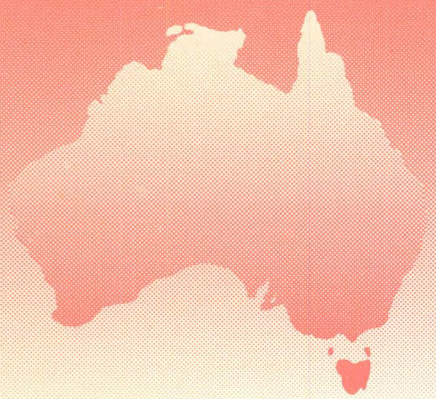

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DEPARTMENT OF HEALTH, HOUSING AND COMMUNITY SERVICES

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

ANNUAL REPORT OF THE NATIONAL NOTIFIABLE DISEASES SURVEILLANCE SYSTEM, 1991

(Ponnuthurai Anura and Robert Hall, for the Communicable Diseases Network-Australia)

National data on the surveillance of notifiable diseases have been published by the Department of Health, Housing and Community Services and its predecessor departments since 1924[1]. These data have been compilations of statistics provided by State and Territory health authorities, generally made on an annual basis. *CDI* has published reports on notifiable diseases since its first appearance in 1978, however, no annual report on nationally notifiable diseases has previously been published.

In 1990, under the auspices of the Communicable Diseases Network - Australia, the National Notifiable Diseases Surveillance System (NNDSS) was established. In 1978, the NHMRC had recommended a uniform list of notifiable diseases[2], but it was not adopted by the States and Territories. In 1990, the Communicable Diseases Network Australia adopted a new list, so that in 1991, data on 40 notifiable diseases were supplied by the States and Territories, and starting in 1992, data on mumps and botulism are also being collected. In June 1992, the NHMRC recommended this list of notifiable diseases (Table 1) and recommended that all States and Territories adopt it by the end of 1993[3].

The data presented here must be interpreted with caution for several reasons. First, the proportion of cases notified is not known with certainty for any disease, and the proportion notified is likely to vary among diseases; serious, rare diseases are more likely to be notified than common diseases without serious clinical effects. Second, there are no uniform surveillance case definitions for notifiable diseases across Australia; each State and Territory health authority determines which notifications are accepted, using its own criteria. Third, the sources of the notifications differ among the States and Territories; notifications may be required from treating clinicians, diagnostic laboratories and/or hospitals, and in some cases, different diseases are notifiable from different sources.

Because surveillance case definitions and sources of notifications vary, comparisons between States and Territories may therefore not be justifiable. Comparisons with data from previous years must also be made cautiously, as changes over time may not be due to changes in disease incidence. Since 1990, there have been significant changes to public health legislation in some States and Territories, with the consequence that there have been major improvements in communicable disease surveillance systems in many places, and resulting increases in notifications received, as documented recently, for example, in New South Wales[4], and Victoria[5].

During 1991, data were supplied by all States and Territories to the NNDSS at the Communicable Diseases Section of the Department of Health, Housing and Community Services. A standard computerised format was used, and each fortnight, cumulative data were reported for the period 1 January 1991 to the last day of the reporting fortnight. Each fortnight's data thus superseded previous reports, so this system allowed States and Territories to edit and correct data reported in previous reporting periods.

For each case notified, the States and Territories provide a unique identifier code, the disease, and the date of notification of the case to the relevant health authority. Each record can also include age, sex and postcode of residence of the case, Aboriginality, date of onset of disease, confirmation status of the notification, and fortnight of reporting to the NNDSS.

Reports from the States and Territories were compiled into a national database each fortnight. Records without valid data in the compulsory fields were deleted, as were duplicate records. For some diseases there were significant differences in case definitions in some States and Territories, and where appropriate, these were recoded to the NNDSS disease categories. For example, New South Wales' categories of 'meningococcal meningitis', 'meningococcal septicaemia' and 'meningococcal infection not otherwise specified' were all recoded to 'meningococcal infection' for the national database.

The resulting national dataset, which may therefore differ slightly from those prepared by State and Territory health authorities, was used to generate the reports of the most recent reporting fortnight and the year to date data published in *CDI* for each period. A delay of only 16 days from the last day of the reporting period to the date of publication was involved in this process.

In this analysis, cases are reported according to the date of notification to maintain consistency with data presented regularly in *CDI*. Rates were calculated using estimated populations as at 30 June 1991, supplied by the Australian Bureau of Statistics. Rates have been adjusted, where appropriate, by exclusion of relevant State or Territory populations from the denominator for diseases not notified in every State and Territory. Data storage, editing and analysis was performed using the EpiInfo package on microcomputer.

Table 1. Current status of National Notifiable Diseases as recommended by the NHMRC in June 1992, by State or Territory

DISEASES	ACT	NSW	NT	Qld	SA	Tas	Vic	WA
Arbovirus infection (NEC)[1]			NN					
Ross River virus infection		-			-	-		
Dengue		-			-	-		-
Botulism[2]		-	NN	NN	NN			NN
Brucellosis								
Campylobacteriosis[2]		-						
Chancroid		NN			NN	NN		
Chlamydial infection (NEC)[3]		NN						
Cholera								
Diphtheria								
Donovanosis		NN			NN	NN		
Gonococcal infection[4]								
Haemophilus influenzae type b infection[5]			NN					NN
Hepatitis A								
Hepatitis B								
Hepatitis C			NN		NN			NN
Hepatitis (NEC)								NN
HIV infection[6]								
Hydatid infection								
Legionellosis								
Leprosy								
Leptospirosis								
Listeriosis			NN		NN			
Lymphogranuloma venereum		NN			NN	NN		NN
Malaria								
Measles								
Meningococcal infection								
Mumps			NN	NN	NN	NN		NN
Ornithosis		NN						
Pertussis								
Plague						NN		
Poliomyelitis								
Q fever								
Rabies		NN						
Rubella[7]								
Salmonellosis (NEC)								
Shigellosis[2]								
Syphilis								
Tetanus				NN				
Tuberculosis								
Typhoid[8]								
Viral haemorrhagic fever (NEC)								
Yellow fever								
Yersiniosis[2]								

1. NSW, SA, Tas: includes Ross River virus and dengue. WA: includes dengue.
2. NSW: only as 'foodborne disease' or 'gastroenteritis in an institution'.
3. SA, WA: trachoma only.
4. NT, Qld, SA and Vic: includes gonococcal neonatal ophthalmia.
5. SA: only as 'bacterial meningitis'; meningococcal infection is separately notified; Tas: only as 'non-meningococcal meningitis'; Vic: epiglottitis and meningitis only.
6. ACT: AIDS only.
7. NT, Tas, WA: CRS only; ACT, NSW, Qld: rubella only; SA, Vic: rubella and CRS.
8. ACT, NSW and Vic: includes paratyphoid.
9. SA and WA: Marburg, Ebola and Lassa fevers only.
   Tas: Marburg, Ebola, Crimean-Congo and Lassa fevers only.

NN Not Notifiable.

NEC Not Elsewhere Classified.

\- Elsewhere Classified.

Table 2. National Notifiable Diseases, 1991, by State or Territory

DISEASES	ACT	NSW	NT	Qld	SA	Tas	Vic[10]	WA	TOTAL
Arbovirus infection (NEC)[1]	0	65	2	35	72	25	1	1	201
Ross River virus infection	0	402	486	2119	-	-	390	135	3532
Dengue	0	0	0	43	-	-	3	-	46
Brucellosis	0	2	0	24	0	0	2	0	28
Campylobacteriosis[2]	95	-	409	2644	1581	729	2303	911	8672
Chancroid	0	NN	0	0	NN	NN	0	0	0
Chlamydial infection (NEC)[3]	55	NN	477	2306	0	392	814	0	4044
Cholera	0	0	0	0	0	0	0	0	0
Diphtheria	0	0	5	2	0	0	1	0	8
Donovanosis	0	NN	17	17	NN	NN	0	38	72
Gonococcal infection[4]	10	395	730	500	67	14	162	652	2530
Haemophilus influenzae type b infection[5]	10	218	0	112	53	16	140	0	549
Hepatitis A	21	1026	71	247	112	14	457	247	2195
Hepatitis B	47	1250	37	1642	28	51	80[10]	517	3652
Hepatitis C	59	657	10	1690	NN	33	1667	NN	4116
Hepatitis (NEC)	4	217	0	99	4	1	13	NN	338
HIV infection[6]	19	NN	NN	NN	34	NN	NN	NN	53
Hydatid infection	0	7	0	31	0	1	3	2	44
Legionellosis	1	26	0	29	21	0	18	15	110
Leprosy	0	0	3	0	0	0	6	4	13
Leptospirosis	0	29	0	53	5	3	75	4	169
Listeriosis	NN	8	NN	7	NN	3	26	0	44
Lymphogranuloma venereum	0	NN	0	0	NN	NN	0	NN	0
Malaria	23	139	46	417	40	10	79[10]	36	790
Measles	62	418	90	139	144	24	444	59	1380
Meningococcal infection	2	112	12	7	18	14	80	40	285
Ornithosis	4	NN	2	2	31	0	94	3	136
Pertussis	7	45	0	131	44	2	65	43	337
Plague	0	0	0	0	0	NN	0	0	0
Poliomyelitis	0	0	0	0	0	0	0	0	0
Q fever	1	175	0	358	26	0	30	5	595
Rabies	NN	NN	0	0	0	0	0	0	0
Rubella[7]	102	59	3	192	89	5	170	0	620
Salmonellosis (NEC)	36	1161	471	1443	491	210	903	725	5440
Shigellosis[2]	4	-	361	87	88	1	80	281	902
Syphilis	5	588	457	518	197	8	28[10]	252	2053
Tetanus	0	3	1	NN	1	0	0	2	7
Tuberculosis	16	287	31	109	63	21	0[10]	63	590
Typhoid[8]	1	57	1	13	5	0	1[10]	11	89
Viral haemorrhagic fever (NEC)[9]	NN	0	0	0	0	0	0	0	0
Yellow fever	0	0	0	0	0	0	0	0	0
Yersiniosis[2]	NN	-	18	255	180	0	60	2	515
Total	584	7346	3740	15271	3394	1577	8195	4048	44155

1. NSW, SA, ACT, Tas: includes Ross River virus and dengue. WA: includes dengue.
2. NSW: only as 'foodborne disease' or 'gastroenteritis in an institution'.
3. ACT, SA, WA: trachoma only.
4. NT, Qld, SA and Vic: includes gonococcal neonatal ophthalmia.
5. SA: only as 'bacterial meningitis'; meningococcal infection is separately notified; Tas: only as 'non-meningococcal meningitis'; Vic: epiglottitis and meningitis only.
6. More complete data on new diagnoses of HIV infections are presented in the monthly *Australian HIV Surveillance Report*. ACT: AIDS only.
7. NT, Tas, WA: CRS only; ACT, NSW, Qld: rubella only; SA, Vic: rubella and CRS.
8. NSW and Vic: includes paratyphoid.
9. SA and WA: Marburg, Ebola and Lassa fevers only; Tas: Marburg, Ebola, Crimean-Congo and Lassa fevers only.
10. Health Department Victoria has provided corrected data for hepatitis B (1798 acute and prevalent cases), malaria (111 cases), syphilis (86 cases), tuberculosis (244 cases), typhoid (21 cases) and paratyphoid (15 cases). These extra data were however, not supplied with unique identifer codes and reporting dates, and so have not been incorporated into the National Database or included in the analysis made of the data for this report.

NN Not Notifiable.

NEC Not Elsewhere Classified.

\- Elsewhere Classified.

Results

A total of 44,152 notifications was received by the NNDSS for 1991 from all States and Territories (Table 2). There was a 69% increase in notifications from 1990 (26,000) to 1991 (44,152). Most of this increase was almost certainly due to improved disease surveillance in all States and Territories, and occurred after 6 years of gradual increase from 1985 (Figure 1).

Figure 1. Total notifications, 1985-91, by year

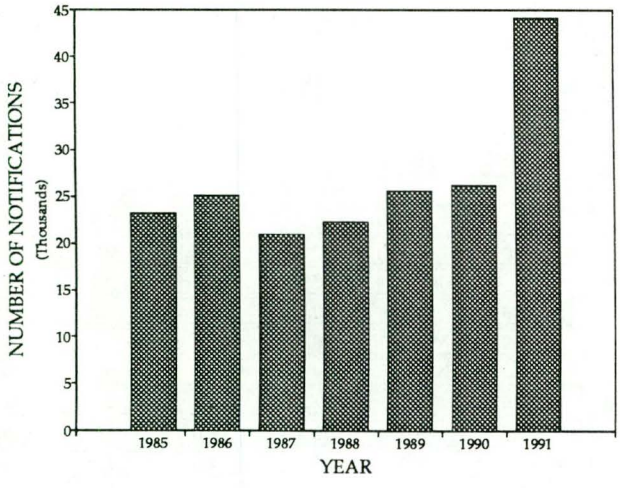
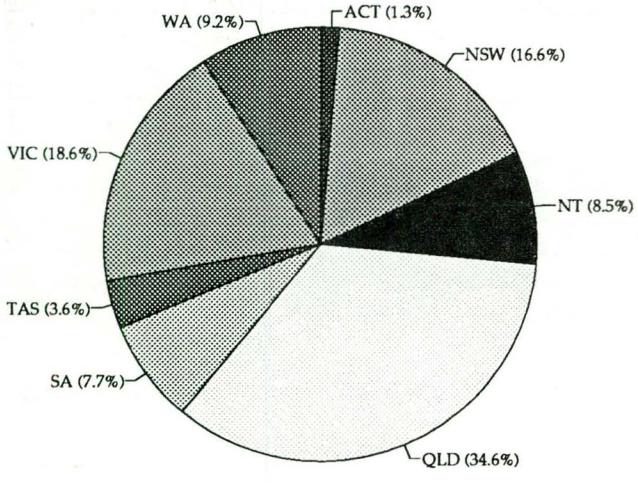


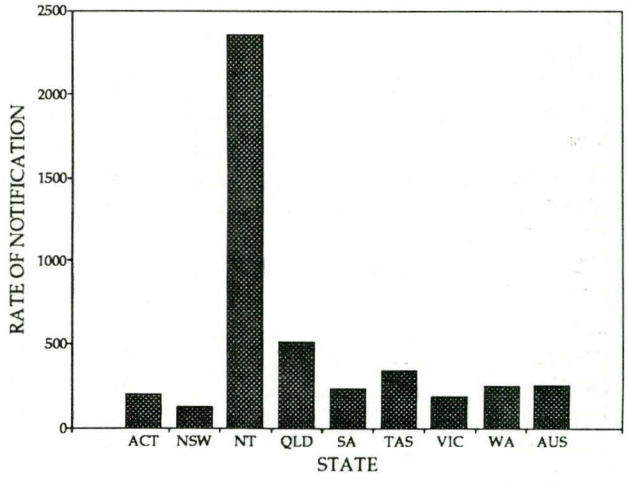
Figure 2. Total notifications, 1991, by State or Territory (per cent of total)



Queensland was the major contributor of reports to the NNDSS, with 34.6% of all notifications. Victoria provided 18.6%, NSW 16.6% and the other States and Territories provided less than 10% each (Figure 2).

The overall crude notification rate for Australia was 254.7 notifications per 100,000 population. There were marked differences between the States and Territories (Figure 3). NSW had the lowest rate of notification at 124.5 per 100,000 population and the Northern Territory had the highest at 2,353.6 notifications per 100,000. Rates in most States and Territories were between those for New South Wales and for Queensland (513.8 notifications per 100,000). The rates for the Northern Territory, Queensland and Tasmania exceeded the rate for Australia as a whole. The disparity in rates probably reflects a number of factors including the number, size and geographical dispersion of population centres and the proportion of all cases which was notified.

Figure 3. Notification rate per 100,000 population, 1991, by State or Territory



Overall, the highest annual notification rate for any disease was for campylobacteriosis (75.8 per 100,000 population), followed by chlamydial infection (48.7 per 100,000), salmonellosis (31.4 per 100,000), hepatitis C (29.0 per 100,000), Ross River virus infection (22.9 per 100,000) and hepatitis B (21.0 per 100,000)(Table 3). There were wide variations between States and Territories, with the highest disease and State specific rate being for gonococcal infection in the Northern Territory (459.8 per 100,000).

Table 3. National Notifiable Diseases, annual rate per 100,000 population, 1991, by State or Territory

DISEASES	ACT	NSW	NT	Qld	SA	Tas	Vic[10]	WA	Australia
Arbovirus infection (NEC)[1]	0	1.1	1.3	1.2	4.9	5.4	0	0.1	1.2
Ross River virus infection	0	6.8	306.1	71.3	-	-	8.8	8.1	22.9
Dengue	0	0	0	1.4	-	-	0.1	NN	0.3
Brucellosis	0	0	0	0.8	0	0	0	0	0.2
Campylobacteriosis[2]	32.4	-	257.6	89.0	108.5	158.3	52.0	54.7	75.8
Chancroid	0	NN	0	0	NN	NN	0	0	0
Chlamydial infection (NEC)[3]	18.7	NN	300.4	77.6	0	85.1	18.4	0	48.7
Cholera	0	0	0	0	0	0	0	0	0
Diphtheria	0	0	3.1	0.1	0	0	0	0	0
Donovanosis	0	NN	10.7	0.6	NN	NN	0	2.3	0.8
Gonococcal infection[4]	3.4	6.7	459.8	16.8	4.6	3.0	3.7	39.1	14.6
Haemophilus influenzae type b infection[5]	3.4	3.7	NN	3.8	3.6	3.5	3.2	NN	3.5
Hepatitis A	7.2	17.4	44.7	8.3	7.7	3.0	10.3	14.8	12.7
Hepatitis B	16.0	21.2	23.3	55.2	1.9	11.1	1.8	31.0	21.1
Hepatitis C	20.1	11.1	6.3	56.9	NN	7.2	37.7	NN	29.0
Hepatitis (NEC)	1.4	3.7	0	3.3	0.3	0.2	0.3	NN	2.2
HIV infection[6]	6.5	NN	NN	NN	2.3	NN	NN	NN	3.0
Hydatid infection	0	0.1	0	1.0	0	0.2	0.1	0.1	0.3
Legionellosis	0.3	0.4	0	1.0	1.4	0	0.4	0.9	0.6
Leprosy	0	0	1.9	0	0	0	0.1	0.2	0.1
Leptospirosis	0	0.5	0	1.8	0.3	0.7	1.7	0.2	1.0
Listeriosis	NN	0.1	NN	0.2	NN	0.7	0.6	0	0.3
Lymphogranuloma venereum	0	NN	0	0	NN	NN	NN	0	0
Malaria	7.8	2.4	29.0	14.0	2.7	2.2	1.8	2.2	4.6
Measles	21.1	7.1	56.7	4.7	9.9	5.2	10.0	3.5	8.0
Meningococcal infection	0.7	1.9	7.6	0.2	1.2	3.0	1.8	2.4	1.6
Ornithosis	1.4	NN	1.3	0.1	2.1	0	2.1	0.2	1.2
Pertussis	2.4	0.8	0	4.4	3.0	0.4	1.5	2.6	1.9
Plague	0	0	0	0	0	NN	0	0	0
Poliomyelitis	0	0	0	0	0	0	0	0	0
Q fever	0.3	3.0	0	12.0	1.8	0	0.7	0.3	3.4
Rabies	NN	NN	0	0	0	0	0	0	0
Rubella[7]	34.7	1.0	1.9	6.5	6.1	1.1	3.8	0	3.6
Salmonellosis (NEC)	12.3	19.7	296.6	48.6	33.7	45.6	20.4	43.5	31.4
Shigellosis[2]	1.4	-	227.4	2.9	6.0	0.2	1.8	16.9	7.9
Syphilis	1.7	10.0	287.8	17.4	13.5	1.7	0.6	15.1	11.8
Tetanus	0	0.1	0.6	NN	0.1	0	0	0.1	0
Tuberculosis	5.5	4.9	19.5	3.7	4.3	4.6	0	3.8	3.4
Typhoid[8]	0.3	1.0	0	0.4	0.3	0	0	0.7	0.5
Viral haemorrhagic fever (NEC)	0	0	0	0	0	0	0	0	0
Yellow fever	0	0	0	0	0	0	0	0	0
Yersiniosis[2]	NN	-	11.3	8.6	12.4	0	1.4	0.1	4.6
Total	199.0	124.5	2353.6	513.8	233.0	342.5	185.1	243.0	254.7

1. NSW, SA, ACT, Tas: includes Ross River virus and dengue. WA: includes dengue.
2. NSW: only as 'foodborne disease' or 'gastroenteritis in an institution'.
3. ACT, SA, WA: trachoma only.
4. NT, Qld, SA and Vic: includes gonococcal neonatal ophthalmia.
5. SA: only as 'bacterial meningitis'; meningococcal infection is separately notified; Tas: only as 'non-meningococcal meningitis'; Vic: epiglottitis and meningitis only.
6. More complete data on new diagnoses of HIV infections are presented in the monthly *Australian HIV Surveillance Report*. ACT: AIDS only.
7. NT, Tas, WA: CRS only; ACT, NSW, Qld: rubella only; SA, Vic: rubella and CRS.
8. NSW and Vic: includes paratyphoid.
9. SA and WA: Marburg, Ebola and Lassa fevers only; Tas: Marburg, Ebola, Crimean-Congo and Lassa fevers only.
10. Some Victorian cases of hepatitis B, malaria, syphilis, tuberculosis, typhoid and paratyphoid have not been included. For further details, see Note 10 for Table 2.

NN Not Notifiable.

NEC Not Elsewhere Classified.

\- Elsewhere Classified.

There was no clear seasonal variation in notifications for 1991, with a mean of 3,679 notifications recorded per month (Figure 4). The highest number of notifications recorded was in April (4,852) and the lowest was in January (2320). The reasons for these disparities are not apparent.

Figure 4. Total notifications, 1991, by month

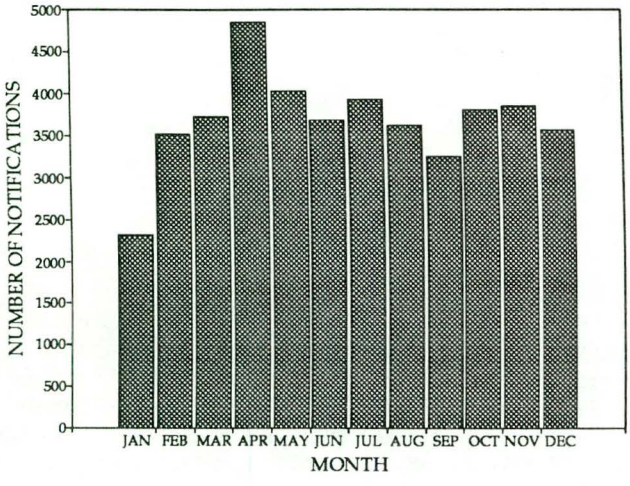
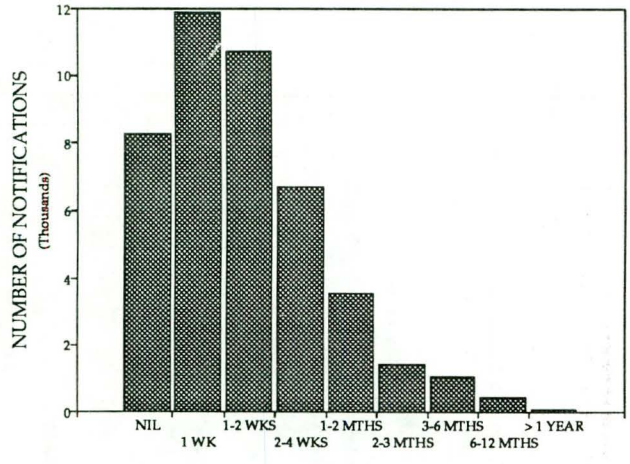


Figure 5. Total notifications, 1991, by notification delay.



Age was recorded in 95% of notifications. The highest rate was in the 0-4 years age group (571.0 per 100,000) followed by the 20-24 years age group (402.0 per 100,000). The lowest rate was in the 65+ years age group. This distribution may be explained by differing age-specific attack rates for the various notifiable diseases, and the proportions of cases notified within each age category. All States and Territories showed a similar pattern, except the ACT, where the 5-9 years age group had the highest rate. The seven commonest diseases notified in the 0-4 years age group were campylobacteriosis, salmonellosis, shigellosis, *Haemophilus influenzae* type b infection, measles and pertussis.

Sex was recorded in 97.5% of notifications. There were more males (52.5% of all notifications) than females (45.0% of all notifications) and notification rates in males were higher at (268. per 100,000) than in females (228. per 100,000). A similar pattern was observed in all States and Territories except in the Northern Territory and Tasmania where rates in females exceeded those in males.

Nationally, 74% of all notifications were recorded as 'confirmed' by appropriate clinical or laboratory methods. There was wide variation between States and Territories reflecting the differing systems of notifiable disease surveillance.

Date of onset was supplied in 99.7% of all notifications (44,027). Notification delay (calculated from the date of onset, where known, and the date of notification) varied from nil (notification on the date of onset) in 8,262 cases, to more than a year in 59 cases (Figure 6). Excluding cases where date of onset was the same as date of notification, 33.3% of notifications were made within one week and 81.8% within 4 weeks of the recorded date of onset.

The remainder of this report is confined to discussion of selected notifiable diseases only. AIDS and HIV surveillance is conducted by the National Centre for HIV Epidemiology and Clinical Research, and the Australian Malaria Register and the National Tuberculosis Surveillance System will report separately.

Arbovirus Infection

There were 3,779 notifications of arbovirus infection in 1991, including 3,532 notifications of Ross River virus infection, and 46 notifications of dengue. The remaining 201 notifications were of other unspecified arbovirus infections.

Ross River Virus Infection

Ross River virus infection was the sixth most commonly notified condition in 1991 with 3,532 reports, or an annual rate of 22.9 reports per 100,000 population. Most reports were from Queensland with 2,119 notifications, followed by the Northern Territory and New South Wales with 486 and 402 notifications respectively. There was a bell-shaped age distribution of cases (Figure 6) with the peak incidence being in the 30-34 years age group for females and the 35-39 years age group for males. Activity of this virus was predominantly in the earlier part of the year, peaking in April and declining with the onset of the colder months (Figure 7).

Figure 6. Ross River virus infection notifications, annual rate per 100,000 population, 1991, by age group and sex

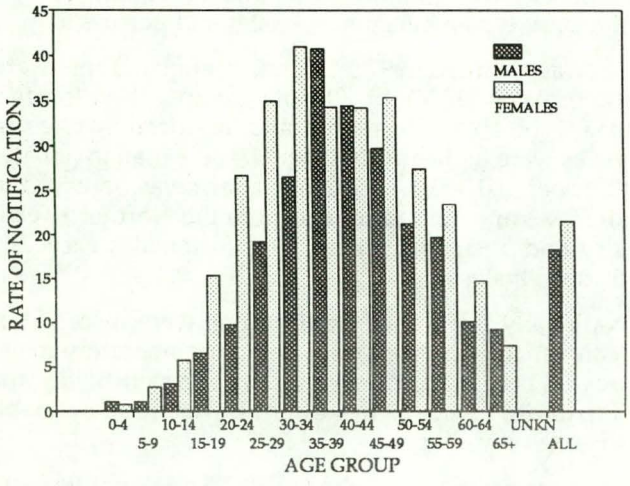
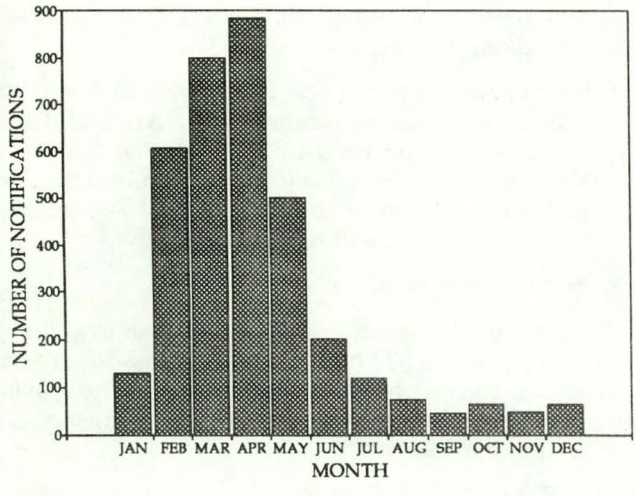


Figure 7. Ross River virus infection notifications, 1991, by month



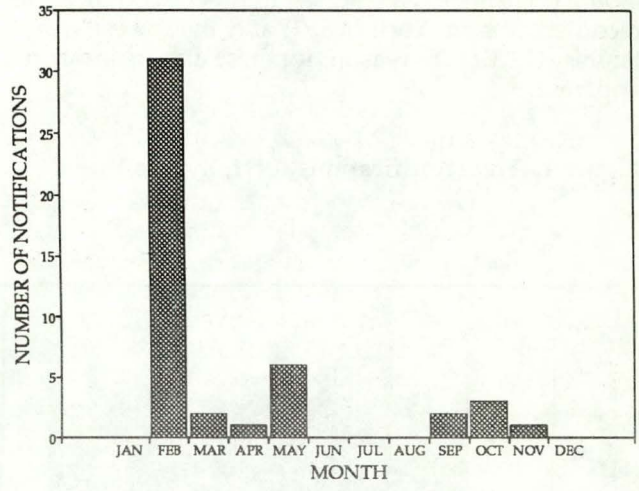
Dengue

There were 46 reports of dengue in 1991, 43 from Queensland and 3 from Victoria. The NNDSS does not collect information on the probable country of exposure, and it was not possible to determine what proportion of these cases were indigenous to Australia. There was no discernible age or sex pattern to the cases. Just over two thirds of cases were reported in February (Figure 8).

Brucellosis

A total of 28 notifications of brucellosis was received, Sex was recorded as male in 22 of these, and the age range was from 15 to 59 years.

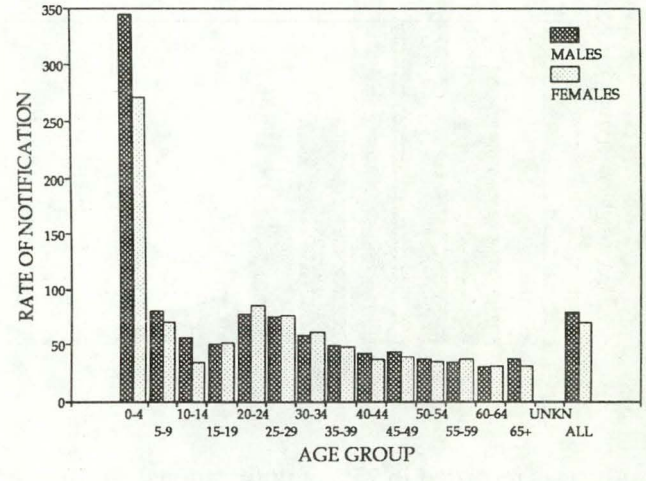
Figure 8. Dengue notifications, 1991, by month



Campylobacteriosis

Campylobacteriosis was the most commonly notified condition, despite the fact that the disease was only notifiable in some States as 'foodborne illness' or if cases occurred in clusters. There were 8,672 notifications with a rate of 75.8 notifications per 100,000 population per year. Most cases (25%) were in the 0-4 years age group, with an annual rate of 312.7 per 100,000 (Figure 9). There was no clear trend over the year.

Figure 9. Campylobacter notifications, annual rate per 100,000 population, 1991, by age group and sex



Chlamydial Infection

This infection was the fourth most common infection reported. However, this must be interpreted with extreme caution, as several States and Territories require notification of trachoma only. Furthermore, chlamydial infection may not be symptomatic and the proportion of cases notified may be quite low. The age-sex distribution shows that most reported cases were in females in the 20-24 years age group.

Diphtheria

Eight notifications of diphtheria were received, 6 male and 2 female.

Donovanosis

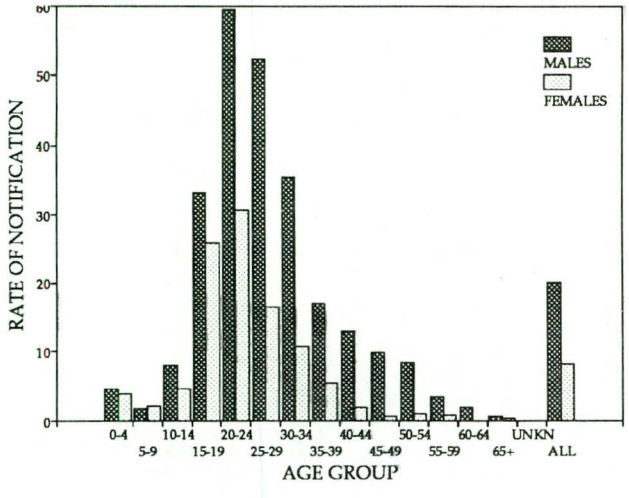
Donovanosis was notified on 72 occasions. The disease was reported almost equally in males and females.

Gonococcal Infection

This rubric includes sexually transmissible gonorrhoea, perinatally transmissible infections and occasional cases of non sexually transmitted infection. There were 2,530 notifications received with a resulting rate of notified disease of 14.6 per 100,000 population. This represents an increase in notifications of 32% compared with 1990, when there were 1,919 reports, and is a reversal of the declining trend for notifications of gonococcal disease since 1987. However these figures must be interpreted with caution as the introduction of laboratory based notification may have sharply increased the reporting fraction.

The infection was reported in 1,750 males and 720 females (in 60 cases the sex was not recorded), possibly reflecting the often asymptomatic nature of gonorrhoea in females. The peak incidence of notified cases was in the 20-24 years age group in both sexes (Figure 10). Twenty-seven cases were reported in children aged less than 1 year and probably represent perinatal infection. A further 145 (6% of the total) cases notified were in children 1-14 years.

Figure 10. Gonococcal infection notifications, annual rate per 100,000 population, 1991, by age group and sex

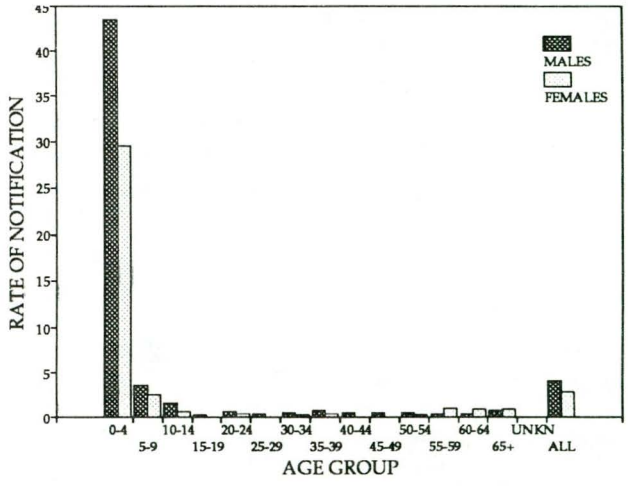


Haemophilus influenzae type b Infection

A total of 549 notifications of Hib was received in 1991 for a annual rate of 3.5 per 100,000 population. Disease was more commonly notified in males (323 cases, 59%) than females (218 cases; sex unknown for 8 cases). Of these, 415 (76%) were under the age of 5 years, and 105 (19%) were under the age of one year. The rate in the 0-4 years age group, sexes combined, was 36.8 per 100,000 per year and for males and females in this age group were 43.5 and 29.7 per 100,000 respectively (Figure 11). Rates of infection were comparatively low in older age groups. Ages collected in the NNDSS are in whole years and the effect of universal immunisation with either currently available Hib vaccine (PRP-D) at age 18 months or with other vaccines (HbOC, PRP-OMP, or PRP-T) in infancy cannot be estimated precisely from these data.

Further details of the 1991 *Haemophilus influenzae* type b infection notifications were published recently, *CDI* 1992;**16**:188-92.

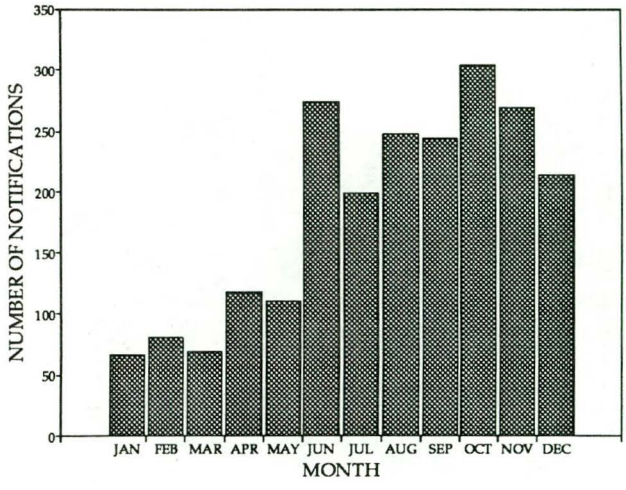
Figure 11. *Haemophilus influenzae* type b infection notifications, annual rate per 100,000 population 1991, by age group and sex



Hepatitis A

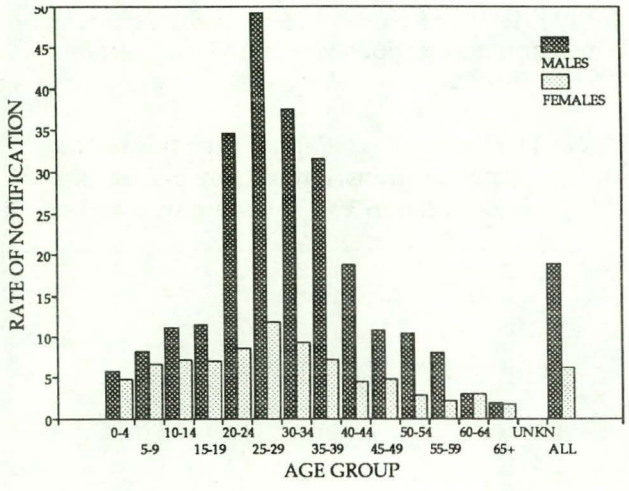
There was a total of 2,195 notifications of hepatitis A in 1991, which was an increase of 314% over the notifications received in 1990. Over the year, there was a major increase in the rate of notifications of hepatitis A from June (Figure 12) which was maintained for the rest of

Figure 12. Hepatitis A notifications, 1991, by month



the year. The sex was recorded as 'male' for 1,046 cases, 'female' for 240 cases and 'unknown' for 909 cases. The peak incidence of notified hepatitis A was in the 25-29 years age group for both sexes (Figure 13).

Figure 13. Hepatitis A notifications, annual rate per 100,000 population, 1991, by age group and sex



Hepatitis B

There were 3,652 notifications of hepatitis B received for a notification rate in 1991 of 21.1 per 100,000 population. There was an increase of 23% in the number of notifications in 1991 over 1990. Trends in the rates of hepatitis B notification must, however, be interpreted with caution as there is no common surveillance case definition, and notifications received may represent prevalent as well as incident cases. The notification rate peaked in August; the reason for this trend is not clear (Figure 14). The annual age-specific rate of notification (sexes combined) was 3.6 per 100,000 in the 0-4 years age group, 6.4 in the 5-9 years age group and rose rapidly from 19.9 per 100,000 per year in the 10-14 years age group to peak at 41.6 per 100,000 in the 25-29 years age group (Figure 15). Of the cases notified 1,946 were recorded as 'male', 1,513 as 'female' and 193 as 'unknown'.

Figure 14. Hepatitis B notifications, 1991, by month

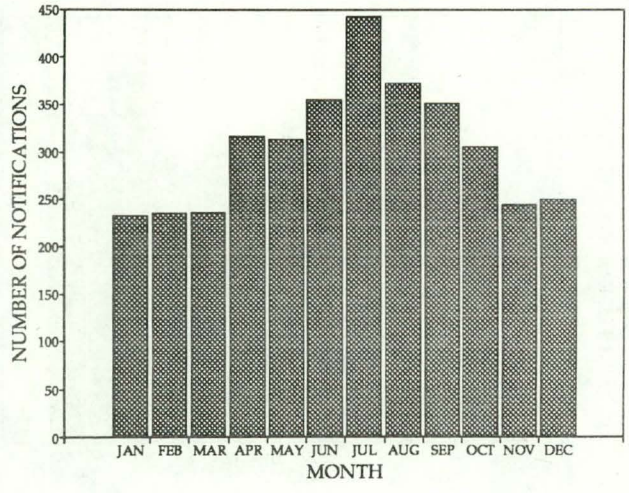
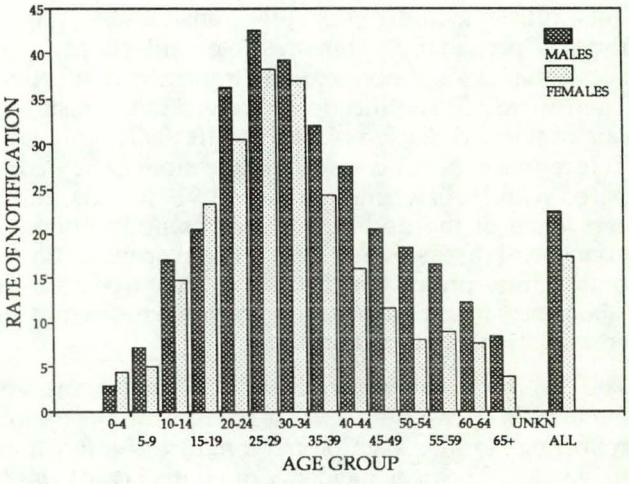


Figure 15. Hepatitis B notifications, annual rate per 100,000 population, 1991, by age group and sex



Hepatitis C

Hepatitis C was not notifiable as a separate rubric prior to 1991 and cases were reported as 'hepatitis not elsewhere classified'. Hepatitis C is now the third most reported notifiable disease, with 4,116 notifications received for an annual notification rate of 29.0 per 100,000 late in in 1991. There was an increase in the monthly reporting rate over the first half of the year, with a fairly constant rate thereafter (Figure 16). This may have been due to increasing awareness of the disease and the availability of diagnostic testing. As with hepatitis B, prevalent cases could not be distinguished from incident cases. The incidence of notified cases started to rise from the 20-24 years age group to peak in both sexes in the 30-34 years age group (Figure 17).

Figure 16. Hepatitis C notifications, 1991, by month

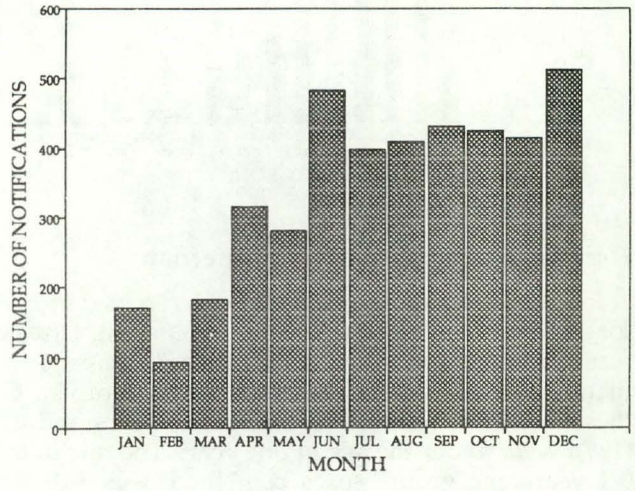
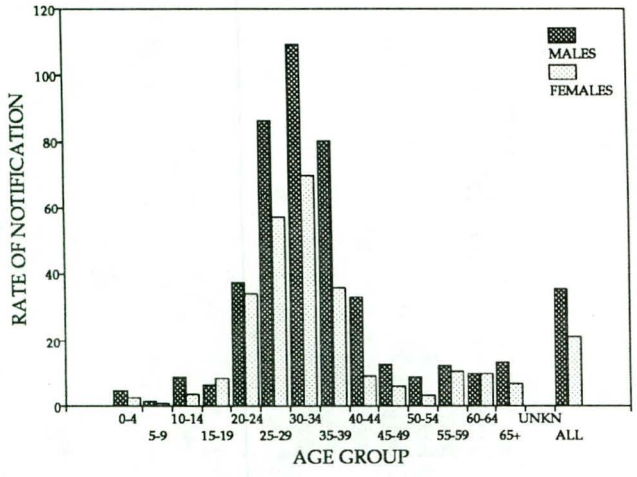


Figure 17. Hepatitis C notifications annual rate per 100,000 population, 1991, by age group and sex



Further details of 1991 hepatitis C notifications were published recently, in *CDI* 1992;**16**:142-144.

Hydatid Disease

Hydatid disease was notified in 44 people, 20 males and 24 females. Ages of cases ranged from 20 to more than 65 years.

Legionellosis

Legionellosis was notified in 110 cases from six of the eight States and Territories. There was a marked variation in the monthly incidence of notifications over the year, reflecting the propensity of this disease to occur in clusters (Figure 18). Legionellosis was notified predominantly in older men; in 76 males and 53 females (1 sex unknown), with the highest age-sex-specific notification rate for the year being in males in the 65+ years age group (Figure 19). Further details of preliminary 1991 national legionellosis notifications were published recently, in *CDI* 1992;**16**:71-73.

Figure 18. Legionellosis notifications, 1991, by month

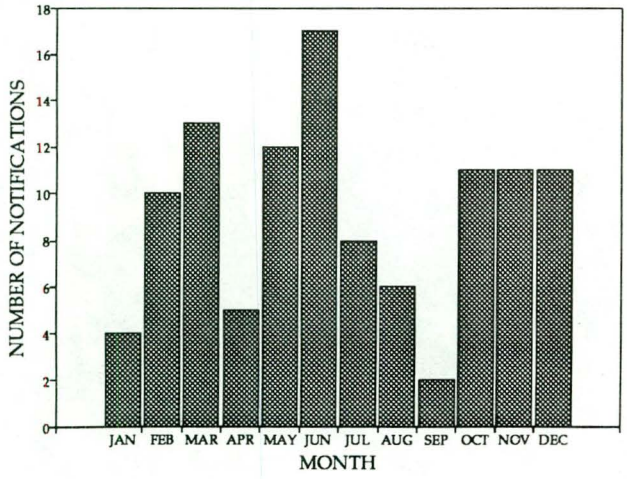
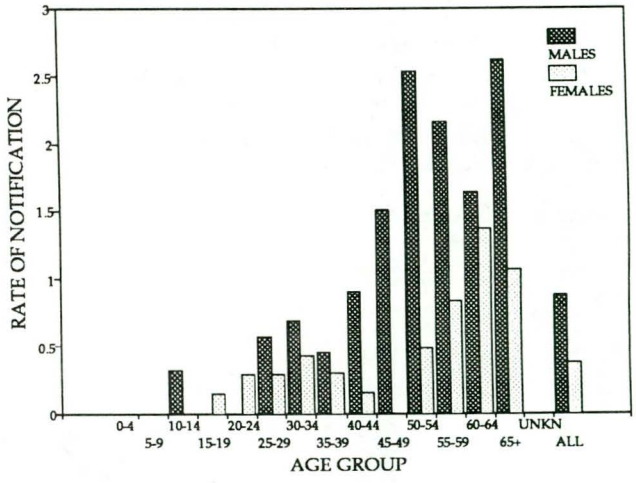


Figure 19. Legionellosis notifications, annual rate per 100,000 population, 1991, by age group and sex



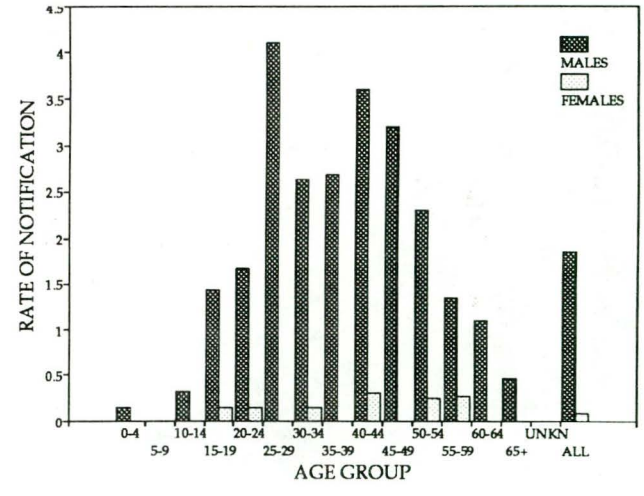
Leprosy

There were 13 cases of leprosy notified during 1991.

Leptospirosis

There were 169 notifications of leptospirosis; 99 males, 52 females and 20 sex unknown. The disease was notified predominantly in working age males (Figure 20).

Figure 20. Leptospirosis notifications, annual rate per 100,000 population, 1991, by age group and sex



Listeriosis

Listeriosis was notified on 44 occasions, and 9 of these reports were in women in the 15-44 years age group.

Measles

There were 1,380 notifications of measles in 1991, an increase of 57% compared with 1990. The crude annual incidence was 8.0 per 100,000 population but 89% of notified cases occurred in patients under the age of 20.

The distribution of age-specific (sexes combined) notification rates was bimodal, with a peak in the 0-4 years age group and a lesser peak in the 10-14 age group (Figure 21). Notification rates for combined sexes for the 0-4 years, 5-9 years and 10-14 years age groups were 36.1, 20.7 and 24.5 respectively per 100,000 per year. Of the 1,280 notified cases, 124 were aged under 1 year of age (10%), and the remainder were potentially preventable by virtue of being in the age groups appropriate for measles immunisation. There was no clear seasonal trend in the incidence of notified measles (Figure 22).

Figure 21. Measles notifications, 1991, by month

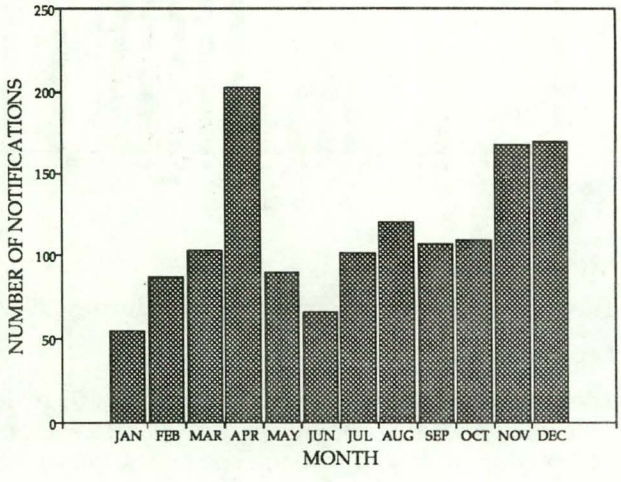
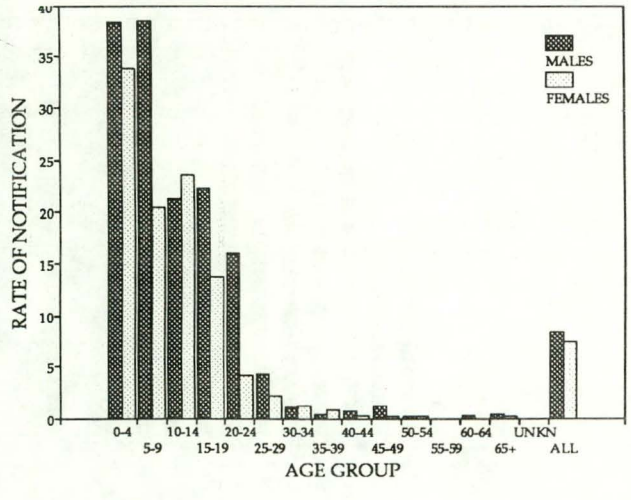


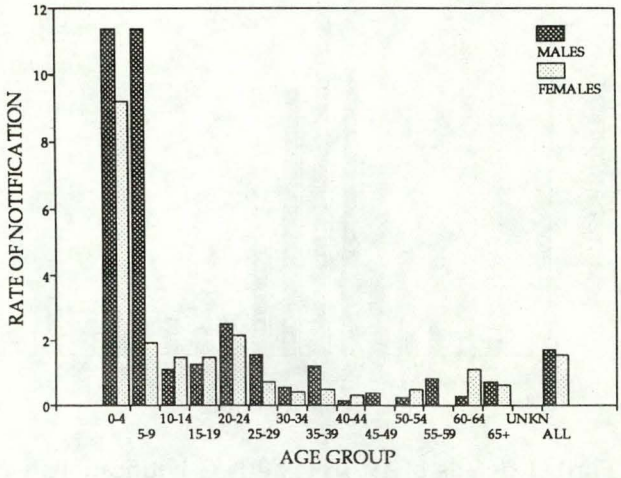
Figure 22. Measles notifications, annual rate per 100,000 population, 1991, by age group and sex



Meningococcal Infection

There were 285 notifications of meningococcal infection during 1991 from all States and Territories for a national rate of 1.6 per 100,000 population per year. There has been a steady rise in the number of notifications of meningococcal disease from 1987 to 1990 when the number of reports reached 295. This increase has been encountered in many developed countries and is as yet unexplained. Males constituted a slightly higher proportion than females comprising 52%. The highest incidence rates were in the age groups 0-4 and 5-9 years (Figure 23).

Figure 23. Meningococcal infection notifications, annual rate per 100,000 population, 1991, by age group and sex



Preliminary data for 1991 meningococcal infection notifications were published in more detail recently, in *CDI* 1992;**16**:31-35.

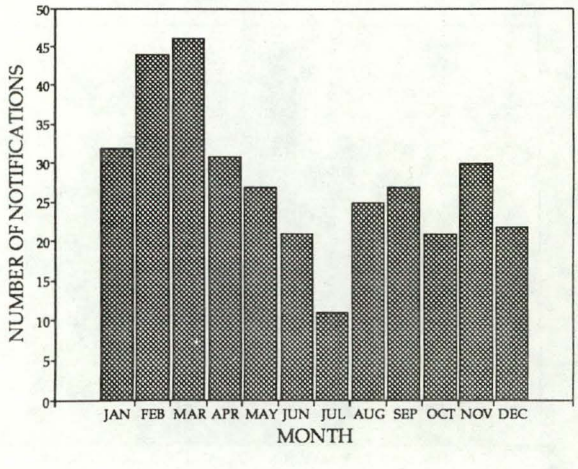
Ornithosis

There were 136 notifications of ornithosis, equally divided between males and females. Ages 15 to 65+ were affected.

Pertussis

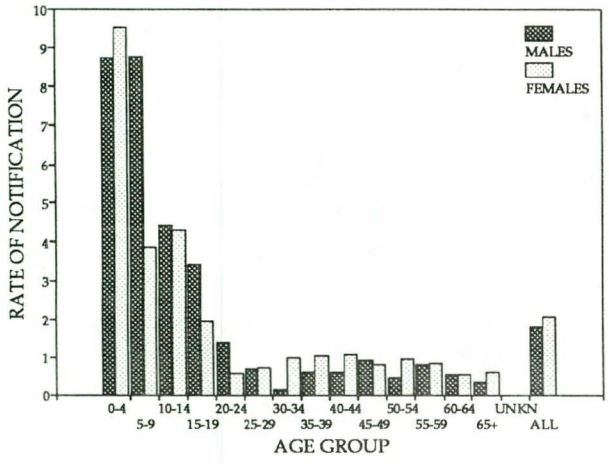
There were 337 notifications of pertussis in 1991 compared with 862 in 1990. The crude incidence rate in 1991 was 1.9 per 100,000 per year. Pertussis tends to occur in Australia in 4-yearly cycles with the last peak during the summer of 1989-1990. There was a marked seasonal pattern with reduced notifications in autumn and winter (Figure 24). The disease was notified in all age groups but with a marked preponderance in the 0-4

Figure 24. Pertussis notifications, 1991, by month



and 5-9 year age groups (Figure 25). Of the 337 cases notified, 43 occurred in children aged less than 1 year.

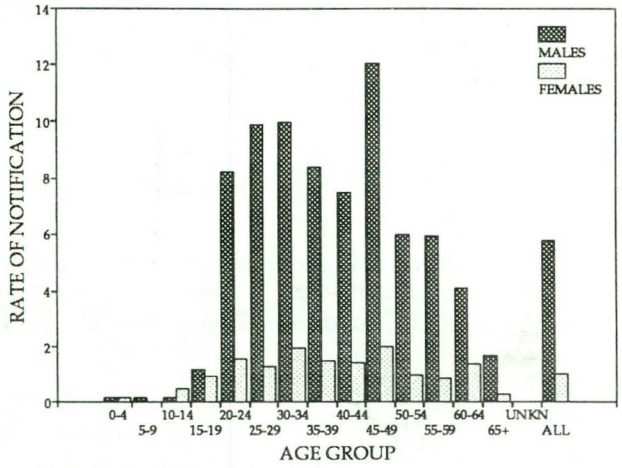
Figure 25. Pertussis notifications, annual rate per 100,000 population, 1991, by age group and sex



Q fever

There were 595 notifications of Q fever for a national crude incidence of 3.4 per 100,000 population per year. Of these, in 502 the sex was recorded as 'male' and the incidence increased from 8.4 per 100,000 per year in 15-19 years age group to 9.8 per 100,000 per year in the 20-24 years age group (Figure 26), probably reflecting the occupational risk of Q fever among workers in the meat industry.

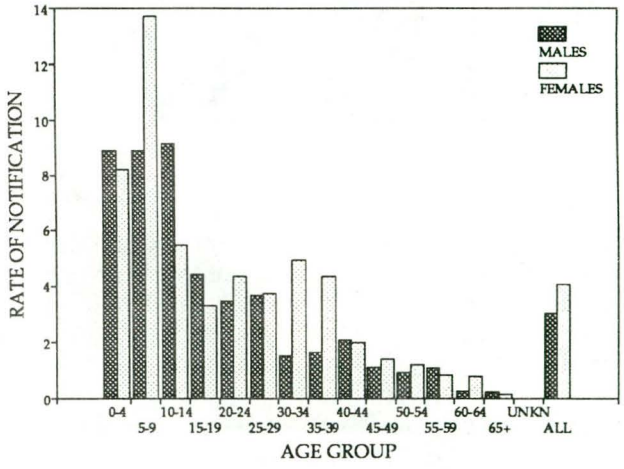
Figure 26. Q fever notifications, annual rate per 100,000 population, 1991, by age group and sex



Rubella

Rubella was notified in 620 patients in 1991. Prior to 1991 rubella was nationally notifiable and trends over time cannot be described. Thirty-two of the cases were in infants under 1 year of age and 155 were in females between the ages of 15 and 44. There was a bimodal distribution of the age-specific incidence rate with a major peak between the ages of 0 and 14 and minor peaks in the 25-29 years age group for males and the 30-34 years of age group for females. Preferential reporting of rubella in women of childbearing age may have contributed to the size of the second peak in females (Figure 27). There was a large peak in the monthly incidence in September due to an outbreak in the ACT.

Figure 27. Rubella notifications, annual rate per 100,000 population, 1991, by age group and sex



Salmonellosis (Not Elsewhere Classified)

The national incidence rate of notified salmonellosis was 31.4 per 100,000 per year with 5,440 reports received, making this disease the second most commonly notified condition. In common with a number of developed countries the number of notifications has risen over the last 5 years from 2,739 notifications in 1987. The majority of cases were in children in the 0-4 and 5-9 years age groups (Figure 28). Over the year, the incidence reached a peak in April (Figure 29).

Figure 28. Salmonellosis notifications, annual rate per 100,000 population, 1991, by age group and sex

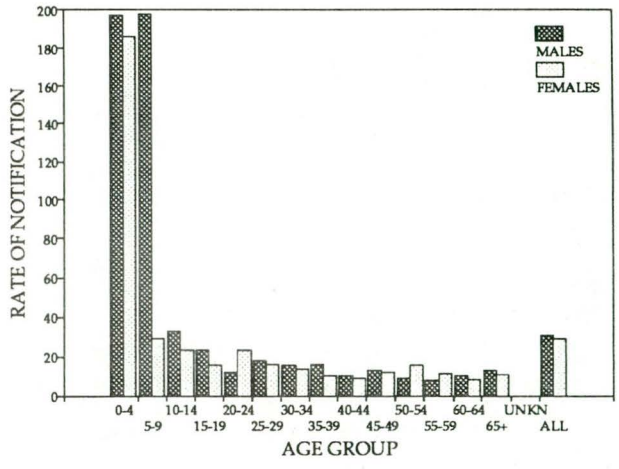
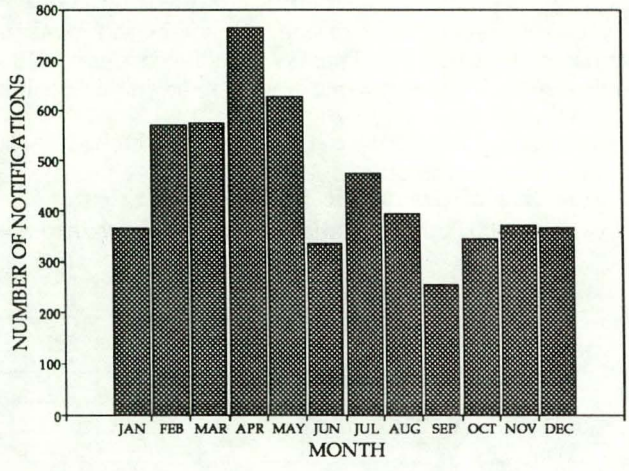


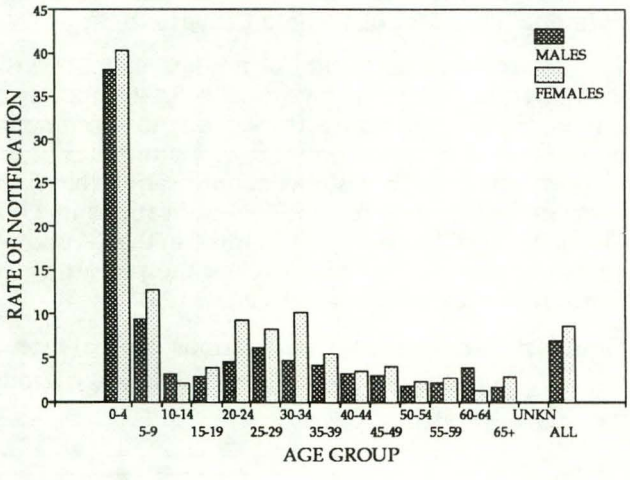
Figure 29. Salmonellosis notifications, 1991, by month



Shigellosis

There was a total of 902 notifications of shigellosis received during 1991, an increase of 48% over 1990. The Northern Territory contributed 40% of all notifications; cases were mainly in the 0-4 and 5-9 year age groups (Figure 30).

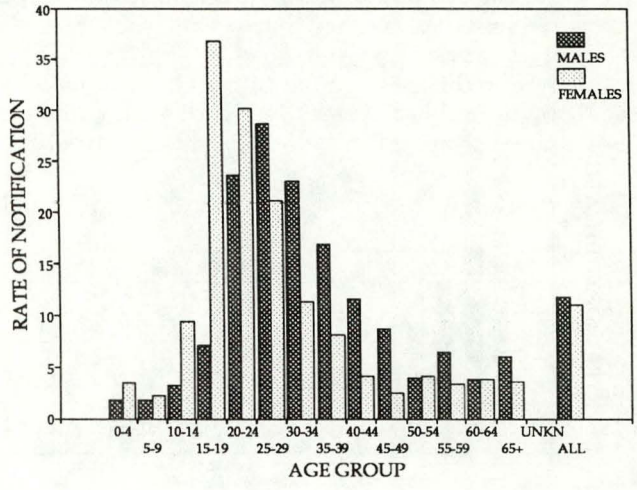
Figure 30. Shigellosis notifications, annual rate per 100,000 population, 1991, by age group and sex



Syphilis

There was an increase of 25% in syphilis notifications from 1,643 in 1990 (the lowest number reported since 1987) to 2,053 in 1991. However these figures must be interpreted with caution as the introduction of laboratory based notification may have sharply increased the reporting fraction. Of these, 1,052 were recorded as 'male', 962 as 'female' and in 66 sex was not recorded. The age-specific incidence differs between males and females; the peak incidence for males being in the 25-29 years age group and for females in the 15-19 years age group (Figure 31). There were 31 notified cases aged less than 1 year (possibly congenitally acquired) and 76 aged less than 10 years.

Figure 31. Syphilis notifications, annual rate per 100,000 population, 1991, by age group and sex



Tetanus

There were 7 cases of tetanus notified in 1991, 2 males and 5 females. All were aged over 45 years, emphasising the need to maintain tetanus immunisation.

Typhoid

Eighty eight cases of typhoid were reported in 1991. Unlike the other salmonelloses there were no clear trends in age-specific incidence or in seasonality. Paratyphoid cases were included in some States in this rubric.

Yersiniosis

There were 115 notifications of yersiniosis received for a rate of 4.6 notifications per 100,000 per year. Of these, 172 (33%) were in children less than 5 years but cases were reported in all age groups. The rate of notifications was constant throughout the year except for April and May when the rate rose twofold.

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4. Epidemiology and Health Services Evaluation Branch, Infectious Diseases Section, NSW Health Department. 1991 infectious diseases notifications. *New South Wales Public Health Bulletin* 1992; **3 Suppl** 2:1-29.
5. Infectious Diseases Unit, Health Department Victoria. *Surveillance of Notifiable Infectious Diseases in Victoria 1991*. Melbourne: Health Department Victoria, 1992.

NATIONAL NOTIFIABLE DISEASES 1990

The National Notifiable Diseases totals for 1990 are presented in the following Table. The list of diseases for 1990 was as recommended by the NHMRC in 1978, and therefore differs from the current list, adopted by the Communicable Diseases Network - Australia for 1991, and recommended by the NHMRC in June 1992.

It should also be noted that, in some of the States and Territories, notifications were collected for diseases which are not officially 'notifiable', and, since 1990, new legislation in several of the States and Territories has considerably altered the list of diseases which are notifiable to each of the health authorities.

Table. National Notifiable Diseases, 1990, by State or Territory

DISEASES	ACT	NSW	NT	QLD	SA	TAS	VIC	WA	TOTAL
AIDS	10	356	2	54	21	4	105	25	577
Amoebiasis	1	0	0	1	0	0	6	0	8
Ankylostomiasis	0	0	NN	0	0	2	0	0	2
Anthrax	0	0	0	0	0	0	0	0	0
Arbovirus infection	0	289	92	1484	23	12	78	30	2008
Brucellosis	0	5	0	41	0	0	0	0	46
Campylobacter infection	105	1917	324	561	1296	264	396	820	5683
Chancroid	0	0	0	0	NN	NN	5	13	18
Cholera	0	1	0	0	0	0	0	0	1
Congenital rubella syndrome	0	0	0	0	2	NN	0	0	2
Diphtheria	0	0	4	3	0	0	0	0	7
Donovanosis	0	0	42	49	NN	NN	0	0	91
Giardiasis	22	621	0	NN	0	0	174	0	817
Genital herpes	40	972	22	1436	NN	NN	NN	NN	2470
Gonococcal ophthalmia neonatorum	NN	0	0	0	0	NN	0	0	0
Gonorrhoea	18	403	558	489	173	3	402	275	2321
Hepatitis A	7	36	145	196	99	6	41	0	530
Hepatitis B	58	426	27	1783	36	57	583	0	2970
Hepatitis - unspecified	14	54	7	569	5	11	47	NN	707
Hydatid disease	1	2	0	8	2	2	0	1	16
Lassa fever	0	0	0	0	0	0	0	0	0
Legionnaires' disease	3	27	0	24	19	0	13	4	90
Leprosy	0	5	8	1	1	0	13	3	31
Leptospirosis	0	49	0	22	6	3	37	4	121
Lymphogranuloma venereum	0	0	0	0	NN	NN	0	NN	0
Malaria	24	193	13	499	33	5	87	28	882
Marburg disease	0	0	0	0	0	0	0	0	0
Measles	30	388	3	47	43	NN	342	27	880
Meningococcal infection	3	84	26	19	21	12	83	47	295
Non-specific urethritis	63	1479	10	1	NN	NN	2477	NN	4030
Ornithosis	4	1	0	3	15	0	0	0	23
Pertussis	43	149	11	159	172	2	75	251	862
Plague	0	0	0	0	0	0	0	0	0
Poliomyelitis	0	0	0	0	0	0	0	0	0
Q fever	1	156	0	235	21	NN	18	0	431
Rabies	0	0	0	0	0	0	0	0	0
Salmonella infection	39	1486	404	1357	636	155	487	0	4564
Shigella infection	2	146	209	92	94	3	64	0	610
Smallpox	0	0	0	0	0	0	0	0	0
Syphilis	10	333	437	729	83	2	111	49	1754
Tetanus	0	2	NN	0	2	0	2	0	6
Trachoma	0	2	0	0	3	0	NN	0	5
Tuberculosis (all forms)	27	346	62	136	89	17	353	134	1164
Typhoid fever	1	44	0	0	3	0	22	0	70
Typhus (all forms)	0	0	0	4	0	0	0	0	4
Vibrio parahaemolyticus infection	NN	22	0	NN	1	0	0	0	23
Yellow fever	0	0	0	0	0	0	0	0	0
Yersinia infection	NN	133	6	67	197	NN	27	3	433

OVERSEAS BRIEFS

In the last two weeks, the following information has been supplied by the World Health Organization and the New Zealand Communicable Disease Centre.

Cholera Update

In Africa, Mifi Department of the Province de L'Ouest in Cameroon has recently been declared infected, and cases and deaths have been reported for the period March to May. In Mozambique, the Guija District (Gaza Province) and the Chinde, Inhassunge, Maganja da Costa and Mpoeia Districts (Zambezia Province) have recently been declared infected, and cases and deaths have been reported for April and May. The Ashanti Region of Ghana has also recently been declared infected. Cases have been reported for periods up to July for Angola, Kenya, Nigeria, Rwanda, Togo, Togo, Zaire and Zambia.

In the America, cases for June and July have been reported for Bolivia, Brazil, El Salvador, Guatemala, Mexico, Nicaragua, and Panama.

In Asia, Iraq continues to report small numbers of cases. Nepal has reported its first cases for several months, for the period 6 to 18 July. Vietnam has reported cases and deaths for February, May and June.

Influenza Update

Influenza A (H3N2) viruses have been isolated during local outbreaks in South Africa in June and July, and in Guangdong Province in Southern China since the end of May, and influenza A (H1N1) has been isolated in recent outbreaks in New Zealand. Elsewhere, only sporadic cases have been reported: influenza A (H3N2) in Madagascar, influenza A (H1N1) in Argentina and Hong Kong, and influenza B in Brazil, Hong Kong, Papua New Guinea and South Africa.

Meningococcal Infection in New Zealand

There has been a greater than usual number of reports of meningococcal infection in New Zealand in recent months. Since the beginning of the year, there have been 64 cases, with 6 deaths. There had only been 16 cases (no deaths) by this time last year. Cases have been reported from both the South and North Islands.

COMMUNICABLE DISEASES SURVEILLANCE

Laboratory Reporting Schemes

There were 2532 reports received in the *CDI* 'Viruses' Reporting Scheme this fortnight (Tables 5,6 and 7). Reports from some laboratories were for a 4 week period, as they were not able to be included last fortnight due to earlier than usual deadlines.

- There were 227 reports of **influenza**. There were 194 reports of untyped **influenza A** (49 isolations, 20 antigen detections and 134 serological diagnoses), 20 of **influenza A H3N2** (18 isolations, 10 antigen detections), 11 of **influenza B** (serological diagnoses) and 2 of **influenza A H1N1** (both isolations).

  Forty-one reports of untyped influenza A this fortnight were in persons over the age of 65 years (including a 93 year old female), as were 2 of influenza A H3N2, and 3 of influenza B.

  A death was recorded for an 11 month old male patient; influenza A virus (untyped) was isolated from a nasopharyngeal aspirate taken shortly before the child died. Cardiac symptoms were reported for a 54 year old male, meningitis for 3 patients (an 18 year old male, and females aged 11 years and 58 years), and photophobia and neck stiffness for a 30 year old male. Co-infections with respiratory syncytial virus were reported for an 11 month old male and a 2 month old female.

- **Respiratory syncytial virus** was reported for a total of 724 patients this fortnight, bringing the totals for June to 916 and for the year to 2368. There continues to be a larger number of reports of this virus than the average for recent years.

- There were 93 reports of rotavirus this period, bringing the totals for May to 98, June to 122 and the year to 465. There have been about the same number of reports of rotavirus this year as the average for the last 5 years (Figure 1).

Figure 1. Rotavirus laboratory reports, 1992 and 1987-91 average, by month of specimen collection

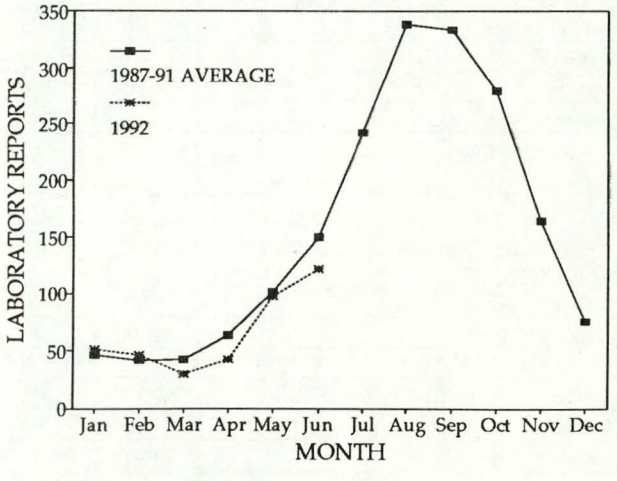
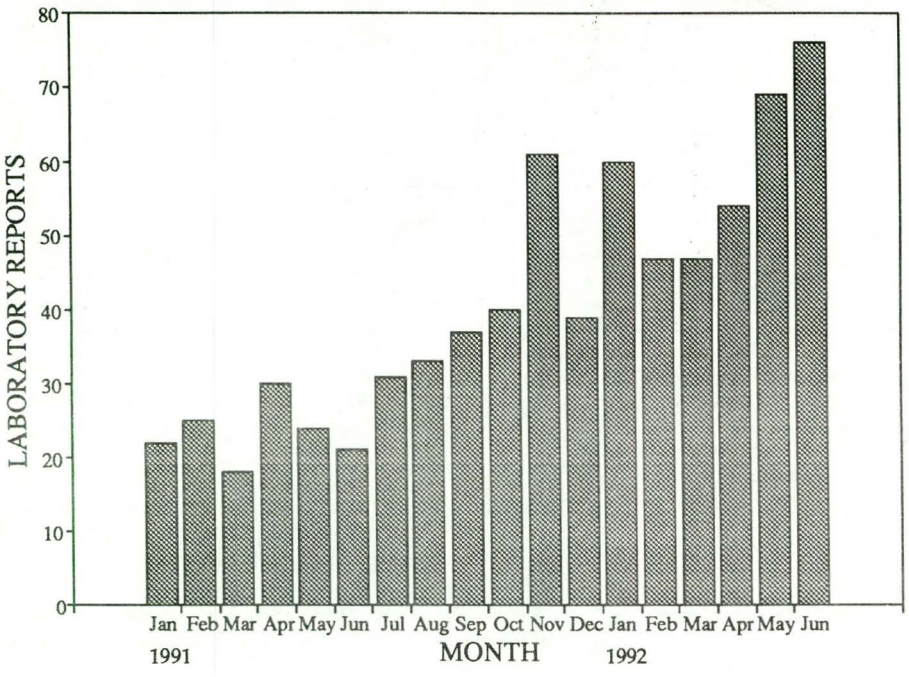


Figure 2. *Mycoplasma pneumoniae* **laboratory reports, 1991-92, by month of specimen collection**



- Reports of ***Mycoplasma pneumoniae*** have been increasing over the last few months (Figure 2). Peaks in activity of this organism tend to occur in Australia over 2 year periods every 4 to 5 years (*CDI* 1991;**15**:432). The last peak began in 1987, with a similar number of reports as have been received so far this year. This year's reports have been mainly from New South Wales (151) and Victoria (108), for which there have been increasing numbers of reports during May, June and July.

  Forty-one per cent of the reports have been in children in the 5 to 14 year age group. Two of the reports this fortnight were of CNS symptoms (a female aged 5 years and a male, age unknown).

- **Ross River virus** infection was reported for only 18 patients this period. Specimen collection dates for most were in June or July, and locations were mainly in Western Australia, although there was one from the Riverina area of New South Wales.

- **Rubella** was reported for 8 patients this fortnight. Two were females in the age group 25 to 44 years.

- Seven reports of **echovirus type 6** infection were received. Six were from Western Australia and 1 was reported from a Victorian laboratory. All but 1 had meningitis as the reported syndrome and/or CSF as the specimen from which the virus was isolated.

- **Echovirus type 9** was reported for 10 patients, 7 from Western Australia and 3 from New South Wales. Meningitis and/or CSF isolates were reported for 9 of the patients. The remaining report was of the isolation of the virus from post mortem lymph node tissue of a male infant who had suffered SIDS.

- There were 4 reports of **enterovirus type 71** this fortnight. For 2, the reported symptom was meningitis.

- **Parvovirus** infection was reported for 10 patients. They included a 37 year old female who was pregnant, and a 7 year old male who had recently had anaemia.

- **Hepatitis C** was reported for 131 patients. A history of injecting drug was reported for 17 patients, and 2 patients were HIV positive. Four patients were haemophiliac brothers aged 7, 9, 12 and 15 years.

- **Herpes simplex virus** reports this fortnight included a 36 year old female with a disseminated infection (untyped), and type 2 isolated from buttock lesions of a female in labour, and from a male aged less than 1 month with encephalitis and skin lesions.

- The case of **untyped dengue** which was reported this fortnight was in a male aged 26 years, who had recently been to Vietnam. Overseas travel was also reported for 3 of the cases of **untyped flavivirus** reported this fortnight - a 42 year old female who had been to Cambodia, a 25 year old female who had been to Thailand, and a 28 year old female who had been to Indonesia.

- **Ornithosis** was reported for 7 patients. One was described as a pet shop owner and another as a bird keeper.

Reports of serological diagnoses of infections with *Brucella, Legionella, Leptospira,* and *Yersinia enterocolitica* have been included in the 'viruses' laboratory reports from this fortnight (Tables 5 and 6). Reports of these organisms diagnosed by serology or antigen detection will be incorporated into this laboratory reporting scheme, rather than the 'Pathogens' scheme, from now on.

- There were 2 reports of ***Legionella* sp** infection reported from Queensland. Both patients were males, 1 in the age group 25 to 44 and 1 in the age group 65 to 74 years.

- A fatal case of **malaria** caused by *Plasmodium falciparum* was reported. The patient, who was from Boigu Island in the Torres Strait, was a male in the age group 65 to 74 years. He had recently made a traditional visit to Papua New Guinea. Blood films

Table 1. Australian Sentinel Practice Research Network, Weeks 30 and 31 1992

Condition	Week 30, to 26 July 1992		Week 31, to 2 August 1992	
	Reports	Rate per 1000 encounters	Reports	Rate per 1000 encounters
Influenza	136	19.5	96	17.3
Measles	1	0.1	0	0
Mumps	0	0	0	0
Rubella	3	0.4	0	0
Pertussis	0	0	0	0
Genital herpes	8	1.1	6	1.1
Gastroenteritis	78	11.2	47	8.5

were collected from the patient at his home, when he had rigors. The diagnosis was made 4 days later but the patient died on the following day.

- There was 1 report of ***Heamophilus influenzae*** **type b** infection. The patient was a female in the 1 to 12 month age group, who had meningitis (CSF and blood isolates).
- An isolation of ***Staphylococcus aureus*** from joint fluid was reported for a male in the age group 25 to 44 years. The patient had injured his knee 10 weeks previously, and had had a sudden flare-up of effusion.

Australian Sentinel Practice Research Network

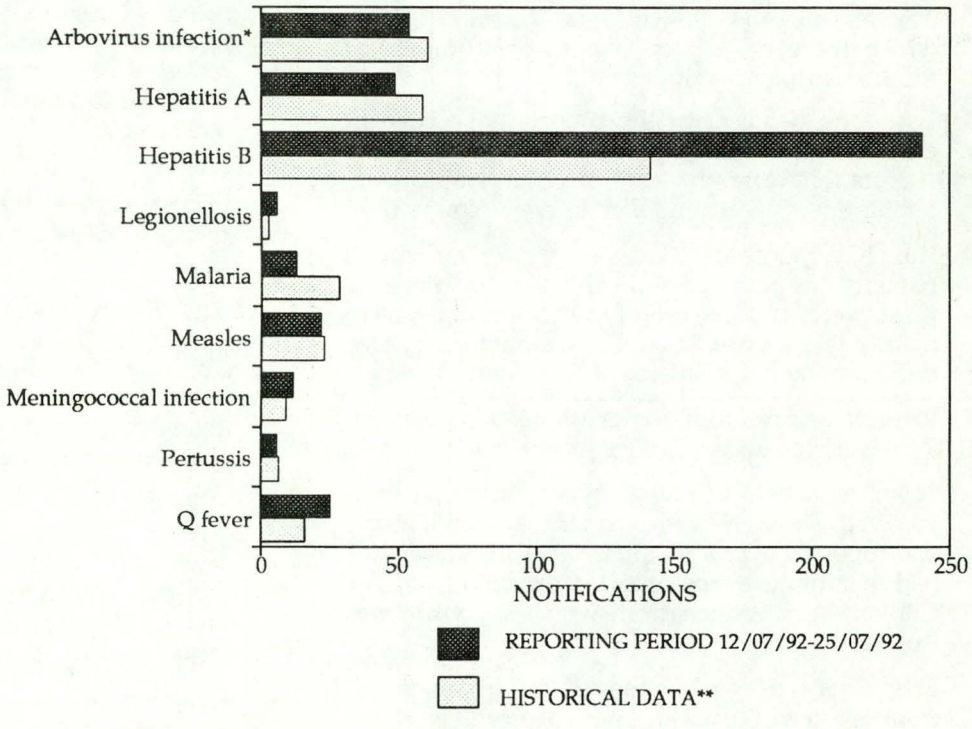
The Australian Sentinel Practice Research Network collected data from 6,992 patient encounters in Week 30 and 5,553 patient encounters in Week 31 (Table 1). Influenza continues to be reported at a rate of between 14 and 20 reports per 1,000 encounters, as for the last 6 weeks. Gastroenteritis was the other commonly reported condition.

National Notifiable Diseases Reports, 12 July to 25 July 1992

For the period 12 July to 25 July 1992, 1,682 reports were received (Tables 2, 3 and 4). All were in a form suitable for analysis.

- Notifications of **Ross River virus infection** have fallen further with 37 reports for the period. There were 16 males and 21 females with ages ranging from the 20-24 to the 80-84 years age groups. Notifications were received from many postcode areas in Queensland, NSW and WA.
- There were 9 reports this period of **dengue**. Of these, 6 were males and 3 females, and all were from Townsville or surrounding areas.
- A single report of **brucellosis** was received in a female in the 65-69 years age group in rural Queensland.
- A single report was received of **cholera** in a male aged 40-44.
- There were 3 reports of **diphtheria**, all were in females aged over 10 years.

Figure 3. Selected National Notifiable Diseases Reports, and historical data **



* Includes Ross River virus and Dengue

** The Historical data are the averages of the number of notifications in 6 previous 2-week reporting periods: the corresponding periods of the last 2 years and the period immediately preceding and following those.

- There were 91 notifications of **gonococcal infection**. Of these, 2 were in the 0-4 years age group, 6 in the 5-9 years age group and 2 in the 10-14 years age group.
- There were 15 reports of ***Haemophilus influenzae* type b infection** received this period, 7 males and 8 females. All were age 7 or younger, and 10 were between the ages of 12 months and 5 years.
- A single case of **hydatid disease** was notified in a female in the 20-24 years age group from rural Queensland.
- A single case of **leprosy** was notified in a male in the 60-64 years age group.
- There were 2 cases of **leptospirosis** notified, in males in the 20-24 and 60-64 years age groups.
- Two cases of **listeriosis** were notified, both females, one aged less than 1 year, the other aged 30-34 years.
- Six cases of **legionellosis** were received, 3 males and 3 females. The youngest was aged 25-29 years and oldest 75-79 years. All were apparently sporadic cases.
- There were 22 cases of **measles** notified, 11 males and 11 females and 20 were over the age of 12 months. Two pairs of cases occurred within 5 and 7 days of each other in 2 postcode areas.
- Twelve notifications of **meningococcal disease** were received, 7 males and 5 females. Of these cases, 7 were in the 0-4 years age group and 3 in the 15-19 age group. All were apparently sporadic cases.
- Six notifications were received of **pertussis**. All were aged over 5 years, 2 were males and 4 females.
- There were 26 notifications received of **Q fever**, 23 males and 2 females, one of unknown sex. All were from non-metropolitan postcode areas. Ages ranged from the 10-14 years to the 55-59 years age groups.
- There were 32 notifications received of **rubella**. Of these, 7 were recorded as being females in the 15-44 years age group. There were 2 apparent clusters of 3 and 2 cases each with onset on the same day in 2 postcode areas.
- A single case of **typhoid** was notified in a female in the 0-4 years age group.

Table 2. Diseases preventable by vaccines recommended by the NHMRC for routine childhood immunisation for the reporting period 12 to 25 July 1992

DISEASES	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	TOTALS FOR AUSTRALIA[1] This Period 1992	This Period 1991	Year to Date 1992	Year to Date 1991
Diphtheria	0	0	3	0	0	0	0	0	3	0	11	5
Measles	0	7	0	7	6	0	2	0	22	39	499	683
Mumps	0	0	NN	NN	NN	NN	0	NN	0	NN	14	NN
Pertussis	0	1	0	4	1	0	0	0	6	4	233	207
Poliomyelitis	0	0	0	0	0	0	0	0	0	0	0	0
Rubella[2]	0	3	0	7	3	0	19	0	32	15	271	243
Tetanus	0	0	0	NN	0	0	0	0	0	0	7	5

1. Totals comprise data from all States and Territories. Cumulative figures are subject to retrospective revision, so there may be discrepancies between the number of new notifications and the increment in the cumulative figure from the previous period.
2. NT, Tas, WA: CRS only; ACT, NSW, Qld: rubella only; SA, Vic: rubella and CRS.

NN Not Notifiable.

Table 3. Rarely Notified Diseases[1] for the reporting period 12 to 25 July 1992

DISEASES	Total this period	Reporting States or Territories	Year to date1992
Botulism			0
Brucellosis	1	Qld	10
Cholera	1	Qld	3
Chancroid			3
Hydatid infection	1	Qld	21
Leprosy	1	NSW	8
Lymphogranuloma venereum			2
Plague			0
Rabies			0
Yellow fever			0
Other viral haemorrhagic fevers			0

1. Fewer than 50 cases of each of these diseases were notified each year during the period 1986 to 1991.

Table 4. Other Notifiable Diseases[1], for the reporting period 12 to 25 July 1992

DISEASES	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	TOTALS FOR AUSTRALIA[2] This Period 1992	This Period 1991	Year to Date 1992	Year to Date 1991
Arbovirus infection (NEC)[3]	0	0	NN	5	0	0	3	0	8	3	242	166
Ross River virus infection	0	6	2	17	-	NN	1	11	37	50	4776	3222
Dengue	0	-	0	9	-	NN	0	-	9	0	159	40
Campylobacteriosis[4]	0	-	26	94	87	3	45	9	264	314	4503	4429
Chlamydial infection (NEC)	0	NN	23	134	0	18	40	0	215	118	3389	2271
Donovanosis	0	NN	1	0	NN	NN	0	3	4	1	45	36
Gonococcal infection[5]	0	10	23	16	0	1	12	29	91	101	1644	1359
Haemophilus influenzae type b[6]	2	3	NN	1	5	0	4	NN	15	35	269	283
Hepatitis A	0	20	7	9	5	0	8	0	49	79	1152	847
Hepatitis B	1	101	2	58	0	0	69	9	240	238	3543	2069
Hepatitis C	0	128	6	130	NN	1	39	NN	304	145	4581	1835
Hepatitis (NEC)	0	0	0	2	0	0	0	NN	2	1	40	225
HIV infection[7]	0	8	0	0	1	0	0	2	11	1	160	18
Legionellosis	0	1	0	4	0	0	0	1	6	4	114	67
Leptospirosis	0	2	0	0	0	0	0	0	2	3	57	84
Listeriosis	0	0	NN	1	NN	0	1	0	2	1	22	21
Malaria	0	1	0	1	2	0	7	2	13	59	426	480
Meningococcal infection	0	3	0	1	5	1	2	0	12	19	129	146
Ornithosis	0	NN	0	0	0	0	13	0	13	2	53	59
Q fever	0	9	0	15	0	0	2	0	26	28	263	393
Salmonellosis (NEC)	0	46	16	27	7	0	14	15	125	201	3104	3640
Shigellosis[4]	0	-	8	5	1	0	0	2	16	23	353	557
Syphilis	0	22	18	17	0	0	0	6	63	52	1421	1103
Tuberculosis	0	8	0	7	1	1	0	2	19	23	398	260
Typhoid[8]	0	1	0	0	0	0	0	0	1	6	32	44
Yersiniosis[4]	0	-	0	9	3	0	2	0	14	15	386	351

1. For rarely notified diseases, see Table 3.
2. Totals comprise data from all States and Territories. Cumulative figures are subject to retrospective revision so there may be discrepancies between the number of notifications and the increment in the cumulative figure from the previous period.
3. NSW and SA: includes Ross River virus and dengue. WA: including dengue.
4. NSW: only as 'foodborne disease' or 'gastroenteritis in an institution'.
5. NT, Qld, SA and Vic: includes gonococcal neonatal ophthalmia.
6. SA: only as 'bacterial meningitis'; meningococcal infection is separately notified; Tas: only as 'non-meningococcal meningitis'; Vic: eppiglottitis and meningitis only.
7. More complete data on new diagnoses of HIV infections are presented in the monthly *Australian HIV Surveillance Report*. ACT: AIDS only.
8. NSW and Vic: includes paratyphoid.

NN Not Notifiable.

NEC Not Elsewhere Classified.

\- Elsewhere Classified.

Table 5. Laboratory reports by State or Territory of reporting laboratory for the reporting period 15 to 28 July 1992, historical data[1], and total reports for the year

	STATE OR TERRITORY OF REPORTING LABORATORY ACT	NSW	Qld	SA	Vic	WA	Total this fortnight	Historical data[1]	Total reported this year
MEASLES, MUMPS, RUBELLA									
Measles virus		2		2			4	8.3	88
Mumps virus		1					1	.8	28
Rubella virus			1	1	5	1	8	6.0	105
HEPATITIS VIRUSES									
Hepatitis A virus	1	6	1	4	4		16	10.8	184
Hepatitis B virus		31	33	12	29	16	121	90.7	1,279
Hepatitis C virus	1	4		90		36	131	67.7	1,226
Hepatitis D virus			4				4	1.0	26
ARBOVIRUSES									
Ross River virus			5		2	11	18	35.0	1,091
Barmah Forest virus						8	8	2.0	160
Dengue not typed						1	1	1.3	53
Flavivirus (unspecified)					4		4	2.3	15

Table 5. Laboratory reports by State or Territory of reporting laboratory for the reporting period 15 to 28 July 1992, historical data[1], and total reports for the year, continued

	STATE OR TERRITORY OF REPORTING LABORATORY						Total this fortnight	Historical data[1]	Total reported this year
	ACT	NSW	Qld	SA	Vic	WA			
ADENOVIRUSES									
Adenovirus type 1		2			3		5	5.3	52
Adenovirus type 2					1		1	4.7	57
Adenovirus type 3					1		1	4.8	21
Adenovirus type 4					3		3	1.5	8
Adenovirus type 5					2		2	1.7	14
Adenovirus type 19					9		9	.0	18
Adenovirus not typed/pending		11	14	37	4	23	89	38.8	588
HERPES VIRUSES									
Herpes simplex virus type 1		18	48	49	72	27	214	120.3	2,055
Herpes simplex virus type 2		53	43	41	66	73	276	161.3	2,498
Herpes simplex not typed/pending	12	22	2	1	5	5	47	34.7	520
Cytomegalovirus		15	18	4	28	12	77	67.8	1,119
Varicella-zoster virus		5	2	7	8	6	28	15.7	374
Epstein-Barr virus		10	31	26	10	8	85	50.5	908
Herpes virus group - not typed				1	1		2	3.2	35
OTHER DNA VIRUSES									
Papovavirus group		1					1	.2	12
Molluscum contagiosum			1				1	.8	13
Parvovirus					10		10	.7	83
PICORNA VIRUS FAMILY									
Coxsackievirus A16					1		1	.8	8
Coxsackievirus B1					4		4	.2	11
Echovirus type 6					1	6	7	.5	75
Echovirus type 9		3				7	10	.5	138
Echovirus type 17					4		4	3.7	42
Echovirus type 20						1	1	.0	3
Poliovirus type 1 (uncharacterised)					3		3	3.3	34
Poliovirus type 2 (uncharacterised)		2					2	4.0	28
Poliovirus type 3 (uncharacterised)		1			1		2	2.2	18
Poliovirus not typed/pending		8					8	2.5	42
Rhinovirus (all types)					17	4	21	24.7	386
Enterovirus type 71 (BCR)					4		4	1.0	12
Enterovirus not typed/pending		4	12		8	8	32	30.2	566
ORTHO/PARAMYXOVIRUSES									
Influenza A virus	2	23	1	95	27	46	194	2.0	603
Influenza A virus H1N1		1			1		2	.0	3
Influenza A virus H3N2	1	4			15		20	.3	135
Influenza B virus				11			11	10.2	70
Parainfluenza virus type 1			2	5	1	2	10	9.5	254
Parainfluenza virus type 2			1		3		4	4.5	53
Parainfluenza virus type 3			1	6		10	17	14.5	264
Parainfluenza virus typing pending					2		2	4.5	75
Respiratory syncytial virus	13	142	79	73	217	200	724	290.0	2,441
OTHER RNA VIRUSES									
HIV-1						2	2	2.3	17
Rotavirus		29	13	13	16	22	93	116.5	669
Astrovirus		1					1	1.7	5

Table 5. Laboratory reports by State or Territory of reporting laboratory for the reporting period 15 to 28 July 1992, historical data[1], and total reports for the year, continued

	STATE OR TERRITORY OF REPORTING LABORATORY						Total this fortnight	Historical data[1]	Total reported this year
	ACT	NSW	Qld	SA	Vic	WA			
Reovirus (unspecified)						1	1	.2	3
Calici virus		4					4	1.5	17
Coronavirus		2			1		3	1.0	21
Small virus (like) particle		1			3		4	1.0	38
OTHER									
Chlamydia trachomatis not typed	3	12	6	12	8	28	69	98.5	1,521
Chlamydia pneumoniae				1	1		2	.2	10
Chlamydia psittaci					7		7	4.2	74
Mycoplasma pneumoniae		21		4	27	6	58	12.8	462
Coxiella burnetti (Q fever)					1		1	11.5	135
Yersinia enterocolitica			1				1	.0	1
Brucella species			2				2	.0	2
Bordetella pertussis			1				1	.0	2
Legionella species			2				2	.0	2
Leptospira icterohaemorrhagiae			1				1	.0	1
Leptospira pomona			2				2	.0	2
Leptospira hardjo			3				3	.0	3
Leptospira species			2				2	.0	2
Treponema pallidum			21				21	.0	22
Toxoplasma gondii			1		1		2	.0	5
TOTAL	33	439	354	495	641	570	2,532	1,398.3	20,905

1. The historical data are the averages of the numbers of reports in 6 previous 2 week reporting periods: the corresponding periods of the last 2 years and the periods immediately preceding and following those.

Table 6. Laboratory reports by clinical information for the reporting period 15 to 28 July 1992

	Encephalitis	Meningitis	Other CNS	Congenital	Respiratory	Gastrointestinal	Hepatic	Skin	Eye	Muscle/joint	Genital	Other/unknown	Total
MEASLES, MUMPS, RUBELLA													
Measles virus					1			2				1	4
Mumps virus												1	1
Rubella virus								2		1		5	8
HEPATITIS VIRUSES													
Hepatitis A virus							9					7	16
Hepatitis B virus							48					73	121
Hepatitis C virus							36			1		94	131
Hepatitis D virus							4						4
ARBOVIRUSES													
Ross River virus					1			2		10		5	18
Barmah Forest virus										2		6	8
Dengue not typed												1	1
Flavivirus (unspecified)								1				3	4

Table 6. Laboratory reports by clinical information for the reporting period 15 to 28 July 1992

	Encephalitis	Meningitis	Other CNS	Congenital	Respiratory	Gastrointestinal	Hepatic	Skin	Eye	Muscle/joint	Genital	Other/unknown	Total
ADENOVIRUSES													
Adenovirus type 1					3	1						1	5
Adenovirus type 2					1								1
Adenovirus type 3									1				1
Adenovirus type 4									3				3
Adenovirus type 5					1			1					2
Adenovirus type 19									9				9
Adenovirus not typed/pending					38	24		1	3			23	89
HERPES VIRUSES													
Herpes simplex virus type 1					14			123	9		46	22	214
Herpes simplex virus type 2	1							113			149	13	276
Herpes simplex not typed/pending			2		4			13	1		16	11	47
Cytomegalovirus			2	2	26	1	1	3				42	77
Varicella-zoster virus		1	1		2	1		16	1			6	28
Epstein-Barr virus					8		1	1		1		74	85
Herpes virus group - not typed								1				1	2
OTHER DNA VIRUSES													
Papovavirus group												1	1
Molluscum contagiosum												1	1
Parvovirus								2		1		7	10
PICORNA VIRUS FAMILY													
Coxsackievirus A16								1					1
Coxsackievirus B1		1			3								4
Echovirus type 6		5				1						1	7
Echovirus type 9		8	1									1	10
Echovirus type 17		2										2	4
Echovirus type 20												1	1
Poliovirus type 1 (uncharacterised)					3								3
Poliovirus type 2 (uncharacterised)						1						1	2
Poliovirus type 3 (uncharacterised)					1	1							2
Poliovirus not typed/pending						7						1	8
Rhinovirus (all types)					18							3	21
Enterovirus type 71 (BCR)		2						2					4
Enterovirus not typed/pending		2	2		10	4	1	3	1		1	8	32
ORTHO/PARAMYXOVIRUSES													
Influenza A virus		3	1		122	1						67	194
Influenza A virus H1N1					1							1	2
Influenza A virus H3N2					13							7	20
Influenza B virus					6							5	11
Parainfluenza virus type 1					6			1				3	10
Parainfluenza virus type 2					4								4
Parainfluenza virus type 3					14							3	17
Parainfluenza virus typing pending					2								2
Respiratory syncytial virus			2		703	2			1			16	724

Table 6. Laboratory reports by clinical information for the reporting period 15 to 28 July 1992

	Encephalitis	Meningitis	Other CNS	Congenital	Respiratory	Gastrointestinal	Hepatic	Skin	Eye	Muscle/joint	Genital	Other/unknown	Total
OTHER RNA VIRUSES													
HIV-1												2	2
Rotavirus					2	77						14	93
Astrovirus						1							1
Reovirus (unspecified)		1											1
Calici virus						4							4
Coronavirus					1	2							3
Small virus (like) particle						4							4
OTHER													
Chlamydia trachomatis not typed					6				3		55	5	69
Chlamydia pneumoniae	1				1								2
Chlamydia psittaci					4							3	7
Mycoplasma pneumoniae	1		1		46							10	58
Coxiella burnetti (Q fever)												1	1
Yersinia enterocolitica												1	1
Brucella species												2	2
Bordetella pertussis												1	1
Legionella species					2								2
Leptospira icterohaemorrhagiae										1			1
Leptospira pomona												2	2
Leptospira hardjo												3	3
Leptospira species												2	2
Treponema pallidum											3	18	21
Toxoplasma gondii												2	2
TOTAL	3	25	12	2	1067	132	100	288	32	17	270	584	2532

Table 7. Laboratory reports by contributing laboratories for the reporting period 15 to 28 July 1992

STATE	LABORATORY	REPORTS
Australian Capital Territory	Woden Valley Hospital, Canberra	33
New South Wales	Institute of Clinical Pathology & Medical Research, Westmead	152
	Prince Henry/Prince of Wales Hospitals, Sydney	175
	Royal Alexandra Hospital for Children, Camperdown	48
	South West Area Pathology Service, Liverpool	30
	Tamworth Laboratory, New England Pathology	34
Queensland	Dr TB Lynch, Pathologist, Rockhampton	65
	State Health Laboratory, Brisbane	289
South Australia	Institute of Medical & Veterinary Science, Adelaide	495
Victoria	Fairfield Hospital, Melbourne	492
	Microbiological Diagnostic Unit, University of Melbourne	7
	Royal Childrens Hospital, Melbourne	142
Western Australia	Princess Margaret Hospital, Perth	285
	State Health Laboratory Services, Perth	285
TOTAL		2532