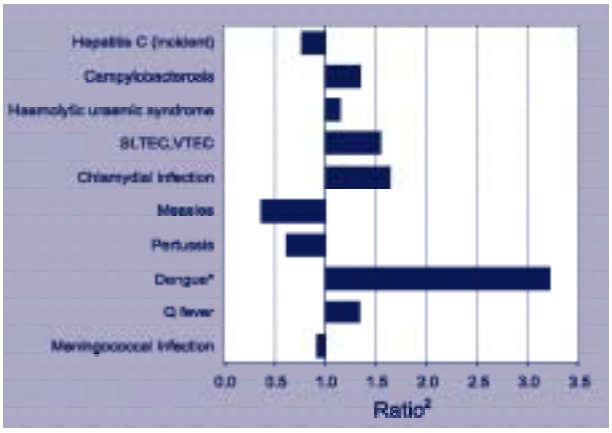
Communicable Diseases Surveillance

Highlights for 1st 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. Selected[1] diseases from the National Notifiable Diseases Surveillance System, comparison of provisional totals for the period 1 January to 31 March 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 for the same period plus– or minus– two standard deviations.

Gastrointestinal disease

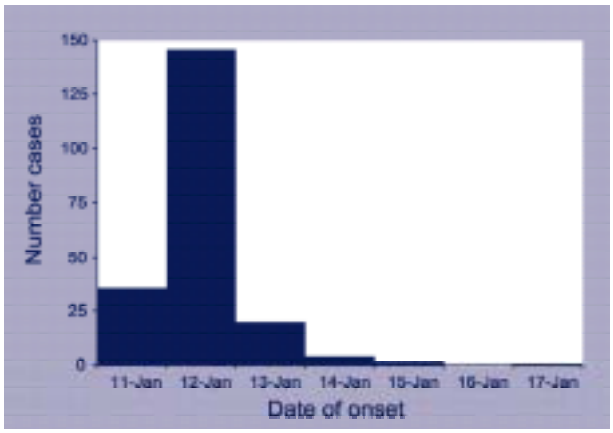
Salmonellosis

There were 2,747 notifications of salmonellosis (Table 2) in the first quarter of 2003—an increase of 6.7 per cent over the five year average for the same period. Most cases were sporadic.

A large outbreak of salmonellosis was associated with Vietnamese take-away food in Footscray, Victoria. Up to 213 cases were notified between 11 and 17 January 2003 (Figure 2), and 22 patients were hospitalised. One death, possibly associated with the outbreak occurred, in a 49-year-old male.

The causative agent, *S.* Typhimurium phage type 135, was isolated from egg-butter made in the restaurant which was used as an ingredient in pork rolls. As a result of the outbreak the premises were closed for a period and staff were trained in food handling procedures. Broader surveillance of premises selling similar products also occurred.

Figure 2. Notifications of cases of *S.* Typhimurium phage type 135, Fitzroy, Victoria, January 2003



Listeriosis

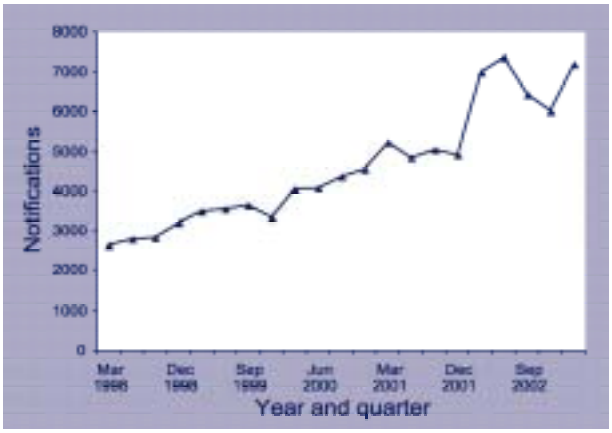
There were 20 cases of listeriosis reported during the first quarter 2003. Three materno-foetal infections were reported, two from Western Australia and one from Victoria. The remaining cases occurred in older (age range 58–82 years) or immunocompromised persons. No outbreaks were identified.

Sexually transmissible diseases

Chlamydial infections

Notifications of chlamydial infections have continued their increase of the last few years (Figure 3). There were 7,230 notifications for the first quarter of 2003, which represents an increase of three per cent over the number (7,215) for the same period in 2002. The national notification rate was 36.7 cases per 100,000 population.

Figure 3. Trends in notifications of chlamydial infections, Australia, January 1998 to March 2003, by quarter



Nationally, there was a 20 per cent increase from the fourth quarter of 2002 (8,160 notifications) to the first quarter 2003. Increases by jurisdictions ranged from 13 to 38 per cent. Notifications from the Northern Territory decreased by 10 per cent, from 436 to 393 notifications, however they also recorded the highest notification rate, 199 cases per 100,000 population.

Gonococcal infection

For the first quarter of 2003, 1,679 cases of gonorrhoea were notified, an increase of nine per cent over the five year average for the same period. The highest number of notifications were recorded in Western Australia (392) and the Northern Territory (327).

Eleven notifications were received from Tasmania. Ten of the cases were males, aged between 18 and 46 years, and nine of the 10 were living in the greater Hobart area. This epidemic follows similar outbreaks among men who have sex with men that occurred in Sydney during the late 1990s, and in Melbourne.[1,2]

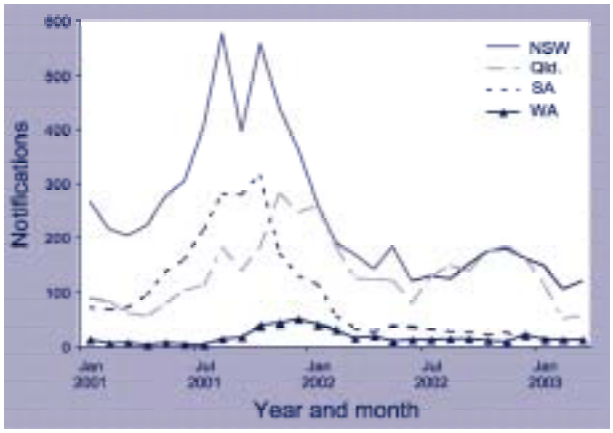
Vaccine preventable diseases

Pertussis

During the first quarter of 2003, 862 cases of pertussis were notified to the NNDSS. This number is 40 per cent less than the average number for the same period (1,421) over the previous five years. Decreases in notification numbers for all states and territories were recorded, and ranged between 23 and 73 per cent. Pertussis notifications by month (2000–2003) in selected jurisdictions are shown in Figure 4. Australia experiences periodic epidemics of pertussis, in three-to-four year cycles. With the last epidemic year in 2001, notification numbers for the present year represent an inter-epidemic year, with totals below the five year mean in all jurisdictions.

The largest number of notifications were reported in New South Wales (379 notifications, 64% of 5-year mean) and Queensland (226 notifications, 66% of 5 year mean). The highest rates in Queensland were in the southern Statistical Divisions outside Brisbane and the other South-East Queensland population centres.

Figure 4. Trends in notifications of pertussis, New South Wales, Queensland, South Australia and Western Australia,January 2001 to March 2003, by month of onset



The largest number of notifications were in the 10–14 year age group, which accounted for 15 per cent of notifications. Overall, 525 notifications (62%) were for adults aged 20 years or more. The number aged less than five years was 89 (10% of total) cases with 48 (7%) cases aged less than one year. For cases aged less than one year, the highest number of notifications were in Queensland (16), New South Wales (13) and Western Australia (11). No deaths from pertussis were reported in the quarter. The high proportion of adult and teenage cases indicates that these groups may be a significant source of the virus, from whom partially or unimmunised infants are contracting pertussis.

Vectorborne diseases

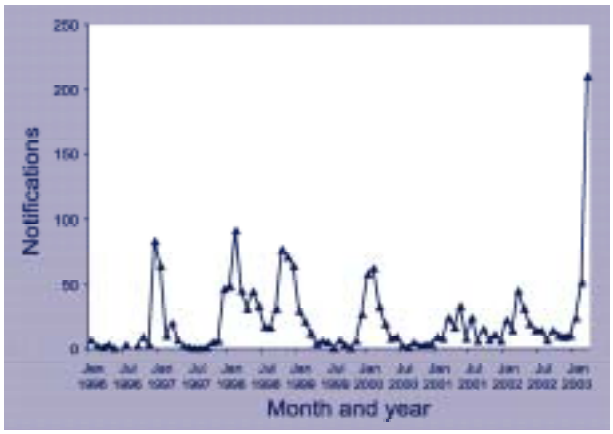
Dengue

There were 336 notifications of dengue reported to NNDSS for the first quarter of 2003. This represents more than three times the average number notified for the same period during the previous five years.

Twenty-eight imported cases were notified from New South Wales, but most of the remainder were from Queensland (287, 84%), where an outbreak of dengue serogroup 2 began in Cairns in mid-February. The index case in the outbreak was a woman who contracted the disease in New Guinea and became ill in Cairns on 22 January. Three secondary cases had an onset of disease in mid-February. The Queensland Dengue Area Response Team was then deployed to issue alerts and identify the source of the outbreak. During March, over 200 further cases were notified. Two cases were notified from Townsville but these infections were shown to be acquired in Cairns. The epidemic has continued into May, and over 400 cases have been reported to date.

The last outbreak of dengue in the Cairns region in 1997–1999, was caused by the dengue serogroup 3 virus.[3] Because the present outbreak of dengue is serotype 2, there has been concern of the possibility of cases of dengue haemorrhagic fever. However to date there has been no reports of this, or of deaths, arising from the Cairns outbreak. The relation of the present outbreak to the 1997 outbreak is illustrated in Figure 5.

Figure 5. Trends in notifications dengue fever, Australia, June 1996 to March 2003, by month of onset



Coincident with the outbreak, eight cases of imported dengue in Cairns have also been identified. These originated in Papua New Guinea and Bali. Major outbreaks of dengue (serotypes 1 and 3) in have occurred in the Western Pacific Region and are continuing to occur.

Kunjin

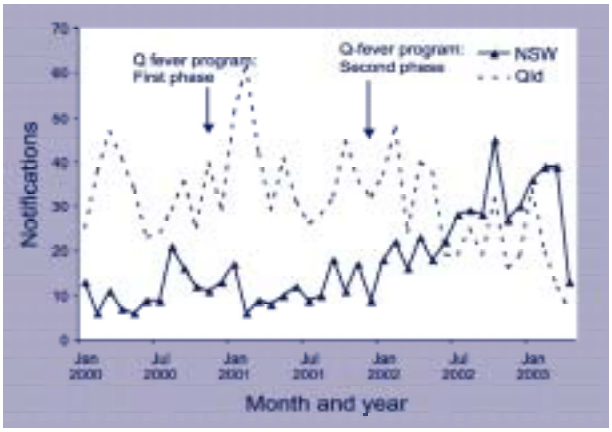
Four cases of Kunjin were notified during the first quarter of 2003. The cases, all male, were reported from Queensland, between 6 February and 13 March. The ages ranged between 34 and 56 years.

As flavivirus infections often occur in travellers in rural regions, and clinical symptoms may develop weeks after infection, the possibility exists that some of the cases may have been contracted in another jurisdiction.

Q fever

There were 199 notifications of Q fever reported in the first quarter of 2003. This is similar to the same period in 2002 (190), but is 33 per cent higher than the five-year average for the same period (149 notifications). The recent trends demonstrates a probable decrease in notifications in Queensland (72 notifications for the present quarter) (Figure 6). This is offset though by the increase observed for New South Wales (113 notifications). The lower rates recorded for Victoria and Western Australia have remained relatively consistent with six and four notifications for these states during the first quarter of 2003, respectively. One case each was notified from the Australian Capital Territory and the Northern Territory. The last notified case from Tasmania was in August 2001.

Figure 6. Notifications of Q fever, New South Wales and Queensland, January 2000 to March 2003, by month of onset



The Commonwealth Government's Q fever vaccination program commenced in October 2000.[4] As a result of this program notifications have initially increased in all jurisdictions due to identification of cases through screening.

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References

1. Donovan B, Bodsworth NJ, Rohrsheim R, McNulty A, Tapsall JW. Increasing gonorrhoea reports — not only in London. *Lancet* 2000;355:1908.
2. Victorian Department of Human Services. Surveillance report. *Victorian Infectious Diseases Bulletin* 2002;5:7–15.
3. Hanna JN, Ritchie SA, Phillips DA, Serafin IL, Hills SL, van den Hurk AF, *et al*. An epidemic of dengue 3 in far north Queensland, 1997–1999. *Med J Aust* 2001;174:178–182.
4. NSW Health Department. Q fever register developed to address health concern in the meat industry. *New South Wales Public Health Bulletin* 2002;13:113.

Tables

A summary of diseases currently being reported by each jurisdiction is provided in Table 1. There were 26,210 notifications to the National Notifiable Diseases Surveillance System (NNDSS) with a notification date between 1 January and 31 March 2003 (Table 2). The notification rate of diseases per 100,000 population for each State or Territory is presented in Table 3.

There were 4,520 reports received by the Virology and Serology Laboratory Reporting Scheme (LabVISE) in the reporting period, 1 January to 31 March 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 jurisdiction, except NT
Hepatitis C (incident)	All jurisdictions except Qld
Hepatitis C (unspecified)	All jurisdictions
Hepatitis D	All jurisdictions
Hepatitis (NEC)	All jurisdictions
Gastrointestinal diseases	
Botulism	All jurisdictions
Campylobacterosis	All jurisdictions except NSW
Cryptosporidiosis	All jurisdictions
Haemolytic uraemic syndrome	All jurisdictions
Hepatitis A	All jurisdictions
Hepatitis E	All jurisdictions
Listerosis	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 diseases	
Chlamydial infection	All jurisdictions
Donovanosis	All jurisdictions
Gonococcal infection	All jurisdictions
Syphilis	All jurisdictions
Vaccine preventable diseases	
Diphtheria	All jurisdictions
Haemophilus influenzae type b	All jurisdictions
Laboratory-confirmed influenza	All jurisdictions
Measles	All jurisdictions
Mumps	All jurisdictions
Pertussis	All jurisdictions
Pneumococcal disease – invasive	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†
Ross River virus infection	All jurisdictions
Zoonoses	
Anthrax	All jurisdictions
Australian bat lyssavirus	All jurisdictions
Brucellosis	All jurisdictions
Leptospirosis	All jurisdictions
Lyssaviruses (NEC)	All jurisdictions
Ornithosis	All jurisdictions
Q fever	All jurisdictions
Other bacterial infections	
Invasive meningococcal infection	All jurisdictions
Legionellosis	All jurisdictions
Leprosy	All jurisdictions
Tuberculosis	All jurisdictions

* Jurisdictions not yet reporting on diseases either because legislation has not yet made some diseases notifiable in that jurisdiction or data are not yet being reported to the Commonwealth

† In the Australian Capital Territory, infections with Murray Valley encephalitis virus and Kunjin are combined under Murray Valley encephalitis

Table 2. Notifications of diseases received by State and Territory health authorities in the period 1 January to 31 March 2003, by date of notification*

Disease	State or Territory								Total 1st quarter 2003[1]	Total 4th quarter 2002[1]	Total 1st quarter 2002[1]	Last five years mean 1st quarter	Year to date 2003[3]	Last five years YTD mean	Ratio†
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA							
Bloodborne diseases															
Hepatitis B (incident)	0	18	5	10	1	2	36	12	84	122	99	89	84	89	0.9
Hepatitis B (unspecified)	16	701	NN	177	41	19	435	100	1,489	2,221	1,874	1,773	1,489	1,773	0.8
Hepatitis C (incident)	2	11	NN	NN	13	1	13	41	81	116	130	108	81	108	0.8
Hepatitis C (unspecified)	60	1,586	43	664	138	111	867	321	3,790	5,152	4,545	4,964	3,790	4,964	0.8
Hepatitis D	0	1	0	0	0	0	3	0	4	4	3	3	4	3	1.3
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	0	0	0	0	0	0.0
Campylobacterosis[2]	104	NN	94	1,189	850	161	1,571	513	4,482	5,554	3,810	3,337	4,482	3,337	1.3
Cryptosporidiosis	4	58	54	50	20	3	55	260	504	360	2,113	N/A	504	N/A	N/A
Haemolytic uraemic syndrome	0	2	1	0	0	0	2	0	5	6	3	4	5	4	0.8
Hepatitis A	2	38	18	20	2	2	25	8	115	107	145	379	115	379	0.3
Hepatitis E	0	2	0	0	0	0	0	0	2	1	1	0	2	0	0.0
Listerosis	0	6	0	4	0	1	8	1	20	19	14	18	20	18	1.1
Salmonellosis	31	746	106	851	145	63	574	231	2,747	2,252	2,880	2,573	2,747	2,573	1.1
Shigellosis	3	20	46	24	11	1	18	26	149	138	151	148	149	148	1.0
SLTEC,VTEC[3]	0	0	0	2	15	0	3	0	20	20	16	13	20	13	1.5
Typhoid	0	4	0	0	0	1	11	3	19	20	34	28	19	28	0.7
Quarantinable diseases												0		0	
Cholera	0	0	0	0	0	0	0	0	0	2	1	1	0	1	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 continued. Notifications of diseases received by State and Territory health authorities in the period 1 January to 31 March 2003, by date of notification*

Disease	State or Territory								Total 1st quarter 2003[1]	Total 4th quarter 2002[1]	Total 1st quarter 2002[1]	Last five years mean 1st quarter	Year to date 2003[3]	Last five years YTD mean	Ratio[†]
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA							
Sexually transmissible diseases															
Chlamydial infection	106	1,760	393	1,890	470	138	1,540	933	7,230	8,160	7,015	4,426	7,230	4,426	1.6
Donovanosis	0	0	4	3	0	0	0	0	7	4	9	6	7	6	1.1
Gonococcal infection[4]	7	300	327	261	75	11	306	392	1,679	2,025	1,769	1,538	1,679	1,538	1.1
Syphilis[5]	1	223	74	36	6	6	92	27	465	671	470	410	465	410	1.1
Vaccine preventable diseases															
Diphtheria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Haemophilus influenzae type b	0	1	0	1	0	0	0	0	2	6	11	7	2	7	0.3
Laboratory-confirmed influenza	3	49	1	17	3	0	4	10	87	645	125	N/A	87	N/A	N/A
Measles	0	0	0	4	1	0	16	0	21	3	5	60	21	60	0.4
Mumps	0	12	0	2	2	0	0	3	19	20	17	36	19	36	0.5
Pertussis	12	379	4	226	43	21	128	49	862	1,823	1,817	1,421	862	1,421	0.6
Pneumococcal disease – invasive	8	87	11	44	31	6	73	26	286	802	295	N/A	286	N/A	N/A
Rubella[6]	0	11	0	23	0	0	2	2	38	96	56	82	38	82	0.5
Tetanus	0	1	0	0	0	0	0	0	1	0	2	2	1	2	0.6
Vectorborne diseases															
Arbovirus infection NEC	0	6	0	18	0	0	4	0	28	7	6	23	28	23	1.2
Barmah Forest virus infection	1	71	9	185	1	0	4	6	277	181	296	243	277	243	1.1
Dengue	2	28	4	287	2	0	3	10	336	47	85	104	336	104	3.2
Japanese encephalitis	0	0	0	0	0	0	0	0	0	0	0	N/A	0	N/A	N/A
Kunjin virus infection	-	0	0	4	0	0	0	0	4	0	0	N/A	4	N/A	N/A
Malaria	4	45	14	78	3	2	20	9	175	137	157	228	175	228	0.8
Murray Valley encephalitis	0	0	0	0	0	0	0	0	0	0	2	N/A	0	N/A	N/A
Ross River virus infection	0	54	101	360	8	2	3	43	571	150	667	1,558	571	1,558	0.4

Table 2 continued. Notifications of diseases received by State and Territory health authorities in the period 1 January to 31 March 2003, by date of notification*

Disease	State or Territory								Total 1st quarter 2003[1]	Total 4th quarter 2002[1]	Total 1st quarter 2002[1]	Last five years mean 1st quarter	Year to date 2003[1]	Last five 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	N/A		N/A	N/A
Australian bat lyssavirus	0	0	0	0	0	0	0	0	0	0	0	N/A		N/A	N/A
Brucellosis	0	1	0	3	0	0	0	0	4	13	12	9	4	9	0.5
Leptospirosis	0	19	0	27	0	0	0	0	46	28	73	72	46	72	0.6
Other lyssavirus	0	0	0	0	0	0	0	0	0	0	0	N/A		N/A	N/A
Ornithosis	0	7	0	1	0	0	16	0	24	45	19	18	24	18	1.3
Q fever	1	113	1	72	2	0	6	4	199	239	190	149	199	149	1.3
Other bacterial infections															
Legionellosis	0	19	2	7	10	1	30	14	83	120	61	71	83	71	1.2
Leprosy	0	0	0	0	0	0	1	0	1	0	3	1	1	1	1.0
Invasive meningococcal infection	1	28	1	16	6	2	24	8	86	224	110	95	86	95	0.9
Tuberculosis	6	67	5	8	10	1	60	11	168	321	289	253	168	253	0.7
Total	**374**	**6,474**	**1,318**	**6,564**	**1,909**	**555**	**5,953**	**3,063**	**26,210**	**31,861**	**29,380**	**24,229**	**26,210**	**24,229**	**1.1**

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 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.

* 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 authority.

† Ratio = ratio of current quarter total to mean of the same reporting period over the last 5 years calculated as described above.

N/A Not calculated as only notifiable for under 5 years.

NN Not notifiable

NEC Not elsewhere classified.

– Elsewhere classified.

Table 3. Notification rates of diseases by state or territory, 1 January to 31 March 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	0.3	2.5	0.3	0.1	0.4	0.7	0.6	0.4
Hepatitis B (unspecified)	5.0	10.5	NN	4.7	2.7	4.0	8.9	5.2	7.6
Hepatitis C (incident)	0.6	0.2	NN	NN	0.9	0.2	0.3	2.1	0.5
Hepatitis C (unspecified)	18.6	23.8	21.8	17.8	9.1	23.4	17.7	16.6	19.2
Hepatitis D	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Hepatitis (NEC)	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
Campylobacterosis[2]	32.3	NN	47.5	31.9	55.8	34.0	32.1	26.5	34.3
Cryptosporidiosis	1.2	0.9	27.3	1.3	1.3	0.6	1.1	13.4	2.6
Haemolytic uraemic syndrome	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
Hepatitis A	0.6	0.6	9.1	0.5	0.1	0.4	0.5	0.4	0.6
Hepatitis E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Listerosis	0.0	0.1	0.0	0.1	0.0	0.2	0.2	0.1	0.1
Salmonellosis	9.6	11.2	53.6	22.8	9.5	13.3	11.7	11.9	13.9
Shigellosis	0.9	0.3	23.3	0.6	0.7	0.2	0.4	1.3	0.8
SLTEC,VTEC[3]	0.0	0.0	0.0	0.1	1.0	0.0	0.1	0.0	0.1
Typhoid	0.0	0.1	0.0	0.0	0.0	0.2	0.2	0.2	0.1
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.
Sexually transmissible diseases									
Chlamydial infection	32.9	26.4	198.8	50.7	30.9	29.2	31.5	48.2	36.7
Donovanosis	0.0	0.0	2.0	0.1	0.0	0.0	0.0	0.0	0.0
Gonococcal infection[4]	2.2	4.5	165.4	7.0	4.9	2.3	6.3	20.3	8.5
Syphilis[5]	0.3	3.3	37.4	1.0	0.4	1.3	1.9	1.4	2.4
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Laboratory-confirmed influenza	0.9	0.7	0.5	0.5	0.2	0.0	0.1	0.5	0.4
Measles	0.0	0.0	0.0	0.1	0.1	0.0	0.3	0.0	0.1
Mumps	0.0	0.2	0.0	0.1	0.1	0.0	0.0	0.2	0.1
Pertussis	3.7	5.7	2.0	6.1	2.8	4.4	2.6	2.5	4.4
Pneumococcal disease – invasive	2.5	1.3	5.6	1.2	2.0	1.3	1.5	1.3	1.4
Rubella[6]	0.0	0.2	0.0	0.6	0.0	0.0	0.0	0.1	0.2
Tetanus	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 3 continued. Notification rates of diseases by state or territory, 1 January to 31 March 2003. (Rate per 100,000 population).

Disease[1]	State or Territory								Australia
	ACT	NSW	NT	Qld	SA	Tas	Vic[†]	WA	
Vectorborne diseases									
Arbovirus infection NEC	0.0	0.1	0.0	0.5	0.0	0.0	0.1	0.0	0.1
Barmah Forest virus infection	0.3	1.1	4.6	5.0	0.1	0.0	0.1	0.3	1.4
Dengue	0.6	0.4	2.0	7.7	0.1	0.0	0.1	0.5	1.7
Japanese encephalitis	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kunjin virus infection	-	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Malaria	1.2	0.7	7.1	2.1	0.2	0.4	0.4	0.5	0.9
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	0.8	51.1	9.7	0.5	0.4	0.1	2.2	2.9
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	0.1	0.0	0.0	0.0	0.0	0.0
Leptospirosis	0.0	0.3	0.0	0.7	0.0	0.0	0.0	0.0	0.2
Other lyssavirus	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ornithosis	0.0	0.1	0.0	0.0	0.0	0.0	0.3	0.0	0.1
Q fever	0.3	1.7	0.5	1.9	0.1	0.0	0.1	0.2	1.0
Other bacterial infections									
Legionellosis	0.0	0.3	1.0	0.2	0.7	0.2	0.6	0.7	0.4
Leprosy	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Invasive meningococcal infection	0.3	0.4	0.5	0.4	0.4	0.4	0.5	0.4	0.4
Tuberculosis	1.9	1.0	2.5	0.2	0.7	0.2	1.2	0.6	0.9

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 laboratories for the reporting period 1 January to 31 March 2003*

	Laboratory	January 2003	February 2003	March 2003	Total this period
Australian Capital Territory	The Canberra Hospital	–	–	–	–
New South Wales	Institute of Clinical Pathology and Medical Research, Westmead	94	93	66	253
	New Children's Hospital, Westmead	18	19	25	62
	Repatriation General Hospital, Concord	–	–	–	–
	Royal Prince Alfred Hospital, Camperdown	22	–	–	22
	South West Area Pathology Service, Liverpool	59	60	34	153
Queensland	Queensland Medical Laboratory, West End	611	384	599	1594
	Townsville General Hospital	–	–	–	–
South Australia	Institute of Medical and Veterinary Science, Adelaide	384	451	401	1236
Tasmania	Northern Tasmanian Pathology Service, Launceston	10	9	1	20
	Royal Hobart Hospital, Hobart	–	–	–	–
Victoria	Monash Medical Centre, Melbourne	10	4		14
	Royal Children's Hospital, Melbourne	13	30	42	85
	Victorian Infectious Diseases Reference Laboratory, Fairfield	63	82	27	172
Western Australia	PathCentre Virology, Perth	260	275	354	889
	Princess Margaret Hospital, Perth	–	–	–	–
	Western Diagnostic Pathology	–	20	–	20
Total		**1,544**	**1,427**	**1,549**	**4,520**

* 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.

Table 5.Virology and serology laboratory reports by state or territory[1] for the reporting period 1 January to 31 March 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	–	–	–	2	2	–	8	–	12	5	12	5
Mumps virus	–	1	–	2	–	–	–	2	5	5	5	5
Rubella virus	–	1	–	7	–	–	–	–	8	20	8	20
Hepatitis viruses												
Hepatitis A virus	–	1	2	4	2	–	–	7	16	21	16	21
Hepatitis D virus	–	–	–	–	–	–	2	2	4	1	4	1
Arboviruses												
Ross River virus	–	3	42	135	7	–	–	21	208	202	208	202
Barmah Forest virus	–	3	7	63	–	–	–	4	77	66	77	66
Dengue type 1	–	–	–	–	–	–	–	2	2	–	2	–
Dengue type 2	–	–	–	–	–	–	–	1	1	1	1	1
Dengue type 3	–	1	–	–	–	–	–	1	2	–	2	–
Dengue not typed	–	1	1	–	1	–	–	11	14	110	14	110
Murray Valley encephalitis virus	–	–	1	–	–	–	–	–	1	3	1	3
Flavivirus (unspecified)	–	–	–	32	–	–	4	–	36	10	36	10
Adenoviruses												
Adenovirus type 1	–	1	–	–	–	–	–	–	1	–	1	–
Adenovirus type 40	–	–	–	–	–	–	–	11	11	9	11	9
Adenovirus not typed/ pending	–	27	3	13	104	1	5	31	184	165	184	165
Herpes viruses												
Herpes virus type 6	–	–	–	–	–	–	–	1	1	–	1	–
Cytomegalovirus	5	48	–	21	166	–	7	1	248	292	248	292
Varicella-zoster virus	2	36	14	169	46	–	9	128	404	492	404	492
Epstein-Barr virus	2	20	7	153	166	–	17	68	433	499	433	499
Other DNA viruses												
Molluscum contagiosum	–	1	–	–	–	–	–	7	8	5	8	5
Contagious pustular dermatitis (Orf virus)	–	–	–	–	–	–	–	1	1	–	1	–
Poxvirus group not typed	–	–	–	–	–	–	1	–	1	1	1	1
Parvovirus	–	2	–	10	4	–	18	14	48	98	48	98
Picornavirus family												
Coxsackievirus A16	–	2	–	–	–	–	–	–	2	–	2	–
Echovirus type 3	–	1	–	–	–	–	–	–	1	–	1	–
Echovirus type 6	–	4	–	–	–	–	–	–	4	27	4	27
Echovirus type 9	–	4	–	–	–	–	–	–	4	8	4	8
Echovirus type 11	–	1	–	–	–	–	–	–	1	–	1	–
Poliovirus type 1 (uncharacterised)	–	5	–	–	–	–	–	–	5	4	5	4
Rhinovirus (all types)	–	54	1	–	–	–	–	51	106	94	106	94
Enterovirus not typed/ pending	–	1	5	1	2	–	–	30	39	125	39	125

Table 5 continued. Virology and serology laboratory reports by state or territory[1] for the reporting period 1 January to 31 March 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	–	5	1	6	81	–	–	4	97	101	97	101
Influenza A virus H3N2	–	–	–	–	–	–	–	1	1	–	1	–
Influenza B virus	–	–	–	–	17	–	1	3	21	26	21	26
Parainfluenza virus type 1	–	2	–	–	13	–	–	–	15	42	15	42
Parainfluenza virus type 2	–	3	–	–	15	–	–	1	19	9	19	9
Parainfluenza virus type 3	–	13	2	4	58	–	–	31	108	61	108	61
Respiratory syncytial virus	–	31	8	7	46	–	2	24	118	125	118	125
Other RNA viruses												
HTLV-1	–	–	1	–	1	–	–	2	4	–	4	–
Rotavirus	–	5	–	–	24	1	2	22	54	91	54	91
Reovirus (unspecified)	–	1	–	–	–	–	–	–	1	1	1	1
Calicivirus	–	–	3	–	–	–	–	31	34	8	34	8
Norwalk agent	–	–	–	–	–	–	26	–	26	51	26	51
Coronavirus	–	–	–	–	–	–	–	1	1	–	1	–
Other												
Chlamydia trachomatis not typed	8	161	40	407	259	12	1	312	1,200	923	1,200	923
Chlamydia pneumoniae	–	–	–	–	–	–	–	1	1	2	1	2
Chlamydia psittaci	–	–	–	–	1	–	14	1	16	12	16	12
Mycoplasma pneumoniae	1	27	–	38	50	7	45	8	176	282	176	282
Mycoplasma hominis	–	4	–	–	–	–	–	–	4	–	4	–
Coxiella burnetii (Q fever)	–	3	2	17	23	–	3	5	53	59	53	59
Rickettsia prowazeki	–	–	–	–	–	–	–	2	2	–	2	–
Streptococcus group A	–	5	6	71	–	–	41	–	123	94	123	94
Yersinia enterocolitica	–	1	–	1	–	–	–	–	2	2	2	2
Brucella abortus	–	1	–	–	–	–	–	–	1	–	1	–
Brucella species	–	1	–	–	–	–	–	–	1	2	1	2
Bordetella pertussis	–	14	1	35	41	–	30	8	129	371	129	371
Legionella pneumophila	–	1	–	–	4	–	29	1	35	16	35	16
Legionella longbeachae	–	–	1	–	2	–	–	7	10	7	10	7
Legionella species	–	–	–	–	–	–	3	–	3	2	3	2
Cryptococcus species	–	–	–	1	2	–	–	–	3	6	3	6
Leptospira species	–	–	–	2	4	–	–	–	6	11	6	11
Treponema pallidum	–	40	93	122	90	–	1	2	348	279	348	279
Entamoeba histolytica	–	–	–	1	–	–	1	1	3	5	3	5
Toxoplasma gondii	–	2	–	–	4	–	4	3	13	10	13	10
Echinococcus granulosus	–	–	–	–	3	–	1	–	4	10	4	10
Total	**18**	**538**	**241**	**1,324**	**1,238**	**21**	**275**	**865**	**4,520**	**4,871**	**4,520**	**4,871**

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.

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 January to 31 March 2003 are shown as the rate per 1,000 consultations in Figures 7, 8 and 9.

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 2001, over 1,000 clinicians participated in the surveillance of 15 conditions through the APSU, with an overall response rate of 98 per cent. The APSU can be contacted by telephone: +61 2 9845 2200, email: apsu@chw.edu.au. For more information see Commun Dis Intell *2003;27: 128–129.*

The results for 1 January to 31 December 2002 are shown in Table 6.

Figure 7. Consultation rates for influenza-like illness, ASPREN, 1 January to 31 March 2003, by week of report

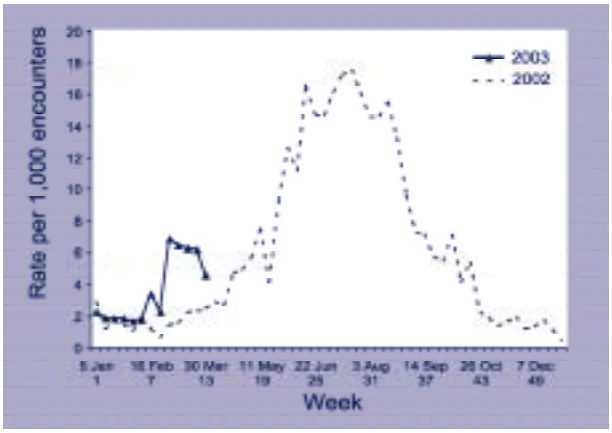


Figure 8. Consulatation rates for gastroenteritis, ASPREN, 1 January to 31 March 2003, by week of report

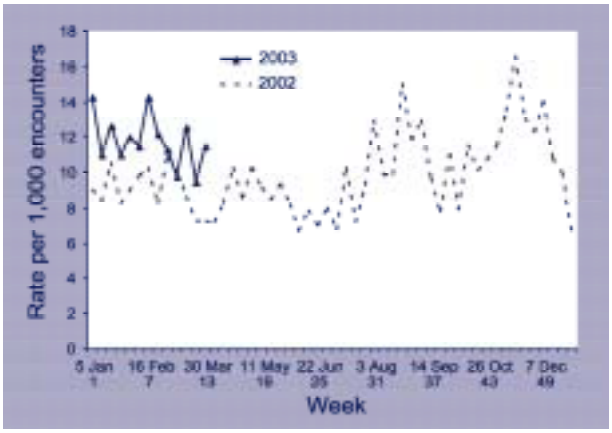


Figure 9. Consultation rates for chickenpox and shingles,ASPREN, 1 January to 31 March 2003, by week of report

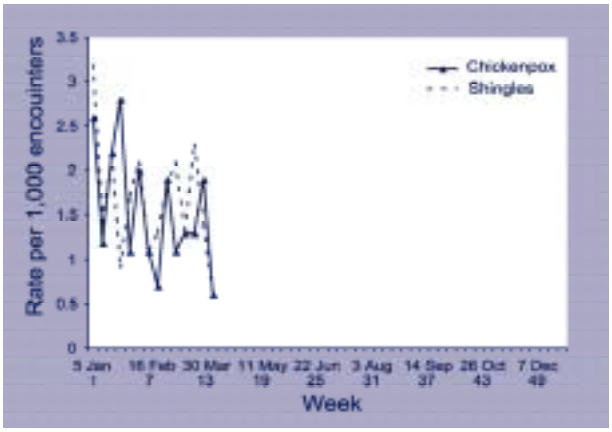


Table 6. Confirmed cases of communicable diseases reported to the Australian Paediatric Surveillance Unit between 1 January and 30 December 2002*

Condition	Previous reporting period 2001*	Current reporting period 2002
Acute flaccid paralysis	44	28
Congenital cytomegalovirus	16	9
Congenital rubella	0	2†
Perinatal exposure to HIV	24	25
Neonatal herpes simplex virus infection	11	11

* Surveillance data are provisional and subject to revision

† Both children born to mothers who had rubella in Indonesia. One child was born in Indonesia, one child born in Australia.

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;27:126.

HIV and AIDS diagnoses and deaths following AIDS reported for 1 October to 31 December 2002, as reported to 31 March 2003, are included in this issue of Communicable Diseases Intelligence *(Tables 7 and 8).*

Table 7.New diagnoses of HIV infection,new diagnoses of AIDS and deaths following AIDS occurring in the period 1 October to 31 December 2002, by sex and State or Territory of diagnosis

	Sex	ACT	NSW	NT	Qld	SA	Tas.	Vic.	WA	Totals for Australia			
										This period 2002	This period 2001	Year to date 2002	Year to date 2001
HIV diagnoses	Female	0	10	0	8	1	0	3	3	25	26	90	96
	Male	0	102	0	40	1	0	57	12	212	179	735	692
	Not reported	0	2	0	0	0	0	0	0	2	0	3	1
	Total[1]	0	114	0	48	2	0	60	15	239	205	833	789
AIDS diagnoses	Female	0	2	0	0	1	0	0	0	3	5	13	20
	Male	0	16	0	8	2	1	9	2	38	43	177	168
	Total[1]	0	18	0	8	3	1	9	2	41	48	191	189
AIDS deaths	Female	0	2	0	1	0	0	0	0	3	4	6	14
	Male	0	11	1	3	4	1	2	0	22	18	73	83
	Total[1]	0	13	1	4	4	1	2	0	25	22	79	97

1. Persons whose sex was reported as transgender are included in the totals.

Table 8. Cumulative diagnoses of HIV infection, AIDS and deaths following AIDS since the introduction of HIV antibody testing to 31 December 2002, by sex and State or Territory

	Sex	State or Territory								Australia
		ACT	NSW	NT	QLD	SA	TAS	VIC	WA	
HIV diagnoses	Female	28	693	14	193	77	7	273	147	**1,432**
	Male	237	11,955	116	2,261	749	85	4,398	1,020	**20,821**
	Not reported	0	236	0	0	0	0	24	0	**260**
	Total[1]	265	12,909	130	2,461	826	92	4,713	1,173	**22,569**
AIDS diagnoses	Female	9	212	0	54	30	4	85	32	**426**
	Male	90	4,914	38	923	376	47	1,780	394	**8,562**
	Total[1]	99	5,139	38	979	406	51	1,874	428	**9,014**
AIDS deaths	Female	4	124	0	37	18	2	57	21	**263**
	Male	71	3,390	26	607	251	31	1,327	271	**5,974**
	Total[1]	75	3,523	26	646	269	33	1,391	293	**6,256**

1. Persons whose sex was reported as transgender are included in the totals

Childhood immunisation coverage

Tables 9, 10 and 11 provide the latest quarterly report on childhood immunisation coverage from the Australian Childhood Immunisation Register.

The data show the percentage of children fully immunised at age 12 months for the cohort born between 1 October and 31 December 2001; at 24 months of age for the cohort born between 1 October and 31 December 2000; and at 6 years of age for the cohort born between 1 October and 31 December 1996, 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' at 12 months of age for Australia has decreased marginally from the last quarter by 0.3 percentage points to 91.4 per cent (Table 9). The change in 'fully immunised' coverage varied by state and territory with most jurisdictions experiencing small decreases in coverage, the exception being South Australia with a significant 1.8 per cent decrease. South Australia was also the only jurisdiction with any important changes in coverage for individual vaccines. It experienced not insignificant decreases in coverage for diphtheria, tetanus, pertussis (DTP) (–1.4%), poliomyelitis (OPV) (–1.4%) and *Haemophilus influenzae* type b (Hib) (–1.1%) vaccines. One explanation for this decrease is that the Australian Childhood Immunisation Register (ACIR) field officer for South Australia was able to focus attention on data cleaning for the 12-month cohort during the months of June, July and August 2002 but then changed the focus to the 24-month group for the following three months (M. Watson, Department of Human Services, South Australia, personal communication, 30 April 2003). This is an important example that demonstrates the value of the ACIR field officers, and the value of the continuing role of educating providers to sustain quality in recording of immunisations.

Every jurisdiction still has coverage greater than 90 per cent for all individual vaccines at 12 months of age and five jurisdictions have greater than 95 per cent coverage for hepatitis B vaccine: New South Wales (95.1%), the Northern Territory (96.1%), Queensland (95.2%), South Australia (95.4%), and Tasmania (95.1%).

Coverage measured by 'fully immunised' at 24 months of age for Australia decreased marginally from the last quarter by 0.4 percentage points to 89.0 per cent (Table 10). Coverage for individual vaccines for Australia basically remained unchanged with DTP vaccine coverage still almost three percentage points lower than coverage for the other vaccines calculated for this age group. The most important jurisdictional changes in 'fully immunised' coverage at 24 months of age occurred in Western Australia (–1.5%) and the Northern Territory (+2.0). In fact, there were some significant increases in coverage for most vaccines in the Northern Territory with coverage for DTP increasing by 1.8 per cent to 88.2 per cent, and coverage for Hib increasing by 1.6 per cent to 94.8 per cent. Western Australia had the opposite experience with significant decreases in coverage for DTP (–1.6%) and measles, mumps, rubella (–1.1%).

Table 11 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 remained unchanged from the previous quarter at 82.2 per cent. There was also very little change for the jurisdictions, with the exception of Tasmania who experienced the only significant change in 'fully immunised' coverage at this age, a 2.2 per cent increase. Coverage for individual vaccines for Australia and the jurisdictions for this age group also showed little change.

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.

Table 9. Proportion of children immunised at 1 year of age, preliminary results by vaccine and state or territory for the birth cohort 1 October to 31 December 2001; assessment date 31 March 2003

Vaccine	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Australia
Number of children	932	20,818	860	11,913	4,302	1,449	15,031	5,888	**61,193**
Diphtheria, tetanus, pertussis (%)	91.9	92.5	91.5	92.9	92.6	93.9	93.1	91.1	**92.6**
Poliomyelitis (%)	91.5	92.4	91.1	92.8	92.5	93.8	93.0	91.1	**92.5**
Haemophilus influenzae type b (%)	93.9	94.5	95.4	94.5	94.8	95.2	95.1	94.4	**94.7**
Hepatitis B (%)	94.1	95.1	96.1	95.2	95.4	95.1	94.9	94.1	**95.0**
Fully immunised (%)	90.1	91.3	90.8	91.8	91.4	92.8	91.9	90.1	**91.4**
Change in fully immunised since last quarter (%)	+0.8	–0.1	+0.4	–0.0	–1.8	–0.2	–0.5	+0.2	**–0.3**

Table 10. Proportion of children immunised at 2 years of age, preliminary results by vaccine and state or territory for the birth cohort 1 October to 31 December 2000; assessment date 31 March 2003[1]

Vaccine	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Australia
Number of children	1,072	21,673	787	12,219	4,305	1,553	15,458	5,960	**63,027**
Diphtheria, tetanus, pertussis (%)	89.5	90.8	88.2	91.8	91.7	93.6	92.0	89.6	**91.2**
Poliomyelitis (%)	94.2	94.6	96.8	94.6	95.3	96.7	95.7	93.8	**94.9**
Haemophilus influenzae type b (%)	93.8	93.5	94.8	94.0	94.5	96.0	94.8	92.6	**94.0**
Measles, mumps, rubella (%)	93.8	93.7	95.4	94.0	94.7	95.8	95.2	92.7	**94.2**
Hepatitis B (%)	94.9	95.4	98.1	95.2	96.0	97.4	96.3	95.0	**95.7**
Fully immunised (%)[1]	86.8	88.0	87.0	89.7	90.0	92.9	90.0	87.3	**89.0**
Change in fully immunised since last quarter (%)	–0.7	–0.4	+2.0	–0.6	+0.5	+0.5	–0.1	–1.5	**–0.4**

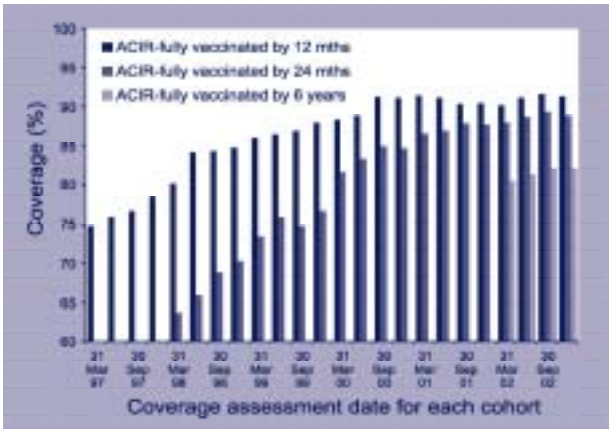
1. The 12 months age data for this cohort were published in Commun Dis Intell 2002;26:309.
2. These data relating to 2 year-old children should be considered as preliminary. The proportions shown as 'fully immunised' appear low when compared with the proportions for individual vaccines. This is at least partly due to poor identification of children on immunisation encounter forms.

Table 11. Proportion of children immunised at 6 years of age, preliminary results by vaccine and state or territory for the birth cohort 1 October to 31 December 1996; assessment date 31 March 2003

Vaccine	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Australia
Number of children	1,122	22,333	16,393	12,531	4,738	6,525	1,632	765	**66,039**
Diphtheria, tetanus, pertussis (%)	83.5	83.6	86.7	83.8	83.0	81.9	85.7	83.5	**84.3**
Poliomyelitis (%)	83.6	83.7	87.0	84.0	83.3	82.2	86.1	85.4	**84.5**
Haemophilus influenzae type b (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**
Measles, mumps, rubella (%)	83.4	82.0	86.7	83.7	82.1	81.8	84.8	84.3	**83.6**
Hepatitis B(%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**
Fully immunised (%)[1]	81.8	80.5	85.4	82.3	80.8	79.9	83.8	82.2	**82.2**
Change in fully immunised since last quarter (%)	–0.1	–0.3	–0.5	–0.6	–1.0	+2.2	+0.7	+0.4	**0.0**

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.

Figure 10. Trends in vaccination coverage, Australia, 1 October to 31 December, by age cohorts



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.

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, or facsimile: +61 3 9625 2689.

Reports to the National Enteric Pathogens Surveillance System of Salmonella infection for the period 1 January to 31 March 2003 are included in Tables 11 and 12. Data include cases reported and entered by 16 April 2003. Counts are preliminary, and subject to adjustment after completion of typing and reporting of further cases to NEPSS. For more information see Commun Dis Intell *2003;27:129.*

First quarter 2003

The total number of reports to the National Enteric Pathogens Surveillance System of human *Salmonella* infection increased to 2,461 in the first quarter of 2003, 59 per cent more than the fourth quarter of 2002, but a similar count to the first quarter of 2002. Each year, the highest number of cases is reported in the first quarter.

During the first quarter of 2003, the 25 most common *Salmonella* types in Australia accounted for 1,690 (69%) of all reported human *Salmonella* infections.

S. Typhimurium phage types 135, 170 and 9, *S.* Saintpaul and *S.* Chester were the most common salmonellae. With the exception of *S.* Chester, these have been among the five most common salmonellae each quarter since the first quarter of 2002; *S.* Typhimurium phage type 135 has been the most common *Salmonella* for each of the past four quarters.

The most notable recent increase in reports has been *S.* Typhimurium phage type 197. This phage type was first reported in 1990 and was rare until October 2002. There were 75 cases in the fourth quarter of 2002 and 78 cases have been reported in the first quarter of 2003. Cases have been reported predominantly from New South Wales and Queensland.

Table 11. Reports to the National Enteric Pathogens Surveillance System of *Salmonella* isolated from humans during the period 1 January to 31 March 2003, as reported to 16 April 2003

Vaccine	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Australia
Total all *Salmonella* for quarter	35	673	68	770	120	63	537	195	**2,461**
Total contributing *Salmonella* types	19	111	29	116	50	15	92	61	**223**

Acknowledgement: Thanks to contributing laboratories and scientists.

Table 12. Top 25 *Salmonella* types identified in Australian States and Territories, 1 January to 31 March 2003

National rank	*Salmonella* type	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Total 1st quarter 2003	Last 10 years mean 1st quarter	Year to date 2003	Year to date 2002
1	*S.* Typhimurium 135	15	86	10	54	5	3	184	20	377	197	377	273
2	*S.* Typhimurium 170	1	85	0	38	0	0	68	2	194	40	194	135
3	*S.* Typhimurium 9	0	35	0	7	14	1	56	9	122	171	122	307
4	*S.* Saintpaul	0	14	4	72	3	3	8	13	117	119	117	159
5	*S.* Chester	1	33	2	42	11	0	5	10	104	57	104	58
6	*S.* Typhimurium 197	0	38	0	31	0	0	6	3	78	1	78	4
7	*S.* Birkenhead	0	33	0	40	0	0	0	2	75	90	75	115
8	*S.* Infantis	1	34	1	5	6	3	19	2	71	46	71	42
9	*S.* Virchow 8	0	5	0	56	0	0	2	0	63	64	63	156
10	*S.* Muenchen	2	6	1	29	3	0	7	9	57	55	57	47
11	*S.* Mississippi	0	2	0	1	0	37	1	0	41	33	41	37
12	*S.* Typhimurium 12	0	13	0	15	7	0	4	0	39	9	39	22
13	*S.* Hvittingfoss	0	7	0	25	1	0	1	0	34	23	34	64
14	*S.* Anatum	0	1	7	18	1	0	4	3	34	32	34	36
15	*S.* Aberdeen	0	1	0	32	0	0	0	0	33	37	33	70
16	*S.* Typhimurium U290	2	5	0	2	0	0	19	4	32	4	32	28
17	*S.* Singapore	0	17	0	3	3	0	1	4	28	19	28	23
18	*S.* Waycross	0	9	0	18	0	0	0	0	27	39	27	50
19	*S.* Typhimurium 44	0	12	0	9	2	0	3	0	26	31	26	13
20	*S.* Virchow 34	0	1	0	19	0	0	5	0	25	32	25	41
21	*S.* Typhimurium 4	0	18	0	0	1	3	2	0	24	18	24	33
22	*S.* Typhimurium 126	0	8	0	5	3	0	2	6	24	30	24	65
23	*S.* Montevideo	0	15	0	7	1	0	0	0	23	7	23	30
24	*S.* Potsdam	1	4	0	11	2	1	3	0	22	21	22	26
25	*S.* Agona	0	5	0	9	1	1	4	0	20	18	20	25