

Communicable diseases surveillance

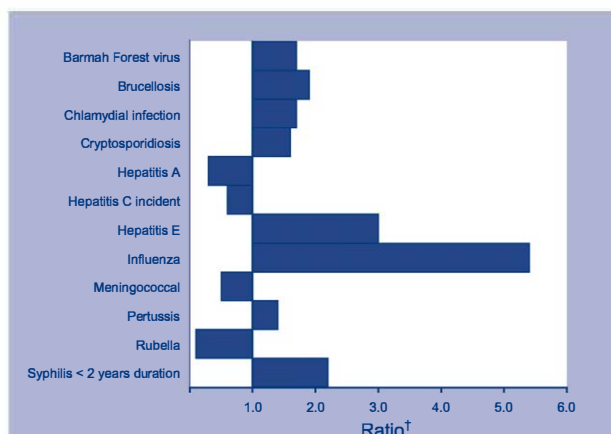
Highlights for fourth quarter, 2004

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 fourth quarter 2004 compared with a 5-year mean for the same period. The number of notifications received in the quarter was above the five year mean for Barmah Forest virus infection, brucellosis, chlamydial infection, cryptosporidiosis, hepatitis E, influenza, pertussis and syphilis (less than 2 years duration). The number of notifications received was below the five year mean for hepatitis A, hepatitis C (incident), meningococcal infections and rubella.

Figure 1. Selected* diseases from the National Notifiable Diseases Surveillance System, comparison of provisional totals for the period 1 October to 31 December 2004 with historical data†



* Selected diseases are chosen each quarter according to current activity.

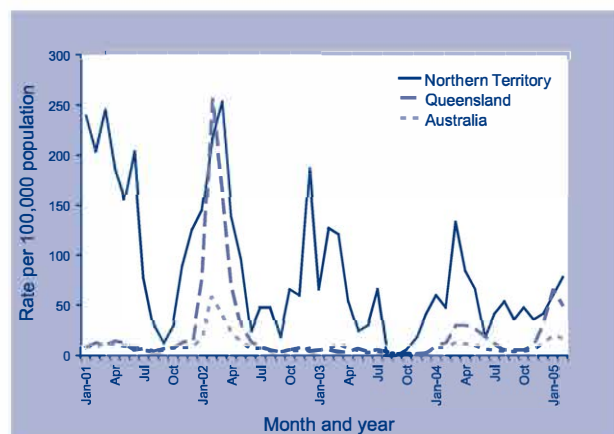
† Ratio of current quarter total to mean of corresponding quarter for the previous five years.

Gastrointestinal illness

Cryptosporidiosis

There were 443 notifications of cryptosporidiosis infections during the quarter. This was 60 per cent above the historical mean (Table 2). One hundred and ninety-two notifications (43% of the total for the quarter) were reported from Queensland, giving a rate of 19.8 cases per 100,000 population. Rates in the Northern Territory were also high in the quarter – 44 cases per 100,000 population (22 cases). Rates in the Northern Territory and Queensland from 2001 to 2004 by month of onset, compared with national notification rates are shown in Figure 2.

Figure 2. Notification rates of cryptosporidiosis, the Northern Territory, Queensland compared with national rates, 2001 to 2004, by month of onset



Hepatitis E

There were eight cases of hepatitis E infection in the quarter – two from New South Wales, three from Queensland, two from Victoria and one from Western Australia. This was three times the average number of cases reported in this period over the past five years. All cases are assumed to have acquired their infection overseas.

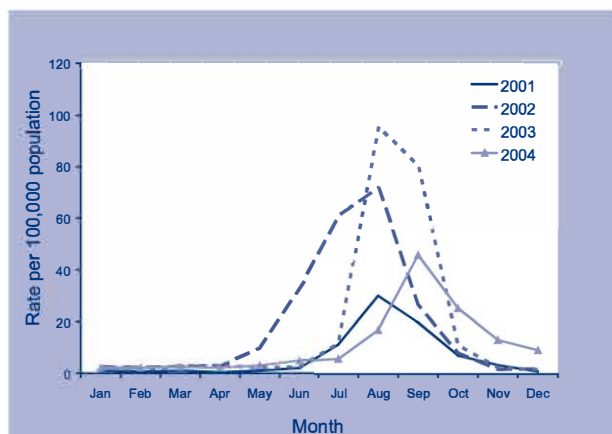
Vaccine preventable diseases

Influenza

There were 756 cases of laboratory-confirmed influenza in the fourth quarter of 2004. This was more than five times the average number of cases for this time of the year. Three hundred and fifty-eight cases (47% of total reports) were from New South Wales. A number of these cases may have been diagnosed on the basis of a single high titre of antibodies to influenza virus and may not have had influenza. The national surveillance case definition for influenza is currently under review.

The rates of influenza by month are shown in Figure 3. In 2004, the peak of influenza was significantly lower and later in the year than in previous years, while rates in the fourth quarter were higher than in the previous three years.

Figure 3. Notification rates of laboratory-confirmed influenza, Australia, 2001 to 2004, by month of notification



Measles

There were 15 cases of measles reported during the quarter, which was only half the five-year average for this quarter.

Gary Dowse of the Communicable Disease Control Branch, Health Department of Western Australia provided the following comments on the response to an outbreak of measles in the Pilbara region during the quarter. 'An outbreak of six cases of confirmed measles occurred in November, all in Aboriginal residents of the Pilbara region town of Port Hedland. Five cases were women ranging in age from 19 to 36 years, and the final case was a 7-month-old boy. None of the cases had travelled, and the source for the outbreak was not identified. Each of the cases had multiple visits to the outpatients department of the local hospital and/or to the Aboriginal Medical Service clinic, necessitating considerable contact tracing, and provision of post-exposure measles-mumps-rubella (MMR) vaccine or immunoglobulin where appropriate. Because of concerns about levels of measles immunity in young adults, and particularly among Aboriginal people, MMR vaccine was offered at a number of special community clinics in the town, including shopping centres, and through general practitioners, resulting in vaccination of around 1,000 adults.'

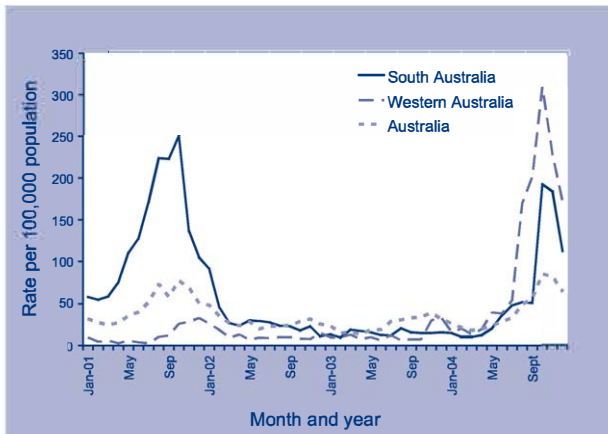
A measles case in a 25-year-old traveller, who travelled widely in northern Australia while infectious, was reported in the Northern Territory. Extensive follow-up of possible contacts did not identify any secondary cases.

In Victoria, a cluster of three cases of measles was reported in unvaccinated persons; two men aged 26 and 30 years and a two-year-old child.

Pertussis

There were 3,156 cases of pertussis reported in the fourth quarter most of which were reported from New South Wales (1,007 notifications), Queensland (445 notifications) and Western Australia (904 notifications). The notification rates were highest in Western Australia (182 cases per 100,000 population) and South Australia (103 cases per 100,000 population, Table 3). Trends in notification rates of pertussis in South Australia and Western Australia are shown against the national rates in Figure 4.

Figure 4. Rates of pertussis in South Australia and Western Australia compared with national rates, 2001 to 2004, by month of onset



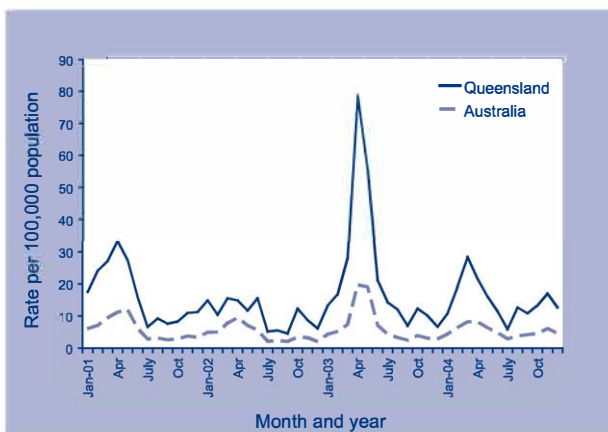
Vectorborne diseases

Barmah Forest virus infection

There were 257 notifications of Barmah Forest virus infection in the quarter, which was 70 per cent higher than the five year mean for the quarter. One hundred and thirty-nine notifications (54%) were from Queensland, which reported rates above 5-year mean in southern Queensland and Cairns.

Rates of Barmah Forest virus infection in Queensland are shown in Figure 5.

Figure 5. Notification rates of Barmah Forest virus infections, Queensland, compared to national rates, 2001 to 2004, by month of onset



Japanese encephalitis virus

A single case of Japanese B encephalitis was reported from Queensland. The case was probably exposed to Japanese encephalitis (JEV) on Thursday Island or in Papua New Guinea and had been vaccinated against JEV one year previously.

Zoonoses

Ornithosis

There were 48 cases of ornithosis during the quarter, 28 of which were from Victoria. In the fourth quarter of 2004, Victoria reported an outbreak of ornithosis in a poultry and game bird processing plant in Victoria.

Q fever

There were 101 cases of Q fever notified during the quarter. While New South Wales reported the largest number of cases (52), the highest rates were reported from South Australia (6.3 cases per 100,000 population; 24 cases).

An outbreak of Q fever occurred among persons attending sheep saleyards in rural South Australia in December 2004. In total, 23 persons were linked to this outbreak. An analytical study identified a statistically significant association between human illness and attendance at the saleyard. Intervention strategies including vaccination and dust control were implemented. Many of the cases were unvaccinated sheep and grain farmers.

Other bacterial infections

Meningococcal infections

There were 96 notifications of meningococcal infection during the quarter, which was half the average number reported in the quarter over the previous 5 years. Of the 96 cases, meningococcal serogroup data were available for 65 cases. There were 56 serogroup B (86%), eight serogroup C (12%) and a single case of serogroup W135.

With thanks to: Gary Dowse (Health Department of Western Australia) and Ingrid Tribe, Department of Health South Australia.

Tables

A summary of diseases currently being reported by each jurisdiction is provided in Table 1. There were 29,599 notifications to the National Notifiable Diseases Surveillance System (NNDSS) with a notification date between 1 October and 31 December 2004 (Table 2). The notification rate of diseases per 100,000 population for each State or Territory is presented in Table 3.

There were 6,541 reports received by the Virology and Serology Laboratory Reporting Scheme (LabVISE) in the reporting period, 1 October to 31 December 2004 (Tables 4 and 5).

Table 1. Reporting of notifiable diseases by jurisdiction

Disease	Data received from:	Disease	Data received from:
Bloodborne diseases		Vaccine preventable diseases	
Hepatitis B (incident)	All jurisdictions	Diphtheria	All jurisdictions
Hepatitis B (unspecified)	All jurisdictions except NT	<i>Haemophilus influenzae</i> type b	All jurisdictions
Hepatitis C (incident)	All jurisdictions except Qld	Influenza (laboratory confirmed) [†]	All jurisdictions
Hepatitis C (unspecified)	All jurisdictions	Measles	All jurisdictions
Hepatitis D	All jurisdictions	Mumps	All jurisdictions
Gastrointestinal diseases		Pertussis	All jurisdictions
Botulism	All jurisdictions	Pneumococcal disease (invasive)	All jurisdictions
Campylobacteriosis	All jurisdictions except NSW	Poliomyelitis	All jurisdictions
Cryptosporidiosis	All jurisdictions	Rubella	All jurisdictions
Haemolytic uraemic syndrome	All jurisdictions	Tetanus	All jurisdictions
Hepatitis A	All jurisdictions	Vectorborne diseases	
Hepatitis E	All jurisdictions	Barmah Forest virus infection	All jurisdictions
Listeriosis	All jurisdictions	Flavivirus infection (NEC) [‡]	All jurisdictions
Salmonellosis	All jurisdictions	Dengue	All jurisdictions
Shigellosis	All jurisdictions	Japanese encephalitis virus	All jurisdictions
SLTEC, VTEC	All jurisdictions	Kunjin virus [§]	All jurisdictions except ACT
Typhoid	All jurisdictions	Malaria	All jurisdictions
Quarantinable diseases		Murray Valley encephalitis virus [§]	All jurisdictions except ACT
Cholera	All jurisdictions	Ross River virus infection	All jurisdictions
Plague	All jurisdictions	Zoonoses	
Rabies	All jurisdictions	Anthrax	All jurisdictions
Smallpox	All jurisdictions except ACT, Qld	Australian bat lyssavirus	All jurisdictions
Tularemia	All jurisdictions except Qld	Brucellosis	All jurisdictions
Viral haemorrhagic fever	All jurisdictions	Leptospirosis	All jurisdictions
Yellow fever	All jurisdictions	Lyssaviruses unspecified	All jurisdictions
Sexually transmissible infections		Omithosis	All jurisdictions
Chlamydial infection*	All jurisdictions	Q fever	All jurisdictions
Donovanosis	All jurisdictions	Other bacterial infections	
Gonococcal infection	All jurisdictions	Legionellosis	All jurisdictions
Syphilis (unspecified)	All jurisdictions	Leprosy	All jurisdictions
Syphilis < 2 years duration	All jurisdictions	Meningococcal infection	All jurisdictions
Syphilis > 2 years duration	All jurisdictions	Tuberculosis	All jurisdictions
Syphilis - congenital	All jurisdictions		

* Only cases of congenital *Chlamydia* are reported in Western Australia.

† Laboratory confirmed influenza is not notifiable in the Australian Capital Territory or South Australia but reports are forwarded to NNDSS.

‡ Flavivirus (NEC) replaced Arbovirus (NEC) from 1 January 2004.

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

Table 2. Notifications of diseases received by State and Territory health authorities in the period 1 October to 31 December 2004, by date of onset*

Disease	State or territory								Total 4th quarter 2004 [†]	Total 3rd quarter 2004	Total 4th quarter 2003	Last 5 years mean 4th quarter	Year to date 2004	Last 5 years YTD mean	Ratio [‡]
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA							
Bloodborne diseases															
Hepatitis B (incident)	3	11	2	14	2	5	26	3	66	81	66	81.8	292	390.8	0.8
Hepatitis B (unspecified)	8	826	NN	226	73	12	371	110	1,626	1,773	1,613	2,092.6	6,762	8,509.0	0.8
Hepatitis C (incident)	2	13	NN	NN	11	10	3	32	71	115	116	127.6	348	513.4	0.6
Hepatitis C (unspecified)	41	1,551	80	704	124	60	734	278	3,572	3,715	3,884	4,872.6	15,033	20,430.2	0.7
Hepatitis D	0	3	0	2	0	0	1	0	6	10	6	5.0	28	27.8	1.2
Gastrointestinal diseases															
Botulism	0	0	0	0	0	0	0	0	0	0	0	1.5	1	0.4	0.0
Campylobacteriosis [§]	124	NN	47	1,++140	559	204	1,905	512	4,491	3,719	4,058	3,916.6	15,513	14,253.4	1.1
Cryptosporidiosis	0	79	22	192	29	3	99	19	443	241	203	278.8	1,639	1,622.6	1.6
Haemolytic uraemic syndrome	0	3	0	1	2	0	0	0	6	6	6	6.0	18	16.8	1.0
Hepatitis A	0	28	3	10	2	0	15	2	60	71	111	185.4	314	872.8	0.3
Hepatitis E	0	2	0	3	0	0	2	1	8	5	4	2.7	31	14.8	3.0
Listeriosis	0	6	0	1	0	0	5	2	14	16	18	18.0	66	72.2	0.8
Salmonellosis (NEC)	14	539	89	707	156	38	267	153	1,963	1,179	1660	1,720.4	7,906	7,553.8	1.1
Shigellosis	1	28	32	17	6	1	19	29	133	91	90	109.6	526	507.0	1.2
SLTEC, VTEC [¶]	0	1	0	1	12	0	0	0	14	11	11	13.0	48	49.8	1.1
Typhoid	0	14	0	1	0	0	1	0	16	15	13	14.4	74	76.6	1.1
Quarantinable diseases															
Cholera	0	0	0	0	0	0	0	0	0	3	0	1.0	6	3.8	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
Smallpox	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0.0	0.0
Tularemia	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

Table 2. Notifications of diseases received by State and Territory health authorities in the period 1 October to 31 December 2004, by date of onset,*
continued

Disease	State or territory								Total 4th quarter 2004 [†]	Total 3rd quarter 2004	Total 4th quarter 2003	Last 5 years mean 4th quarter	Year to date 2004	Last 5 years YTD mean	Ratio [‡]
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA							
Sexually transmissible infections															
Chlamydial infection	159	2,375	402	2,264	594	209	1,921	1,111	9,035	8,828	7,806	5,323.2	35,997	21,564.4	1.7
Donovanosis	0	0	2	0	0	0	0	1	3	3	3	3.8	9	20.6	0.8
Gonococcal infection	14	296	366	300	100	9	272	383	1,740	1,691	1,660	1,545.0	7,194	6,622.6	1.1
Syphilis (unspecified)	2	0	0	0	1	0	0	0	3	5	90	339.4	141	1,586.8	0.0
Syphilis < two years duration	0	42	22	15	2	1	26	12	120	164	133	53.8	559	226.8	2.2
Syphilis > two years duration	0	221	40	24	0	7	82	36	410	491	420	221.8	1,854	807.8	1.8
Syphilis - congenital	0	0	2	0	0	0	0	0	2	2	2	3.5	9	12.4	0.6
Vaccine preventable disease															
Diphtheria	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0.2	0.0
<i>Haemophilus influenzae</i> type b	0	2	0	0	0	0	0	0	2	6	4	6.2	15	32.6	0.3
Influenza (laboratory confirmed)	0	385	15	160	32	0	64	100	756	1,100	246	139.2	2,129	1,754.2	5.4
Measles	0	4	1	0	1	0	3	6	15	15	17	30.6	68	136.6	0.5
Mumps	0	21	0	7	3	0	0	3	34	24	30	30.8	108	158.8	1.1
Pertussis	43	1,007	15	445	395	6	341	904	3,156	3,055	1,843	2,212.4	8,651	6,976.2	1.4
Pneumococcal disease (invasive)	7	159	21	95	49	11	71	45	458	960	559	361.8	2,353	1,501.0	1.3
Poliomyelitis	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0.0	0.0
Rubella	0	1	0	4	1	0	1	3	10	9	2	95.8	43	296.4	0.1
Rubella - congenital	0	0	0	0	0	0	0	0	0	0	1	1.0	1	1.2	0.0
Tetanus	0	0	0	0	1	0	0	0	1	0	1	2.3	5	3.8	0.4
Vectorborne diseases															
Barmah Forest virus infection	1	85	4	139	2	0	6	20	257	194	163	155.6	1,094	1,015.6	1.7
Dengue	0	6	0	6	0	0	1	2	15	30	217	64.8	350	323.0	0.2
Flavivirus infection (NEC)	0	1	0	18	0	0	0	0	19	7	20	7.0	81	66.6	2.7
Japanese encephalitis virus	0	0	0	1	0	0	0	0	1	0	0	0.0	2	0.2	0.0
Kunjin virus	0	0	0	1	0	0	1	0	2	0	2	2.0	11	5.2	1.0
Malaria	5	26	24	62	7	6	16	9	155	137	139	159.0	564	774.8	1.0
Murray Valley encephalitis virus	0	0	0	0	0	0	0	0	0	0	0	0.0	1	2.8	0.0
Ross River virus infection	0	66	18	75	19	0	6	44	228	155	701	438.4	4,205	3,730.4	0.5

Table 2. Notifications of diseases received by State and Territory health authorities in the period 1 October to 31 December 2004, by date of onset,*
continued

Disease	State or territory								Total 4th quarter 2004 [†]	Total 3rd quarter 2004	Total 4th quarter 2003	Last 5 years mean 4th quarter	Year to date 2004	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	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	2	0	14	0	0	1	0	17	11	4	9.0	41	32.4	1.9
Leptospirosis	0	10	1	6	2	0	4	2	25	29	26	51.6	178	241.2	0.5
Lyssavirus unspecified	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0.0	0.0
Ornithosis	0	18	0	1	0	0	28	1	48	52	66	37.2	226	146.4	1.3
Q fever	1	52	0	18	24	0	3	3	101	120	131	166.6	444	693.2	0.6
Other bacterial infections															
Legionellosis	0	17	0	16	12	0	20	14	79	62	99	85.6	337	357.2	0.9
Leprosy	0	0	0	0	0	0	0	0	0	1	0	2.7	3	6.2	0.0
Meningococcal infection	1	32	3	36	0	2	11	11	96	121	159	176.6	436	726.8	0.5
Tuberculosis	3	126	5	43	10	1	109	25	322	251	311	334.0	1,069	1,180.8	1.0
Total	429	8,058	1,216	6,769	2,231	585	6,435	3,876	29,599	28,574	26,714	25,508	116,783	105,920	1.2

* Date of onset = the true onset. If this is not available, the 'date of onset' is equivalent to the earliest of two dates: (i) specimen date of collection, or (ii) the date of notification to the public health unit. Hepatitis B and C unspecified were analysed by the date of notification.

† 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.

‡ Ratio = ratio of current quarter total to the mean of last 5 years for the same quarter.

§ Not reported for New South Wales where it is only notifiable as 'foodborne disease' or 'gastroenteritis in an institution'.

|| Notifiable from January 2001 only. Ratio and mean calculations are based the last three years.

¶ Infections with Shiga-like toxin (verotoxin) producing *Escherichia coli* (SLTEC/VTEC).

NN Not notifiable.

NEC Not elsewhere classified.

**Table 3. Notification rates of diseases by state or territory, 1 October to 31 December 2004.
(Rate per 100,000 population)**

Disease*	State or territory								Australia
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	
Bloodborne diseases									
Hepatitis B (incident)	3.7	0.7	4.0	1.4	0.5	4.1	2.1	0.6	1.3
Hepatitis B (unspecified)	9.9	49.1	NN	23.3	19.0	10.0	29.8	22.2	32.3
Hepatitis C (incident)	2.5	0.8	NN	NN	2.9	8.3	0.2	6.5	1.4
Hepatitis C (unspecified)	50.6	92.2	160.1	72.5	32.3	49.8	59.0	56.1	71.0
Hepatitis D	0.0	0.2	0.0	0.2	0.0	0.0	0.1	0.0	0.1
Gastrointestinal diseases									
Botulism	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Campylobacteriosis [†]	153.1	NN	94.0	117.5	145.7	169.3	153.2	103.3	89.3
Cryptosporidiosis	0.0	4.7	44.0	19.8	7.6	2.5	8.0	3.8	8.8
Haemolytic uraemic syndrome	0.0	0.2	0.0	0.1	0.5	0.0	0.0	0.0	0.1
Hepatitis A	0.0	1.7	6.0	1.0	0.5	0.0	1.2	0.4	1.2
Hepatitis E	0.0	0.1	0.0	0.3	0.0	0.0	0.2	0.2	0.2
Listeriosis	0.0	0.4	0.0	0.1	0.0	0.0	0.4	0.4	0.3
Salmonellosis (NEC)	17.3	32.0	178.1	72.8	40.7	31.5	21.5	30.9	39.0
Shigellosis	1.2	1.7	64.0	1.8	1.6	0.8	1.5	5.9	2.6
SLTEC, VTEC [‡]	0.0	0.1	0.0	0.1	3.1	0.0	0.0	0.0	0.3
Typhoid	0.0	0.8	0.0	0.1	0.0	0.0	0.1	0.0	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
Smallpox	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tularemia	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 infections									
Chlamydial infection	196.3	141.1	804.4	233.3	154.9	173.4	154.5	224.2	179.7
Donovanosis	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.2	0.1
Gonococcal infection	17.3	17.6	732.4	30.9	26.1	7.5	21.9	77.3	34.6
Syphilis (unspecified)	2.5	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.1
Syphilis < 2 years duration	0.0	2.5	44.0	1.5	0.5	0.8	2.1	2.4	2.4
Syphilis > 2 years duration	0.0	13.1	80.0	2.5	0.0	5.8	6.6	7.3	8.2
Syphilis - congenital	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 3. Notification rates of diseases by state or territory, 1 October to 31 December 2004. (Rate per 100,000 population), *continued*

Disease*	State or territory								Australia
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	
Vaccine preventable diseases									
Diphtheria	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<i>Haemophilus influenzae</i> type b	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Influenza (laboratory confirmed)	0.0	22.9	30.0	16.5	8.3	0.0	5.1	20.2	15.0
Measles	0.0	0.2	2.0	0.0	0.3	0.0	0.2	1.2	0.3
Mumps	0.0	1.2	0.0	0.7	0.8	0.0	0.0	0.6	0.7
Pertussis	53.1	59.8	30.0	45.9	103.0	5.0	27.4	182.4	62.8
Pneumococcal disease (invasive)	8.6	9.4	42.0	9.8	12.8	9.1	5.7	9.1	9.1
Poliomyelitis	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rubella	0.0	0.1	0.0	0.4	0.3	0.0	0.1	0.6	0.2
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	0.3	0.0	0.0	0.0	0.0
Vectorborne diseases									
Barmah Forest virus infection	1.2	5.1	8.0	14.3	0.5	0.0	0.5	4.0	5.1
Dengue	0.0	0.4	0.0	0.6	0.0	0.0	0.1	0.4	0.3
Flavivirus infection (NEC)	0.0	0.1	0.0	1.9	0.0	0.0	0.0	0.0	0.4
Japanese encephalitis virus	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Kunjin virus	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0
Malaria	6.2	1.5	48.0	6.4	1.8	5.0	1.3	1.8	3.1
Murray Valley encephalitis virus	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ross River virus infection	0.0	3.9	36.0	7.7	5.0	0.0	0.5	8.9	4.5
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	0.1	0.0	1.4	0.0	0.0	0.1	0.0	0.3
Leptospirosis	0.0	0.6	2.0	0.6	0.5	0.0	0.3	0.4	0.5
Lyssavirus unspecified	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ornithosis	0.0	1.1	0.0	0.1	0.0	0.0	2.3	0.2	1.0
Q fever	1.2	3.1	0.0	1.9	6.3	0.0	0.2	0.6	2.0
Other bacterial infections									
Legionellosis	0.0	1.0	0.0	1.6	3.1	0.0	1.6	2.8	1.6
Leprosy	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Meningococcal infection	1.2	1.9	6.0	3.7	0.0	1.7	0.9	2.2	1.9
Tuberculosis	3.7	7.5	10.0	4.4	2.6	0.8	8.8	5.0	6.4

* Rates are subject to retrospective revision.

† Not reported for New South Wales where it is only notifiable as 'foodborne disease' or 'gastroenteritis in an institution'.

‡ Infections with Shiga-like toxin (verotoxin) producing *Escherichia coli* (SLTEC/VTEC).

NN Not notifiable.

NEC Not elsewhere classified.

Table 4. Virology and serology laboratory reports by state or territory* for the reporting period 1 October to 31 December 2004, and total reports for the year[†]

	State or territory								This period 2004	This period 2003	Year to date 2004 ³	Year to date 2003
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA				
Measles, mumps, rubella												
Measles virus	–	2	1	–	1	–	4	6	14	21	35	71
Mumps virus	–	–	–	–	1	–	–	–	1	3	6	10
Rubella virus	–	–	–	2	2	–	–	4	8	7	19	26
Hepatitis virus												
Hepatitis A virus	–	2	–	6	2	–	2	2	14	23	50	87
Hepatitis D virus	–	–	–	–	1	–	–	–	1	4	8	19
Arboviruses												
Ross River virus	–	–	2	5	14	–	3	10	34	55	741	1,238
Barmah Forest virus	–	4	–	15	3	–	–	5	27	33	195	408
Alphavirus (unspecified)	–	–	1	–	–	–	–	–	1	–	1	–
Dengue type 3	–	–	–	–	–	–	–	1	1	–	1	2
Dengue not typed	–	–	2	–	–	–	–	1	3	4	10	31
Flavivirus (unspecified)	–	–	–	6	–	–	1	–	7	14	101	122
Adenoviruses												
Adenovirus type 40	–	–	1	–	–	–	–	14	15	4	31	32
Adenovirus not typed/ pending	3	47	–	12	105	3	51	29	250	171	1,042	926
Herpesviruses												
Herpes virus type 6	–	1	–	–	–	–	1	–	2	–	6	5
Cytomegalovirus	3	96	3	22	50	4	23	1	202	153	816	858
Varicella-zoster virus	–	28	8	206	122	4	11	146	525	449	2,042	1,713
Epstein-Barr virus	–	11	12	191	186	2	12	80	494	411	2,349	1,719
Other DNA viruses												
Molluscum contagiosum	–	–	–	–	–	–	–	3	3	4	6	15
Parvovirus	–	3	–	35	8	–	12	67	125	90	409	258
Picornavirus family												
Echovirus type 7	–	11	–	–	–	–	–	–	11	–	12	1
Echovirus type 9	–	2	–	–	3	–	–	–	5	–	9	11
Echovirus type 11	–	6	–	–	–	–	–	–	6	–	20	4
Echovirus type 18	–	10	–	–	–	–	–	–	10	1	15	1
Echovirus type 25	–	10	–	–	–	–	–	–	10	–	10	1
Echovirus type 30	–	1	–	–	–	–	–	–	1	–	7	1
Poliovirus type 1 (uncharacterised)	–	2	–	–	–	–	–	–	2	4	17	36
Poliovirus type 2 (uncharacterised)	–	8	–	–	–	–	–	–	8	3	21	12
Poliovirus type 3 (uncharacterised)	–	3	–	–	–	–	–	–	3	3	9	7
Rhinovirus (all types)	–	80	–	–	36	–	2	60	178	137	607	526
Enterovirus not typed/ pending	4	22	2	8	2	–	25	8	71	37	204	163

Table 4. Virology and serology laboratory reports by state or territory* for the reporting period 1 October to 31 December 2004, and total reports for the year,† *continued*

	State or territory								This period 2004	This period 2003	Year to date 2004 [‡]	Year to date 2003
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA				
Ortho/paramyxoviruses												
Influenza A virus	1	9	–	8	43	–	13	60	134	206	489	1,952
Influenza B virus	–	3	–	–	28	–	11	45	87	22	217	119
Influenza C virus	–	–	–	–	–	–	1	–	1	–	1	–
Parainfluenza virus type 1	–	–	–	–	9	–	–	2	11	9	142	44
Parainfluenza virus type 2	–	–	–	–	3	–	–	1	4	1	15	67
Parainfluenza virus type 3	–	32	2	7	63	–	27	87	218	222	645	627
Respiratory syncytial virus	–	19	1	36	24	3	10	14	107	180	2,591	1,759
Other RNA viruses												
HTLV-1	–	–	–	–	2	–	–	–	2	1	15	11
Rotavirus	–	108	2	–	328	30	28	107	603	722	1,223	1,298
Calicivirus	–	1	4	–	1	1	2	359	368	71	637	174
Norwalk agent	–	–	–	–	–	–	166	–	166	183	655	313
Other												
<i>Chlamydia trachomatis</i> not typed	8	145	1	408	380	11	20	245	1,218	896	5,233	4,296
<i>Chlamydia pneumoniae</i>	–	–	–	–	–	–	–	1	1	4	8	15
<i>Chlamydia psittaci</i>	–	–	–	–	–	–	33	–	33	31	171	118
<i>Mycoplasma pneumoniae</i>	1	5	3	73	112	3	106	19	322	242	1,364	1,146
<i>Mycoplasma hominis</i>	–	1	–	–	–	–	–	–	1	–	5	9
<i>Coxiella burnetii</i> (Q fever)	–	–	–	6	40	–	2	1	49	37	171	178
<i>Rickettsia prowazeki</i>	–	–	–	–	69	–	–	–	69	1	102	3
<i>Rickettsia tsutsugamushi</i>	–	–	–	–	44	–	–	–	44	2	66	4
<i>Rickettsia</i> - spotted fever group	–	–	–	–	83	2	–	–	85	2	135	2
<i>Streptococcus</i> group A	–	3	–	72	–	–	32	–	107	128	467	490
<i>Yersinia enterocolitica</i>	–	3	–	–	–	–	–	–	3	3	8	12
<i>Brucella abortus</i>	–	–	–	–	–	–	1	–	1	3	6	5
<i>Brucella</i> species	–	1	–	3	–	–	–	–	4	2	9	7
<i>Bordetella pertussis</i>	–	15	–	84	295	–	108	89	591	155	1,350	519
<i>Legionella pneumophila</i>	–	3	–	–	1	–	6	–	10	17	75	130
<i>Legionella longbeachae</i>	–	1	–	–	6	–	2	8	17	30	76	84
<i>Legionella</i> species	–	–	–	–	–	–	1	–	1	8	15	18
<i>Cryptococcus</i> species	–	–	–	1	5	–	–	–	6	6	38	26
<i>Leptospira</i> species	–	–	–	2	2	–	–	–	4	3	23	24
<i>Treponema pallidum</i>	–	27	–	98	95	–	1	5	226	207	1,136	1,165
<i>Entamoeba histolytica</i>	–	–	–	–	–	–	3	–	3	4	12	14
<i>Toxoplasma gondii</i>	–	3	–	–	4	–	2	2	11	9	38	41
<i>Echinococcus granulosus</i>	–	–	–	–	2	–	–	–	2	7	14	21
Total	20	728	45	1,306	2,175	63	722	1,482	6,541	5,045	25,951	22,994

* State or territory of postcode, if reported, otherwise state or territory of reporting laboratory.

† Data presented are for reports with reports dates in the current period.

– No data received this period.

Table 5. Virology and serology reports by laboratories for the reporting period 1 October to 31 December 2004*

State or territory	Laboratory	October 2004	November 2004	December 2004	Total this period
Australian Capital Territory	The Canberra Hospital				
New South Wales	Institute of Clinical Pathology and Medical Research, Westmead	147	126	116	389
	New Children's Hospital, Westmead	72	43	34	149
	Repatriation General Hospital, Concord	–	–	–	–
	Royal Prince Alfred Hospital, Camperdown	12	25	6	43
	South West Area Pathology Service, Liverpool	103	34		137
Queensland	Queensland Medical Laboratory, West End	463	526	355	1,344
	Townsville General Hospital	–	–	–	–
South Australia	Institute of Medical and Veterinary Science, Adelaide	795	798	575	2,168
Tasmania	Northern Tasmanian Pathology Service, Launceston	33	13	12	58
	Royal Hobart Hospital, Hobart	–	–	–	–
Victoria	Monash Medical Centre, Melbourne	15	27	18	60
	Royal Children's Hospital, Melbourne	90	118	106	314
	Victorian Infectious Diseases Reference Laboratory, Fairfield	139	137	72	348
Western Australia	PathCentre Virology, Perth	720	706	–	1,426
	Princess Margaret Hospital, Perth	–	–	–	–
	Western Diagnostic Pathology	24	62	19	105
Total		2,613	2,615	1,313	6,541

* The complete list of laboratories reporting for the 12 months, January to December 2004, will appear in every report regardless of whether reports were received in this reporting period. Reports are not always received from all laboratories.

– No data received this period.

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 2004, nine conditions are being monitored, four of which are related to communicable diseases. These include influenza, gastroenteritis, varicella and shingles. There are two definitions for influenza for 2004. A patient may be coded once or twice depending on their symptoms. The definition for influenza 1 will include more individuals. Definitions of these conditions were published in *Commun Dis Intell* 2004;28:99–100.

Data from 1 October to 31 December 2004 are shown as the rate per 1,000 consultations in Figures 6, 7, 8, and 9.

Figure 6. Consultation rates for influenza-like illness, ASPREN, 1 October to 31 December 2004, by week of report

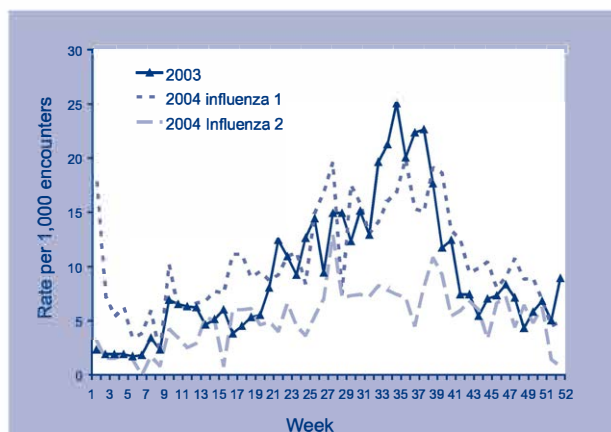


Figure 7. Consultation rates for gastroenteritis, ASPREN, 1 October to 31 December 2004, by week of report

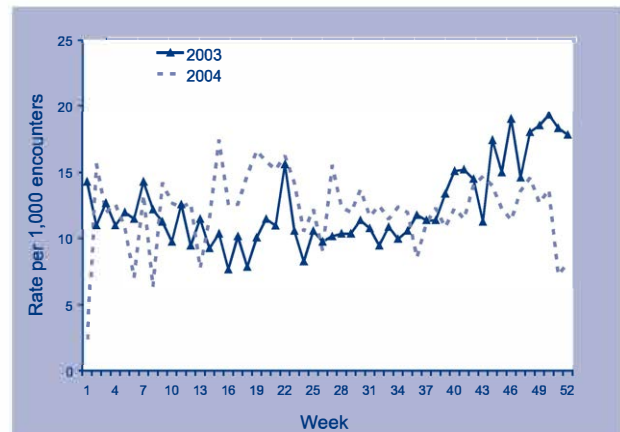


Figure 8. Consultation rates for varicella, ASPREN, 1 October to 31 December 2004, by week of report

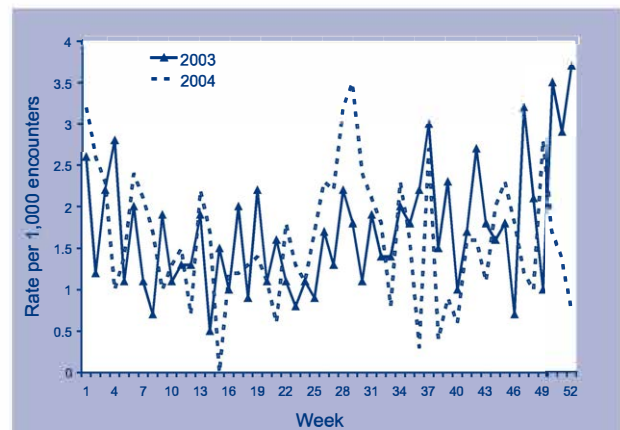
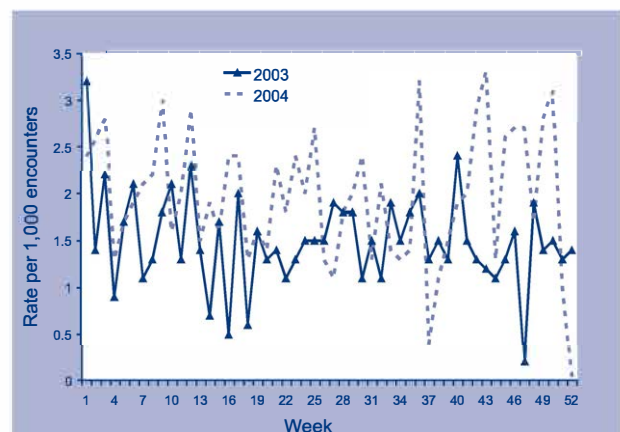


Figure 9. Consultation rates for shingles, ASPREN, 1 October to 31 December 2004, by week of report



Childhood immunisation coverage

Tables 6, 7 and 8 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 July and 30 September 2003, at 24 months of age for the cohort born between 1 July and 30 September 2002, and at 6 years of age for the cohort born between 1 July and 30 September 1998 according to the Australian Standard Vaccination Schedule.

For information about the Australian Childhood Immunisation Register see Surveillance systems reported in *CDI*, published in *Commun Dis Intell* 2004;28:102 and for a full description of the methodology used by the Register see *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 on telephone: +61 2 9845 1256, or email: brynleyh@chw.edu.au.

Immunisation coverage for children 'fully immunised' at 12 months of age for Australia decreased marginally from the last quarter by 0.1 percentage points to 91.2 per cent (Table 6). There was a substantial increase in 'fully immunised' coverage in Western Australia, with an increase of 2.9 percentage points, whilst all other jurisdictions experienced very little change in coverage. As expected, Western Australia also had increases in coverage for individual vaccines.

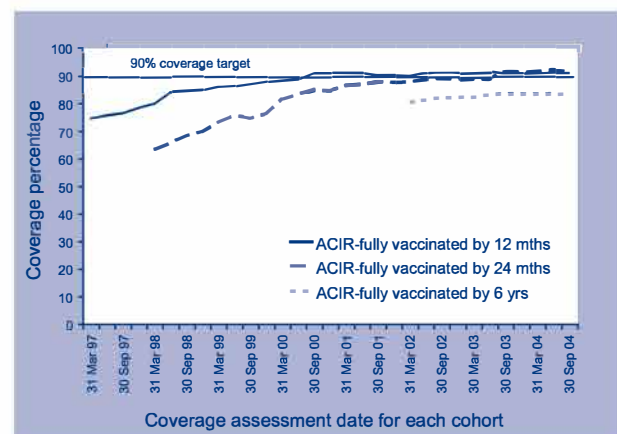
Coverage for children 'fully immunised' at 24 months of age for Australia decreased marginally from the last quarter by 0.6 percentage points to 91.7 per cent (Table 7). Coverage for individual vaccines decreased marginally in most jurisdictions with coverage greater than 95 per cent in almost all jurisdictions for all vaccines except *Haemophilus influenzae* type b.

Table 8 shows immunisation coverage estimates for 'fully immunised' and for individual vaccines at 6 years of age for Australia and by state or territory. 'Fully immunised' coverage at 6 years of age

for Australia was unchanged overall, apart from increases in the Australian Capital Territory (+3.4%) and in the Northern Territory (+3.9%), also reflected in individual vaccines. Coverage for vaccines assessed at 6 years is at or near 85 per cent in the most jurisdictions, but Western Australia and Queensland remain below the average.

Figure 10 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 6 years, although the rate of increase has slowed over the past 18 months for all age groups. Figure 10 shows that there have now been five consecutive quarters where 'fully immunised' coverage at 24 months of age has been greater than 'fully immunised' coverage at 12 months of age, following the removal of the requirement for 18 month DTPa vaccine.

Figure 10. Trends in vaccination coverage, Australia, 1997 to 2004, by age cohorts



Acknowledgement: These figures were provided by the Health Insurance Commission (HIC), to specifications provided by the Australian Government 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.

Table 6. Percentage of children immunised at 1 year of age, preliminary results by vaccine and state or territory for the birth cohort 1 July to 30 September 2003; assessment date 31 December 2004

Vaccine	State or territory								
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Aust
Number of children	1,051	22,438	839	13,035	4,629	1,438	16,129	5,954	65,513
Diphtheria, tetanus, pertussis (%)	93.9	92.3	91.2	92.5	92.5	94.1	92.6	93.2	92.6
Poliomyelitis (%)	93.7	92.2	90.5	92.5	92.4	93.9	92.6	93.1	92.5
<i>Haemophilus influenzae</i> type b (%)	95.8	94.3	95.6	94.8	94.5	95.1	94.7	96.3	94.8
Hepatitis B (%)	95.7	95.1	96.1	94.9	95.0	95.2	94.4	96.0	95.0
Fully immunised (%)	92.8	90.7	89.8	91.4	91.0	93.0	91.3	91.7	91.2
Change in fully immunised since last quarter (%)	-0.7	-0.5	-0.7	-0.3	-0.7	+0.5	-0.4	+2.9	-0.1

Table 7. Percentage of children immunised at 2 years of age, preliminary results by vaccine and state or territory for the birth cohort 1 July to 30 September 2002, assessment date 31 December 2004

Vaccine	State or territory								
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Aust
Total number of children	1,078	22,056	882	13,007	4,538	1,523	16,122	6,192	65,398
Diphtheria, tetanus, pertussis (%)	95.2	94.9	96.4	94.5	95.9	96.1	95.6	93.9	95.0
Poliomyelitis (%)	95.1	94.8	96.4	94.4	95.9	95.9	95.6	93.8	95.0
<i>Haemophilus influenzae</i> type b (%)	93.5	93.1	94.7	93.4	94.7	94.4	93.9	91.7	93.4
Measles, mumps, rubella (%)	95.2	93.0	95.7	93.5	95.0	94.2	94.3	92.3	93.6
Hepatitis B (%)	96.2	95.3	97.3	94.7	96.0	96.6	96.0	94.4	95.4
Fully immunised (%) [†]	92.0	91.1	93.8	91.6	93.3	92.9	92.6	89.8	91.7
Change in fully immunised since last quarter (%)	-0.7	-0.7	-0.0	-0.7	+0.3	-0.9	-0.5	-0.8	-0.6

* The 12 months age data for this cohort was published in *Commun Dis Intell* 2004;28:119.

† 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 8. Percentage of children immunised at 6 years of age, preliminary results by vaccine and state or territory for the birth cohort 1 July to 30 September 1998; assessment date 31 December 2004*

Vaccine	State or territory								
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Aust
Total number of children	1,084	22,538	772	13,716	4,847	1,689	16,511	6,797	67,954
Diphtheria, tetanus, pertussis (%)	88.9	85.5	87.3	83.0	85.7	85.7	87.3	82.1	85.2
Poliomyelitis (%)	89.5	85.6	87.7	83.1	86.0	85.6	86.8	82.3	85.2
Measles, mumps, rubella (%)	88.2	84.9	87.8	82.9	85.2	84.6	87.0	82.0	84.8
Fully immunised (%) ¹	87.2	83.7	86.7	81.6	84.3	83.4	85.7	80.6	83.6
Change in fully immunised since last quarter (%)	+3.4	+0.6	+3.9	-2.1	+0.5	-0.1	-0.1	+0.5	-0.0

* 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.

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 2004;28:99.

HIV and AIDS diagnoses and deaths following AIDS reported for 1 July to 30 September 2004, as reported to 31 December 2004, are included in this issue of Communicable Diseases Intelligence (Tables 9 and 10).

Table 9. New diagnoses of HIV infection, new diagnoses of AIDS and deaths following AIDS occurring in the period 1 July to 30 September 2004, by sex and state or territory of diagnosis

	Sex	State or territory								Totals for Australia			
		ACT	NSW	NT	Qld	SA	Tas	Vic	WA	This period 2004	This period 2003	Year to date 2004	Year to date 2003
HIV diagnoses	Female	1	9	0	2	0	0	5	0	17	21	86	64
	Male	0	55	0	38	18	1	48	6	166	179	558	589
	Sex not reported	0	1	0	0	0	0	0	0	1	3	3	5
	Total*	1	65	0	40	18	1	53	6	184	204	648	659
AIDS diagnoses	Female	0	0	1	0	0	0	1	0	2	2	10	10
	Male	0	5	0	6	1	0	7	0	19	51	87	138
	Total*	0	5	1	6	1	0	8	0	21	53	98	149
AIDS deaths	Female	0	0	1	1	0	0	0	0	2	3	4	8
	Male	0	5	0	1	3	0	5	0	14	23	46	56
	Total*	0	5	1	2	3	0	5	0	16	26	50	64

* Totals include people whose sex was reported as transgender.

Table 10. Cumulative diagnoses of HIV infection, AIDS and deaths following AIDS since the introduction of HIV antibody testing to 30 September 2004, and reported by 31 December 2004, by sex and state or territory

	Sex	State or territory								Australia
		ACT	NSW	NT	Qld	SA	Tas	Vic	WA	
HIV diagnoses	Female	31	769	17	224	82	8	307	161	1,599
	Male	246	12,574	122	2,407	826	89	4,717	1,086	22,067
	Not reported	0	239	0	0	0	0	22	0	261
	Total*	277	13,610	139	2,640	909	97	5,065	1,254	23,991
AIDS diagnoses	Female	9	221	2	61	30	4	94	34	455
	Male	92	5,110	41	970	386	48	1,853	407	8,907
	Total*	101	5,346	43	1,033	417	52	1,957	443	9,392
AIDS deaths	Female	6	128	1	41	20	2	58	22	278
	Male	71	3,486	26	632	268	32	1,364	282	6,161
	Total*	77	3,623	27	675	288	34	1,430	305	6,459

* Totals include people whose sex was reported as transgender.

Australian Paediatric Surveillance Unit

The Australian Paediatric Surveillance Unit (APSU) conducts nationally based active surveillance of rare diseases of childhood, including specified communicable diseases and complications of rare communicable diseases in children. The primary objectives of the APSU are to document the number of Australian children under 15 years newly diagnosed with specified conditions, their geographic distribution, clinical features, current management and outcome. Contributors to the APSU are clinicians known to be

working in paediatrics and child health in Australia. In 2003, over 1,050 clinicians participated in the surveillance of 14 conditions through the APSU, with an overall response rate of 96 per cent. The APSU can be contacted by telephone: +61 2 9845 2200, email: apsu@chw.edu.au. For more information about APSU see Surveillance systems reported in CDI, published in *Commun Dis Intell* 2004;28:101.

The results for the period 1 July to 31 December are shown in Table 11.

Table 11. Confirmed cases of communicable diseases reported to the Australian Paediatric Surveillance Unit, 1 July to 31 December 2004*

Condition	Previous reporting period January–June 2004	Current reporting period July–December 2004*
Acute flaccid paralysis	12	21
Congenital cytomegalovirus	8	17
Congenital rubella	1	1
Perinatal exposure to HIV infection	9	13
Neonatal herpes simplex virus infection	2	17
Hepatitis C virus infection	5	20

* Surveillance data are provisional and subject to revision.

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*, *Escherichia 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*.

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Reports to the National Enteric Pathogens Surveillance System of *Salmonella* infection for the period 1 October to 31 December 2004 are included in Tables 12 and 13. Data include cases reported and entered by 28 January 2005. Counts are preliminary, and subject to adjustment after completion of typing and reporting of further cases to NEPSS. For more information about NEPSS see Surveillance systems reported in CDI, published in *Commun Dis Intell* 2004;28:101.

Fourth quarter 2004

The total number of reports to NEPSS of human *Salmonella* infection increased to 1,765 in the fourth quarter of 2004, 53 per cent more than in third quarter of 2004, and approximately 15 per cent more than the final count for the fourth quarter of 2003. Case counts to 28 January 2005 are expected to comprise more than 95 per cent of the final counts for the quarter.

During the fourth quarter of 2004, the 25 most common *Salmonella* types in Australia accounted for 1,069 cases, 61 per cent of all reported human *Salmonella* infections.

Eighteen of the 25 most common *Salmonella* infections in the fourth quarter of 2004 were among the 25 most commonly reported in the previous quarter.

S. Typhimurium phage type 170/108 reports increased in number, particularly in New South Wales, making it the most common cause of human salmonellosis during this quarter. Reports of other common salmonellae with counts well above historical averages include *S. Saintpaul* (in northern Australia), *S. Typhimurium* phage type 197 (in the eastern mainland states, particularly Queensland), *S. Virchow* phage type 8 and *S. Aberdeen* (both particularly in Queensland), and *S. Birkenhead* (in New South Wales and Queensland). Counts of *S. Hvittingfoss* and *S. Typhimurium* phage type 12 and *S. Waycross* also remain elevated.

Acknowledgement: Thanks to contributing laboratories and scientists.

Table 12. Reports to the National Enteric Pathogens Surveillance System of *Salmonella* isolated from humans during the period 1 October to 31 December 2004, as reported to 28 January 2005

	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Australia
Total all <i>Salmonella</i> for quarter	16	486	79	631	127	38	255	133	1,765
Total contributing <i>Salmonella</i> types	13	116	40	119	47	19	95	68	241

Table 13. Top 25 *Salmonella* types identified in Australia, by state or territories, 1 October to 31 December 2004

National rank	<i>Salmonella</i> type	State or territory								Total 4th quarter 2004	Last 10 years mean 4th quarter	Year to date 2004	Year to date 2003
		ACT	NSW	NT	Qld	SA	Tas	Vic	WA				
1	<i>S. Typhimurium</i> 170	3	119	0	12	0	2	25	0	161	41	575	441
2	<i>S. Typhimurium</i> 135	1	34	0	56	2	0	12	8	113	135	563	695
3	<i>S. Saintpaul</i>	0	6	15	58	3	0	5	12	99	68	389	298
4	<i>S. Typhimurium</i> 9	1	27	0	7	14	2	15	5	71	124	357	420
5	<i>S. Typhimurium</i> 197	1	10	0	40	0	0	12	1	64	12	267	172
6	<i>S. Virchow</i> 8	0	6	0	48	4	0	5	0	63	37	333	207
7	<i>S. Birkenhead</i>	0	28	0	26	1	0	6	0	61	57	263	172
8	<i>S. Aberdeen</i>	0	2	0	40	0	0	1	0	43	17	134	86
9	<i>S. Infantis</i>	1	17	1	3	4	0	13	3	42	29	154	200
10	<i>S. Chester</i>	0	5	0	17	6	1	3	4	36	36	193	218
11	<i>S. Hvitittingfoss</i>	0	4	0	26	1	0	0	1	32	15	148	89
12	<i>S. Typhimurium</i> 12	0	16	0	5	1	0	8	0	30	11	234	114
13	<i>S. Muenchen</i>	0	5	1	15	0	0	1	4	26	27	115	134
14	<i>Sal</i> subsp I ser 16:l,v:-	2	10	2	6	0	0	1	2	23	11	59	81
15	<i>S. Typhimurium</i> RDNC	0	6	1	5	4	1	4	1	22	17	103	66
16	<i>S. Waycross</i>	0	1	0	20	0	0	0	0	21	16	120	72
17	<i>S. Typhimurium</i> 4	0	17	0	1	0	0	1	1	20	15	77	81
18	<i>S. Anatum</i>	0	4	3	7	1	0	1	3	19	19	90	123
19	<i>S. Mississippi</i>	0	0	0	1	0	16	2	0	19	14	75	81
20	<i>S. Enteritidis</i> 6a	1	4	0	3	3	1	4	3	19	4.4	70	24
21	<i>S. Typhimurium</i> 135a	0	0	0	0	19	0	0	0	19	3.5	31	21
22	<i>S. Agona</i>	1	5	0	4	1	1	5	0	17	15	80	66
23	<i>S. Stanley</i>	0	4	0	7	4	0	0	2	17	12	77	54
24	<i>S. Zanzibar</i>	0	2	1	10	1	1	1	0	16	7	53	42
25	<i>S. Enteritidis</i> 1b	0	2	0	1	0	1	6	6	16	2.2	42	16