyarthritis in Western Australia between November 1988 and December 1989, and the laboratory database to determine the frequency of various clinical features in patients with confirmed active or recent RRV infection during the 1989 calendar year. Projections from the 1986 Australian Bureau of Statistics census[1] provided the denominator data for calculation of attack rates.

I assumed that all patients who had blood submitted for RRV serology had symptoms or signs which their doctors thought were suggestive of epidemic polyarthritis. To determine the strength of association with positive RRV serology, I compared the prevalence of each symptom in seropositive and seronegative individuals by contingency table analysis.

Results

Description of the outbreak

Between 1 November 1988 and 31 December 1989, Western Australian doctors notified 720 cases of RRV infection; 74.2% of these cases were reported between January and April (Figure 1).

The outbreak was first reported by doctors in the South West of the State, who notified 4 cases in November and 44 cases in December 1988 (Figure 2); notifications during the first 2 months of the

Figure 1. Epidemic curve, cases of RRV infection notified in Western Australia, 1 November 1988 to 31 December 1989, by month

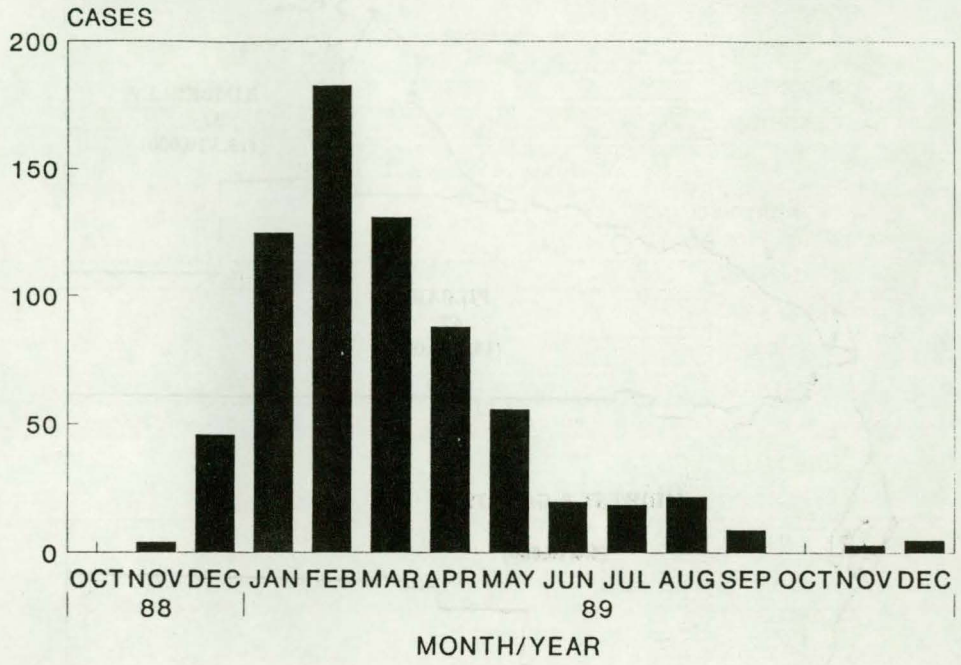


Figure 2. Epidemic curve, cases of RRV infection notified in the South West Region of Western Australia, 1 November 1988 to 21 December 1989, by month

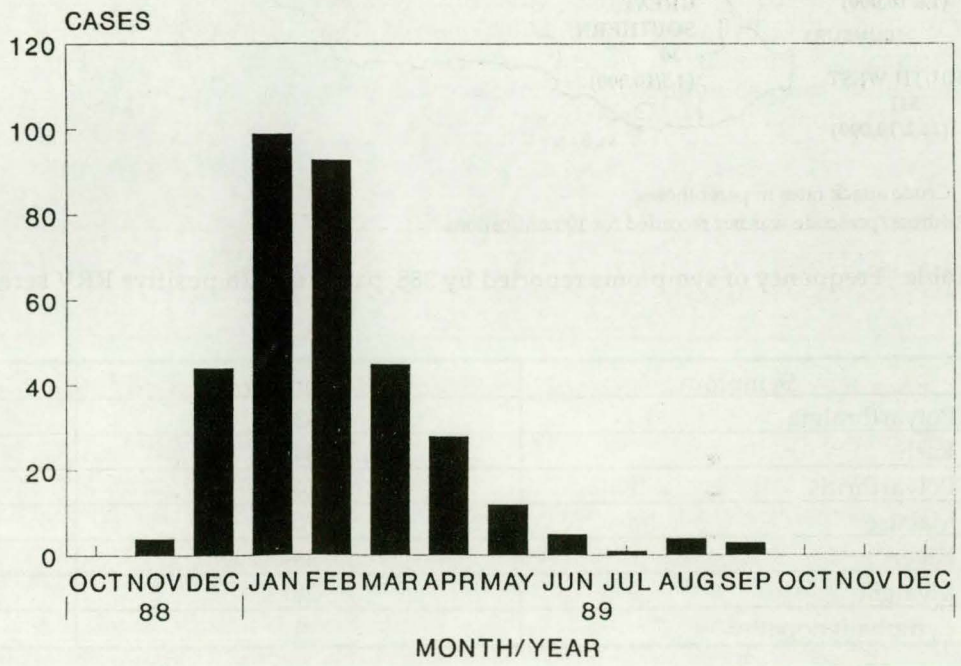
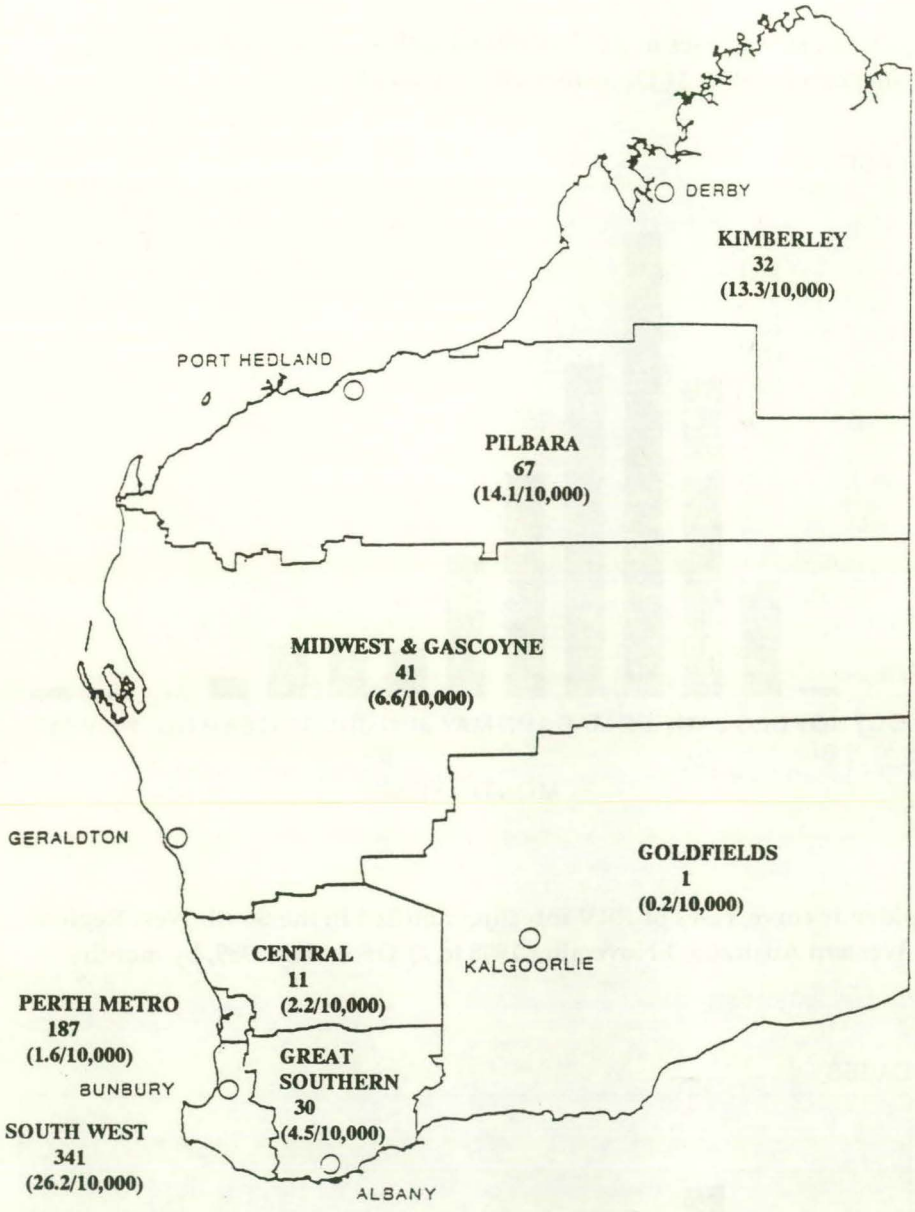


Figure 3. Cases of RRV infection notified in Western Australia, 1 November 1988 to 31 December 1989, by Region*



* Crude attack rates in parentheses
Address/postcode was not recorded for 10 notifications

outbreak came almost exclusively from the South West. Taking into account the incubation period for RRV infection (3-21 days) and possible delays in submitting notification forms by post, these early reports reflect contact with mosquito vectors during October and November 1988.

The geographical distribution of notified cases during the 14 month period, and the crude attack rate per 10,000 people in each region shows that the South West Region reported the highest number of cases and had the highest crude attack rate in the State (Figure 3).

The patients' ages range from under 1 year up to 82 years, with a median age of 40 years for females and 41 for males (Figure 4). The ratio of males to females was 1.2:1.

Symptoms

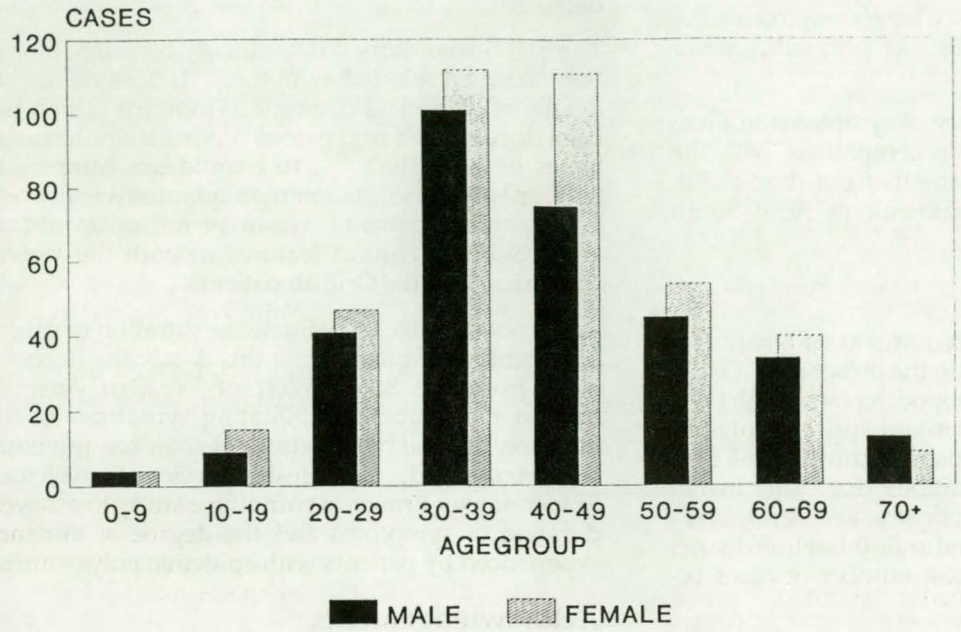
Between 1 January and 31 December 1989, blood specimens from 3490 different patients were submitted to the SHLS for RRV serology. Four hundred and seventy-one of these individuals showed serological evidence of recent RRV infection.

The requesting doctor provided clinical details for 2677 (76.7%) of the people tested. This included 388 (82.4%) individuals whose serology indicated recent RRV infection, and 2289 (75.8%) who were seronegative. Patients whose doctors included their clinical details on the labora-

Table. Frequency of symptoms reported by 388 patients with positive RRV serology, Western Australia, 1989

Symptom	Number	Percent
Polyarthralgia	302	77.8
Rash	164	42.3
Polyarthritis	74	19.1
Malaise	70	18.0
Fever	58	14.4
Myalgia	20	5.2
Lymphadenopathy	4	1.0

Figure 4. Cases of RRV infection notified in Western Australia, 1 November 1988 to 31 December 1989, by age group and sex

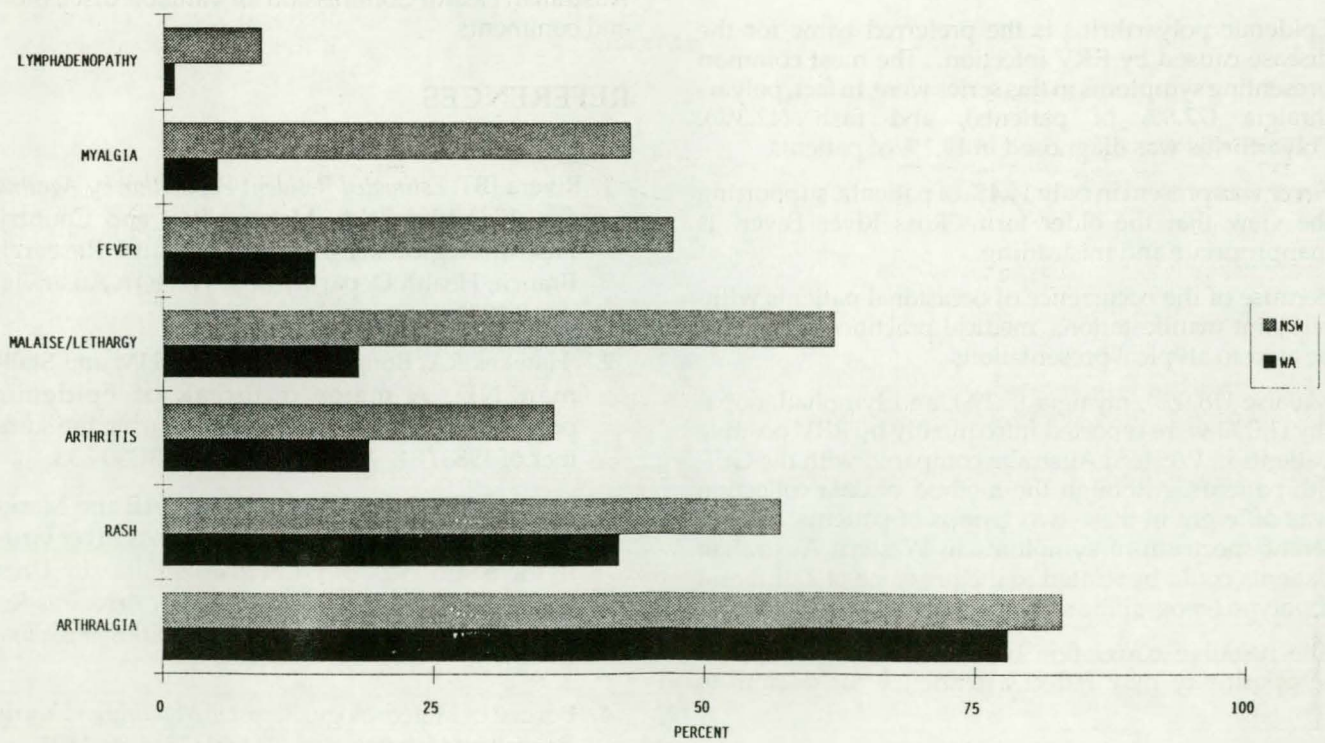


tory form were slightly more likely to have positive RRV serology (relative risk (RR) = 1.42, 95% CI 1.14 - 1.78; p = 0.002).

Polyarthralgia and rash were the most commonly reported symptoms for patients with positive RRV serology (Table), but polyarthritis, malaise, fever, myalgia and lymphadenopathy were also reported.

Compared with patients who were symptomatic but RRV seronegative, the symptom which was most strongly associated with recent RRV infection was a rash (RR = 3.57; 95% CI 3.00 - 4.25). Polyarthritis was also associated with positive RRV se-

Figure 5. Frequency of symptoms of RRV infections in Western Australian patients compared with New South Wales (Griffith)* patients



* From Hawkes et al 1985[2]

rology (RR = 2.38; 95% CI 1.92 - 2.96), as was polyarthralgia (RR = 1.37; 95% CI 1.09 - 1.71). Malaise was negatively associated with RRV seropositivity (RR = 1.15; 95% CI 1.11 - 1.18). Other clinical features showed no association with RRV serology results.

Of those seropositive patients whose symptoms were documented, 12 (3.1%) had neither polyarthritis nor polyarthralgia.

Figure 5 presents the frequency of symptoms in these Western Australian patients in comparison with the frequency of symptoms in patients from the Griffith Shire during the 1983-84 outbreak in New South Wales[2].

Discussion

The ecology of RRV infection requires a combination of environmental factors to ensure the presence of a large population of competent arthropod vectors. High tides and well above average winter and spring rainfall in the South West of Western Australia during 1988 provided ideal breeding conditions for salt marsh mosquito vectors (*Aedes camptorhyncus* and *Ae. vigilax*)[3]. The outbreak began in the Mandurah-Busselton district of this Region[3] and the highest number of cases occurred in the South West.

The incidence of RRV infections peaked in the South West in January, and slightly later in the Kimberley and the Pilbara. This may have been due to increased breeding of mosquito vectors in the north west after above average rainfall during the summer wet season of 1988-89[4].

Epidemic polyarthritis is the preferred name for the disease caused by RRV infection. The most common presenting symptoms in this series were, in fact, polyarthralgia (77.8% of patients), and rash (42.3%). Polyarthritis was diagnosed in 19.1% of patients.

Fever was present in only 14.4% of patients, supporting the view that the older term "Ross River Fever" is inappropriate and misleading.

Because of the occurrence of occasional patients without joint manifestations, medical practitioners should be alert to atypical presentations.

Malaise (18.0%), myalgia (5.2%), and lymphadenopathy (1.0%) were reported infrequently by RRV positive patients in Western Australia compared with the Griffith patients. Although the method of data collection was different in these two groups of patients, the different spectrum of symptoms in Western Australian patients could be related to the presence of a different topotype (geographic strain) of RRV.

The negative correlation between malaise and RRV seropositivity may reflect a tendency for doctors to submit specimens for RRV serology when a patient presents with non-specific symptoms during an outbreak. Malaise and myalgia may be reported more accurately by patients themselves than by their doctors[7,8] (who provided the clinical details for this database).

The SHLS laboratory database only contains information on seven selected symptoms. It does not include details of some less common symptoms which have been documented in previous reports from the eastern States of Australia[2,5,6,7], so I could not compare the frequency of those less common symptoms in the Western Australian patients. However, arthralgia and rash are prominent clinical features in both the Western Australian and the Griffith patients.

It was not possible to evaluate the duration or severity of patients' symptoms from this database. Recent reports from the South West of Western Australia[8] suggest that chronic, debilitating symptoms of RRV infection may be more prevalent than has previously been recognised. The Health Services Statistics and Epidemiology Branch is planning a study to assess the duration of symptoms and the degree of incapacity experienced by patients with epidemic polyarthritis.

Acknowledgements

Thanks are due to Dr Marion Bucens of the SHLS and Dr Ian Rouse of the Health Services Statistics and Epidemiology Branch for making the RRV database available, and to Mr Mike Lindsay of the University of Western Australia and Dr Philip Weinstein of the South Australian Health Commission for valuable discussion and comments.

REFERENCES

1. Rivera JBT. *Estimated Resident Population by Age and Sex, 1982-1989*, W.A. Metropolitan and Country Health Regions. Epidemiology and Research Branch, Health Department of Western Australia, April 1991.
2. Hawkes RA, Boughton CR, Naim HM and Stallman ND. A major outbreak of epidemic polyarthritis in New South Wales during the summer of 1983/84. *Med J Aust* 1985;143:330-333.
3. Lindsay MD, Latchford JA, Wright AE and Mackenzie JS. Studies on the ecology of Ross River virus in the South West of Western Australia. In: Uren MF, Blok J and Manderson M (Eds). *Arbovirus Research in Australia, proceedings of the 5th symposium, August 28 - September 1, 1989*;28-32.
4. Bureau of Meteorology. *Report of Monthly and Yearly Rainfall by Meteorological District, 1913-90.* 1991.
5. Department of Community Services and Health. Epidemic polyarthritis, Eastern Australia, Jan - Sept 1990. *Comm Dis Intell* 1990;(22):5-9.

6. Mudge RA and Aaskov JG. Epidemic polyarthritis in Australia, 1980-81. *Med J Aust* 1983;2:269-273.

7. Department of Community Services and Health. *Epidemic Polyarthritis Handbook*. Commonwealth Department of Community Services and Health 1989.

8. Schoof A. Mossie virus sufferer establishes help line. *Mandurah Mail* 1991, July 26.

CDI Editorial Comment

A large number of reports of RRV was received by the *CDI* laboratory reporting schemes from most areas of Australia during the 1988-89 summer. There was a total of 2353 reports for the 14 month period November 1988 to December 1989, and the State Health Laboratory in Perth reported more than any other laboratory (850 or 36.1% of the total). In contrast, in the 1990-91 season, during which there were fewer RRV reports from all parts of Australia except Queensland, the 111 reports from Western Australian laboratories comprised only 12.6% of the total reports (884) and 52% of the reports were received from Queensland (*CDI* **15**:339).

MURRAY VALLEY ENCEPHALITIS VIRUS INFECTIONS IN QUEENSLAND

(Dr Jill Newland, Cairns Base Hospital; Debbie Phillips, Margaret Wiemers, Queensland State Health Laboratory; Michael Pearce, NCEPH and Queensland Health)

Two patients infected with Murray Valley encephalitis (MVE) virus presented to Cairns Base Hospital (CBH) in May this year with signs of central nervous system disorders.

Case 1 (1 May 1991)

A 2-year-4-months-old Aboriginal girl was transferred to CBH from Weipa Hospital after a febrile convulsion lasting approximately 20 minutes. At admission to CBH she was drowsy but could be roused and had a temperature of 38.1°C. A right-sided focal fir occurred during her second day in hospital. During a CT scan she had a left-sided seizure which progressed to a grand mal fit and status epilepticus. She was transferred to the intensive care unit (ICU). At admission to the ICU she was comatose with a fixed gaze that deviated to the right during fitting. She had increased muscle tone in the right leg, bilateral up-going plantars, and normal reflexes and hypotonia of her other limbs. Fundi were normal. Following therapy, she opened her eyes on day 5 in ICU but had flaccid paralysis of her limbs. An EEG performed on day 14 in ICU showed diffuse high voltage activity in the delta range consistent with encephalopathy. Nerve conduction studies were normal. At initial presentation she had an absolute neutrophilia of 13.4×10^9 neutrophils/L which disappeared within a month; lymphocyte, monocyte and eosinophil counts were in the normal range throughout the period of hospitalisation.

She spent a further month in CBH receiving therapy and was then discharged to Weipa Hospital. When discharged from CBH, she had spastic quadriplegia with generalised increase in muscle tone, very little head control and little spontaneous movement. The patient still suffers from CNS deficits; she can now move her left arm and feed independently, but her right arm and both legs are paretic. (This case was briefly mentioned in *CDI* **15**:217.)

Case 2 (8 May 1991)

This patient was a 5-month-old Aboriginal girl transferred to CBH from Aurukun Community. She was ill for two days before presentation at CBH, with a bulging fontanelle and twitching spasms in the right arm and head. When admitted to CBH, she had a temperature of 37.8°C and was alert. Her fontanelle still bulged and she had twitching spasms in her right arm and leg lasting about 10 seconds. She also had neck stiffness, bilateral brisk reflexes and a slight increase in muscle tone on the right side. The provisional diagnosis was viral encephalitis. She was hospitalised for 12 days and discharged well. At presentation, this patient had a mild leucocytosis, with slightly elevated counts of neutrophils, lymphocytes, monocytes and eosinophils.

Both girls had remained in their respective communities in the two weeks prior to the onset of clinical signs of MVE.

These are the first cases of MVE virus infection associated with encephalitis in Queensland since 1981. Further, they are the only patients with proven encephalitis treated at CBH so far this year.

The 1990/1991 wet season rainfall patterns at Weipa were unusual. Rainfall in November and December, 1990, and March and April, 1991, were approximately 50% below average while January and February rainfall was 160 and 200% higher than average respectively. There was no rain in May. The District Officer of Nursing at Weipa cannot recall abnormal mosquito activity in Weipa at the time when infection of Case 1 is likely to have occurred.

Records of rainfall in Aurukun for the 1990/1991 wet season are not available. The Community Nurse there recalled an increase in mosquito activity during May 1991, at the time Case 2 became infected, but no information on species involved is available.

Three further cases of MVE virus infection have been confirmed serologically by Queensland State Health Laboratory so far this year:

Case 3 - a 71 year old woman visiting Brisbane from the Northern Territory with an unknown history,

Case 4 - a 36 year old Mossman man with malaise and a mild fever, and

Case 5 - a 30 year old Rockhamptom man with headaches, lethargy and malaise.

Most patients with serological evidence of recent MVE infection do not exhibit CNS signs, but rather flu-like symptoms: fever, myalgia, arthralgia and lethargy. There appears to be little correlation between serum haemagglutination inhibition (HI) antibody titres and severity of clinical signs (Table).

The temporal distribution of Queensland patients from 1981-1991 with serological evidence of recent MVE virus infection is given in the Figure.

In February, 1991, the Queensland State Health Laboratory introduced an ELISA test for type-specific flavivirus IgM. This has increased considerably the sensitivity of serological examination for type-specific flavivirus IgM. Consequently, we expect an increase in the diagnosis of MVE and other flavivirus infection reported in Australia.

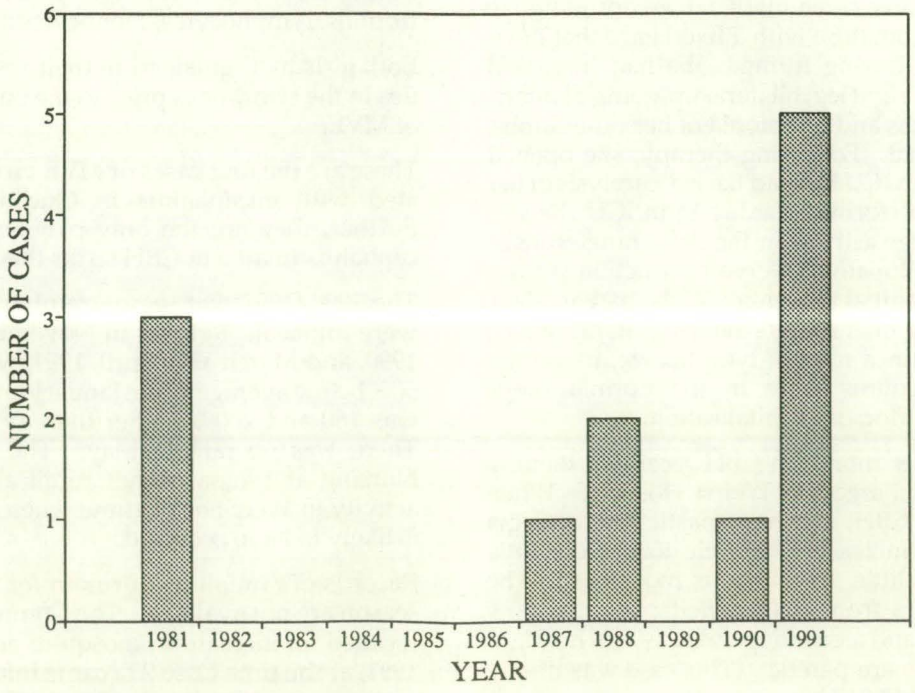
Acknowledgment

Information on rainfall over the last four years at a number of locations in Cape York was kindly provided by the Commonwealth Bureau of Meteorology.

Table. MVE-specific haemagglutination inhibition antibody titres in serum and/or CSF from five patients with confirmed MVE virus infection, Queensland, 1991

Patient	Date	Sample	MVE - specific antibody titre (H.I.)
Case 1	11.5.91	serum	40
	17.5.91	CSF	40
Case 2	23.5.91	serum	80
	29.5.91	serum	160
Case 3	23.1.91	serum	80
Case 4	28.2.91	serum	80
	01.5.91	serum	80
Case 5	22.9.91	serum	40
	12.10.91	serum	20

Figure. Patients with serologically confirmed recent MVE infection, Queensland, 1981-1991*



* Cases reported to 30 September 1991

AUSTRALIAN SALMONELLA REFERENCE LABORATORY REPORT, SECOND QUARTER 1991

(Excerpts from the April, May and June 1991 monthly reports of the Australian Salmonella Reference Laboratory, Institute of Medical and Veterinary Science, Adelaide, South Australia; Senior Scientist Chris Murray, Scientist Dianne Davos)

A total of 2,980 cultures were typed at the Australian Salmonella Reference Laboratory (ASRL) during the second quarter of 1991. Cultures were received from all States, the Northern Territory and the ACT, and also from Malaysia and Singapore (Table 1).

Serotypes of interest

Salmonella Banana

In May, an isolate of this serotype was received from the Australian Capital Territory, from faeces of a 3 year old boy. Salmonella Banana has not previously been recorded in Australia.

Salmonella Chailey

In June, there was one isolate of this serotype from an infant in Queensland. This serotype is rare in Australia, and ASRL has recorded it only from humans. Previous isolates have been 1 in each of 1971, 1975 and 1989, while in 1990 ASRL received 4 isolates from 2 patients, and there was 1 isolate in March, 1991.

Salmonella from Frog Legs

In June, 8 isolates were received from imported frog legs in New South Wales. Of these isolates, one was Salmonella Chingola, one Salmonella Javiana, 3 Salmonella Surat and 3 Salmonella Virchow. While Salmonella Virchow is common in Australia, the other serotypes are not.

Salmonella Javiana: ASRL records up to 10 human isolates each year, and small numbers from other sources. An isolate from an infant in Queensland was recorded in the June report.

Salmonella Chingola: This serotype is rare. ASRL last recorded a human isolate in 1986. Most recent isolates from other sources have been from imported raw prawns in 1985 and from imported cooked prawns in 1990.

Salmonella Surat: This serotype is rare. The only isolates that ASRL has recorded previously were from waters in 1988 and 1989. Of the 3 isolates in the June report, two were listed as from frog legs and one from an unknown source. However, the latter is believed to have also been from frog legs.

Salmonella Lindenburg

There was one isolate from crocodile meat in the Northern Territory in April. This serotype is rare in Australia; ASRL has recorded only two previous isolates, one from a human source and one from dairy factory sweepings, both in 1989.

Salmonella Liverpool

There was one isolate from a 32 year old woman in Victoria in May. This serotype is rare in Australia, but this is the second human isolate recorded this year (see *CDI* **15**:182).

Salmonella London

One isolate was received from Queensland in April, from a 26 year old man who had been to Thailand. This serotype is rare in Australia. There were 4 human isolates in 1990 and before that none since 1986. The last isolate from a non-human source was from raw meat in 1988.

Salmonella Paratyphi A

In April, cultures were received from both blood and faeces of a 43 year old woman in South Australia, who had recently been to Thailand.

Salmonella Paratyphi B var Java

ASRL noted an increased number of isolates of this serotype from Queensland during May(8). Laboratories from which isolates were received were in Rockhampton (4 isolates), Townsville (1), Mackay (1) and Cairns (2). No isolates were received from the Brisbane area.

Salmonella Rissen

There was one isolate from a 26 year old woman in New South Wales in May. This serotype is rare in Australia and has been isolated only from human sources.

Table 1. Origin of Salmonella cultures typed during April, May and June, 1991

	NSW	NT	Qld	SA	Tas	Vic	WA	ACT	Malaysia	Singapore	Total
April	143	83	225	169	16	107	61	1	12	0	817
May	424	143	264	234	16	125	34	5	0	12	1257
June	234	37	444	102	3	70	11	2	0	3	906
Total	801	263	933	505	35	302	106	8	12	15	2980

Salmonella Sylvania

One isolate was recorded in May, from a 2 year old boy in Queensland. Salmonella Sylvania was recorded as a new serotype by the ASRL in 1981. There has been only one previous human isolate, in 1986.

Salmonella Typhi

The following isolates were typed in April:

1. From Victoria, from faeces of a 62 year old woman who had arrived from Pakistan 6 months earlier. This woman had typhoid when she was young and is believed to be a carrier.

2. From New South Wales, from blood culture of a 1 year old girl from Chile.

3. From New South Wales, from blood culture of a 30 year old woman also from Chile.

4. From the Northern Territory, from blood culture of an Indonesian fisherman.

5. From blood culture of a 19 year old Victorian woman who had recently returned from Indonesia.

Two South Australian isolates were typed in May. They were from blood and faeces of a 35 year old woman who had recently returned from China.

Salmonella Typhi (j:z66 phase)

One isolate was received from Victoria in May, from a 15 year old Western Australian boy who travelled in Indonesia.

Phage typing of Salmonella Typhimurium, Salmonella Bovismorbificans and Salmonella Heidelberg

The results for phage typing for Salmonella Typhimurium, Salmonella Bovismorbificans and Salmonella Heidelberg for the second quarter of 1991 are presented in Tables 2-4.

Table 2. Phage typing results for Salmonella Typhimurium, by source, April to June 1991

Phage Type	Human Isolates	Other Isolates	Comments	Phage Type	Human Isolates	Other Isolates	Comments
1	5	0		101	21	7	Human isolates were 9 from NSW, 7 from SA, 5 from NT
4	2	7		104	1	0	
5	2	0		108	7	3	6 human isolates from SA
6	1	9	6 from chicken(s)	120	0	1	
8	9	6		122	0	1	
9	20	7	8 human isolates each from NSW, SA	126	12	13	8 human isolates from SA
12	1	1		133	1	0	
12a	18	9	8 from crocodile liver, NT	135	19	61	8 human isolates from Qld; 50 chicken-associated isolates
16	1	0		141	3	2	
25	0	4		145	5	34	32 chicken-associated
26	0	4		170	8	4	
29	1	3		179	8	9	
30	1	2		184	0	1	
44	7	26	26 from chicken(s) or chicken processing	186	0	1	
58	2	0		197	0	1	
64	0	1		201	5	1	
68	2	1		202	1	2	
78	1	0		RDNC	13	7	
99	0	1		Untypable	9	43	

Table 3. Phage typing results for Salmonella Bovismorbificans, by source, April to June 1991

Phage Type	Human Isolates	Other Isolates	Comments
2	3	0	
6	0	1	
7	15	3	
10	0	8	All ovine, Victoria
12	0	13	All pig-associated, Qld
13	9	4	
14	11	10	
16	0	2	
18	1	0	
20	1	0	
21	51	9	46 human isolates in NSW
22	0	5	
23	112	47	Human isolates included 82 NSW, 10 WA, 18 Vic
24	9	20	
RDNC	4	0	
Untypable	2	2	

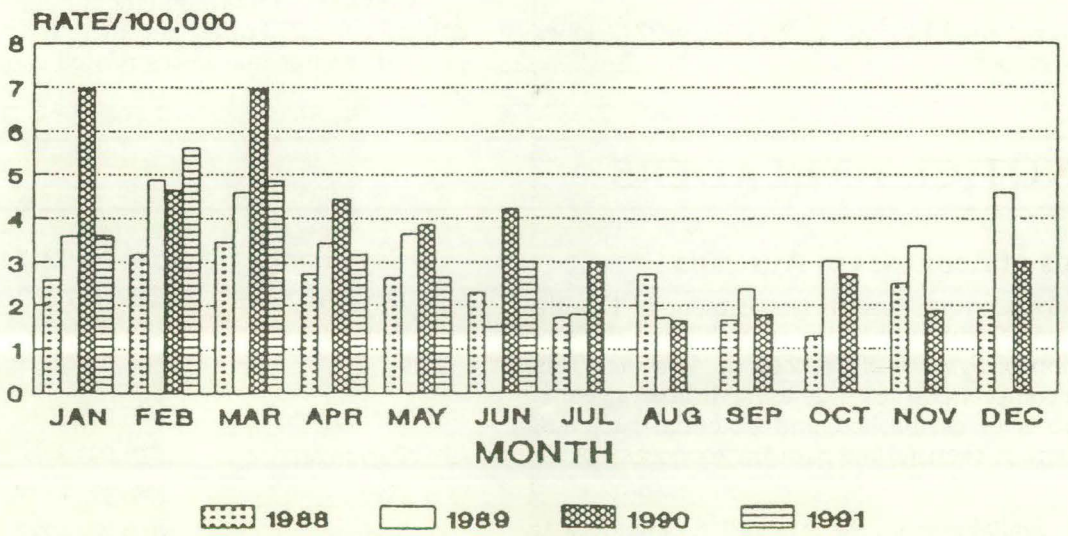
Table 4. Phage typing results for Salmonella Heidelberg, by source, April to June 1991

Phage Type	Human Isolates	Other Isolates	Comments
1	53	23	Human isolates include 23 Qld, 18 Vic
2	13	1	Human isolates include 10 Qld
3	2	1	
4	7	0	All Qld; includes 1 CSF isolate
RDNC	0	1	
Untypable	2	0	

Salmonellosis Notifications in South Australia

There were 46 human cases of salmonellosis notified in South Australia in April (3.20 cases per 100.000), 38 cases in May (2.64 cases per 100,000) and 43 cases in June (2.99 cases per 100,000)(Figure).

Figure. Salmonellosis notifications per 100,000 population in South Australia, 1988-1991, by month



OVERSEAS BRIEFS

In the last two weeks, the following information regarding cholera cases and recently infected areas has been supplied by the World Health Organization.

Cholera in Africa Update

Burundi reported 3 cases from 1 to 8 November.

The Haut Nkam and Ocean Departments of **Cameroon** have recently been declared infected.

There were 67 cases and 10 deaths in **Niger** for the period 19 to 25 October, and a further 63 cases and 11 deaths between 26 October and 8 November.

Nigeria reported 6867 cases and 750 deaths for the period 1 August to 30 November.

Cholera in the Americas Update

The first case of cholera from **Nicaragua** was reported on 12 November. The area in which the case occurred was not specified.

In **Bolivia**, there were 10 cases and 1 death from 1 to 7 November.

Brazil reported 35 cases for the period 17 to 31 October, and 39 cases from 1 to 12 November.

Colombia has reported 550 cases and 1 death from 12 October to 1 November. The Departments of Atlantico, Magdalena and Quindio have recently been declared infected.

There were 229 cases and 9 deaths in **El Salvador** from 27 October to 9 November and a further 94 cases and 2 deaths between 10 and 16 November.

Honduras reported 1 further case between 27 October and 2 November.

In **Mexico**, there were 278 cases and 3 deaths from 16 to 28 October.

Panama reported 36 cases and 1 death from 27 October to 2 November.

There were 7189 cases and 87 deaths reported in **Peru** for the period 2 to 29 October.

Two non-fatal cases were reported by the **United States of America** on 24 October.

Cholera in Asia Update

Cambodia has reported 714 cases and 85 deaths for the period 1 February to 31 May.

India reported 316 cases and 8 deaths for the month of September.

In **Iraq**, there were 8 cases from 14 to 30 October.

Singapore reported 2 cases for the period 20 to 26 October.

Cholera in Europe Update

Romania reported 7 cases and 1 death for the period 22 October to 11 November.

Three cases were reported from the **Ukrainian SSR** for the period 4 to 17 October.

Measles in New Zealand Update

Measles activity is continuing at a high level in New Zealand, with 304 new cases reported during the week ending 8 November and 269 during the week ending 15 November. This brought the cumulative total for the epidemic to 8,230 cases, and there have been 217 hospitalisations due to measles-related complications.

CDI NOTICE TO READERS

Synopsis of Zoonoses in Australia

In 1988, the Commonwealth Department of Health, Housing and Community Services published the second edition of *Synopsis of Zoonoses in Australia*. This book is a comprehensive guide to medical and veterinary aspects of established and potential bacterial, mycotic, viral, rickettsial and parasitic zoonoses in Australia.

It is now available from the Australian Government Publishing Service at a cost of $19.95. AGPS publications are available from the Commonwealth Government Bookshops in each State.

Adelaide	(08) 237 6955
Brisbane	(07) 229 6822
Canberra	(06) 247 7211
Darwin	(089) 897 152
(NT Government Information Centre)	
Hobart	(002) 237 151
Melbourne	(03) 663 3010
Parramatta	(02) 893 8466
Perth	(09) 322 4737
Sydney	(02) 299 6737
Townsville	(077) 215 212
or	(008) 805 896

A 24 hour on-line telephone order service is also available on 008 02 0049.

COMMUNICABLE DISEASES SURVEILLANCE

There was a total of 32 reports of **influenza B** this fortnight, bringing the total for the year to 380. Two of this period's reports were further identified as 'Victoria/2/87-like'. There were two cases in persons aged 65 years or more: one male and one person whose sex was not reported. Cardiac symptoms were reported for one patient, and meningitis was the reported syndrome for a 13 year old female.

There were 3 cases of **influenza A** reported this fortnight, all from Western Australian laboratories.

There were 25 reports of *Mycoplasma pneumoniae* infection, including 11 from Western Australia and 6 from Victoria. *Mycoplasma pneumoniae* infection is now showing its typical October-November seasonal peak; there have been more reports so far for October than for any month since last December.

Parainfluenza type 3 also exhibits a seasonal peak in October-November most years in Australia (Figure 1). From the reports received so far this year, it appears that this year could be more typical than 1990 (when there was the lowest number of reports since 1978), or even have higher than average activity for the next few months (Figure 2).

Further reports of **echovirus type 17** have been received from laboratories in Sydney and Canberra. For 5 of the patients (males aged 11 years and 7 years, and females aged 26 years, 27 years and 53 years), the reported syndrome was meningitis and the virus was isolated from CSF. The virus was also isolated from postmortem lymph node tissue from a male who had suffered SIDS, and from a faeces sample of a male with gastrointestinal symptoms.

The number of reports of **Ross River virus** infection has begun to increase; there were 18 reports this fortnight. Four of the reports were from the State Health Laboratory in Perth and one was from a laboratory in Sydney. The remainder were from Queensland: 3 from Cairns, 3 from Townsville, one each from Maryborough, Emerald and Mt Morgan, and 4 from Rockhampton.

A case of locally-acquired **dengue-1** infection was reported. The patient was a 34 year old female who probably acquired the infection in the Cairns or Mossman areas of northern Queensland. She had not travelled to any other country prior to her illness.

There was one case of **Murray Valley encephalitis virus** infection reported, from Rockhampton. Further details of the case are included elsewhere in this issue (*CDI* 15:447-448).

Six cases of **Barmah Forest virus** infection were reported. All cases were from Queensland: 3 from

Figure 1. Parainfluenza virus type 3 reports, by month, 1986 to 1990 average

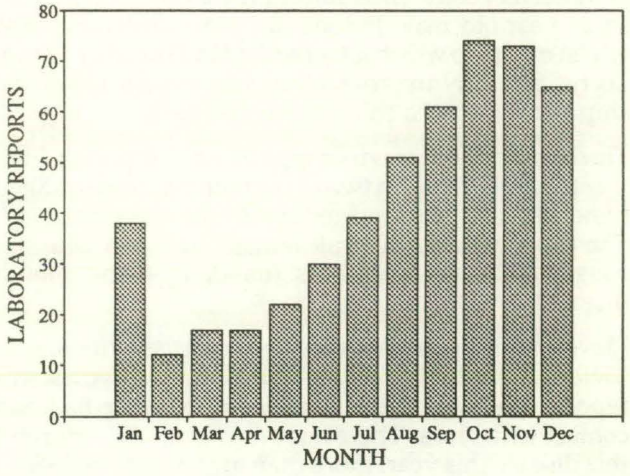
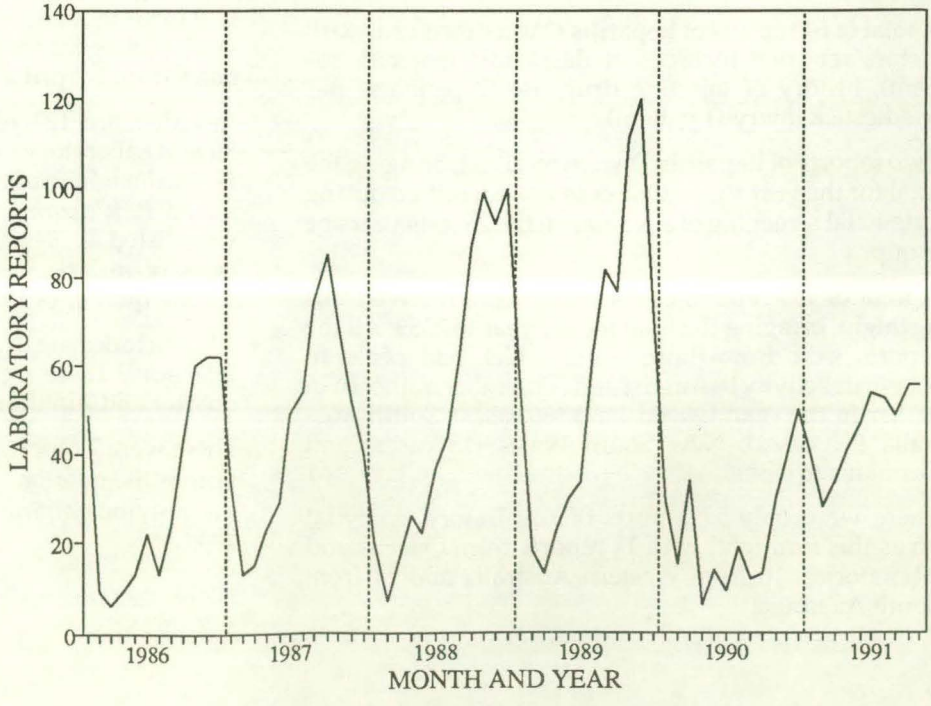


Figure 2. Parainfluenza virus type 3 reports, by month, 1986 to 1991



Brisbane, 2 from Cairns and 1 from western Queensland.

There were 38 reports of **rubella**. Nineteen of these were in teenage males and associated with an outbreak at a Defence Force base in north-west Sydney. (This outbreak is to be reported in more detail in the next issue of *CDI*.) Other patients included 6 women of child-bearing age (19 years, 23 years, 27 years, 27 years, 37 years, 37 years and 43 years).

A further 6 identifications of **measles** were reported, bringing the total for the year to 215. Included were two cases of SSPE reported from a Sydney laboratory. The patients were a males aged 8 years and 11 years.

There were 32 reports of **varicella-zoster virus** this period. The patients included two pregnant women (one at 39 weeks gestation, the other unknown). A case of varicella zoster virus infection was also reported in an 20 year old male Indonesian pearl diver. He died whilst on a ship which later berthed in Thursday Island, Torres Strait. Numerous other persons on board the ship had also had a chicken pox-like rash.

Three cases of **enterovirus type 71** were reported from Western Australia. In two of the patients (females aged 6 and 13 years), the reported syndrome was meningitis. The third patient, an adult female, had skin and mucous membrane symptoms (hand, foot and mouth disease).

Eleven cases of **psittacosis** were reported, with 8 from Victoria. One of the patients, a male aged 61 years, was reported as working at a zoo, and another had had contact with birds. There have now been 112 reports of this disease this year, more than any year since 1980.

A further 21 reports of **hepatitis A** were received, bringing the total for the year to 388, more than for any year since 1987. Of the 16 patients with known age and sex, 10 were adult males.

A total of 64 reports of **hepatitis C** were received. Risk factors reported included thalassaemia major (1 patient), history of injecting drug use (2 patients) and needlestick injury (1 patient).

Two reports of **hepatitis D** were received, bringing the total for the year to 34. One case was identified during ante-natal screening of a woman in the 25 to 44 year age group.

A total of 155 reports of **rotavirus** were received this fortnight, bringing the total for the year to 2339. All the reports were from those States which had peaks in rotavirus activity in August and September, rather than earlier in the year: Queensland (66 cases), South Australia (59 cases), New South Wales (18 cases) and Tasmania (6 cases).

There were only 57 reports of **respiratory syncytial virus** this fortnight, with 11 reports from Queensland laboratories, 16 from Western Australia and 14 from South Australia.

Among the 37 cases of **herpes simplex virus (not typed)** infection reported was 1 year old female who had encephalitis as the reported syndrome.

There were 10 reports of **Q fever**: 7 from Queensland, 2 from New South Wales and one from Western Australia. Cardiac symptoms were reported for one case, a 16 year old male. Three of the patients were described as meatworkers.

A case of **HTLV-1** (human T-cell lymphotropic virus type 1) infection was reported, in a 30 year old male. There have now been 7 reports of infection with this virus this year. In 1990, the first year in which reports of this virus were recorded, there were 3 cases reported.

Two cases of ***Haemophilus influenzae* type b** were reported. In one case, the organism was isolated from the CSF of a 16 month old male, and in the other case, it was isolated from the blood and CSF of a 19 month old female with meningitis.

Included in the 40 cases of **syphilis** reported were three cases diagnosed during ante-natal screening. Two of the patients were in the age group 15 to 24 years, and the third was in the age group 25 to 44 years. All diagnoses were made serologically.

Three cases of infection with ***Toxoplasma gondii*** were reported. One patient was a pregnant female in the age group 25 to 44 years. Diagnosis was by demonstration of specific IgM.

One case of ***Neisseria meningitidis* type C** meningitis was reported. The patient was a 45 year old female from whose blood the organism was isolated.

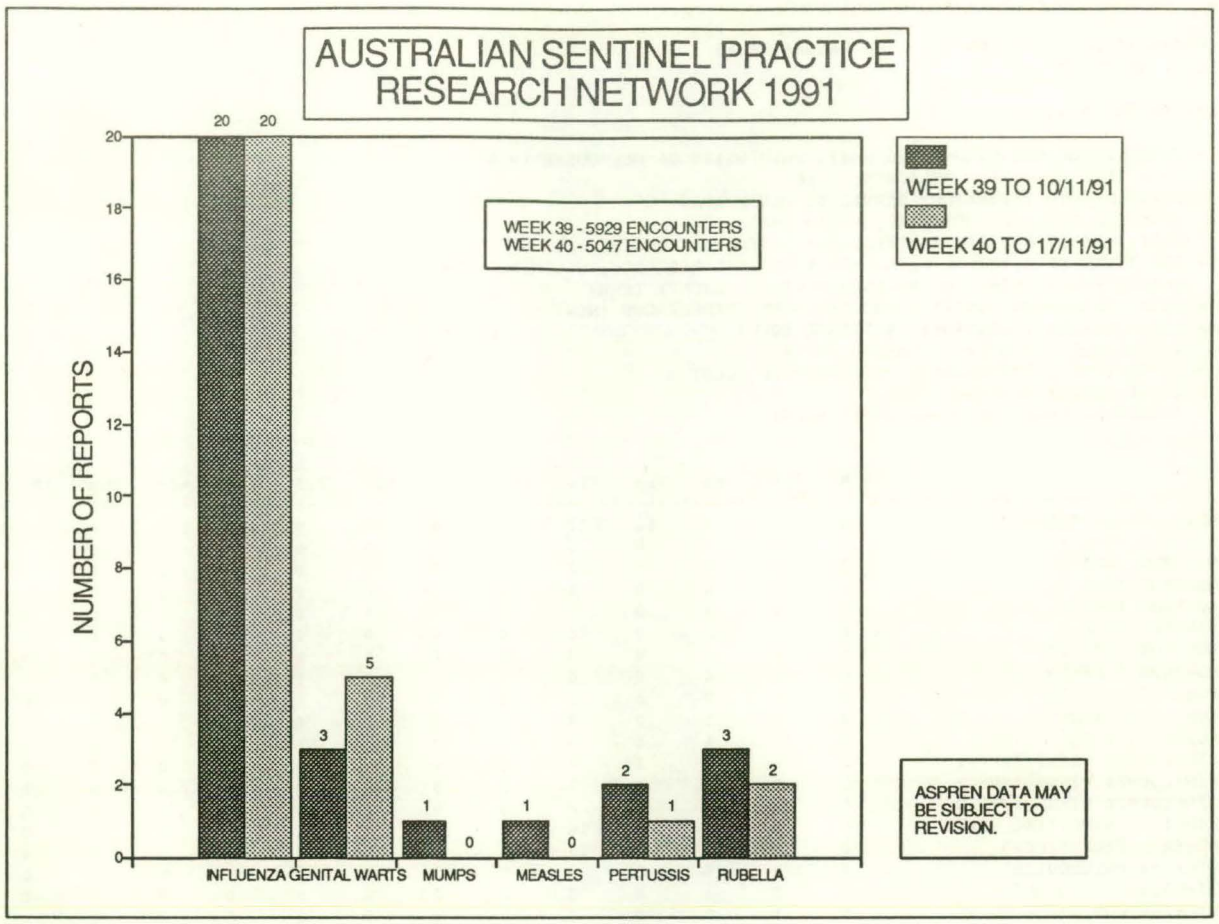
One case of ***Cryptococcus neoformans var neoformans*** was reported in an immunocompromised male in the age group 65 to 74 years. The organism had caused an encephalitis and had been identified in a CSF sample.

In addition to the tables of virus reports, this issue of *CDI* includes tables detailing reports received of 'non-viral' pathogens (pages 460-462) for sample collection dates from 1 April to 30 June 1991.

Included are 122 reports of **malaria** from the State Health Laboratory in Brisbane. Species identified were *Plasmodium falciparum* (41 cases), *P. vivax* (76 cases) and mixed *P. falciparum* and *P.vivax* (2 cases). Two cases were listed as *Plasmodium* species only. A total of 168 cases of malaria were reported in the scheme in the second quarter of 1990.

Also included are 8 reports of ***Echinococcus granulosus*** infection. There were 7 such reports in the previous quarter and 2 in the second quarter of 1990.

There were 7 reports of ***Legionella pneumophila*** infection in the quarter. This compares with 10 reports in the previous quarter and 3 in the second quarter of 1990.


AUSTRALIAN SENTINEL PRACTICE RESEARCH NETWORK 1991
NUMBER OF REPORTS
WEEK 39 - 5929 ENCOUNTERS
WEEK 40 - 5047 ENCOUNTERS
WEEK 39 TO 10/11/91
WEEK 40 TO 17/11/91
ASPREN DATA MAY BE SUBJECT TO REVISION.
INFLUENZA
GENITAL WARTS
MUMPS
MEASLES
PERTUSSIS
RUBELLA
20
20
3
5
1
0
1
0
2
1
3
2

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

VIRAL IDENTIFICATIONS FROM CONTRIBUTING LABORATORIES
BASED ON DATE OF REPORTING

PERIOD 7/11/91 TO 19/11/91

CODE 018 - MICROBIOLOGICAL DIAGNOSTIC UNIT, UNIVERSITY OF MELBOURNE (VIC)
CODE 019 - FAIRFIELD HOSPITAL, MELBOURNE (VIC)
CODE 065 - STATE HEALTH LABORATORY SERVICES, PERTH (WA)
CODE 066 - PRINCESS MARGARET HOSPITAL, PERTH (WA)
CODE 110 - INSTITUTE OF MEDICAL & VETERINARY SCIENCE, ADELAIDE (SA)
CODE 112 - INSTITUTE OF CLINICAL PATHOLOGY & MEDICAL RESEARCH, WESTMEAD (NSW)
CODE 113 - PRINCE HENRY/PRINCE OF WALES HOSPITALS, SYDNEY (NSW)
CODE 114 - ROYAL ALEXANDRA HOSPITAL FOR CHILDREN, CAMPERDOWN (NSW)
CODE 115 - STATE HEALTH LABORATORY, BRISBANE (QLD)
CODE 116 - WODEN VALLEY HOSPITAL, GARRAN (ACT)
CODE 400 - DR TB LYNCH, PATHOLOGIST, ROCKHAMPTON (QLD)
CODE RHH - ROYAL HOBART HOSPITAL (TAS)
CODE TPL - TOOWOOMBA PATHOLOGY LABORATORY (QLD)

	018	019	065	066	110	112	113	114	115	116	400	RHH	TPL	TOTAL
0100 ADENOVIRUS NOT TYPED	0	1	4	14	12	3	6	0	9	0	0	0	0	49
0101 ADENOVIRUS TYPE 1	0	1	0	0	1	0	0	0	0	0	0	0	0	2
0102 ADENOVIRUS TYPE 2	0	1	0	0	2	1	0	0	0	0	0	0	0	4
0103 ADENOVIRUS TYPE 3	0	2	0	0	1	1	0	0	0	0	0	0	0	4
0105 ADENOVIRUS TYPE 5	0	0	0	0	3	2	0	0	0	0	0	0	0	5
0108 ADENOVIRUS TYPE 8	0	3	0	0	0	0	0	0	0	0	0	0	0	3
0110 ADENOVIRUS TYPE 10	0	0	0	0	0	1	0	0	0	0	0	0	0	1
0119 ADENOVIRUS TYPE 19	0	1	0	0	0	0	1	0	0	0	0	0	0	2
0124 ADENOVIRUS TYPE 24	0	0	0	0	0	2	0	0	0	0	0	0	0	2
0201 INFLUENZA A VIRUS	0	0	3	0	0	0	0	0	0	0	0	0	0	3
0203 INFLUENZA B VIRUS	0	3	1	0	3	1	0	0	21	0	3	0	0	32
0301 PARAINFLUENZA VIRUS TYPE 1	0	0	0	1	0	0	0	0	0	0	0	0	0	1
0302 PARAINFLUENZA VIRUS TYPE 2	0	0	0	1	4	0	0	0	0	0	0	0	0	5
0303 PARAINFLUENZA VIRUS TYPE 3	0	2	1	0	2	8	4	1	14	0	0	0	0	32
0400 RESPIRATORY SYNCYTIAL VIRUS (R	0	6	1	15	14	2	2	0	11	0	0	6	0	57
0500 RHINOVIRUS (ALL TYPES)	0	0	1	0	10	4	0	1	0	0	0	0	0	16
0600 MYCOPLASMA PNEUMONIAE	0	6	8	3	4	0	2	1	1	0	0	0	0	25
0700 ORNITHOSIS-PSITTACOSIS	0	8	1	0	0	0	2	0	0	0	0	0	0	11
0809 COXSACKIEVIRUS A9	0	1	0	0	0	0	0	0	0	0	0	0	0	1
0901 COXSACKIEVIRUS B1	0	1	0	0	0	0	0	0	0	0	0	0	0	1
0902 COXSACKIEVIRUS B2	0	1	3	0	0	1	0	0	0	0	0	0	0	5
0905 COXSACKIEVIRUS B5	0	0	0	0	0	1	0	0	0	0	0	0	0	1
1016 ECHOVIRUS TYPE 16	0	0	0	0	0	1	0	0	0	0	0	0	0	1
1017 ECHOVIRUS TYPE 17	0	0	0	0	0	6	0	0	0	1	0	0	0	7
1100 POLIOVIRUS NOT TYPED	0	0	0	0	0	0	9	0	0	0	0	0	0	9
1102 POLIOVIRUS TYPE 2 (UNCHARACTER	0	0	0	0	0	1	0	0	0	0	0	0	0	1
1200 MUMPS VIRUS	0	0	1	0	0	0	0	0	0	0	0	0	0	1
1300 HERPES VIRUS GROUP - NOT TYPED	0	1	2	0	0	0	0	0	0	0	0	0	0	3
1301 HERPES SIMPLEX VIRUS - NOT TYP	0	0	0	0	0	27	5	2	0	3	0	0	0	37
1302 EPSTEIN-BARR VIRUS (EB VIRUS)	0	6	14	0	14	6	0	0	9	0	30	0	0	79
1303 VARICELLA-ZOSTER VIRUS	0	9	6	1	2	5	3	0	6	0	0	0	0	32
1306 HERPES SIMPLEX TYPE 1	0	38	16	1	31	2	13	0	21	1	0	1	0	124
1307 HERPES SIMPLEX TYPE 2	0	25	43	0	19	12	4	0	31	0	0	2	0	136
1399 HERPES VIRUS TYPING PENDING	0	1	0	0	0	1	0	0	1	0	0	0	0	3
1401 COXIELLA BURNETII	0	0	1	0	0	3	0	0	7	0	0	0	0	11
1502 PICORNA VIRUS - NOT TYPED = EN	0	0	9	0	0	1	2	0	8	1	0	0	0	21
1521 MEASLES VIRUS	0	4	0	0	0	0	2	0	0	0	0	0	0	6
1522 RUBELLA VIRUS	0	3	3	0	0	2	24	1	2	0	2	1	0	38
1532 HEPATITIS B ANTIGEN	0	9	15	0	2	24	8	0	29	1	0	0	0	88
1535 HEPATITIS A ANTIBODY	0	2	6	0	0	8	2	0	1	2	0	0	0	21
1536 HEPATITIS C VIRUS	0	0	41	0	13	0	0	1	0	3	0	6	0	64
1537 HEPATITIS, DELTA	0	0	1	0	0	0	0	0	0	0	1	0	0	2
1541 CHLAMYDIA TRACHOMATIS - UNSPEC	12	0	35	1	34	20	0	0	61	1	0	2	3	169
1542 CHLAMYDIA TRACHOMATIS - A-K	0	0	0	0	0	0	0	0	0	0	7	0	0	7
1555 PAPOVAVIRUS GROUP (PAPILLOMA -	0	0	0	0	0	0	1	0	0	0	0	0	0	1
1556 CMV - CYTOMEGALOVIRUS	0	32	2	7	6	5	7	2	17	0	8	1	0	87
1564 ROTAVIRUS	0	0	0	6	59	8	10	0	0	0	55	6	11	155
1565 CALICI VIRUS	0	0	0	0	0	2	0	0	0	0	0	0	0	2
1571 ENTEROVIRUS TYPE 71 (BCR)	0	0	3	0	0	0	0	0	0	0	0	0	0	3
9721 HTLV-1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
9906 BARMAH FOREST VIRUS	0	0	0	0	0	0	0	0	6	0	0	0	0	6
9981 DENGUE TYPE 1	0	0	0	0	0	0	0	0	1	0	0	0	0	1
9990 AUSTRALIAN ENCEPHALITIS	0	0	0	0	0	0	0	0	1	0	0	0	0	1
9992 ROSS RIVER VIRUS	0	0	4	0	0	0	1	0	8	0	5	0	0	18
9993 ASTROVIRUS	0	0	0	0	0	1	0	0	0	0	0	0	0	1
9997 KUNJIN VIRUS	0	0	0	0	0	0	0	0	1	0	0	0	0	1
9998 ARBOVIRUS GROUP B.(UNSPECIFIED	0	0	0	0	0	0	0	0	2	0	0	0	0	2
TOTAL	12	167	226	50	236	162	108	9	268	13	111	25	14	1401

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

VIRAL IDENTIFICATIONS FROM CONTRIBUTING LABORATORIES BY STATE OF CONTRIBUTING LABORATORY

PERIOD 7/11/91 TO 19/11/91

NSW: ICPMR; PHH/POW; RACH; ST GEORGE HOSP, KOGARAH; ROYAL NEWCASTLE HOSP; TAMWRTH LAB.
VIC: FAIRFIELD; RCH; MDU, UNI MELB.
QLD: STATE LAB, BRIS; TOOWOOMBA PATH LAB; ROYAL BRIS HOSP; DR TB LYNCH, PATHOLOGIST, ROCKHAMPTON.
WA: STATE LAB, PERTH; PMH.
SA: IMVS.
TAS: ROYAL HOBART HOSP; DIAGNOSTIC SERVICES, LAUNCESTON; LAUNCESTON GEN HOSP; DIAGNOSTIC SERVICES, HOBART; HOBART PATH; MERSEY GEN HOSP, LATROBE.
ACT: WVH.

		NSW	VIC	QLD	WA	SA	TAS	ACT	TOTAL
0100	ADENOVIRUS NOT TYPED	9	1	9	18	12	0	0	49
0101	ADENOVIRUS TYPE 1	0	1	0	0	1	0	0	2
0102	ADENOVIRUS TYPE 2	1	1	0	0	2	0	0	4
0103	ADENOVIRUS TYPE 3	1	2	0	0	1	0	0	4
0105	ADENOVIRUS TYPE 5	2	0	0	0	3	0	0	5
0108	ADENOVIRUS TYPE 8	0	3	0	0	0	0	0	3
0110	ADENOVIRUS TYPE 10	1	0	0	0	0	0	0	1
0119	ADENOVIRUS TYPE 19	1	1	0	0	0	0	0	2
0124	ADENOVIRUS TYPE 24	2	0	0	0	0	0	0	2
0201	INFLUENZA A VIRUS	0	0	0	3	0	0	0	3
0203	INFLUENZA B VIRUS	1	3	24	1	3	0	0	32
0301	PARAINFLUENZA VIRUS TYPE 1	0	0	0	1	0	0	0	1
0302	PARAINFLUENZA VIRUS TYPE 2	0	0	0	1	4	0	0	5
0303	PARAINFLUENZA VIRUS TYPE 3	13	2	14	1	2	0	0	32
0400	RESPIRATORY SYNCYTIAL VIRUS (R	4	6	11	16	14	6	0	57
0500	RHINOVIRUS (ALL TYPES)	5	0	0	1	10	0	0	16
0600	MYCOPLASMA PNEUMONIAE	3	6	1	11	4	0	0	25
0700	ORNITHOSIS-PSITTACOSIS	2	8	0	1	0	0	0	11
0809	COXSACKIEVIRUS A9	0	1	0	0	0	0	0	1
0901	COXSACKIEVIRUS B1	0	1	0	0	0	0	0	1
0902	COXSACKIEVIRUS B2	1	1	0	3	0	0	0	5
0905	COXSACKIEVIRUS B5	1	0	0	0	0	0	0	1
1016	ECHOVIRUS TYPE 16	1	0	0	0	0	0	0	1
1017	ECHOVIRUS TYPE 17	6	0	0	0	0	0	1	7
1100	POLIOVIRUS NOT TYPED	9	0	0	0	0	0	0	9
1102	POLIOVIRUS TYPE 2 (UNCHARACTER	1	0	0	0	0	0	0	1
1200	MUMPS VIRUS	0	0	0	1	0	0	0	1
1300	HERPES VIRUS GROUP - NOT TYPED	0	1	0	2	0	0	0	3
1301	HERPES SIMPLEX VIRUS - NOT TYP	34	0	0	0	0	0	3	37
1302	EPSTEIN-BARR VIRUS (EB VIRUS)	6	6	39	14	14	0	0	79
1303	VARICELLA-ZOSTER VIRUS	8	9	6	7	2	0	0	32
1306	HERPES SIMPLEX TYPE 1	15	38	21	17	31	1	1	124
1307	HERPES SIMPLEX TYPE 2	16	25	31	43	19	2	0	136
1399	HERPES VIRUS TYPING PENDING	1	1	1	0	0	0	0	3
1401	COXIELLA BURNETII	3	0	7	1	0	0	0	11
1502	PICORNA VIRUS - NOT TYPED = EN	3	0	8	9	0	0	1	21
1521	MEASLES VIRUS	2	4	0	0	0	0	0	6
1522	RUBELLA VIRUS	27	3	4	3	0	1	0	38
1532	HEPATITIS B ANTIGEN	32	9	29	15	2	0	1	88
1535	HEPATITIS A ANTIBODY	10	2	1	6	0	0	2	21
1536	HEPATITIS C VIRUS	1	0	0	41	13	6	3	64
1537	HEPATITIS, DELTA	0	0	1	1	0	0	0	2
1541	CHLAMYDIA TRACHOMATIS - UNSPEC	20	12	64	36	34	2	1	169
1542	CHLAMYDIA TRACHOMATIS - A-K	0	0	7	0	0	0	0	7
1555	PAPOVAVIRUS GRCUP (PAPILLOMA -	1	0	0	0	0	0	0	1
1556	CMV - CYTOMEGALOVIRUS	14	32	25	9	6	1	0	87
1564	ROTAVIRUS	18	0	66	6	59	6	0	155
1565	CALICI VIRUS	2	0	0	0	0	0	0	2
1571	ENTEROVIRUS TYPE 71 (BCR)	0	0	0	3	0	0	0	3
9721	HTLV-1	0	0	0	1	0	0	0	1
9906	BARMAH FOREST VIRUS	0	0	6	0	0	0	0	6
9981	DENGUE TYPE 1	0	0	1	0	0	0	0	1
9990	AUSTRALIAN ENCEPHALITIS	0	0	1	0	0	0	0	1
9992	ROSS RIVER VIRUS	1	0	13	4	0	0	0	18
9993	ASTROVIRUS	1	0	0	0	0	0	0	1
9997	KUNJIN VIRUS	0	0	1	0	0	0	0	1
9998	ARBOVIRUS GROUP B.(UNSPECIFIED	0	0	2	0	0	0	0	2
TOTAL		279	179	393	276	236	25	13	1401

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

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

VIRAL IDENTIFICATIONS BY CLINICAL INFORMATION TABLE 1

PERIOD 7/11/91 TO 19/11/91

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	2	17	0	2	0	0	18	0	0	0	1	40
0101	ADENOVIRUS TYPE 1	0	2	0	0	0	0	0	0	0	0	0	2
0102	ADENOVIRUS TYPE 2	0	3	0	0	0	0	1	0	0	0	0	4
0103	ADENOVIRUS TYPE 3	0	1	0	0	0	0	1	0	0	0	0	2
0105	ADENOVIRUS TYPE 5	0	4	0	0	0	1	0	0	0	0	0	5
0110	ADENOVIRUS TYPE 10	0	0	0	0	0	0	1	0	0	0	0	1
0124	ADENOVIRUS TYPE 24	0	0	0	0	0	0	2	0	0	0	0	2
0201	INFLUENZA A VIRUS	0	3	0	0	0	0	0	0	0	0	0	3
0203	INFLUENZA B VIRUS	7	14	0	1	0	0	0	0	1	0	0	23
0301	PARAINFLUENZA VIRUS TYPE 1	0	1	0	0	0	0	0	0	0	0	0	1
0302	PARAINFLUENZA VIRUS TYPE 2	0	4	0	0	0	0	0	0	0	0	0	4
0303	PARAINFLUENZA VIRUS TYPE 3	2	29	0	0	0	0	0	0	0	0	0	31
0400	RESPIRATORY SYNCYTIAL VIRUS (R	0	56	0	0	0	0	0	0	0	0	0	56
0500	RHINOVIRUS (ALL TYPES)	1	15	0	0	0	0	0	0	0	0	0	16
0600	MYCOPLASMA PNEUMONIAE	0	20	0	0	0	0	0	0	0	0	0	20
0700	ORNITHOSIS-PSITTACOSIS	0	9	0	0	0	0	0	0	0	0	0	9
0809	COXSACKIEVIRUS A9	0	1	0	0	0	0	0	0	0	0	0	1
0901	COXSACKIEVIRUS B1	0	0	0	1	0	0	0	0	0	0	0	1
0902	COXSACKIEVIRUS B2	1	0	0	2	0	0	1	0	0	0	1	5
0905	COXSACKIEVIRUS B5	0	0	0	0	0	0	1	0	0	0	0	1
1016	ECHOVIRUS TYPE 16	0	0	0	1	0	0	0	0	0	0	0	1
1017	ECHOVIRUS TYPE 17	0	0	0	5	0	0	1	0	0	0	0	6
1100	POLIOVIRUS NOT TYPED	0	1	0	0	0	0	8	0	0	0	0	9
1102	POLIOVIRUS TYPE 2 (UNCHARACTER	0	1	0	0	0	0	0	0	0	0	0	1
1200	MUMPS VIRUS	1	0	0	0	0	0	0	0	0	0	0	1
1300	HERPES VIRUS GROUP - NOT TYPED	0	0	0	0	0	0	0	0	0	0	2	2
1301	HERPES SIMPLEX VIRUS - NOT TYP	7	1	2	0	1	0	0	0	0	1	12	24
1302	EPSTEIN-BARR VIRUS (EB VIRUS)	26	12	0	1	0	0	0	1	0	0	2	42
1303	VARICELLA-ZOSTER VIRUS	4	1	0	0	0	0	0	0	0	0	23	28
1306	HERPES SIMPLEX TYPE 1	0	8	0	0	0	0	0	0	0	0	84	92
1307	HERPES SIMPLEX TYPE 2	0	0	0	0	0	0	0	0	0	0	68	68
1399	HERPES VIRUS TYPING PENDING	0	0	0	0	0	0	0	0	0	0	1	1
1401	COXIELLA BURNETII	2	1	0	0	0	0	0	0	1	0	0	4
1502	PICORNA VIRUS - NOT TYPED = EN	2	6	0	0	0	1	7	0	1	0	1	18
1521	MEASLES VIRUS	1	0	2	0	0	0	0	0	0	0	3	6
1522	RUBELLA VIRUS	5	0	0	0	0	0	0	1	0	0	11	17
1532	HEPATITIS B ANTIGEN	35	0	0	0	0	0	0	43	0	0	0	78
1535	HEPATITIS A ANTIBODY	1	0	0	0	0	0	0	17	0	0	0	18
1536	HEPATITIS C VIRUS	57	0	0	0	0	0	0	3	0	0	0	60
1537	HEPATITIS, DELTA	2	0	0	0	0	0	0	0	0	0	0	2
1541	CHLAMYDIA TRACHOMATIS - UNSPEC	26	0	0	0	0	0	0	0	0	0	0	26
1542	CHLAMYDIA TRACHOMATIS - A-K	7	0	0	0	0	0	0	0	0	0	0	7
1555	PAPOVAVIRUS GROUP (PAPILLOMA -	0	0	0	0	0	0	0	0	0	1	0	1
1556	CMV - CYTOMEGALOVIRUS	9	16	0	0	1	0	1	5	0	2	1	35
1564	ROTAVIRUS	21	0	0	0	0	0	130	0	0	0	0	151
1565	CALICI VIRUS	0	0	0	0	0	0	2	0	0	0	0	2
1571	ENTEROVIRUS TYPE 71 (BCR)	0	0	0	2	0	0	0	0	0	0	1	3
9701	HIV-1	1	0	0	0	0	0	0	0	0	0	1	2
9721	HTLV-1	1	0	0	0	0	0	0	0	0	0	0	1
9906	BARMAH FOREST VIRUS	3	0	0	0	0	0	0	0	0	0	0	3
9981	DENGUE TYPE 1	1	0	0	0	0	0	0	0	0	0	0	1
9990	AUSTRALIAN ENCEPHALITIS	1	0	0	0	0	0	0	0	0	0	0	1
9992	ROSS RIVER VIRUS	4	0	0	0	0	0	1	0	0	0	0	5
9993	ASTROVIRUS	0	0	0	0	0	0	1	0	0	0	0	1
9997	KUNJIN VIRUS	1	0	0	0	0	0	0	0	0	0	0	1
9998	ARBOVIRUS GROUP B.(UNSPECIFIED	1	0	0	0	0	0	0	0	0	0	0	1
TOTAL		232	226	4	15	2	2	176	70	3	4	212	946

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

VIRAL IDENTIFICATIONS BY CLINICAL INFORMATION TABLE 2

PERIOD 7/11/91 TO 19/11/91

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

		12	13	14	15	16	17	18	19	20	21	TOTAL
0100	ADENOVIRUS NOT TYPED	4	0	1	0	0	0	0	2	2	0	9
0103	ADENOVIRUS TYPE 3	2	0	0	0	0	0	0	0	0	0	2
0108	ADENOVIRUS TYPE 8	3	0	0	0	0	0	0	0	0	0	3
0119	ADENOVIRUS TYPE 19	2	0	0	0	0	0	0	0	0	0	2
0203	INFLUENZA B VIRUS	0	0	0	0	0	0	1	8	0	0	9
0302	PARAINFLUENZA VIRUS TYPE 2	0	0	0	0	0	0	1	0	0	0	1
0303	PARAINFLUENZA VIRUS TYPE 3	0	0	0	0	0	0	0	1	0	0	1
0400	RESPIRATORY SYNCYTIAL VIRUS (R	0	0	0	0	0	0	0	1	0	0	1
0600	MYCOPLASMA PNEUMONIAE	0	0	0	0	0	0	0	1	0	0	1
0700	ORNITHOSIS-PSITTACOSIS	0	0	0	0	0	0	0	2	0	0	2
1017	ECHOVIRUS TYPE 17	0	0	0	0	0	0	0	0	0	1	1
1300	HERPES VIRUS GROUP - NOT TYPED	0	0	0	0	0	0	0	0	1	0	1
1301	HERPES SIMPLEX VIRUS - NOT TYP	0	9	0	0	0	1	0	2	1	0	13
1302	EPSTEIN-BARR VIRUS (EB VIRUS)	0	0	19	2	1	0	0	11	4	0	37
1303	VARICELLA-ZOSTER VIRUS	0	0	0	0	0	0	0	1	3	0	4
1306	HERPES SIMPLEX TYPE 1	2	24	0	2	0	0	1	0	2	0	31
1307	HERPES SIMPLEX TYPE 2	0	68	0	0	0	0	0	0	0	0	68
1399	HERPES VIRUS TYPING PENDING	0	2	0	0	0	0	0	0	0	0	2
1401	COXIELLA BURNETII	0	0	0	0	0	0	2	2	3	0	7
1502	PICORNA VIRUS - NOT TYPED = EN	0	0	0	0	1	0	0	1	0	1	3
1522	RUBELLA VIRUS	0	0	0	0	1	0	0	1	0	0	2
1532	HEPATITIS B ANTIGEN	0	0	0	0	0	0	0	0	1	0	1
1535	HEPATITIS A ANTIBODY	0	0	0	0	0	0	0	1	0	0	1
1536	HEPATITIS C VIRUS	0	0	0	0	0	0	0	0	3	0	3
1541	CHLAMYDIA TRACHOMATIS - UNSPEC	6	137	0	0	0	0	0	0	0	0	143
1556	CMV - CYTOMEGALOVIRUS	3	1	1	2	0	4	2	5	31	1	50
1564	ROTAVIRUS	0	0	0	0	0	0	0	2	0	0	2
9906	BARMAH FOREST VIRUS	0	0	0	0	2	0	1	0	0	0	3
9992	ROSS RIVER VIRUS	0	0	0	0	7	0	0	3	3	0	13
9998	ARBOVIRUS GROUP B.(UNSPECIFIED	0	0	0	0	0	0	0	1	0	0	1
TOTAL		22	241	21	6	12	5	8	45	54	3	417

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

NON-VIRAL PATHOGEN IDENTIFICATIONS FROM CONTRIBUTING LABORATORIES

SAMPLE COLLECTION DATE: APRIL TO JUNE 1991

CODE 019 - FAIRFIELD HOSPITAL, MELBOURNE (VIC)
CODE 112 - INSTITUTE OF CLINICAL PATHOLOGY & MEDICAL RESEARCH, WESTMEAD (NSW)
CODE 115 - STATE HEALTH LABORATORY, BRISBANE (QLD)
CODE 270 - TAMWORTH LAB, NEW ENGLAND PATHOLOGY (NSW)
CODE 400 - DR TB LYNCH, PATHOLOGIST, ROCKHAMPTON (QLD)
CODE 420 - NAMBOUR GENERAL HOSPITAL (QLD)
CODE HOB - HOBART PATHOLOGY LABORATORY (TAS)
CODE RHH - ROYAL HOBART HOSPITAL (TAS)
CODE TPL - TOOWOOMBA PATHOLOGY LABORATORY (QLD)

		019	112	115	270	400	420	HOB	RHH	TPL	TOTAL
AE00	AEROMONAS SPECIES	0	0	0	0	26	0	0	0	0	26
AE02	AEROMONAS SOBRIA	0	0	0	0	1	0	0	0	0	1
AS00	ASPERGILLUS SPECIES	0	0	3	0	0	0	8	0	0	11
BL01	BLASTOCYSTIS HOMINIS	0	0	0	0	4	0	0	0	1	5
BO01	BORDETELLA PERTUSSIS	0	0	0	0	7	0	0	0	3	10
BT02	BACTEROIDES FRAGILIS	0	0	0	0	0	0	0	0	1	1
BT04	BACTEROIDES MELANINOGENICUS	0	0	0	0	0	0	0	0	1	1
CA00	CANDIDA SPECIES	0	0	118	0	0	0	5	1	0	124
CB04	CORYNEBACTERIUM BOVIS	0	0	0	0	1	0	0	0	0	1
CL02	CLOSTRIDIUM PERFRINGENS	0	0	0	0	0	0	0	0	1	1
CL03	CLOSTRIDIUM DIFFICILE	0	0	0	0	1	0	0	0	0	1
CL05	CLOSTRIDIUM SEPTICUM	0	0	0	0	0	0	0	0	1	1
CM00	CAMPYLOBACTER SPECIES	0	0	0	0	16	0	62	4	0	82
CM01	CAMPYLOBACTER JEJUNI	0	0	0	1	0	0	0	3	15	19
CR00	CRYPTOCOCCUS SPECIES	0	5	1	0	0	0	0	0	0	6
CT00	CRYPTOSPORIDIUM SPECIES	0	0	0	0	5	0	0	1	13	19
EA01	ENTAMOEBA HISTOLYTICA	0	0	2	0	0	0	0	0	1	3
EC01	ECHINOCOCCUS GRANULOSUS	0	0	8	0	0	0	0	0	0	8
EI01	EIKENELLA CORRODENS	0	0	0	0	1	0	0	0	0	1
EN00	ENTEROBACTER SPECIES	0	0	0	1	0	1	0	0	1	3
EP00	EPIDERMIDOPHYTON SPECIES	0	0	2	0	3	0	2	0	1	8
ES01	ESCHERICHIA COLI	0	0	0	1	9	4	1	0	5	20
GI01	GIARDIA LAMBLIA	0	0	0	2	32	0	9	4	14	61
HE01	HELICOBACTER PYLORI	0	0	0	0	1	0	0	0	0	1
HI02	HAEMOPHILUS INFLUENZAE	0	2	0	2	0	3	0	0	3	10
KL00	KLEBSIELLA SPECIES	0	0	0	1	0	1	0	0	0	2
LE01	LEGIONELLA PNEUMOPHILA	0	6	1	0	0	0	0	0	0	7
LI01	LISTERIA MONOCYTOGENES	0	1	0	0	0	0	0	0	0	1
LS00	LEPTOSPIRA SPECIES	0	2	8	0	0	0	0	0	0	10
LS02	LEPTOSPIRA CANICOLA	0	0	4	0	0	0	0	0	0	4
LS03	LEPTOSPIRA ICTEPOHAEMORRHAGIAE	0	0	7	0	0	0	0	0	0	7
LS04	LEPTOSPIRA POMONA	0	1	5	0	0	0	0	0	0	6
LS05	LEPTOSPIRA AUTUMNALIS	0	0	2	0	0	0	0	0	0	2
LS06	LEPTOSPIRA GRIPPOTYPHOSA	0	1	1	0	0	0	0	0	0	2
LS07	LEPTOSPIRA HARDJO	0	1	6	0	0	0	0	0	0	7
LS09	LEPTOSPIRA BALLUM	0	0	1	0	0	0	0	0	0	1
LS10	LEPTOSPIRA AUSTRALIS	0	0	2	0	0	0	0	0	0	2
MA01	MALASSEZIA FURFUR	0	0	0	0	2	0	0	0	0	2
MI00	MICROSPORUM SPECIES	0	0	1	1	8	0	10	0	0	20
MI01	MICROSPORUM AUDOUINII	0	0	0	0	1	0	0	0	0	1
MI02	MICROSPORUM CANIS	0	0	0	0	1	0	0	0	0	1
MI03	MICROSPORUM GYPSEUM	0	0	0	0	1	0	0	0	0	1
MY00	MYCOBACTERIUM SPECIES	0	0	0	0	1	0	0	0	0	1
NE01	NEISSERIA GONORRHOEAE	0	0	0	0	5	0	2	0	0	7
NE02	NEISSERIA MENINGITIDIS	0	0	0	0	0	0	0	1	0	1
NOTL	NOT LISTED	0	0	0	0	13	0	0	0	0	13
PA00	PASTEURELLA SPECIES	0	0	0	0	0	0	3	0	0	3
PL00	PLASMODIUM SPECIES	0	0	3	0	0	0	0	0	0	3
PL01	PLASMODIUM FALCIPARUM	0	0	41	0	0	0	0	0	0	41
PL02	PLASMODIUM VIVAX	0	1	73	0	2	0	0	0	0	76
PL05	PLASMODIUM FALCIPARUM/VIVAX (M	0	0	2	0	0	0	0	0	0	2
PS00	PSEUDOMONAS SPECIES	0	0	0	1	1	1	0	0	0	3
SA00	STAPHYLOCOCCUS SPECIES	0	0	0	0	0	0	1	3	2	6
SA01	STAPHYLOCOCCUS AUREUS	0	0	0	1	2	2	0	0	9	14
SE00	STREPTOCOCCUS SPECIES	0	0	0	3	0	1	0	2	2	8
SE01	STREPTOCOCCUS PNEUMONIAE	0	0	0	1	0	5	0	0	0	6
SE02	STREPTOCOCCUS GROUP A	0	0	0	1	0	0	0	0	1	2
SH04	SHIGELLA SONNEI	0	0	0	1	0	0	0	0	1	2
SL00	SALMONELLA SPECIES	0	0	0	0	31	1	11	0	5	48
TC01	TRICHOMONAS VAGINALE	0	0	4	0	4	0	1	0	0	9
TI00	TRICHOPHYTON SPECIES	0	0	10	0	20	0	15	2	1	48
TI01	TRICHOPHYTON MENTAGROPHYTES	0	0	0	0	4	0	0	0	0	4
TP01	TOXOPLASMA GONDII	3	10	1	0	0	0	0	0	0	14
TR01	TREPONEMA PALLIDUM	0	0	55	0	2	0	0	0	7	64
VI00	VIBRIO SPECIES	0	0	0	0	1	0	0	0	0	1
VN01	VINCENT'S ORGANISMS	0	0	0	0	5	0	0	0	0	5
YE01	YERSINIA ENTEROCOLITICA	0	0	0	0	12	1	0	0	1	14
TOTAL		3	30	361	17	223	20	130	21	90	895

NB: NUMBERS MAY CHANGE AT A LATER DATE AS A RESULT OF LATE REPORTING

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

NON-VIRAL PATHOGEN IDENTIFICATIONS CATEGORISED BY SOURCE SPECIMENS - PART 1

SAMPLE COLLECTION DATE: APRIL TO JUNE 1991

BL - WHOLE BLOOD; BR - BRONCHIAL WASHINGS OR ASPIRATE; CS - CEREBROSPINAL FLUID;
EY - EYE; FA - FAECES/RECTUM; GE - GENITAL SWAB; LE - LEUCOCYTES;
NA - NASOPHARYNGEAL SWAB; PD - PERITONEAL DIALYSIS FLUID; PF - PERICARDIAL,
PLEURAL OR JOINT FLUID; PU - PUS; SA - SALIVA; SK - SKIN; SM - SERUM;
SP - SPUTUM; SS - SKIN SCRAPINGS; TH - THROAT; UR - URINE;

POSTMORTEM OR BIOPSY SPECIMENS: MB - BLOOD, BONE MARROW; MD - DIGESTIVE TRACT;
MH - HEART; MK - KIDNEY; ML - LIVER; MN - BRAIN, SPINAL CORD; MP - LUNGS;
MR - RESPIRATORY TRACT; MS - SPLEEN, LYMPH NODES; MO - OTHER POSTMORTEM/BIOPSY
SPECIMEN

		BL	BR	CS	FA	GE	NA	PD	PF	PU	SK	SM	TOTAL
AE00	AEROMONAS SPECIES	0	0	0	23	0	0	0	0	0	2	0	25
AE02	AEROMONAS SOBRIA	0	0	0	1	0	0	0	0	0	0	0	1
AS00	ASPERGILLUS SPECIES	0	0	0	0	0	1	0	0	0	6	0	7
BL01	BLASTOCYSTIS HOMINIS	0	0	0	5	0	0	0	0	0	0	0	5
BO01	BORDETELLA PERTUSSIS	0	0	0	0	0	0	0	0	0	0	9	9
BT02	BACTEROIDES FRAGILIS	1	0	0	0	0	0	0	0	0	0	0	1
BT04	BACTEROIDES MELANINOGENICUS	1	0	0	0	0	0	0	0	0	0	0	1
CA00	CANDIDA SPECIES	0	2	0	0	105	0	1	0	0	7	0	115
CB04	CORYNEBACTERIUM BOVIS	0	0	1	0	0	0	0	0	0	0	0	1
CL03	CLOSTRIDIUM DIFFICILE	0	0	0	1	0	0	0	0	0	0	0	1
CL05	CLOSTRIDIUM SEPTICUM	0	0	0	0	1	0	0	0	0	0	0	1
CM00	CAMPYLOBACTER SPECIES	0	0	0	82	0	0	0	0	0	0	0	82
CM01	CAMPYLOBACTER JEJUNI	0	0	0	19	0	0	0	0	0	0	0	19
CR00	CRYPTOCOCCUS SPECIES	0	0	2	0	0	0	0	0	0	0	4	6
CT00	CRYPTOSPORIDIUM SPECIES	0	0	0	19	0	0	0	0	0	0	0	19
EA01	ENTAMOEBA HISTOLYTICA	0	0	0	1	0	0	0	0	0	0	2	3
EC01	ECHINOCOCCUS GRANULOSUS	0	0	0	0	0	0	0	0	0	0	8	8
EN00	ENTEROBACTER SPECIES	3	0	0	0	0	0	0	0	0	0	0	3
EP00	EPIDERMIDOPHYTON SPECIES	0	0	0	0	0	0	0	0	0	4	0	4
ES01	ESCHERICHIA COLI	10	0	0	9	0	0	0	1	0	0	0	20
GI01	GIARDIA LAMBLIA	0	0	0	61	0	0	0	0	0	0	0	61
HM02	HAEMOPHILUS INFLUENZAE	10	0	0	0	0	0	0	0	0	0	0	10
KL00	KLEBSIELLA SPECIES	2	0	0	0	0	0	0	0	0	0	0	2
LE01	LEGIONELLA PNEUMOPHILA	0	0	0	0	0	0	0	0	0	0	7	7
LI01	LISTERIA MONOCYTOGENES	1	0	0	0	0	0	0	0	0	0	0	1
LS00	LEPTOSPIRA SPECIES	0	0	0	0	0	0	0	0	0	0	10	10
LS02	LEPTOSPIRA CANICOLA	0	0	0	0	0	0	0	0	0	0	4	4
LS03	LEPTOSPIRA ICTEROHAEMORRHAGIAE	0	0	0	0	0	0	0	0	0	0	7	7
LS04	LEPTOSPIRA POMONA	0	0	0	0	0	0	0	0	0	0	6	6
LS05	LEPTOSPIRA AUTUMNALIS	0	0	0	0	0	0	0	0	0	0	2	2
LS06	LEPTOSPIRA GRIPPOTYPHOSA	0	0	0	0	0	0	0	0	0	0	2	2
LS07	LEPTOSPIRA HARDJO	0	0	0	0	0	0	0	0	0	0	7	7
LS09	LEPTOSPIRA BALLUM	0	0	0	0	0	0	0	0	0	0	1	1
LS10	LEPTOSPIRA AUSTRALIS	0	0	0	0	0	0	0	0	0	0	2	2
MI00	MICROSPORUM SPECIES	0	0	0	0	0	0	0	0	0	11	0	11
NE01	NEISSERIA GONORRHOEAE	0	0	0	0	6	0	0	0	1	0	0	7
NE02	NEISSERIA MENINGITIDIS	0	0	1	0	0	0	0	0	0	0	0	1
PA00	PASTEURELLA SPECIES	0	0	0	0	0	0	0	0	2	1	0	3
PL00	PLASMODIUM SPECIES	3	0	0	0	0	0	0	0	0	0	0	3
PL01	PLASMODIUM FALCIPARUM	41	0	0	0	0	0	0	0	0	0	0	41
PL02	PLASMODIUM VIVAX	75	0	0	0	0	0	0	0	0	0	0	75
PL05	PLASMODIUM FALCIPARUM/VIVAX	2	0	0	0	0	0	0	0	0	0	0	2
PS00	PSEUDOMONAS SPECIES	3	0	0	0	0	0	0	0	0	0	0	3
SA00	STAPHYLOCOCCUS SPECIES	5	0	0	0	0	0	0	0	1	0	0	6
SA01	STAPHYLOCOCCUS AUREUS	11	0	0	0	0	0	0	1	1	0	0	13
SE00	STREPTOCOCCUS SPECIES	6	0	0	0	0	0	0	0	0	0	2	8
SE01	STREPTOCOCCUS PNEUMONIAE	5	0	1	0	0	0	0	0	0	0	0	6
SE02	STREPTOCOCCUS GROUP A	2	0	0	0	0	0	0	0	0	0	0	2
SH04	SHIGELLA SONNEI	0	0	0	2	0	0	0	0	0	0	0	2
SL00	SALMONELLA SPECIES	2	0	0	46	0	0	0	0	0	0	0	48
TC01	TRICHOMONAS VAGINALE	0	0	0	0	8	0	0	0	0	0	0	8
TI00	TRICHOPHYTON SPECIES	0	0	0	0	0	0	0	0	0	27	0	27
TP01	TOXOPLASMA GONDII	0	0	0	0	0	0	0	0	0	0	14	14
TR01	TREPONEMA PALLIDUM	0	0	0	0	1	0	0	0	0	0	62	63
VI00	VIBRIO SPECIES	0	0	0	0	0	0	0	0	0	1	0	1
YE01	YERSINIA ENTEROCOLITICA	1	0	0	12	0	0	0	0	0	0	1	14
TOTAL		184	2	5	281	121	1	1	2	5	59	150	811

NB: NUMBERS MAY CHANGE AT A LATER DATE AS A RESULT OF LATE REPORTING

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

NON-VIRAL PATHOGEN IDENTIFICATIONS CATEGORISED BY SOURCE SPECIMENS - PART 2

SAMPLE COLLECTION DATE: APRIL TO JUNE 1991

BL - WHOLE BLOOD; BR - BRONCHIAL WASHINGS OR ASPIRATE; CS - CEREBROSPINAL FLUID; EY - EYE; FA - FAECES/RECTUM; GE - GENITAL SWAB; LE - LEUCOCYTES; NA - NASOPHARYNGEAL SWAB; PD - PERITONEAL DIALYSIS FLUID; PF - PERICARDIAL, PLEURAL OR JOINT FLUID; PU - PUS; SA - SALIVA; SK - SKIN; SM - SERUM; SP - SPUTUM; SS - SKIN SCRAPINGS; TH - THROAT; UR - URINE;

POSTMORTEM OR BIOPSY SPECIMENS: MB - BLOOD, BONE MARROW; MD - DIGESTIVE TRACT; MH - HEART; MK - KIDNEY; ML - LIVER; MN - BRAIN, SPINAL CORD; MP - LUNGS; MR - RESPIRATORY TRACT; MS - SPLEEN, LYMPH NODES; MO - OTHER POSTMORTEM/BIOPSY SPECIMEN

		SP	SS	TH	UR	OT	MD	ML		TOTAL
AE00	AEROMONAS SPECIES	0	0	0	1	0	0	0	0	1
AS00	ASPERGILLUS SPECIES	1	0	0	0	3	0	0	0	4
BO01	BORDETELLA PERTUSSIS	0	0	0	0	0	0	0	1	1
CA00	CANDIDA SPECIES	1	0	4	2	2	0	0	0	9
CL02	CLOSTRIDIUM PERFRINGENS	0	0	0	0	1	0	0	0	1
EI01	EIKENELLA CORRODENS	0	0	0	0	1	0	0	0	1
EP00	EPIDERMIDOPHYTON SPECIES	0	4	0	0	0	0	0	0	4
HE01	HELICOBACTER PYLORI	0	0	0	0	0	1	0	0	1
MA01	MALASSEZIA FURFUR	0	2	0	0	0	0	0	0	2
MI00	MICROSPORUM SPECIES	0	9	0	0	0	0	0	0	9
MI01	MICROSPORUM AUDOUINII	0	1	0	0	0	0	0	0	1
MI02	MICROSPORUM CANIS	0	1	0	0	0	0	0	0	1
MI03	MICROSPORUM GYPSEUM	0	1	0	0	0	0	0	0	1
MY00	MYCOBACTERIUM SPECIES	1	0	0	0	0	0	0	0	1
PL02	PLASMODIUM VIVAX	0	0	0	0	0	0	1	0	1
SA01	STAPHYLOCOCCUS AUREUS	0	0	0	0	1	0	0	0	1
TC01	TRICHOMONAS VAGINALE	0	0	0	0	1	0	0	0	1
TI00	TRICHOPHYTON SPECIES	0	20	0	0	1	0	0	0	21
TI01	TRICHOPHYTON MENTAGROPHYTES	0	4	0	0	0	0	0	0	4
TR01	TREPONEMA PALLIDUM	0	0	0	0	1	0	0	0	1
VN01	VINCENT'S ORGANISMS	0	0	5	0	0	0	0	0	5
TOTAL		3	42	9	3	11	1	1	1	71

NB: NUMBERS MAY CHANGE AT A LATER DATE AS A RESULT OF LATE REPORTING