COMMUNICABLE DISEASES INTELLIGENCE

ISSN 0725-3141 VOLUME 15 NUMBER 14 15 July 1991

CONTENTS

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

INFLUENZA UPDATE - NO.3/91

(From the WHO National Influenza Centre - CSL)

Influenza outbreaks continued through March and April mainly in eastern Europe and Asia. Type B influenza continued to predominate, with significant levels of concurrent Type A(H1N1) in some countries.

Japan and Korea remain the only countries reporting significant outbreaks of Type A(H3N2) virus however there are reports of sporadic cases in a number of European countries late in the season.

ASIA

Japan reported an influenza epidemic commencing in January and ending in March. Like the outbreak in Korea the Japanese epidemic was mainly associated with Type A(H3N2) virus with lower levels of both A(H1N1) and Type B viruses.

Thailand, India and Hong Kong have reported sporadic cases of influenza B through March and April and a single isolate of Type A(H1N1), the first since mid-1990, was reported from Hong Kong at the beginning of May.

EUROPE

Influenza activity persisted through April in some areas. The most significant outbreaks reported in the latter part of the season were from Eastern Europe with 89,000 new cases in Hungary for the second week of March and a reported 1 million cases in Poland in the first half of March. The Polish outbreak involved predonimantly Type B virus whilst that in Hungary was a mixed Type A(H1N1) and Type B outbreak.

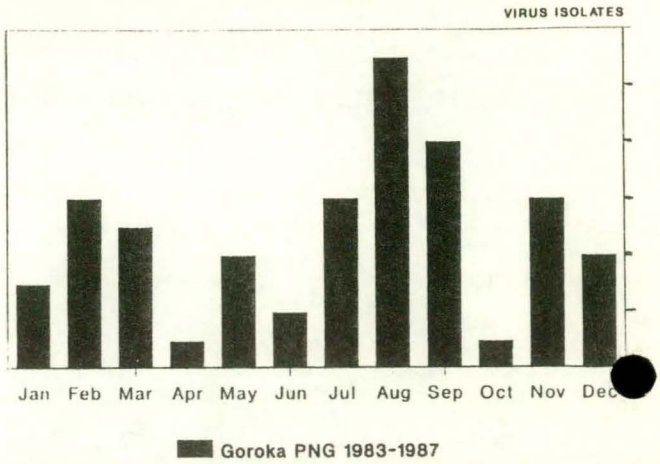
Some cases of Type A(H3N2) virus occurred late in the season with reports of isolates from Switzerland, France and Bulgaria.

OCEANIA

Papua New Guinea

While there have been reports of influenza-like illness in urban Papua New Guinea since early April, the virus laboratory in Goroka has only recently reported its first isolates for the season, one Type A and one Type B, from sporadic cases occurring in children. In the last few years the peak of influenza in Goroka has occurred early in the year, between March and May, however this is not typical (see Figure 1).

Figure 1
Influenza Seasonality PNG

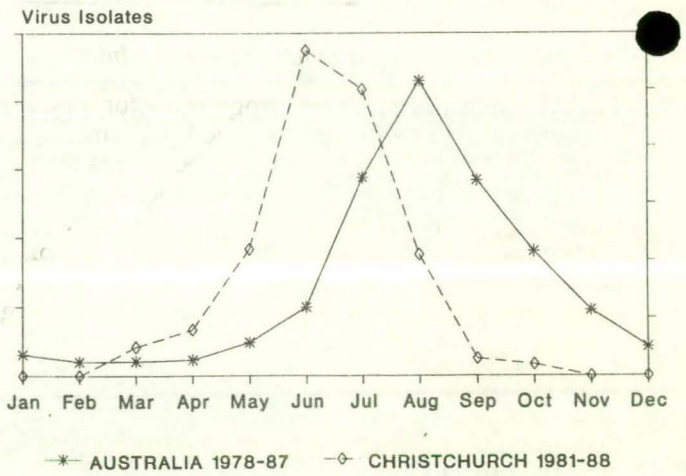


New Zealand

There are recent reports of an outbreak of influenza Type B in Christchurch in the South Island. The outbreak is affecting school-age children and elderly people, with some deaths reported in nursing home patients. At this stage there is only sporadic activity elsewhere in New Zealand.

Typically, influenza occurs in New Zealand 1 - 2 months ahead of Australia (see Figure 2).

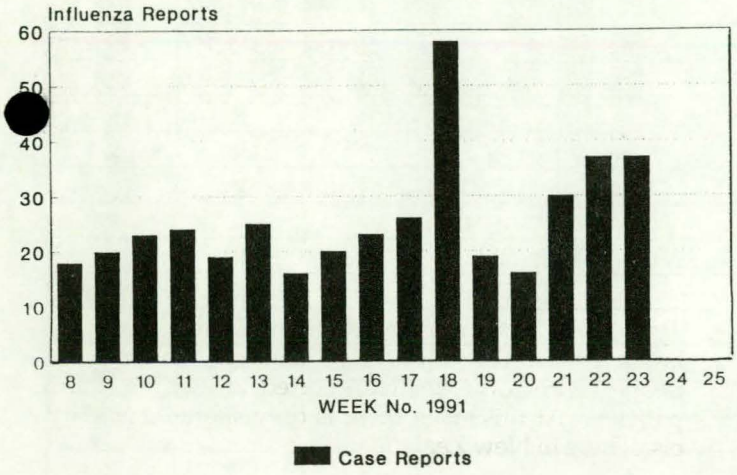
Figure 2
Influenza Occurrence - Australia vs Nz



Australia

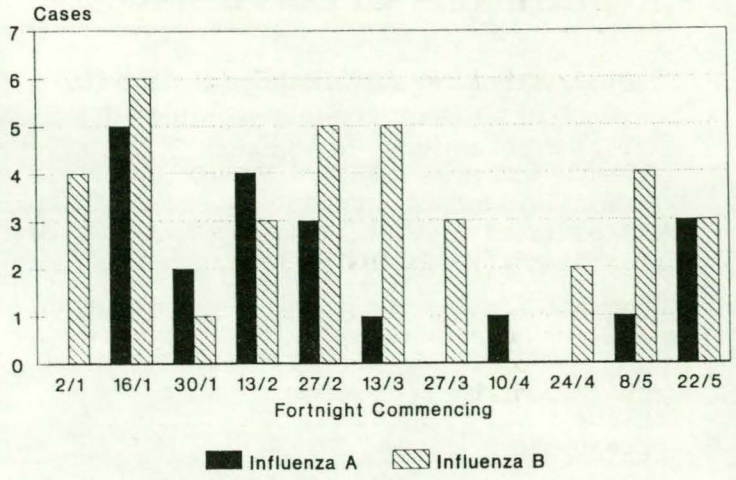
Although there have been increasing reports of influenza during May-June (weeks 21-23) through the Australian Sentinel Practice Research Network (Figure 3) there have been only sporadic laboratory confirmed cases in Australia and few isolates. Both influenza A and B have been diagnosed, with cases of influenza B predominating (Figure 4). To date, 8 virus isolates, one Type A(H1N1) and seven type B, have been received at the National Reference Centre.

Figure 3
Australian Sentinel Practices 1991



Data from Australian Sentinel Practice Research Network (ASPREN)

Figure 4
Influenza Diagnoses 1991



Abstracted from CDI Laboratory Reporting Scheme tables

ANALYSIS OF VIRUS STRAINS

Further analysis of virus isolates from the northern winter has shown the Type A(H1N1) strains to be A/Singapore/6/86-like and H3N2 strains to be predominantly A/Beijing/353/89 -like. There is currently no suggestion of further antigenic drift in these two families of viruses. The type B isolates are reported to be heterogeneous but remaining related to B/Panama/45/90 or B/Yamagata/16/88.

The early type B isolates studied at the Australian National Reference Centre have been even more mixed with one B/Panama - like (B/Christchurch/1/91) two B/Yamagata - like (B/Wellington/1/91 and B/Victoria/1/91) whilst two were closest to the old B/Victoria/2/87 strain (B/Victoria/101/91 and B/S.A./1/91).

ARBOVIRUS SURVEILLANCE, NEW SOUTH WALES, 1989-91

(Richard Russell, Medical Entomology Unit, University of Sydney and Westmead Hospital)

The Arbovirus Surveillance programme for the NSW Department of Health has continued to monitor mosquito populations and activity of arboviruses through virus isolation from mosquitoes, serological testing of sentinel chickens and collation of data on human cases. The field and laboratory programme covers both inland and coastal regions (although the sentinel chickens are confined to the inland localities) from October through April each year.

Weekly mosquito collections from 2 sites at each of up to 30 localities (see map) are received for identification and counting. Population profiles of the dominant species are constructed in relation to local rainfall and temperature data.

The mosquito collections are pooled for species, sex, date and collection site. The pools are tested for the presence of flavivirus antigen by ELISA, and processed for virus isolation through mosquito and vertebrate cell culture. The identification of isolates is undertaken by ELISA and neutralisation tests for alphaviruses (Barmah Forest, Ross River, Sindbis), bunyaviruses (Gan Gan, Mapputta, Termeil, Trubanaman), and flaviviruses (Alfuy, Edge Hill, Kokobera, Kunjin, Murray Valley Encephalitis, Stratford).

Sentinel chickens at up to 14 inland sites are bled weekly or monthly (depending on site). The sera are tested for the presence of flavivirus antibodies by indirect ELISA; seroconversions are confirmed and the eliciting virus is identified by neutralisation tests. In 1990/91 the chickens were also tested for antibodies to Sindbis and Barmah Forest viruses, although not for Ross River virus infection because chickens do not exhibit an appropriate antibody response to this virus.

Human serological diagnosis is based on detection of specific IgM antibodies by ELISA; data relating to local-

ity, age, sex and symptoms are collected from various laboratories and collated for epidemiological analysis.

The virus isolates from mosquitoes, and the chicken and human infection data for the past 3 years according to locality, are summarised in Table 1.

Table 1. Arbovirus surveillance in inland NSW, 1988/89 - 1990/91, by locality and method (detection of virus/antigen in mosquitoes, detection of IgG antibody in sentinel chickens, detection of IgG antibody in humans)

LOCALITY	VIRUS IN MOSQUITOES			ANTIBODY IN CHICKENS			ANTIBODY IN HUMANS		
	88/89	89/90	90/91	88/89	89/90	90/91	88/89	89/90	90/91
INLAND									
Albury	-*	-	S**	nc***	nc	nc	R	R	R
Balranald	nc	-	nc	nc	nc	nc	R	R	R
Bourke	-	R	K	-	-	K	R	R	R
Condobolin	nc	-	K,S	nc	nc	S	R	R	R
Deniliquin	R,S	X	-	-	-	-	R	R	F,R
Forbes	nc	-	-	nc	nc	-	R	R	R
Griffith	R,S,X	S,X	S,X	-	-	-	B,R	R	K,R
Hay	-	-	S	-	-	K,S	R	R	R
Lk. Cargelligo	nc	-	K,S	nc	nc	S	R	R	R
Leeton	S,X	-	K,X	-	-	K,S	R	R	B,R
Menindee	-	S	S,X	-	-	S	-	-	R
Moree	-	-	-	-	-	-	B,R	R	R
Walgett	nc	nc	-	nc	nc	-	R	R	B,R
Warren	-	-	-	-	-	-	R	R	R
Wee Waa	S	-	X	-	-	-	R	R	B,R
Wentworth	X	S,T,X	K,F,R,S,X	-	-	K,S	R	R	K,R
COASTAL									
Ballina	nc	X	X	nc	nc	nc	R	R	R
Batemans Bay	-	-	R	nc	nc	nc	R	R	R
Bellingen	nc	nc	-	nc	nc	nc	R	R	R
Byron Bay	-	-	-	nc	nc	nc	R	R	B,R
Coffs Harbour	-	nc	nc	nc	nc	nc	R	R	R
Eden	nc	-	X	nc	nc	nc	R	R	R
Evans Head	-	nc	nc	nc	nc	nc	R	R	R
Forster	-	-	-	nc	nc	nc	R	R	R
Gosford	-	-	-	nc	nc	nc	R	R	R
Kempsey	-	-	-	nc	nc	nc	R	R	R
Macksville	-	-	-	nc	nc	nc	R	R	R
Maclean	-	S,X	-	nc	nc	nc	R	R	R
Merimbula	nc	nc	R	nc	nc	nc	R	R	R
Pt Macquarie	nc	nc	-	nc	nc	nc	R	R	R
Pt Stephens	R	R	-	nc	nc	nc	R	R	R
Shoalhaven	-	-	-	nc	nc	nc	R	R	R
Taree	-	R	-	nc	nc	nc	R	R	R
Tathra	-	-	X	nc	nc	nc	R	R	R
Tweed Heads	-	-	-	nc	nc	nc	R	R	R

* - = no virus activity detected

** B = Barmah forest virus, K = Kunjin virus, R = Ross River virus
S = Sindbis virus, T = Trubanaman virus, F = flavivirus unspecified,
X = unidentified virus not flavivirus nor Ross River, Sindbis, Barmah Forest, Getah, Gan Gan, Mapputta, Termeil, nor Trubanaman,

*** nc = no collections

Ross River virus has been active throughout the state each year since 1988/89 as evidenced by both human serology and mosquito isolations. Human infections were recorded in all surveillance areas, although the north coast and the southwest (eg Griffith) were the regions with greatest incidence.

Sindbis virus was recovered from mosquitoes each year and was widely distributed in the inland of the state; there was only a single isolation from the coast (at Maclean on the far north coast) during the 3 years. The chicken sentinels were tested for antibody to Sindbis virus in 1990/91 only and seroconversions were shown in the Darling (Menindee), Lachlan (Condobolin, Lake Cargelligo), Murrumbidgee (Griffith, Hay, Leeton) and Murray (Wentworth) River basins, confirming the mosquito results. Sindbis virus infection in clinically-derived human sera was not reported in any year.

Barmah Forest virus infection in humans was confirmed from the Byron Bay (Brunswick Heads), Wee Waa (Narrabri), Leeton (Wagga Wagga) and Walgett (Lightning Ridge) localities; no isolates were obtained from mosquitoes and no sentinel chickens seroconverted to this virus.

Kunjin virus was detected during the 1990/91 period only, when it was active in the Darling, Lachlan, Murrumbidgee and Murray River regions as evidenced by its isolation from or detection in mosquitoes (Bourke, Condobolin, Lake Cargelligo, Leeton and Wentworth), the detection of antibodies in sentinel chickens (Bourke, Hay, Leeton, Wentworth), and confirmed human cases from the Wentworth and Griffith (Coleambally) areas. This is the first time that Kunjin virus has been detected in the surveillance programme since a seroconversion in sentinel chickens in early 1982.

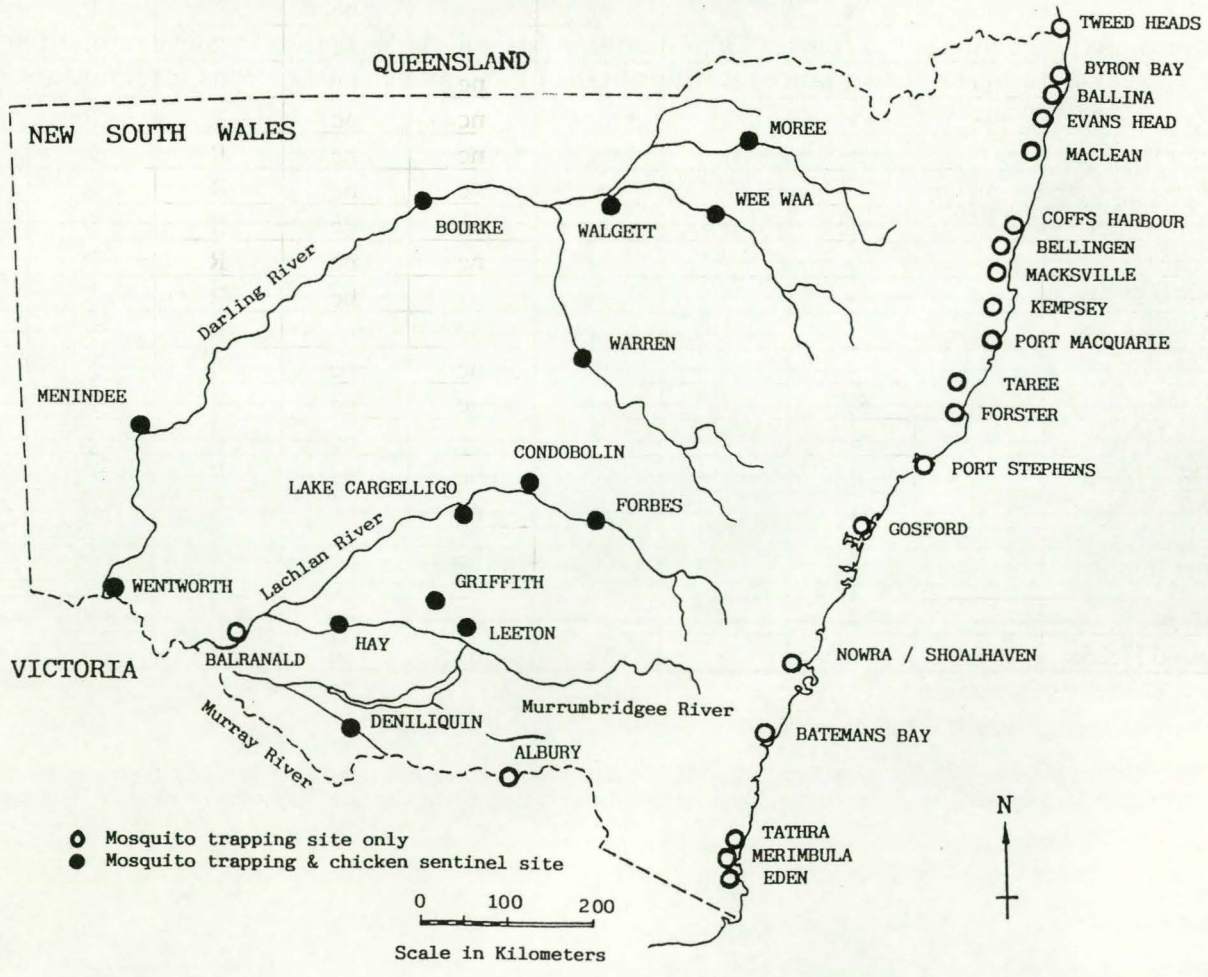
There was also an unspecified flavivirus detected in mosquitoes from Wentworth and a human infection with unspecified flavivirus from Deniliquin.

Trubanaman virus activity was detected once only, it was isolated from mosquitoes collected at Wentworth in 1989/90. No human infections were reported.

A number of virus isolates that could not be identified as any of the above-mentioned alpha-, flavi- and bunyaviruses were obtained and these are currently undergoing investigation by Dr C Calisher at the CDC arbovirus reference laboratory in Fort Collins, USA.

The mosquitoes *Aedes vigilax* and *Culex annulirostris* continue to be implicated as the most important arbovirus vectors in the coastal and inland regions, respectively, of NSW. Ross River, Sindbis and Kunjin viruses were most often obtained from *Cx annulirostris* for the inland collection areas, while *Ae vigilax* was the most common source of Ross River virus in coastal areas.

LOCATION OF MOSQUITO TRAPPING AND CHICKEN SENTINEL SITES
ARBOVIRUS VECTOR MONITORING PROGRAMME



Mosquito populations over the past 3 years have not been unusually high in regional terms but it is difficult to generalise for the whole state. Overall numbers and species composition vary with locality. Both *Ae vigilax* and *Cx annulirostris* exhibit seasonal activity, peaking generally from mid-summer through early-autumn. A sample of the collection data reflecting relative abundance of the principal vector species at particular localities in inland and coastal regions is presented in Table 2.

Cx annulirostris populations in inland areas with extensive irrigated agriculture can be relatively high in drier summers when mosquito numbers elsewhere are relatively low. Thus, notwithstanding adverse environmental conditions, some localities have substantial numbers of vectors during mid-summer each year. The prime example is Griffith where nightly trap samples of *Cx annulirostris* during summer were consistently much higher than at other localities (one trap at Griffith collected 6000 female *Cx annulirostris* in one in February 1991). The incidence of Ross River virus cases in the Griffith region appears to be higher than in other inland localities, probably as a consequence of the substantial vector populations generated by local irrigation practices.

Ae vigilax populations in coastal areas are primarily determined by tidal inundation of estuarine mudflats and associated marshlands (although rainfall can be an influential factor in some localities), and monthly peaks related to tide cycles can be detected within the seasonal pattern of activity. Trap numbers from individual sites following emergence of a new generation can be substantial (one trap at Batemans Bay collected >800 female *Ae vigilax* in one night in February 1991) although this may not be reflected in monthly trap averages.

Many people contribute to this programme. I wish to acknowledge the Environmental Health Officers of the Department's Public Health Units who organise the regional activities, and those various local personnel who collect the mosquitoes and chicken sera at the surveillance sites. The success of the programme is dependent upon these field workers as well as the following who are involved in the laboratories: John Clancy and Peter Wells in my laboratory at Westmead Hospital identify the mosquitoes and isolate and culture the viruses; Helen Naim and Royle Hawkes at the University of New South Wales identify the flaviviruses from mosquitoes; Michael Fennell, Ian Carter and Michael Cloonan at the Prince Henry Hospital undertake human serology for Ross River and Barmah Forest viruses and identify the alphaviruses and bunyaviruses from mosquitoes; Linda Hueston and Tony Cunningham at Westmead Hospital undertake the sentinel chicken serology, human serology for Ross River virus and flaviviruses, and collect human case data for epidemiology; we are also indebted to the laboratories of Barrett & Smith, Douglass Pathology, Gribbles Pathology, Hampson and Partners, IMVS, Macquarie Pathology, Mansfield Pathology, Queensland State Health Department, Sullivan and Nicolaides, VDRL, the Victorian Department of Health, and many local practitioners for providing human case data.

Table 2. Average number of female *Culex annulirostris* and *Aedes vigilax* in trap samples per night at some of the surveillance localities in the inland and coastal regions for Jan-Mar 1988/89, 1989/90 and 1990/91

LOCALITY	1988/89	1989/90	1990/91
INLAND - *Cx annulirostris*			
Bourke	58	110	69
Deniliquin	502	439	128
Griffith	1522	1037	1952
Leeton	669	171	386
Moree	34	10	105
Wee Waa	28	36	45
Wentworth	169	107	213
COASTAL - *Ae vigilax*			
Batemans Bay	163	39	250
Port Stephens	17	84	22
Maclean	30	11	73

ARBOVIRUS SURVEILLANCE, VICTORIA*, 1990-91

(Based on an article by J Aldred [Victorian Institute of Animal Science] which appeared in 'Buzzword', the newsletter of the Victorian Arbovirus Task Force, edited by J Wolstenholme, Health Department Victoria)

The Arbovirus Surveillance ('sentinel chicken') program in Victoria did not detect Murray Valley encephalitis (MVE) virus during the 1990-91 summer. However another flavivirus, Kunjin (KUN) virus, or a closely related virus, was detected. In Australia, the flavivirus family includes a number of other viruses but it is only MVE and KUN viruses that have been associated with serious clinical disease (Australian encephalitis). The other viruses within this family are of importance in Victoria's surveillance program because they can cause a cross-reacting antibody response which makes laboratory test results difficult to interpret.

In Victoria, KUN or a closely related flavivirus, was detected in sentinel chickens at Robinvale (three total), Mildura (two total), Swan Hill (one total), and Tooleybuc (one total). Antibody was initially detected in sera collected from chickens at Robinvale on 31.12.90, then in February at the remaining locations. In NSW, KUN was isolated from mosquitoes as early as November 1990 and antibody responses were observed in sentinels. Antibody was detected in sentinel chickens at Renmark, South Australia, in February 1991.

While it is generally accepted that MVE virus has not been detected in SE Australia since 1974, (when it was implicated in a major encephalitis epidemic), KUN has been detected on a number of occasions since this time. In the years 1981-82 and 1983-84, evidence showed that KUN virus was quite prevalent and, in 1989, the detection of KUN antibody in a single six-month-old pig demonstrated its presence again.

The natural life-cycle of KUN virus is thought to have a number of similarities with that of MVE virus and, while KUN has not been considered to be as significant as MVE in causing severe disease, its presence indicates a potential for MVE virus activity to occur.

A further indication that conditions may be suitable to support arbovirus activity can be found in the rate at which Sindbis (Sb) virus infection occurs in sentinel chickens. Sb virus belongs to the family of alphaviruses. This family also contains Ross River and Barmah Forest viruses, both of which can cause significant clinical disease. All sentinel chickens were tested for antibody to Sb in February 1991. The results showed that some birds at each location had been infected and in some flocks the infection rate was significantly high. The percentage of chickens infected at each location is shown in the Figure below:

Mildura	71	Wodonga	25
Barmah	45	Kerang	25
Rutherglen	32	Robinvale	21
Tooleybuc	31	Barooga	15
Swan Hill	26	Toolamba	11

In summary, despite conditions in many areas being relatively dry, there was sufficient mosquito breeding to support a significantly high level of arbovirus activity in Victoria; with the north-west corner of the State supporting the highest level of both alphavirus and flavivirus activity.

* A more detailed article on arbovirus (flavivirus) surveillance in Victoria was published in CDI 90/22, issued 5 November 1990.

ARBOVIRUS SURVEILLANCE, SOUTH AUSTRALIA, 1990-1991

(Phil Weinstein, Communicable Diseases Control Unit, South Australian Health Commission. Data provided by David Warswick, Institute of Medical and Veterinary Science)

The 1990-91 Arbovirus Surveillance ('sentinel chicken') programme to detect arboviruses in South Australia ran from December 1990 to April 1991, with a total of 103 fowls placed in three locations close to the Murray River - Renmark, Waikerie and Mannum and in one location, Meningie, close to Lake Albert.

The fowls were all bled in December before being placed on location and then bled at approximately monthly intervals in January, February, March and April. Sera from these bleedings were tested for the presence of antibodies to Group A and Group B arboviruses by a haemagglutination inhibition test and the results are presented in Table 1 below. Sera testing positive for either virus were retested to confirm the result using a different extraction process. The three sera found positive for Group B arbovirus antibodies were sent to the Victorian Institute of Animal Science in Melbourne, for further testing and were found to be Kunjin virus.

Table 1. Arbovirus sentinel chicken serology results, SA, 1990-91

LOCATION	NO. OF BIRDS	NEGATIVE	POSITIVE GROUP A	POSITIVE GROUP B
Meningie	25	25	0	0
Mannum	25	23	2*	0
Waikerie	23	23	0	0
Renmark	30	22	6**	3***

* both positive in sera of 14.1.91

** 1 positive on 14.1.91, 4 positive on 8.2.91 and 1 positive on 12.3.91

*** all positive on 8.2.91, one fowl was positive to both Group B and Group A.

LISTERIOSIS IN VICTORIA, 1990

(Dr Sally Ng, Infectious Diseases Unit, Health Department Victoria)

Listeriosis was made notifiable on 15 May 1990 with the proclamation of the Health (Infectious Diseases) Regulations 1990. Prior to that, cases were reported by the Microbiological Diagnostic Unit Melbourne University (MDU) through the Victorian Hospital Pathogen Surveillance Scheme (VHPSS) which commenced in 1988. With this Scheme only cultures from blood and CSF are reportable.

Twenty four (24) cases were notified in 1990 and the epidemic curve is shown in Figure 1 below.

Eleven (11) of the cases were materno-fetal pairs (a pair is counted as one case). Infection in these cases had resulted in:

1. Two stillbirths (at 24 and 26 weeks gestation) and
2. Nine cases of neonatal meningitis, with 1 death; the baby died 2 days after delivery at 26 weeks.

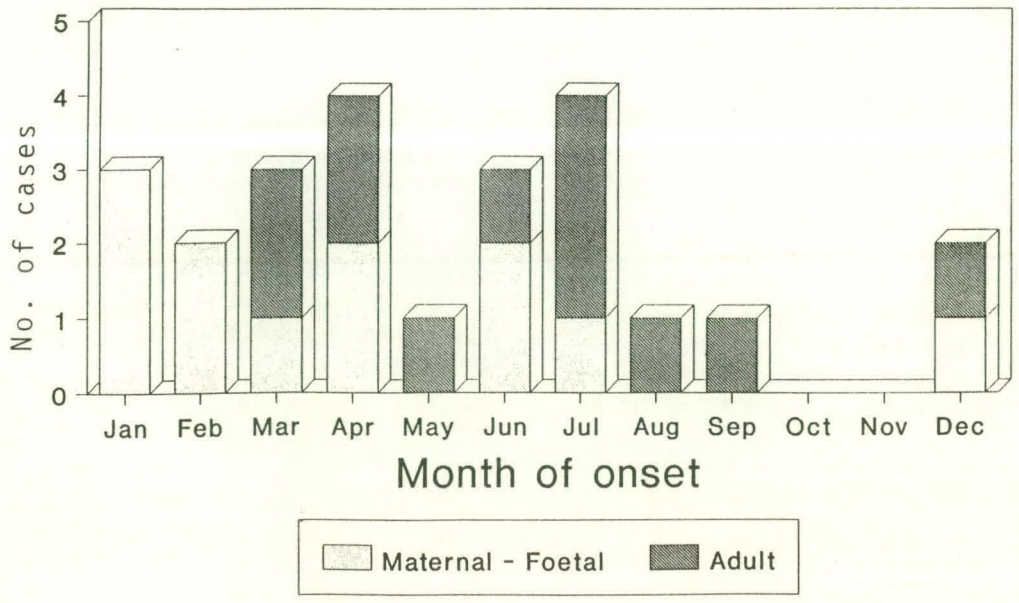
Only in 1 mother were the babies (twins) unaffected. The mother presented at 35 weeks with flu-like symptoms associated with rigors and renal pain. *Listeria monocytogenes* was isolated from blood culture; she recovered uneventfully with IV amoxycillin and delivered healthy twins 4 weeks later.

The case fatality rate in this group was 3/11 (27.2%).

Of the remaining 13 adult cases (ie non materno-fetal pairs) predisposing factors included:

1. Neoplasm - prostate, lung
2. Diabetes
3. Immunosuppression following treatment for:
   - renal transplant
   - chronic active hepatitis
   - dermatomyositis

Figure 1. Listeriosis in Victoria, 1990



One patient was recoving from Ross River virus infection and another from a fractured femur. The case fatality rate in this group was 4/13 (30.8%).

Age and sex distribution in the adult cases is presented in Table 1.

Table 1. Age & Sex distribution of adult listeriosis cases

AGE	MALE	FEMALE
30-39	-	-
40-49	1	2
50-59	2	2
60-69	3	2
70	1	2
TOTAL	7	6

The mean age was 59.6 years, the youngest was 40, the oldest 83 and the male: female ratio was 1.2:1.

Details of the clinical presentations are presented in Table 2.

Table 2. Listeriosis - clincal presentation (24 cases*)

CLINICAL FEATURES	ADULT	MOTHER	FETUSES /INFANTS
Menigitis	2		8
Septicaemia	9		
Brain abscess	1		
Status epilepticus	1		
Fever at onset of labour		1	
Arthralgia		1	
Flu-like illness		3	
Gastro-intestinal illness		2	
Upper respiatory tract illness		2	
Stillbirths			2
Symptom free		2	1
TOTAL	13	11	11

* A mother/child pair is considered as 1 case.

The main presentation in the neonates was meningitis (8/11=72.7%) whilst septicaemia was the main presentation in the adults (non-pregnant) cases (9/13=69%).

COMMENT

Two-thirds (66.6%) of the cases occurred in the first half of the year. All were isolated cases and epidemiological investigations failed to establish a common source of infection, despite a cluster of 3 cases in January (all pregnant women).

A variety of food was examined for *L. monocytogenes*. The organism was isolated from raw mushroom, raw chicken, leg of ham, an unopened pack of sliced smallgoods and from a large chunk of hard cheese. Serotyping by Monash Medical Centre, with bacteriophage typing overseas, found the cultures from the patient and the cheese to be identical. The cheese was kept uncovered in a refrigerator and thus was susceptible to cross contamination.

The overall case fatality rate was 29.1% (7/24), 27.2% for the materno-fetal cases and 30.7% for the adult cases.

As reported overseas, infection by *L. monocytogenes* presents mainly as meningoencephalitis and/or septicaemia and tends to affect the elderly who have underlying medical conditions, the immunocompromised and pregnant women. With the latter, infection in the mother is mild and often symptomless. However, intrauterine infection results in abortions, premature labour, intrauterine deaths and perinatal infection with a significant case fatality rate.

AUSTRALIAN HIV SURVEILLANCE REPORT, VOLUME 7, NUMBER 5(30 APRIL 1991)

The National Centre in HIV Epidemiology and Clinical Research reports that as of 30 April 1991 a total of 15,135 diagnoses of HIV infection and 2,602 cases of AIDS had been reported in Australia. For the most recent period, 1 April to 30 April 1991, 36 new cases of AIDS and 101 new diagnoses of HIV infection were reported.

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

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 current 4 week period and the increment in the cumulative figures from the previous report.

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

STATE/ TERRITORY	CASES			DEATHS		
	Male	Female	Total	Male	Female	Total
ACT	0	0	0	0	0	0
NSW	23	0	23	17	0	17
NT	2	0	2	0	0	0
QLD	0	0	0	0	0	0
SA	0	0	0	0	0	0
TAS	0	0	0	1	0	1
VIC	11	0	11	11	0	11
WA	0	0	0	0	0	0
TOTAL	**36**	**0**	**36**	**29**	**0**	**29**

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

STATE/ TERRITORY	CASES			DEATHS		
	Male	Female	Total	Male	Female	Total
ACT	33	1	34	21	0	21
NSW	1567	47	1614	1002	32	1034
NT	7	0	7	3	0	3
QLD	190	8	198	125	6	131
SA	89	3	92	42	1	43
TAS	13	1	14	7	1	8
VIC	511	12	523	296	6	302
WA	113	7	120	72	3	75
TOTAL	**2523**	**79**	**2602**	**1568**	**49**	**1617**

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

STATE/ TERRITORY	APRIL 1991[1]			CUMULATIVE TO 30 APRIL 1991			
	Male	Female	Total	Male	Female	Sex not reported	Total
ACT	0	0	0	15	0	97	112
NSW[2]	59	2	65	7697	394	2152	10243
NT	0	0	0	57	5	0	62
QLD	13	0	13	1022	40	0	1062
SA[3]	-	-	-	333	27	0	360
TAS	0	0	0	50	3	0	53
VIC	22	1	23	2552	78	2	2632
WA	0	0	0	580	31	0	611
TOTAL[4]	**94**	**3**	**101**	**12306**	**578**	**2251**	15135

1. Dashes indicate that counts were unavailalbe for period
2. Counts from the Reference Laboratories at Prince of Wales, Royal Prince Alfred, St Vincent's and Westmead Hospitals. Total for April includes 4 people whose sex was not reported.
3. Cumulative counts to 18 May 1990.
4. Total for April includes 4 people whose sex was not reported.

CDI NOTICE TO READERS

POLIO REFERENCE LABORATORY ESTABLISHED AT FAIRFIELD HOSPITAL - REQUEST FOR ISOLATES

The Virus Laboratory at Fairfield Hospital has recently been designated as a WHO Regional Reference Laboratory for the Laboratory Diagnosis of Poliomyelitis in the Western Pacific Region along with National Institutes of Health, Tokyo, Japan.

As well as helping countries with few or no virus laboratories in the Region, Fairfield will be involved in the differentiation of vaccine and wild polio strains. They are also interested in receiving old polio isolates from laboratories in Australia to verify their procedures which will be based on neutralisation tests using monoclonal antibodies or probes.

For information please contact:

Margery Kennett

Virology Department

Fairfield Hospital

Yarra Bend Rd

FAIRFIELD VIC 3078

Ph: 03 280 2393

Fax: 03 481 3816

COMMUNICABLE DISEASES SURVEILLANCE

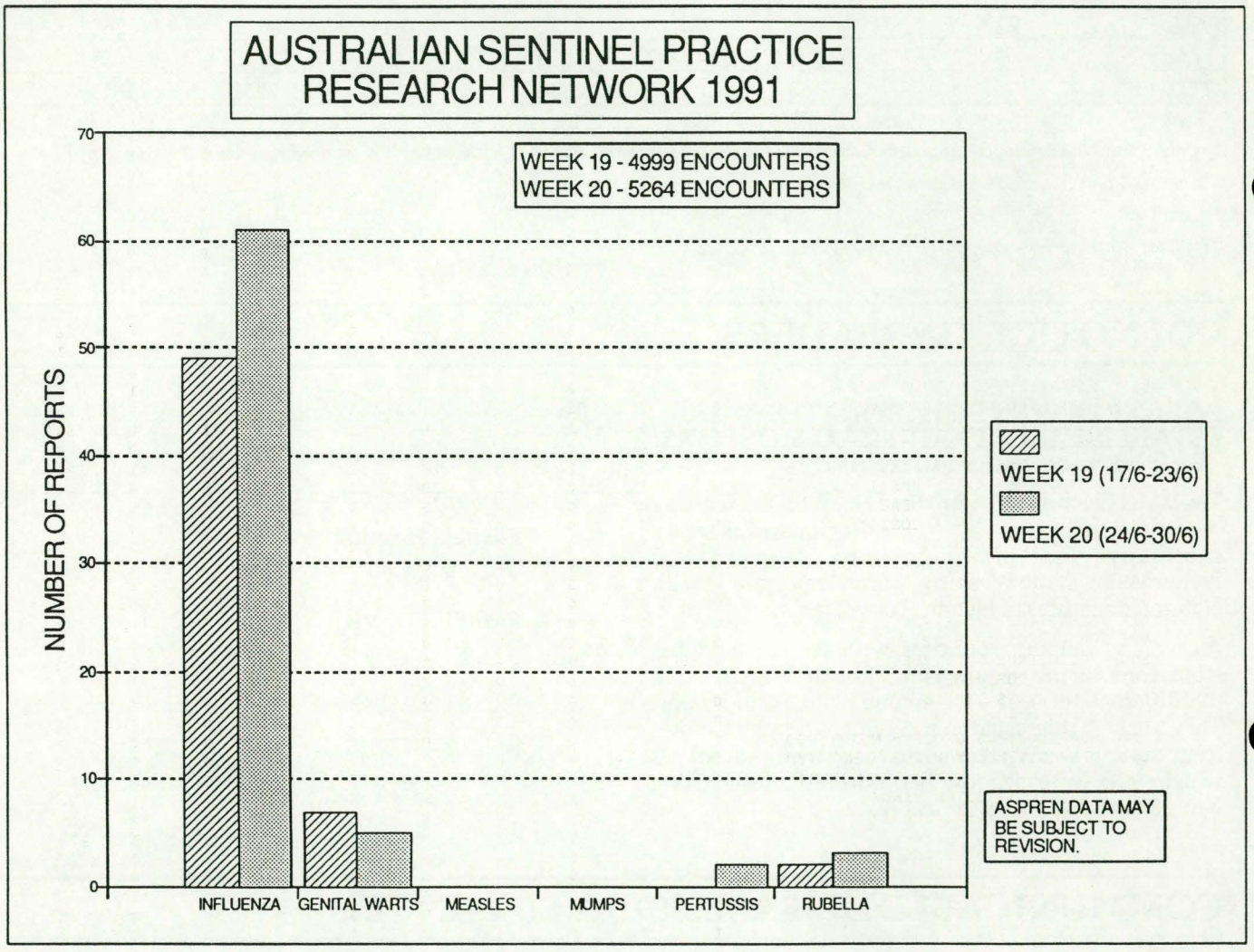
CDI LABORATORY REPORTING SCHEMES

There were 1202 reports processed for the latest period (19 June to 2 July 1991).

- Ten reports of **Q fever** were received for the period; 8 from New South Wales and the remainder from Victoria. No occupational exposure details were provided.
- Six cases of **invasive meningococcal infection** (meningitis and/or septicaemia) have been reported from Western Australia since the beginning of June. *Neisseria meningitidis* group B has been isolated from 5 of the patients and group C from one patient. Three of the patients have died from overwhelming infection: a 6 month old boy with group B meningococcal septicaemia, a 3 year old girl with group C meningitis and septicaemia and a 20 month old boy with group B septicaemia.

Five patients are from the Perth metropolitan area but have not had contact with each other. The sixth is from Albany.

Their age range is 6 months to 18 years, with 5 out of the 6 patients under 5 years of age.



AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

VIRAL IDENTIFICATIONS FROM CONTRIBUTING LABORATORIES
BASED ON DATE OF REPORTING

PERIOD 19/06/91 TO 02/07/91

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)

		019	065	066	110	111	112	113	114	115	TOTAL
0100	ADENOVIRUS NOT TYPED	0	3	6	3	8	2	1	1	13	37
0101	ADENOVIRUS TYPE 1	1	0	0	0	0	2	0	0	0	3
0102	ADENOVIRUS TYPE 2	1	0	0	0	0	4	0	0	0	5
0103	ADENOVIRUS TYPE 3	2	0	0	0	0	1	1	0	0	4
0107	ADENOVIRUS TYPE 7	1	0	0	0	0	0	0	0	0	1
0108	ADENOVIRUS TYPE 8	1	0	0	0	0	0	0	0	0	1
0111	ADENOVIRUS TYPE 11	0	0	0	0	0	1	0	0	0	1
0128	ADENOVIRUS TYPE 28	2	0	0	0	0	0	0	0	0	2
0130	ADENOVIRUS TYPE 30	2	0	0	0	0	0	0	0	0	2
0199	ADENOVIRUS TYPING PENDING	1	0	0	0	4	0	1	0	0	6
0201	INFLUENZA A VIRUS	0	0	0	0	0	1	0	0	0	1
0203	INFLUENZA B VIRUS	2	0	0	8	0	0	0	0	0	10
0301	PARAINFLUENZA VIRUS TYPE 1	0	0	0	0	0	0	0	0	1	1
0302	PARAINFLUENZA VIRUS TYPE 2	0	0	2	6	1	1	0	0	7	17
0303	PARAINFLUENZA VIRUS TYPE 3	3	0	1	4	10	1	1	1	9	30
0399	PARAINFLUENZA VIRUS TYPING PEN	0	0	0	0	1	0	0	0	2	3
0400	RESPIRATORY SYNCYTIAL VIRUS (R	12	0	2	8	18	31	14	38	21	144
0500	RHINOVIRUS (ALL TYPES)	6	1	0	1	28	3	0	1	4	44
0600	MYCOPLASMA PNEUMONIAE	1	0	0	0	5	1	0	0	0	7
0700	ORNITHOSIS-PSITTACOSIS	5	0	0	0	0	1	0	0	0	6
0809	COXSACKIEVIRUS A9	0	1	0	0	0	0	0	0	0	1
0904	COXSACKIEVIRUS B4	0	0	0	0	0	5	0	2	0	7
0905	COXSACKIEVIRUS B5	0	0	0	0	0	1	0	1	0	2
1001	ECHOVIRUS TYPE 1	0	0	0	0	0	2	0	0	0	2
1017	ECHOVIRUS TYPE 17	0	0	0	0	0	0	1	0	0	1
1022	ECHOVIRUS TYPE 22	0	0	0	0	0	2	0	1	0	3
1100	POLIOVIRUS NOT TYPED	0	0	0	0	0	0	2	0	0	2
1101	POLIOVIRUS TYPE 1	0	0	0	0	0	4	0	0	0	4
1103	POLIOVIRUS TYPE 3	0	0	0	2	0	1	0	0	0	3
1200	MUMPS VIRUS	0	0	0	0	0	2	0	0	0	2
1300	HERPES VIRUS GROUP - NOT TYPED	1	3	0	0	0	0	0	0	0	4
1301	HERPES SIMPLEX VIRUS - NOT TYP	3	0	4	0	0	20	0	0	0	27
1302	EPSTEIN-BARR VIRUS (EB VIRUS)	4	5	0	9	1	7	0	2	0	28
1303	VARICELLA-ZOSTER VIRUS	5	2	1	9	0	5	0	1	1	24
1306	HERPES SIMPLEX TYPE 1	23	13	1	20	5	5	5	0	32	104
1307	HERPES SIMPLEX TYPE 2	42	41	0	17	0	23	19	0	33	175
1399	HERPES VIRUS TYPING PENDING	0	0	0	0	1	0	0	0	0	1
1401	COXIELLA BURNETII	2	0	0	0	0	8	0	0	0	10
1502	PICORNIA VIRUS - NOT TYPED = E	0	3	0	3	0	0	5	0	11	22
1515	CONTAGIOUS PUSTULAR DERMATITIS	0	1	0	0	0	0	0	0	0	1
1521	MEASLES VIRUS	1	0	0	0	0	0	0	0	0	1
1522	RUBELLA VIRUS	1	0	0	0	0	0	0	0	0	1
1532	HEPATITIS B ANTIGEN	11	6	0	1	0	32	10	1	22	83
1535	HEPATITIS A ANTIBODY	7	2	0	1	0	7	2	0	0	19
1536	HEPATITIS C VIRUS	48	26	0	0	0	0	0	0	0	74
1537	HEPATITIS, DELTA	0	0	0	0	0	0	0	0	4	4
1541	CHLAMYDIA TRACHOMATIS - UNSPEC	0	20	0	28	0	19	0	0	20	87
1555	PAPOVAVIRUS GROUP (PAPILLOMA -	1	0	0	0	0	0	0	0	0	1
1556	CMV - CYTOMEGALOVIRUS	29	1	6	1	4	7	5	5	10	68
1564	ROTAVIRUS	3	1	13	12	39	10	3	1	0	82
1566	NORWALK AGENT	0	0	0	0	0	1	0	0	0	1
1599	ENTEROVIRUS TYPING PENDING	0	0	0	0	6	0	16	5	0	27
9992	ROSS RIVER VIRUS	0	4	0	0	0	1	1	0	0	6
TOTAL		221	133	36	133	131	211	87	60	190	1202

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

VIRAL IDENTIFICATIONS FROM CONTRIBUTING LABORATORIES BY STATE OF CONTRIBUTING LABORATORY

PERIOD 19/06/91 TO 02/07/91

NSW: ICPMR; PHH/POW; RACH; ST GEORGE HOSP, KOGARAH; ROYAL NEWCASTLE HOSP.
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	TOTAL
0100	ADENOVIRUS NOT TYPED	4	8	13	9	3	37
0101	ADENOVIRUS TYPE 1	2	1	0	0	0	3
0102	ADENOVIRUS TYPE 2	4	1	0	0	0	5
0103	ADENOVIRUS TYPE 3	2	2	0	0	0	4
0107	ADENOVIRUS TYPE 7	0	1	0	0	0	1
0108	ADENOVIRUS TYPE 8	0	1	0	0	0	1
0111	ADENOVIRUS TYPE 11	1	0	0	0	0	1
0128	ADENOVIRUS TYPE 28	0	2	0	0	0	2
0130	ADENOVIRUS TYPE 30	0	2	0	0	0	2
0199	ADENOVIRUS TYPING PENDING	1	5	0	0	0	6
0201	INFLUENZA A VIRUS	1	0	0	0	0	1
0203	INFLUENZA B VIRUS	0	2	0	0	8	10
0301	PARAINFLUENZA VIRUS TYPE 1	0	0	1	0	0	1
0302	PARAINFLUENZA VIRUS TYPE 2	1	1	7	2	6	17
0303	PARAINFLUENZA VIRUS TYPE 3	3	13	9	1	4	30
0399	PARAINFLUENZA VIRUS TYPING PEN	0	1	2	0	0	3
0400	RESPIRATORY SYNCYTIAL VIRUS (R	83	30	21	2	8	144
0500	RHINOVIRUS (ALL TYPES)	4	34	4	1	1	44
0600	MYCOPLASMA PNEUMONIAE	1	6	0	0	0	7
0700	ORNITHOSIS-PSITTACOSIS	1	5	0	0	0	6
0809	COXSACKIEVIRUS A9	0	0	0	1	0	1
0904	COXSACKIEVIRUS B4	7	0	0	0	0	7
0905	COXSACKIEVIRUS B5	2	0	0	0	0	2
1001	ECHOVIRUS TYPE 1	2	0	0	0	0	2
1017	ECHOVIRUS TYPE 17	1	0	0	0	0	1
1022	ECHOVIRUS TYPE 22	3	0	0	0	0	3
1100	POLIOVIRUS NOT TYPED	2	0	0	0	0	2
1101	POLIOVIRUS TYPE 1	4	0	0	0	0	4
1103	POLIOVIRUS TYPE 3	1	0	0	0	2	3
1200	MUMPS VIRUS	2	0	0	0	0	2
1300	HERPES VIRUS GROUP - NOT TYPED	0	1	0	3	0	4
1301	HERPES SIMPLEX VIRUS - NOT TYP	20	3	0	4	0	27
1302	EPSTEIN-BARR VIRUS (EB VIRUS)	9	5	0	5	9	28
1303	VARICELLA-ZOSTER VIRUS	6	5	1	3	9	24
1306	HERPES SIMPLEX TYPE 1	10	28	32	14	20	104
1307	HERPES SIMPLEX TYPE 2	42	42	33	41	17	175
1399	HERPES VIRUS TYPING PENDING	0	1	0	0	0	1
1401	COXIELLA BURNETII	8	2	0	0	0	10
1502	PICORNIA VIRUS - NOT TYPED = E	5	0	11	3	3	22
1515	CONTAGIOUS PUSTULAR DERMATITIS	0	0	0	1	0	1
1521	MEASLES VIRUS	0	1	0	0	0	1
1522	RUBELLA VIRUS	0	1	0	0	0	1
1532	HEPATITIS B ANTIGEN	43	11	22	6	1	83
1535	HEPATITIS A ANTIBODY	9	7	0	2	1	19
1536	HEPATITIS C VIRUS	0	48	0	26	0	74
1537	HEPATITIS, DELTA	0	0	4	0	0	4
1541	CHLAMYDIA TRACHOMATIS - UNSPEC	19	0	20	20	28	87
1555	PAPOVAVIRUS GROUP (PAPILLOMA -	0	1	0	0	0	1
1556	CMV - CYTOMEGALOVIRUS	17	33	10	7	1	68
1564	ROTAVIRUS	14	42	0	14	12	82
1566	NORWALK AGENT	1	0	0	0	0	1
1599	ENTEROVIRUS TYPING PENDING	21	6	0	0	0	27
9992	ROSS RIVER VIRUS	2	0	0	4	0	6
TOTAL		358	352	190	169	133	1202

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 19/06/91 TO 02/07/91

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	6	7	8	9	10	11	TOTAL
0100	ADENOVIRUS NOT TYPED	0	12	0	1	0	22	0	0	0	1	36
0101	ADENOVIRUS TYPE 1	1	1	0	0	0	0	0	0	0	0	2
0102	ADENOVIRUS TYPE 2	1	2	0	0	0	1	0	0	0	0	4
0103	ADENOVIRUS TYPE 3	1	0	0	0	0	0	0	0	0	0	1
0107	ADENOVIRUS TYPE 7	0	1	0	0	0	0	0	0	0	0	1
0111	ADENOVIRUS TYPE 11	0	0	0	0	0	1	0	0	0	0	1
0128	ADENOVIRUS TYPE 28	0	0	0	0	0	1	0	0	0	1	2
0130	ADENOVIRUS TYPE 30	0	0	0	0	0	1	0	0	0	0	1
0199	ADENOVIRUS TYPING PENDING	0	2	0	0	1	0	0	0	0	0	3
0201	INFLUENZA A VIRUS	0	1	0	0	0	0	0	0	0	0	1
0203	INFLUENZA B VIRUS	0	7	0	0	0	0	0	0	0	0	7
0301	PARAINFLUENZA VIRUS TYPE 1	0	1	0	0	0	0	0	0	0	0	1
0302	PARAINFLUENZA VIRUS TYPE 2	1	16	0	0	0	0	0	0	0	0	17
0303	PARAINFLUENZA VIRUS TYPE 3	0	26	0	0	0	1	0	0	0	0	27
0399	PARAINFLUENZA VIRUS TYPING PEN	0	2	0	0	0	0	0	0	0	0	2
0400	RESPIRATORY SYNCYTIAL VIRUS (R	5	137	0	0	0	0	0	0	0	0	142
0500	RHINOVIRUS (ALL TYPES)	0	41	0	0	0	0	0	0	0	0	41
0600	MYCOPLASMA PNEUMONIAE	0	7	0	0	0	0	0	0	0	0	7
0700	ORNITHOSIS-PSITTACOSIS	0	6	0	0	0	0	0	0	0	0	6
0809	COXSACKIEVIRUS A9	1	0	0	0	0	0	0	0	0	0	1
0904	COXSACKIEVIRUS B4	3	0	0	0	0	0	0	1	0	0	4
0905	COXSACKIEVIRUS B5	1	1	0	0	0	0	0	0	0	0	2
1001	ECHOVIRUS TYPE 1	0	0	0	1	0	1	0	0	0	0	2
1017	ECHOVIRUS TYPE 17	0	0	0	1	0	0	0	0	0	0	1
1022	ECHOVIRUS TYPE 22	1	1	0	0	0	0	0	0	0	0	2
1100	POLIOVIRUS NOT TYPED	0	0	0	0	0	2	0	0	0	0	2
1101	POLIOVIRUS TYPE 1	0	0	0	0	0	2	0	0	0	0	2
1200	MUMPS VIRUS	1	0	0	0	0	0	0	0	0	0	1
1300	HERPES VIRUS GROUP - NOT TYPED	0	0	1	0	0	0	0	0	0	2	3
1301	HERPES SIMPLEX VIRUS - NOT TYP	2	0	0	0	0	0	0	0	0	10	12
1302	EPSTEIN-BARR VIRUS (EB VIRUS)	6	2	0	0	0	0	0	0	0	0	8
1303	VARICELLA-ZOSTER VIRUS	1	1	1	0	0	0	0	0	0	20	23
1306	HERPES SIMPLEX TYPE 1	0	4	0	0	0	0	0	0	0	66	70
1307	HERPES SIMPLEX TYPE 2	2	1	0	0	0	0	0	0	0	77	80
1399	HERPES VIRUS TYPING PENDING	0	0	1	0	0	0	0	0	0	0	1
1401	COXIELLA BURNETII	5	2	0	0	0	0	0	0	0	0	7
1502	PICORNIA VIRUS - NOT TYPED = E	1	8	0	0	0	12	0	0	0	0	21
1515	CONTAGIOUS PUSTULAR DERMATITIS	0	0	0	0	0	0	0	0	0	1	1
1521	MEASLES VIRUS	0	0	0	0	0	0	0	0	0	1	1
1522	RUBELLA VIRUS	0	0	0	0	0	0	0	0	0	1	1
1532	HEPATITIS B ANTIGEN	43	0	0	0	0	0	38	0	0	0	81
1535	HEPATITIS A ANTIBODY	8	0	0	0	0	0	10	0	0	0	18
1536	HEPATITIS C VIRUS	70	0	0	0	0	0	3	0	0	0	73
1537	HEPATITIS, DELTA	0	0	0	0	0	0	4	0	0	0	4
1541	CHLAMYDIA TRACHOMATIS - UNSPEC	9	0	0	0	0	0	0	0	0	0	9
1555	PAPOVAVIRUS GROUP (PAPILLOMA -	0	0	0	0	0	0	0	0	0	1	1
1556	CMV - CYTOMEGALOVIRUS	2	16	0	0	0	1	2	0	4	1	26
1564	ROTAVIRUS	0	1	0	0	0	81	0	0	0	0	82
1566	NORWALK AGENT	0	0	0	0	0	1	0	0	0	0	1
1599	ENTEROVIRUS TYPING PENDING	1	7	0	4	0	11	0	0	0	0	23
9992	ROSS RIVER VIRUS	1	0	0	0	0	0	0	0	0	0	1
TOTAL		167	306	3	7	1	138	57	1	4	182	866

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

VIRAL IDENTIFICATIONS BY CLINICAL INFORMATION TABLE 2

PERIOD 19/06/91 TO 02/07/91

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	1	0	0	0	0	0	0	0	0	0	1
0101	ADENOVIRUS TYPE 1	0	0	0	0	0	0	0	1	0	0	1
0102	ADENOVIRUS TYPE 2	0	0	0	0	0	0	0	0	0	1	1
0103	ADENOVIRUS TYPE 3	3	0	0	0	0	0	0	0	0	0	3
0108	ADENOVIRUS TYPE 8	1	0	0	0	0	0	0	0	0	0	1
0130	ADENOVIRUS TYPE 30	0	0	1	0	0	0	0	0	0	0	1
0199	ADENOVIRUS TYPING PENDING	1	0	0	0	0	0	1	0	1	0	3
0203	INFLUENZA B VIRUS	0	0	0	0	2	0	0	0	1	0	3
0303	PARAINFLUENZA VIRUS TYPE 3	0	0	0	0	0	0	3	0	0	0	3
0399	PARAINFLUENZA VIRUS TYPING PEN	0	0	0	0	0	0	1	0	0	0	1
0400	RESPIRATORY SYNCYTIAL VIRUS (R	0	0	0	0	0	0	1	1	0	0	2
0500	RHINOVIRUS (ALL TYPES)	0	0	0	0	0	0	3	0	0	0	3
0904	COXSACKIEVIRUS B4	0	0	0	0	0	0	2	0	1	0	3
1022	ECHOVIRUS TYPE 22	0	0	0	0	0	0	0	0	1	0	1
1101	POLIOVIRUS TYPE 1	0	0	0	0	0	0	0	0	1	1	2
1103	POLIOVIRUS TYPE 3	0	0	0	0	0	0	0	0	0	3	3
1200	MUMPS VIRUS	0	0	1	0	0	0	0	0	0	0	1
1300	HERPES VIRUS GROUP - NOT TYPED	1	0	0	0	0	0	0	0	0	0	1
1301	HERPES SIMPLEX VIRUS - NOT TYP	0	11	0	0	0	0	1	0	3	0	15
1302	EPSTEIN-BARR VIRUS (EB VIRUS)	0	0	10	4	0	0	2	0	4	0	20
1303	VARICELLA-ZOSTER VIRUS	0	0	0	0	0	0	0	0	1	0	1
1306	HERPES SIMPLEX TYPE 1	6	22	0	0	0	0	0	1	4	0	33
1307	HERPES SIMPLEX TYPE 2	0	93	0	0	0	0	0	0	2	0	95
1401	COXIELLA BURNETII	0	0	0	0	0	0	0	2	1	0	3
1502	PICORNIA VIRUS - NOT TYPED = E	0	0	0	0	0	0	0	0	1	0	1
1532	HEPATITIS B ANTIGEN	0	0	0	0	0	0	0	0	2	0	2
1535	HEPATITIS A ANTIBODY	0	0	0	0	0	0	0	0	1	0	1
1536	HEPATITIS C VIRUS	0	0	0	1	0	0	0	0	0	0	1
1541	CHLAMYDIA TRACHOMATIS - UNSPEC	4	74	0	0	0	0	0	0	0	0	78
1556	CMV - CYTOMEGALOVIRUS	1	2	0	0	0	4	4	7	24	0	42
1599	ENTEROVIRUS TYPING PENDING	0	0	0	0	0	0	1	2	1	0	4
9992	ROSS RIVER VIRUS	0	0	0	0	4	0	0	1	0	0	5
TOTAL		18	202	12	5	6	4	19	15	49	5	335