



# Communicable Diseases Intelligence

**Bulletin number** CDI 87/1

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Editor Dr I.F. Cook

VIRUS REPORTING SCHEME: Since the CDI was not published over the Christmas/New Year period, this issue contains a compilation of the virus reports for two generations, 8-21 December 1986 and 22 December 1986 to 4 January 1987. A total of 2 527 reports were received for the two periods.

Thirty five cases of Q fever were reported, 16 from Queensland, 15 from New South Wales and 4 from Victoria. Occupational exposure data were only available for 8 of the Queensland cases:-

- . 3 meatworkers from Brisbane, a 30 year old female and two males aged 42 and 49 years respectively.
- . one 29 year old female meatworker from Beaudesert.
- . 4 male jackaroos, two 28 year olds from Roma and Toowoomba respectively, a 27 year old from Townsville and a 21 year old from Kingaroy.

An additional case of Q fever was reported in an adult male butcher from Emerald, Queensland (Dr Lynch - personal communication). None of these 36 patients was involved in the Q fever vaccine field trial conducted in South Australia.

Cytomegalovirus was isolated from:-

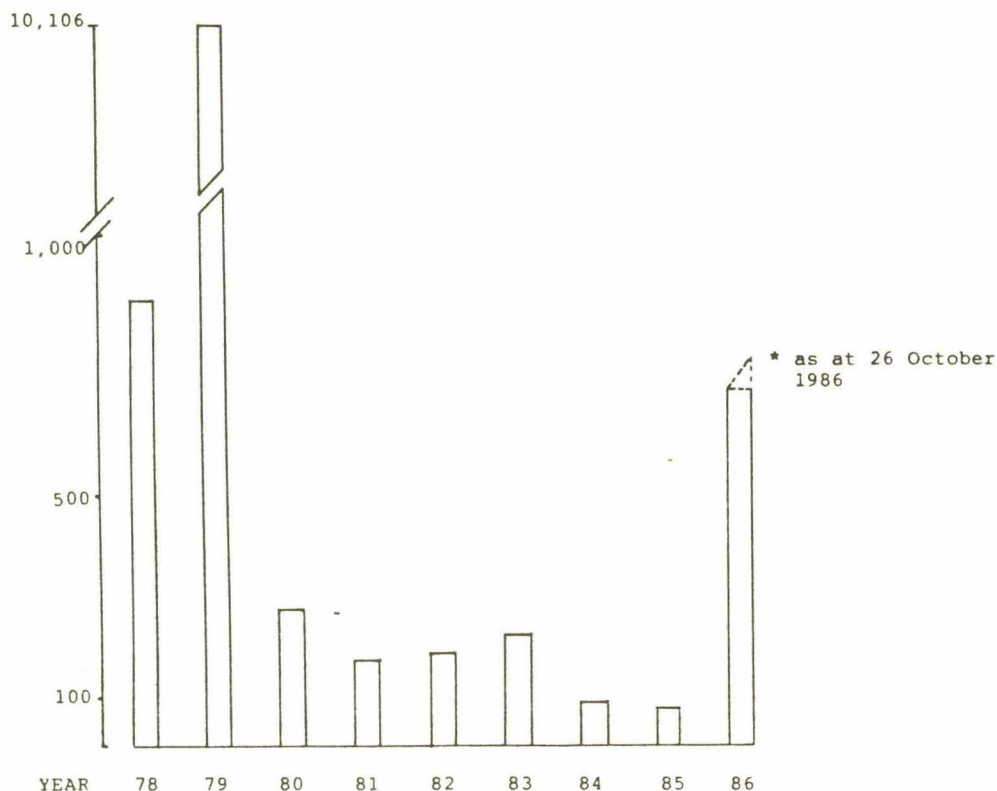
- . the bronchial washing of a 3 month old immunosuppressed male patient who had atypical pneumonia.
- . the lung lavage of a 59 year old male, receiving corticosteroid treatment, who had widespread alveolar consolidation which was unresponsive to treatment with piperacillin and gentamycin.

Specific IgM antibody to herpes simplex virus (HSV) was detected in the blood of a 30 year old asymptomatic female who experienced recurrent abortions. No clinical details were available on either the number of abortions or the gestational age of aborted fetuses.

Herpes simplex virus (HSV) was isolated from the post mortem specimens of tissues derived from the respiratory tract of a 26 year old male who died following heart lung transplantation surgery.

MEASLES IN ALBERTA - 1986: A disappointing year  
(based on "Epi Notes" Vol. 10, No. 6, 27 October 1986)

Based on data available to 26 October 1986, a marked increase in measles incidence in Alberta, Canada may become apparent in 1986. To that date, 695 cases had been reported, almost as many as the total cases for the last 5 years. Yearly incidences since 1978 have been recorded (Figure 1).



The majority of cases in the current outbreak are being laboratory confirmed, and unconfirmed cases are deleted from the statistics so that the discrepancy with previous years is much greater than the figures suggest. This observed increase appears to reflect a trend monitored in many parts of North America. However the current Alberta experience was not as severe as in several other provinces.

Approximately half of the cases have been reported from two communities:-

- . in one small community, the outbreak was related to a school operated by a religious group opposed to immunisation
- . in the other, much larger community, the high rate was related to several high school outbreaks. This community was one of the few which had opted not to follow the provincial recommendation to seek out and reimmunise children who received killed measles vaccine which was used in Alberta from 1967 to 1970. These persons are now of high school age and the severity of school outbreaks sustained in this community may reflect the impact of earlier immunisation policy. The highest rate of measles was seen in the 15-19 year age group with a slightly lower

incidence in those under 5 years. Cases were recorded in all age groups and the age distribution of cases is shown below:

0 - 4 years	188	20 - 29 years	52
5 - 9 years	135	30 - 39 years	10
10 - 14 years	97	40 - 59 years	4
15 - 19 years	194	60 years	2

age unknown 13

Males outnumbered females 363:332

Immunisation status was recorded for only 627 of the 695 cases:

- . 279 (44.5%) cases had received measles vaccine
- . 256 (40.8%) cases had not received measles vaccine
- . 66 (10.5%) cases had an unknown immunisation status
- . 26 ( 4.2%) cases were recorded as "partially immunised"

This designation appears confusing since it seems to reflect

- i) immunisation with killed vaccine only
- ii) immunisation with other agents but not MMR or measles, or
- iii) inappropriately timed measles vaccine.

The relatively high proportion of cases occurring in unimmunised persons compared with those in well immunised population suggests a relatively high vaccine efficacy but an actual efficacy calculation has not been carried out.

Although this year's experience has been a disappointing set back to the measles elimination goal adopted in 1982, it should be emphasised that the measles immunisation program performance overall has been quite effective. the current rate of around 32 per 100,000 population is considerably better than rates in the prevaccine era (339.3 in 1920, 500.9 in the 1950's) and represent a better than 90% reduction in incidence.

Further analysis of this year's experience is on-going but the following possible factors have been identified.

- a) Failure to immunise - for religious reasons, lack of motivation and, in the case of teenagers, poorer coverage in the early years of the measles vaccine program. Inaccurate documentation of measles vaccination may contribute to incomplete immunisation coverage.
- b) Vaccine failure - due to host factors, too early administration of vaccine, use of IG with immunisation, use of killed vaccine and possibly, poor handling of vaccine.
- c) Waning immunity - no available data indicate this is occurring but the possibility must be explored.
- d) late reporting and/or slow public health follow up - Intervention in school outbreaks with exclusion of susceptibles has too frequently not occurred until after at least two generations.

The measles elimination strategy still appears to be reasonable, but achievement of the goal of measles elimination will require intensified efforts to achieve full immunisation at all ages (including older school children), better

documentation of immunisation records, public and professional education and aggressive surveillance, rapid reporting, prompt public health action and enforcement of exclusion regulations where required.

MEASLES OUTBREAK - CANADA

(Based on 'Epi Notes' Vol. 10, No. 6, 27 October 1986)

Measles outbreaks affecting the Municipal District of Willow Creek and the County of Lethbridge were reported. The first case was notified on 17 April 1986 and the last case recorded on 3 June 1986.

On 17 April, three students at the Calvin Christian School were reported as having measles. The school, with 279 pupils below and including Grade 9, does not accept immunisation on religious grounds. Beyond Grade 9 the students are scattered among high schools throughout the whole area.

An examination of the school records indicated that 235 students had not been immunised or had a history of previous disease. An Exclusion Order was issued to the school on 17 April, naming the students who must be excluded on account of the cases of measles. A circular was sent through the school to parents indicating the reason for the Exclusion Order and also indicating the criteria under which the Exclusion Order would be lifted on any individual student. The criteria were as follows:

1. Immunisation or proof of immunisation, or
2. serological test results indicating immunity to measles, or
3. certificate from a physician indicating previous measles infection.

Because of the remaining small number of students in attendance the school decided to voluntarily close down for two weeks.

During the ensuing 2-3 weeks it was determined that 185 students fulfilled the criteria outlined above and were exempted from the Exclusion Order. Among the remaining 94 susceptible students, 88(93.63%) contracted the disease. There were no immunisation failures. Another 47 preschoolers in this community contracted measles.

It was not known if any children developed severe complications from the disease, such as otitis media or pneumonia.

Two weeks following the report of the first measles cases, 23 additional cases were notified in three other schools in the area of Lethbridge County. One of the schools reported measles in a teacher and 13 students who had been previously immunised with killed vaccine/live vaccine routine.

The Exclusion Order was applied to 13 of the 1,076 students of these three schools. Only 11 students were excluded since 2 students have fulfilled the criteria.

Among the above 23 measles cases, five could have been immunisation failures since the records indicated that they have received the current measles immunisation routine. Some of the children in these schools belonged to the Calvin Christian Community; one such child went on a trip to Holland with his father and was subsequently reported to have developed measles in Holland.

During the course of the outbreak Immune Serum Globulin was only offered to children, up to 3 years of age, who were family contacts. The offer was taken up by a few members of the Calvin Christian Community who accepted Immune Serum Globulin for their younger children as well as a few who had accepted immunisation which was offered after the outbreak started.

It was noted that no measles cases were reported from other parts of the county, thus indicating the efficacy of current measles immunisation. It was argued that the Exclusion Order, when applied to an unusual situation like the Calvin Christian School, may not contain the spread of measles but did persuade a few members of such community to accept immunisation.

#### MEASLES IN AN EDMONTON HIGH SCHOOL

(Based on 'Epi Notes' Vol. 10, No 6, 27 October 1986

Canada has reported increasing number of measles cases. As at 12 April 1986, 7,941 measles cases, representing a 20 fold increase on the corresponding period in 1985, have been notified, with the majority of cases recorded in British Columbia, Manitoba and Nova Scotia. Alberta reported 78 laboratory confirmed cases to 1 April 1986, compared to 24 cases recorded for the entire year in 1985.

The last major epidemic of measles in Edmonton occurred in 1979 when 2,000 cases were reported to the Board of Health. Vaccine efficacy studies conducted at the time indicated that children who had received killed measles vaccine alone or killed measles followed by live measles vaccine had minimal protection.

In April and May 1986, an outbreak of measles occurred in an Edmonton high school. The sequence of events during the outbreak together with an analysis of case histories is described below:-

- . on 19 April 1986 a confirmed case of measles was notified to the regional health centre by the parent of a grade ten student of a local high school. The school nurse encouraged students to report any illness resembling measles.
- . daily student absentee lists were obtained and any students away from school for several days with a reason of illness were contacted by phone to ascertain the possibility of measles. Such investigation revealed that several students experienced symptoms of measles, with the first known measles case occurring on 7 April 1986.
- . by 28 May 1986, 18 cases were notified and categorised as either 'confirmed', 'clinical' or 'possible' measles.

Although 9 of the 18 cases had a documented history of killed measles vaccine in infancy, no cases of 'atypical' measles were encountered.

Atypical measles, unlike classic measles, manifests as a maculopapular, petechial or vesicular rash that begins peripherally; radiological findings show frequent pulmonary infiltrates and occasional pleural effusions. The syndrome appears to be more severe and prolonged. None of the above cases developed secondary complications and the severity of the illness ranged from mild to severe.

A review of the immunisation records for the 980 students enrolled at the school located 731 (74.6%) records of students whose measles immunisation was documented as follows:-

- 679 students had records of measles immunisation given
- 36 students had no record of immunisation but were reported to have had measles
- 16 students had other notations.

Most records of measles immunisation had been dated and stamped.

Retrospective investigation of the 18 cases, aged between 14 and 18 years, revealed that, because they were born between 1 April 1968 and September 1971, they would have been subjected to the following immunisation regimes (Table 1):-

- killed measles vaccine (in use from January 1968 to October 1970) given as 3 doses at monthly intervals to complete a primary course.
- live measles vaccine (Rubeovax) given between 1 and 8 months after the third dose of killed vaccine, ie when the infant was over 1 year of age.
- in October 1970, a second live vaccine (Lirugen) was introduced to replace the killed plus live vaccine program.
- in 1973 Lirugen was substituted by a third live vaccine (Attenuvax)
- in October 1982, the current MMR (measles, mumps and rubella) vaccine program was initiated.

TABLE 1            Case Distribution by Vaccine Received

<u>Vaccine</u>	<u>Number of cases</u>
Killed "Quint" vaccine	1
Killed "Quint" plus live "Rubeovax" vaccine	9 *
Live "Lirugen" vaccine only	4
No vaccine received	2
Immunisation status unknown	2
	<u>18</u>

\* 7 had live measles vaccine within one year, 1 had live measles vaccine 3 years and 1 had live measles vaccine 8 years of receiving the last dose of killed measles "Quint" vaccine.

Serological confirmation of measles was requested by either

family physicians or public health nurses. The latter used 'fingerprick serology' technique to collect blood on filter paper prior to forwarding the specimen to the laboratory for the detection of measles specific IgM antibody. One case, whose blood was collected on the second day of rash appearing, showed IgM antibody negative despite the clinical presentation of measles, indicating that some serological tests carried out during the first days of rash appearing may produce false negatives.

The serological tests carried out on 13 of the 18 cases, produce the following results (Table 2)

TABLE 2 IgM Response by Category of Measles

	<u>Positive</u>	<u>Negative</u>	<u>Test not performed</u>	<u>TOTAL</u>
Clinical measles	10 *	1	2	13
Possible measles	2	-	3	5
	<u>12</u>	<u>1</u>	<u>5</u>	<u>18</u>

\* None of the 10 IgM positive cases identified by a physician was reported to the local health authority on the Notifiable Disease Reports.

On 29 May 1986, all students were advised that immunisation with MMR vaccine was recommended for all those who:-

- were never immunised against measles
- had received killed vaccine regardless of whether or not they have subsequently been given live measles vaccine.

For students under the age of eighteen, parental consents were requested. On 5 June 1986, a total of 299 students who attended the immunisation session, were given MMR vaccine.

MEASLES IN SCOTLAND

(Based on CDS 1986 86/41 5-8)

As at the end of June 1986, 4828 cases of measles were reported in Scotland compared with 4595 cases in the whole of 1985 or 2842 cases in the comparable half year (Table 1).

In a general practice located in the South-East district of Glasgow which is responsible for the care of approximately 3 000 patients, three consecutive analyses of measles vaccination histories of children born between 1975 and 1984 were carried out. The first analysis examined 247 children born in the period 1975-1980 and registered with the practice 1982. The second included 81 children born in 1981-1982 and registered in 1984. The third embraced 87 children born in 1983-1984 and registered in 1986. These and comparable figures for the South-East district of Glasgow, the Greater Glasgow Health Board (GGHB) and Scotland are shown in Table 2.

TABLE 1 Measles notifications, 1980-1985, for Greater Glasgow Health Board (GGHB); Scotland; and England and Wales

<u>Year</u>	<u>GGHB</u>	<u>Scotland</u>	<u>England &amp; Wales</u>
1980	776	6 646	139 485
1981	520	4 698	52 974
1982	1 727	10 581	94 195
1983	488	6 193	103 700
1984	815	4 897	62 080
1985 *	580	4 595	-
(1985)*	(423)	(2 842)	-
(1986)*	(517)	(4 828)	-

\* Figures subject to confirmation.

( ) Weeks 1-26 only.

TABLE 2 Percentage uptake of measles vaccination

Children born in	General Practice in S-E Glasgow	S-E District GGHB	GGHB	Scotland
1975 )		-	-	-
1976 )		-	-	-
1977 )	90	-	-	-
1978 )		-	-	-
1979 )		-	-	60
1980 )		66	66	57
1981 )	90	74	72	64
1982 )		77	76	-
1983 )	100	81	77	-
1984 )		-	-	-

Vaccinated by:

May	November	November	December
1982, 1984, 1986	1984	1984	1982, 1983, 1984

The generally low levels of measles vaccination in Scotland are consistent with the large numbers of measles cases reported. A major reason for the high uptake of measles vaccination in the general practice throughout the period examined is an immunisation recall scheme which automatically postcards the parents of children and gives them an appointment for their child to attend a surgery immunisation clinic in the second year of life. The improvement in the percentage uptake of measles vaccination in 1983-1984 (third study period) reflects a change in the emphasis of policy in the 1984 immunisation guidelines issued by the Department of Health and Social

Security, the Scottish Home and Health Department and the Welsh Office (SHHD). Noteworthy is the virtual absence of children excluded by reason of contraindications. In addition, where the need for special consideration arises such as a child with epilepsy or a family history thereof, immunisation is facilitated by the ready availability of a measles-specific immunoglobulin from the Regional Blood Transfusion Centre, delivered via the local hospital's Blood Transfusion Unit. Also important in the increased uptake of measles vaccination is the role of the primary-care team of the general practice in promoting and encouraging vaccination.

Given interest and effort, consistently high uptake of measles vaccine has been achieved in the general practice described above. Implementation of the 1984 SHHD immunisation guidelines resulted in 100% uptake over a two-year period. Unless the general level of measles vaccination in the community is increased, measles will continue to be an "unnecessary" disease.

#### CDI EDITORIAL NOTE

The role of primary care physicians in increasing the uptake of measles vaccination should be noted and it is to be hoped that they play a significant role in the National Campaign Against Measles currently being coordinated by the State/Territories and the Commonwealth Department of Health. Measles vaccination may be given to susceptible subjects of any age, however, it should be offered routinely to infants aged 12-15 months unless contraindicated.

Measles is a safe vaccine but should be postponed in:

- . individuals suffering from a febrile illness; minor illness is not a contraindication.

The contraindications that apply to live virus vaccines should be observed. Vaccination should be avoided in:

- . patients receiving corticosteroid or immunosuppressive treatment, including general radiation;
- . patients suffering from malignant conditions such as lymphoma, leukaemia, Hodgkin's disease or other tumours of the reticulo-endothelial system or where the normal immunological mechanism may be impaired as for example in hypogammaglobulinaemia;
- . pregnant women because of the theoretical risk of fetus infection, however, there is no evidence in practice to substantiate this risk.

Vaccination should be deferred for:

- . 3 months after a dose of immunoglobulin or other antibody-containing blood products.

If it is necessary to administer more than one live virus vaccine, the vaccines should be given simultaneously at different sites (unless a combined preparation is used), or separated by an interval of at least four weeks. It is also recommended that a three week interval be allowed between the administration of live virus vaccines and the giving of BCG vaccine.

Measles vaccine should only be given to persons hypersensitive to neomycin or polymyxin after due assessment of the risks. The vaccine contains no penicillin.

Allergy to hens' eggs is not a contraindication to the vaccine except in patients with severe hypersensitivity. Individuals with a history of anaphylactoid reactions to egg ingestion (generalised urticaria, swelling of the mouth and throat, difficulty in breathing, hypotension and shock) should only be given measles vaccine with extreme caution and only when facilities are available for resuscitation. Persons who have allergies to egg that are not of an anaphylactoid nature and those with allergies to chicken feathers may be vaccinated in the usual manner.

Measles virus inhibits the response to tuberculin, so tuberculin-positive individuals may become tuberculin-negative for up to a month after infection or immunisation with measles virus. Exacerbation of tuberculosis might occur with measles or measles vaccine, and therefore individuals known to have active tuberculosis should be under treatment when vaccinated.

Normal immunoglobulin (human) is available for individuals for whom the live vaccine is contraindicated. Normal immunoglobulin is also indicated for protection against measles in children under six months of age whose mothers have not had the disease, in children between six months and three years of age who have not been actively immunised, and in immunosuppressed contacts of the index case.

## AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

REPORTING PERIOD - 8-12-86 to 4-1-87 BULLETIN NUMBER 87/01  
 VIRAL IDENTIFICATIONS FROM CONTRIBUTING LABORATORIES

VIRUS OR VIRAL ANTIGEN	ICPMR		PHH/	FAIR-			STATE	STATE	Total
	(NSW)/ WVH (ACT)	RAHC (NSW)	POW (NSW)	FIELD (VIC)	RCH (VIC)	IMVS (SA)	LAB (QLD)	LAB (WA)	
0100 ADENOVIRUS NOT TYPED.....	8	1	4	1	11	3	8	2	38
0101 ADENOVIRUS TYPE 1.....	1					6		1	8
0102 ADENOVIRUS TYPE 2.....	3	2		3		7			15
0103 ADENOVIRUS TYPE 3.....				2		7		1	10
0104 ADENOVIRUS TYPE 4.....						2			2
0105 ADENOVIRUS TYPE 5.....				1		1		1	3
0106 ADENOVIRUS TYPE 6.....			1			2		1	4
0108 ADENOVIRUS TYPE 8.....	1							1	2
0109 ADENOVIRUS TYPE 9.....	1							1	2
0113 ADENOVIRUS TYPE 13.....	1								1
0119 ADENOVIRUS TYPE 19.....	1								1
0199 ADENOVIRUS TYPING PENDING.....		1	5		5	1			12
0201 INFLUENZA A VIRUS.....	3		1				2		6
0203 INFLUENZA B VIRUS.....	5								5
0301 PARAINFLUENZA VIRUS TYPE 1.....						1	2		3
0302 PARAINFLUENZA VIRUS TYPE 2.....				1	1		1	1	4
0303 PARAINFLUENZA VIRUS TYPE 3.....	3	2	1	1	7	20	16	9	59
0399 PARAINFLUENZA VIRUS TYPING PENDING.....			1						1
0400 RESPIRATORY SYNCYTIAL VIRUS (RS)...	1	1	5	1	1	19	10	19	57
0500 RHINOVIRUS (ALL TYPES).....		1	1		31	15	19	1	68
0600 MYCOPLASMA PNEUMONIAE.....	7	3	7	2		7	13	24	63
0700 ORNITHOSIS-PSITTACOSIS.....			1	4					5
0800 COXSACKIEVIRUSES GROUP A - NOT TYPED.....						1		1	2
0901 COXSACKIEVIRUS B1.....		1							1
1000 ECHOVIRUS NOT TYPED.....							1		1
1005 ECHOVIRUS TYPE 5.....				4					4
1008 ECHOVIRUS TYPE 8.....						1			1
1011 ECHOVIRUS TYPE 11.....	3			14	8	4			29
1014 ECHOVIRUS TYPE 14.....			1						1
1031 ECHOVIRUS TYPE 31.....						1			1
1100 POLIOVIRUS NOT TYPED.....			8		3				11
1101 POLIOVIRUS TYPE 1.....						1		1	2
1102 POLIOVIRUS TYPE 2.....	1							1	2
1103 POLIOVIRUS TYPE 3.....						1		1	2
1104 POLIOVIRUS-VACCINAL STRAIN.....						1			1
1200 MUMPS VIRUS.....				2				1	3
1300 HERPES VIRUS GROUP-NOT TYPED.....	22			2		3	1	4	32
1301 HERPES SIMPLEX VIRUS NOT-TYPED.....				1				9	10
1302 EPSTEIN-BARR VIRUS (EB VIRUS).....	11	1	5				15	11	43
1303 VARICELLA-ZOSTER VIRUS.....	4		2	1	1	1	2	8	19
1306 HERPES SIMPLEX TYPE 1.....	21		8	85	1	48	63	63	289
1307 HERPES SIMPLEX TYPE 2.....	151		23	112		21	164	93	564
1399 HERPES VIRUS TYPING PENDING.....				1	5			2	8
1401 COXIELLA BURNETI.....	15			4			16		35
1402 OTHER RICKETTSIAE.....							2		2
1502 PICORNA VIRUS-NOT TYPED.....	1		13				17	2	33
1514 MOLLUSCUM CONTAGIOSUM.....								1	1
1521 MEASLES VIRUS.....			1				3	6	10
1522 RUBELLA VIRUS.....	16	1	7	10		6	46	14	100
1532 HEPATITIS B ANTIGEN.....	111	3	17	18		47	52	22	270
1535 HEPATITIS A ANTIBODY.....	10	1	2	14		14	4	9	54
1541 CHLAMYDIA A - C TRACHOMATIS.....	68		4	48		54	46	74	294
1543 CHLAMYDIA A - LGV TYPE.....	4		10				10		24
1556 CMV - CYTOMEGALOVIRUS.....	12		5	60	8	17	18	14	134
1564 ROTAVIRUS.....	37	2	6		3	14	28	9	99
1571 ENTEROVIRUS TYPE 71 (BRCR).....	1	1		1					3
1599 ENTEROVIRUS TYPING PENDING.....		4	17		20				41
9992 ROSS RIVER VIRUS.....	1						26		27
9994 SMALL VIRUS (LIKE) PARTICLE.....	3			1					4
9995 DENGUE.....							1		1
Total.....	527	25	156	394	106	327	584	408	2,527

## AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

PERIOD : 8-12-86 to 4-1-87 BULLETIN NUMBER 87/01

Viral Identifications by Clinical Information Table 1.

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

VIRUS OR VIRAL ANTIGEN	No-ill or data	Respiratory	Encephalitis	Meningitis	Paralysis	CNS other unspec	GI	Hepatic	CVS	Urinary	Skin/ mucous memb
0101 ADENOVIRUS TYPE 1.....		4		1			1				
0102 ADENOVIRUS TYPE 2.....	1	7					4				1
0103 ADENOVIRUS TYPE 3.....		7									
0105 ADENOVIRUS TYPE 5.....		1				1					
0106 ADENOVIRUS TYPE 6.....		2					1				
0108 ADENOVIRUS TYPE 8.....		1									
0109 ADENOVIRUS TYPE 9.....	1										
0113 ADENOVIRUS TYPE 13.....							1				
0201 INFLUENZA A VIRUS.....		6									
0203 INFLUENZA B VIRUS.....	1	3									
0301 PARAINFLUENZA VIRUS TYPE 1....		3									
0302 PARAINFLUENZA VIRUS TYPE 2....		3						1			
0303 PARAINFLUENZA VIRUS TYPE 3....	1	51									
0400 RESPIRATORY SYNCYTIAL VIRUS (RS).....	1	52							1		2
0500 RHINOVIRUS (ALL TYPES).....	1	44					1				
0600 MYCOPLASMA PNEUMONIAE.....	7	38									3
0700 ORNITHOSIS-PSITTACOSIS.....	2	2					1				
0800 COXSACKIEVIRUSES GROUP A - NOT TYPED.....		1									1
0901 COXSACKIEVIRUS B1.....				1							
1005 ECHOVIRUS TYPE 5.....		1		2							
1008 ECHOVIRUS TYPE 8.....							1				
1011 ECHOVIRUS TYPE 11.....	2	6		19		1	1				1
1031 ECHOVIRUS TYPE 31.....				1							
1101 POLIOVIRUS TYPE 1.....		1									
1102 POLIOVIRUS TYPE 2.....		1		1							
1103 POLIOVIRUS TYPE 3.....		2									
1200 MUMPS VIRUS.....	2	1									
1301 HERPES SIMPLEX VIRUS NOT-TYPED		1		2		1					4
1302 EPSTEIN-BARR VIRUS (EB VIRUS)...	7	4	1			1		3			1
1303 VARICELLA-ZOSTER VIRUS.....	2	1		2		3					11
1306 HERPES SIMPLEX TYPE 1.....	5	9		1		1	1			3	164
1307 HERPES SIMPLEX TYPE 2.....	15	1									120
1401 COXIELLA BURNETI.....	13	4									1
1402 OTHER RICKETTSIAE.....											1
1502 PICORNA VIRUS-NOT TYPED.....						1	1				
1514 MOLLUSCUM CONTAGIOSUM.....											1
1521 MEASLES VIRUS.....		5	2			1	3				2
1522 RUBELLA VIRUS.....	17	7	3								64
1532 HEPATITIS B ANTIGEN.....	91							153			
1535 HEPATITIS A ANTIBODY.....	14							30			
1541 CHLAMYDIA A - C.TRACHOMATIS...	45										
1543 CHLAMYDIA A - LGV TYPE.....	14										
1556 CMV - CYTOMEGALOVIRUS.....	24	37					1	6		11	6
1564 ROTAVIRUS.....	3					1	95				
1571 ENTEROVIRUS TYPE 71 (BRCR)....				3							
9992 ROSS RIVER VIRUS.....	2	1	15								1
9994 SMALL VIRUS (LIKE) PARTICLE...							4				
Total.....	271	307	21	33	1	10	116	193	1	14	384

## AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

PERIOD : 8-12-86 to 4-1-87 BULLETIN NUMBER 87/01

Viral Identifications by Clinical Information Table 2.

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

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

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

VIRUS OR VIRAL ANTIGEN	Eye	Gen-ital	Endo/sal gland	RES	Muscle/joint	Con-genital	PUO	Fever/mal-aise	Other	SIDS
0100 ADENOVIRUS NOT TYPED.....	1									
0101 ADENOVIRUS TYPE 1.....							1		1	
0102 ADENOVIRUS TYPE 2.....							2			
0103 ADENOVIRUS TYPE 3.....						1	1		1	
0104 ADENOVIRUS TYPE 4.....	2									
0105 ADENOVIRUS TYPE 5.....						1		1		
0106 ADENOVIRUS TYPE 6.....	1									
0108 ADENOVIRUS TYPE 8.....	1									
0109 ADENOVIRUS TYPE 9.....	1									
0119 ADENOVIRUS TYPE 19.....	1									
0201 INFLUENZA A VIRUS.....								2		
0203 INFLUENZA B VIRUS.....							1	1		
0302 PARAINFLUENZA VIRUS TYPE 2....										1
0303 PARAINFLUENZA VIRUS TYPE 3....					2		3	5		1
0400 RESPIRATORY SYNCYTIAL VIRUS (RS).....						1		1		1
0500 RHINOVIRUS (ALL TYPES).....							1	1		2
0600 MYCOPLASMA PNEUMONIAE.....					6	1		11		4
1005 ECHOVIRUS TYPE 5.....								2		
1014 ECHOVIRUS TYPE 14.....						1				
1101 POLIOVIRUS TYPE 1.....	1	1								
1104 POLIOVIRUS-VACCINAL STRAIN....										1
1300 HERPES VIRUS GROUP-NOT TYPED..		3								
1302 EPSTEIN-BARR VIRUS (EB VIRUS)..			9	7	2		2	11		3
1303 VARICELLA-ZOSTER VIRUS.....										2
1306 HERPES SIMPLEX TYPE 1.....	10	89	1				1	1		4
1307 HERPES SIMPLEX TYPE 2.....		429								
1399 HERPES VIRUS TYPING PENDING...		1								
1401 COXIELLA BURNETI.....					3		4	16		1
1502 PICORNA VIRUS-NOT TYPED.....										1
1521 MEASLES VIRUS.....								2		
1522 RUBELLA VIRUS.....			6	1	10		1	10		9
1532 HEPATITIS B ANTIGEN.....										26
1535 HEPATITIS A ANTIBODY.....										10
1541 CHLAMYDIA A - C.TRACHOMATIS...	4	244								1
1543 CHLAMYDIA A - LGV TYPE.....		8								2
1556 CMV - CYTOMEGALOVIRUS.....		6	1		2	4	3	7		38
1564 ROTAVIRUS.....										1
9992 ROSS RIVER VIRUS.....			1		6			2		2
9995 DENGUE.....					1					
Total.....	22	781	18	8	32	9	20	73	112	1

## NOTIFIABLE DISEASES REPORTED IN AUSTRALIA

Period 9 - 9 August to 5 September 1986

Bulletin..CDI.87/1.

Disease	N.S.W.	VIC.	Q.D.	S.A.	W.A.	TAS.	N.T.	A.C.T.	Total	Cumulative Total to Date for Year
Amoebiasis	4	1	1	1					7	37
Ankylostomiasis			1	4			NN		5	27
Anthrax									-	-
Arbovirus infection	2	2	31		NN				35	1 098
Brucellosis									-	11
Campylobacter infections	86	2	NN	127	16	NN	5	NN	236	1 776
Chancroid				NN	1				1	9
Cholera									-	-
Congenital rubella syndrome			NN			NN		NN	-	-
Diphtheria							1		1	26
Donovanosis			8	NN	1				9	99
Giardiasis	23		NN	76	4	NN	NN	NN	103	890
Genital herpes	81		3	27	NN	NN	3	NN	114	944
Gonococcal ophthalmia neonatorum		NN			NN	NN		NN	-	-
Gonorrhoea	73		71	55	106	3	22	6	336	3 325
Hepatitis A (infectious)	14	9	26	45	28	2	6		130	1 318
Hepatitis B (serum)	28	16	39	10	26		2	2	123	* 1 261
Hepatitis - unspecified	3	4	2	1	NN	NN			10	106
Hydatid disease					1				1	* 8
Lassa fever			NN			NN		NN	-	-
Legionnaires disease	3	2	NN			NN		NN	5	55
Leprosy									-	15
Leptospirosis			16						16	132
Lymphogranuloma venereum				NN	NN	NN		NN	-	2
Marburg disease			NN			NN		NN	-	-
Malaria	12	6	49	7	3		2	2	81	509
									-	-
Meningococcal infections		1	1		4	NN			6	31

Disease	N.S.W.	VIC.	QD.	S.A.	W.A.	TAS.	N.T.	A.C.T.	Total	Cumulative Total to Date for Year
Non-specific urethritis	244		40	27	NN	NN	NN	NN	311	3 147
Ornithosis				2	1				3	29
Pertussis (whooping cough)	3		NN	3	4	NN		NN	10	423
Plague									-	-
Poliomyelitis									-	-
Q. fever	13	1	22	7					43	222
Rabies				NN		NN		NN	-	-
Salmonella infections	34	11	31	22	5	3	12		118	1 839
Shigella infections	6	1	6	3	8		15		39	599
Smallpox									-	-
Syphilis	23		52	5	10		67		157	* 1 534
Tetanus			1						1	5
Trachoma		NN			79	NN	NN		79	141
Tuberculosis (all forms)	17	21	17	4	16		1	NN	76	* 715
Typhoid fever		1	1						2	26
Typhus (all forms)									-	12
Vibrio parahaemolyticus infections			NN			NN		NN	-	5
Yellow fever									-	-
Yersinia infections	3		NN	1		NN		NN	4	57

NN - Not Notifiable

(Note: Data collected under the Notifiable Diseases Returns may bear little or no correlation to that collected under the CDI laboratory scheme. Whilst the latter is a sampling program, the Notifiable Diseases data is dependent upon voluntary reporting by medical practitioners etc.)

\* Adjustment to the Cumulative Total since last report

Hepatitis B (serum)	+1	South Australia
Hydatid disease	+1	South Australia
Syphilis	+2	South Australia
Tuberculosis (All forms)	+4	South Australia