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

ANNUAL REPORT OF THE NATIONAL NOTIFIABLE DISEASES SURVEILLANCE SYSTEM, 1993

Helen Longbottom, David Evans, Htoo Myint and Jenny Hargreaves, AIDS/Communicable Diseases Branch, Commonwealth Department of Human Services and Health, for the Communicable Diseases Network Australia New Zealand

National data on the surveillance of communicable diseases, notified under public health legislation to State and Territory health authorities, have been collated and published by the Commonwealth Department of Human Service and Health and its predecessor departments since 1924. These data were in an aggregate form until the National Notifiable Diseases Surveillance System (NNDSS) was established in 1990 under the auspices of the Communicable Diseases Network Australia (now the Communicable Diseases Network Australia New Zealand). The NNDSS co-ordinated national notifiable disease surveillance activities including the development of a minimum dataset for the fortnightly reporting of data, the adoption of the National Health and Medical Research Council (NHMRC) list of 44 diseases for notifications¹ and the adoption of NHMRC case definitions for notifications². The timing of the implementation of specific NNDSS policy has varied between jurisdictions. Annual reports on the NNDSS were prepared for 1991³ and 1992^{4,5}.

Interpretation

The collection of data for the NNDSS may be influenced by a number of factors which should be considered when interpreting the data.

The number of cases notified for each disease may not reflect the true number of cases. Factors influencing case ascertainment include: the method of surveillance; the clinical presentation of the disease; and the case definition used for notification.

Sources of surveillance data include doctor, hospital and laboratory notifications. Methods of surveillance vary between States and Territories and result in differing levels of case ascertainment. A notification system that is laboratory based will be very efficient at detecting cases of conditions that require a laboratory diagnosis. However, such a system may not have the ability to distinguish between incident or prevalent cases of some conditions and will underestimate the number of cases of conditions where diagnosis may also be made using a clinical case definition, for example, measles.

A disease that is severe or rare is more likely to be notified as medical attention is more likely to be sought for these conditions. For some infections such as hepatitis C, transmission may be asymptomatic and the number of incident cases reported will underestimate the true number of cases. Information on risk factors

(other than demographic details) associated with each case is not supplied to the NNDSS.

While uniform case definitions recommended by the NHMRC were adopted by the NNDSS in June 1993, the practical application of these case definitions has been incremental and may vary between States and Territories. Therefore, notifications may not be comparable between States and Territories or over time.

Data management

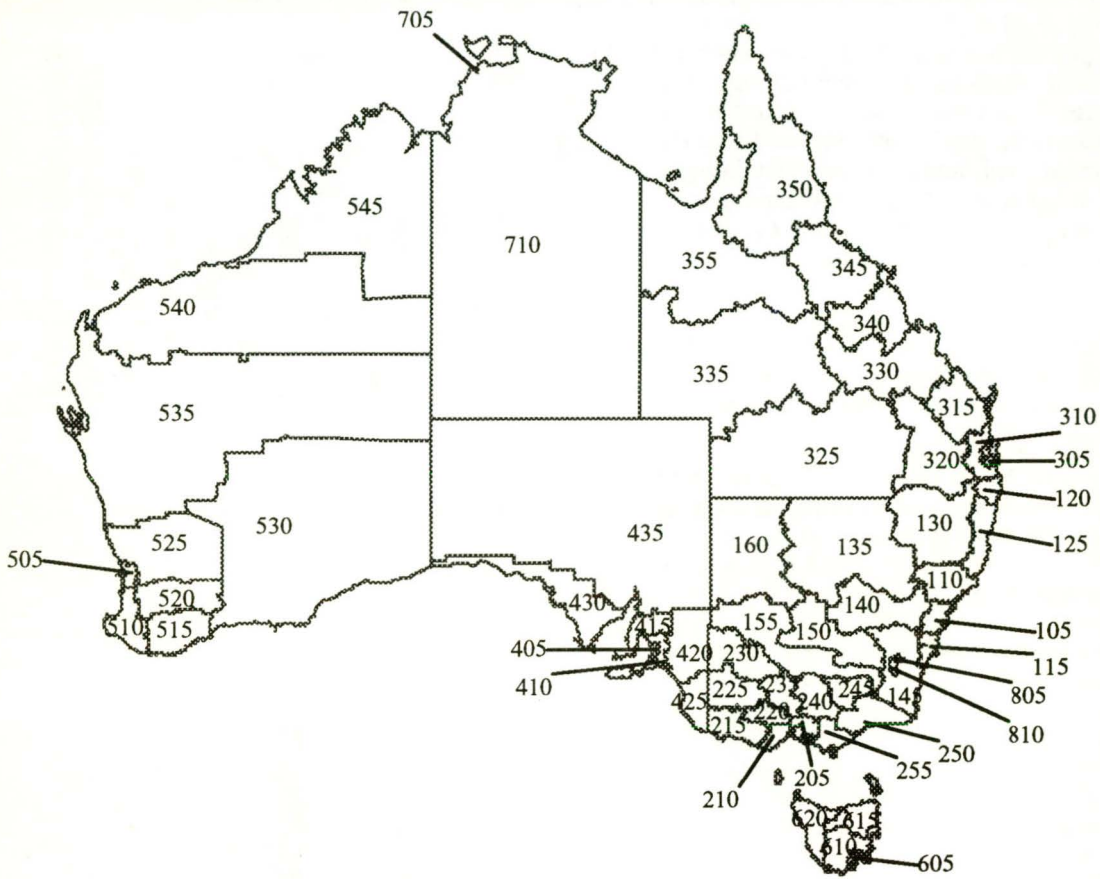
States and Territories collect and collate their notifiable diseases data on a continuous basis throughout the year. The organisation and structure of each of these surveillance systems are unique. Each fortnight's data are sent from the States and Territories to the AIDS/Communicable Diseases Branch of the Commonwealth Department of Human Services and Health for national collation and analysis. The data are supplied in standard formats on computer diskette or via modem for notifications received during the period 1 January 1993 to the last day (year to date) of each current fortnightly reporting period. Each fortnight the data supplied supersedes the previous year to date reports, allowing State and Territories to edit and correct reports contributed in previous periods.

Data are supplied to the Commonwealth using a specified dataset of nine fields. The unique identifying numeric code, the disease code, and the date of notification to the relevant health authority (referred to as the report date) are the three compulsory data items for each case. Additional data include: the age of the case; the sex of the case; the onset date of the disease; the Aboriginality of the case; the confirmation status; and the fortnight of the report to the NNDSS.

The national dataset was compiled each fortnight from all valid cases supplied by each State and Territory. Records not containing the compulsory fields were omitted. Where possible other missing data fields were filled. For example, a missing date of onset was substituted with the date of report of the notification.

The 1993 dataset was closed in July 1994 to allow for delays in receipt of notifications by State and Territory health authorities and subsequent delays in supply of data to the NNDSS. Extensive analysis of the dataset was undertaken including examination of all fields in the dataset and detection of duplicate entries (defined as records with identical disease, notification or report date, age, sex, and postcode). The results of this analysis were referred to the contributing State and Territory health authorities for verification and correction.

Figure 1. ABS Statistical Divisions



Number	Statistical Division	Number	Statistical Division	Number	Statistical Division
Australian Capital Territory		Queensland continued		Victoria	
805	Canberra	315	Wide Bay-Burnett	205	Melbourne
110	Australian Capital Territory - balance	320	Darling Downs	210	Barwon
New South Wales		325	South West	215	Western District
105	Sydney	330	Fitzroy	220	Central Highlands
110	Hunter	335	Central West	225	Wimmera
115	Illawarra	340	Mackay	230	Mallee
120	Richmond-Tweed	345	Northern	235	Loddon-Campaspe
125	Mid-North Coast	350	Far North	240	Goulburn
130	Northern	355	North West	245	Ovens-Murray
135	North Western	South Australia		250	East Gippsland
140	Central West	405	Adelaide	255	Gippsland
145	South Eastern	410	Outer Adelaide	Western Australia	
150	Murrumbidgee	415	Yorke and Lower North	505	Perth
155	Murray	420	Murray Lands	510	South West
160	Far West	425	South East	515	Lower Great Southern
Northern Territory		430	Eyre	520	Upper Great Southern
705	Darwin	435	Northern	525	Midlands
710	Northern Territory - balance	Tasmania		530	South Eastern
Queensland		605	Greater Hobart	535	Central
305	Brisbane	610	Southern	540	Pilbara
310	Moreton	615	Northern	545	Kimberley
		620	Mersey-Lyell		

Amendments to the dataset were completed in October 1994. Notification rates were calculated using 1993 mid-year population estimates from the Australian Bureau of Statistics (ABS). The national rates have been adjusted, where appropriate, by excluding the relevant State or Territory population from the denominator for diseases not notifiable or otherwise classified in specific States or Territories. Time trends are reported using those records with onset dates in 1993. Where there are records in the current 1994 dataset with onset dates in 1993 this is mentioned in the text or, where appropriate, shown in the figures. Data were mapped by postcode of residence to Statistical Divisions as defined by the ABS⁶ (Figure 1) for small area analysis. Postcode information was not available for most of the Northern Territory notifications so they could not be allocated to Statistical Divisions for mapping. Notification rates depicted in the maps for the Northern Territory are thus for the Territory as a whole.

Data storage, preparation and analysis were performed using the EpiInfo, Microsoft Excel, MapInfo and QuattroPro packages on microcomputer.

Overall notifications

A total of 60,745 notifications was received by the NNDSS from States and Territories in 1993 (Table 1). This represents a 2.7% increase over the number of notifications received in 1992 (59,156) and a decrease in the trend seen in 1991 and 1992 when there were substantial increases in the number of notifications received each year compared to number received in the previous year (Figure 2).

The highest percentage of notifications came from Queensland (34.8%) with a total of 21,130 notifications reported for the period. The percentage of notifications from other States and Territories was: 18.3% (11,093) from Victoria; 16.2% (9608) from New South Wales; 10.4% (6334) from Western Australia; 9.6% (5837) from South Australia; 6.0% (3660) from the Northern Territory; 3.2% (1971) from Tasmania; and 1.8% (1112) from the Australian Capital Territory. While for most States and Territories the percentage of notifications contributed in 1993 was similar to the percentage contributed in 1992, the contributions from New South Wales decreased from 22.2% in 1992 to 16.2% in 1993 (Figure 3). The use of incident case definitions for the notification of hepatitis B and hepatitis C in New South Wales in 1993 has contributed to this decrease in notifications.

The crude annual rate of notification was 344.0 per 100,000 population compared with a rate of 351.1 notifications per 100,000 population in 1992 (Table 2). This represents a decrease in the notification rate of 2.0% between 1992 and 1993. There was an increase in the crude notification rate of 38% between 1991 and 1992.

As in 1991 and 1992, the Northern Territory had the highest crude rate of notifications (2161.9 notifications per 100,000 population). New South Wales had the lowest rate with 160.2 notifications per 100,000 population. Differences in case definitions and methods of surveillance as well as the incidence of disease contrib-

Figure 2. Total notifications, 1983 to 1993, by year

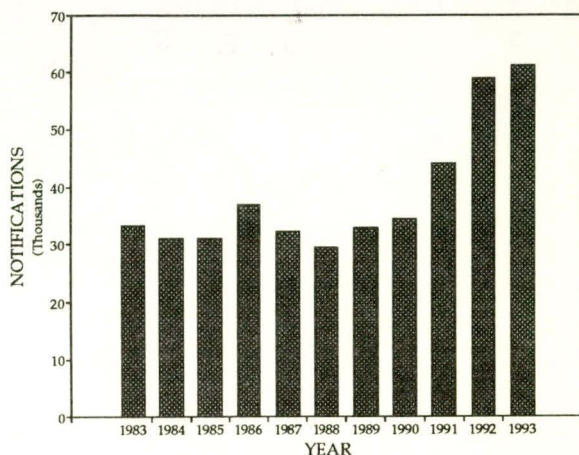
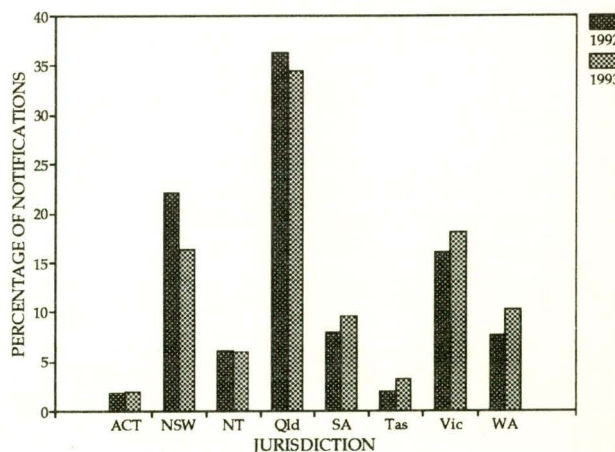


Figure 3. Total notifications, 1992 and 1993, by State or Territory



ute to these differences in notification rates between jurisdictions.

The highest rate of notification for any disease was for unspecified hepatitis C with 73.9 notifications per 100,000 population. As in previous years high rates of notification were seen for campylobacteriosis (69.6 per 100,000 population) and chlamydial infection - not elsewhere classified (55.8 per 100,000 population). Other diseases with rates of notification greater than 20 per 100,000 population were: unspecified hepatitis B (38.8 per 100,000); Ross River virus infection (31.6 per 100,000); salmonellosis - not elsewhere classified (26.8 per 100,000); measles (25.7 notifications per 100,000); pertussis (22.6 per 100,000) and rubella (21.6 per 100,000). There was wide variability in the disease specific rates between jurisdictions with the highest disease specific rate being recorded for gonococcal infection in the Northern Territory (403.4 per 100,000 population).

Table 1. National Notifiable Disease, 1993, by State or Territory¹, and 1992 total

DISEASE	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	1993 Total	1992 Total
Arbovirus infection										
Ross River virus infection	4	592	247	2387	806	-	1219	173	5428	5630
Dengue	1	2	4	663	0	-	20	NN	690	366
NEC ¹	0	69	25	382	3	10	80	9	578	303
Botulism	0	-	NN	NN	NN	0	0	NN	0	0
Brucellosis	0	6	0	14	0	0	0	0	20	29
Campylobacteriosis ²	151	-	368	2467	1646	443	2136	900	8111	9135
Chancroid	0	0	0	1	NN	0	0	0	1	5
Chlamydial infection (NEC) ³	53	NN	652	2645	733	227	1408	782	6500	6293
Cholera	0	1	0	4	0	0	0	1	6	3
Diphtheria	0	0	0	0	1	0	0	0	1	14
Donovanosis	0	NN	36	14	NN	0	0	17	67	78
Gonococcal infection ⁴	15	371	683	603	142	5	199	793	2811	2908
<i>Haemophilus influenzae</i> type b infection ⁵	9	131	20	67	50	9	84	26	396	501
Hepatitis A	16	610	114	904	119	3	186	54	2006	2109
Hepatitis B - incident	-	101	41	-	36	2	98	-	278	-
Hepatitis B - unspecified	113			1497				366	1976	5219
Hepatitis C - incident	-	26	-	-	4	-	-	-	30	-
Hepatitis C - unspecified ⁶	285		212	3049		161	2659	1176	7542	8812
Hepatitis (NEC)	0	6	1	37	5	0	23	NN	72	70
Hydatid infection	0	3	0	17	0	2	8	2	32	38
Legionellosis	0	73	2	23	17	1	42	20	178	185
Leprosy	0	4	2	1	0	0	6	2	15	16
Leptospirosis	0	17	1	50	9	9	83	9	178	159
Listeriosis	1	13	0	7	4	0	24	4	53	3
Lymphogranuloma venereum	0	NN	0	0	NN	0	1	NN	1	38
Malaria	19	166	30	295	27	14	92	45	688	712
Measles	182	2348	8	819	94	848	194	43	4536	1425
Meningococcal infection	6	152	2	87	15	6	63	47	378	292
Mumps ⁷	1	14	NN	NN	3	NN	0	10	28	23
Ornithosis	0	NN	3	6	21	1	59	8	98	94
Pertussis	45	1405	7	597	1126	58	513	239	3990	739
Plague	0	0	0	0	0	NN	0	0	0	0
Poliomyelitis	0	0	0	0	0	0	0	0	0	0
Q fever	0	399	0	429	14	0	20	27	889	543
Rabies	0	NN	0	0	0	0	0	0	0	0
Rubella ⁸	146	855	13	1433	276	0	614	475	3812	3810
Salmonellosis (NEC)	42	994	384	1367	396	144	722	682	4731	4614
Shigellosis	3	-	136	186	86	1	104	192	708	694
Syphilis ²	3	782	639	636	57	8	29	151	2305	2695
Tetanus	0	5	0	NN	3	0	2	0	10	14
Tuberculosis	16	437	27	111	64	19	322	75	1071	970
Typhoid	1	26	0	8	1	0	32	4	72	50
Viral haemorrhagic fever (NEC)	0	0	0	0	0	0	0	0	0	0
Yellow fever	0	0	0	0	0	0	0	0	0	0
Yersiniosis (NEC) ²	0	-	3	324	79	0	51	2	459	567
Total	1112	9608	3660	21130	5837	1971	11093	6334	60745	59156

NN Not notifiable.

- Elsewhere classified.

NEC Not elsewhere classified.

1. Tasmania: includes Ross River virus infection and dengue.

2. NSW: only as 'foodborne disease' or 'gastroenteritis in an institution'.

3. WA: genital only.

4. NT, Qld, SA and Victoria: includes gonococcal neonatal ophthalmia.

5. WA: notifiable since 1 March 1993.

6. WA: notifiable since 1 March 1993.

7. SA: notifiable since 1 July 1993; WA: notifiable since 1 March 1993.

8. Tasmania: congenital rubella syndrome only; WA: cases other than congenital rubella syndrome notifiable since 1 March 1993.

9. NSW and Victoria: includes paratyphoid.

Table 2. National Notifiable Diseases, annual rate per 100,000 population, 1993, by State or Territory, and 1992 total

DISEASE	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	1993 Total	1992 Total
Arbovirus infection										
Ross River virus infection	1.3	9.9	145.9	76.6	55.1	-	27.3	10.3	31.6	36.5
Dengue	0.3	0	2.4	21.3	0	-	0.5	NN	4.5	2.2
NEC ¹	0	1.2	14.8	12.3	0.2	2.1	1.8	0.5	3.3	1.8
Botulism	0	0	NN	NN	NN	0	0	NN	0	0
Brucellosis	0	0.1	0	0.5	0	0	0	0	0.1	0.2
Campylobacteriosis ²	50.5	NN	217.4	79.2	112.5	94.0	47.8	53.7	69.6	78.4
Chancroid	0	0	0	0	NN	0	0	0	0	0.1
Chlamydial infection (NEC) ³	17.7	NN	385.1	84.9	50.1	48.2	31.5	46.7	55.8	56.6
Cholera	0	0	0	0.1	0	0	0	0.1	0	0
Diphtheria	0	0	0	0	0.1	0	0	0	0	0.1
Donovanosis	0	NN	21.3	0.5	NN	0	0	1.0	0.7	1.0
Gonococcal infection ⁴	5.0	6.2	403.4	19.4	9.7	1.1	4.5	47.3	15.9	17.3
<i>Haemophilus influenzae</i> type b infection ⁵	3.0	2.2	11.8	2.2	3.4	1.9	1.9	1.6	2.2	3.0
Hepatitis A	5.4	10.2	67.3	29.0	8.1	0.6	4.2	3.2	11.4	12.1
Hepatitis B - incident	-	1.7	24.2	-	2.5	0.4	2.2	-	2.2	-
Hepatitis B - unspecified	37.8			48.0				21.8	38.8	31.0
Hepatitis C - incident	-	0.4	-	-	0.3	-	-	-	0.4	-
Hepatitis C - unspecified ⁶	95.3		125.2	97.9		34.2	59.6	70.2	73.9	63.6
Hepatitis (NEC)	0	0.1	0.6	1.2	0.3	0	0.5	NN	0.5	0.5
Hydatid infection	0	0.1	0	0.6	0	0.4	0.2	0.1	0.2	0.2
Legionellosis	0	1.2	1.2	0.7	1.2	0.2	0.9	1.2	1.0	1.1
Leprosy	0	0.1	1.2	0	0	0	0.1	0.1	0.1	0.1
Leptospirosis	0	0.3	0.6	1.6	0.6	1.9	1.9	0.5	1.0	0.9
Listeriosis	0.3	0.2	0	0.2	0.3	0	0.5	0.2	0.3	0.3
Lymphogranuloma venereum	0	NN	0	0	NN	0	0	NN	0	0
Malaria	6.4	2.8	17.7	9.5	1.9	3.0	2.1	2.7	3.9	4.2
Measles	60.9	39.2	4.7	26.3	6.4	179.9	4.4	2.6	25.7	8.5
Meningococcal infection	2.0	2.5	1.2	2.8	1.0	1.3	1.4	2.8	2.1	1.7
Mumps ⁷	0.3	0.2	NN	NN	0.2	NN	0	0.6	0.2	0.2
Ornithosis	0	NN	1.8	0.2	1.4	0.2	1.3	0.5	0.8	0.9
Pertussis	15.1	23.4	4.1	19.2	77.0	12.3	11.5	14.3	22.6	4.4
Plague	0	0	0	0	0	NN	0	0	0	0
Poliomyelitis	0	0	0	0	0	0	0	0	0	0
Q fever	0	6.7	0	13.8	1.0	0	0.5	1.6	5.0	3.7
Rabies	0	NN	0	0	0	0	0	0	0	0
Rubella ⁸	48.8	14.3	7.7	46.0	18.9	0	13.8	28.3	21.6	22.6
Salmonellosis (NEC)	14.1	16.6	226.9	43.9	27.1	30.5	16.2	40.7	26.8	27.4
Shigellosis ²	1.0	-	80.3	6.0	5.9	0.2	2.3	11.5	6.1	6.2
Syphilis	1.0	13.0	377.4	20.4	3.9	1.7	0.7	9.0	13.1	16.0
Tetanus	0	0.1	0	NN	0.2	0	0	0	0.1	0.1
Tuberculosis	5.4	7.3	16.0	3.6	4.4	4.0	7.2	4.5	6.1	5.8
Typhoid ⁹	0.3	0.4	0	0.3	0.1	0	0.7	0.2	0.4	0.3
Viral haemorrhagic fever (NEC)	0	0	0	0	0	0	0	0	0	0
Yellow fever	0	0	0	0	0	0	0	0	0	0
Yersiniosis (NEC) ²	0	-	1.8	10.4	5.4	0	1.1	0.1	3.9	3.4
Total	371.9	160.2	2161.9	678.1	399.0	418.1	248.5	377.8	344.0	351.1

NN Not notifiable.

- Elsewhere classified.

NEC Not elsewhere classified.

1. Tasmania: includes Ross River virus infection and dengue.

2. NSW: only as 'foodborne disease' or 'gastroenteritis in an institution'.

3. WA: genital only.

4. NT, Qld, SA and Victoria: includes gonococcal neonatal ophthalmia.

5. WA: notifiable since 1 March 1993.

6. WA: notifiable since 1 March 1993.

7. SA: notifiable since 1 July 1993; WA: notifiable since 1 March 1993.

8. Tasmania: congenital rubella syndrome only; WA: cases other than congenital rubella syndrome notifiable since 1 March 1993.

9. NSW and Victoria: includes paratyphoid.

There were no notifications received for botulism, plague, poliomyelitis, rabies, yellow fever or (other) viral haemorrhagic fever. There were single notifications received for chancroid, diphtheria and lymphogranuloma venereum.

Some records had data missing in some fields. The percentage of records with missing data in specific fields included: sex (1%); age (1%); postcode of residence (4.5%); and Aboriginality (68.4%). Analysis of data on Aboriginality will not be included in this report because of the high percentage of notifications where this information was incomplete.

The remainder of the report describes the individual notifiable diseases in the order presented in Table 1. HIV infections were also reported by some States, but are compiled separately for the *Australian HIV Surveillance Report*. Non tuberculosis mycobacterial disease notifications also reported by some States are included in the National Mycobacterial Surveillance System.

Arbovirus infection - Ross River virus infection

There were 5428 notifications of Ross River virus infection in 1993. While the annual adjusted rate of notifications in 1993 (31.6 per 100,000 population) was less than the rate of notification in 1992 (36.5 per

100,000), it was higher than the adjusted rate for 1991 (22.9 per 100,000).

There was a marked seasonal trend with the highest number of notifications having onset dates in February (1324) and March (1329) (Figure 4).

The proportion of cases in males and females was approximately the same. As seen in 1991 and 1992, there was a bell shaped age distribution curve with the

Figure 4. Notifications of Ross River virus infection with onset dates in 1993, by month of onset

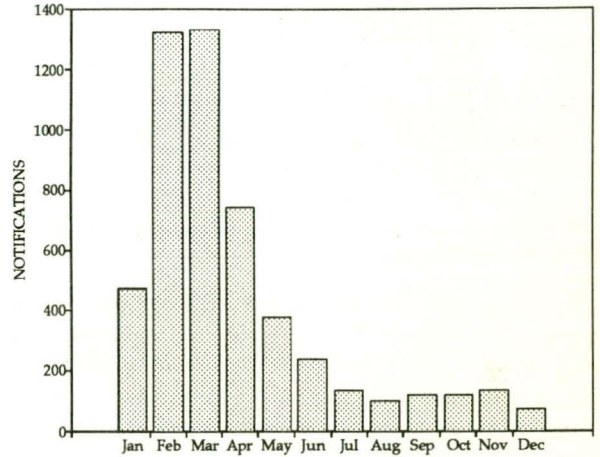


Figure 6. Annual rate of notification of Ross River virus infection per 100,000 population, 1993, by Statistical Division of residence

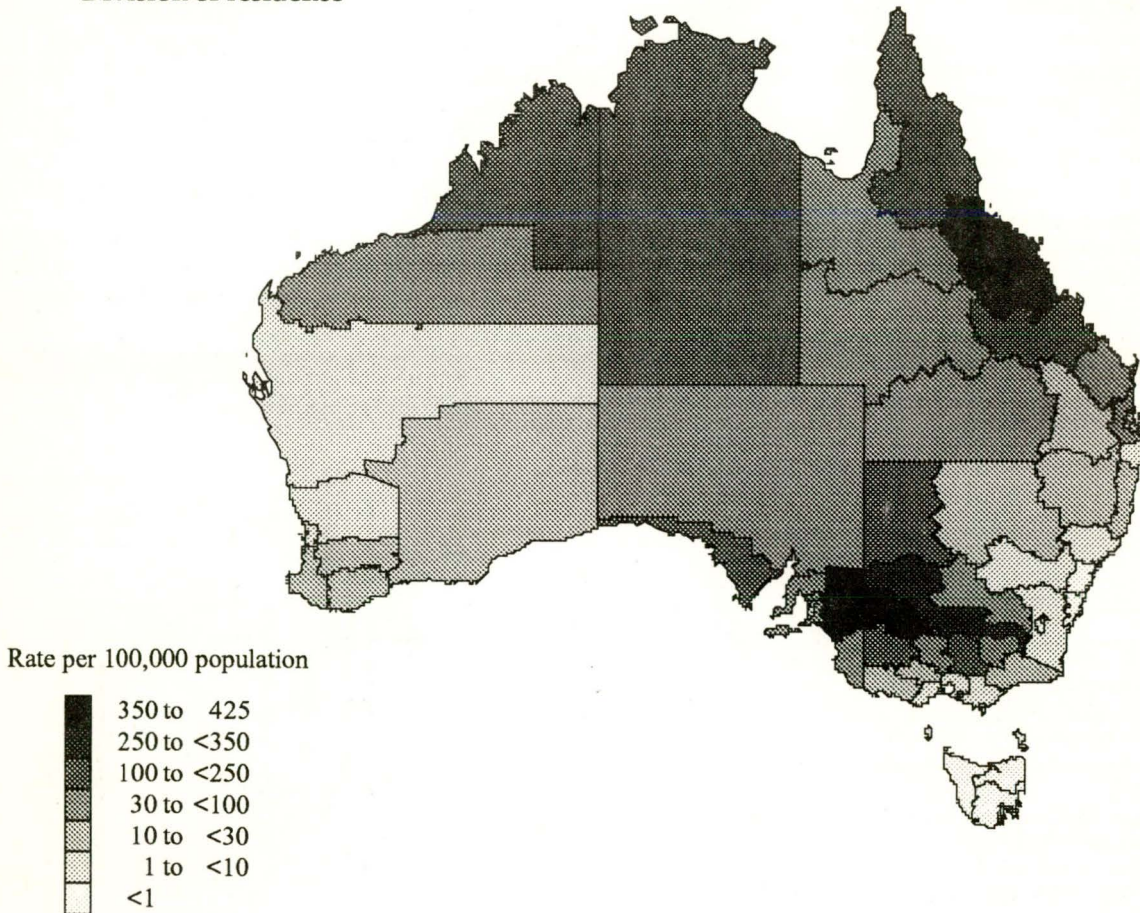
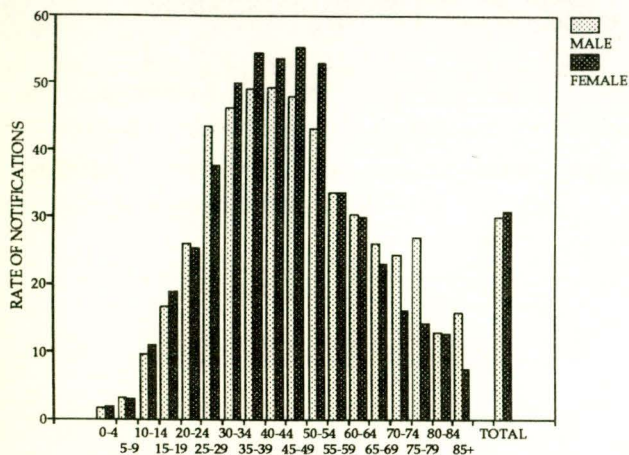


Figure 5. Annual adjusted rate of notification of Ross River virus infection per 100,000 population, 1993, by age group and sex



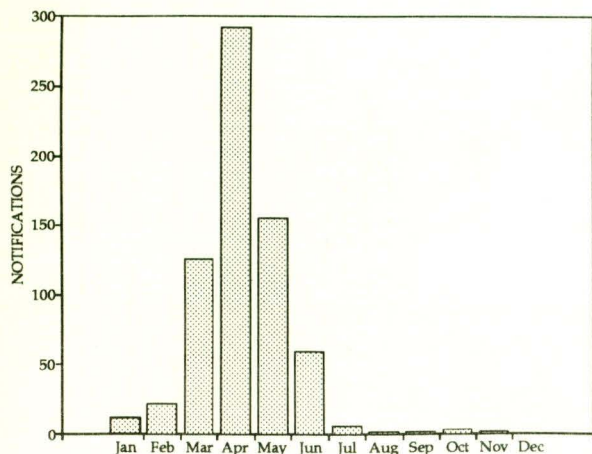
peak notification rates seen in 35-44 years age group (52.2 per 100,000) (Figure 5).

Reports of the infection were received from most parts of the country with the highest rates reported for residents of the Statistical Divisions of Murraylands South Australia (421.1 per 100,000 population), Mallee Victoria (396.3 per 100,000 population) and Northern Queensland (363.3 per 100,000 population) (Figure 6). This geographical distribution differs from that seen in 1992 when notification rates from Victoria (3.3 per 100,000 population) and South Australia (5.1 per 100,000 population) were markedly lower, and higher rates of notification were reported from Western Australia (45.0 per 100,000 population) and Queensland (139.6 per 100,000 population).

Arbovirus infection - dengue

There was epidemic activity for dengue in 1993 with 690 notifications received for an annual adjusted notification rate of 3.9 per 100,000 population. The adjusted

Figure 7. Notifications of dengue with onset dates in 1993, by month of onset



rate for 1992 was 2.2 per 100,000 population and the adjusted rate for 1991 was 0.3 per 100,000 population.

There was a marked seasonal trend with the highest number of cases having onset dates in March (125), April (292), and May (155) (Figure 7).

The male/female ratio of cases was 0.8/1. The age distribution of cases was bell shaped with the highest rate of notifications recorded for females in the 30-34 years age group (Figure 8).

The geographical distribution of the infection was similar to that seen in 1992, with the cases reported predominantly for residents of the Statistical Division of Northern Queensland (324.7 per 100,000 population) and Northwest Queensland (47.4 per 100,000 population) All jurisdictions apart from Queensland reported rates of less than 2.5 per 100,000 population. These low numbers probably represent travellers returning from endemic areas (Figure 9).

Arbovirus infection - not elsewhere classified

This classification includes unspecified arboviral infection, Ross River virus infection and dengue in some jurisdictions, the alphaviruses, Sindbis and Barmah Forest, and the flaviviruses, Murray Valley encephalitis, Kunjin, Kokobera and Stratford.

There were 578 cases of arbovirus (not elsewhere classified) reported in 1993. The annual rate of notification in 1993 (3.3 per 100,000 population) was higher than that in 1992 (1.8 notifications per 100,000 population) and 1991 (1.2 per 100,000 population). There was a seasonal variation in incidence with a peak number of notifications (97) having onset dates in April and the lowest number of notifications (15) having onset dates in August. The current 1994 dataset has an additional 38 notifications with onset dates in 1993 (Figure 10).

The number of notifications in males and females was approximately the same (ratio 1.05/1) with the highest rate of notification occurring in males in the 45-49 years

Figure 8. Annual adjusted rate of notification of dengue per 100,000 population, 1993, by age group and sex

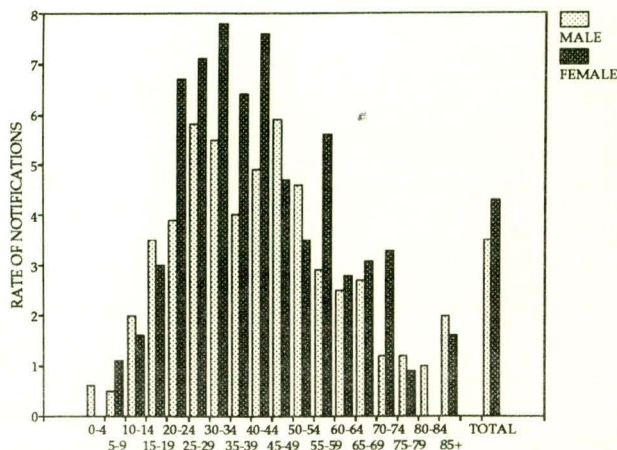
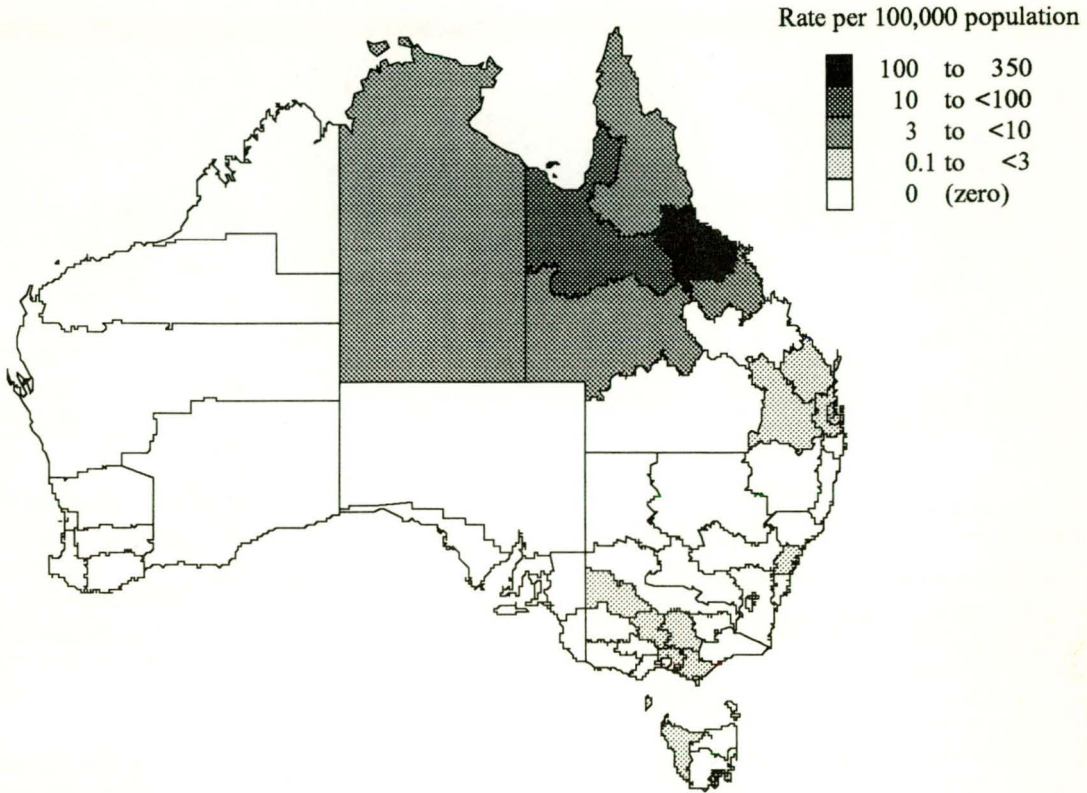


Figure 9. Annual rate of notification of dengue per 100,000 population, 1993, by Statistical Division of residence



age group (8.2 notifications per 100,000 population) (Figure 11).

There was wide geographical variability in the notification rates with the highest rates being recorded for residents of the Statistical Divisions of Mallee Victoria (55.8 per 100,000 population), Far West New South Wales (50.2 per 100,000 population) and Mackay, Queensland (75.2 per 100,000 population) (Figure 12).

Brucellosis

There were 20 cases of brucellosis reported in 1993; 15 of these cases had onset dates in 1993. There was no apparent seasonal trend. The male/female ratio was 2.3/1. Notifications were primarily for residents of Statistical Divisions of northeast New South Wales and parts of rural Queensland (Figure 13).

Figure 10. Notifications of arbovirus infection (not elsewhere classified) with onset dates in 1993, by month of onset

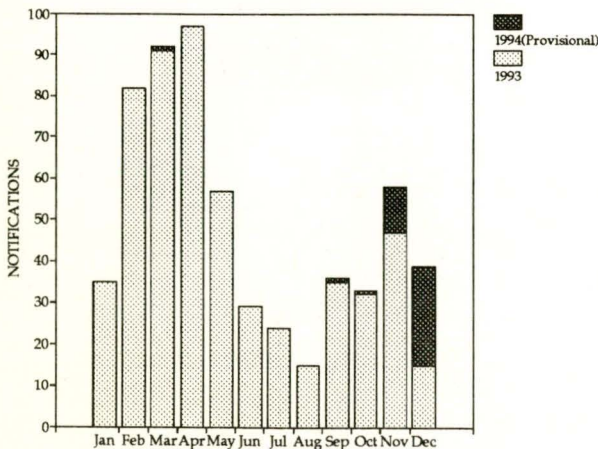


Figure 11. Annual rate of notification of arbovirus infection (not elsewhere classified) per 100,000 population, 1993, by age group and sex

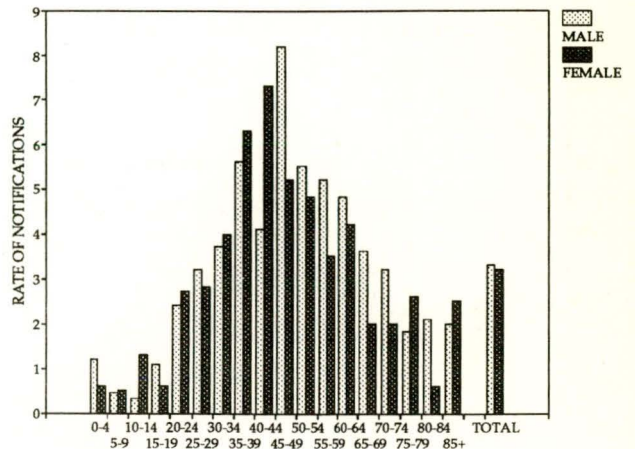


Figure 12. Annual rate of notification of arbovirus infection (not elsewhere classified) per 100,000 population, 1993, by Statistical Division of residence

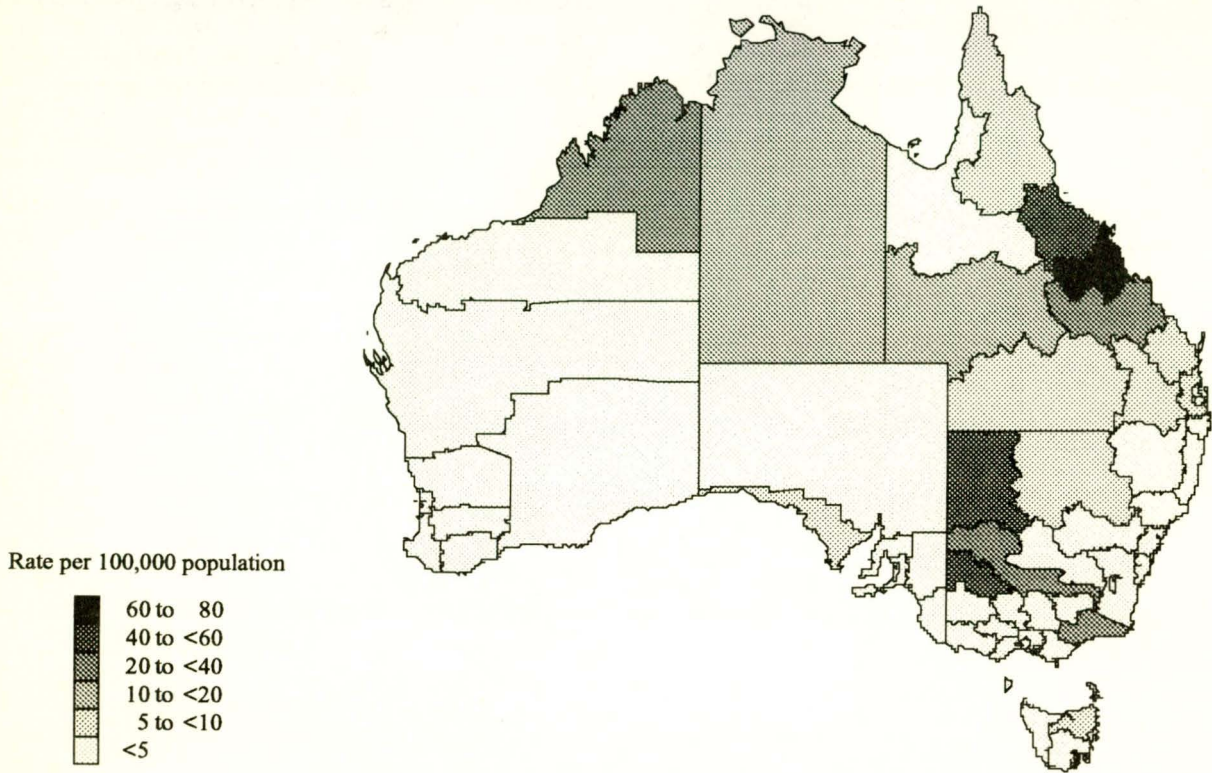
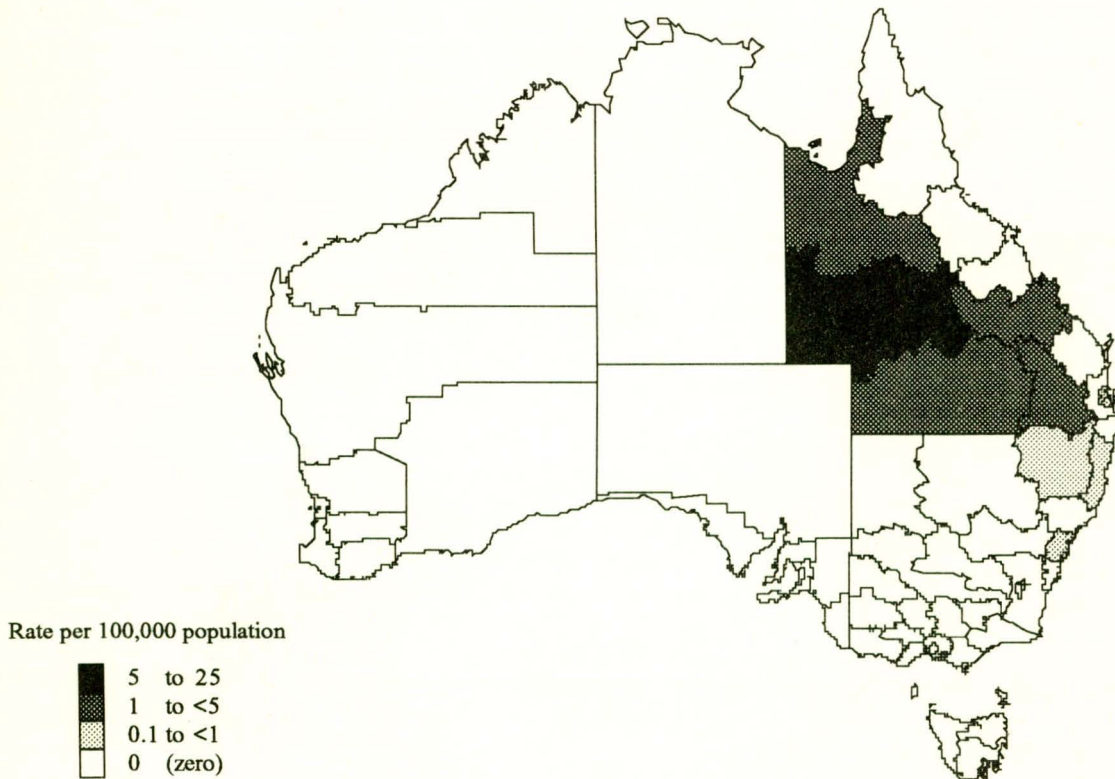


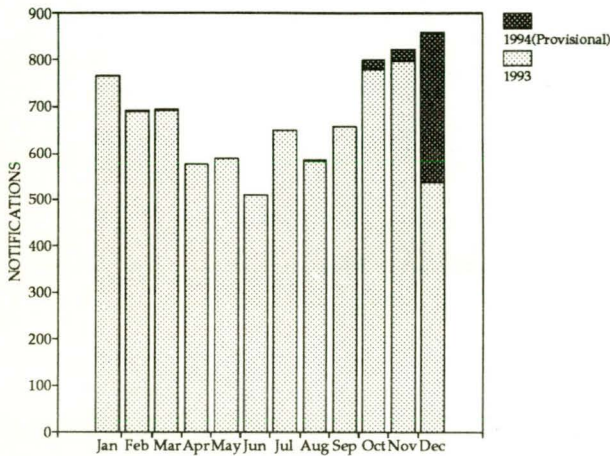
Figure 13. Annual rate of notification of brucellosis per 100,000 population, 1993, by Statistical Division of residence



Campylobacteriosis

There were 8111 cases of campylobacteriosis reported in 1993. As in previous years, campylobacteriosis has one of the highest annual adjusted rates of notification (69.6 per 100,000 population). This rate is lower than that reported for 1992 (78.4 per 100,000 population) (In New South Wales campylobacteriosis was only notifiable as 'foodborne disease' or 'gastroenteritis in an institution').

Figure 14. Notifications of campylobacteriosis with onset dates in 1993, by month of onset



A seasonal trend was noted with a higher number of notifications reported for the summer months (Figure 14).

There was a male/female ratio of 1.2/1. Campylobacteriosis was predominantly notified for infants and young children with the highest age group and sex specific rates of notification occurring in males (304.0 per 100,000 population) and females (245.2 per 100,000 population) in the 0-4 years age group (Figure 15).

Figure 15. Annual rate of notification of campylobacteriosis per 100,000 population, 1993, by age group and sex

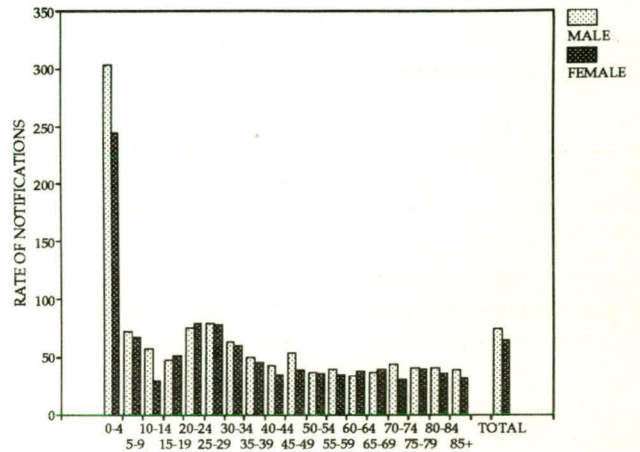
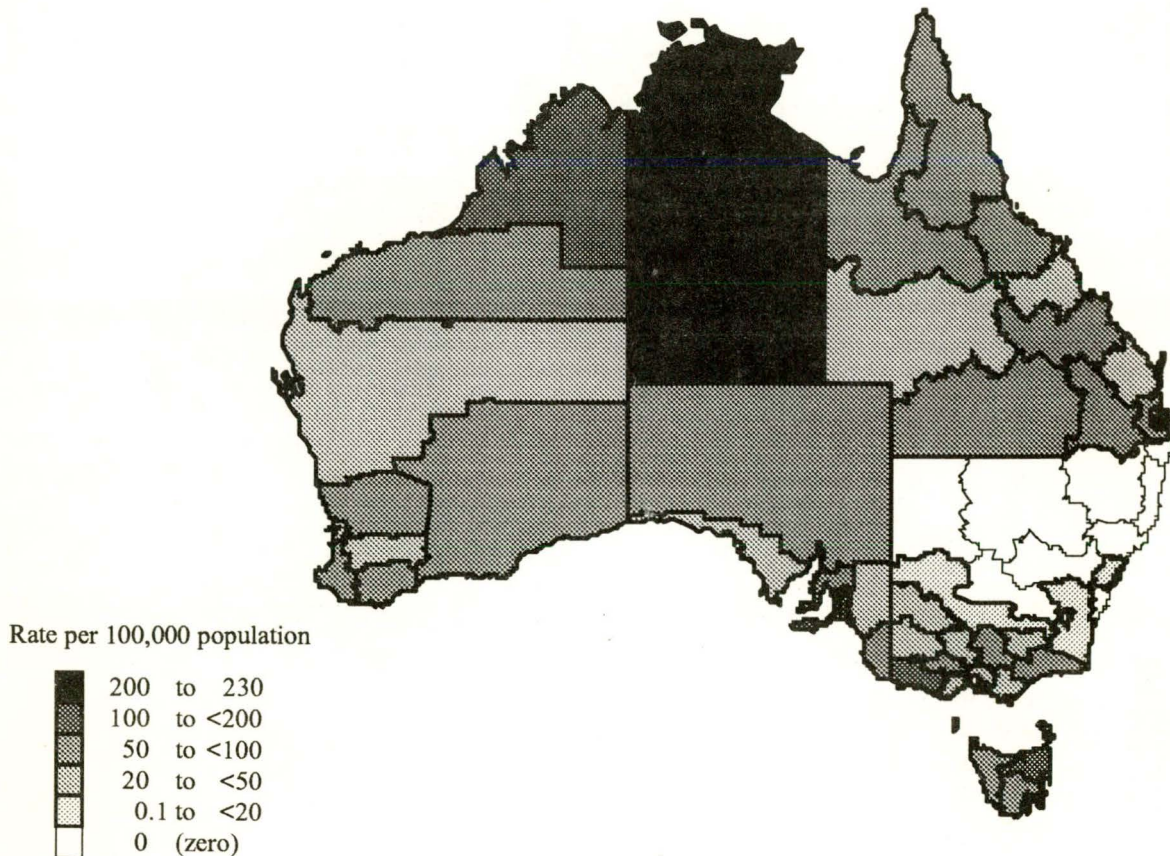


Figure 16. Annual rate of notification of campylobacteriosis per 100,000 population, 1993, by Statistical Division of residence



Campylobacteriosis was reported from all jurisdictions where it was notifiable with a disproportionately high rate from residents of the Northern Territory (229.5 per 100,000 population) (Figure 16).

Chancroid

A single case of chancroid was notified in 1993.

Chlamydial infection (not elsewhere classified)

There were 6500 notifications of chlamydial infection (not elsewhere classified) received in 1993 for an annual adjusted rate of 55.8 per 100,000 population. As in 1991 and 1992, chlamydial infection had one of the highest adjusted incidences for a notifiable disease. No seasonal trend was detected in the pattern of notifications.

The male/female ratio was 2.1:1 with disproportionately high notification rates recorded for females in the 15-19 years (293.0 per 100,000 population) and the 20-24 years age group (366.1 per 100,000 population) (Figure 17).

While notifications were received from all jurisdictions with the exception of New South Wales, where chlamydial infection (not elsewhere classified) was not

a notifiable disease, the highest notification rates were recorded for residents of the Statistical Division of Kimberley Western Australia (548.2 per 100,000 population) and for residents of the Northern Territory (388.5 per 100,000 population) (Figure 18).

Figure 17. Annual rate of notification of chlamydial infection per 100,000 population, 1993, by age group and sex

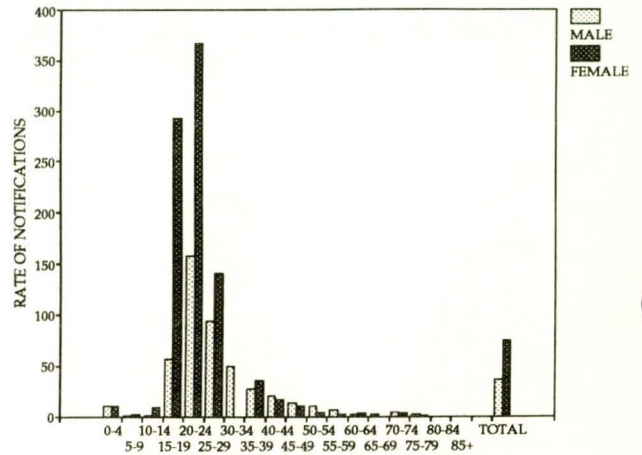
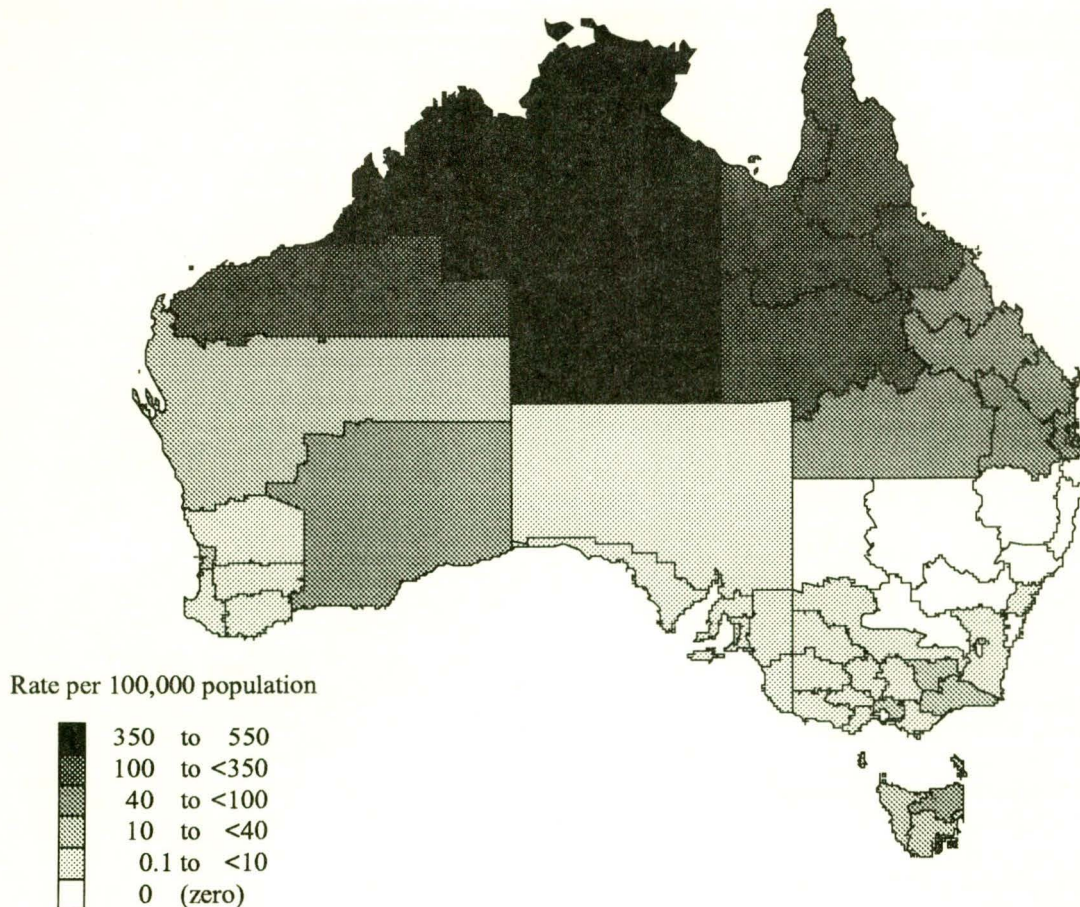


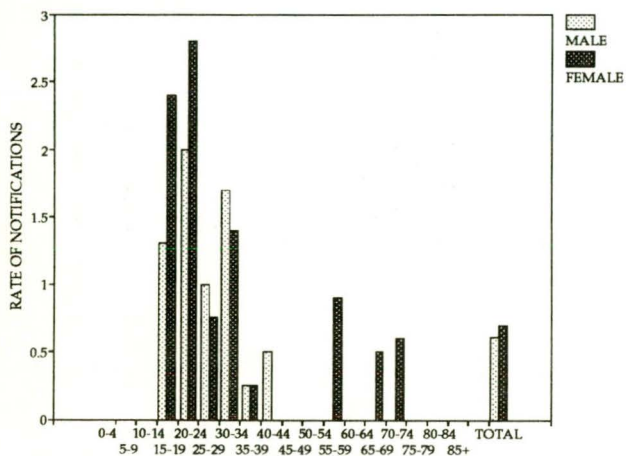
Figure 18. Annual rate of notification of chlamydial infection per 100,000 population, 1993, by Statistical Division of residence



Cholera

Six notifications of cholera were received in 1993. Three cases were male and three were female. Four of the notifications were in the 25-29 years age group. Cases were resident in Queensland (4), New South Wales (one) and Western Australia (one).

Figure 19. Annual adjusted rate of notification of donovanosis per 100,000 population, 1993, by age group and sex



Diphtheria

A single case of diphtheria was notified in 1993 for a resident of South Australia in the 30-34 years age group. There were 14 cases notified in 1992 and 8 cases notified in 1991.

Donovanosis

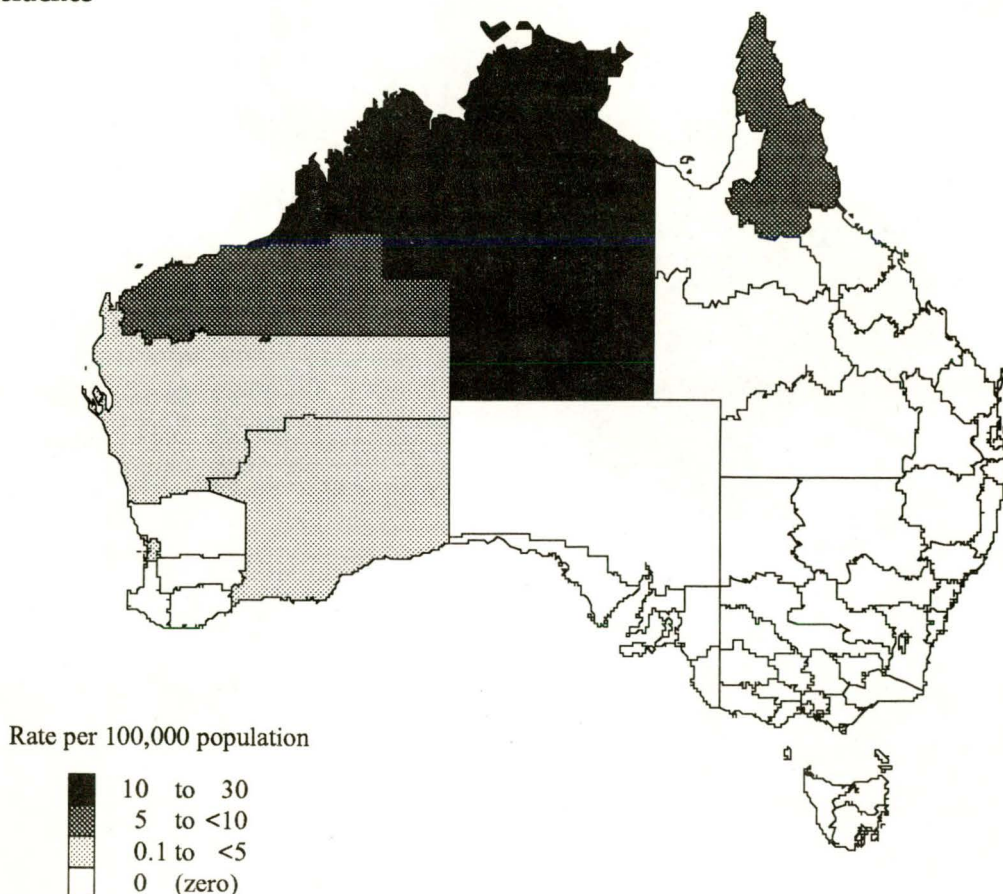
Sixty-seven cases of donovanosis were reported for an adjusted notification rate of 0.7 per 100,000 population. The male/female ratio was 0.86/1. The highest rates of notification were recorded for females in the 15-19 years age group (2.4 per 100,000 population) and in the 20-24 years age group (2.8 per 100,000 population) (Figure 19).

In the jurisdictions where donovanosis was notifiable, the highest rates of notification were recorded for residents of the Statistical Division of Kimberley Western Australia (25.5 per 100,000 population) (Figure 20).

Gonococcal infection

Notifications of gonococcal infection from the Northern Territory, Queensland, South Australia, and Victoria include cases of gonococcal neonatal ophthalmia as well as sexually transmitted disease. There were 2811 notifications in 1993 for an annual

Figure 20. Annual rate of notification of donovanosis per 100,000 population, 1993, by Statistical Division of residence



notification rate of 15.9 per 100,000 population. This is comparable to rates recorded for 1992 (17.4 per 100,000 population) and 1991 (15.0 per 100,000 population). The highest number of notifications was recorded for March (322) but there was no apparent seasonal trend.

As in previous years, there was a disproportionate number of cases reported for males with a male/female ratio of 2.7/1. The highest rate of notification was recorded for males in the 20-24 years age group (68.2 per 100,000 population) (Figure 21).

Notifications were received from most parts of the country, however, there was wide geographical variability in the rate of notification. Rates of greater than 300 per 100,000 population were received from three areas: the Statistical Division of Pilbara Western Australia (302.9 per 100,000 population); the Northern Territory (411.0 per 100,000 population); and the Statistical Division of Kimberley Western Australia (1840.0 per 100,000 population) (Figure 22).

The notification rates mapped for South Australia should be interpreted with caution as postcodes of residence was missing from 120 of the 142 notifications, so these notifications could not be allocated to Statistical Divisions for mapping purposes.

Figure 21. Annual rate of notification of gonococcal infection per 100,000 population, 1993, by age group and sex

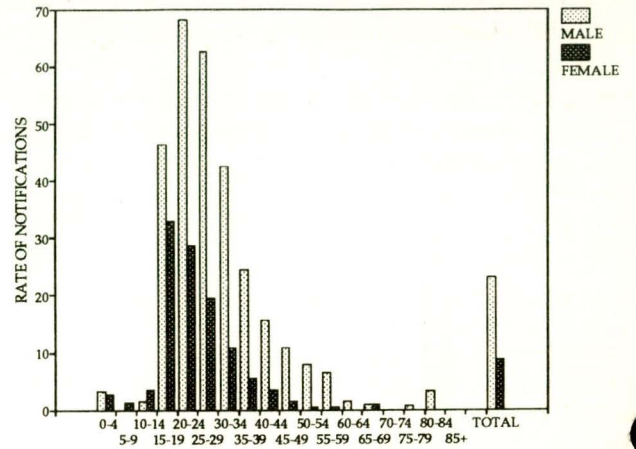
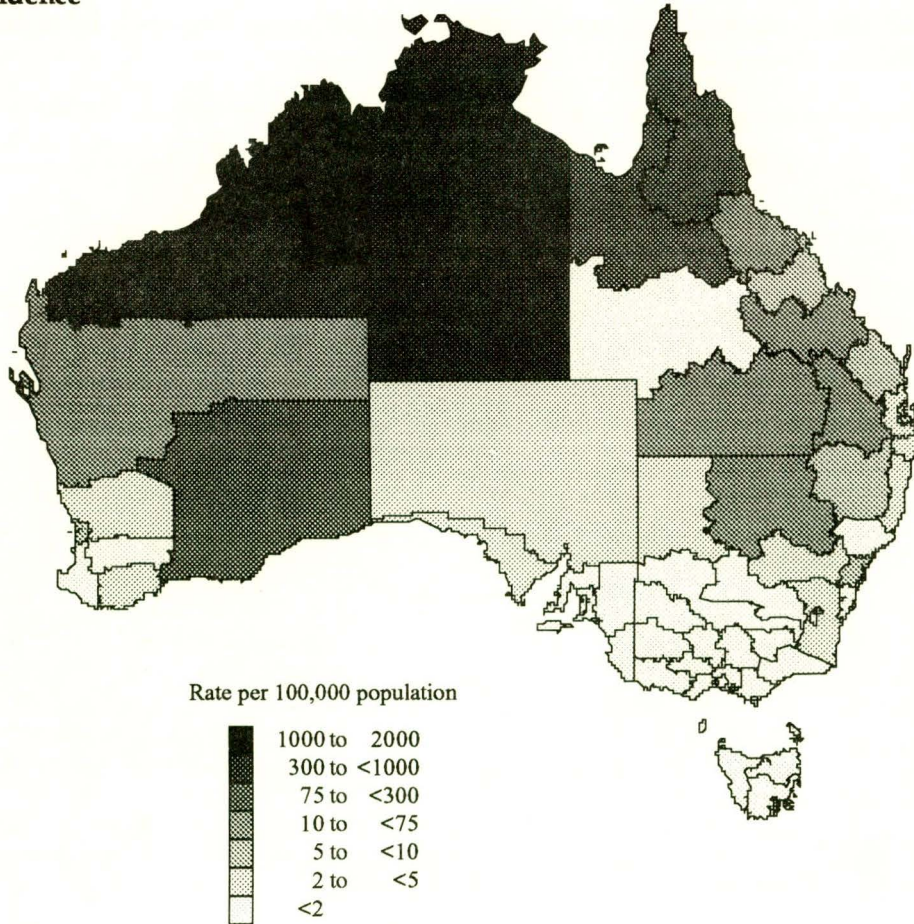


Figure 22. Annual rate of notification of gonococcal infection per 100,000 population, 1993, by Statistical Division of residence



Haemophilus influenzae type b infection

The annual rate of notification of *Haemophilus influenzae* type b (Hib) infection has continued to decline since the introduction of Hib vaccines in 1992. In 1993 there were 396 notifications for an annual rate of notification of 2.2 per 100,000 population. The adjusted rate for 1992 was 3.0 per 100,000 population. The adjusted rate for 1991 was 3.5 per 100,000 population.

In 1993 there has been a steady decline in the number of notifications each month from a peak of 53 notifications with onset dates in March. There are an additional 14 notifications in the 1994 dataset with onset dates in 1993 (Figure 23).

The male/female ratio was 1.1/1. The rate of notifications was highest in the 0-4 years age group with a rate of 25.4 per 100,000 population in males and 23.6 per 100,000 population in females. In 1992 there were rates of 40.7 per 100,000 population in males aged 0-4 and 34.7 per 100,000 population for females in the 0-4 years age group (Figure 24).

There was wide geographical variation in the notification rate with the highest rates reported for residents of the Statistical Division of Northwest Queensland (18.4 per 100,000 population) and the Northern Territory (11.8 per 100,000 population) (Figure 25).

Figure 23. Notifications of *Haemophilus influenzae* type b infection with onset dates in 1993, by month of onset

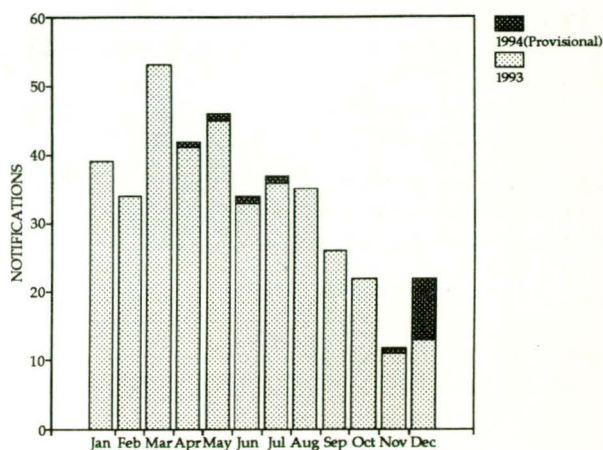


Figure 25. Annual rate of notification of *Haemophilus influenzae* type b infection per 100,000 population, 1993, by Statistical Division of residence

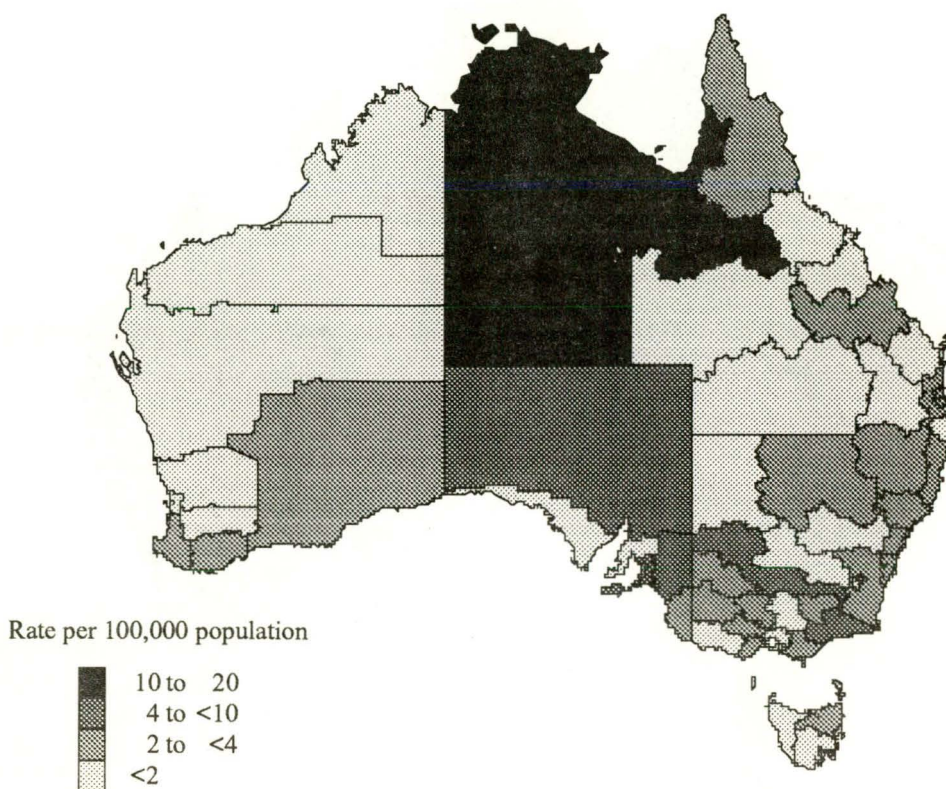


Figure 24. Annual rate of notification of *Haemophilus influenzae* type b infection per 100,000 population, 1993, by age group and sex

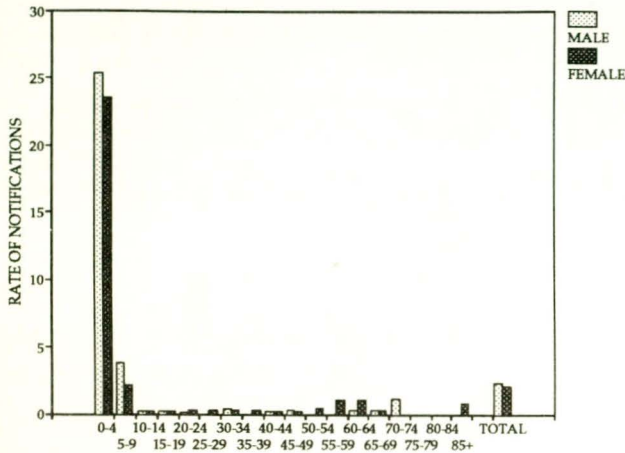
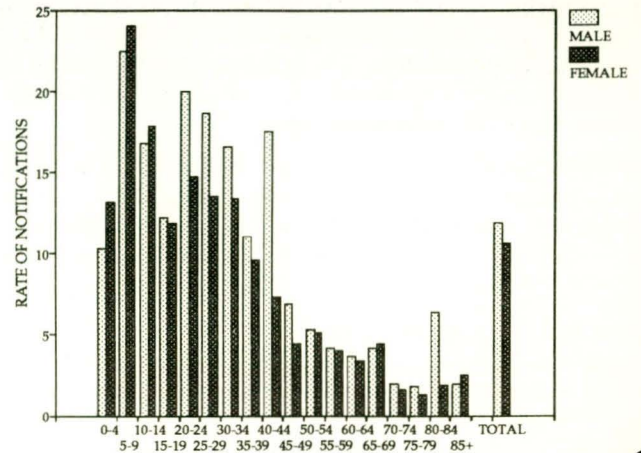


Figure 26. Annual rate of notification of hepatitis A per 100,000 population, 1993, by age group and sex



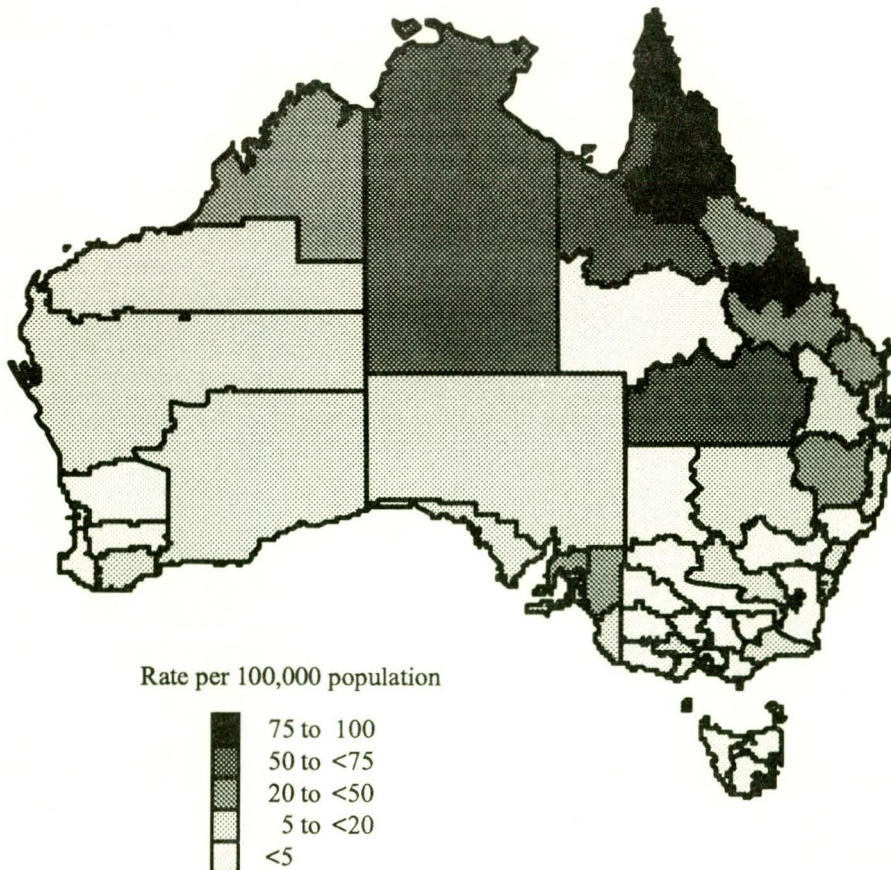
Hepatitis A

There were 2006 notifications of hepatitis A in 1993 representing an annual notification rate of 11.4 per 100,000 population. This compares with notification rates of 12.5 per 100,000 population in 1992 and 12.7

notifications per 100,000 population in 1991. No marked seasonal trend was observed.

The male/female ratio was 1.1/1. The age group and sex specific notification rates peaked in the 5-9 years age group in females (24.4 per 100,000 population) and the 20-24 years age group for males (20.0 per 100,000

Figure 27. Annual rate of notification of hepatitis A per 100,000 population, 1993, by Statistical Division of residence



population). There was a disproportionately higher notification rate for males in the 20-44 year age group. There was a general trend for notification rates to decrease with age (Figure 26).

There were notifications received from most parts of the country, however, the highest notifications rates were reported for residents of northern Australia (Figure 27).

Hepatitis B

Notifications of incident cases of hepatitis B were received from New South Wales, the Northern Territory, South Australia, Tasmania and Victoria. There were 278 reports of incident cases for an adjusted annual notification rate of 2.2 per 100,000 population. No seasonal trend was observed in the notifications.

There was a male/female ratio of 1.8/1 with the peak incidence recorded for males in the 20-24 years age group (9.1 per 100,000 population) (Figure 28).

Figure 28. Annual adjusted rate of notification of hepatitis B (incident) per 100,000 population, 1993, by age group and sex

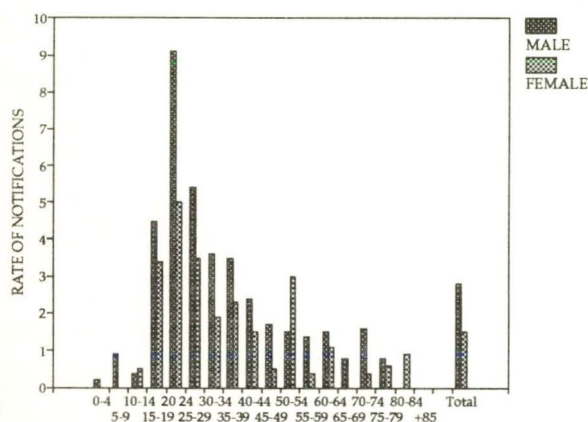
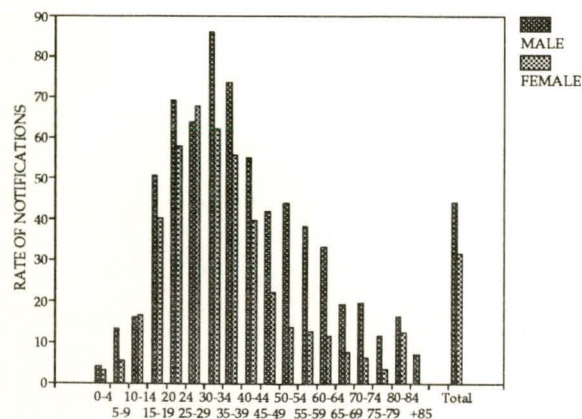


Figure 29. Annual adjusted rate of notification of hepatitis B (unspecified) per 100,000 population, 1993, by age group and sex



Notifications of unspecified cases of hepatitis B were received from the Australian Capital Territory, Western Australia and Queensland. These notifications do not differentiate between incident and prevalent cases. Therefore these figures do not provide any indication of transmission of the virus. There were 1976 notifications received for an adjusted notification rate of 38.8 per 100,000 population. There was no seasonal trend.

The male/female ratio was 1.4/1. The proportion of cases in males was lower than that reported for incident cases of hepatitis B. The highest rate of notification was for males in the 30-34 years age group (86.0 per 100,000 population) (Figure 29).

Hepatitis C

Incident notifications were received from New South Wales and South Australia. There were 30 cases reported for 1993. The male/female ratio was 1.4/1 with all cases in the 20-54 years age group. As transmission of hepatitis C is often asymptomatic, case ascertainment is difficult and it is probable that these reports underestimate the true number of cases.

There were 7542 unspecified cases of hepatitis C reported for an adjusted notification rate of 73.9 per 100,000 population. This is the highest notification rate for a notifiable disease, however, it is probable that this represents testing patterns rather than transmission of the infection. There was a male/female ratio of 1.7/1 with the highest notification rates reported for people in the 25-39 years age group (Figure 30).

Hydatid infection

Thirty-two notifications of hydatid infection were received in 1993. The annual rate of notifications was 0.2 per 100,000 population. Fifteen of the cases were male and 17 were female. They were predominantly reported for residents of rural Statistical Divisions (Figure 31).

Figure 30. Annual adjusted rate of notification of hepatitis C (unspecified) per 100,000 population, 1993, by age group and sex

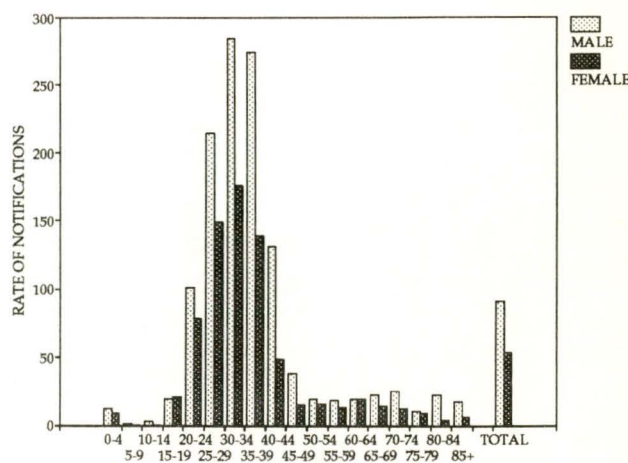
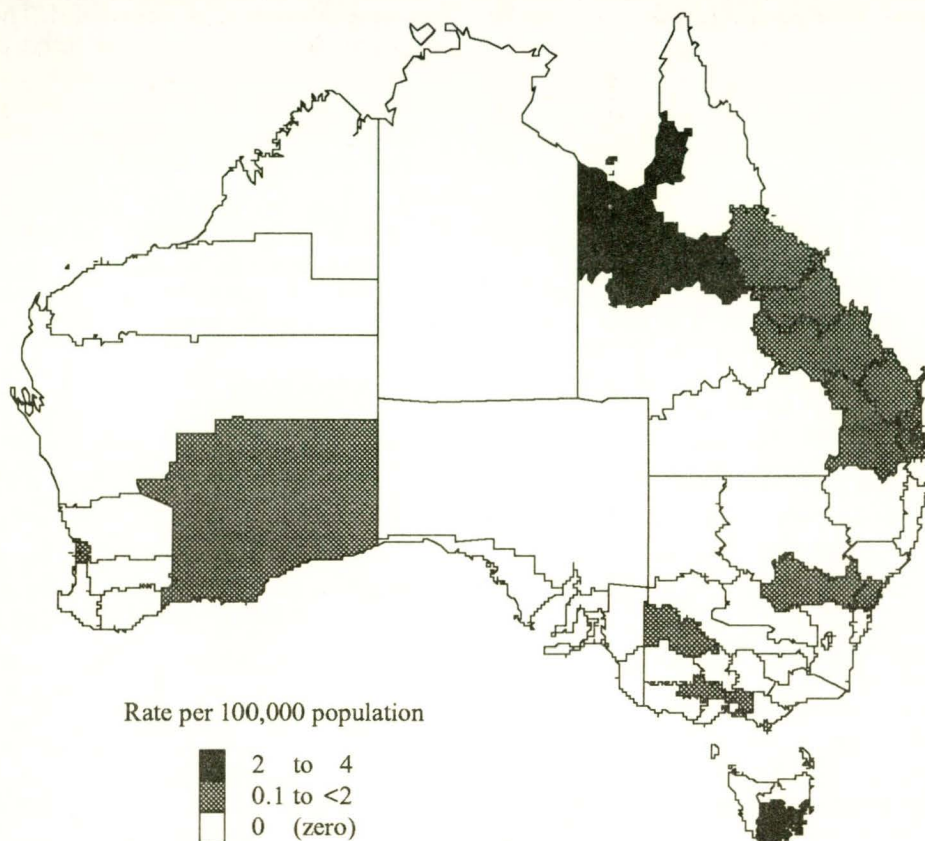


Figure 31. Annual rate of notification of hydatid infection per 100,000 population, 1993, by Statistical Division of residence



Legionellosis

There were 178 cases of legionellosis notified in 1993 for an annual rate of 1.0 per 100,000 population. The pattern of notifications by onset date showed a bimodal distribution with peaks of disease activity in April and

December. The current 1994 dataset has an additional 22 notifications with onset dates in 1993 (Figure 32).

The male/female ratio was 1.8/1. The age group and sex specific notification rates increased markedly in males greater than 50 years to reach a peak in the 80-84 years age group (Figure 33).

Figure 32. Notifications of legionellosis with onset dates in 1993, by month of onset

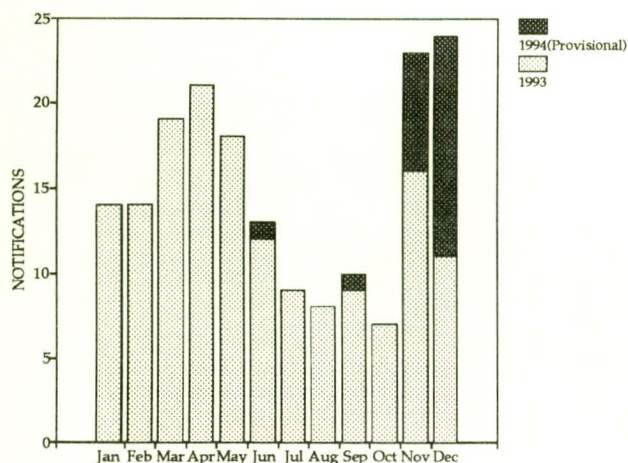
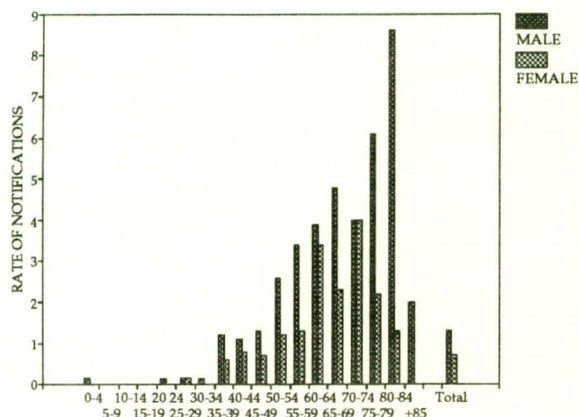


Figure 33. Annual rate of notification of legionellosis per 100,000 population, 1993, by age group and sex



There was wide geographical distribution of notifications with sporadic cases reported from a number of Statistical Divisions. The highest numbers of notifications were reported for the urban Statistical Divisions: Sydney New South Wales (59); Melbourne Victoria (33); Perth Western Australia (15); and Brisbane Queensland (10).

Leprosy

Fifteen cases of leprosy were reported in 1993 for an annual notification rate of 0.1 per 100,000 population. Thirteen of these cases had onset dates in 1993. The highest rate of notification was for residents of the Kimberley Statistical Division of Western Australia (8.5 notifications per 100,000 population).

The male/female ratio was 2/1 and the recorded ages were between the 15-19 and the 65-69 years age group.

Leptospirosis

There were 178 notifications of leptospirosis in 1993 for an annual rate of 1.0 per 100,000 population. There was a seasonal trend with a higher number of cases with onset dates in spring and summer. The current 1994 dataset has an additional 20 notifications with onset dates in 1993 (Figure 34).

The majority of cases were reported for males with a male/female ratio of 15.2/1. The highest age group and sex specific rates were reported for males in the 25-29 years (4.0 per 100,000 population) and the 35-39 years (3.8 per 100,000 population) age groups (Figure 35).

As seen in 1992, the highest reported incidence of the disease was for residents of the Western District Statistical Division of Victoria (17.7 per 100,000 population). Other areas that had high notification rates include the Statistical Divisions of East Gippsland Victoria (10.4 per 100,000), Gippsland Victoria (11.2 per 100,000 population), Central West Queensland (7.6 per 100,000 population) and Far North Queensland (11.6 per 100,000 population) (Figure 36).

Lymphogranuloma venereum

A single case of lymphogranuloma venereum was reported in 1993.

Listeriosis

Fifty-three notifications of listeriosis were received for a notification rate of 0.3 per 100,000 population. There was no seasonal trend observed, however, the highest number of cases had onset dates in October (12).

The male/female ratio was 0.66/1. The highest number of cases was reported for females in the 20-29 years age group (12). Seven notifications were reported in infants less than one year of age.

There were sporadic reports from all States and Territories with the exception of the Northern Territory and

Figure 34. Notifications of leptospirosis with onset dates in 1993, by month of onset

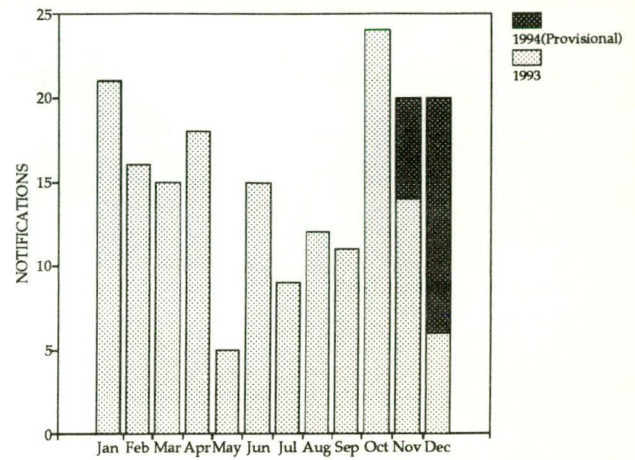


Figure 35. Annual rate of notification of leptospirosis per 100,000 population, 1993, by age group and sex

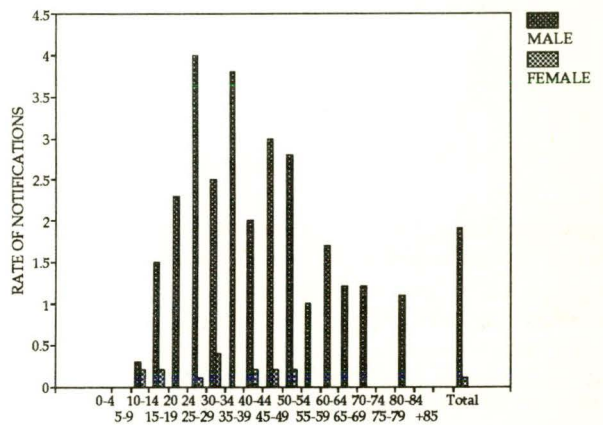


Figure 37. Notifications of malaria with onset dates in 1993, by month of onset

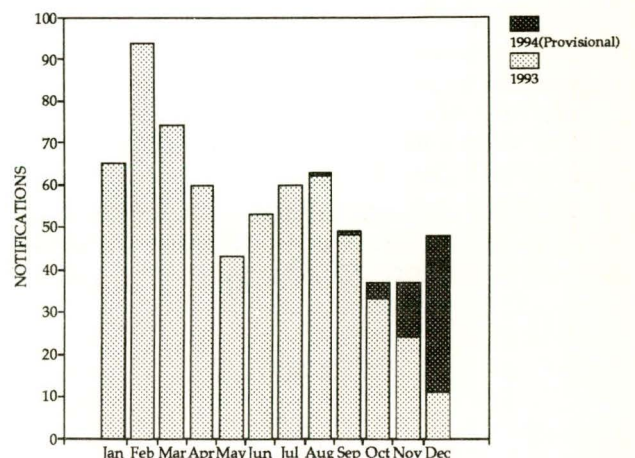
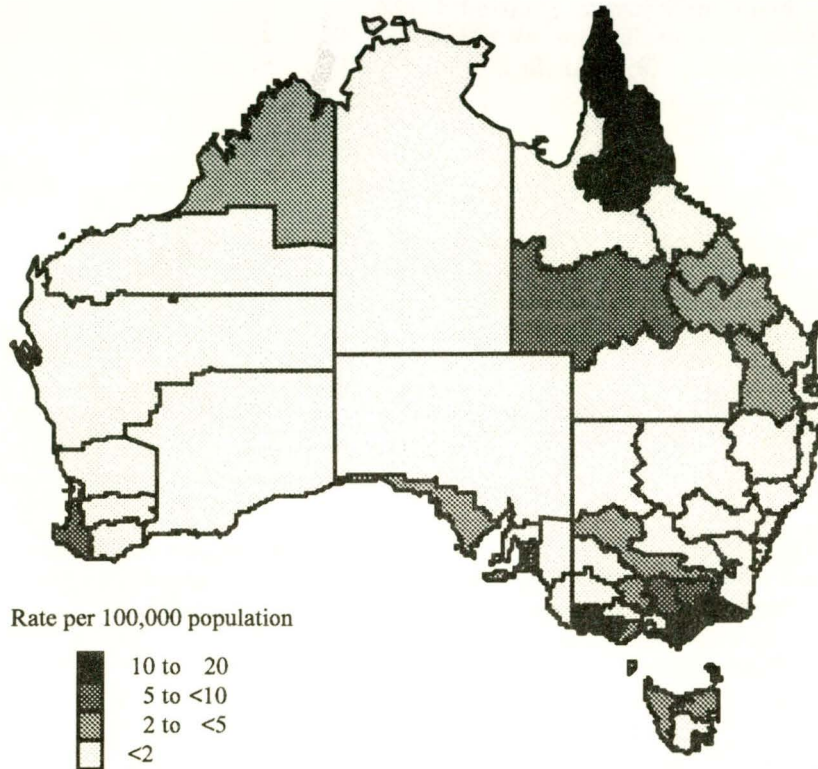


Figure 36. Annual rate of notification of leptospirosis per 100,000 population, 1993, by Statistical Division of residence



Tasmania. The highest number of reports was received from New South Wales (13) and Victoria (24).

Malaria

Six hundred and eighty-eight notifications of malaria were received in the period for a notification rate of 3.9 per 100,000 population. The NNDSS recorded 712 cases of malaria in 1992 for a rate of 4.2 per 100,000 population. There was a bimodal seasonal trend with peak numbers of notifications having onset dates in February (94) and August (62). There are an additional 56 notifications of malaria in the current 1994 dataset with onset dates in 1993 (Figure 37).

A higher proportion of notifications was for males with the male /female ratio being 2.4/1. The age group and sex specific notification rates showed a peak incidence in males in the 20-24 years age group (11.1 per 100,000 population) (Figure 38).

As seen in the 1992 data, the highest rate of notification was for residents of the Statistical Division of Far North Queensland (39.9 per 100,000 population) (Figure 39).

Figure 38. Annual rate of notification of malaria per 100,000 population, 1993, by age group and sex

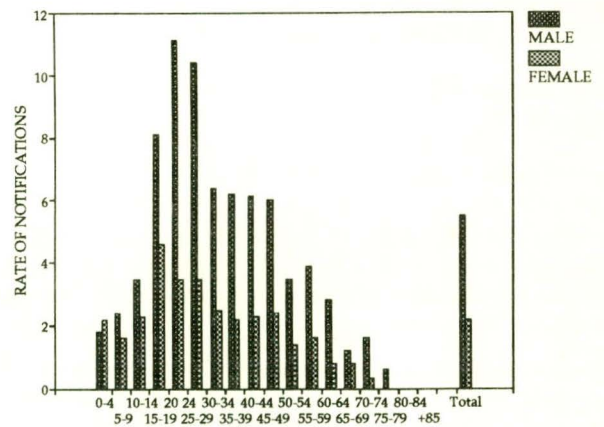
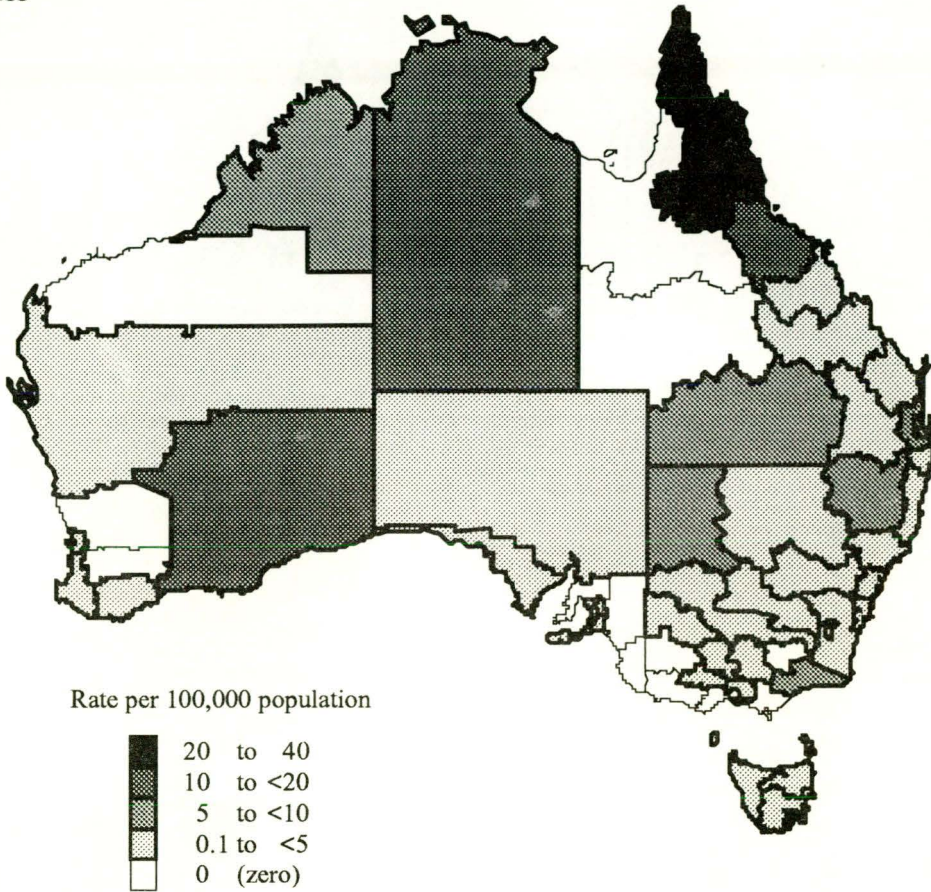


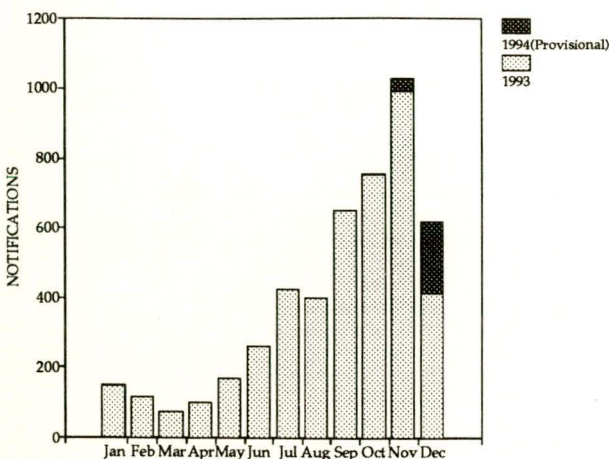
Figure 39. Annual rate of notification of malaria per 100,000 population, 1993, by Statistical Division of residence



Measles

There was an epidemic of measles in 1993 with 4536 notifications received for an annual notification rate of 25.7 per 100,000 population. This rate represents a marked increase in the rate when compared to 1992 (8.5 per 100,000 population) and 1991 (8.0 per 100,000 population).

Figure 40. Notifications of measles with onset dates in 1993, by month of onset



The epidemic reached a peak in November with 988 notifications reported with onset dates in that month. The current 1994 dataset has an additional 252 notifications with onset dates in 1993 (Figure 40).

The male/female ratio was 1.1/1 with the highest rates of notification reported for those aged less than 20 years. Children aged less than 15 years had age group

Figure 41. Annual rate of notification of measles per 100,000 population, 1993, by age group and sex

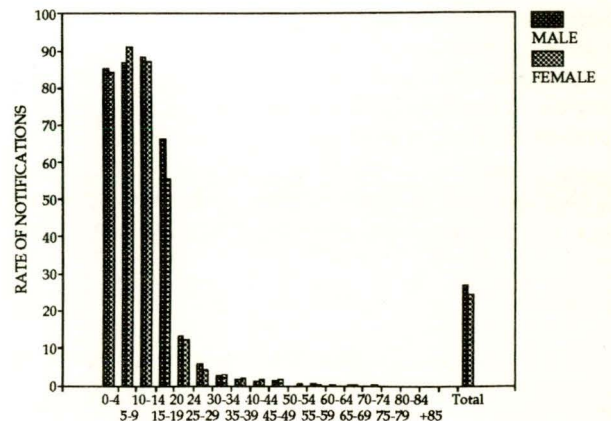
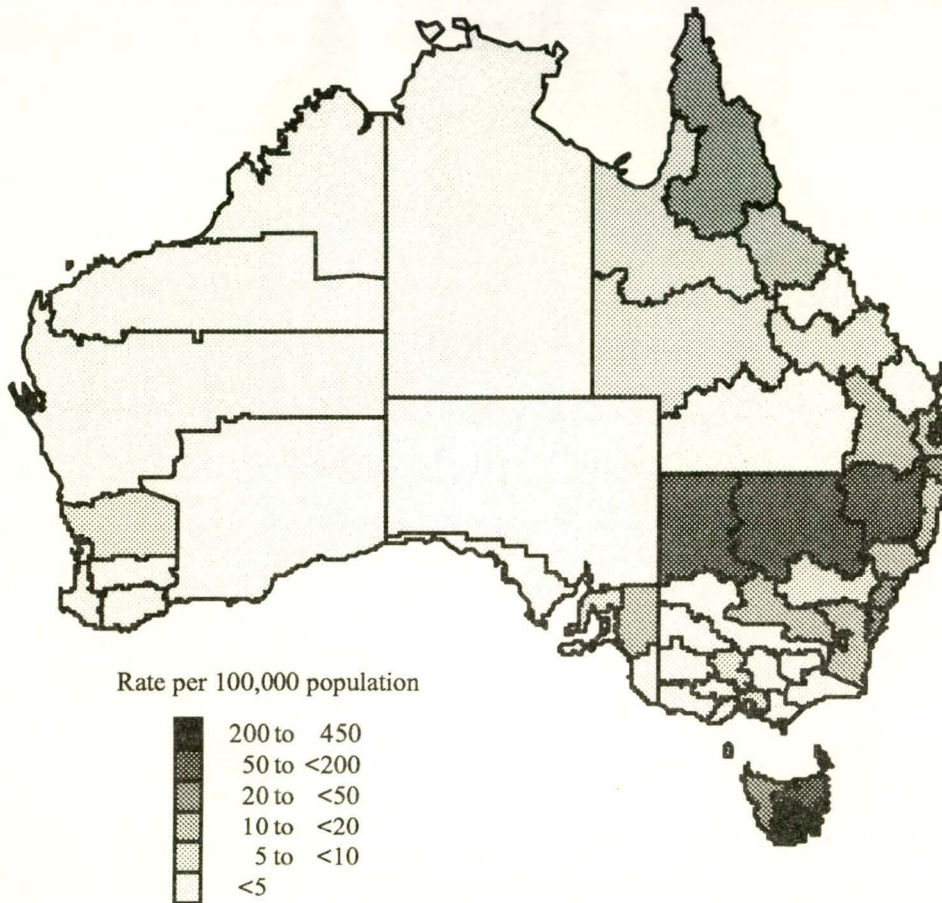


Figure 42. Annual rate of notification of measles per 100,000 population, 1993, by Statistical Division of residence



and sex specific notification rates of greater than 80 per 100,000 population with the highest rates recorded for females in the 5-9 years age group (91.2 per 100,000 population) (Figure 41).

The epidemic had wide geographical distribution with the highest rates of notification recorded for residents of the Statistical Divisions of Southern Tasmania (442.9 per 100,000 population) and Greater Hobart Tasmania (271.7 per 100,000 population) (Figure 42). From May to August the highest number of notifications were reported from Tasmania (661), however, from September a higher number of notifications came from New South Wales (1800) and Queensland (885).

Meningococcal infection

There were 378 cases of meningococcal infection reported in 1993. The notification rate was 2.1 per 100,000 population. This compares with a notification rate of 1.7 per 100,000 population in 1992 and 1.6 per 100,000 population in 1991. The notifications showed a seasonal trend with the peak occurring in September (62). There are an additional 10 notifications in the current 1994 dataset with an onset date in December 1993 (Figure 43).

The male/female ratio was 1.4/1 with the highest incidence of cases in children less than 5 years old (14.2 per 100,000 population) (Figure 44).

Cases were reported from most jurisdictions with the highest rate recorded for residents of the Southeastern Statistical Division in Western Australia (15.5 per 100,000 population) (Figure 45).

Figure 43. Notifications of meningococcal infection with onset dates in 1993, by month of onset

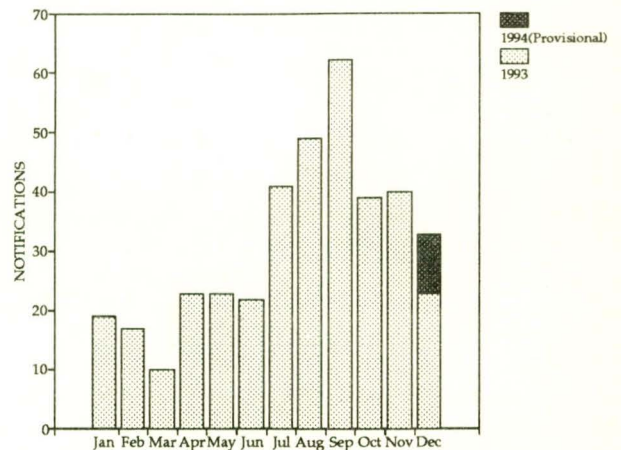


Figure 45. Annual rate of notification of meningococcal infection per 100,000 population, 1993, by Statistical Division of residence

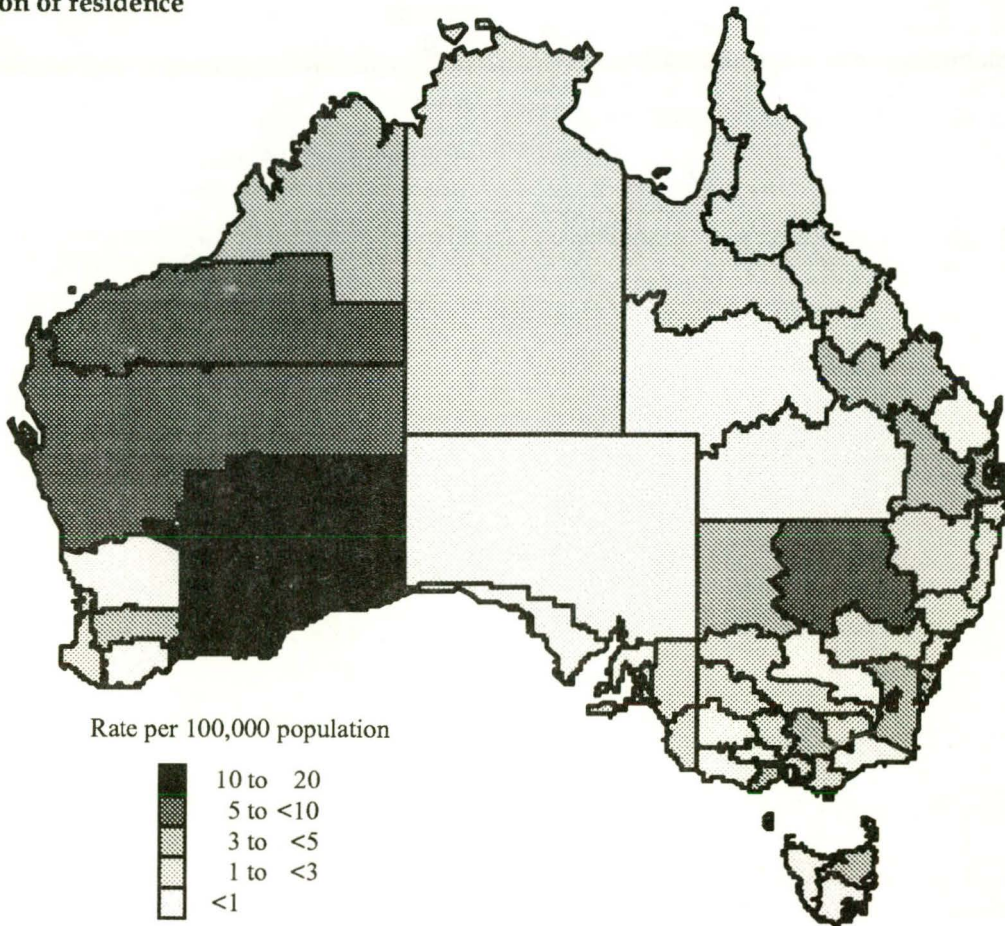
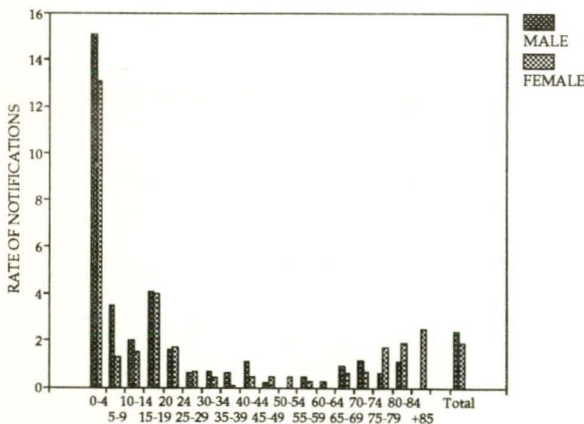


Figure 44. Annual rate of notification of meningococcal infection per 100,000 population, 1993, by age group and sex



Mumps

Mumps was notifiable in all States and Territories with the exception of the Northern Territory, Queensland, and Tasmania. Twenty-eight cases were reported in

1993 for an annual adjusted notification rate of 0.2 per 100,000 population.

The male/female ratio was 1.3/1. Recorded ages were between the 0-4 and the 65-69 years age groups with 8 cases aged less than 5 years.

Ornithosis

Ornithosis was notifiable in all States and Territories with the exception of New South Wales. There were 98 cases reported in 1993 for an annual adjusted notification rate of 0.8 per 100,000 population. There was no clear seasonal trend with between 4 and 13 notifications having onset dates in each month.

The male/female ratio was 1.4/1. Cases were aged between the 0-4 and the 85-89 years age group with a peak rate of notification reported for males in the 60-64 years age group (3.9 per 100,000 population).

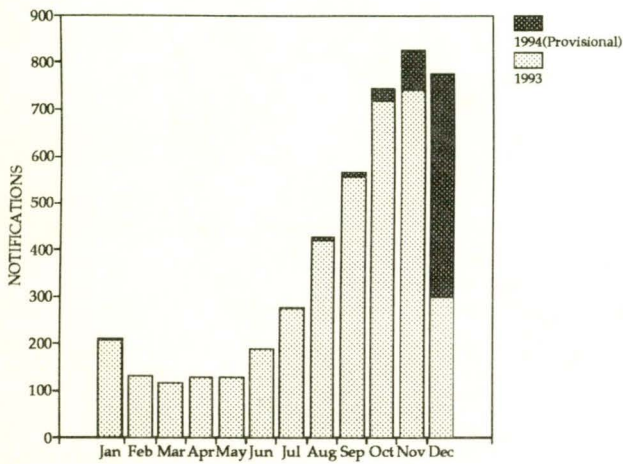
Pertussis

There was epidemic activity in pertussis in 1993 with 3990 cases reported. The annual notification rate was 22.6 per 100,000 population. In 1991 there were 337 notifications for an annual rate of notification of 1.9 per 100,000 population and in 1992 there were 739 notifica-

tions for an annual rate of notification of 4.4 per 100,000 population.

There was a steady increase in notifications from March (115) with a peak number of notifications having onset dates in November (742). In the 1994 dataset there are a further 611 notifications with onset dates in 1993 (Figure 46).

Figure 46. Notifications of pertussis with onset dates in 1993, by month of onset



There was a slight predominance of females in the notifications with a male/female ratio of 0.9/1. The peak incidence was recorded for females in the 10-14 years age group (68.6 per 100,000 population), however, there were uniformly high rates for children aged less than 15 years (Figure 47). This pattern differs from that seen in 1992 where the highest rates were for children aged 0-4 years. There were 401 notifications received for infants aged less than one year.

Figure 47. Annual rate of notification of pertussis per 100,000 population, 1993, by age group and sex

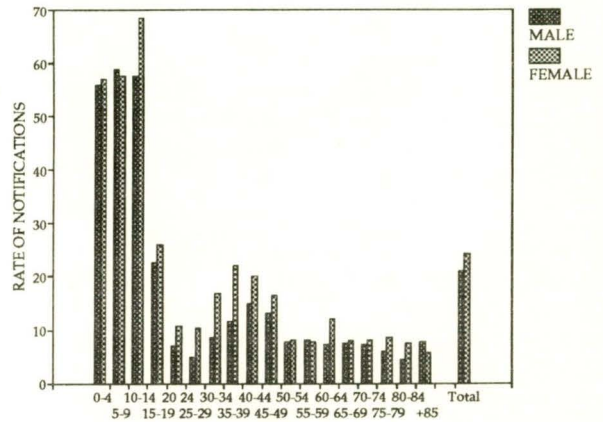
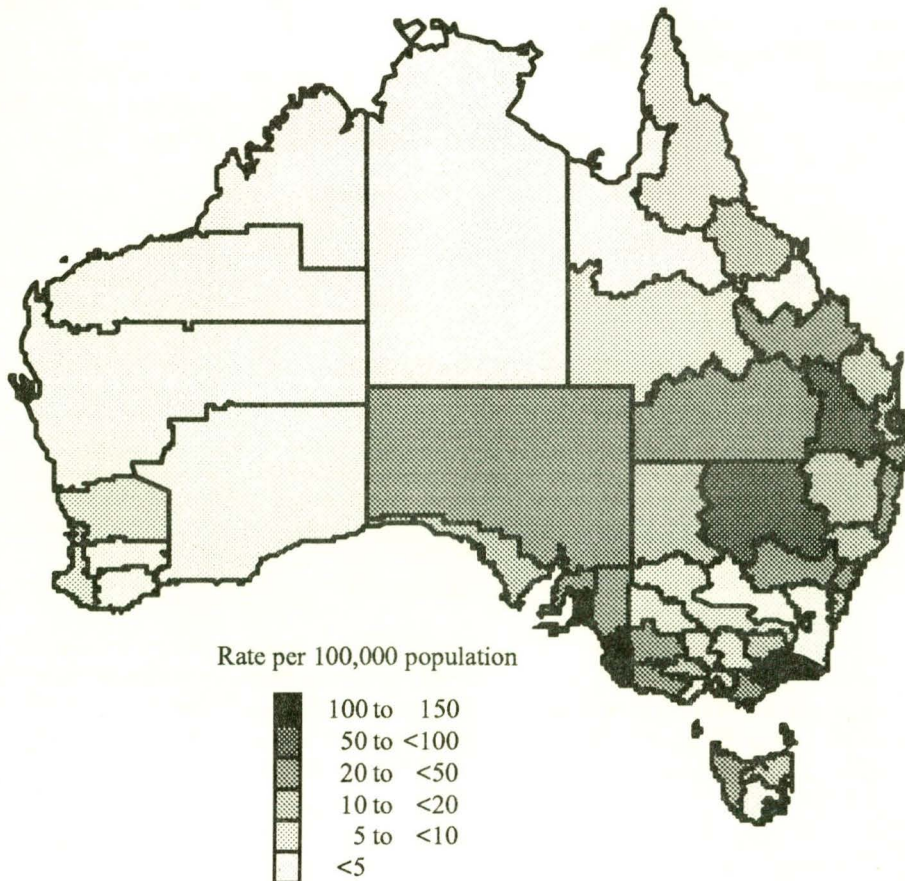


Figure 48. Annual rate of notification of pertussis per 100,000 population, 1993, by Statistical Division of residence



There was a wide geographical distribution of pertussis notifications with majority of reports coming from New South Wales (1547) and South Australia (1352). The highest notification rates were for residents of the Statistical Divisions of East Gippsland Victoria (103.5 per 100,000 population), Southeast South Australia (140.4 per 100,000 population), and Outer Adelaide South Australia (105.4 per 100,000 population) (Figure 48).

Q fever

There was 889 notifications of Q fever for an annual notification rate of 5.0 per 100,000 population. This is a higher notification rate than that seen in 1991 (3.4 per 100,000 population) and 1992 (3.2 per 100,000 population). No seasonal trend was observed.

There was a disproportionate number of notifications in males. The male/female ratio was 5.9/1. The highest age group and sex specific rates were recorded for males aged between 15 and 40 years, with a peak rate of notification recorded for males aged 25-29 years (17.6 per 100,000 population) (Figure 49).

There was marked geographical variation in the distribution of the cases. No cases were notified by the Australian Capital Territory, the Northern Territory, or Tasmania. As seen in 1992, the highest number of notifications were from New South Wales (399) and Queensland (429). The highest rates of notification were recorded for residents of the Statistical Divisions of South-West Queensland (96.0 per 100,000 population) and Northwestern New South Wales (73.8 per 100,000 population) (Figure 50).

Figure 49. Annual rate of notification of Q fever per 100,000 population, 1993, by age group and sex

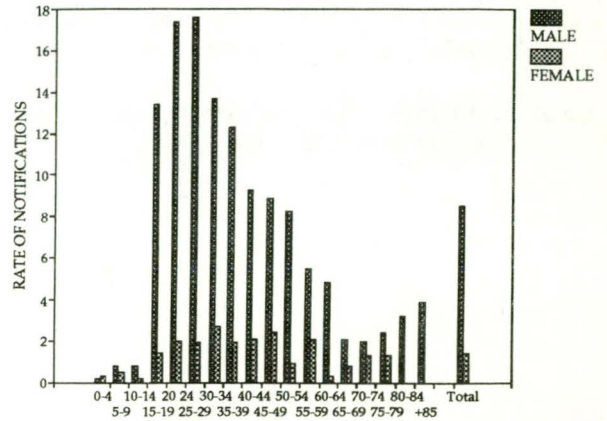
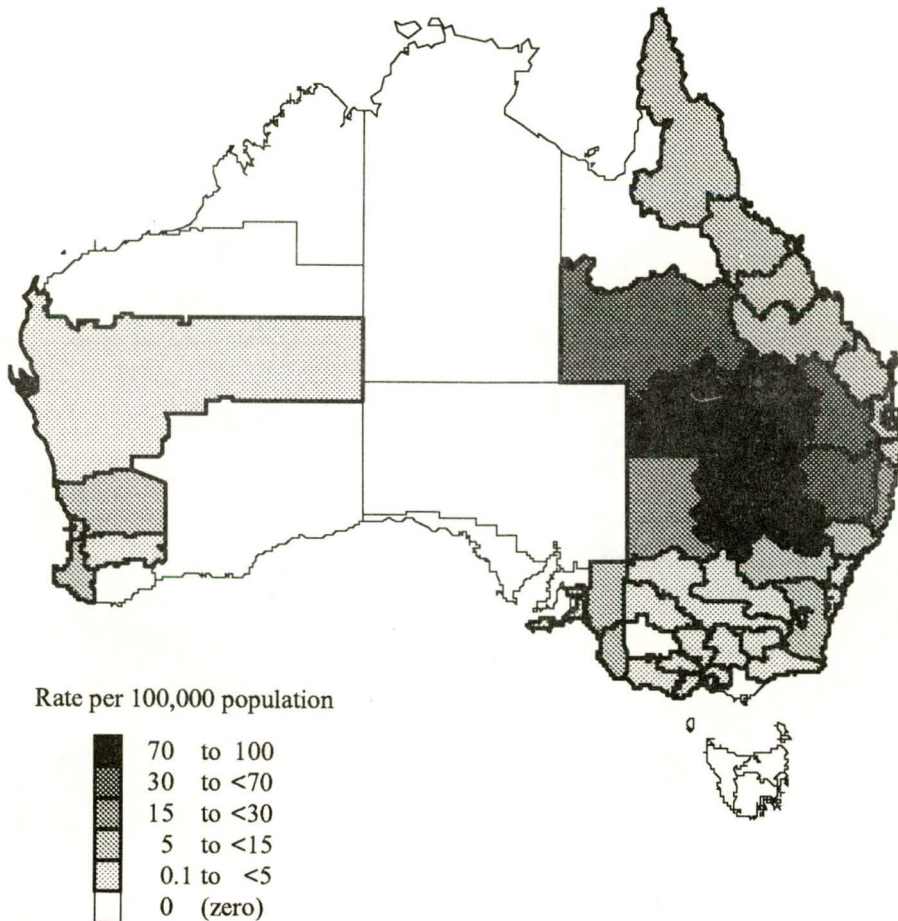


Figure 50. Annual rate of notification of Q fever per 100,000 population, 1993, by Statistical Division of residence



tion) and Northwestern New South Wales (73.8 per 100,000 population) (Figure 50).

Rubella

A total of 3812 notifications of rubella were received for a notification rate of 21.6 per 100,000 population. This is a continuation of the epidemic activity seen in 1992 when there were 3,810 notifications for a crude annual

notification rate (unadjusted for the States only reporting congenital rubella syndrome) of 22.6 per 100,000 population. In Tasmania rubella was notifiable only as congenital rubella syndrome and there were no reports received.

There was a steady decrease in epidemic activity in the first six months of the year with notifications reaching a low in April (167). Epidemic activity increased in the

second six months of the year when a peak number of notifications was reported with onset dates in November (556). There are an additional 243 notifications for rubella in the 1994 dataset with onset dates in 1993. (Figure 51). While there was a sustained high rate of disease activity in Queensland throughout the year with an average of 117 reports from Queensland each month; an increase in the number of reports from New

Figure 51. Notifications of rubella with onset dates in 1993, by month of onset

Figure 52. Annual rate of notification of rubella per 100,000 population, 1993, by age group and sex

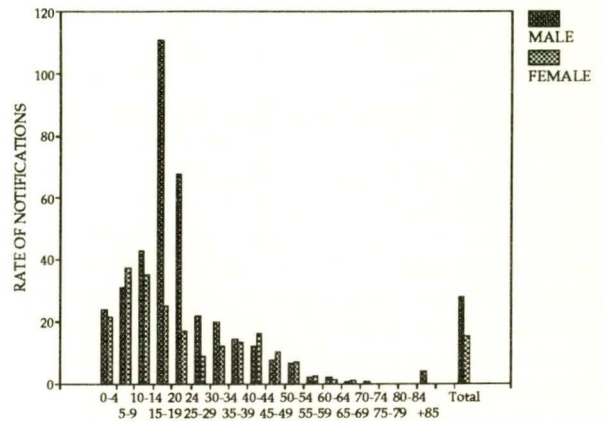
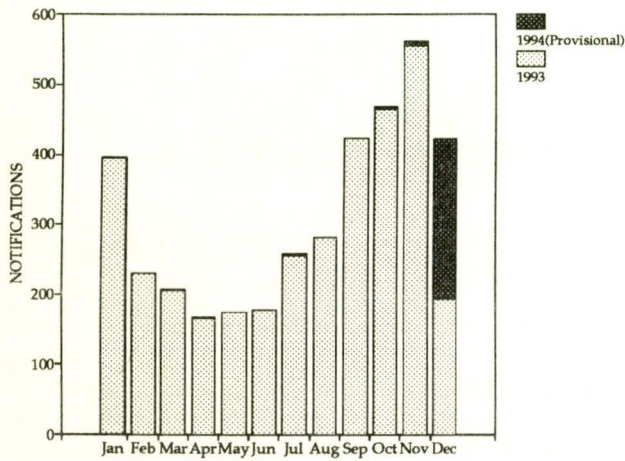
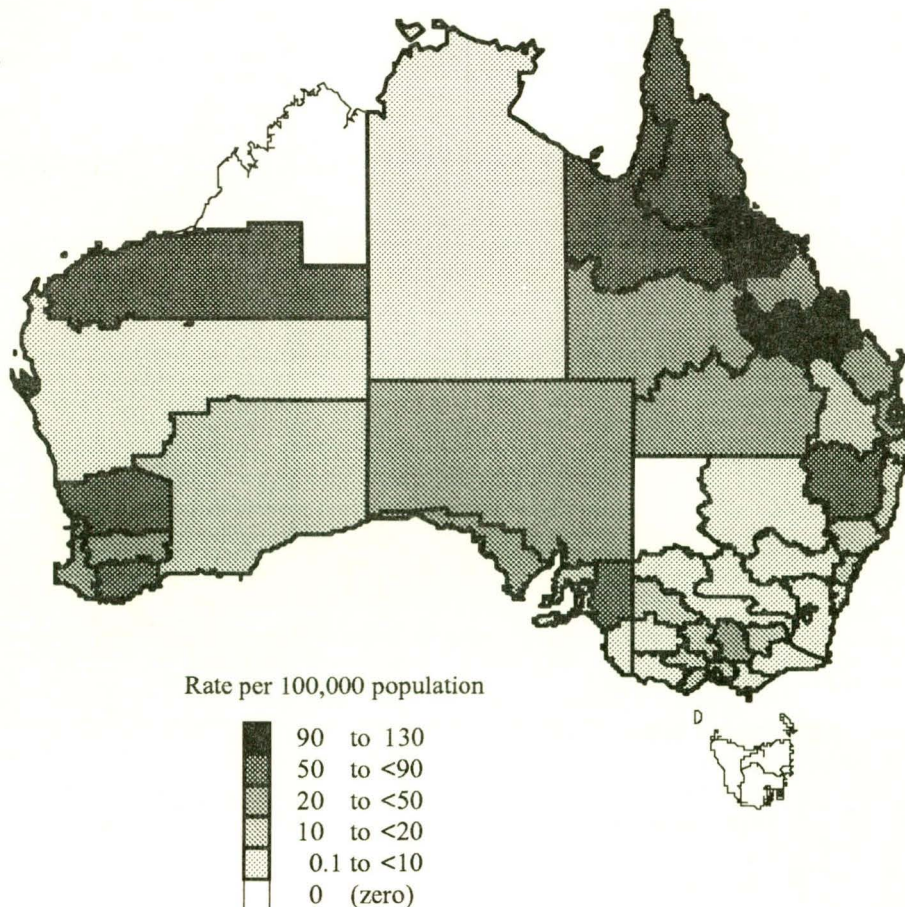


Figure 53. Annual rate of notification of rubella per 100,000 population, 1993, by Statistical Division of residence



South Wales and Western Australia only occurred after August.

The male/female ratio of notifications was 1.7/1. The age group and sex specific notification rates were comparable in males and females aged less than 15 years. There were markedly higher rates of notification for males aged between 15 and 34 years with a peak recorded for males in the 15-19 years age group (110.8 per 100,000 population) (Figure 52).

There was wide geographical distribution of rubella activity with New South Wales and Queensland both having notification rates of greater than 40.0 per 100,000 population. The highest rates of notification were recorded for residents of the Statistical Divisions of Fitzroy Queensland (92.1 per 100,000 population) and Northern Queensland (129.5 per 100,000 population) (Figure 53).

Salmonellosis (not elsewhere classified)

A total of 4731 notifications of salmonellosis (not elsewhere classified) was reported in 1993 for an annual notification rate of 26.8 per 100,000 population. This rate represents a continuation in the decrease in annual notification rates observed in the past two years. The notification rate in 1991 was 31.4 per 100,000 population and the notification rate in 1992 was 27.4 per 100,000 population.

A seasonal trend was noted with higher numbers of notifications with onset dates in the warmer months of the year (Figure 54).

The male/female ratio was 1.1/1. Salmonellosis (not elsewhere classified) was most commonly notified in children under 5 years with a notification rates of 185.8 per 100,000 population for males and 157.5 per 100,000 population for females (Figure 55).

Salmonellosis (not elsewhere classified) was reported for residents of all Statistical Divisions with higher rates of disease observed in residents of northern Australia. The highest rate of notification was recorded for residents of the Statistical Division of Kimberley Western Australia (475.9 per 100,000 population) (Figure 56). This is a similar geographical distribution to the one observed in 1992.

Shigellosis

There were 708 cases of shigellosis reported in 1993 for an annual adjusted notification rate of 6.1 per 100,000 population. This is comparable to the rate of 6.2 per 100,000 population recorded for 1992. (In New South Wales shigellosis is notified only as 'foodborne disease' or as 'gastroenteritis in an institution'.)

Higher numbers of notifications were received in the first three months of the year (Figure 57).

A higher proportion of notifications was for females with a male/female ratio of 0.8/1. The highest age group and sex specific rates were recorded for children aged less than 5 years with a notification rate in males

Figure 54. Notifications of salmonellosis (not elsewhere classified) with onset dates in 1993, by month of onset

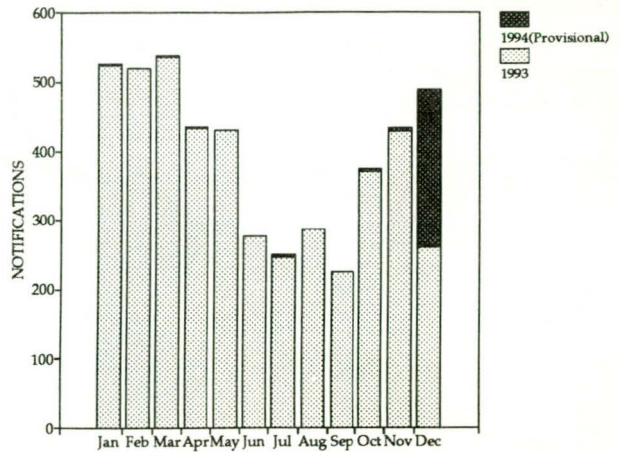


Figure 55. Annual rate of notification of salmonellosis (not elsewhere classified) per 100,000 population, 1993, by age group and sex

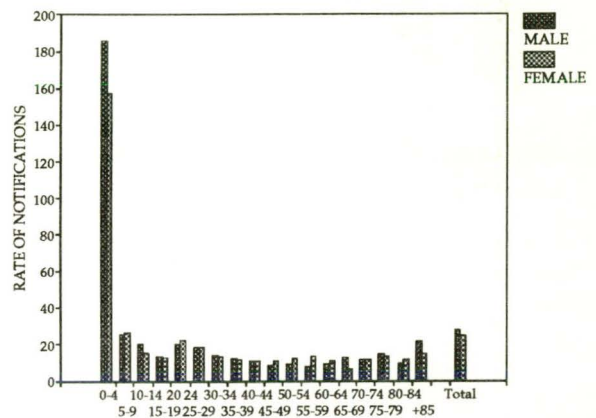


Figure 57. Notifications of shigellosis with onset dates in 1993, by month of onset

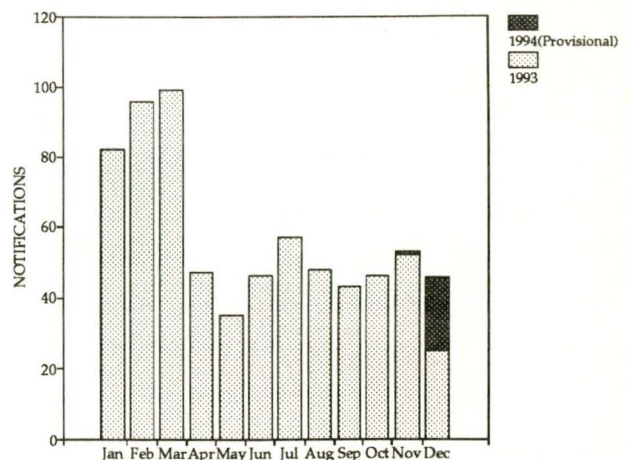


Figure 56. Annual rate of notification of salmonellosis (not elsewhere classified) per 100,000 population, 1993, by Statistical Division of residence

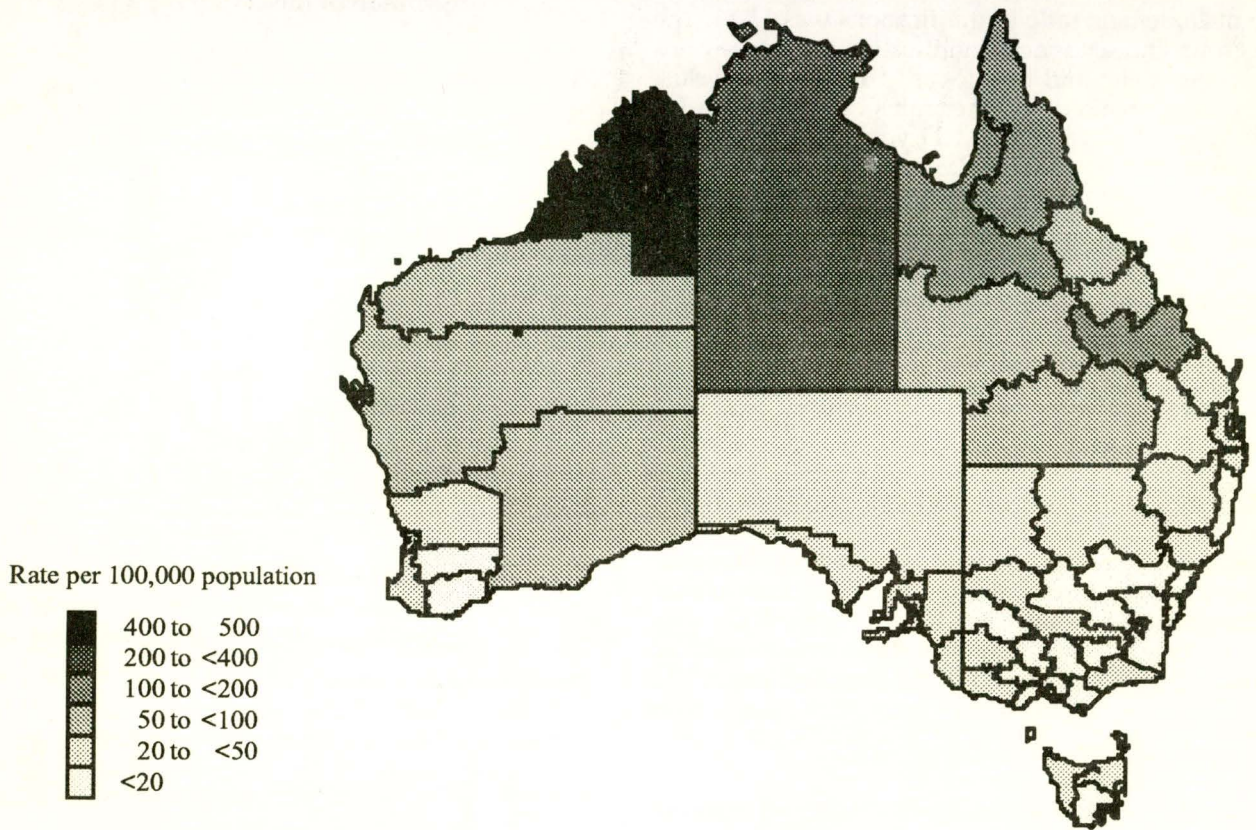


Figure 59. Annual rate of notification of shigellosis per 100,000 population, 1993, by Statistical Division of residence

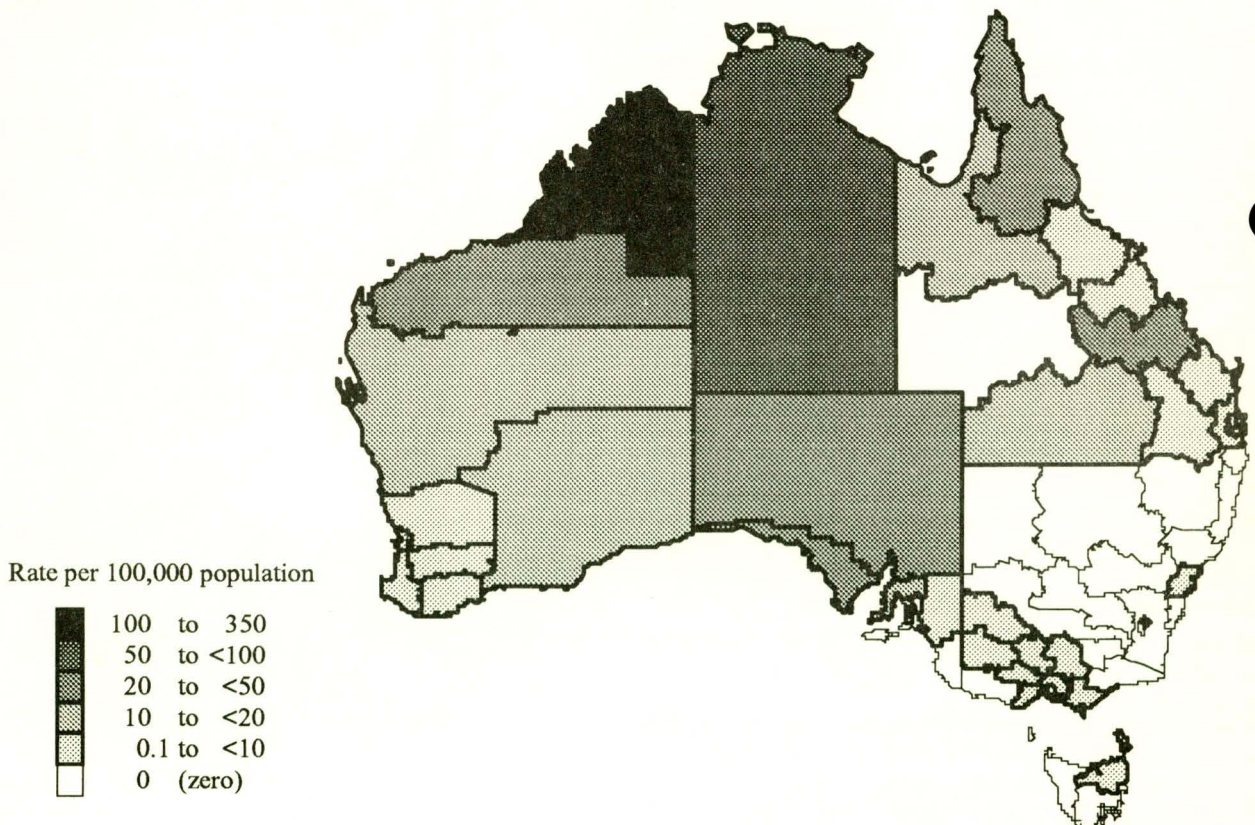
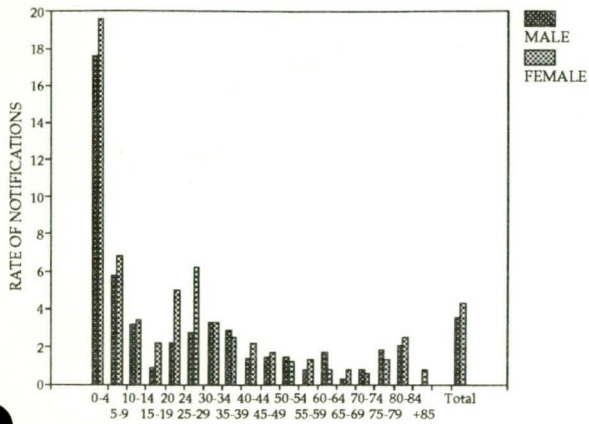


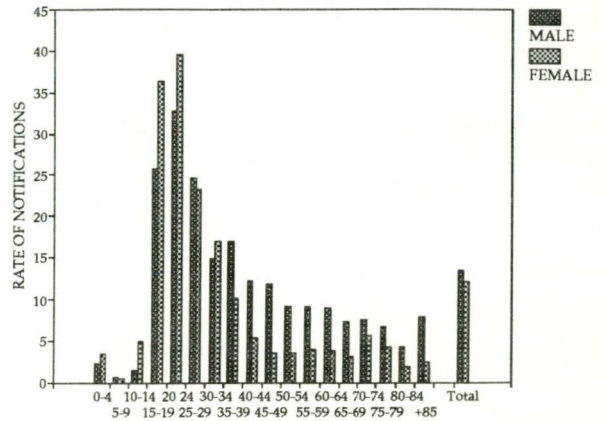
Figure 58. Annual adjusted rate of notification of shigellosis per 100,000 population, 1993, by age group and sex



of 17.6 per 100,000 population and a rate in females of 19.6 per 100,000 population (Figure 58).

Notification rates were higher for residents of northern Australia with the highest rate being for residents of the Statistical Division of Kimberley Western Australia (327.0 per 100,000 population) (Figure 59).

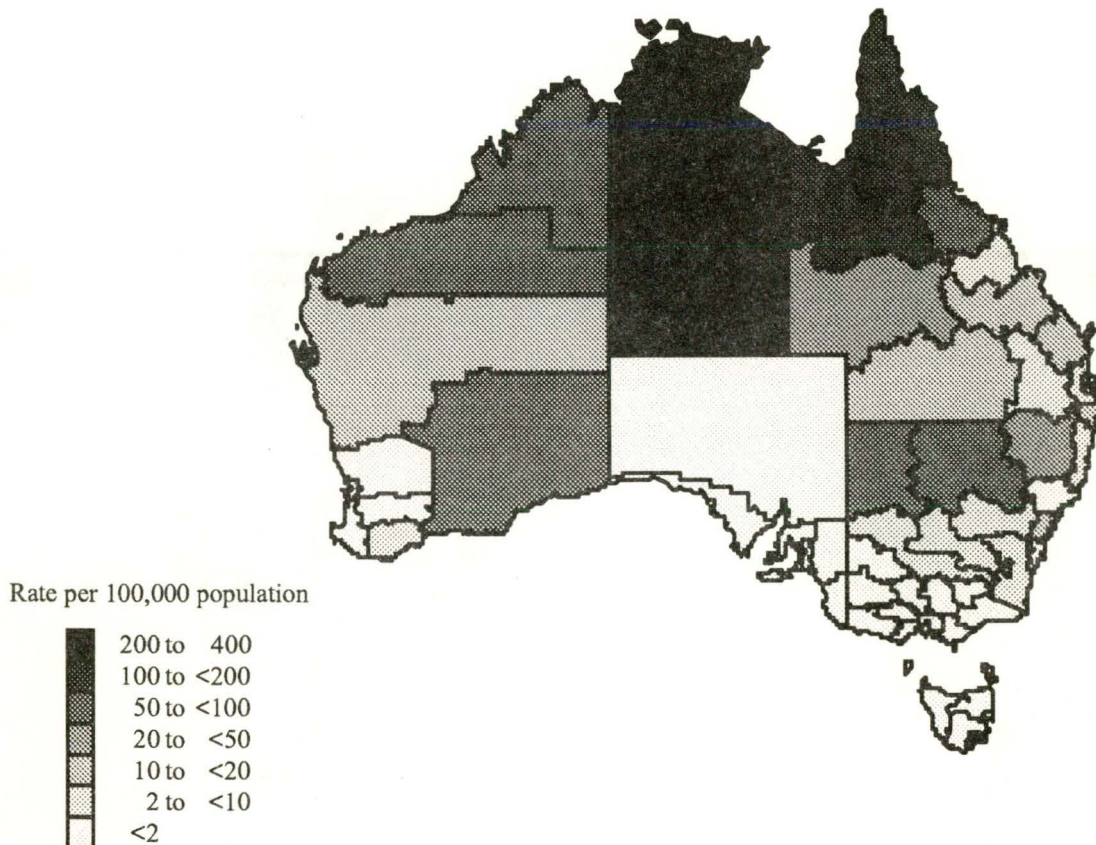
Figure 60. Annual rate of notification of syphilis per 100,000 population, 1993, by age group and sex



Syphilis

A total of 2305 notifications of syphilis was received for an annual notification rate of 13.1 per 100,000 population. This is a decrease in the notification rate when compared to that in 1992 (16.0 per 100,000 population) but similar to that reported for 1991 (12.2 per 100,000 population). No seasonal trend was observed in the notifications.

Figure 61. Annual rate of notification of syphilis per 100,000 population, 1993, by Statistical Division of residence



There were comparable numbers of cases in males and females with a male/female ratio of 1.1/1. There was a peak in the age group specific notification rate in persons aged between 15 and 29 years with the highest rates being recorded for females in the 15-19 years (36.3 per 100,000 population) and 20-24 years (39.5 per 100,000 population) age groups (Figure 60). There were 37 notifications received for infants aged less than one year.

While notifications were received for residents of most areas in Australia, disproportionately high rates were reported for residents of some areas: the Northern Territory (387.9 per 100,000 population) and the Statistical Divisions of Northwest Queensland (186.8 per 100,000 population) and Far North Queensland (122.9 per 100,000 population) (Figure 61).

The notification rates mapped for South Australia should be interpreted with caution as postcode of residence was missing from 45 of the 57 notifications and, therefore, these notifications could not be allocated to Statistical Divisions for mapping purposes.

Tetanus

Tetanus is notifiable in all States and Territories with the exception of Queensland. Ten notifications of tetanus were received in 1993. These notifications were from New South Wales (5), South Australia (3), and

Victoria (2). Eight of the cases were resident in rural Statistical Divisions.

The male/female ratio was 1/1 and all cases were in persons aged greater than 54 years.

Tuberculosis

These data refer only to cases of tuberculosis reported through the NNDSS and may differ from that in the

Figure 62. Annual rate of notification of tuberculosis per 100,000 population, 1993, by age group and sex

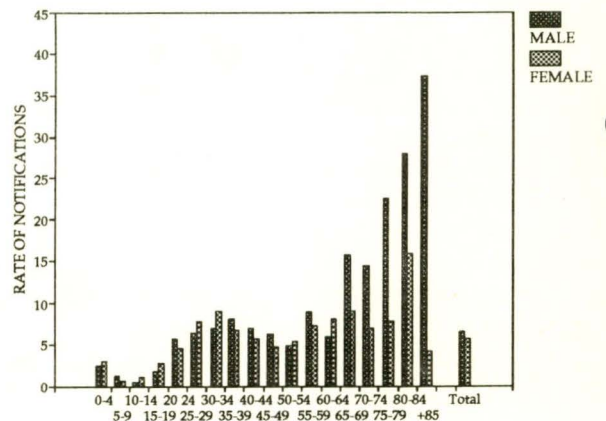
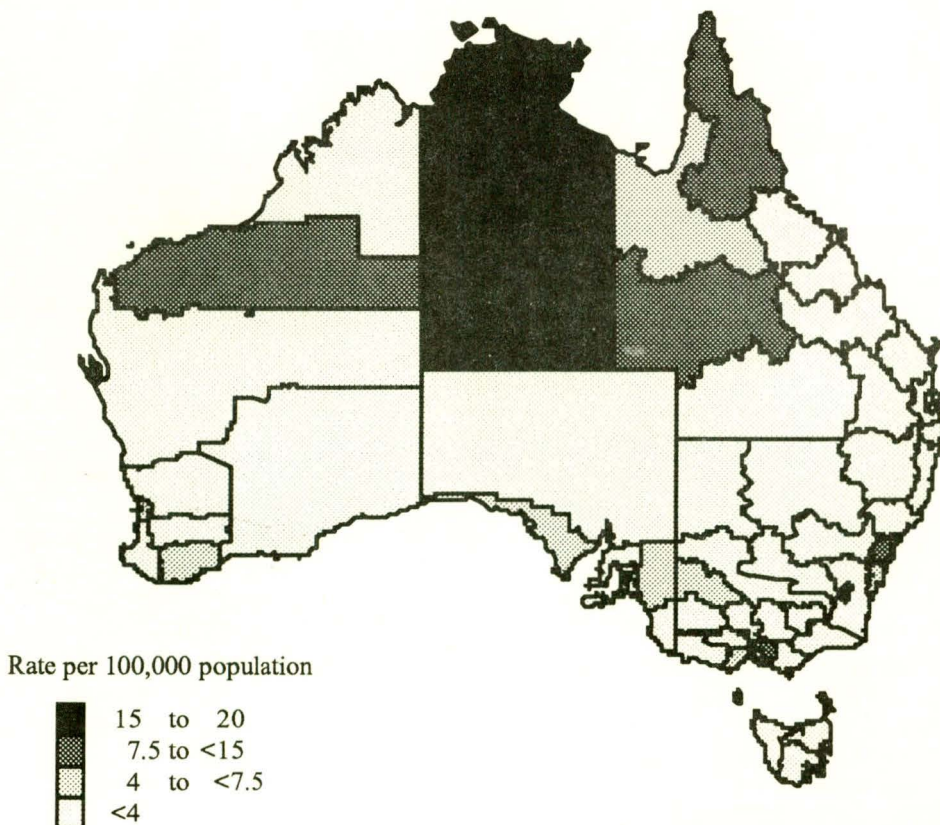


Figure 63. Annual rate of notification of tuberculosis per 100,000 population, 1993, by Statistical Division of residence



National Mycobacterial Surveillance System where case ascertainment is more complete.

There were 1071 cases of tuberculosis reported in the period for an annual notification rate of 6.1 per 100,000 population. This is higher than the annual notification rate for 1992 (5.8 per 100,000 population). There was no seasonal trend with between 22 and 117 notifications with onset dates each month.

There was male/female ratio of 1.2/1. The age group and sex specific notification rate increased disproportionately in males aged greater than 65 years (Figure 62).

Cases were reported from most Statistical Divisions with the highest rates of notification recorded for residents of the Northern Territory (17.2 per 100,000 population) (Figure 63).

Typhoid

Seventy-two notifications of typhoid were received for an annual notification rate of 0.4 per 100,000 population. There was no clear seasonal trend however the highest number of notifications had onset dates in January (13) and February (13).

The male/female ratio was 1.4/1 with the highest rate of notification recorded for males in the 20-24 years age group (1.5 per 100,000 population). The highest number of notifications were reported from New South Wales

(26) and Victoria (32). There were no notifications from the Northern Territory or Tasmania.

Yersinosis

There were 459 cases of yersinosis reported for an adjusted annual notification rate of 3.9 per 100,000 population. This rate is comparable to that reported in

Figure 64. Annual adjusted rate of notification of yersinosis per 100,000 population, 1993, by age group and sex

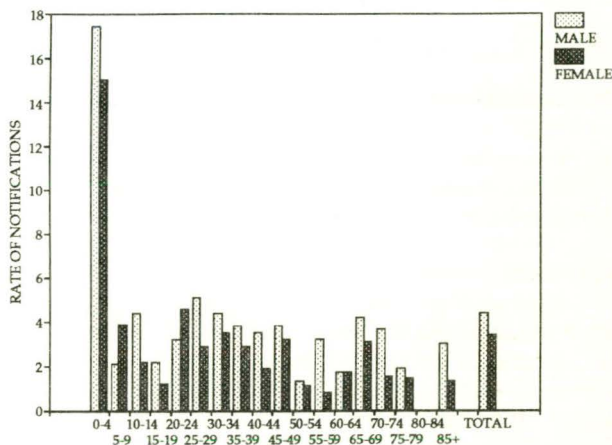
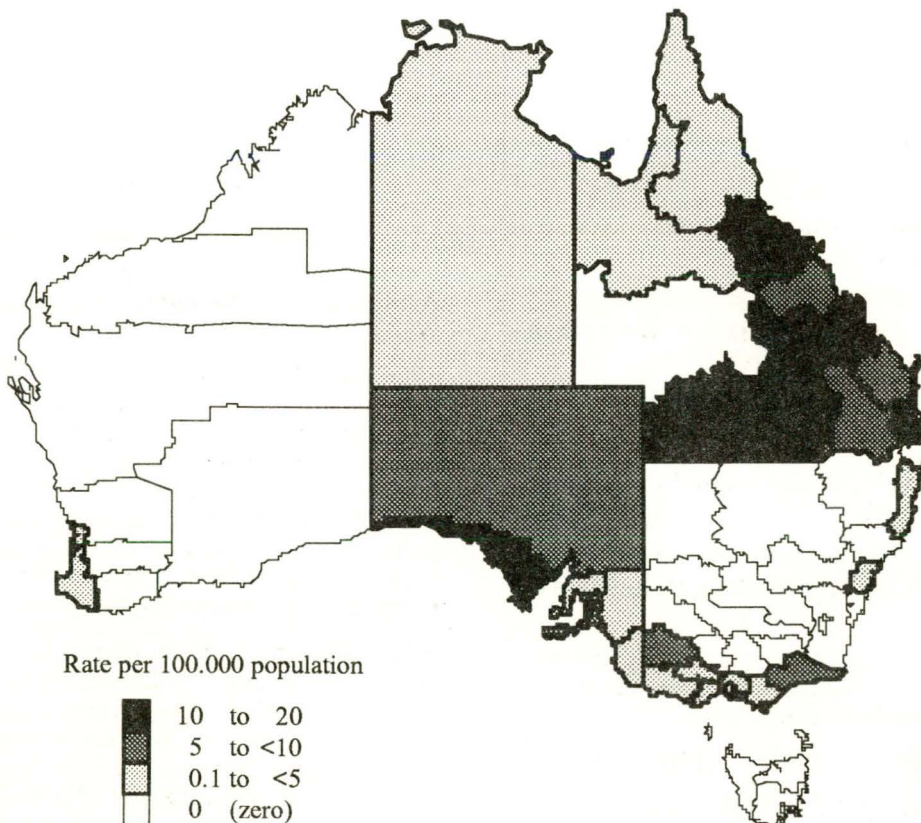


Figure 65. Annual rate of notification of yersinosis per 100,000 population, 1993, by Statistical Division of residence



1992 (3.4 per 100,000 population). (In New South Wales yersiniosis was notifiable only as 'foodborne disease' or 'gastroenteritis in an institution'.)

There was no seasonal trend observed. The male/female ratio was 1.2/1. The highest age group specific rates of notification were reported for males (17.4 per 100,000 population) and females (15.0 per 100,000 population) in the 0-4 years age group (Figure 64).

There was wide variation in the geographical distribution of notifications of yersiniosis with the highest rate of notification reported for residents of the Statistical Division of Fitzroy Queensland (19.3 per 100,000 population) (Figure 65).

Acknowledgments

The Communicable Diseases Network Australia New Zealand thanks the practitioners, laboratories, hospitals and others who have provided the notifications which have made this analysis possible. The members of the Network participating in the National Notifiable Diseases Surveillance System are Scott Cameron (South Australian Health Commission), Jag Gill (Health Department of Western Australia), Michael Levy (New South Wales Health Department), Cathy Mead (Australian Capital Territory Department of Health), Avner Mirrachi (Tasmanian Department of Health), Vicki Krause (Northern Territory Department of Health and Community Services), Graham Rouch (Health and Community Services Victoria) and John Sheridan

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5. Australian Bureau of Statistics. *Australian Standard Geographical Classification*. Cat No 1216.0 Canberra: Australian Bureau of Statistics, 1991.

COMPOSITION OF THE AUSTRALIAN INFLUENZA VACCINE FOR THE 1995 WINTER

Influenza vaccine composition is reviewed annually so that changes in the composition can be made to counter 'antigenic shift' and 'antigenic drift' in the circulating viruses. In September, the Australian Influenza Vaccine Committee met and decided on the composition of the influenza vaccine for the 1995 winter. The vaccine is to contain:

- an A/Texas/36/91 (H₁N₁)-like strain, 15 micrograms haemagglutinin
- an A/Guangdong/25/93 (H₃N₂)-like strain, 15 micrograms haemagglutinin
- a B/Panama/45/90-like strain, 15 micrograms haemagglutinin.

The A/Guangdong/25/93 (H₃N₂)-like strain replaces the A/Beijing/32/92 (H₃N₂)-like strain included in the 1994 formulation.

In February this year, the World Health Organization (WHO) recommended¹ that the vaccine for the 1994-95 northern winter should contain:

- an A/Singapore/6/86 (H₁N₁)-like strain
- an A/Shandong/9/93 (H₃N₂)-like strain

- a B/Panama/45/90-like strain.

Some national authorities, such as the Food and Drug Administration of the United States, considered A/Texas/36/91 to be sufficiently different from A/Singapore/6/86 and updated their formulation accordingly. Others considered A/Texas/36/91 to be an A/Singapore/6/86-like strain within the context of the WHO recommendation.

Since the WHO made the February recommendations, influenza virus isolates have been identified from Africa, the Americas, Asia, Europe and Oceania². In Europe, the majority of isolates were influenza A H₃N₂. In Asia, viruses isolated in South-East China, Hong Kong, Singapore and Thailand were predominantly influenza B, although in June, July and August, influenza A viruses were isolated more frequently in Hong Kong, Singapore and Thailand.

Influenza in the southern hemisphere was moderate to moderately severe. As in Australia, outbreaks in Brazil, Chile and New Zealand were caused by influenza A H₃N₂ viruses. Outbreaks due to influenza B were reported from Zambia, and from South Africa, which also reported influenza A H₃N₂ in July and August.

Few influenza A H₁N₁ viruses were isolated worldwide.

Antigenically, the majority of influenza viruses isolated were closely related to the recommended vaccine strains.

Influenza A H₃N₂

Worldwide, most influenza A H₃N₂ virus isolates were similar to A/Shandong/9/93 and A/Guangdong/25/93. The majority of influenza isolates received by the WHO Collaborating Centre for Influenza Reference and Research in Melbourne from Australia and New Zealand have been influenza A H₃N₂ subtype. A total of 389 isolates have been analysed. All showed some antigenic drift away from the current vaccine strain A/Beijing/32/92 and reduced reactivity with A/Beijing antiserum. The vast majority (351) were demonstrated to be most closely related to reference strain A/Guangdong/25/93. Small numbers of isolates (eight) were A/Shangdong/9/93-like and some strains were intermediate between these two reference strains.

In addition to the Australasian isolates, the Collaborating Centre received 12 isolates of influenza A H₃N₂ from South Africa for analysis. They were all A/Guangdong/25/93-like.

Influenza A H₁N₁

Worldwide, the influenza A H₁N₁ viruses were similar to A/Singapore/6/86, A/Victoria/36/88 and A/Texas/36/91. The Melbourne WHO Collaborating centre received only one influenza A H₁N₁ isolate, from New Zealand. It was characterised as A/Texas/36/91-like.

Influenza B

Most influenza B isolates worldwide were similar to B/Panama/45/90 and B/Quingdao/102/91. Some of the more recent isolates from Hong Kong and south-eastern China were antigenically similar to the B/Victoria/2/87 strain. The epidemiological significance of the resurgence of this strain is unclear at this stage.

The Melbourne WHO Collaborating Centre reports that local influenza B isolates were most closely related to B/Sichuan/8/92 but continued to react strongly with B/Panama antiserum. Twenty-two isolates of influenza B were also received from South Africa for analysis. They were similar to the B/Quing-

dao/102/91 and were also strongly inhibited by B/Panama antisera.

NHMRC recommendations

The NHMRC has recently revised its recommendations for influenza vaccination³:

Influenza vaccine should be given routinely on an annual basis to:

- Individuals over 65 years of age: the risk to the elderly is greatest if they also have chronic cardiac or lung disease, and is increased for residents of nursing homes and other chronic care facilities;
- Aboriginal and Torres Strait Islander adults over 50 years of age, because of the greatly increased risk of premature death from respiratory disease.

Annual vaccination should be considered for individuals who are in the following groups:

- Adults with chronic debilitating diseases (especially those with chronic cardiac, pulmonary, renal and metabolic disorders);
- Children with cyanotic congenital heart disease;
- Adults and children receiving immunosuppressive therapy;
- Staff who care for immunocompromised patients (patients with immune deficiency or malignancy, bone marrow transplant recipients, and liver transplant recipients are at high risk from influenza infection, but have an attenuated immune response to influenza vaccine);
- Residents of nursing homes and other chronic care facilities;
- Staff of nursing homes and other chronic care facilities (in an attempt to protect the patients).

References

1. Recommended composition of the influenza virus vaccines for the 1994-95 season. *Wkly Epidemiol Rec* 1994;69:53-56.
2. Influenza. *Wkly Epidemiol Rec* 1994;69:291.
3. National Health and Medical Research Council. *The Australian immunisation procedures handbook*. 5th ed. Canberra: Australian Government Publishing Service, 1994.

OVERSEAS BRIEFS

In the last two weeks, the following information has been supplied by the World Health Organization (WHO).

Plague in India

The plague situation in India continues to improve. The epidemic has been investigated by a WHO team of international experts which has now recommended the lifting of restrictions on passengers departing from India and a relaxation of medical examination of travellers arriving from India. The team has, however, recommended continued precautions while travelling to Surat in Gujarat State and Beed in Maharashtra State. The additional quarantine surveillance procedures which were in place at ports of entry to Australia during the outbreak have now been removed.

The WHO investigation team has indicated that there was no evidence of transmission of plague in Bombay, Calcutta, Madras or Delhi and that these cities can be considered plague free. To 19 October, there had been the following serologically confirmed cases:

Delhi Territory - 68 cases, 3 deaths

Gujarat State - Surat 77 cases, 52 deaths; other districts 6 cases

Maharashtra State - Beed 445 cases; other districts 151 cases

Madhya Pradesh State - 4 cases

Uttar Pradesh State - 10 cases

Karnataka State - 54 cases, one death.

Surat District in Gujarat State and Beed District in Maharashtra State are still considered to be infected.

Plague in Malawi

Nine cases of plague (five suspect) have been reported from the Nsanje District in Malawi. All cases were in Mozambican refugees living at Mankhokwe Refugee camp and surrounding villages. Neighbouring Mutarara District in Tete Province in Mozambique has recently been declared infected.

Typhoid in Papua New Guinea

An unofficial report has been received of increased typhoid activity in Papua New Guinea, including in Port Moresby and surrounding villages. The public is being advised to take precautions to prevent infection. Further information is being sought on this outbreak.

Cholera update

Cholera cases have been reported for July, August and September from Afghanistan, Albania, Azerbaijan, Benin, Brazil, Burundi, Cambodia, Cameroon, Chad, China, Cote d'Ivoire, Dagestan, El Salvador, Ghana, Guinea, Hong Kong, India, Laos, Moldova, Mozambique, Niger, Nigeria, Philippines, Romania, Rwanda-Zaire, Sierra Leone, Somalia, Singapore, Tajikistan, Uganda and Ukraine.

CDI NOTICES TO READERS

Tuberculosis notifications in Australia, 1992 - correction

A correction is required for 'Tuberculosis notifications in Australia, 1992', published in *CDI* 1994;18:330-337 (11 July 1994). Queensland reported 82 notifications of new cases as culture confirmed (78.8%), not 100 (Table 5). Thus a total of 518 notifications (52.7%) was culture confirmed for Australia (Tables 5 and 6). Of these, 313 (31.8%) were also diagnosed by radiology. A further 142 (14.4%) were diagnosed by radiology alone.

Immunisation Providers' Information Kit

During November, the following publications will be distributed nationally and free of charge to all immunisation service providers.

Australian immunisation procedures handbook, 5th edition

This new National Health and Medical Research Council publication provides updated practical guidance and a comprehensive reference on all aspects of immunisation in Australia, and replaces *Immunisation Procedures* (4th edition, NHMRC, 1991). It includes information on the revised recommended childhood immunisation schedule, which incorporates Hib immunisation, a second dose of measles-mumps-rubella vaccine and fifth doses of pertussis and oral poliomyelitis vaccines. It also includes information on the new hepatitis A and Vi polysaccharide typhoid vaccines.

Keep it cool: the vaccine cold chain

This publication provides simple guidelines for providers on how to maintain the cold chain in the

surgery or clinic with minimal extra equipment and the adoption of simple regular procedures.

Standards for childhood immunisation

The *Standards* have been endorsed by the Australian Medical Association, the Royal Australian College of General Practitioners and the Australian College of Paediatrics. They are intended as a guide to best practice in immunisation and the basis for quality assurance at all levels of the health system.

The publications are being produced and distributed as part of the National Childhood Immunisation Program which is being conducted by the Commonwealth Department of Human Services and Health in collaboration with State and Territory health authorities and the immunisation provider groups' professional bodies.

A fourth publication, *Childhood immunisation: the role of parents and service providers. A review of the literature*, is also available free on request.

For more information about the publications or the Program, contact Monica Johns (06) 289 8529 or Patricia Healy (06) 289 8696 in the AIDS/Communicable Diseases Branch, Department of Human Services and Health.

The *Australian Immunisation Procedures Handbook* is also available from the NHMRC publications officer, GPO Box 9848 Canberra ACT 2601, phone (06) 289 7646, fax (06) 289 7802.

National Childhood Immunisation Program publications order form		
Fax order form to (06) 289 6838, or post to Education Unit, AIDS/Communicable Diseases Branch, Department of Human Services and Health, GPO Box 9848 Canberra ACT 2601.		
Publication	Copies required	Name:
<i>Australian immunisation procedures handbook</i> , 5th edition		Postal address:
<i>Keep it cool: the vaccine cold chain</i>		
<i>Standards for childhood immunisation</i>		
<i>Childhood immunisation: the role of parents and service providers. A review of the literature</i>		Phone: Fax:

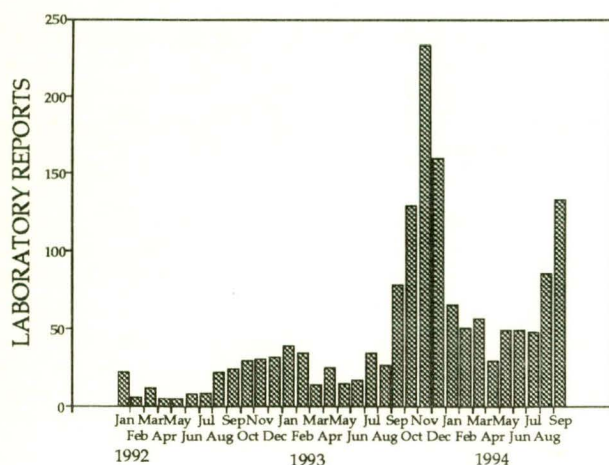
COMMUNICABLE DISEASES SURVEILLANCE

Virology and Serology Reporting Scheme

There were 1408 reports received in the *CDI* Virology and Serology Reporting Scheme this fortnight (Tables 7, 8, and 9).

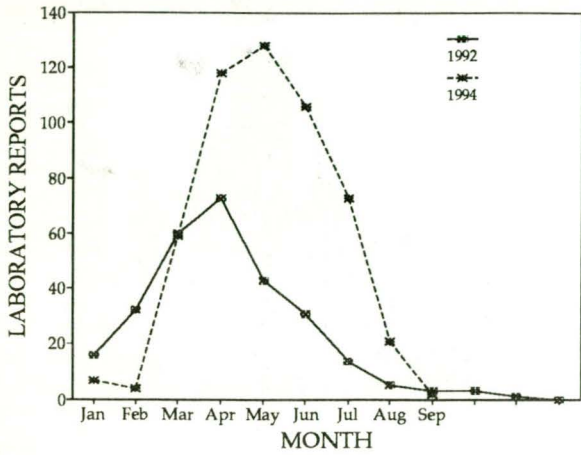
- Sixty-two reports of **measles** were received this period, 28 males and 34 females, 53 of whom were in the 5 to 24 year age group. Included was a 16 year old pregnant female with a rash and suspected viral pneumonitis and a female under the age of 12 months. Diagnosis was by IgM detection (61) and fourfold rise in titre (one). The number of reports has risen in recent months (Figure 1) particularly those from Queensland and South Australia.
- **Rubella** was reported for 94 patients this fortnight, 35 females, 14 of whom were in the 15 to 44 year age group, and 59 males. Diagnosis was by IgM detection (85) and fourfold rise in titre (9). The number of reports received rose to 189 in September following a low for the year of 15 in June.
- Ten reports **hepatitis A** were received, 8 males and 2 females, age range 5 to 74 years. Included was a 43 year old male whose daughter also had hepatitis A.
- Positive **hepatitis B** serology was reported for 47 patients this fortnight, 29 males and 16 females (2 sex not stated). Twenty-six patients were in the 25 to 44 year age group.
- Positive **hepatitis C** serology was reported for 152 patients this fortnight, 84 males and 45 females (23 sex not stated). One hundred and sixteen reports were for the 25 to 44 year age group, and 21 for the 15 to 24 year age group. Included were 6 injecting drug users and one patient with a history of occupational exposure.

Figure 1. Measles laboratory reports, 1992 to 1994, by month of specimen collection



- Positive **hepatitis D** serology was reported for a 33 year old male from Victoria.
- **Ross river virus** infection was reported for 29 patients this period, all but one from Queensland, all with specimen collection dates in late September and early October. Included were 18 males and 11 females, age range 25 to 99 years. All diagnoses were presumptive (IgM detected). The number of reports received rose to 44 in September following a low of 7 in July.
- Nine reports of **Barmah Forest virus** were received this fortnight, from Queensland (8) and New South Wales (one). Patients were in the age range 23 to 60 years, and included 4 males and 5 females. All were presumptive diagnoses (IgM detected) with specimen collection dates in late September and early October.
- An **untyped flavivirus** was reported for a 24 year old male from Victoria.
- Forty-nine reports of **adenovirus** were received this fortnight, 45 virus isolations, and 4 antigen detections. Nineteen patients were under the age of one year and a total of 36 were in the under 4 year age group.
- **Herpes simplex virus type 1** was reported for 119 patients this fortnight, 116 isolations and 3 antigen detections.
- Eighty-eight reports of **herpes simplex virus type 2** were received this fortnight diagnosed by virus isolation (86), antigen detection (one) and IgM detection (one).
- There were 63 reports of **cytomegalovirus (CMV)** this fortnight, 39 virus isolations, 3 antigen detections, 20 IgM detections and one fourfold rise in titre. Included was a 14 year old female (virus isolated from biopsy specimen) and 3 transplant recipients.
- **Varicella-zoster virus** was reported for 46 patients this period, 25 females and 21 males. Diagnosis was by virus isolation (10), antigen detection (23), IgM detection (12) and single high titre (one). Included was virus isolation from the skin of an 11 day old male whose mother developed chickenpox 2 days prior to giving birth. The child recovered fully following the administration of zoster immune globulin. This virus was also detected by immunofluorescence in the eye of a 33 year old female.
- Two reports of **parvovirus** were received this fortnight, for a 4 year old male and a 40 year old female, both diagnosed by IgM detection.
- **Coxsackievirus type B3** was reported for 5 patients from Victoria this period, four males and one sex unstated, all with specimen collection dates in Sep-

Figure 2. Parainfluenza virus type 1 laboratory reports, 1994, by month of specimen collection



tember. Included was isolation from the urine of a 9 day old with a suspected viral infection, and from the faeces of a 33 year old.

- Three reports of **echovirus type 6** were received this fortnight, one each from the Australian Capital Territory, Tasmania and Victoria. Included was isolation from the urine of a 14 month old male and from a faeces specimen from a 30 year old male with meningitis.
- An **untyped enterovirus** was isolated from the urine of a 17 day old female from Queensland.
- Twenty-three reports of **rhinovirus** were received this fortnight, 12 under the age of one year and a total of 18 in the under 4 year age group. Included was isolation from nasopharynx of a 16 month old female with pneumonia who also had RSV.
- **Influenza A** was reported for 22 patients this fortnight including 3 H₃N₂ strains, of which two were

further identified as being subtype A/Guangdong/25/93-like. Included were 11 males and 9 females (2 sex not stated), 9 over the age of 65 years. Diagnosis was by antigen detection (one), virus isolation (7, collected in August and September), fourfold rise in titre (2) and single high titre (12). Reports were received from New South Wales (8), Queensland (3), Victoria (10) and Western Australia (one).

- Two reports of **influenza B** were received this period, one each from New South Wales and Western Australia, both males, one in the one to 4 year age group and the other over 75 years of age.
- One report of **untyped influenza** was received this period for a 2 month old Victorian male, diagnosed by virus isolation.
- No reports of **parainfluenza virus type 1** were received this fortnight (Figure 2). More reports have been received this year than for 1992, the most recent epidemic year.
- Twenty-four reports of **parainfluenza virus type 3** were received this fortnight, all under the age of 4 years. Diagnosis was by virus isolation (16) and antigen detection (8). The number of reports has risen in recent months (Figure 3).
- One hundred and thirteen reports of **respiratory syncytial virus (RSV)** were received this fortnight, 84 for patients under the age of one year and a total of 108 in the under 4 year age group. The number of reports continues to decline (Figure 4). Diagnosis was by virus isolation (28), antigen detection (84) and single high titre (one).
- **Rotavirus** was reported for 121 patients this period, 65 males and 55 females (one sex not stated), including 5 and 6 year old siblings. Ninety-eight patients were less than 4 years of age, 16 being in the under one year age group. The number of reports continues to decline (Figure 5).

Figure 3. Parainfluenza virus type 3 laboratory reports, 1993 to 1994, by month of specimen collection

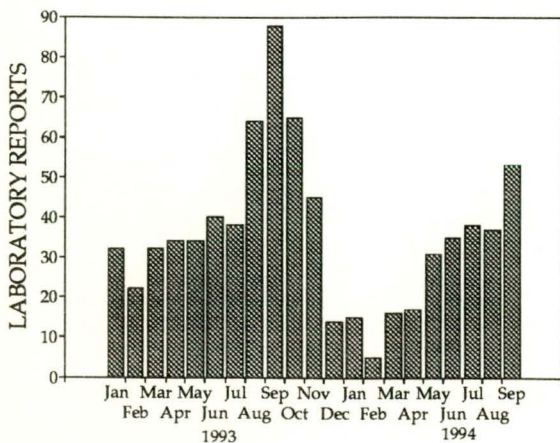


Figure 4. Respiratory syncytial virus laboratory reports, 1989-93 average and 1994, by month of specimen collection

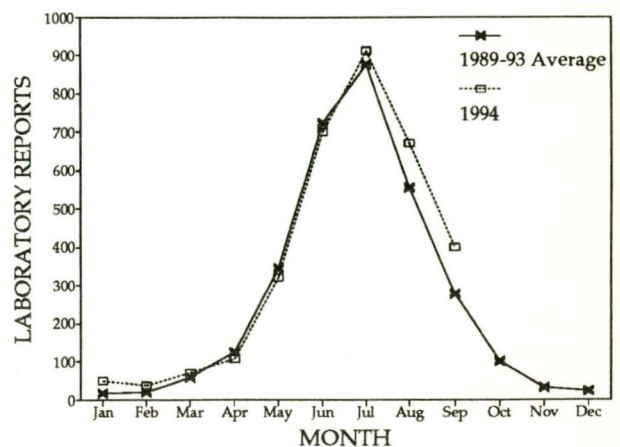


Figure 5. Rotavirus laboratory reports, 1989-93 average and 1994, by month of specimen collection

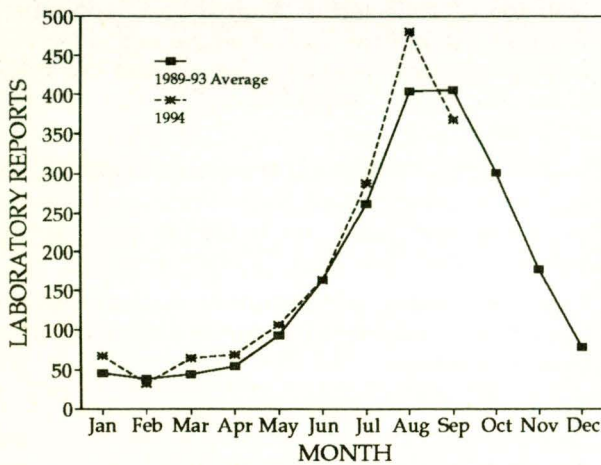
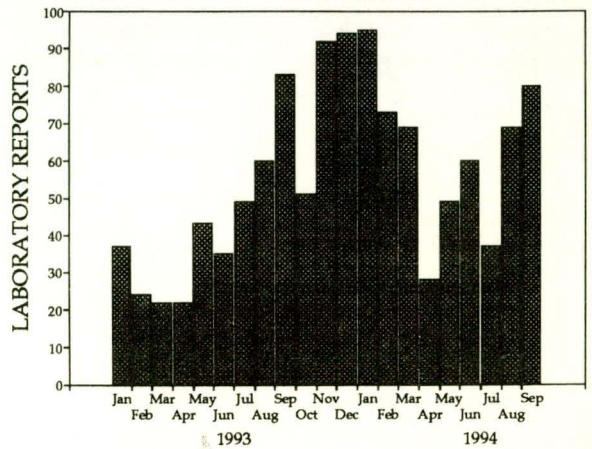


Figure 6. *Bordetella* and *Bordetella pertussis* laboratory reports, 1993 to 1994, by month of specimen collection



- Six reports of **small virus-like particles** were received this fortnight including a female from Victoria (age unknown) who was part of an outbreak of gastroenteritis due to Norwalk-like virus.
- Fifty-one reports of *Chlamydia trachomatis* were received this fortnight, 23 males and 28 females. Thirty-one patients were in the 15 to 24 year age group. Diagnosis was by culture (40) antigen detection (10) and single high titre (one).
- Twenty-six reports of *Mycoplasma pneumoniae* were received this period, 9 males and 17 females, 13 under the age of 14 years.
- **Q fever** was reported for 10 patients this period, all males in the age range 16 to 70 years. Two reports were from New South Wales and 8 from Queensland.
- Thirty-three reports of *Bordetella* were received this fortnight, 28 *Bordetella pertussis* and 5 *Bordetella* species. Nineteen patients were male and 14 female, age range one month to 64 years. The number of reports continues to rise (Figure 6).
- Positive **syphilis** serology was reported for 27 patients this period, 9 males and 17 females.

- *Toxoplasma gondii* was reported for 8 patients this fortnight, 6 females, 4 of whom were in the 25 to 44 year age group, and 2 males. An increased number of reports was received for the months of May and June. A total of 63 reports has been received so far this year, 23 of these being for women of child-bearing age.

Australian Sentinel Practice Research Network

Data for weeks 40 and 41 are included in this issue of CDI (Table 1). There were 8949 consultations reported for week 40 (ending 9 October) and 9147 for week 41 (ending 16 October). The rate of influenza reporting declined further this fortnight, to the level reported in April this year. Rates have fallen over the last month particularly in New South Wales, Victoria, Queensland and Tasmania; rates have remained higher in Western Australia. The rate of reporting of pertussis has been higher over the last 2 months than in the middle of the year, in parallel with recent increases in notifications and laboratory reports of this disease.

Table 1. Australian Sentinel Practice Research Network, weeks 40 and 41, 1994

Condition	Week 40, to 9 October 1994		Week 41, to 16 October 1994	
	Reports	Rate per 1000 encounters	Reports	Rate per 1000 encounters
Influenza	45	5.0	39	4.2
Measles	2	0.2	2	0.2
Chickenpox	13	1.5	26	2.8
Pertussis	3	0.3	6	0.7
Gastroenteritis	149	16.6	135	14.8

National Influenza Surveillance 1994

Australian Capital Territory Department of Health; Australian Defence Force; Australian Sentinel Practice Research Network; Communicable Diseases Intelligence Virology and Serology Reporting Scheme Contributing Laboratories; New South Wales Department of Health; Telecom Australia; Victorian Department of Health and Community Services; World Health Organization (WHO) Collaborating Centre for Influenza Reference and Research, Melbourne

Overall this fortnight, there has been a continued decline in laboratory reports of influenza A. The rate of influenza reporting from sentinel general practitioner surveillance has also declined, to levels reported for autumn this year. Absenteeism rates have remained fairly stable.

This is the last reporting fortnight for the National Influenza Surveillance System for this year, although influenza will continue to be reported through the CDI Virology and Serology Reporting Scheme and the Australian Sentinel Practice Research Network. A report of this past season will be published in CDI in the new year.

Sentinel general practitioner surveillance (Figure 7)

- The **Australian Sentinel Practice Research Network** reported for 8949 consultations for the week ending 9 October and for 9147 for the week ending 16 October. The rate of influenza reporting declined further this fortnight, to the level reported in April this year (5.0 and 4.3 per 1000 consultations, respectively). Rates have fallen over the last month particularly in New South Wales, Victoria, Queensland and Tasmania; rates have remained higher in Western Australia.
- The **Australian Capital Territory Sentinel General Practitioner Scheme** reported for 653 consultations for the week ending 15 October and for 592 consultations for the week ending 22 October. There were

no influenza cases reported for the week ending 15 October and 8 for the week ending 22 October (14 per 10000 consultations).

- **New South Wales sentinel general practitioners** reported for 7078 consultations in the week ending 3 October, 4961 consultations for the week ending 10 October and 6511 consultations for the week ending 17 October. Influenza was reported at rates of 16.2, 13.1 and 10.9 per 1000 consultations, respectively. The reporting rates have continued to decline in recent weeks.
- The **Victorian sentinel general practitioners** reported 42 cases of influenza (10 per 1000 consultations) for the fortnight ending 30 September, and 25 cases (6 per 1000 consultations) for the fortnight ending 17 October. The rate of influenza reporting has declined since a peak at the end of August.

Absenteeism surveillance (Figure 8)

- **Telecom Australia Absenteeism Surveillance** reported sick leave absenteeism of 1.0% on 12 October and 0.4% on 5 October. There are reporting delays in the Telecom absenteeism surveillance system such that recent data do not reflect total absenteeism. Data for the period March to August are more complete.
- **New South Wales Schools Absenteeism Surveillance** has finished for the season.
- The **Australian Capital Territory Schools Absenteeism Surveillance** reported absenteeism of 5.0% on Tuesday 18 October and 5.5% on Tuesday 25 October. The absenteeism rate has been lower in this school term than in some weeks in August.

Laboratory surveillance

- The **CDI Virology and Serology Reporting Scheme** has received 929 reports of influenza A so far this year, 617 other than single high titres. Sixty-

Figure 7. Sentinel general practitioner influenza cases per 1000 encounters, by week and scheme

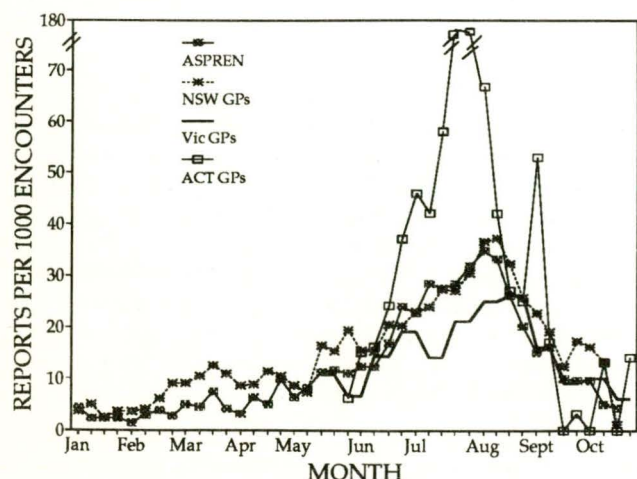


Figure 8. Absenteeism rates per 100 employees or students, by week and scheme

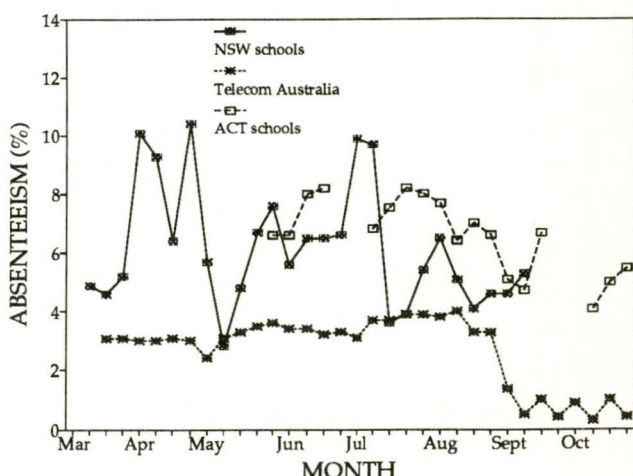
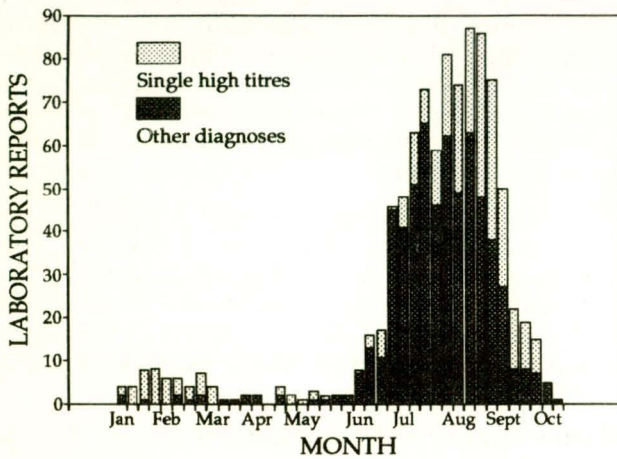


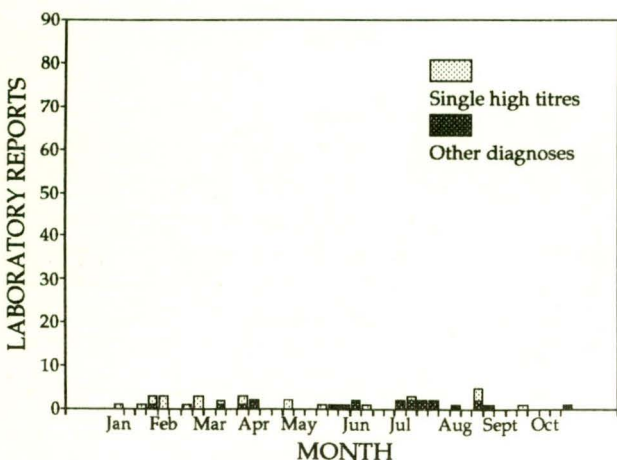
Figure 9. Influenza A laboratory reports, 1994, by method of diagnosis and week of specimen collection



seven isolates have been identified as H₃N₂ subtypes (others not subtyped). The number of reports continues to decline (Figure 9). **Influenza A** was reported for 22 patients this fortnight including 3 H₃N₂ strains, of which two were further identified as being subtype A/Guangdong/25/93-like. Included were 11 males and 9 females (2 sex not stated), 9 over the age of 65 years. Diagnosis was by antigen detection (one), virus isolation (7, collected in August and September), fourfold rise in titre (2) and single high titre (12). Reports were received from New South Wales (8), Queensland (3), Victoria (10) and Western Australia (one).

- A total of 45 reports of **influenza B** has been received this year, 22 with diagnoses other than single high titre (Figure 10). Two reports of **influenza B** were received this period, one each from New South Wales and Western Australia, both

Figure 10. Influenza B laboratory reports, 1994, by method of diagnosis and week of specimen collection



males, one in the one to 4 year age group and the other over 75 years of age.

WHO Collaborating Centre for Reference and Research typing results

- The majority of influenza isolates received this season by the WHO Collaborating Centre for Influenza Reference and Research in Melbourne from Australia and New Zealand have been influenza A H₃N₂ subtype. A total of 389 isolates have been analysed. All showed some antigenic drift away from the current vaccine strain A/Beijing/32/92 and reduced reactivity with A/Beijing antiserum. The vast majority (351) were demonstrated to be most closely related to the reference strain A/Guangdong/25/93. Small numbers of isolates (eight) were A/Shangdong/9/93-like and some strains were intermediate between these two reference strains.
- The Collaborating Centre has received only one influenza A H₁N₁ isolate, from New Zealand. This was characterised as A/Texas/36/91-like.
- Local influenza B isolates have been most closely related to B/Sichuan/8/92 but have continued to react strongly with B/Panama antiserum.

Other surveillance

- **Victorian total deaths surveillance:** there were 1387 deaths reported in Victoria in the fortnight ending 30 September (3.0 per 100,000) and 1246 deaths in the fortnight ending 17 October (2.8 per 100,000 population). These rates were slightly lower than the 3.2 per 100,000 reported for the previous fortnight.
- **Victorian hospital admissions:** the rate of hospital admissions for pneumonia and influenza in sentinel Victorian hospitals has declined. There was 0.8 admissions per 100 patients in the fortnight ending 30 September and 0.3 per 100 patients in the fortnight ending 17 October.

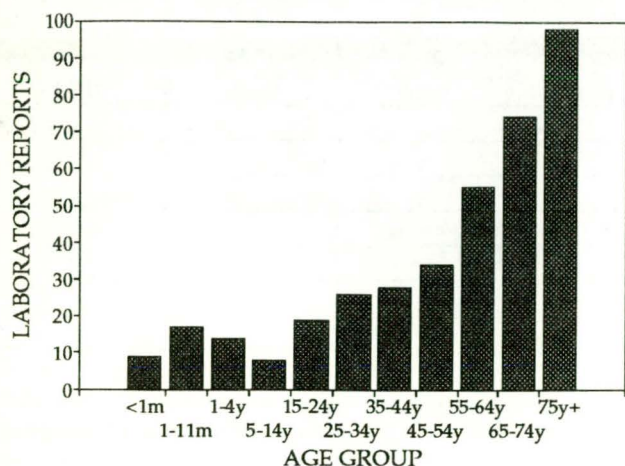
Sterile Sites Surveillance (LabDOSS)

Data for this fortnight have been provided by 14 laboratories. There were 417 reports of recent significant sepsis:

- New South Wales:** Liverpool Hospital 37; ICPMR Westmead 37; Hunter Area Pathology Service, Newcastle 59; Prince of Wales Hospital 41; Royal North Shore Hospital 40; Royal Prince Alfred Hospital 53.
- Queensland:** Central Queensland Pathology Laboratory, Mackay 5; Ipswich General Hospital 9; Greenslopes Repatriation Hospital 13.
- Western Australia:** Sir Charles Gardiner Hospital 33.
- Northern Territory:** Alice Springs Hospital 24.
- Tasmania:** Northern Tasmanian Pathology Service 2; Royal Hobart Hospital 14.
- ACT:** Woden Valley Hospital 50.

An additional 87 reports of sepsis in August were reported including one case of *Neisseria meningitidis* (3

Figure 11. LabDOSS blood isolates by age group



with old male with meningitis), 8 cases of *Streptococcus pneumoniae* infection (including one case of meningitis in an eleven month old male), and one case of *Salmonella* Typhi (37 year old male who had recently travelled to Pakistan). Reports with specimen collection dates prior to the first day of the previous month are not included in the fortnightly reports in *CDI* however these reports are added to the annual data.

Organisms reported 5 or more times from blood are detailed in Table 2. Other blood isolates not included in Table 2 were:

Gram positive: 2 *Bacillus* species, 1 *Corynebacterium jeikeium*, 2 *Corynebacterium* species, 2 *Enterococcus faecium*, 1 *Enterococcus* species, 2 Group B *Streptococcus*, 4 Group G *Streptococcus*, 2 *Streptococcus 'milleri'*, 3 *Streptococcus sanguis*, 1 *Streptococcus 'viridans'*.

Gram negative: 1 *Campylobacter jejuni*, 1 *Campylobacter* species, 3 *Citrobacter freundii*, 2 *Enterobacter* species, 2 *Haemophilus influenzae* (1 type b in a 2 year old female with neutropenia and malignancy in New South Wales and 1 non-typable in a 60 year old female with pneumonia in Alice Springs), 3 *Klebsiella* species, 1 *Morganella morganii*, 3 *Proteus mirabilis*, 2 *Proteus* species, 1 *Pseudomonas fluorescens*, 2 *Pseudomonas* species, 1 *Salmonella* Paratyphi (24 year old male reporting overseas travel), 2 *Salmonella* species, 3 *Serratia* species, 2 *Xanthomonas maltophilia*, 1 *Neisseria sicca*.

Anaerobes: 3 *Bacteroides fragilis*, 1 *Bacteroides ovatus*, 1 *Clostridium perfringens*, 1 *Clostridium* species.

Fungi: 3 *Candida albicans*, 1 *Candida* species, 1 *Chaetomium* species.

Most blood isolates were for elderly persons (Figure 11).

Meningitis and/or CSF isolate reports

There were 10 reports of meningitis and/or CSF isolates (Table 3). Included were 1 *Cryptococcus neoformans* reported for a 37 year old male and 2 *Cryptococcus neoformans* var. *neoformans*, reported for a 33 year old male and a 50 year old male. All three patients were immunocompromised. *Haemophilis influenzae* type b

Table 2. LabDOSS reports of blood isolates, by organism and clinical information

Organism	Clinical information						Risk factors					Total ¹
	Bone/Joint	Lower respiratory	Endocarditis	Gastrointestinal	Urinary tract	Skin	Surgery	Immunosuppressed	IV line	Hospital acquired	Neonatal	
<i>Enterococcus faecalis</i>			1	2	2		3	1				9
<i>Staphylococcus aureus</i>	7	4		2	2	10	10	19	11			83 ²
<i>Staphylococcus coagulase negative</i>		1				2	2	6	3		2	18
<i>Staphylococcus epidermidis</i>				2				5	7		2	16
<i>Streptococcus</i> Group A	1	1		1	1	2		2				7
<i>Streptococcus pneumoniae</i>	1	28				1	2	6				43
<i>Streptococcus</i> species			2	1			1	3				10
<i>Acinetobacter</i> species				2			2	1				6
<i>Enterobacter aerogenes</i>				1			2	1	3			7
<i>Enterobacter cloacae</i>		1		5	2	1		7	3			13
<i>Escherichia coli</i>		2		12	15	4	10	19	1	3		69
<i>Klebsiella oxytoca</i>		3			1			1	1			5
<i>Klebsiella pneumoniae</i>				3	1		1	6				14
<i>Pseudomonas aeruginosa</i>		4		3	2	1	5	6				18

1. Only organisms with 5 or more reports are included in this table.
 2. MRSA 18.

Table 3. LabDOSS meningitis reports, by organism and age group

	1-11 months	15-24 years	25-34 years	35-44 years	45-54 years	Total
<i>Neisseria meningitidis</i>	1 ¹	1 ²				
group B				1		
group C		1				4
<i>Haemophilus influenzae</i> type b	1					1
<i>Streptococcus pneumoniae</i>	1				1	2
<i>Cryptococcus neoformans</i> var. <i>neoformans</i>			1	1	1	3

1. Organism non-groupable.

2. Group not available.

was reported in a 7 month old male who had previously received two Hib vaccinations.

Isolates from sites other than blood or CSF

Joint fluid: 7 *Staphylococcus aureus* (1 MRSA), 1 *Staphylococcus coagulase negative*, 1 *Streptococcus* species.

Peritoneal fluid: 1 *Proteus* species, 1 *Staphylococcus coagulase negative*.

Other: 1 *Aspergillus* species, 1 *Candida albicans*, 1 *Escherichia coli*, 5 *Staphylococcus aureus* (1 MRSA), 1 *Streptococcus* species, 1 *Streptococcus sanguis*, 2 *Morganella morganii*, 1 *Pseudomonas aeruginosa*, 1 *Pseudomonas* species.

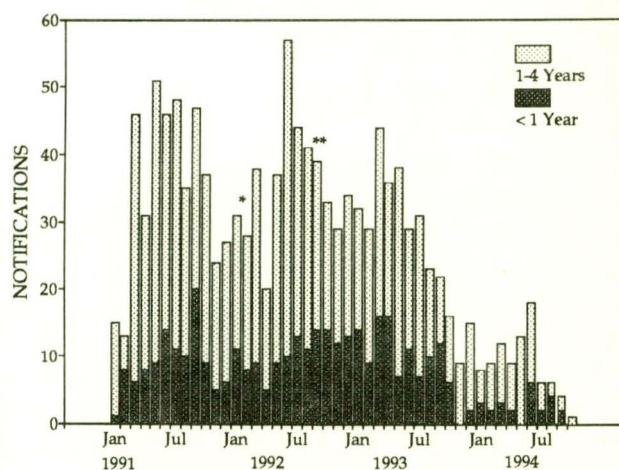
National Notifiable Diseases Surveillance System, 2 October to 15 October 1994

There were 1939 notifications received for the period (Figure 13 and Tables 4, 5 and 6). No notifications were received for New South Wales due to revisions being made to the New South Wales Infectious Diseases Surveillance System.

- There were 33 notifications of **Ross River virus infection**; 18 cases were male and 15 cases were female. Recorded ages were between the 20-24 and the 80-84 years age group. Onset dates were in January (3), February (one), August (3), September (21), and October (5).
- A single case of **dengue** was notified for a male in the 25-29 years age group resident in the Statistical Division of Perth Western Australia.
- Three cases of **brucellosis** were notified. All cases were male. Recorded ages were between 20 and 34 years. All cases were resident in rural Queensland.
- Seventy notifications of **gonococcal infection** were received; 48 cases were male and 22 were female. Recorded ages were between the 0-4 and the 60-64 years age group with a single case in a child aged less than one year.

- There were 3 notifications of ***Haemophilus influenzae* type b infection**; one case was male and 2 were female. Cases were aged between the 0-4 and the 70-74 years age group with a single case aged less than 5 years (Figure 12). Onset dates were in September.
- Twelve reports of incident cases of **hepatitis B** were received. Seven cases were male and 5 were female. Recorded ages were between the 15-19 and the 65-69 years age group.
- There were 2 notifications of **hydatid infection**. One case was male and the other female. The cases were between 65 and 74 years.
- Five cases of **legionellosis** were reported; 2 cases were male and 3 were female. Cases were aged between the 35-39 and the 65-69 years age groups. One case was reported from the Northern Territory.

Figure 12. *Haemophilus influenzae* type b infection notifications in children aged less than 5 years, 1991 to 1994, by month of onset and age group

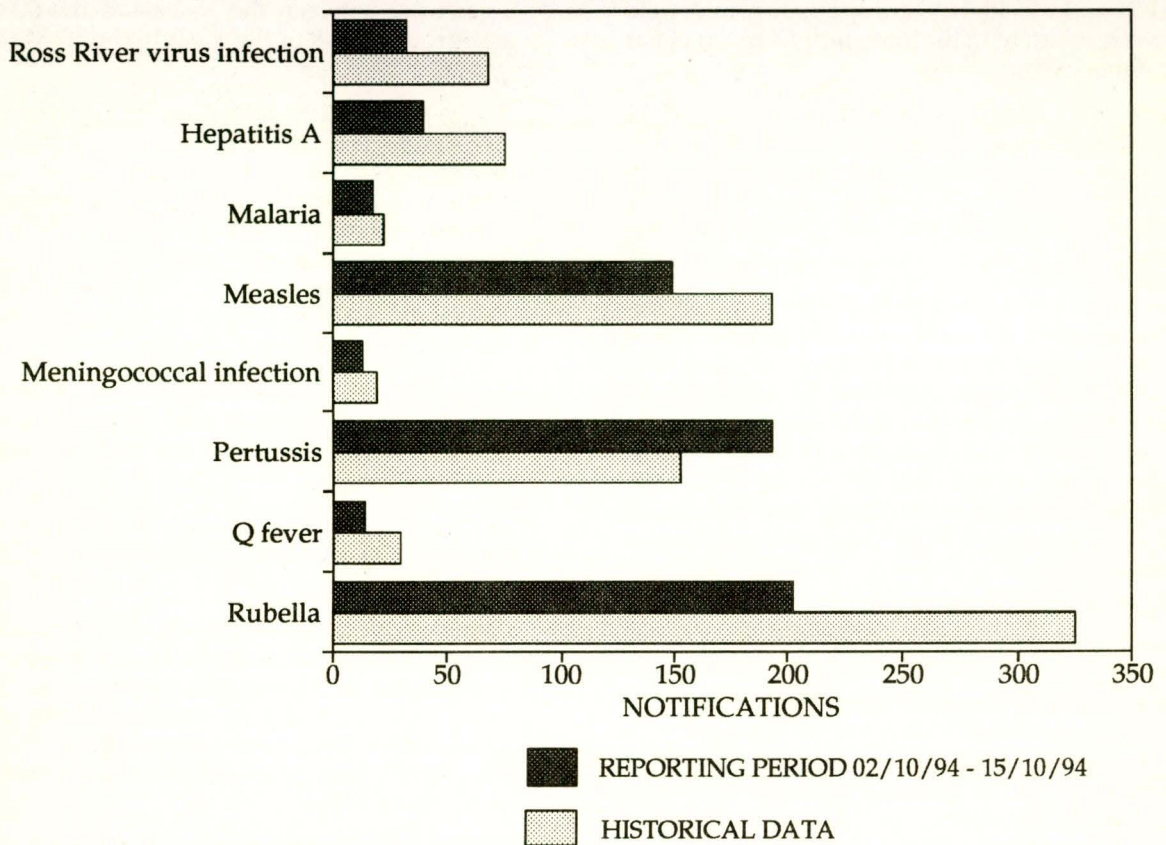


* PRP-D approved in February 1992.

** Infant vaccine approved in September 1992.

- Twelve cases of **leptospirosis** were reported. All cases were male and recorded ages were between the 30-34 and the 40-44 years age group. Six of the cases were resident in the Statistical Division of Far North Queensland.
- There were 18 notifications of **malaria** received; 11 cases were male and 7 cases were female. Recorded ages were between the 10-14 and the 55-59 years age group. Onset dates were in June (1), July (5), August (5), September (3), and October (4). One case was resident in the 'malaria receptive' zone.
- There continues to be a high number of notifications of **measles** for each reporting period. There were 149 notifications received this fortnight. Seventy-eight cases were male and 71 were female. Recorded ages were between the 0-4 and the 70-74 years age group with a mean age of 15.5 years. Fifteen per cent of the notifications were for children aged less than 5 years. Ninety-four per cent of the notifications were from Queensland with two clusters (residents of the same postcode area) reported of 22 and 11 cases respectively.
- Thirteen cases of **meningococcal infection** were reported; 9 cases were male and 4 were female. Cases were aged between the 0-4 and the 65-69 years age group. Onset dates were in September (5) and October (8). There was one apparent cluster of two cases resident in the same postcode area with onset dates 7 days apart.
- The epidemic of **pertussis** is continuing with 193 cases reported in the period. Seventy-one cases were male, 120 were female, and the sex of 2 cases was not recorded. Recorded ages were between the 0-4 and the 90-94 years age group with 9 cases reported for infants aged less than one year. Fifty-two per cent of the notifications were received from Queensland and 31% were received from South Australia.
- Fourteen notifications of **Q fever** were received; 11 cases were male and 3 cases were female. Recorded ages were between the 15-19 and the 60-64 years age group with 9 of the cases in the 15-34 years age group.
- There were 202 notifications of **rubella** received; 148 cases were male, 51 cases were female and the sex of 3 cases was not recorded. Cases were aged between the 0-4 and the 70-74 years age group with a mean age of 25.2 years. Twenty-five cases were recorded for females in the 15-45 years age group. The majority of cases (81%) were resident in Queensland with one cluster (cases resident in the same postcode area) of 25 cases.
- Fifty-six notifications of **syphilis** were received; 31 notifications were male and 25 were female. The cases were aged between the 15-19 and the 90-94 years age groups.
- A single case of **tetanus** was reported for a female in the 75-79 years age group resident in rural South Australia.
- There were 26 notifications of **tuberculosis** received; 9 cases were male, 14 cases were female, and the sex of 3 cases was unrecorded. The cases were aged from the 15-19 to the 90-94 years age group. Recorded onset dates were in February (2), May (one), June (one), August (5), September (11), and October (6).
- A case of **typhoid** was reported for a male in the 35-39 years age group resident in Western Australia.
- Seventeen notifications of **yersiniosis** were received. Thirteen cases were male, 3 cases were female and the sex of one case was not recorded. The cases were aged between the 0-4 and the 45-49 years age group with 8 cases in the 0-4 years age group.

Figure 13. Selected National Notifiable Diseases Surveillance Systems reports, and historical data*



* 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 periods immediately preceding and following those.

Table 4. Notifiable Diseases preventable by vaccines recommended by the NHMRC for routine childhood immunisation, received by State and Territory health authorities in the period 2 to 15 October 1994

DISEASES	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	TOTALS FOR AUSTRALIA ¹			
									This period 1994	This period 1993	Year to date 1994	Year to date 1993
Diphtheria	0		0	0	0	0	0	0	0	0	23	0
<i>Haemophilus influenzae</i> b infection	0		0	1	0	0	2	0	3	7	152	335
Measles	3		0	140	0	1	5	0	149	270	3253	2484
Mumps	0		NN	NN	0	NN	0	0	0	2	17	14
Pertussis	0		8	101	60	0	14	10	193	209	4173	2020
Poliomyelitis	0		0	0	0	0	0	0	0	0	0	0
Rubella ²	1		0	164	0	0	7	30	202	193	1651	2603
Tetanus	0		0	NN	1	0	0	0	1	0	14	9

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: CRS only.
 NN Not Notifiable.

Table 5. Notifications of other diseases¹ received by State and Territory health authorities in the period 2 to 15 October 1994

DISEASES	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	TOTALS FOR AUSTRALIA ²				
									This period 1994	This period 1993	Year to date 1994	Year to date 1993	
Arbovirus infection													
Ross River virus infection	0		4	26	0	NN	0	3	33	68	3781	5093	
Dengue	0		0	0	0	NN	0	1	1	7	17	676	
NEC ³	0		0	9	0	0	1	0	10	19	508	484	
Campylobacteriosis ⁴	9	-	26	80	128	13	107	40	403	367	7637	6161	
Chlamydial infection (NEC) ⁵	1	NN	22	85	29	18	36	25	216	262	5118	5223	
Donovanosis	0	NN	6	1	NN	NN	0	0	7	3	87	50	
Gonococcal infection ⁶	1		24	25	3	0	3	14	70	95	2251	2225	
Hepatitis A	2		4	19	3	0	9	3	40	87	1518	1610	
Hepatitis B incident	0		2	2	2	2	3	1	12	10	296	224	
Hepatitis C incident ⁷	-		0	-	0	-	-	-	0	2	14	22	
Hepatitis C unspecified ⁷	7			110		17	116	38	288	365	7167	5742	
Hepatitis (NEC)	0		0	0	1	0	0	NN	1	0	38	60	
Legionellosis	0		1	1	2	0	1	0	5	4	169	142	
Leptospirosis	0		0	9	1	1	1	0	12	8	114	134	
Listeriosis	0		0	0	0	0	0	0	0	9	22	43	
Malaria	0		1	12	0	1	4	0	18	45	590	525	
Meningococcal infection	1		0	1	1	0	6	4	13	24	297	288	
Ornithosis	0	NN	0	0	2	0	2	0	4	3	71	66	
Q fever	0		0	12	2	0	0	0	14	47	502	722	
Salmonellosis (NEC)	0		14	23	11	2	36	15	101	142	4379	3707	
Shigellosis ⁴	0	-	8	4	0	0	6	8	26	14	594	586	
Syphilis	2		19	23	1	0	11	0	56	66	1721	1817	
Tuberculosis	2		3	5	2	0	13	1	26	32	836	808	
Typhoid ⁸	0		0	0	0	0	0	1	1	1	33	53	
Yersiniosis (NEC) ⁴	0	-	0	7	9	0	1	0	17	15	343	366	

- For HIV and AIDS, see Tables 2 and 3 CDI 1994;18:482-483. For rarely notified diseases, see Table 6.
- 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.
- Tas: includes Ross River virus and dengue.
- NSW: only as 'foodborne disease' or 'gastroenteritis in an institution'.
- WA: genital only.
- NT, Qld, SA and Vic: includes gonococcal neonatal ophthalmia.
- Comparative total for 1993 comprises incident and unspecified cases.
- NSW and Vic includes paratyphoid.
- NN Not Notifiable.
- NEC Not Elsewhere Classified.
- Elsewhere Classified.

Table 6. Notifications of rare¹ diseases received by State and Territory health authorities in the period 2 to 15 October 1994

DISEASES	Total this period	Reporting States or Territories	Year to date 1994
Botulism			0
Brucellosis	3	Qld	20
Chancroid			0
Cholera			3
Hydatid infection	2	Qld 1, Vic 1	37
Leprosy			8
Lymphogranuloma venereum			0
Plague			0
Rabies			0
Yellow fever			0
Other viral haemorrhagic fevers			0

- Fewer than 50 cases of each of these diseases were notified each year during the period 1988 to 1993.

Table 7. Virology and serology laboratory reports by State and Territory¹ for the reporting period 6 to 19 October 1994, historical data², and total reports for the year

	State or Territory ¹							Total this fortnight	Historical data ²	Total reported this year
	ACT	NSW	NT	Qld	Tas	Vic	WA			
MEASLES, MUMPS, RUBELLA										
Measles virus	1	1		60				62	27.8	935
Mumps virus		1		4		1		6	2.8	73
Rubella virus		3		91				94	49.5	650
HEPATITIS VIRUSES										
Hepatitis A virus	2	4		1		3		10	12.8	300
Hepatitis B virus		15		24		8		47	91.0	1,992
Hepatitis C virus	11	91		39	5	6		152	144.0	4,999
Hepatitis D virus						1		1	.5	20
ARBOVIRUSES										
Ross River virus		1		28				29	14.5	1,485
Barmah Forest virus		1		8				9	3.8	205
Flavivirus (unspecified)						1		1	2.3	14
ADENOVIRUSES										
Adenovirus type 1						2		2	5.3	57
Adenovirus type 2						2		2	7.7	47
Adenovirus type 3						3		3	8.0	44
Adenovirus type 9						1		1	.8	3
Adenovirus type 37						1		1	.2	2
Adenovirus not typed/pending	1	1		17	5	7	9	40	59.5	1,052
HERPES VIRUSES										
Herpes simplex virus type 1		9		73	5	32		119	142.0	3,870
Herpes simplex virus type 2		8		68	1	11		88	182.0	4,273
Herpes simplex not typed/pending	8	11		4			2	25	33.8	550
Cytomegalovirus	1	12		24	2	16	8	63	58.2	1,427
Varicella-zoster virus	1	5		30		8	2	46	35.0	848
Epstein-Barr virus	2	11		32		9		54	53.2	1,169
Herpes virus group - not typed						1		1	.5	14
OTHER DNA VIRUSES										
Parvovirus		1		1				2	5.5	6
PICORNA VIRUS FAMILY										
Coxsackievirus B2						1		1	.0	20
Coxsackievirus B3						5		5	.3	11
Echovirus type 6	1				1	1		3	.3	55
Poliovirus type 1 (uncharacterised)		1				1		2	2.3	20
Poliovirus type 2 (uncharacterised)		1						1	1.3	25
Rhinovirus (all types)		2		7		14		23	40.3	854
Enterovirus not typed/pending		4		24		7		35	32.3	1,111
ORTHO/PARAMYXOVIRUSES										
Influenza A virus		7		3		8	1	19	41.8	941
Influenza A virus H ₃ N ₂		1				2		3	1.7	69
Influenza B virus		1					1	2	32.8	115
Influenza virus - typing pending						1		1	.2	6
Parainfluenza virus type 2		1					2	3	1.8	54
Parainfluenza virus type 3	3	3		2		9	7	24	32.2	303
Parainfluenza virus typing pending					2	1		3	1.0	64
Respiratory syncytial virus	4	7		20	7	55	20	113	70.0	3,425

Table 7. Virology and serology laboratory reports by State and Territory¹ for the reporting period 6 to 19 October 1994, historical data², and total reports for the year, continued

	State or Territory ¹							Total this fortnight	Historical data ²	Total reported this year
	ACT	NSW	NT	Qld	Tas	Vic	WA			
OTHER RNA VIRUSES										
HIV-1				1				1	3.8	73
Rotavirus	52	8		2	10	23	26	121	118.3	1,821
Small virus (like) particle		5				1		6	2.2	29
OTHER										
<i>Chlamydia trachomatis</i> not typed	1	5		31	1	13		51	101.3	2,037
<i>Chlamydia psittaci</i>						1		1	4.2	60
<i>Chlamydia</i> spp typing pending				1				1	.2	7
<i>Mycoplasma pneumoniae</i>		5		16		5		26	84.3	808
<i>Coxiella burnetii</i> (Q fever)		2		8				10	16.0	255
<i>Streptococcus</i> group A		1	4	16				21	5.5	267
<i>Shigella enterocolitica</i>	1							1	.2	18
<i>Bordetella pertussis</i>		6				4	18	28	8.3	516
<i>Bordetella</i> species				5				5	6.8	196
<i>Legionella</i> species		3						3	.0	6
<i>Cryptococcus</i> species		1						1	1.3	12
<i>Leptospira</i> species				1				1	.5	15
<i>Treponema pallidum</i>	1	25		1				27	16.8	347
<i>Toxoplasma gondii</i>		5				3		8	2.0	66
TOTAL	90	269	4	642	39	268	96	1,408	1,571.2	37,703

Table 8. Laboratory reports by clinical information for the reporting period 6 to 19 October 1993, continued

	Encephalitis	Meningitis	Other CNS	Respiratory	Gastrointestinal	Hepatic	Skin	Eye	Muscle/joint	Genital	Other/unknown	Total
Parainfluenza virus type 3				22							2	24
Parainfluenza virus typing pending				3								3
Respiratory syncytial virus				110							3	113
OTHER RNA VIRUSES												
HIV-1											1	1
Rotavirus				1	119						1	121
Small virus (like) particle					5						1	6
BACTERIA												
<i>Chlamydia trachomatis</i> not typed								4		42	5	51
<i>Chlamydia psittaci</i>				1								1
<i>Chlamydia</i> spp typing pending				1								1
<i>Mycoplasma pneumoniae</i>				16							10	26
<i>Coxiella burnetii</i> (Q fever)											10	10
<i>Streptococcus</i> group A				1			2		2		16	21
<i>Yersinia enterocolitica</i>											1	1
<i>Bordetella pertussis</i>				22							6	28
<i>Bordetella</i> species				4							1	5
<i>Legionella</i> species											3	3
<i>Cryptococcus</i> species											1	1
<i>Leptospira</i> species											1	1
<i>Treponema pallidum</i>											27	27
<i>Toxoplasma gondii</i>											8	8
TOTAL	1	10	3	316	134	18	179	8	15	163	561	1408

Table 9. Laboratory reports by contributing laboratories for the reporting period 6 to 19 October 1993

STATE OR TERRITORY	LABORATORY	REPORTS
Australian Capital Territory	Woden Valley Hospital, Canberra	95
New South Wales	Prince Henry/Prince of Wales Hospitals, Sydney	176
	Royal Alexandra Hospital for Children, Camperdown	41
	Royal Prince Alfred Hospital, Camperdown	16
Queensland	Nambour Hospital	5
	Queensland Medical Laboratory, West End	550
	State Health Laboratory, Brisbane	123
Tasmania	Northern Tasmanian Pathology Service, Launceston	6
	Royal Hobart Hospital, Hobart	31
Victoria	Commonwealth Serum Laboratories, Melbourne	2
	Microbiological Diagnostic Unit, University of Melbourne	10
	Monash Medical Centre, Melbourne	22
	Royal Children's Hospital, Melbourne	114
	Victorian Infectious Diseases Reference Laboratory, Fairfield Hospital	121
Western Australia	Princess Margaret Hospital, Perth	96
TOTAL		1408