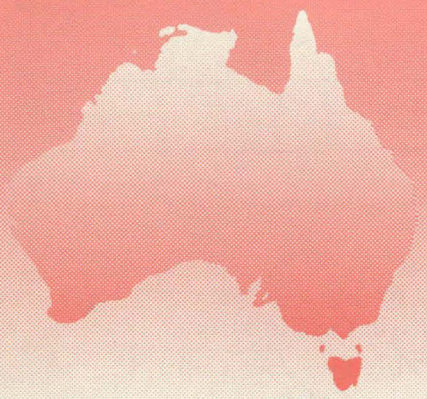

COMMUNICABLE DISEASES INTELLIGENCE

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CONTENTS

Editor Robert Hall

Editorial Staff Jenny Hargreaves, Evon Bowler, Marcus Hodge, Lenore Cupitt and Michelle Jozing.

CDI is produced fortnightly by:

Communicable Diseases Section
Department of Health, Housing and Community Services
GPO Box 9848 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

MEASLES RESURGENCE IN SOUTH AUSTRALIA

(Philip Weinstein, Epidemiology Registrar and John Carrangis, Immunisation Promotions Manager, Communicable Disease Control Unit, South Australian Health Commission)

In the first 7 months of 1991, 65 cases of measles have been reported in South Australia. This number exceeds the total number of notified cases in any one year since the disease became notifiable in South Australia in 1987 (Table). The increase is consistent with that reported in New South Wales[1], and may reflect a worldwide phenomenon[2]. An analysis of the 1991 cases is given below.

Case Definition and Notification

A person suffering from a disease clinically judged to be measles by a physician is accepted as a case of measles, and such cases have been notifiable by law to the Communicable Disease Control Unit, South Australian Health Commission since 1987. Approximately one fifth of cases are confirmed by serology, and all South Australian laboratories forward positive reports directly to the Communicable Disease Control Unit. In addition to a rise in antibody titres between acute and convalescent sera, IgM serology has recently become available, thereby enabling a diagnosis to be confirmed on the basis of a single blood sample[3]. Unlike those diseases whose diagnoses are rarely entertained without laboratory confirmation, measles is believed to be considerably under-reported in South Australia. No change in reporting methodology has taken place since 1987.

Time, Place and Person

Of the 65 cases notified to 31 July, 41 occurred as part of two major outbreaks - one in Murray Bridge, the other in Port Augusta. Most of the remaining cases were isolated and occurred sporadically in greater Adelaide.

Murray Bridge Outbreak

This outbreak occurred in April, and unfortunately remains poorly documented; few notifications have been received from local practitioners. Eight serologically confirmed cases were identified by laboratory reporting. The outbreak is believed to have involved more than 60 cases, most of whom were teenagers (and some younger siblings). The impression held by general practitioners involved was that many cases were not immunised.

Port Augusta Outbreak

This outbreak occurred mainly during the eight weeks May-June, and 31 cases were notified. Predominantly Aborigines were affected, and the outbreak extended to the northern homelands. One associated case was detected in Western Australia, and one in Alice Springs. Cases varied in age from six months to 20 years, and eight were young children aged between one and five years. The impression of the general practitioners involved was that most of these children had not been immunised, and as a consequence, an immunisation campaign was mounted by the Pika Wiya, Davenport and Indulkana Health Services.

Table. The annual number of cases of measles notified to the Communicable Diseases Control Unit, South Australian Health Commission, since the disease became notifiable in South Australia in 1987

YEAR	TOTAL NO. OF CASES NOTIFIED
1987	37
1988	14
1989	16
1990	43
1991	65*

* To 31 July

Sporadic Cases

Twenty cases occurred sporadically in greater Adelaide. They were aged from less than one to 20 years, with the majority being children between one and 10 years. The disease occurred in both immunised and unimmunised people.

Discussion

The sporadic cases and two outbreaks recorded here indicate that measles is still endemic in much of South Australia, and that enough susceptibles remain in the population to allow at least local transmission of the virus. Although there were apparent cases of vaccine failure, the majority of cases had no proven vaccination history. No case was aged over 20, and it is reasonable to assume that older people are probably immune through previous exposure to the disease. The frequency of the disease in unimmunised teenagers is consistent with the 50% measles immunisation cover achieved in 1980[4] when most of these teenagers were babies. The continuing presence of the disease in young children is more worrying, since surveys indicate that immunisation levels in pre-schoolers in South Australia are over 95%[5]. However, this immunisation level may not reflect immunisation levels in Aboriginal communities such as those affected by the Port Augusta outbreak, and the continuing immunisation campaigns mounted by the local Aboriginal health services are therefore to be commended.

The resurgence of cases of measles such as experienced in South Australian this year, suggests a need to gain greater immunisation coverage. Approximately 5% of babies annually are not vaccinated[5], and these non-immunes gradually accumulate in the population. A 5% expected vaccine failure rate[6] adds further non-immunes to the population, until outbreaks such as those described above become inevitable. As the number of cases increases, it also becomes more likely that cases with the potentially fatal complications of pneumonia and encephalitis will occur. To prevent the re-emergence of measles as a disease with significant morbidity and mortality in Australia, the NH&MRC is currently looking at introducing a second dose of MMR at entry to high school.

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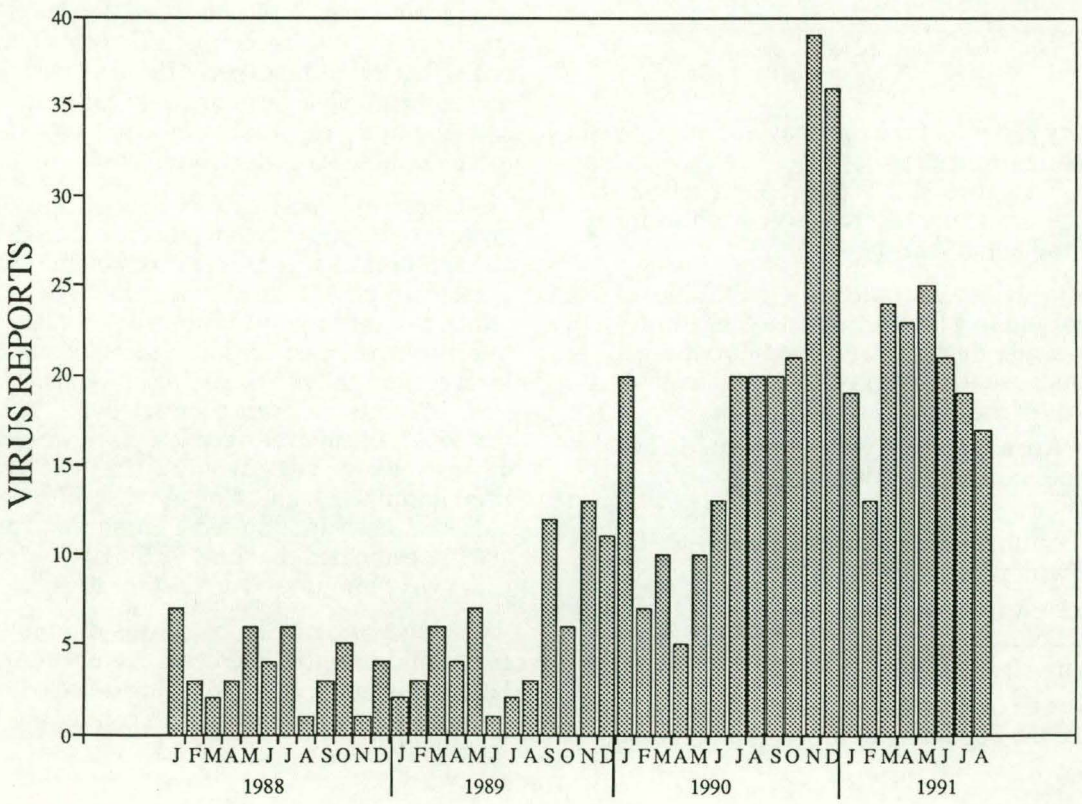
MEASLES - CDI LABORATORY REPORTING SCHEMES AND NATIONAL NOTIFIABLE DISEASES DATA

The high level of measles activity in Australia in 1990 has continued through 1991, based on the number of reports of cases received in the *CDI* Laboratory Reporting Schemes (Figure 1). A total of 161 reports has been received for the year, the highest number since 1983, apart from 1990, when there were 221 reports.

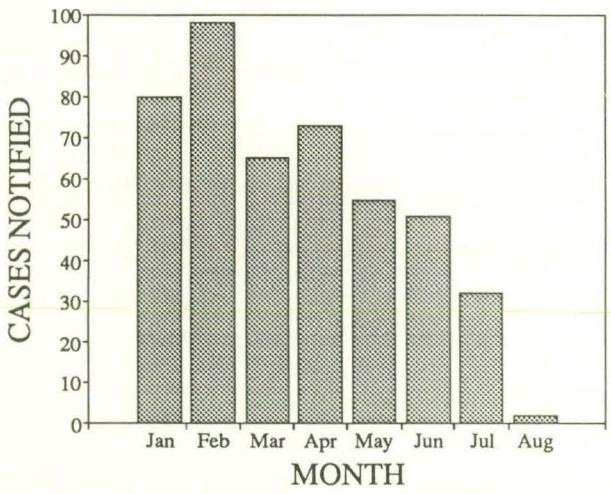
Figure 1. Measles laboratory reports 1988-1991, by month.



Notifications of measles through the national notifiable diseases scheme have also been at a high rate this year and the number of measles notifications has been higher than the historical average for the notification periods covering 6 January to 20 July 1991 (*CDI*;15:82, 126, 159, 186, 220, 257, 303). There have been 456 notifications so far this year, made at a similar rate, therefore, to the 880 notifications received in 1990 (Figure 2).

(The lower numbers of notifications in recent months is more likely to be a reflection of delays in reporting, rather than a decline in the number of measles cases occurring. Comparison with years prior to 1990 is not possible for the national data, as it was only by 1990 that most States and Territories had made measles a notifiable disease. Measles is now notifiable in all States and in the Northern Territory; it is not notifiable in the ACT but notifications are made voluntarily there.)

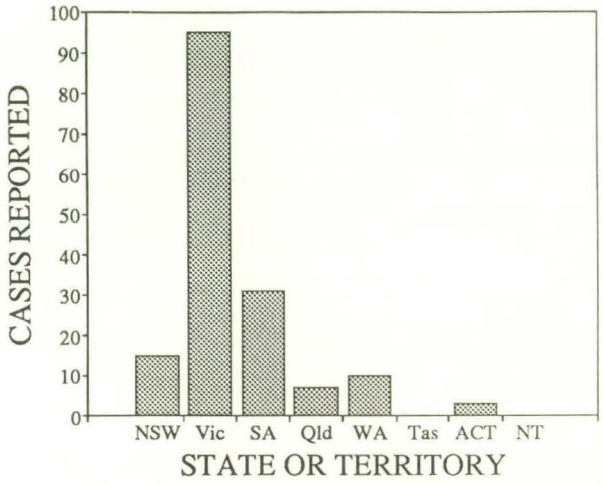
Figure 2. National measles notifications for 1991, by month.



The laboratory reports of measles have been received from laboratories from all States except Tasmania, and from the ACT (Figure 3). These reports reflect the outbreaks that are known to have occurred in many areas of Australia this year:

- In Victoria, there were outbreaks in the Shire of Barrabool and in a high school in a Melbourne surburb earlier this year, and there have been a higher than usual number of cases of measles in 4 rural areas of the State during the year.
- In South Australia, there were outbreaks in Murray Bridge and Port Augusta in April and May-June[1].
- In New South Wales there was an outbreak in central Sydney in March-April[2, 3].
- In Western Australia, there was a significant outbreak in Collie in February-March and a cluster of cases in Albany in March-April[4, 5].
- There was an outbreak of measles in Darwin high schools at the beginning of the school year[6].

Figure 3. Measles laboratory reports, 1991, by State or Territory of reporting laboratory.



The age and sex distribution of cases reported in the laboratory reporting schemes (Figure 4) and in the national notifiable diseases scheme (Figure 5) are very similar. The sex ratios (male:female) are 0.98:1.0 for the laboratory reports and 0.97:1.0 for the notified cases. Age distributions of cases are similar, with 4.5% and 11.9%, respectively, in children less than 1-year-old; 11.6% and 21.3%, respectively, in children 1-4 years old, 70.9% and 56.2%, respectively, in 5-19 year olds, and 12.6% and 10.6%, respectively, in persons aged 20 years or older. (These similarities are despite the different bases for the two reporting schemes, and the differences that could be expected to occur due to the fact that some notified cases are only clinically diagnosed, and laboratory-reported cases may have a bias towards more serious cases, which occur in infants and adults[7].)

The large number of cases occurring in the 5-19 year age group could possibly have been reduced, if measles vaccine uptake was higher (and/or the vaccines had greater efficacy). Indeed, evidence suggests that, while adults may be largely immune due to natural measles infection in the past[8], older children do not have a high level of immunity. The *Childhood Immunization and Infectious Diseases Survey* conducted in 1989 estimated that 93.4% of children aged 2-4 years were immunised against measles, but that only 91.2% of 5-9 year olds had been immunised, and that, at most, 77% of 10-14 year olds had been immunised[9]. A survey conducted in 1989-90 estimated that only 78.8% of children aged 1-6 years were immunised against measles[10].

With such apparently low levels of immunisation in older children and adolescents, it is not unexpected that large numbers of cases are being detected in these age groups and that outbreaks are continuing to occur in schools.

Figure 4. Measles laboratory reports, 1991, by age group and sex.

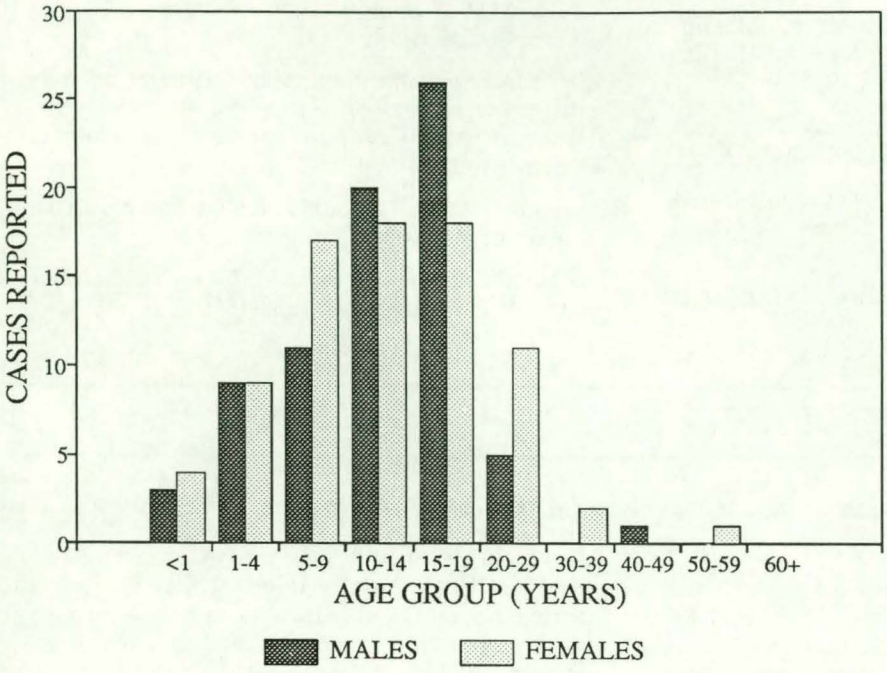
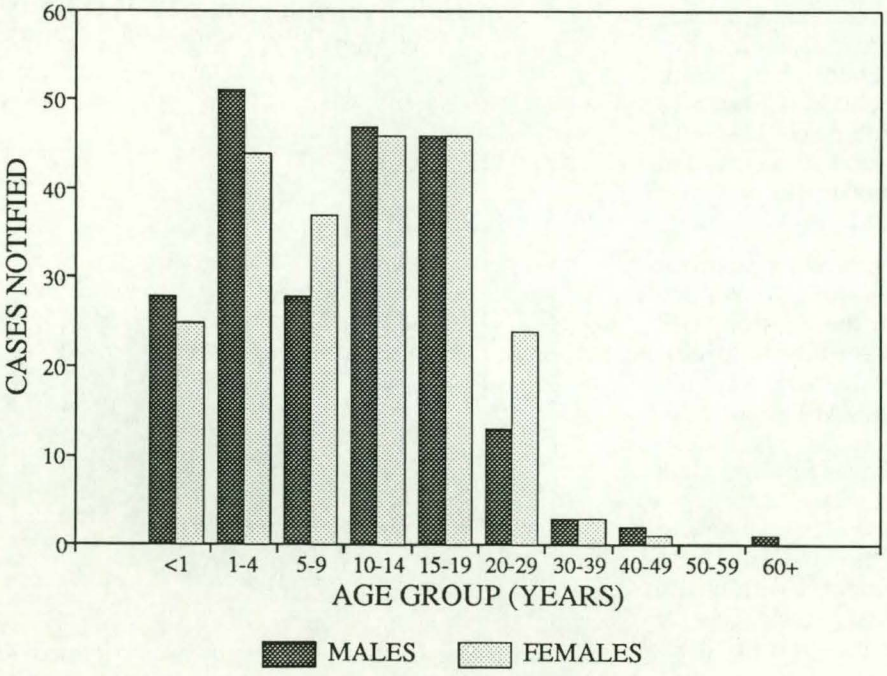


Figure 5. National measles notifications, 1991, by age group and sex.



Measles is a serious disease. Whilst most of the cases reported in the laboratory reporting schemes list skin disease as the presenting syndrome, more serious cases are also regularly reported. This year, there has been 1 case each with reported syndrome of encephalitis, meningitis and paralysis, in addition to the 102 cases of skin disease, 6 cases of respiratory disease, and 11 cases reporting fever/malaise. Measles causes deaths in Australia every year; there were 24 measles deaths in the 10 years ending 1989[11]; the last year for which data on deaths are available.

The NH&MRC recommends that measles-mumps-rubella (MMR) vaccination should be routinely given to children at the age of 12 months, regardless of any history of measles infection. In older children, vaccine can be used to protect susceptible contacts in outbreaks, because antibody develops more rapidly following the administration of measles vaccine than during the course of the national infection[8]. Further information on management of outbreaks, and precautions and contraindications for the vaccine are detailed in reference 8, available from the Australian Government Publishing Service.

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MEASLES IN NEW ZEALAND, 1991

(Based on a report published in Communicable Disease New Zealand, 1991; 6:64-65 and Communicable Disease New Zealand Weekly, numbers 91/29-34)

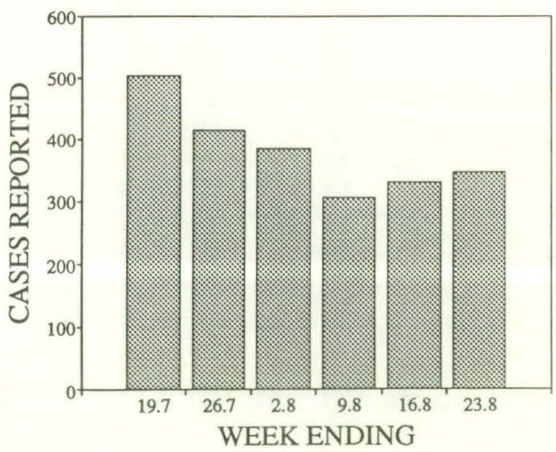
An epidemic of measles is currently affecting the North Island of New Zealand, but cases have been reported from all parts of the country. The first cases were identified in mid-February near Taumarunui in the Waikato Area Health Board, North Island.

In June, it was reported that over 1300 cases had been notified, with the largest numbers of cases being reported from the Wellington, Tairawhiti, Waikato, Auckland (most notably in the South Auckland District) and Manawatu-Wanganui Area Health Boards. Generally, there had not been widespread outbreaks in the South Island. Preliminary surveillance reports showed that over half of the reported measles cases (55%) had occurred in school-aged children. Most of the remainder had occurred in pre-schoolers, including a significant number of cases in children under 12 months of age, representing 10% of all cases. Less than 5% of reported cases with known ages had occurred in adults 20 years of age or older. Three deaths had been attributed to the epidemic, all in children.

To control the epidemic, the New Zealand Department of Health recommended that, in addition to the routine immunisation of children between the ages of 12-15 months with the measles-mumps-rubella vaccine (MMR), children over 15 months of age who were not immune should be vaccinated with MMR in outbreak areas. Furthermore, in outbreak areas in which measles cases had been reported in children younger than 12 months of age, vaccination of infants as young as 6 months of age with single-antigen measles vaccine was recommended, at the discretion of the Medical Officer of Health. Each area health board liaised with health care providers in their area to develop strategies for surveillance and control that were most appropriate for their area.

In July, the epidemic continued with large numbers of cases reported each week to the New Zealand Communicable Disease Centre (Figure). By 19 July, the reported cases totalled 1816, although the true magnitude of the epidemic was probably at least four times greater. As before, the majority of cases were among school-aged children and the North Island continued to have the majority of the cases. By the end of July, the number of cases reported each week had declined, especially in the North Island (except South Auckland). However, in the South Island, the Canterbury and Otago areas had increases in reported cases.

Figure. Measles cases reported in New Zealand, weeks 29-34 (13 July - 23 August) 1991



In early August, the number of cases declined somewhat, but there were increases in Northland, Central Auckland, South Auckland and Tairawhiti in the North Island in the week ending 9 August. In the weeks

ending 16 and 23 August, total numbers again increased, and the total for the epidemic reached 3619. Area Health boards with increased case numbers in the week ending 16 August were Waikato, Hawke Bay, Manawatu-Wanganui and Wellington in the North Island, and Nelson-Marlborough and Canterbury in the South Island. Fourteen further admissions to hospital were reported, bringing the total reported to 83. In the week ending 23 August, there was an increase in cases in South Auckland, and activity in the South Island increased; laboratory confirmation of cases was reported for the first time from Christchurch and there were increases in the number of cases from Southland and Otago.

By August, a significant proportion of the reported cases had been in adolescents and young adults (42% of the cases reported for the week ending 23 August). Persons such as these would have been vaccinated prior to 1975, when the measles vaccine was administered at 10 months of age. It was thought that it was likely that maternal antibodies would have interfered with seroconversion of these vaccinees, so the Department of Health recommended that these persons should be revaccinated with MMR in outbreak areas or areas where the number of cases was not yet declining.

AUSTRALIAN HIV SURVEILLANCE REPORT, VOLUME 7, NUMBER 6 (31 JULY 1991)

The National Centre in HIV Epidemiology and Clinical Research reports that as of 30 June 1991 a total of 15064 diagnoses of HIV infection and 2678 cases of AIDS had been reported in Australia. For the most recent period, 1 June to 30 June 1991, 19 new cases of AIDS and 67 new diagnoses of HIV infection were reported.

The following tables provide more detailed information on a State/Territory basis.

Table 1. New diagnoses of AIDS and deaths from AIDS occurring in the period 1 June to 30 June 1991, by sex and State/Territory in which the diagnosis was made

STATE/ TERRITORY	CASES			DEATHS		
	Male	Female	Total	Male	Female	Total
ACT	1	0	1	0	1	1
NSW	13	0	13	3	0	3
NT	0	0	0	0	0	0
QLD	0	0	0	0	0	0
SA	0	0	0	0	0	0
TAS	1	0	1	0	0	0
VIC	4	0	4	9	0	9
WA	0	0	0	0	0	0
TOTAL	19	0	19	12	1	13

Table 2. Cumulative cases of AIDS and deaths from AIDS by sex and State/Territory in which diagnosis was made, to 30 June 1991

STATE/ TERRITORY	CASES			DEATHS		
	Male	Female	Total	Male	Female	Total
ACT	35	1	36	21	1	22
NSW	1615	48	1663	1031	34	1065
NT	7	0	7	3	0	3
QLD	190	8	198	125	6	131
SA	89	3	92	43	1	44
TAS	14	1	15	7	1	8
VIC	531	12	543	316	6	322
WA	116	8	124	74	3	77
TOTAL	2597	81	2678	1620	52	1672

Table 3. Number of new diagnoses of HIV infection in the period 1 June to 30 June 1991 and cumulative since the introduction of HIV antibody testing to 30 June 1991 by sex and State/Territory

STATE/ TERRITORY	MAY 1991[1]			CUMULATIVE TO 31 MAY 1991			
	Male	Female	Total	Male	Female	Sex not reported	Total
ACT	1	0	1	17	0	97	114
NSW[2]	29	4	35	7728	394	1962	10084
NT	0	0	0	58	5	0	63
QLD	6	1	7	1049	45	0	1094
SA[3]	-	-	-	333	27	0	360
TAS	1	0	1	52	3	0	55
VIC	19	2	21	2589	81	4	2674
WA	2	0	2	588	32	0	620
TOTAL	58	7	67	12414	587	2063	15064

1. Dashes indicate that counts were unavailable for period.
2. Counts from the Reference Laboratories at Prince of Wales, Royal Prince Alfred, St Vincent's and Westmead Hospitals. Total for June includes 2 people whose sex was not reported.

Readers should note that cumulative figures are subject to retrospective revision, which may result in apparent discrepancies between the number of new cases for the reporting month and the increment in the cumulative figure from the previous report.

The total number of diagnosed cases for HIV reported from NSW has been reduced by nearly 2700 since April. This reduction is due to improvements in data management systems, which have permitted the identification and elimination of a large number of repeat diagnoses related to previously notified cases. Further revisions to the figures may be anticipated as additional improvements are implemented.

HIV INFECTION IN AUSTRALIAN MEN WHO HAVE HAD HETEROSEXUAL CONTACT IN SOUTH-EAST ASIA

(Based on a report published in Australian HIV Surveillance Report 1991; 7(S2):1-2)

The number of reported cases of HIV infection acquired through heterosexual contact in Australia remains small. To 30 June 1991, 134 cases had been reported in States and Territories other than New South Wales, and the inclusion of New South Wales may add a further 200-300 cases.

Recently, a rapid rise has been documented in the prevalence of HIV infection among female sex workers in Thailand. HIV has also been reported among Philippine sex workers. Although no firm data are available, it is recognised that there is a significant number of Australian men who travel in Thailand, the Philippines and other countries of the region and pay for sexual contact with local people during their visits. The potential for these contacts to transmit HIV to Australian travellers has been recognised for some time. The case reports (Table) indicate that transmission is already occurring. In all cases, except case number 2, the only potential exposure to HIV elicited after extensive history-taking was heterosexual contact, in Australia and in South-east Asia. Case 2 reported injecting heroin in Paris in 1978, but denied sharing injecting equipment.

The cases vary in the degree to which heterosexual contact in South-east Asia could be established as the source of HIV infection. Case 3 is the most definitive, in that he had a prior negative antibody test (in 1987), and was diagnosed with seroconversion illness within weeks of the sexual contact in South-east Asia. Similarly, case 8 had a negative HIV test in November 1990, and was found to have seroconverted after his trip to Asia. Both cases 1 and 3 appear to have transmitted HIV to subsequent female partners in Australia. The Western Blot diagnostic tests for cases 4 and 5 were suggestive of recent seroconversion. HIV infection was diagnosed in case 4 following presentation with gonorrhoea.

Absolute exclusion of other sources of HIV exposure is impossible. However, an accumulation of evidence is pointing towards heterosexual contact in South-east Asia as an important source of HIV transmission into the Australian population.

Table. Characteristics of men diagnosed with HIV infection following sexual contact in South-east Asia.*

Case	State of diagnosis	Year of diagnosis	Age at diagnosis	Sexual contact	
				Year	Country
1	NSW	1987	30	1983-85	Philippines
2	NSW	1990	28	1984-87	Malaysia Philippines Thailand
3	NSW	1991	54	1990	Philippines
4	Qld	1989	24	1989(?)	Thailand
5	Qld	1989	29	1989(?)	Philippines
6	SA	1990	63	1982-89	Philippines
7	WA	1990	32	1990	Thailand
8	Qld	1991	27	1991	Thailand(?)

*Reported by Dr A Allworth, Department of Infectious Diseases, Royal Brisbane Hospital, Herston, Qld; Assoc Prof A Cunningham, Dr D Packham, Department of Infectious Diseases and Microbiology, Westmead Hospital, Westmead, NSW; Dr B Donovan, Sydney Sexual Health Centre, Sydney Hospital, Sydney, NSW; Dr J Patten, Dr G Neilson, Specialised Health Services, Queensland Health, Brisbane, Qld; Dr K Sesnan, Murray Street Clinic, STD Control Services Section, Health Department of Western Australia, Perth, WA; Dr R Waddell, Clinic 275, South Australian Health Commission, Adelaide, SA; Assoc Prof J Kaldor, National Centre in HIV Epidemiology and Clinical Research, Sydney, NSW, and managing physicians.

OVERSEAS BRIEFS

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

Cholera in Africa Update

Niger has issued revised figures for its cholera cases. There were 2076 cases with 251 deaths for the period 1 May to 21 July. Niamey, Tahoua and Tillabery Departments have recently been declared cholera-infected.

Mozambique reported 296 cases with 21 deaths for the period 9 to 15 July.

Rwanda reported 5 cases (no deaths) for April, 1991.

Cholera in the Americas Update

El Salvador has reported its first cholera case. It occurred in the city of San Salvador in a person who had no history of travel out of the country. The City of San Salvador has been declared infected.

Bolivia has also recorded its first cases of cholera. Four cases (no deaths) were reported on 27 August. The Rio Abajo Region has been declared infected.

In **Colombia**, there were 409 cases (1 death) reported from 6 to 16 August and 190 cases (11 deaths) from 17 to 20 August. The provinces of Antioquia, Caldas, Cordoba and Santa Fe de Bogota are newly infected.

Other reports from the Americas are:

Brazil - 9 cases with 1 death from 3 to 20 August 1991

Mexico - 142 cases with 1 death from 28 July to 6 August

Peru - 6340 cases with 28 deaths from 2 to 15 August

Ecuador - 1245 cases with 48 deaths from 14 July to 3 August.

Cholera in Asia Update

The **Republic of Korea** has reported its first cases of recent times. The disease broke out in Suchun, South Chungchong Province, and is rapidly spreading through South Korea. One hundred cases with 4 deaths were reported from 12 to 19 August in the cities of Seoul and Kunsan, and in the counties of Suchun and Hong Sun. Three cases (no deaths) were reported for the period 20 to 23 August.

The areas of Hong Sun, Kunsan, Seoul and Suchun have been declared infected. The quarantine station of Kimpo airport has started a round-the-clock emergency quarantine system.

Cases have also been reported for the first time recently in **Sri Lanka**. There were 68 cases and 2 deaths from 8 June to 25 July in the Colombo Municipality. The Biyagama, Kelaniya, Kolonnawa, Mahara and Nugegoda areas of the Municipality have been declared infected.

Iraq reported 65 cases (no deaths) for the period 1 to 15 July. Newly infected areas are Muthanna and Tamim Governorates.

There was a total of 2467 cases and 47 deaths in **India** from 1 January to 20 July. Many areas of India have been recently declared cholera-infected, so that all or parts of the following areas are now infected: Andaman and Nicobar Islands, Andhra Pradesh State, Assam State, Arunashal Pradesh State, Bihar State, Da-

man and Diu Territories, Delhi Territory, Gujarat State, Haryana State, Himashal Pradesh State, Jammu and Kashmir State, Karnataka State, Kerala State, Lakshadweep Territory, Madhya Pradesh State, Maharashtra State, Manipur State, Mizoram State, Nagaland State, Pondicherry Territory, Punjab State, Rajasthan State, Tamil Nadu State, Tripura State, Uttar Pradesh State and West Bengal State.

Cholera in Europe

The Tulcae District of **Romania** has recently been declared cholera-infected. Thirty-eight cases (no deaths) were reported for the period 8-21 August.

The Mariupole area of the Ukranian SSR has also recently been declared cholera-infected. One non-fatal case was reported on 20 August.

Meningitis in Tanzania

The World Health Organization has reported that 1400 cases (150 deaths) of meningitis had occurred in Tanzania as at 20 August. Areas involved were the Mwanza, Kagera, Kogoma, Tabora, Dodoma and Arusha districts. There were few cases in Dar Es Salaam.

The causative organism isolated was *Neisseria meningitidis* group A, sensitive to penicillin and chloramphenicol.

CDI NOTICE TO READERS

Human Health Services at the Australian Animal Health Laboratory

The Australian Animal Health Laboratory is a facility operated by the CSIRO Division of Animal Health. It has a high level of microbiological containment and undertakes diagnosis of, and research into, exotic diseases of livestock. The Laboratory provides some human diagnostic services, particularly Brucella biotyping and rabies diagnosis.

Brucella specimens are received as putative Brucella spp. isolates. Their identity is confirmed by cultural characterisation and biotyping is undertaken by phage susceptibility and serological procedures. About 50% of isolates are of human origin.

Rabies diagnosis is undertaken on submitted specimens from patients demonstrating indicative clinical signs or with suspicious histological lesions on post-mortem examination. In 1985, and again this year, the detection of viral antigen and antibody to rabies virus enabled the diagnosis of rabies in human patients in Australia. In each case, there was evidence that the disease was contracted outside of Australia. Rabies serology is also undertaken at AAHL, to enable physicians to assess the immune status of patients for whom vaccination is being contemplated. Because circulating antibody does not develop until the later stages of the clinical phase of the disease, serology is not indicated for the assessment of a healthy patient who has been bitten by an animal in a rabies-endemic country. Although staff at AAHL will assist in the explanation of test results, the advice of a competent medical authority should be sought for their interpretation.

Specimens being submitted to AAHL must be forwarded in compliance with Australian and international codes for the transport of dangerous goods. Because both brucellosis and rabies are zoonotic, AAHL will report significant results to the Australian Chief Veterinary Officer and the Chief Veterinary Officer of the State or Territory of origin of the specimens, as well as to the submitter.

For further information please contact:

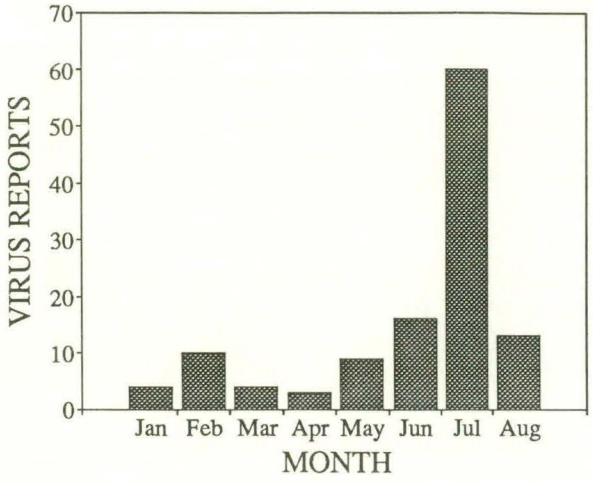
Dr Tony Forman,
Program Manager, Disease Diagnosis,
CSIRO, Australian Animal Health Laboratory,
PO Bag 24,
GEELONG VIC 3220.
Phone: (052)265222
Fax: (052)231424

COMMUNICABLE DISEASES SURVEILLANCE

There have now been a total of 119 reports of **influenza B** this season (Figure 1), and during this reporting period, a further 24 were received. Syndromes reported were respiratory (16 cases), general malaise/mild fever (1 case), fever of unknown origin (4 cases) and encephalitis (1 case). Cases were reported from laboratories in Sydney, Melbourne, Adelaide and Canberra.

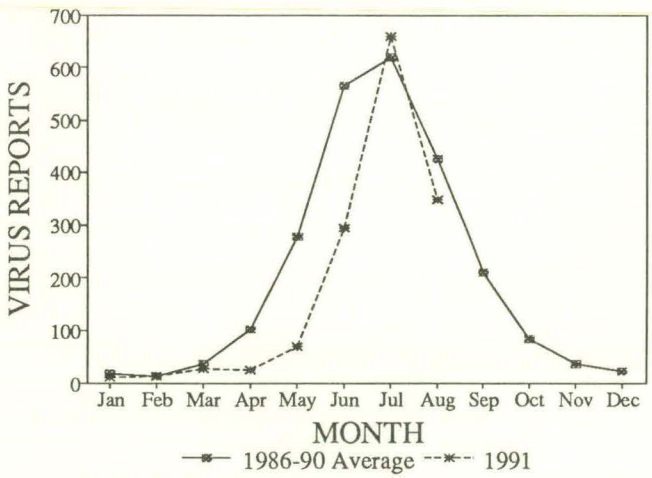
There were 8 further cases of **echovirus type 17**, bringing the total for the year to 36. Seven of this period's reports were from Sydney laboratories and one was from Canberra. Syndromes reported were encephalitis (1 case), meningitis (2 cases), gastrointestinal (2 cases), respiratory (2 cases) and general malaise/mild fever (1 case).

Figure 1. Influenza B reports, 1991, by month



The seasonal peak of **respiratory syncytial virus** is occurring now, and appears similar to the average for recent years (Figure 2). A further 315 reports of this virus were received this period, bringing the total for the year to 1449. Large numbers of reports were received this period from laboratories in Melbourne, Sydney, Adelaide, Brisbane and Perth.

Figure 2. Respiratory syncytial virus reports by month, 1986-90 average and 1991.



There were 4 cases of **calici virus** reported. They were associated with an outbreak of gastrointestinal disease in a Sydney nursing home. The patients were females aged 94 and 77, and males aged 89 and 77. Calici virus was detected in faeces samples by electron microscopy.

Four reports of **Q fever** were received. One, a 33-year-old female, was described as an abattoir worker.

The winter **rotavirus** peak is also occurring now (Figure 3), and appears to be larger than the average for the past few years. Most cases reported this year have been in young children (Figure 4), as is usually the case. Syndromes reported have been gastrointestinal (1130 cases), respiratory (26 cases), skin disease (9 cases), fever of unknown origin (23 cases), CNS symptoms (1 case), cardiovascular symptoms (1 case) and general malaise/mild fever (5 cases). Large numbers of reports were received from laboratories in Sydney, Melbourne and Adelaide this period.

Figure 3. Rotavirus reports by month, 1986-90 average and 1991

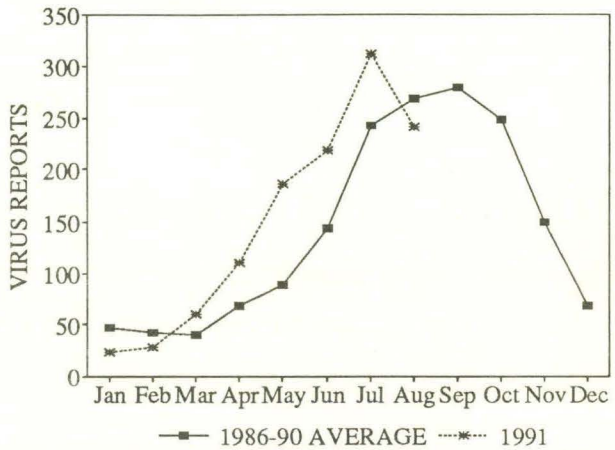
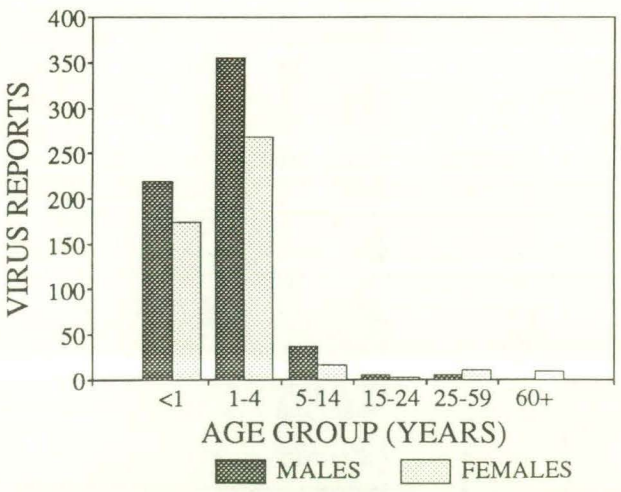


Figure 4. Rotavirus reports, 1991, by age group and sex



Rubella was reported 5 times this period. Four cases were reported from Hobart and included a female aged 25, and males aged 14 and 17. (Rubella was reported in 3 teenage males from Hobart last period. There is no known connected between any of the cases.)

There has now been a total of 256 reports of **hepatitis A** this year and in this reporting period, there were a further 17 reports. Twelve of these were in males aged 15-59 years, and are likely to have been associated with the current outbreaks of hepatitis A among homosexual men in Sydney[1] and Melbourne[2]. National notifiable diseases reports are also consistent with this: there has been a total of 331 notifications so far this year, with a distribution of cases by sex in the ratio 2.2:1.0 (males to females).

This year, there has been very little **parainfluenza type 1** activity, with only 28 cases reported so far. This virus has typically caused autumn-winter outbreaks every second year (including 1990) in recent years. **Parainfluenza type 2** activity was moderate this year, with a small autumn-winter peak of 26 cases in May, and a total of 105 cases so far for 1991. **Parainfluenza type 3** is not usually as markedly seasonal as types 1 and 2. There have been 307 reports of this virus so far this year with a small peak of 53 cases reported in June. There have been 15 cases reported for August so far.

There were 27 reports of **hepatitis C**, with only 3 laboratories reporting cases this period. Three cases were haemophiliac males aged 15, 11 and 8 years.

Thirty-seven cases of **cytomegalovirus** were reported. One of these was diagnosed by isolation of the virus from amniotic fluid. The patient was a 33-year-old woman whose husband had had cytomegalovirus.

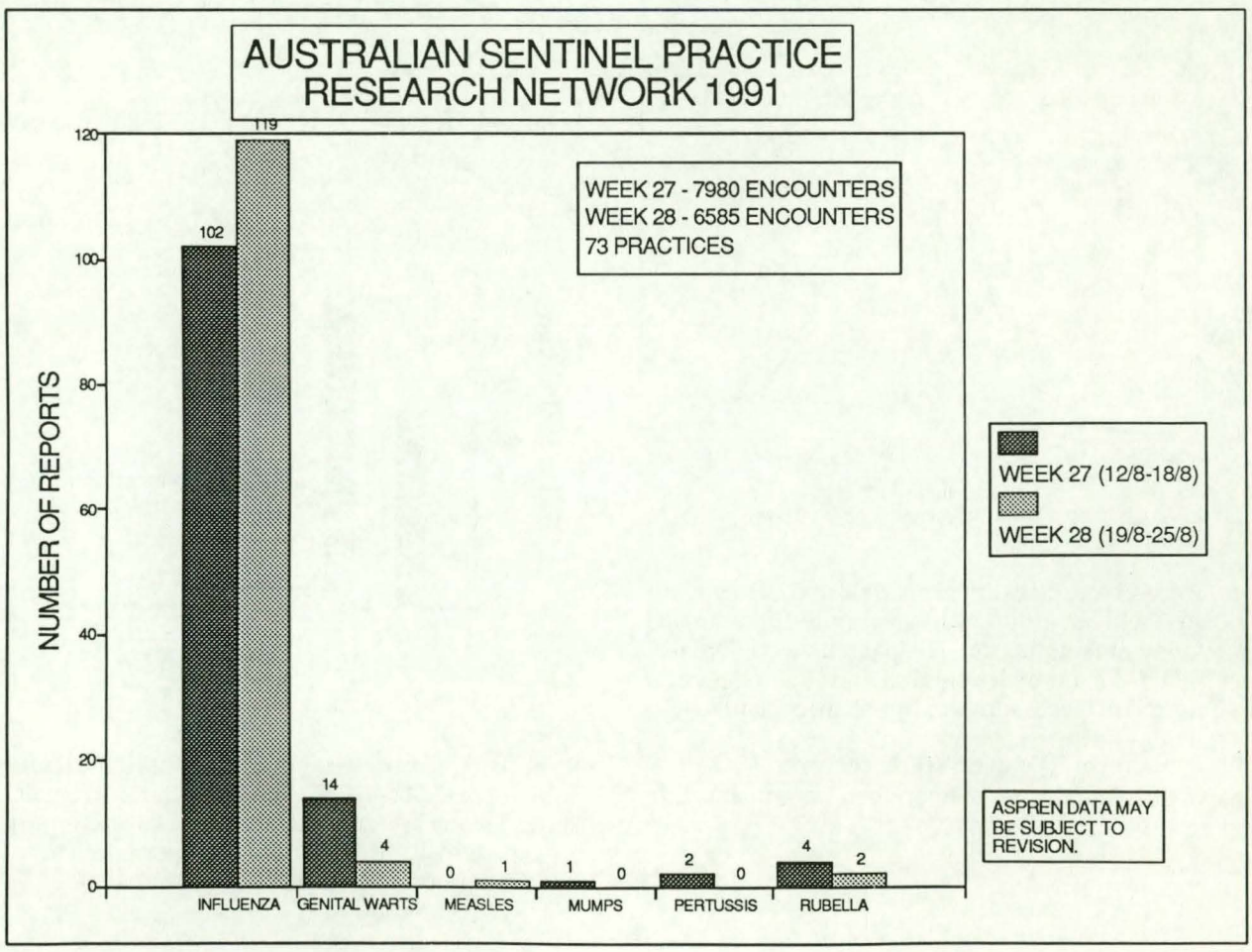
A **herpes virus (typing pending)** diagnosis was made by detection of the virus in CSF using a polymerase chain reaction. The patient was an 84-year-old woman for whom the reported syndrome was skin disease.

One report of ***Haemophilus influenzae*** **type b** was received. The patient was a 4-year-old boy who had respiratory symptoms, epiglottitis and septicaemia. The organism was cultured from blood and a swab of the epiglottis (Toowoomba Pathology Laboratory).

A report was received of ***Neisseria meningitidis*** meningitis. The patient was a female, age group 5-14 years. The organism was isolated from a CSF sample (Tamworth Laboratory, New England Pathology).

REFERENCES

1. Stokes M and Manning W. Dramatic increase in hepatitis A. *NSW Public Health Bulletin* . 1991;2:77-78.
2. Stewart T. A cluster of hepatitis A in Victoria. *Comm Dis Intell* .1991;**15**:246.



AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

VIRAL IDENTIFICATIONS FROM CONTRIBUTING LABORATORIES
BASED ON DATE OF REPORTING

PERIOD 14/08/91 TO 27/08/91

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 111 - ROYAL CHIDLDRENS HOSPITAL, MELBOURNE (VIC)
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)

		019	065	066	110	111	112	113	114	115	116	TOTAL
0100	ADENOVIRUS NOT TYPED	0	2	9	7	14	7	4	1	5	0	49
0101	ADENOVIRUS TYPE 1	0	0	0	0	0	1	0	0	0	0	1
0102	ADENOVIRUS TYPE 2	5	0	0	0	0	5	0	2	0	0	12
0103	ADENOVIRUS TYPE 3	3	0	0	0	0	0	0	0	0	0	3
0104	ADENOVIRUS TYPE 4	1	0	0	0	0	0	0	0	0	0	1
0105	ADENOVIRUS TYPE 5	0	0	0	0	0	1	0	0	0	0	1
0107	ADENOVIRUS TYPE 7	1	0	0	0	0	0	0	0	0	0	1
0108	ADENOVIRUS TYPE 8	0	0	0	0	0	1	0	0	0	0	1
0109	ADENOVIRUS TYPE 9	1	0	0	0	0	0	0	0	0	0	1
0111	ADENOVIRUS TYPE 11	0	0	0	0	0	1	0	0	0	0	1
0119	ADENOVIRUS TYPE 19	1	0	0	0	0	0	0	0	0	0	1
0128	ADENOVIRUS TYPE 28	1	0	0	0	0	0	0	0	0	0	1
0199	ADENOVIRUS TYPING PENDING	0	0	0	1	6	0	0	4	0	0	11
0203	INFLUENZA B VIRUS	7	0	0	6	4	5	0	1	0	1	24
0302	PARAINFLUENZA VIRUS TYPE 2	1	0	0	4	0	0	1	0	0	0	6
0303	PARAINFLUENZA VIRUS TYPE 3	4	0	1	2	3	5	2	5	2	0	24
0399	PARAINFLUENZA VIRUS TYPING PEN	0	0	0	0	4	0	0	0	0	0	4
0400	RESPIRATORY SYNCYTIAL VIRUS (R	46	1	45	52	55	29	9	27	42	9	315
0500	RHINOVIRUS (ALL TYPES)	6	1	0	2	16	10	0	4	9	1	49
0600	MYCOPLASMA PNEUMONIAE	1	0	0	2	0	4	0	1	0	0	8
0700	ORNITHOSIS-PSITTACOSIS	2	0	0	0	0	0	0	0	0	2	4
0809	COXSACKIEVIRUS A9	1	0	0	0	0	0	0	0	0	0	1
0816	COXSACKIEVIRUS A16	1	0	0	0	0	0	0	1	0	0	2
0899	COXSACKIEVIRUS GROUP A TYPING	0	2	0	0	0	0	0	0	0	0	2
0902	COXSACKIEVIRUS B2	0	0	0	0	0	0	0	1	0	0	1
0904	COXSACKIEVIRUS B4	1	2	0	0	0	1	0	0	0	0	4
0905	COXSACKIEVIRUS B5	1	0	0	0	0	1	0	1	0	0	3
1006	ECHOVIRUS TYPE 6	0	0	0	0	0	0	0	1	0	0	1
1011	ECHOVIRUS TYPE 11	0	0	0	0	0	2	0	0	0	0	2
1017	ECHOVIRUS TYPE 17	0	0	0	0	0	5	2	1	0	0	8
1100	POLIOVIRUS NOT TYPED	0	0	0	0	0	0	5	0	0	0	5
1101	POLIOVIRUS TYPE 1	0	0	0	0	0	1	0	1	0	0	2
1102	POLIOVIRUS TYPE 2	0	0	0	0	0	2	0	1	0	0	3
1200	MUMPS VIRUS	0	0	0	0	0	1	0	0	0	0	1
1300	HERPES VIRUS GROUP - NOT TYPED	1	4	0	0	0	0	0	0	0	0	5
1301	HERPES SIMPLEX VIRUS - NOT TYP	0	0	1	0	0	34	0	2	0	6	43
1302	EPSTEIN-BARR VIRUS (EB VIRUS)	5	6	0	18	0	6	0	0	0	3	38
1303	VARICELLA-ZOSTER VIRUS	6	9	0	2	0	6	0	0	3	0	26
1306	HERPES SIMPLEX TYPE 1	44	23	1	24	1	4	16	0	18	0	131
1307	HERPES SIMPLEX TYPE 2	45	47	0	34	0	18	20	0	19	0	183
1399	HERPES VIRUS TYPING PENDING	0	0	0	0	4	0	0	0	0	0	4
1401	COXIELLA BURNETII	0	0	0	0	0	4	0	0	0	0	4
1502	PICORNA VIRUS - NOT TYPED = EN	0	7	0	0	0	0	7	0	4	0	18
1521	MEASLES VIRUS	5	1	0	12	1	1	0	0	0	0	20
1522	RUBELLA VIRUS	0	1	0	0	0	4	0	0	0	0	5
1532	HEPATITIS B ANTIGEN	14	14	0	0	0	26	5	1	22	0	82
1535	HEPATITIS A ANTIBODY	7	5	0	0	0	4	1	0	0	0	17
1536	HEPATITIS C VIRUS	0	22	0	0	0	0	0	3	0	2	27
1541	CHLAMYDIA TRACHOMATIS - UNSPEC	0	42	1	15	0	8	0	0	22	1	89
1544	CHLAMYDIA PNEUMONIAE	0	0	0	0	0	1	0	0	0	0	1
1556	CMV - CYTOMEGALOVIRUS	26	3	9	1	3	9	2	3	16	0	72
1564	ROTAVIRUS	7	1	7	24	30	67	38	25	0	4	203
1565	CALICI VIRUS	0	0	0	0	0	4	0	0	0	0	4
1566	NORWALK AGENT	1	0	0	0	0	0	0	0	0	0	1
1599	ENTEROVIRUS TYPING PENDING	0	0	0	0	0	0	0	2	0	0	2
9994	SMALL VIRUS (LIKE) PARTICLE	0	1	0	0	0	0	0	0	0	0	1
TOTAL		245	194	74	206	141	278	112	88	162	29	1529

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

VIRAL IDENTIFICATIONS FROM CONTRIBUTING LABORATORIES BY STATE OF CONTRIBUTING LABORATORY

PERIOD 14/08/91 TO 27/08/91

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	ACT	TOTAL
0100	ADENOVIRUS NOT TYPED	12	14	5	11	7	0	49
0101	ADENOVIRUS TYPE 1	1	0	0	0	0	0	1
0102	ADENOVIRUS TYPE 2	7	5	0	0	0	0	12
0103	ADENOVIRUS TYPE 3	0	3	0	0	0	0	3
0104	ADENOVIRUS TYPE 4	0	1	0	0	0	0	1
0105	ADENOVIRUS TYPE 5	1	0	0	0	0	0	1
0107	ADENOVIRUS TYPE 7	0	1	0	0	0	0	1
0108	ADENOVIRUS TYPE 8	1	0	0	0	0	0	1
0109	ADENOVIRUS TYPE 9	0	1	0	0	0	0	1
0111	ADENOVIRUS TYPE 11	1	0	0	0	0	0	1
0119	ADENOVIRUS TYPE 19	0	1	0	0	0	0	1
0128	ADENOVIRUS TYPE 28	0	1	0	0	0	0	1
0199	ADENOVIRUS TYPING PENDING	4	6	0	0	1	0	11
0203	INFLUENZA B VIRUS	6	11	0	0	6	1	24
0302	PARAINFLUENZA VIRUS TYPE 2	1	1	0	0	4	0	6
0303	PARAINFLUENZA VIRUS TYPE 3	12	7	2	1	2	0	24
0399	PARAINFLUENZA VIRUS TYPING PEN	0	4	0	0	0	0	4
0400	RESPIRATORY SYNCYTIAL VIRUS (R	65	101	42	46	52	9	315
0500	RHINOVIRUS (ALL TYPES)	14	22	9	1	2	1	49
0600	MYCOPLASMA PNEUMONIAE	5	1	0	0	2	0	8
0700	ORNITHOSIS-PSITTACOSIS	0	2	0	0	0	2	4
0809	COXSACKIEVIRUS A9	0	1	0	0	0	0	1
0816	COXSACKIEVIRUS A16	1	1	0	0	0	0	2
0899	COXSACKIEVIRUS GROUP A TYPING	0	0	0	2	0	0	2
0902	COXSACKIEVIRUS B2	1	0	0	0	0	0	1
0904	COXSACKIEVIRUS B4	1	1	0	2	0	0	4
0905	COXSACKIEVIRUS B5	2	1	0	0	0	0	3
1006	ECHOVIRUS TYPE 6	1	0	0	0	0	0	1
1011	ECHOVIRUS TYPE 11	2	0	0	0	0	0	2
1017	ECHOVIRUS TYPE 17	8	0	0	0	0	0	8
1100	POLIOVIRUS NOT TYPED	5	0	0	0	0	0	5
1101	POLIOVIRUS TYPE 1	2	0	0	0	0	0	2
1102	POLIOVIRUS TYPE 2	3	0	0	0	0	0	3
1200	MUMPS VIRUS	1	0	0	0	0	0	1
1300	HERPES VIRUS GROUP - NOT TYPED	0	1	0	4	0	0	5
1301	HERPES SIMPLEX VIRUS - NOT TYP	36	0	0	1	0	6	43
1302	EPSTEIN-BARR VIRUS (EB VIRUS)	6	5	0	6	18	3	38
1303	VARICELLA-ZOSTER VIRUS	6	6	3	9	2	0	26
1306	HERPES SIMPLEX TYPE 1	20	45	18	24	24	0	131
1307	HERPES SIMPLEX TYPE 2	38	45	19	47	34	0	183
1399	HERPES VIRUS TYPING PENDING	0	4	0	0	0	0	4
1401	COXIELLA BURNETII	4	0	0	0	0	0	4
1502	PICORNA VIRUS - NOT TYPED = EN	7	0	4	7	0	0	18
1521	MEASLES VIRUS	1	6	0	1	12	0	20
1522	RUBELLA VIRUS	4	0	0	1	0	0	5
1532	HEPATITIS B ANTIGEN	32	14	22	14	0	0	82
1535	HEPATITIS A ANTIBODY	5	7	0	5	0	0	17
1536	HEPATITIS C VIRUS	3	0	0	22	0	2	27
1541	CHLAMYDIA TRACHOMATIS - UNSPEC	8	0	22	43	15	1	89
1544	CHLAMYDIA PNEUMONIAE	1	0	0	0	0	0	1
1556	CMV - CYTOMEGALOVIRUS	14	29	16	12	1	0	72
1564	ROTAVIRUS	130	37	0	8	24	4	203
1565	CALICI VIRUS	4	0	0	0	0	0	4
1566	NORWALK AGENT	0	1	0	0	0	0	1
1599	ENTEROVIRUS TYPING PENDING	2	0	0	0	0	0	2
9994	SMALL VIRUS (LIKE) PARTICLE	0	0	0	1	0	0	1
TOTAL		478	386	162	268	206	29	1529

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 14/08/91 TO 27/08/91

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	10	11	TOTAL
0100	ADENOVIRUS NOT TYPED	1	14	0	1	0	0	28	0	0	1	45
0101	ADENOVIRUS TYPE 1	0	1	0	0	0	0	0	0	0	0	1
0102	ADENOVIRUS TYPE 2	1	7	0	0	0	0	3	0	0	0	11
0103	ADENOVIRUS TYPE 3	0	1	0	0	0	0	0	0	0	0	1
0105	ADENOVIRUS TYPE 5	1	0	0	0	0	0	0	0	0	0	1
0111	ADENOVIRUS TYPE 11	0	0	0	0	0	0	1	0	0	0	1
0128	ADENOVIRUS TYPE 28	0	0	0	0	0	0	1	0	0	0	1
0199	ADENOVIRUS TYPING PENDING	0	7	0	0	0	0	2	0	0	0	9
0203	INFLUENZA B VIRUS	1	16	1	0	0	0	0	0	0	0	18
0302	PARAINFLUENZA VIRUS TYPE 2	0	4	0	0	0	0	0	0	0	0	4
0303	PARAINFLUENZA VIRUS TYPE 3	2	18	0	0	0	0	0	0	0	0	20
0399	PARAINFLUENZA VIRUS TYPING PEN	0	4	0	0	0	0	0	0	0	0	4
0400	RESPIRATORY SYNCYTIAL VIRUS (R	5	300	0	1	0	0	0	0	0	0	306
0500	RHINOVIRUS (ALL TYPES)	0	42	0	1	0	0	0	0	0	0	43
0600	MYCOPLASMA PNEUMONIAE	0	7	0	0	0	0	0	0	0	0	7
0700	ORNITHOSIS-PSITTACOSIS	0	4	0	0	0	0	0	0	0	0	4
0809	COXSACKIEVIRUS A9	0	0	0	1	0	0	0	0	0	0	1
0816	COXSACKIEVIRUS A16	0	0	0	0	0	0	0	0	0	2	2
0899	COXSACKIEVIRUS GROUP A TYPING	0	2	0	0	0	0	0	0	0	0	2
0902	COXSACKIEVIRUS B2	0	1	0	0	0	0	0	0	0	0	1
0904	COXSACKIEVIRUS B4	0	0	0	1	0	0	1	0	0	0	2
0905	COXSACKIEVIRUS B5	0	1	0	1	0	0	1	0	0	0	3
1011	ECHOVIRUS TYPE 11	0	0	0	0	0	0	1	0	0	0	1
1017	ECHOVIRUS TYPE 17	0	1	1	2	0	0	2	0	0	0	6
1100	POLIOVIRUS NOT TYPED	1	1	0	0	0	0	3	0	0	0	5
1101	POLIOVIRUS TYPE 1	0	1	0	0	0	0	0	0	0	0	1
1102	POLIOVIRUS TYPE 2	0	1	0	0	0	0	0	0	0	0	1
1300	HERPES VIRUS GROUP - NOT TYPED	2	0	0	0	0	0	0	0	0	3	5
1301	HERPES SIMPLEX VIRUS - NOT TYP	6	1	0	0	0	0	0	0	0	13	20
1302	EPSTEIN-BARR VIRUS (EB VIRUS)	5	4	0	0	0	0	0	0	0	0	9
1303	VARICELLA-ZOSTER VIRUS	3	2	1	0	0	0	0	0	0	19	25
1306	HERPES SIMPLEX TYPE 1	0	10	0	0	0	0	0	0	0	70	80
1307	HERPES SIMPLEX TYPE 2	1	0	0	0	0	0	0	0	0	65	66
1399	HERPES VIRUS TYPING PENDING	0	0	0	0	0	0	0	0	0	4	4
1502	PICORNA VIRUS - NOT TYPED = EN	1	3	0	0	0	1	7	0	1	1	14
1521	MEASLES VIRUS	2	0	0	0	0	0	0	0	0	17	19
1522	RUBELLA VIRUS	2	0	0	0	0	0	0	0	0	3	5
1532	HEPATITIS B ANTIGEN	50	0	0	0	0	0	0	31	0	0	81
1535	HEPATITIS A ANTIBODY	9	0	0	0	0	0	0	8	0	0	17
1536	HEPATITIS C VIRUS	20	0	0	0	0	0	0	4	0	0	24
1541	CHLAMYDIA TRACHOMATIS - UNSPEC	4	0	0	0	0	0	0	0	0	0	4
1544	CHLAMYDIA PNEUMONIAE	0	1	0	0	0	0	0	0	0	0	1
1556	CMV - CYTOMEGALOVIRUS	3	27	0	0	2	0	1	0	2	0	35
1564	ROTAVIRUS	0	3	0	0	0	0	198	0	0	0	201
1565	CALICI VIRUS	0	0	0	0	0	0	4	0	0	0	4
1566	NORWALK AGENT	0	0	0	0	0	0	1	0	0	0	1
1599	ENTEROVIRUS TYPING PENDING	1	0	1	0	0	0	0	0	0	0	2
9994	SMALL VIRUS (LIKE) PARTICLE	0	0	0	0	0	0	1	0	0	0	1
TOTAL		121	484	4	8	2	1	255	43	3	198	1119

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

VIRAL IDENTIFICATIONS BY CLINICAL INFORMATION TABLE 2

PERIOD 14/08/91 TO 27/08/91

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	17	18	19	20	21	TOTAL
0100	ADENOVIRUS NOT TYPED	0	0	0	0	0	1	0	3	0	4
0102	ADENOVIRUS TYPE 2	0	0	0	0	0	0	0	1	0	1
0103	ADENOVIRUS TYPE 3	2	0	0	0	0	0	0	0	0	2
0104	ADENOVIRUS TYPE 4	1	0	0	0	0	0	0	0	0	1
0107	ADENOVIRUS TYPE 7	0	0	0	0	0	0	0	1	0	1
0108	ADENOVIRUS TYPE 8	1	0	0	0	0	0	0	0	0	1
0109	ADENOVIRUS TYPE 9	0	0	0	0	0	0	0	1	0	1
0119	ADENOVIRUS TYPE 19	1	0	0	0	0	0	0	0	0	1
0199	ADENOVIRUS TYPING PENDING	0	0	0	0	0	2	0	0	0	2
0203	INFLUENZA B VIRUS	0	0	0	0	0	4	1	1	0	6
0302	PARAINFLUENZA VIRUS TYPE 2	0	0	0	0	0	0	0	2	0	2
0303	PARAINFLUENZA VIRUS TYPE 3	0	0	0	0	0	0	1	3	0	4
0400	RESPIRATORY SYNCYTIAL VIRUS (R	0	0	0	0	0	3	1	5	0	9
0500	RHINOVIRUS (ALL TYPES)	0	0	0	0	0	2	2	2	0	6
0600	MYCOPLASMA PNEUMONIAE	0	0	0	0	0	0	0	1	0	1
0904	COXSACKIEVIRUS B4	0	0	0	0	0	0	1	0	0	1
1006	ECHOVIRUS TYPE 6	0	0	0	0	0	0	0	1	0	1
1011	ECHOVIRUS TYPE 11	0	0	0	0	0	0	0	1	0	1
1017	ECHOVIRUS TYPE 17	0	0	0	0	0	0	1	1	0	2
1101	POLIOVIRUS TYPE 1	0	0	0	0	0	0	0	1	0	1
1102	POLIOVIRUS TYPE 2	0	0	0	0	0	0	0	0	2	2
1200	MUMPS VIRUS	0	0	1	0	0	0	0	0	0	1
1301	HERPES SIMPLEX VIRUS - NOT TYP	0	20	1	0	0	0	1	1	0	23
1302	EPSTEIN-BARR VIRUS (EB VIRUS)	0	0	23	3	0	1	1	1	0	29
1303	VARICELLA-ZOSTER VIRUS	0	0	0	0	0	0	0	1	0	1
1306	HERPES SIMPLEX TYPE 1	9	35	0	0	0	0	3	4	0	51
1307	HERPES SIMPLEX TYPE 2	0	116	0	0	0	0	0	1	0	117
1401	COXIELLA BURNETII	0	0	0	0	0	2	1	1	0	4
1502	PICORNA VIRUS - NOT TYPED = EN	0	0	0	0	0	1	3	0	0	4
1521	MEASLES VIRUS	0	0	0	0	0	0	0	1	0	1
1532	HEPATITIS B ANTIGEN	0	0	0	0	0	0	0	1	0	1
1536	HEPATITIS C VIRUS	0	0	0	0	0	0	0	3	0	3
1541	CHLAMYDIA TRACHOMATIS - UNSPEC	3	82	0	0	0	0	0	0	0	85
1556	CMV - CYTOMEGALOVIRUS	0	4	1	0	1	2	5	23	1	37
1564	ROTAVIRUS	0	0	0	0	0	1	0	1	0	2
TOTAL		17	257	26	3	1	19	21	62	3	409