Communicable diseases surveillance

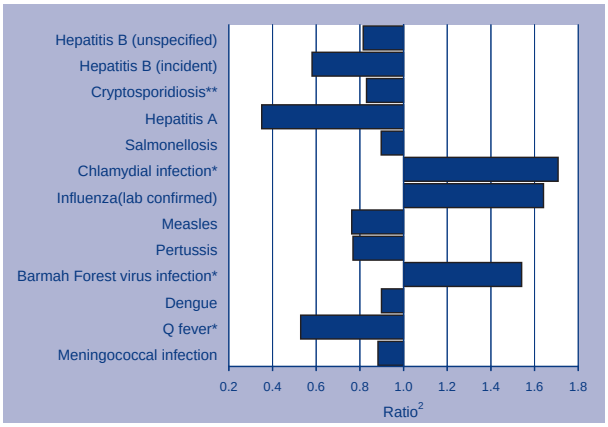
Highlights for 3rd quarter, 2003

Communicable disease surveillance highlights report on data from various sources, including the National Notifiable Diseases Surveillance System (NNDSS) and several disease specific surveillance systems that provide regular reports to Communicable Diseases Intelligence. These national data collections are complemented by intelligence provided by State and Territory communicable disease epidemiologists and/or data managers. This additional information has enabled the reporting of more informative highlights each quarter.

The NNDSS is conducted under the auspices of the Communicable Diseases Network Australia. NNDSS collates data on notifiable communicable diseases from State or Territory health departments. The Virology and Serology Laboratory Reporting Scheme (LabVISE) is a sentinel surveillance scheme which collates information on laboratory diagnosis of communicable diseases. In this report, data from the NNDSS are referred to as 'notifications' or 'cases', and those from ASPREN are referred to as 'consultations' or 'encounters' while data from the LabVISE scheme are referred to as 'laboratory reports'.

Figure 1 shows the changes in disease notifications with an onset in the third quarter of 2003, compared with the 5-year mean of the same period. Disease notifications outside the 5-year mean plus or minus two standard deviations are marked with an asterisk. Barmah Forest virus and chlamydial infection notifications exceeded the five-year mean plus two standard deviations while notifications of Q fever was below two standard deviations of the 5-year mean. The number of cryptosporidiosis notifications, a condition notifiable since 2001, was lowest compared with the same quarter in the last two years. The rest of the notifiable diseases were within the expected range of the historical data.

Figure 1. Selected[1] diseases from the National Notifiable Diseases Surveillance System, comparison of provisional totals for the period 1 July to 30 September 2003 with historical data[2]



1. Selected diseases are chosen each quarter according to current activity.
2. Ratio of current quarter total to mean of corresponding quarter for the previous five years.

* Notifications above or below the 5-year mean plus or minus two standard deviations for the same period.

† Notifications above or below the 2-year mean for the same period.

Bloodborne diseases

Hepatitis B

There were 58 incident cases of hepatitis B infection notified in the third quarter of the year; a notification rate of 1.2 cases per 100,000 population. The notification rate of incident hepatitis B has been stable at 1–2 cases per 100,000 population since 1998. The number of cases of hepatitis B unspecified that were notified during the third quarter was 1,581, representing a notification rate of 32.2 cases per 100,000 population. This is 29 per cent lower than the rate reported in 2002 (44 cases per 100,000 population) which was the highest since 1998.

Gastrointestinal diseases

Salmonellosis

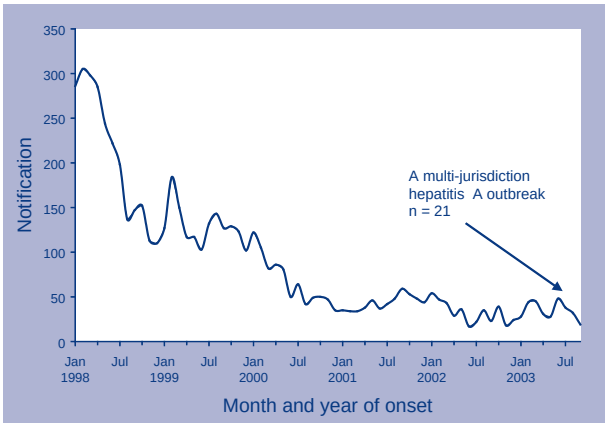
A total of 987 cases of salmonellosis (a notification rate of 20 cases per 100,000 population) were notified to the National Notifiable Diseases Surveillance System (NNDSS) during the third quarter of 2003. This represents a drop of 39 per cent from the previous quarter nationally, which is consistent with the seasonal pattern of salmonellosis notification, peaking in the first quarter of the year and declining during the third quarter. Compared with the same quarter of 2002, there was a 14 per cent decrease in the number of notifications of salmonellosis nationally. The Australian Capital Territory and the Northern Territory were the exception with a 30 per cent and a 77 per cent increase, respectively, compared with the same quarter of 2002.

Hepatitis A: notifications and an update on a multi-jurisdictional outbreak investigation

There were 85 (1.7 per 100,000 population) cases of hepatitis A reported to the NNDSS with an onset in the third quarter of 2003; representing a drop of 17 per cent from the previous quarter. Twenty-five per cent of cases notified during the previous quarter were linked to a hepatitis A outbreak that occurred at an interstate gathering in the Northern Territory. The outbreak, which affected 21 persons including two hospitalisations, lasted from 18 May to 5 June 2003. The Department of Health and Human Services, Tasmania led the investigation into the outbreak. Sally Munnoch, Epidemiologist at the Department of Health and Human Services, Tasmania, reported that the investigation into the outbreak concluded that there was epidemiological evidence for an association between the consumption of coleslaw at the gathering and illness. The investigation could not establish how the contamination of the coleslaw occurred, whether it was via a contaminated ingredient, or from an infected food handler. No microbiological evidence, either from environmental or food samples, were found.

Hepatitis A notification in the third quarter was 65 per cent lower than the historical 5-year mean (Figures 1 and 2). Notifications of hepatitis A have steadily decreased between 1998 and 2002 from 13.3 to 2 cases per 100,000 population. At 1.7 cases per 100,000 population, this quarter represents a further decline of notifications of hepatitis A.

Figure 2. Notifications of hepatitis A infections, Australia, 1998 to September 2003



Vaccine preventable diseases

Measles

Twenty-five cases of measles, nine in New South Wales, 10 in South Australia, four in Queensland and one each in the Northern Territory and Victoria, were reported in the third quarter of 2003. No cases of measles were reported from Tasmania, the Australian Capital Territory or Western Australia for the third consecutive quarter.

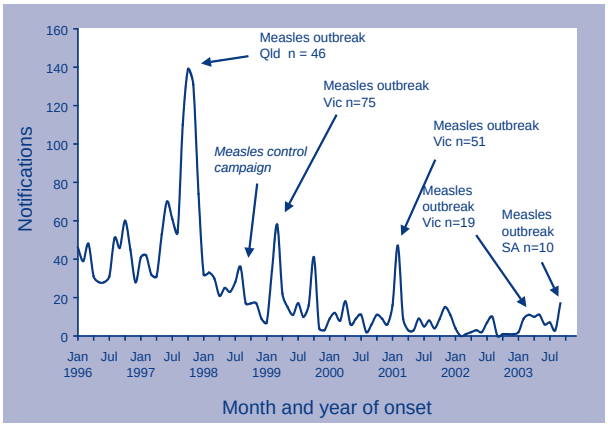
Seven of the nine cases in New South Wales were part of a cluster, reported in the previous quarter, and linked to a 29-year-old male index case suspected to have been infected during recent travel in Nepal. Of the seven linked cases two persons were immunised, two were partially immunised, one had a history of measles infection and no information was available for the remaining cases.

In South Australia the 10 cases of measles, six male and four female (median age 22.5 years, range 11 to 32 years), were linked to an index case with recent travel to New Zealand. Within a month of the onset of illness in the index case (31 August 2003), a fourth generation of transmission of the infection was identified. Those affected included four unvaccinated (two of whom were children aged 11 and 13 years), four partially vaccinated and two of unknown vaccination status. Celia Cooper, from the Department of Human Services, South Australia, said that to control the spread of the infection, public health authorities traced 2,000 potential contacts of identified cases. Other public health measures in response to the outbreak included issuing health alerts to general practitioners and infection control practitioners at metropolitan and rural hospitals, media releases, and alerting interstate public health authorities where identified cases had visited.

The four measles cases in Queensland (age range 23 to 32 years) were from the Whitsundays and were linked to an index case, an Italian tourist. All four cases and the index case were unimmunised for measles.

Figure 3 shows the trend in measles notifications received by NNDSS since 1996. The trend shows a gradual decline in notifications marked with periodic spikes representing outbreaks. The majority of these outbreaks were linked to either visitors or Australians with a recent history of travel,[1,2,3]

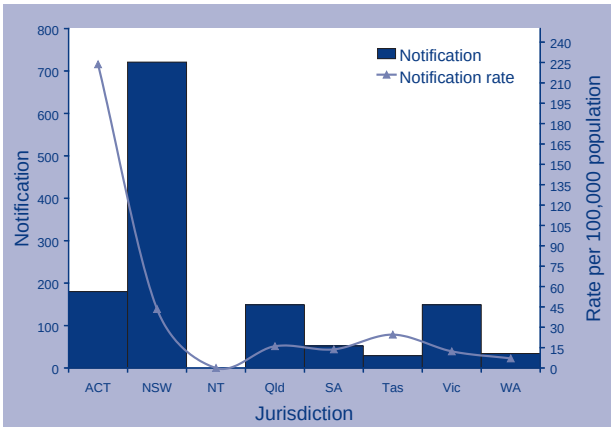
Figure 3. Notifications and reported outbreaks of measles, Australia, 1996 to September 2003



Pertussis

There were 1,314 cases of pertussis notified this quarter, a notification rate of 27 cases per 100,000 population. Although the number of notifications represents a rise of 58 per cent on the previous quarter, it was within the range of the historical data (Figure 1). All jurisdictions, with the exception of Western Australia and the Northern Territory, experienced increases from the last quarter. The Australian Capital Territory and Tasmania experienced the highest percentage increase from the previous quarter (253% and 142% respectively). In the Australian Capital Territory a number of pertussis outbreaks were reported during this quarter, and the notification rate was eight times the national level (Figure 4).

Figure 4. Notifications and rate per 100,000 population of pertussis, Australia, July to September 2003, by jurisdiction



Influenza

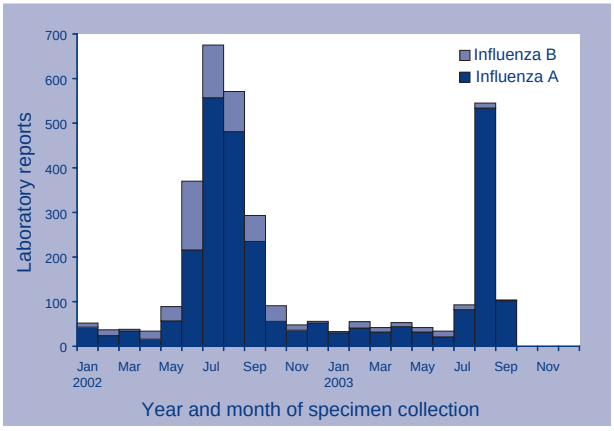
The influenza season peaked in the third quarter of the year with 2,967 cases of laboratory-confirmed cases reported to the NNDSS. This year's influenza season was characterised by:

(a) A rapid rise in influenza activity in August when 47 per cent of cases for the year to date were reported. Nevertheless, notification was 15 per cent lower than the same period in 2002.

(b) The rate of clinical presentations of influenza-like illness (ILI) per 1,000 consultations per week during the peak period was higher in 2003 (24 cases per 1,000 consultations per week) than in the peak period of 2002 (18 cases per 1,000 consultations per week). The peak ILI periods in 2003 and in 2002 were during the week ending 24 August and during the week ending on 20 July, respectively.

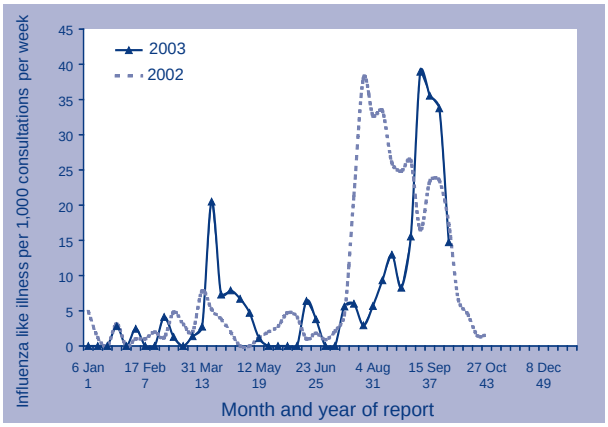
(c) Reports received by the Laboratory Virology and Serology Reporting Scheme (LabVISE) show that there were significantly fewer influenza B viruses detected in 2003 season compared with 2002. The ratio of influenza A to B was 30:1 during the third quarter, and 11:1 for the year to date. This was the highest A:B ratio seen since 1998 and significantly higher than the previous year when the A:B ratio was 5:1 in the third quarter of the year, and 3:1 for the year to date in September (Figure 5).

Figure 5. Laboratory reports of influenza A and B to LabVISE, Australia, 1 January 2002 to 30 September 2003, by month of specimen collection



Influenza activity in the tropical north of Australia peaked during the week ending on 8 September. The rate of clinical presentation of ILI for the third quarter of 2003 was 22 cases per 1,000 consultations per week, higher than the rate of 12 ILI per 1,000 consultations per week reported in the same period of 2002 (Figure 6). The peak ILI rate in 2003 was 38 cases per 1,000 consultations per week, higher than the peak ILI rate in 2002 (33 ILI per 1,000 consultations per week, during the week ending on 11 August).

Figure 6. Consultation rates of influenza-like illness reported to the Northern Territory Influenza Surveillance, Australia, 2002 and 2003, by week



Vectorborne diseases

Dengue

There were 32 cases of dengue reported to NNDSS in the third quarter of 2003, an 88 per cent decline compared to the previous quarter. There has been considerable public health activity to control the disease in Queensland where 85 per cent of notifications in the previous quarter originated. In this state, notifications dropped by 92 per cent from the previous quarter. Compared to the same quarter of 2002, the over all number of notifications was 18 per cent lower, but in Queensland and Victoria was higher by 70 per cent and 100 per cent respectively.

Barmah Forest virus

The number of notifications for Barmah Forest virus during the third quarter of 2003 was 163, a rate of 15 cases per 100,000 population. The number of notifications represents a 79 per cent drop from the previous quarter, consistent with the seasonal pattern. However, compared to the historical data (Figure 1), the number of notifications surpasses the expected number for the same period. The highest increase in notifications from the same period of 2002 occurred in New South Wales and Queensland—increase by 16 per cent and 119 per cent respectively.

Zoonoses

Q fever

In the third quarter of 2003, 79 cases of Q fever were reported to NNDSS; a 33 per cent drop from the previous quarter. In comparison to the historical data, the reported number of Q fever notification was lower than the expected range.

Q fever has long been associated with work in the Australian stock industry, and abattoir workers have been an occupational group at a high risk of infection. Since October 2000, as part of a Commonwealth funded program, abattoir workers and shearers have been eligible for free vaccination against Q fever. In a second phase of the program, which commenced in October 2001, other workers in the beef, sheep and dairy industries may also be vaccinated. Complementing the program, a register of the immune status of individual workers has been maintained on behalf of the livestock industry, Work Cover groups, and state and Commonwealth Departments of Health.

Figure 7 illustrates the trends in Q fever notifications between 1992 and 2003 for New South Wales, Queensland and Victoria, and national totals. The changes in notifications of Q fever may be the result of a combination of control program activities and a natural variability in the disease prevalence.

Other bacterial infections

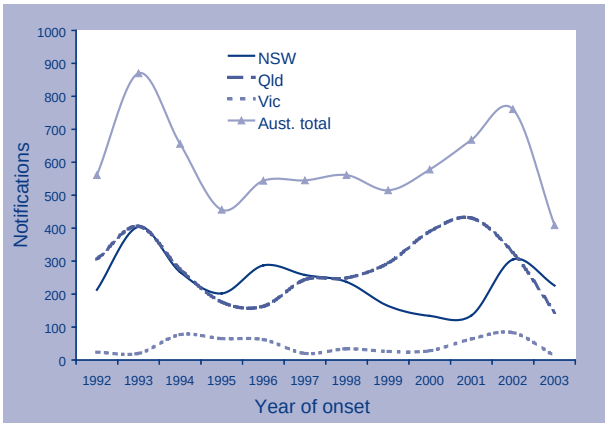
Meningococcal infections

There were 202 cases of meningococcal infection notified in the third quarter, an increase of 96 per cent on the last quarter. Meningococcal infection reaches its seasonal peak in the third quarter of the year (spring). The number of cases in the third quarter 2003 were 19 per cent less from the same period last year, and 12 per cent lower than the historical mean.

Fifty-two per cent of notifications of meningococcal infection were serotype B, 31 per cent C and 17 per cent unknown or other serotypes. Fifteen deaths from meningococcal infection were reported, five due to serotype B, nine due to serotype C, and one due to other serotypes.

For the year to date 404 cases of meningococcal infections, resulting in 25 deaths, were reported to the Communicable Diseases Network Australia. Of the 25 deaths, 28 per cent were due to serotype B, 56 per cent due to serotype C and 16 per cent due to unknown serotype. Nationally, the ratio for serotypes B to C for the year to date was 1.7:1.

Figure 7. Q fever notifications, Australia and, Queensland, New South Wales and Victoria, 1992 to September 2003



With thanks to:

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Sally Munnoch, Department of Health and Human Services, Tasmania

References

1. Andrews R. Measles outbreak among young adults in Victoria. *Commun Dis Intell* 2001;25:12.

2. Davidson N, Andrews R, Riddell M, Leydon J, Lynch P. A measles outbreak among young adults in Victoria, February 2001. *Commun Dis Intell* 2002;26:273-278.

3. Lambert SB, Morgan ML, Riddell MA, Andrews MA, Kelly H, Leydon JA, *et al.* Measles outbreak in young adults in Victoria, 1999. *Med J Aust* 2000;173:467-471.

Tables

A summary of diseases currently being reported by each jurisdiction is provided in Table 1. There were 24,533 notifications to the National Notifiable Diseases Surveillance System (NNDSS) with a notification date between 1 July and 30 September 2003 (Table 2). The notification rate of diseases per 100,000 population for each State or Territory is presented in Table 3.

There were 6,830 reports received by the Virology and Serology Laboratory Reporting Scheme (LabVISE) in the reporting period, 1 July to 30 September 2003 (Tables 4 and 5).

Table 1. Reporting of notifiable diseases by jurisdiction

Disease	Data received from:
Bloodborne diseases	
Hepatitis B (incident)	All jurisdictions
Hepatitis B (unspecified)	All jurisdictions except NT
Hepatitis C (incident)	All jurisdictions except Qld
Hepatitis C (unspecified)	All jurisdictions
Hepatitis D	All jurisdictions
Gastrointestinal diseases	
Botulism	All jurisdictions
Campylobacteriosis	All jurisdictions except NSW
Cryptosporidiosis	All jurisdictions
Haemolytic uraemic syndrome	All jurisdictions
Hepatitis A	All jurisdictions
Hepatitis E	All jurisdictions
Listeriosis	All jurisdictions
Salmonellosis	All jurisdictions
Shigellosis	All jurisdictions
SLTEC, VTEC	All jurisdictions
Typhoid	All jurisdictions
Quarantinable diseases	
Cholera	All jurisdictions
Plague	All jurisdictions
Rabies	All jurisdictions
Viral haemorrhagic fever	All jurisdictions
Yellow fever	All jurisdictions
Sexually transmissible infections	
Chlamydial infection	All jurisdictions
Donovanosis	All jurisdictions
Gonococcal infection	All jurisdictions
Syphilis	All jurisdictions

* In the Australian Capital Territory, Murray Valley encephalitis virus and Kunjin are combined under Murray Valley encephalitis.

Disease	Data received from:
Vaccine preventable diseases	
Diphtheria	All jurisdictions
Haemophilus influenzae type b	All jurisdictions
Influenza	All jurisdictions
Measles	All jurisdictions
Mumps	All jurisdictions
Pertussis	All jurisdictions
Pneumococcal disease	All jurisdictions
Poliomyelitis	All jurisdictions
Rubella	All jurisdictions
Tetanus	All jurisdictions
Vectorborne diseases	
Arbovirus infection NEC	All jurisdictions
Barmah Forest virus infection	All jurisdictions
Dengue	All jurisdictions
Japanese encephalitis	All jurisdictions
Kunjin	All jurisdictions except ACT*
Malaria	All jurisdictions
Murray Valley encephalitis	All jurisdictions except ACT*
Ross River virus infection	All jurisdictions
Zoonoses	
Anthrax	All jurisdictions
Australian bat lyssavirus	All jurisdictions
Brucellosis	All jurisdictions
Leptospirosis	All jurisdictions
Ornithosis	All jurisdictions
Other lyssaviruses (NEC)	All jurisdictions
Q fever	All jurisdictions
Other bacterial infections	
Legionellosis	All jurisdictions
Leprosy	All jurisdictions
Meningococcal infection	All jurisdictions
Tuberculosis	All jurisdictions

Table 2. Notifications of diseases received by State and Territory health authorities in the period 1 July to 30 September 2003, by date of notification*

Disease	State or territory								Total 3rd quarter 2003[1]	Total 2nd quarter 2003	Total 3rd quarter 2002	Last 5 years mean 3rd quarter	Year to date 2003	Last 5 years YTD mean	Ratio[†]
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA							
Bloodborne diseases															
Hepatitis B (incident)	0	12	0	11	4	2	14	15	58	90	104	100	240	282	0.6
Hepatitis B (unspecified)	14	762	NN	213	53	20	398	121	1,581	1,673	1,759	1,910	4,786	5,508	0.8
Hepatitis C (incident)	4	30	0	0	14	3	25	29	105	109	95	109	337	334	1.0
Hepatitis C (unspecified)	71	1,837	70	640	145	94	941	287	4,085	3,747	4,050	4,636	11,557	13,944	0.9
Hepatitis D	0	2	0	0	0	0	6	0	8	5	6	5	18	13	1.6
Hepatitis (NEC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Gastrointestinal diseases															
Botulism	0	0	0	0	0	0	0	0	0	1		0	1	2	0.0
Campylobacteriosis[2]	81	0	51	820	546	144	1,173	454	3,269	3,519	3,367	3,530	11,273	9,961	0.9
Cryptosporidiosis[‡]	0	26	1	35	18	11	69	26	186	310	236	172	1,014	1,607	NA
Haemolytic uraemic syndrome	0	0	0	1	2	0	0	0	3	2	4	3	10	9	1.2
Hepatitis A	1	16	7	5	3	2	22	29	85	108	81	254	310	937	0.3
Hepatitis E	0	4	0	0	0	0	1	0	5	1	4	2	8	8	2.1
Listeriosis	0	6	0	1	0	1	2	1	11	20	11	13	51	47	0.8
Salmonellosis	13	233	80	300	68	25	169	99	987	1,620	1,156	1,105	5,366	5,455	0.9
Shigellosis	0	8	23	13	8	2	9	27	90	106	110	114	349	416	0.8
SLTEC,VTEC[3]	0	0	0	3	5	0	0	1	9	12	14	8	40	31	1.1
Typhoid	0	4	0	1	1	0	3	4	13	6	16	15	38	54	0.9
Quarantinable diseases															
Cholera	0	0	0	0	0	0	0	0	0	1	3	2	1	3	0.0
Plague	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Rabies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Viral haemorrhagic fever	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Yellow fever	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0

Table 2. Notifications of diseases received by State and Territory health authorities in the period 1 July to 30 September 2003, by date of notification,* continued

Disease	State or territory								Total 3rd quarter 2003	Total 2nd quarter 2003	Total 3rd quarter 2002	Last 5 years mean 3rd quarter	Year to date 2003	Last 5 years YTD mean	Ratio†
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA							
Sexually transimissible diseases															
Chlamydial (NEC)	130	1,898	377	1,894	453	170	1,647	914	7,483	7,411	6,318	4,440	22,219	12,962	1.7
Donovanosis	0	0	1	0	0	0	0	0	1	3	3	6	11	19	0.2
Gonococcal infection[4]	12	261	326	238	49	1	286	371	1,544	1,694	1,589	1,435	4,996	4,475	1.1
Syphilis	2	201	77	69	4	3	88	12	456	489	531	469	1,466	1,337	1.0
Syphilis - congenital	0	1	3	0	0	0	0	0	4	3	2	2	9	6	1.8
Vaccine preventable disease															
Diptheria	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0
Haemophilus influenzae type b	0	1	0	3	0	1	1	0	6	8	3	7	16	25	0.8
Influenza (laboratory confirmed)‡	4	692	110	759	263	7	624	525	2,984	136	2,618	738	3,218	937	NA
Measles	0	9	1	4	10	0	1	0	25	27	17	35	76	130	0.8
Mumps	1	6	0	2	4	0	1	3	17	13	20	42	50	124	0.4
Pertussis	180	721	0	149	52	29	149	34	1,314	832	1,157	1,710	3,047	4,314	0.8
Pneumococcal disease (invasive)‡	11	282	23	225	45	11	128	48	773	558	892	398	1,629	780	NA
Poliomyelitis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Rubella	0	3	0	0	0	1	0	1	5	12	79	123	54	294	0.0
Rubella - congenital	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0.0
Tetanus	0	0	0	0	0	0	1	0	1			2	3	3	0.5
Vectorborne diseases															
Arbovirus infection NEC	0	2	0	16	0	0	0	0	18	17	2	5	55	42	3.3
Barmah Forest virus infection	0	57	1	103	0	0	0	2	163	762	106	106	1,204	630	1.5
Dengue	1	7	0	17	1	0	4	2	32	262	39	36	640	201	0.9
Japanese encephalitis‡	0	0	0	0	0	0	0	0	0	0	0	0	0	3	NA
Kunjin virus‡	0	0	0	0	0	0	0	0	0	5	0	0	17	2	NA
Malaria	5	24	5	55	6	4	16	11	126	157	83	160	463	559	0.8
Murray Valley encephalitis‡	0	0	0	0	0	0	0	0	0	0	0	1	0	5	0.0
Ross River virus infection	0	34	0	160	2	0	0	16	212	2,351	101	186	3,146	2,845	1.1

Table 2. Notifications of diseases received by State and Territory health authorities in the period 1 July to 30 September 2003, by date of notification,* continued

Disease	State or territory								Total 3rd quarter 2003	Total 2nd quarter 2003	Total 3rd quarter 2002	Last 5 years mean 3rd quarter	Year to date 2003	Last 5 years YTD mean	Ratio†
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA							
Zoonoses															
Anthrax‡	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Australian bat lyssavirus‡	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA
Brucellosis	0	0	0	3	0	0	1	0	4	7	8	11	15	25	0.4
Leptospirosis	0	8	0	10	0	0	0	2	20	28	18	35	95	181	0.6
Other lyssavirus (NEC)‡	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA
Ornithosis	0	24	2	0	0	0	28	0	54	37	96	35	117	87	1.5
Q fever	0	50	0	23	2	0	1	3	79	118	174	149	405	463	0.5
Other bacterial infections															
Legionellosis	0	10	0	13	18	0	12	14	67	87	79	58	240	243	1.2
Leprosy	0	0	0	0	0	0	0	0	0	1	1	1	3	3	0.0
Meningococcal infection	3	78	4	43	10	3	44	18	203	104	249	229	395	465	0.9
Tuberculosis	1	60	7	12	12	1	80	16	189	175	225	257	578	765	0.7
Total	516	6,567	1,169	5,617	1,727	510	5,507	2,920	24,533	26,627	25,426	22,652	79,566	70,531	1.2

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. Not reported for NSW because it is only notifiable as 'foodborne disease' or 'gastroenteritis in an institution'.
3. Infections with Shiga-like toxin (verotoxin) producing *E. coli* (SLTEC/VTEC).
4. Northern Territory, Qld, SA , Vic and WA: includes gonococcal neonatal ophthalmia.

* Date of notification = a composite of three dates: (i) the true onset date from a clinician, if available, (ii) the date the laboratory test was ordered, or (iii) the date reported to the public health unit.

† Ratio = ratio of current month total to mean of last 5 years calculated as described above.

‡ Notifiable from January 2001 only.

NA Not calculated as only notifiable for under 5 years.

NDR No data received.

NN. Not Notifiable

NEC Not Elsewhere Classified.

\- Elsewhere Classified.

Table 3. Notification rates of diseases by State or Territory, 1 July to 30 September 2003. (Rate per 100,000 population)

Disease[1]	State or territory								Australia
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	
Bloodborne diseases									
Hepatitis B (incident)	0.0	0.7	0.0	1.2	1.1	1.7	1.1	3.1	1.2
Hepatitis B (unspecified)	17.4	45.9	NN	23.0	13.9	16.9	32.7	25.1	32.5
Hepatitis C (incident)	5.0	1.8	NN	NN	3.7	2.5	2.1	6.0	2.7
Hepatitis C (unspecified)	88.2	110.7	141.4	69.1	38.2	79.5	77.2	59.6	83.1
Hepatitis D	0.0	0.1	0.0	0.0	0.0	0.0	0.5	0.0	0.2
Hepatitis (NEC)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gastrointestinal diseases									
Botulism	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Campylobacteriosis[2]	100.7	NN	103.0	88.5	143.7	121.8	96.3	94.2	100.4
Cryptosporidiosis	0.0	1.6	2.0	3.8	4.7	9.3	5.7	5.4	3.8
Haemolytic uraemic syndrome	0.0	0.0	0.0	0.1	0.5	0.0	0.0	0.0	0.1
Hepatitis A	1.2	1.0	14.1	0.5	0.8	1.7	1.8	6.0	1.7
Hepatitis E	0.0	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Listeriosis	0.0	0.4	0.0	0.1	0.0	0.8	0.2	0.2	0.2
Salmonellosis	16.2	14.0	161.6	32.4	17.9	21.2	13.9	20.5	20.1
Shigellosis	0.0	0.5	46.5	1.4	2.1	1.7	0.7	5.6	1.8
SLTEC,VTEC[3]	0.0	0.0	0.0	0.3	1.3	0.0	0.0	0.2	0.2
Typhoid	0.0	0.2	0.0	0.1	0.3	0.0	0.2	0.8	0.3
Quarantinable diseases									
Cholera	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Plague	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rabies	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Viral haemorrhagic fever	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow fever	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sexually transmissible diseases									
Chlamydial infection	161.6	114.3	761.6	204.4	119.2	143.8	135.2	189.7	152.2
Donovanosis	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
Gonococcal infection[4]	14.9	15.7	658.5	25.7	12.9	0.8	23.5	77.0	31.4
Syphilis	2.5	12.1	155.5	7.4	1.1	2.5	7.2	2.5	9.3
Syphilis - congenital	0.0	0.1	6.1	0.0	0.0	0.0	0.0	0.0	0.1
Vaccine preventable diseases									
Diphtheria	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Haemophilus influenzae type b	0.0	0.1	0.0	0.3	0.0	0.8	0.1	0.0	0.1
Influenza(laboratory confirmed)	5.0	41.7	222.2	81.9	69.2	5.9	51.2	109.0	60.7
Measles	0.0	0.5	2.0	0.4	2.6	0.0	0.1	0.0	0.5
Mumps	1.2	0.4	0.0	0.2	1.1	0.0	0.1	0.6	0.3
Pertussis	223.7	43.4	0.0	16.1	13.7	24.5	12.2	7.1	26.7
Pneumococcal disease	13.7	17.0	46.5	24.3	11.8	9.3	10.5	10.0	15.7
Poliomyelitis	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rubella	0.0	0.2	0.0	0.0	0.0	0.8	0.0	0.2	0.1
Rubella - congenital	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tetanus	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0

Table 3. Notification rates of diseases by State or Territory, 1 July to 30 September 2003. (Rate per 100,000 population) , continued

Disease[1]	State or territory								
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Australia
Vectorborne diseases									
Arbovirus infection NEC	0.0	0.1	0.0	1.7	0.0	0.0	0.0	0.0	0.4
Barmah Forest virus infection	0.0	3.4	2.0	11.1	0.0	0.0	0.0	0.4	3.3
Dengue	1.2	0.4	0.0	1.8	0.3	0.0	0.3	0.4	0.7
Japanese encephalitis	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kunjin virus	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Malaria	6.2	1.4	10.1	5.9	1.6	3.4	1.3	2.3	2.6
Murray Valley encephalitis	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ross River virus infection	0.0	2.0	0.0	17.3	0.5	0.0	0.0	3.3	4.3
Zoonoses									
Anthrax	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Australian bat lyssavirus	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Brucellosis	0.0	0.0	0.0	0.3	0.0	0.0	0.1	0.0	0.1
Leptospirosis	0.0	0.5	0.0	1.1	0.0	0.0	0.0	0.4	0.4
Other lyssavirus (NEC)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ornithosis	0.0	1.4	4.0	0.0	0.0	0.0	2.3	0.0	1.1
Q fever	0.0	3.0	0.0	2.5	0.5	0.0	0.1	0.6	1.6
Other bacterial infections									
Legionellosis	0.0	0.6	0.0	1.4	4.7	0.0	1.0	2.9	1.4
Leprosy	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Meningococcal infection	3.7	4.7	8.1	4.6	2.6	2.5	3.6	3.7	4.1
Tuberculosis	1.2	3.6	14.1	1.3	3.2	0.8	6.6	3.3	3.8

1. Rates are subject to retrospective revision.
2. Not reported for New South Wales because it is only notifiable as ‘foodborne disease’ or ‘gastroenteritis in an institution’.
3. Infections with Shiga-like toxin (verotoxin) producing *E. coli* (SLTEC/VTEC).
4. Northern Territory, Queensland, South Australia, Victoria and Western Australia: includes gonococcal neonatal ophthalmia.
5. Includes congenital syphilis.
6. Includes congenital rubella.

NN Not Notifiable.

NEC Not Elsewhere Classified.

–- Elsewhere Classified.

Table 4. Virology and serology laboratory reports by State or Territory[1] for the reporting period 1 July to 30 September 2003, and total reports for the year[2]

	State or territory								This period 2003	This period 2002	Year to date 2003[3]	Year to date 2002
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA				
Measles, mumps, rubella												
Measles virus	-	4	1	1	1	-	1	-	8	6	48	15
Rubella virus	-	1	-	2	1	-	2	1	7	31	19	80
Hepatitis viruses												
Hepatitis A virus	-	-	-	4	3	-	2	19	28	15	64	54
Hepatitis D virus	-	-	-	-	-	-	6	1	7	3	15	6
Arboviruses												
Ross River virus	-	4	-	51	4	-	1	11	71	29	1,183	377
Barmah Forest virus	-	5	-	27	-	-	1	1	34	42	375	171
Dengue type 1	-	-	-	-	-	-	-	1	1	-	4	1
Dengue type 2	-	-	-	-	-	-	-	1	1	-	2	1
Dengue not typed	-	-	-	-	-	-	-	5	5	11	27	155
Flavivirus (unspecified)	-	-	-	4	-	-	-	-	4	9	108	37
Adenoviruses												
Adenovirus type 1	-	3	-	-	-	-	-	-	3	-	4	-
Adenovirus type 7	-	-	-	-	1	-	-	-	1	-	1	5
Adenovirus type 40	-	-	-	-	-	-	-	8	8	9	28	30
Adenovirus not typed/ pending	-	60	-	31	121	-	10	30	252	322	704	691
Herpes viruses												
Herpes virus type 6	-	-	-	-	-	-	2	-	2	-	5	-
Cytomegalovirus	8	51	1	23	66	1	9	1	160	311	670	849
Varicella-zoster virus	3	41	4	222	74	-	23	89	456	438	1,249	1,334
Epstein-Barr virus	-	12	21	172	190	1	8	59	463	433	1,302	1,316
Other DNA viruses												
Molluscum contagiosum	-	-	-	-	-	-	-	1	1	6	11	18
Contagious pustular dermatitis (Orf virus)	-	-	-	-	-	-	-	1	1	2	3	2
Poxvirus group not typed	-	-	-	-	-	-	1	-	1	1	2	5
Parvovirus	-	1	-	16	1	-	22	21	61	77	166	251
Picornavirus family												
Coxsackievirus A9	-	9	-	-	1	-	-	-	10	1	21	2
Coxsackievirus A16	-	1	-	-	-	-	-	-	1	1	5	3
Echovirus type 4	-	1	-	-	-	-	-	-	1	-	2	-
Echovirus type 6	-	1	-	-	-	-	-	-	1	4	8	60
Echovirus type 9	-	2	-	-	-	-	-	-	2	2	11	16
Poliovirus type 1 (uncharacterised)	-	3	-	-	-	-	-	-	3	8	29	22
Poliovirus type 2 (uncharacterised)	-	3	-	-	-	-	-	-	3	4	7	12
Poliovirus type 3 (uncharacterised)	-	3	-	-	-	-	-	-	3	2	4	4
Poliovirus not typed/ pending	-	-	-	-	-	-	1	-	1	1	3	1
Rhinovirus (all types)	1	69	-	-	7	-	-	46	123	156	374	350
Enterovirus not typed/ pending	-	4	1	4	1	1	1	18	30	140	117	406
Picornavirus not typed	-	-	-	-	-	-	1	-	1	-	6	12

Table 4. Virology and serology laboratory reports by State or Territory[1] for the reporting period 1 July to 30 September 2003, and total reports for the year[2]

	State or territory								This period 2003	This period 2002	Year to date 2003[3]	Year to date 2002
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA				
Ortho/paramyxoviruses												
Influenza A virus	-	484	20	159	407	-	95	224	1,389	1,274	1,593	1,664
Influenza B virus	-	3	-	1	21	-	1	7	33	266	92	496
Parainfluenza virus type 1	-	2	-	1	4	-	-	-	7	76	32	259
Parainfluenza virus type 2	-	4	-	1	10	-	-	2	17	24	66	69
Parainfluenza virus type 3	-	51	-	9	77	-	3	51	191	205	388	355
Respiratory syncytial virus	-	297	-	96	275	37	54	86	845	1,665	1,521	2,771
Other RNA viruses												
HTLV-1	-	-	-	-	1	-	-	1	2	2	10	3
Rotavirus	2	196	-	-	47	2	31	54	332	982	472	1,368
Calicivirus	-	-	3	-	-	-	-	20	23	-	103	8
Norwalk agent	-	-	-	-	-	-	29	-	29	119	70	256
Other												
Chlamydia trachomatis not typed	5	146	4	370	269	11	13	230	1,048	1,041	3,366	2,920
Chlamydia pneumoniae	-	-	1	-	-	-	-	-	1	8	11	15
Chlamydia psittaci	-	1	-	-	-	-	44	-	45	18	87	46
Chlamydia species	-	-	-	-	-	-	1	-	1	1	1	3
Mycoplasma pneumoniae	1	68	3	172	108	10	79	17	458	414	890	997
Mycoplasma hominis	-	4	-	-	-	-	-	-	4	-	9	2
Coxiella burnetii (Q fever)	3	5	-	11	23	-	3	2	47	80	140	192
Rickettsia tsutsugamushi	-	-	-	-	-	-	-	1	1	-	2	-
Streptococcus group A	-	1	-	84	-	-	6	-	91	207	362	424
Yersinia enterocolitica	-	5	-	-	-	-	-	-	5	4	9	8
Brucella species	-	-	-	3	-	-	-	-	3	1	5	4
Bordetella pertussis	1	18	-	12	39	8	26	1	105	224	358	788
Legionella pneumophila	-	1	-	-	3	-	56	-	60	32	113	78
Legionella longbeachae	1	2	-	-	6	-	8	9	26	26	54	48
Legionella species	-	-	-	-	-	-	6	-	6	8	10	13
Cryptococcus species	-	-	-	2	6	-	-	-	8	11	20	25
Leptospira hardjo	-	-	-	-	-	-	-	1	1	-	1	-
Leptospira species	-	1	-	5	4	-	-	-	10	2	21	18
Treponema pallidum	-	22	-	127	121	-	-	-	270	409	944	1,099
Entamoeba histolytica	-	-	-	-	-	-	1	3	4	7	10	22
Toxoplasma gondii	-	7	-	2	-	-	2	-	11	8	32	23
Echinococcus granulosus	-	-	-	-	3	-	-	-	3	5	14	25
Total	25	1,596	59	1,612	1,895	71	549	1,023	6,830	9,183	17,383	20,285

1. State or Territory of postcode, if reported, otherwise State or Territory of reporting laboratory.
2. From January 2000 data presented are for reports with report dates in the current period. Previously reports included all data received in that period.
3. Totals comprise data from all laboratories. 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.

– No data received this period

Table 5. Virology and serology reports by laboratories for the reporting period 1 July to 30 September 2003*

State or territory	Laboratory	July 2003	August 2003	September 2003	Total this period
Australian Capital Territory	The Canberra Hospital	1	-	-	1
New South Wales	Institute of Clinical Pathology and Medical Research, Westmead	155	128	75	358
	New Children's Hospital, Westmead	179	305	186	670
	Repatriation General Hospital, Concord	-	-	-	0
	Royal Prince Alfred Hospital, Camperdown	12	-	-	12
	South West Area Pathology Service, Liverpool	163	252	96	511
Queensland	Queensland Medical Laboratory, West End	486	596	607	1,689
	Townsville General Hospital	-	-	-	0
South Australia	Institute of Medical and Veterinary Science, Adelaide	509	630	755	1,894
Tasmania	Northern Tasmanian Pathology Service, Launceston	20	30	20	70
	Royal Hobart Hospital, Hobart	-	-	-	0
Victoria	Monash Medical Centre, Melbourne	44	62	28	134
	Royal Children's Hospital, Melbourne	71	-	25	96
	Victorian Infectious Diseases Reference Laboratory, Fairfield	80	131	105	316
Western Australia	PathCentre Virology, Perth	360	24	600	984
	Princess Margaret Hospital, Perth	-	-	-	0
	Western Diagnostic Pathology	33	17	45	95
Total		2,113	2,175	2,542	6,830

* The complete list of laboratories reporting for the 12 months, January to December 2003, will appear in every report regardless of whether reports were received in this reporting period. Reports are not always received from all laboratories.

– Nil reports

Additional reports

Australian Sentinel Practice Research Network

The Research and Health Promotion Unit of the Royal Australian College of General Practitioners operates the Australian Sentinel Practice Research Network (ASPREN). ASPREN is a network of general practitioners who report presentations of defined medical conditions each week. The aim of ASPREN is to provide an indicator of the burden of disease in the primary health setting and to detect trends in consultation rates.

There are currently about 50 general practitioners participating in the network from all states and territories. Seventy-five per cent of these are in metropolitan areas and the remainder are rural based. Between 4,000 and 6,000 consultations are recorded each week.

The list of conditions is reviewed annually by the ASPREN management committee and an annual report is published.

In 2003, 13 conditions are being monitored, five of which are related to communicable diseases. These include influenza, gastroenteritis, antibiotic prescription for acute cough, varicella and shingles. Definitions of these conditions were published in Commun Dis Intell *2003;27:125–126.*

Data from 1 July to 30 September 2003 are shown as the rate per 1,000 consultations in Figures 8, 9 and 10.

Figure 8. Consultation rates for influenza-like illness, ASPREN, 1 July to 30 September 2003, by week of report

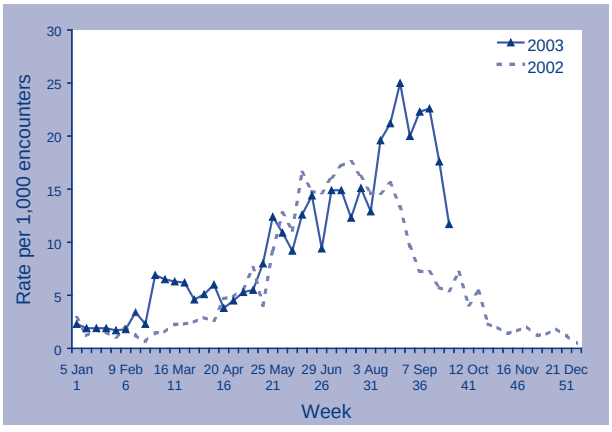


Figure 9. Consultation rates for gastroenteritis, ASPREN, 1 July to 30 September 2003, by week of report

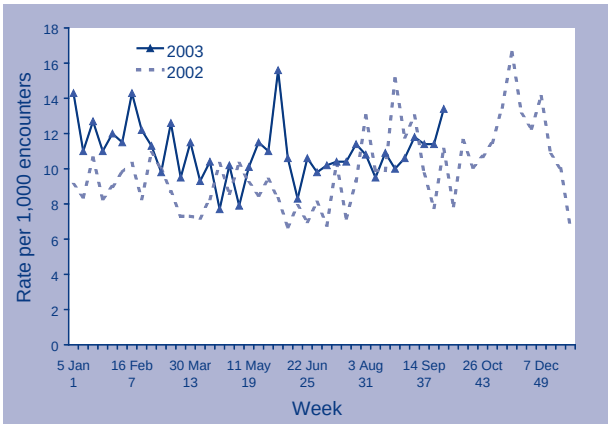
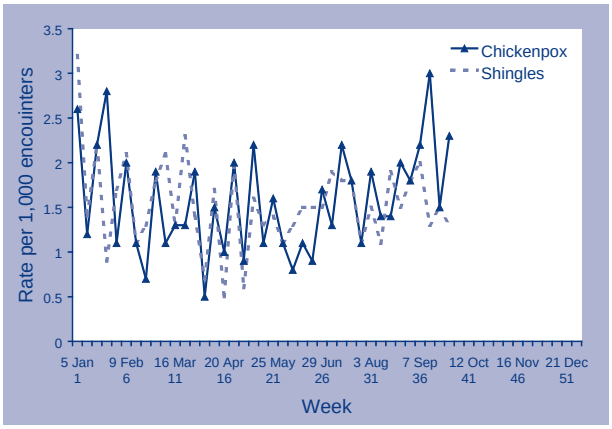


Figure 10. Consultation rates for varicella, ASPREN, 1 July to 30 September 2003, by week of report



Gonococcal surveillance

John Tapsall, The Prince of Wales Hospital, Randwick NSW 2031 for the Australian Gonococcal Surveillance Programme.

The Australian Gonococcal Surveillance Programme (AGSP) reference laboratories in the various States and Territories report data on sensitivity to an agreed 'core' group of antimicrobial agents quarterly. The antibiotics currently routinely surveyed are penicillin, ceftriaxone, ciprofloxacin and spectinomycin, all of which are administered as single dose regimens and currently used in Australia to treat gonorrhoea. When in vitro resistance to a recommended agent is demonstrated in 5 per cent or more of isolates from a general population, it is usual to remove that agent from the list of recommended treatment.[1] Additional data are also provided on other antibiotics from time to time. At present all laboratories also test isolates for the presence of high level (plasmid-mediated) resistance to the tetracyclines, known as TRNG. Tetracyclines are however, not a recommended therapy for gonorrhoea in Australia. Comparability of data is achieved by means of a standardised system of testing and a program-specific quality assurance process. Because of the substantial geographic differences in susceptibility patterns in Australia, regional as well as aggregated data are presented. For more information see Commun Dis Intell *2003;27:128.*

Reporting period 1 April to 30 June 2003

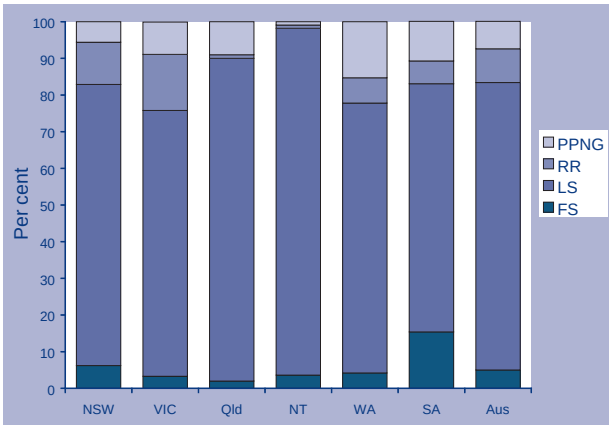
The AGSP laboratories received a total of 980 isolates in the second quarter of 2003 of which 962 remained viable for susceptibility testing. This number approximates the 1,000 strains examined in the same period in 2002. About 32 per cent of this total was from New South Wales, 28 per cent from Victoria, 14 per cent from Queensland, 12 per cent from the Northern Territory and seven per cent from Western Australia and South Australia. Isolates from other centres were few. Numbers examined decreased in New South Wales and Western Australia by about 25 per cent, but increased in Victoria by approximately 50 per cent and substantially in South Australia when compared with data in the same period in 2002. The number of strains from Queensland and Northern Territory examined was similar to last year

Penicillins

In this quarter about 16.6 per cent of all isolates were penicillin resistant by one or more mechanisms—7.5 per cent penicillinase producing *Neisseria gonorrhoeae* (PPNG) and 9.1 per cent by chromosomal mechanisms (CMRNG). The number and proportion of PPNG was little changed from the same period in 2002, but the number of CMRNG decreased from 100 to 88 isolates. The proportion of all strains resistant to the penicillins by any mechanism ranged from 1.8 per cent in the Northern Territory to 24.2 per cent in Victoria.

Figure 11 shows the proportions of gonococci fully sensitive (MIC ≤0.03 mg/L), less sensitive (MIC 0.06–1 mg/L), relatively resistant (MIC ≥1 mg/L) or penicillinase producing aggregated for Australia and by state and territory. The small number of strains from the Australian Capital Territory and Tasmania are aggregated in national data. A high proportion those strains classified as PPNG or else resistant by chromosomal mechanisms fail to respond to treatment with penicillins (penicillin, amoxycillin, ampicillin) and early generation cephalosporins.

Figure 11. Categorisation of gonococci isolated in Australia, 1 April to 30 June 2003, by penicillin susceptibility and region



FS Fully sensitive to penicillin, MIC ≤0.03 mg/L.

LS Less sensitive to penicillin, MIC 0.06–0.5 mg/L.

RR Relatively resistant to penicillin, MIC ≥1 mg/L.

PPNG Penicillinase producing *Neisseria gonorrhoeae.*

The number of PPNG isolated across Australia (n=72) was little different from the corresponding period in 2002 (n=77). The highest proportion of PPNG was found in isolates from Western Australia (15.3 per cent). PPNG were present in all jurisdictions. Slightly more isolates were resistant to the penicillins by separate chromosomal mechanisms (n=88). CMRNG were especially prominent in Victoria (15.3% of isolates) and New South Wales (11.5%). Only a single CMRNG was detected in the Northern Territory.

Ceftriaxone

Three isolates with decreased susceptibility to ceftriaxone were identified in New South Wales and one each in South Australia and Queensland.

Spectinomycin

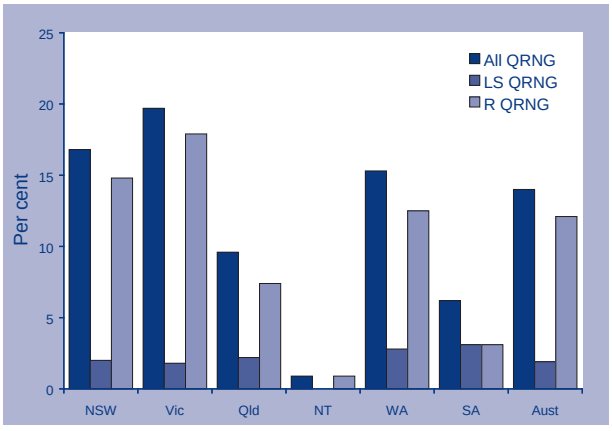
All isolates were susceptible to this injectable agent.

Quinolone antibiotics

The total number (135) and proportion (14%) of all quinolone resistant *N. gonorrhoeae* (QRNG) was slightly higher that seen in the second quarter of 2002 (122 isolates, 12%). The majority of QRNG (117 of 135, 82%) continued to exhibit higher level resistance. Quinolone resistant *N. gonorrhoeae* are defined as those isolates with an MIC to ciprofloxacin equal to or greater than 0.06 mg/L. QRNG are further subdivided into less sensitive (ciprofloxacin MICs 0.06–0.5 mg/L) or resistant (MIC ≥1 mg/L) groups.

QRNG were again widely distributed. The highest numbers were found in Victoria (54) and New South Wales (52) with the highest rate (20%) in Victoria (Figure 12). QRNG rates above five per cent were maintained in all centres except the Northern Territory (0.9%). Details of geographic acquisition of QRNG were available in only 40 instances. Local contact (26) was twice as common as overseas contact (14) indicating that a substantial degree of domestic transmission continues. MICs ranged up to 16 mg/L.

Figure 12. The distribution of quinolone resistant isolates of *Neisseria gonorrhoeae* in Australia, 1 April to 30 June 2003, by jurisdiction



LS QRNG Ciprofloxacin MICs 0.06–0.5 mg/L.

R QRNG Ciprofloxacin MICs ≥1 mg/L.

High level tetracycline resistance

The number (92) and proportion (9.5%) of high level tetracycline resistance (TRNG) isolates were lower than in the second quarter of 2002. TRNG represented between five per cent (South Australia) and 22.2 per cent (Western Australia) of all isolates. TRNG was not found in isolates from the Northern Territory.

Reference

1. Management of sexually transmitted diseases. World Health Organization 1997; Document WHO/GPA/TEM94.1 Rev.1 p 37.

HIV and AIDS surveillance

National surveillance for HIV disease is coordinated by the National Centre in HIV Epidemiology and Clinical Research (NCHECR), in collaboration with State and Territory health authorities and the Commonwealth of Australia. Cases of HIV infection are notified to the National HIV Database on the first occasion of diagnosis in Australia, by either the diagnosing laboratory (Australian Capital Territory, New South Wales, Tasmania, Victoria) or by a combination of laboratory and doctor sources (Northern Territory, Queensland, South Australia, Western Australia). Cases of AIDS are notified through the State and Territory health authorities to the National AIDS Registry. Diagnoses of both HIV infection and AIDS are notified with the person's date of birth and name code, to minimise duplicate notifications while maintaining confidentiality.

Tabulations of diagnoses of HIV infection and AIDS are based on data available three months after the end of the reporting interval indicated, to allow for reporting delay and to incorporate newly available information. More detailed information on diagnoses of HIV infection and AIDS is published in the quarterly Australian HIV Surveillance Report, and annually in 'HIV/AIDS, viral hepatitis and sexually transmissible infections in Australia, annual surveillance report'. The reports are available from the National Centre in HIV Epidemiology and Clinical Research, 376 Victoria Street, Darlinghurst NSW 2010. Internet: http://www.med.unsw.edu.au/nchecr. Telephone: +61 2 9332 4648. Facsimile: +61 2 9332 1837. For more information see Commun Dis Intell 2003;27:57.

HIV and AIDS diagnoses and deaths following AIDS reported for 1 April to 30 June 2003, as reported to 30 September 2003, are included in this issue of Communicable Diseases Intelligence (Tables 6 and 7).

Table 6. New diagnoses of HIV infection, new diagnoses of AIDS, and deaths following AIDS occurring in the period 1 April to 30 June 2003, by sex and state or territory of diagnoses

	Sex	State or territory								Totals for Australia			
		ACT	NSW	NT	Qld	SA	Tas	Vic	WA	This period 2003	This period 2002	Year to date 2003	Year to date 2002
HIV diagnoses	Female	0	6	0	4	1	0	6	4	21	17	42	49
	Male	2	88	2	26	11	0	51	12	192	158	388	347
	Sex not reported	0	2	0	0	0	0	0	0	2	0	3	1
	Total[1]	2	96	2	30	12	0	57	16	215	175	433	399
AIDS diagnoses	Female	0	0	0	2	0	0	0	0	2	0	5	7
	Male	0	5	0	0	1	0	2	1	9	41	39	97
	Total[1]	0	5	0	2	1	0	2	1	11	41	45	105
AIDS deaths	Female	0	0	0	0	1	0	0	0	1	0	5	2
	Male	0	2	0	1	0	0	2	0	5	17	21	31
	Total[1]	0	2	0	1	1	0	2	0	6	17	26	33

1. Totals include people whose sex was reported as transgender.

Table 7. Cumulative diagnoses of HIV infection, AIDS, and deaths following AIDS since the introduction of HIV antibody testing to 30 June 2003 and reported, by sex and state or territory

	Sex	State or territory								
		ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Australia
HIV diagnoses	Female	28	705	14	202	79	7	281	154	1,470
	Male	240	12,145	119	2,325	765	85	4,495	1,039	21,213
	Not reported	0	236	0	0	0	0	24	0	260
	Total[1]	268	13,112	133	2,535	844	92	4,818	1,199	23,001
AIDS diagnoses	Female	9	213	0	56	30	4	87	33	432
	Male	90	4,943	38	932	377	47	1,791	397	8,615
	Total[1]	99	5,170	38	990	407	51	1,887	432	9,074
AIDS deaths	Female	4	125	0	38	20	2	57	22	268
	Male	71	3,402	26	611	252	31	1,334	273	6,000
	Total[1]	75	3,536	26	651	272	33	1,398	296	6,287

1. Totals include people whose sex was reported as transgender.

Childhood immunisation coverage

Tables 8, 9 and 10 provide the latest quarterly report on childhood immunisation coverage from the Australian Childhood Immunisation Register (ACIR).

The data show the percentage of children fully immunised at 12 months of age for the cohort born between 1 April and 30 June 2002, at 24 months of age for the cohort born between 1 April and 30 June 2001, and at 6 years of age for the cohort born between 1 April and 30 June 1997 according to the Australian Standard Vaccination Schedule.

A full description of the methodology used can be found in Commun Dis Intell 1998;22:36-37.

Commentary on the trends in ACIR data is provided by the National Centre for Immunisation Research and Surveillance of Vaccine Preventable Diseases (NCIRS). For further information please contact the NCIRS at telephone: +61 2 9845 1256, Email: brynleyh@chw.edu.au.

Immunisation coverage for 'fully immunised' children at 12 months for Australia has increased from the last quarter by 0.5 percentage points to 91.7 per cent (Table 8). There was very little change in 'fully immunised' coverage by state or territory. The Northern Territory showed the biggest change (–1.8%). Four jurisdictions had changes in coverage greater than 0.8 per cent for individual vaccines: Victoria, with increases in coverage for diphtheria, tetanus, pertussis (DTP) (+1.1%), and poliomyelitis (OPV) (+1.1%); Queensland, with increases in coverage for DTP (+0.9%), and OPV (+0.9%); the Australian Capital Territory (the ACT) with increases in coverage for *Haemophilus influenzae* type b (Hib) (+1.0%) and hepatitis B (hep B) (+1.6%); and the Northern Territory, with decreases in coverage for Hib (–2.0%) and hep B (–0.9%).

Coverage measured by 'fully immunised' at 24 months of age for Australia decreased marginally from the last quarter by 0.1 percentage point to 89.2 per cent (Table 9). Coverage for individual vaccines for Australia basically remained unchanged with DTP still 3–4 percentage points lower than other vaccines for this age group. This difference was due to the greater number of DTP doses required to be considered up-to-date at 24 months of age. The only important jurisdictional changes in coverage at 24 months of age occurred in the Australian Capital Territory, with a decrease in DTP (–2.0%), MMR (–1.0%) and 'fully immunised' (–1.8%) coverage, and a 1.3 per cent increase in polio coverage.

Table 10 shows immunisation coverage estimates for 'fully immunised' and for individual vaccines at six years of age for Australia and by state or territory. 'Fully immunised' coverage at six years of age for Australia increased by 0.8 percentage points from the previous quarter to 83.1 per cent with significant increases in the Australian Capital Territory (+2.7%) and South Australia (+2.0%). Encouragingly, coverage for all individual vaccines at six years of age increased in all states and territories with some substantial increases in some jurisdictions. There were significant increases in measles, mumps and rubella (MMR) coverage in the Australian Capital Territory (+3.2%), the Northern Territory (+2.4%) and South Australia (+1.7%), and similar increases in coverage for DTP in the same three jurisdictions. Coverage for individual vaccines assessed at six years, is now over 85 per cent in a number of different jurisdictions, and close to 85 per cent in most jurisdictions. Whilst it is still a way off from the coverage target of 90 per cent, it is encouraging to see gains being made in coverage for children in this age group. Assuming there is no differential reporting of immunisations to the ACIR by providers for children of different ages, it seems likely that these increases in coverage are a result of an increase in uptake of immunisation at six years of age.

Table 8. Proportion of children immunised at 1 year of age, preliminary results by disease and State for the birth cohort 1 April to 30 June 2002; assessment date 30 September 2003

Vaccine	State or territory								
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Australia
Number of children	1,012	20,945	890	12,409	4,199	1,408	14,991	6,068	61,922
Diphtheria, tetanus, pertussis (%)	92.9	92.9	92.3	92.9	92.8	92.6	93.8	91.1	92.9
Poliomyelitis (%)	92.8	92.9	92.0	92.8	92.7	92.5	93.7	90.9	92.8
Haemophilus influenzae type b (%)	94.8	94.5	94.8	94.9	95.1	95.2	95.4	93.9	94.8
Hepatitis B (%)	95.9	95.6	96.4	95.3	95.6	95.2	95.2	93.7	95.3
Fully immunised (%)	91.6	91.5	89.9	92.1	91.6	92.1	92.6	89.7	91.7
Change in fully immunised since last quarter (%)	+0.1	+0.5	-1.8	+1.0	+0.2	+0.2	+0.9	-0.2	+0.5

Figure 13 shows the trends in vaccination coverage from the first ACIR-derived published coverage estimates in 1997 to the current estimates. There is a clear trend of increasing vaccination coverage over time for children aged 12 months, 24 months and six years, although the rate of increase has slowed over the past two years, especially for children in the 12 and 24 month age groups.

Acknowledgment: These figures were provided by the Health Insurance Commission (HIC), to specifications provided by the Commonwealth Department of Health and Ageing. For further information on these figures or data on the Australian Childhood Immunisation Register please contact the Immunisation Section of the HIC: Telephone: +61 2 6124 6607.

Figure 13. Trends in vaccination coverage, Australia, 1997 to 2003, by age cohorts

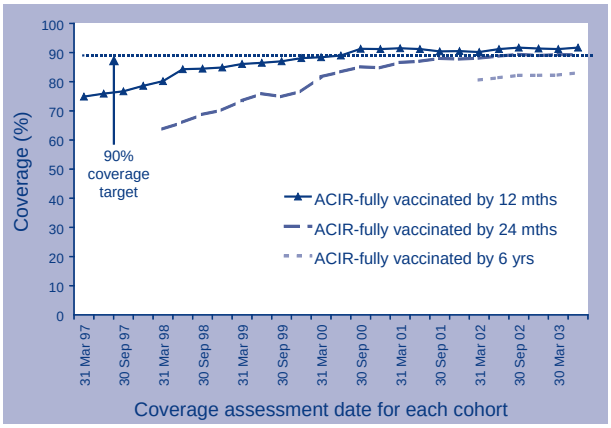


Table 9. Proportion of children immunised at 2 years of age, preliminary results by disease and State for the birth cohort 1 April to 30 June 2001; assessment date 30 September 2003[1]

Vaccine	State or territory								
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Australia
Total number of children	960	21,152	900	13,029	4,348	1,414	14,822	6,107	62,732
Diphtheria, tetanus, pertussis (%)	88.4	90.8	90.1	92.1	91.9	93.9	91.8	89.6	91.3
Poliomyelitis (%)	94.7	95.0	96.7	95.0	95.8	96.5	95.2	94.5	95.1
Haemophilus influenzae type b (%)	93.1	93.6	95.1	94.2	94.6	95.7	94.3	92.8	94.0
Measles, mumps, rubella (%)	92.4	93.7	95.4	94.5	94.7	95.3	94.5	93.2	94.1
Hepatitis B(%)	94.8	95.7	98.0	95.6	96.0	97.2	96.1	95.2	95.8
Fully immunised (%)[2]	85.1	88.5	89.4	90.0	90.2	93.1	89.9	87.4	89.2
Change in fully immunised since last quarter (%)	-1.8	+0.0	+0.5	+0.1	-0.3	-0.5	-0.6	+0.4	-0.1

1. The 12 months age data for this cohort was published in *Commun Dis Intell* 2002;26:627.
2. These data relating to 2-year-old children should be considered as preliminary. The proportions shown as 'fully immunised' appear low when compared with the proportions for individual vaccines. This is at least partly due to poor identification of children on immunisation encounter forms.

Table 10. Proportion of children immunised at 6 years of age, preliminary results by disease and State for the birth cohort 1 April to 30 June 1997; assessment date 30 September 2003

Vaccine	State or territory								
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Australia
Total number of children	1,044	21,975	809	13,391	4,686	1,557	15,832	6,443	65,737
Diphtheria, tetanus, pertussis (%)	84.7	84.7	84.3	84.1	85.0	84.3	87.1	82.8	85.0
Poliomyelitis (%)	84.7	84.7	85.3	84.1	85.3	84.5	87.3	82.9	85.1
Measles, mumps, rubella (%)	85.0	83.4	85.4	83.9	84.4	83.2	87.0	82.7	84.4
Fully immunised (%)[1]	83.1	82.1	81.6	82.4	83.3	82.3	85.8	81.1	83.1
Change in fully immunised since last quarter (%)	+2.8	+0.9	+0.5	+0.4	+2.0	+0.1	+0.5	+0.5	+0.8

1. These data relating to 6-year-old children should be considered as preliminary. The proportions shown as 'fully immunised' appear low when compared with the proportions for individual vaccines. This is at least partly due to poor identification of children on immunisation encounter forms.

National Enteric Pathogens Surveillance System

The National Enteric Pathogens Surveillance System (NEPSS) collects, analyses and disseminates data on human enteric bacterial infections diagnosed in Australia. These pathogens include Salmonella, E. coli, Vibrio, Yersinia, Plesiomonas, Aeromonas *and* Campylobacter*.* Communicable Diseases Intelligence *quarterly reports include only* Salmonella*.*

Data are based on reports to NEPSS from Australian laboratories of laboratory-confirmed human infection with Salmonella*.* Salmonella *are identified to the level of serovar and, if applicable, phage-type. Infections apparently acquired overseas are included. Multiple isolations of a single* Salmonella *serovar/phage-type from one or more body sites during the same episode of illness are counted once only. The date of the case is the date the primary diagnostic laboratory isolated a* Salmonella *from the clinical sample.*

Note that the historical quarterly mean counts should be interpreted with caution, and are affected by surveillance artefacts such as newly recognised (such as S. *Typhimurium 197 and* S. *Typhimurium U290) and incompletely typed* Salmonella*.*

Reported by Joan Powling (NEPSS Co-ordinator) and Mark Veitch (Public Health Physician), Microbiological Diagnostic Unit — Public Health Laboratory, Department of Microbiology and Immunology, University of Melbourne. NEPSS can be contacted at the above address or by telephone: +61 3 8344 5701, facsimile: +61 3 9625 2689. For more information see Commun Dis Intell *2003;27:129.*

Reports to the National Enteric Pathogens Surveillance System of Salmonella infection for the period 1 July to 30 September 2003 are included in Tables 11 and 12. Data include cases reported and entered by 14 October 2003. Counts are preliminary, and subject to adjustment after completion of typing and reporting of further cases to NEPSS.

Third quarter 2003

The total number of reports to NEPSS of human *Salmonella* infection declined to 879 in the third quarter of 2003, 42 per cent less than the second quarter of 2003. The incidence of human salmonellosis is lowest in the third quarter of each year. Case counts to 14 October 2003 are approximately 90 per cent of the expected final counts for the quarter.

During the third quarter of 2003, the 25 most common *Salmonella* types in Australia accounted for 504 (57%) of all reported human *Salmonella* infections.

Seventeen of the 25 most common *Salmonella* infections in the second quarter of 2003 were amongst the 25 most commonly reported in the previous quarter.

Although counts of *S*. Typhimurium phage types 135, 9 and 170 and *S*. Infantis declined compared with the previous quarter, they remained among the six most common salmonellae in the nation and were mostly reported from the eastern mainland states.

S. Typhimurium phage type 170 was the fourth most commonly reported *Salmonella* in Australia in the third quarter of 2003. Reports of this phage type continue to exceed historical averages. There were a further five reports of the similar phage type, *S*. Typhimurium phage type 108.

Reports of *S*. Typhimurium phage type U290 have increased progressively since 2001.

Acknowledgement

We thank scientists, diagnostic and reference laboratories, State and Territory health departments, and the Australian Government Department of Health and Ageing for their contributions to NEPSS.

Table 11. Reports to the National Enteric Pathogens Surveillance System of *Salmonella* isolated from humans during the period 1 July to 30 September 2003, as reported to 14 October 2003

	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Australia
Total all *Salmonella* for quarter	14	216	62	240	58	24	177	88	879
Total contributing *Salmonella* types	12	78	31	90	36	14	76	48	183

Table 12. Top 25 *Salmonella* types identified in Australian States and Territories, 1 July to 30 September 2003

National rank	*Salmonella* type	State or territory								Total 3rd quarter 2003	Last 10 years mean 3rd quarter	Year to date 2003	Year to date 2002
		ACT	NSW	NT	Qld	SA	Tas	Vic	WA				
1	*S.* Typhimurium 135	0	23	2	7	1	1	11	8	53	75	558	526
2	*S.* Typhimurium 9	2	14	2	4	2	2	14	3	43	74	337	503
3	*S.* Saintpaul	2	8	4	21	2	0	3	3	43	43	231	313
4	*S.* Typhimurium 170	1	23	0	4	1	4	6	0	39	16	338	320
5	*S.* Typhimurium U290	1	11	0	1	0	1	19	1	34	3	111	80
6	*S.* Infantis	1	16	1	2	3	0	7	0	30	19	163	85
7	*S.* Typhimurium 197	0	6	0	12	0	0	3	0	21	3	130	48
8	*S.* Typhimurium RDNC	0	6	0	2	3	0	4	5	20	17	51	49
9	*S.* Muenchen	0	1	5	4	0	1	3	6	20	16	108	101
10	*S.* Chester	0	1	5	6	1	0	0	6	19	20	173	133
11	*S.* Birkenhead	0	5	0	12	0	0	0	1	18	21	142	194
12	*S.* Virchow 8	0	1	1	14	0	0	1	0	17	16	127	253
13	*S.* Hvittingfoss	0	1	1	10	0	0	3	0	15	8	74	131
14	*S.* Adelaide	0	2	4	1	4	0	0	2	13	8	26	29
15	*S.* Oranienburg	0	3	0	0	0	0	0	9	12	7	42	24
16	*S.* Typhimurium 126	0	1	0	2	0	3	2	3	11	18	53	172
17	*S.* Agona	0	1	0	6	1	0	1	2	11	13	53	65
18	*S.* Stanley	0	1	0	4	0	0	6	0	11	12	34	42
19	*S.* Aberdeen	0	0	1	10	0	0	0	0	11	12	66	114
20	*S.* Typhimurium 12	0	2	0	3	3	0	3	0	11	3	73	53
21	*S.* Bovismorbificans 32	0	3	0	2	0	0	6	0	11	2	16	4
22	*S.* Typhimurium 6 var 1	1	6	0	2	1	0	1	0	11	1	21	6
23	*S.* Typhimurium 4	0	3	0	0	6	0	1	0	10	6	54	49
24	*S.* Ball	0	0	10	0	0	0	0	0	10	5	39	47
25	*S.* Zanzibar	0	0	0	6	1	0	3	0	10	5	34	17