

# Communicable diseases surveillance

## Highlights for 1st quarter, 2005

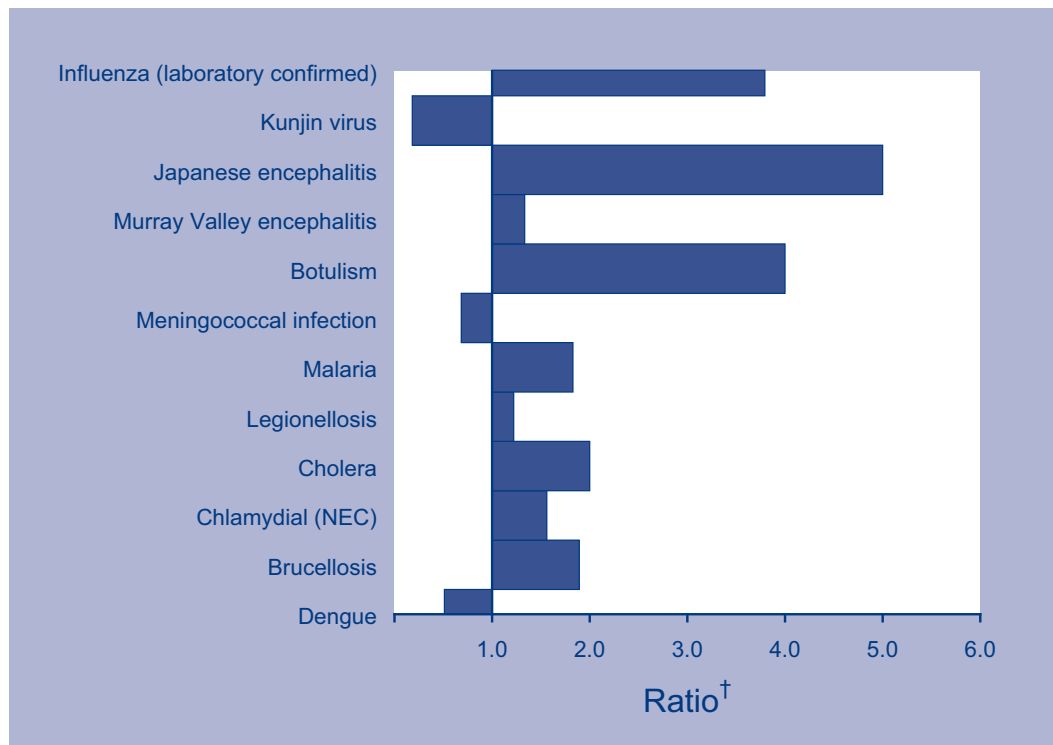
Communicable disease surveillance highlights report on data from various sources, including the National Notifiable Diseases Surveillance System (NNDSS) and several disease specific surveillance systems that provide regular reports to Communicable Diseases Intelligence. These national data collections 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 first quarter of 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 influenza (laboratory-confirmed), Japanese encephalitis virus, Murray Valley encephalitis, Botulism, Meningococcal infection, Malaria, Legionellosis, Cholera, Chlamydial (NEC), Brucellosis and Dengue.

encephalitis virus, botulism, malaria, legionellosis, cholera, chlamydial infection and brucellosis. The number of notifications received was below the five year mean for meningococcal infections, Kunjin virus and dengue.

**Figure 1. Selected\* diseases from the National Notifiable Diseases Surveillance System, comparison of provisional totals for the period 1 January to 31 March 2005 with historical data\***



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

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

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

*Gastrointestinal illnesses***Botulism**

One case of botulism was reported in this quarter. The case was in a 4-month-old male in Queensland, who lived on a rural property with his parents and two siblings. The infant had only been breast-fed and did not have direct exposure to honey, a common risk factor for this disease as it can contain *Clostridium botulinum* spores.<sup>1,2</sup> Stool samples from the case tested positive for botulinum toxin A.

*Quarantinable diseases***Cholera**

Two cases of cholera were reported by Victoria in this quarter. The cases were in a 71-year-old female and a 45-year-old female, where both were infected with *Vibrio cholerae inaba*. The cases were in recent Liberian refugees who travelled from a camp in Tanzania. The cases were symptomatic in-flight and were hospitalised soon after arrival. Active surveillance for other cases was instigated by the Victorian health department, and factsheets were distributed to passengers on the same flight.

The cases were notified to the World Health Organization through the Australian Government Department of Health and Ageing's National Incident Room. To prevent further imported cases, the Communicable Diseases Network Australia is working with the Australian Department of Health and Ageing and the Department of Immigration, Multicultural and Indigenous Affairs to provide health screening and health advice to incoming refugees.

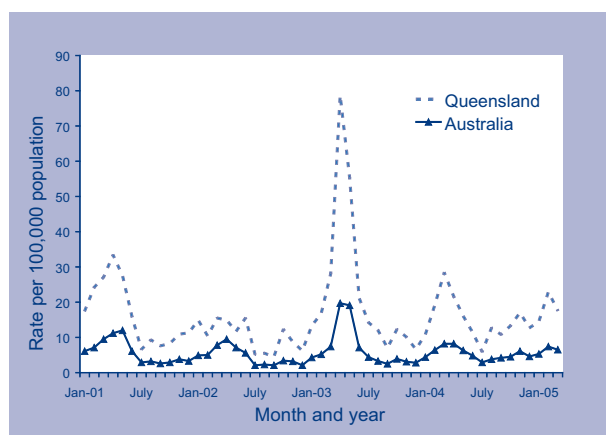
*Vaccine preventable diseases***Influenza**

There were 378 cases of laboratory-confirmed influenza in the first quarter 2005. This was nearly four times the average number of cases for this time of year. Two hundred and seventy-six cases (73% 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 using an enzyme immunoassay test and may not have had influenza. To increase the specificity of the surveillance, the national surveillance case definition for influenza is currently under review.

*Vectorborne diseases***Barmah Forest virus infection**

There were 327 notifications of Barmah Forest virus (BFV) infection in this quarter, of which 178 notifications (54%) were from Queensland. There has been a small increase in the rate of notifications in Queensland since July 2004. Rates of Barmah Forest virus are shown in Figure 2.

**Figure 2. Notification rates of Barmah Forest virus infections, Queensland, compared to national rates, 1 January 2001 to 31 March 2005, by month of onset**



New South Wales has noted an increase in BFV infection since 2000. The number of notifications has approximately doubled (from 195 cases in 2000 to 401 cases in 2004). The majority of these cases were identified in coastal areas.<sup>3</sup> It is difficult to determine the factors that have contributed to the increase in notifications in New South Wales as little is known about the natural cycle of BFV.<sup>4</sup> The increase in notifications could be a result of increased awareness of the clinical disease by doctors or artefacts in laboratory testing.<sup>4</sup>

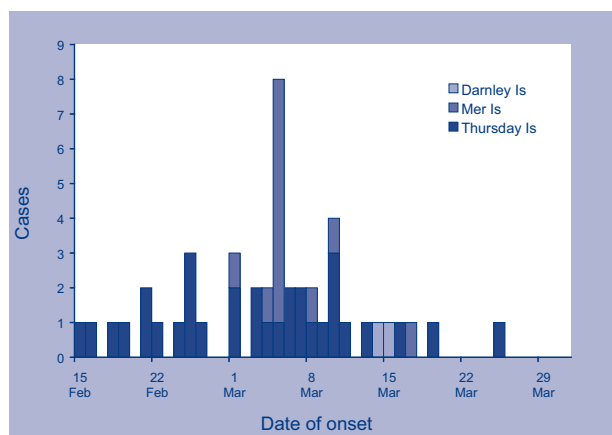
**Japanese encephalitis virus**

A single case of Japanese encephalitis virus (JEV) was reported from Queensland. The case was most likely exposed to JEV on Horn Island or in Port Moresby (Papua New Guinea) and had been vaccinated against JEV.

## Dengue

There were 94 notifications of dengue during this quarter, which represents a fourfold increase compared to the previous quarter. In Queensland, where 69 per cent (65/94) of notified cases occurred, an outbreak of dengue type 4 was reported.<sup>5</sup> The outbreak started on Thursday Island, Torres Strait in February 2005. A Dengue Action Response Team was mobilised immediately to Thursday Island where the first case was a local resident without a travel history. So far, there have been 46 confirmed cases of whom two are epidemiologically linked and there are approximately 40 cases pending laboratory confirmation. The majority of the cases identified in the outbreak were on Thursday Island (n=32), however, there were also cases reported on Mer Island (n=12) and Darnley Island (n=2) (Figure 3).

**Figure 3. Place of acquisition of Torres Strait dengue type 4 outbreak, 15 February to 31 March 2005, by date of onset**



## Malaria

There were 358 cases of malaria reported in the first quarter of 2005. The majority of the cases were reported by Queensland (n=139, 39%) and New South Wales (n=117, 33%). The notifications represent almost a twofold increase compared to the five year-to-date mean. The increase in malaria notifications can be attributed to the recent resettlement of refugees from both East and West Africa who had high rates of malaria infection. In the Northern Territory, public health precautions were taken to prevent the re-introduction of endemic malaria due to the refugee arrivals.<sup>6</sup> The refugees were screened immediately after arrival and parasitemic individuals were hospitalised until cured.

Of all notifications of malaria in this quarter, 57 per cent were male and 42 per cent were female. Of cases where the malaria species was known (n=200),

most infections were due to *Plasmodium falciparum* (75%), *Plasmodium vivax* (14%) and *Plasmodium ovale* (4%). The other cases were infected by a combination of malaria species (7%).

## Murray Valley encephalitis virus

Two cases of Murray Valley encephalitis virus (MVEV) were reported in this quarter. Both cases were detected in the high endemic period for MVEV, which is between March and May.<sup>7</sup> One case was in a 3-year-old boy from the Northern Territory who had travelled from Darwin to Katherine due to threats from Severe Tropical Cyclone Ingrid. The other case was in a 30-year-old male from Normanton in North Queensland. This is the second case of MVEV in Queensland in the last five years, where there was a case of MVEV in a 3-year-old Mount Isa boy in 2001.

Sentinel chicken seroconversions for MVEV were reported in Howard Springs and Katherine in February and March. Due to the recent human cases and the positive readings from sentinel chicken, Queensland and the Northern Territory health departments have issued media alerts to prevent further cases of MVEV.

## Zoonoses

### Brucellosis

Both Queensland and Victoria reported cases of brucellosis. The species in the Victorian case was *Brucella melitensis*, and was found in an abattoir worker. The Victorian Department of Primary Industries advised that the case was unlikely to have been acquired within the abattoir as *Brucella melitensis* is not detected in Australian stock. The case was probably acquired in Kenya prior to the person's arrival in Australia.

Thirteen cases were reported by Queensland. Most of the cases were male (n=11), where the average age was 33 years (range 20–51). Most of these cases were associated with farming or pig shooting. The *Brucella* species in three of the cases was identified as *Brucella suis*.

### Scrub typhus

Fourteen soldiers in a base at Townsville, Queensland contracted scrub typhus in this quarter.<sup>8</sup> The cases were initially suspected to be leptospirosis, but serological tests led to the diagnosis of scrub typhus. The disease is spread to humans as a zoonosis by the bite of the larval stage of trombiculid mites. Previous clusters of scrub typhus have been documented in Queensland, including two clusters at military bases in 1996 and 1997.<sup>9,10</sup>

## Other bacterial infections

### Meningococcal infections

There were 75 notifications of meningococcal infection during the quarter, which was two-thirds the average number reported in the corresponding quarter over the previous five years. Of the 75 cases, meningococcal serogroup data was available on 64 cases. There were 41 serogroup B (64%), 14 serogroup C (22%) and two cases each of serogroup W135 (3%) and serogroup Y (3%).

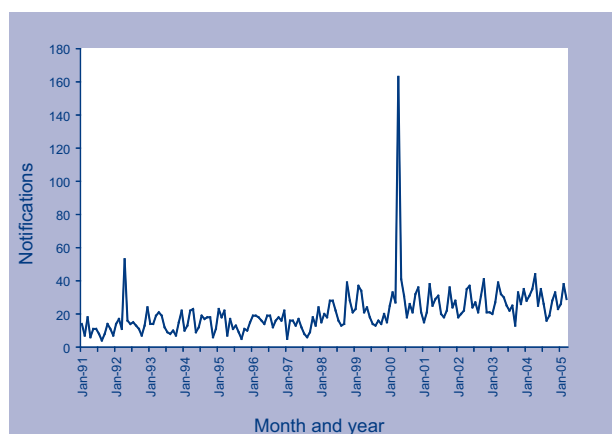
### Legionellosis

There were 93 cases of legionellosis notified in the quarter, which was 20 per cent above the average reported in the corresponding quarter over the previous five years. Of cases where the *Legionella* species was known (n=87), 57 per cent were *Legionella pneumophila* (n=50), 41 per cent were *Legionella longbeachae* (n=36) and one per cent was *Legionella micdadei* (n=1).

A small outbreak of *Legionella pneumophila* occurred in Wollongong, a southern coastal city in New South Wales. The outbreak affected five people, ranging from 31 to 84 years of age. Cooling towers from three buildings in the central district of Wollongong tested positive for *Legionella pneumophila* and were cleaned to prevent further cases.

In 2003, the laboratory cut-off values for *Legionella* serology tests were revised in Victoria and South Australia to increase specificity. Tasmania uses laboratories in both Victoria and South Australia for serological diagnoses of legionellosis. This change should have decreased the number of cases notified had disease activity remained stable. However, there has been a slight but steady increase in notifications since 2000 (Figure 4). The Communicable Diseases Network Australia is monitoring the

**Figure 4. Trends in notification of legionellosis, Australia, 1991 to 2005, by month of onset**



legionellosis trends and the Victorian health department has undertaken a health promotion campaign to inform the public about the disease.

### With thanks to:

David Coleman (Health Department Tasmania)

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## Tables

A summary of diseases currently being reported by each jurisdiction is provided in Table 1. There were 30,752 notifications to the National Notifiable Diseases Surveillance System (NNDSS) with a notification date between 1 January and 31 March 2005 (Table 2). The notification rate of diseases per 100,000 population for each State or Territory is presented in Table 3.

There were 4,127 reports received by the Virology and Serology Laboratory Reporting Scheme (LabVISE) in the reporting period, 1 January to 31 March 2005 (Tables 4 and 5).

**Table 1. Reporting of notifiable diseases by jurisdiction**

Disease	Data received from:	Disease	Data received from:
<b>Bloodborne diseases</b>		<b>Vaccine preventable diseases</b>	
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
<b>Gastrointestinal diseases</b>		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	<b>Vectorborne diseases</b>	
Hepatitis E	All jurisdictions	Barmah Forest virus infection	All jurisdictions
Listeriosis	All jurisdictions	Flavivirus infection (NEC) <sup>†</sup>	All jurisdictions
Salmonellosis	All jurisdictions	Dengue	All jurisdictions
Shigellosis	All jurisdictions	Japanese encephalitis virus	All jurisdictions
SLTEC, VTEC	All jurisdictions	Kunjin virus <sup>‡</sup>	All jurisdictions except ACT
Typhoid	All jurisdictions	Malaria	All jurisdictions
<b>Quarantinable diseases</b>		Murray Valley encephalitis virus <sup>‡</sup>	All jurisdictions except ACT
Cholera	All jurisdictions	Ross River virus infection	All jurisdictions
Plague	All jurisdictions	<b>Zoonoses</b>	
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
<b>Sexually transmissible infections</b>		Ornithosis	All jurisdictions
Chlamydial infection	All jurisdictions	Q fever	All jurisdictions
Donovanosis	All jurisdictions	<b>Other bacterial infections</b>	
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		

\* Laboratory confirmed influenza is not notifiable in the Australian Capital Territory 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 January to 31 March 2005, by date of onset\*

Disease	State or territory							Total 1st quarter 2005 <sup>1</sup>	Total 4th quarter 2004	Total 1st quarter 2004	Last 5 years mean 1st quarter	Year to date 2005	Last 5 years YTD mean	Ratio <sup>†</sup>	
	ACT	NSW	NT	Qld	SA	Tas	Vic								WA
<b>Bloodborne diseases</b>															
Hepatitis B (incident)	2	17	0	14	3	0	25	9	70	63	71	75.0	70	75.0	0.9
Hepatitis B (unspecified)	17	860	26	239	54	12	421	120	1,750	1,681	1,520	1,474.0	1,750	1,474.0	1.2
Hepatitis C (incident)	1	2	1	0	8	3	5	23	40	87	91	113.6	40	113.6	0.4
Hepatitis C (unspecified)	40	1,467	71	710	89	57	717	266	3,422	3,605	3,575	3,833.8	3,422	3,833.8	0.9
Hepatitis D	0	3	0	1	0	0	0	0	4	5	4	5.2	4	5.2	0.8
<b>Gastrointestinal diseases</b>															
Botulism	0	0	0	1	0	0	0	0	1	0	1	0.3	1	0.3	4.0
Campylobacteriosis <sup>2</sup>	118	NIN	58	1,026	440	195	1,664	610	4,110	4,516	4,300	3,146.6	4,110	3,146.6	1.3
Cryptosporidiosis <sup>†</sup>	4	134	39	719	58	1	140	60	1,155	449	528	794.5	1,155	794.5	1.5
Haemolytic uraemic syndrome	0	3	0	1	0	0	0	0	4	6	3	2.6	4	2.6	1.5
Hepatitis A	3	21	2	12	2	1	23	17	81	61	108	139.0	81	139.0	0.6
Hepatitis E	0	3	0	3	0	0	7	2	15	6	11	5.4	15	5.4	2.8
Listeriosis	0	8	0	1	1	0	1	2	13	14	16	16.6	13	16.6	0.8
Salmonellosis (NEC)	31	684	117	877	151	41	594	208	2,703	1,964	2,763	2,211.0	2,703	2,211.0	1.2
Shigellosis	3	40	57	27	11	1	33	51	223	144	153	131.4	223	131.4	1.7
SLTEC, VTEC <sup>3</sup>	0	2	0	3	6	0	1	1	13	14	14	14.0	13	14.0	0.9
Typhoid	0	16	0	1	1	0	5	1	24	16	30	25.6	24	25.6	0.9
<b>Quarantinable diseases</b>															
Cholera	0	0	0	0	0	0	2	0	2	0	1	1.0	2	1.0	2.0
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
Tularaemia	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 January to 31 March 2005, by date of onset,\***  
*continued*

Disease	State or territory								Total 1st quarter 2005 <sup>1</sup>	Total 4th quarter 2004	Total 1st quarter 2004	Last 5 years mean 1st quarter	Year to date 2005	Last 5 years YTD mean	Ratio <sup>†</sup>
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA							
<b>Sexually transmissible infections</b>															
Chlamydia infection	172	2,801	362	2,340	556	211	2,148	1,256	9,859	9,120	9,222	5,169.0	9,859	5,169.0	1.9
Donovanosis	0	0	2	3	0	0	0	0	5	4	2	4.8	5	4.8	1.0
Gonococcal infection	7	349	417	377	67	9	261	468	1,955	1,757	1,822	1,437.4	1,955	1,437.4	1.4
Syphilis (unspecified)	4	0	0	0	2	0	0	0	6	3	71	261.2	6	261.2	0.0
Syphilis < two years duration	2	39	22	21	4	1	19	4	112	153	145	77.7	112	77.7	1.4
Syphilis > two years duration	0	215	23	45	0	5	91	26	405	435	533	278.0	405	278.0	1.5
Syphilis - congenital	0	2	1	0	0	0	0	0	3	3	2	2.0	3	2.0	1.5
<b>Vaccine preventable disease</b>															
Diphtheria	0	0	0	0	0	0	0	0	0	0	0	0.2	0	0.2	0.0
<i>Haemophilus influenzae</i> type b	0	2	1	1	0	0	2	1	7	2	4	4.0	7	4.0	1.8
Influenza (laboratory confirmed) <sup>†</sup>	3	276	1	29	12	3	29	25	378	764	110	79.0	378	79.0	4.8
Measles	0	4	0	0	1	1	1	0	7	25	16	26.0	7	26.0	0.3
Mumps	0	32	3	1	3	0	4	6	49	38	24	26.2	49	26.2	1.9
Pertussis	45	771	31	325	272	7	291	192	1,934	3,385	1,122	1,099.6	1,934	1,099.6	1.8
Pneumococcal disease (invasive) <sup>†</sup>	10	74	10	41	17	8	54	26	240	461	326	232.0	240	232.0	1.0
Poliomyelitis	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0.0	0.0
Rubella	0	2	0	2	0	0	3	0	7	14	8	35.8	7	35.8	0.2
Rubella - congenital	0	0	0	0	0	0	0	0	0	0	1	0.4	0	0.4	0.0
Tetanus	0	0	0	0	0	0	0	0	0	1	2	1.0	0	1.0	0.0
<b>Vectorborne diseases</b>															
Barmah Forest virus infection	0	108	13	178	9	0	3	16	327	274	318	249.2	327	249.2	1.3
Dengue	1	10	9	65	1	0	3	5	94	19	236	117.6	94	117.6	0.8
Flavivirus infection (NEC)	0	3	0	8	0	0	0	0	11	6	43	25.0	11	25.0	0.4
Japanese encephalitis virus <sup>†</sup>	0	0	0	1	0	0	0	0	1	1	1	0.2	1	0.2	5.0
Kunjin virus <sup>†</sup>	0	0	0	1	0	0	0	0	1	2	8	3.3	1	3.3	0.3
Malaria	5	117	15	139	22	10	27	23	358	149	124	167.8	358	167.8	2.1
Murray Valley encephalitis virus <sup>†</sup>	0	0	1	1	0	0	0	0	2	0	0	1.5	2	1.5	1.3
Ross River virus infection	3	115	107	542	12	0	11	42	832	237	2,443	1,395.4	832	1,395.4	0.6

**Table 2. Notifications of diseases received by State and Territory health authorities in the period 1 January to 31 March 2005, by date of onset,\***  
*continued*

Disease	State or territory								Total 1st quarter 2005 <sup>†</sup>	Total 4th quarter 2004	Total 1st quarter 2004	Last 5 years mean 1st quarter	Year to date 2005	Last 5 years YTD mean	Ratio <sup>†</sup>
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA							
<b>Zoonoses</b>															
Anthrax <sup>‡</sup>	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0.0	0.0
Australian bat lyssavirus <sup>‡</sup>	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0.0	0.0
Brucellosis	0	0	0	13	0	0	0	1	0	6	14	6.6	14	6.6	2.1
Leptospirosis	0	14	1	21	0	0	0	1	0	69	37	60.0	37	60.0	0.6
Lyssavirus unspecified <sup>‡</sup>	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0.0	0.0
Ornithosis	0	20	0	1	0	0	0	9	1	73	31	33.6	31	33.6	0.9
Q fever	0	24	0	37	4	0	0	3	0	117	68	147.0	68	147.0	0.5
<b>Other bacterial infections</b>															
Legionellosis	0	27	1	12	17	2	23	11	80	93	93	65.8	93	65.8	1.4
Leprosy	0	0	0	2	0	0	0	2	0	2	4	1.6	4	1.6	2.5
Meningococcal infection	2	33	2	15	3	0	13	7	83	97	75	95.2	75	95.2	0.8
Tuberculosis	0	68	5	25	10	2	81	16	330	244	207	212.4	207	212.4	1.0
<b>Total</b>	473	8,366	1,398	7,881	1,836	585	6,716	3,497	30,201	30,473	30,752	23,306.0	30,752	23,306.0	1.3

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 where it is only notifiable as 'foodborne disease' or 'gastroenteritis in an institution'.

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

\* 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.

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

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

NN Not notifiable.

NEC Not elsewhere classified.

**Table 3. Notification rates of diseases by state or territory, 1 January to 31 March 2005.  
(Rate per 100,000 population)**

Disease <sup>1</sup>	State or territory								Australia
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	
<b>Bloodborne diseases</b>									
Hepatitis B (incident)	2.5	1.0	0.0	1.4	0.8	0.0	2.0	1.8	1.4
Hepatitis B (unspecified)	21.0	51.1	52.0	24.6	14.1	10.8	33.9	24.2	34.8
Hepatitis C (incident)	1.2	0.1	2.0	NN	2.1	0.0	0.4	4.6	0.8
Hepatitis C (unspecified)	49.4	87.2	142.1	73.2	23.2	51.4	57.7	53.7	68.1
Hepatitis D	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.1
<b>Gastrointestinal diseases</b>									
Botulism	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Campylobacteriosis <sup>2</sup>	145.7	NN	116.1	105.7	114.7	161.0	133.8	123.1	81.8
Cryptosporidiosis	4.9	8.0	78.0	74.1	15.1	0.8	11.3	12.1	23.0
Haemolytic uraemic syndrome	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Hepatitis A	3.7	1.2	4.0	1.2	0.5	0.8	1.9	3.4	1.6
Hepatitis E	0.0	0.2	0.0	0.3	0.0	0.0	0.6	0.4	0.3
Listeriosis	0.0	0.5	0.0	0.1	0.3	0.0	0.1	0.4	0.3
Salmonellosis (NEC)	38.3	40.6	234.1	90.4	39.4	34.0	47.8	42.0	53.8
Shigellosis	3.7	2.4	114.1	2.8	2.9	0.8	2.7	10.3	4.4
SLTEC, VTEC <sup>3</sup>	0.0	0.1	0.0	0.3	1.6	0.0	0.1	0.2	0.3
Typhoid	0.0	1.0	0.0	0.1	0.3	0.0	0.4	0.2	0.5
<b>Quarantinable diseases</b>									
Cholera	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	<0.1
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
<b>Sexually transmissible infections</b>									
Chlamydial infection	212.3	166.4	724.3	241.1	145.0	185.8	172.8	253.5	196.1
Donovanosis	0.0	0.0	4.0	0.3	0.0	0.0	0.0	0.0	0.1
Gonococcal infection	8.6	20.7	834.4	38.8	17.5	7.5	21.0	94.4	38.9
Syphilis (unspecified)	4.9	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.1
Syphilis < 2 years duration	2.5	2.3	44.0	2.2	1.0	0.8	1.5	0.8	2.2
Syphilis > 2 years duration	0.0	12.8	46.0	4.6	0.0	4.1	7.3	5.2	8.1
Syphilis - congenital	0.0	0.1	2.0	0.0	0.0	0.0	0.0	0.0	0.1

**Table 3. Notification rates of diseases by state or territory, 1 January to 31 March 2005. (Rate per 100,000 population) , *continued***

Disease <sup>1</sup>	State or territory								Australia
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	
<b>Vaccine preventable diseases</b>									
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	2.0	0.1	0.0	0.0	0.2	0.2	0.1
Influenza (laboratory confirmed)	3.7	16.4	2.0	3.0	3.1	2.5	2.3	5.0	7.5
Measles	0.0	0.2	0.0	0.0	0.3	0.8	0.1	0.0	0.1
Mumps	0.0	1.9	6.0	0.1	0.8	0.0	0.3	1.2	1.0
Pertussis	55.6	45.8	62.0	33.5	70.9	5.8	23.4	38.7	38.5
Pneumococcal disease (invasive)	12.3	4.4	20.0	4.2	4.4	6.6	4.3	5.2	4.8
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	0.2	0.0	0.0	0.2	0.0	0.1
Rubella - congenital	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tetanus	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Vectorborne diseases</b>									
Barmah Forest virus infection	0.0	6.4	26.0	18.3	2.3	0.0	0.2	3.2	6.5
Dengue	1.2	0.6	18.0	6.7	0.3	0.0	0.2	1.0	1.9
Flavivirus infection (NEC)	0.0	0.2	0.0	0.8	0.0	0.0	0.0	0.0	0.2
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	0.0	0.0	0.0
Malaria	6.2	7.0	30.0	14.3	5.7	8.3	2.2	4.6	7.1
Murray Valley encephalitis virus	0.0	0.0	2.0	0.1	0.0	0.0	0.0	0.0	0.0
Ross River virus infection	3.7	6.8	214.1	55.8	3.1	0.0	0.9	8.5	16.6
<b>Zoonoses</b>									
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	1.3	0.0	0.0	0.1	0.0	0.3
Leptospirosis	0.0	0.8	2.0	2.2	0.0	0.0	0.1	0.0	0.7
Lyssavirus unspecified	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ornithosis	0.0	1.2	0.0	0.1	0.0	0.0	0.7	0.2	0.6
Q fever	0.0	1.4	0.0	3.8	1.0	0.0	0.2	0.0	1.4
<b>Other bacterial infections</b>									
Legionellosis	0.0	1.6	2.0	1.2	4.4	1.7	1.9	2.2	1.9
Leprosy	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.4	0.1
Meningococcal infection	2.5	2.0	4.0	1.5	0.8	0.0	1.0	1.4	1.5
Tuberculosis	0.0	4.0	10.0	2.6	2.6	1.7	6.5	3.2	4.1

1. Rates are subject to retrospective revision.

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

3. 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<sup>1</sup> for the reporting period 1 January to 31 March 2005, and total reports for the year<sup>2</sup>**

	State or territory								This period 2005	This period 2004	Year to date 2005 <sup>3</sup>	Year to date 2004
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA				
<b>Measles, mumps, rubella</b>												
Measles virus	–	–	–	1	1	–	–	–	2	7	2	7
Mumps virus	–	1	–	–	3	–	1	–	5	2	5	2
Rubella virus	–	–	–	1	–	–	1	2	4	6	4	6
<b>Hepatitis viruses</b>												
Hepatitis A virus	–	–	–	3	2	–	–	1	6	10	6	10
Hepatitis D virus	–	–	–	–	1	–	1	–	2	3	2	3
Hepatitis E virus	–	–	–	–	–	–	5	–	5	5	5	5
<b>Arboviruses</b>												
Ross River virus	–	5	23	161	16	–	2	1	208	431	208	431
Barmah Forest virus	–	1	–	43	10	–	–	–	54	85	54	85
Flavivirus (unspecified)	–	–	3	10	–	–	–	–	13	49	13	49
<b>Adenoviruses</b>												
Adenovirus not typed/ pending	–	15	–	16	53	–	1	–	85	171	85	171
<b>Herpesviruses</b>												
Herpes virus type 6	–	–	–	–	–	–	1	–	1	–	1	–
Cytomegalovirus	6	39	2	26	64	1	6	–	144	208	144	208
Varicella-zoster virus	2	30	3	213	103	–	3	1	355	450	355	450
Epstein-Barr virus	–	7	27	214	177	1	17	109	552	629	552	629
<b>Other DNA viruses</b>												
Parvovirus	–	4	–	30	10	1	9	–	54	61	54	61
<b>Picornavirus family</b>												
Echovirus type 7	–	2	–	–	–	–	–	–	2	–	2	–
Echovirus type 18	1	5	–	–	–	–	–	–	6	3	6	3
Echovirus type 30	–	6	–	–	1	–	–	–	7	2	7	2
Poliovirus type 1 (uncharacterised)	–	2	–	–	–	–	–	–	2	2	2	2
Poliovirus type 2 (uncharacterised)	–	3	–	–	–	–	–	–	3	2	3	2
Poliovirus type 3 (uncharacterised)	–	1	–	–	–	–	–	–	1	–	1	–
Rhinovirus (all types)	1	52	–	–	14	–	–	–	67	81	67	81
Enterovirus type 71 (BCR)	1	–	–	–	–	–	–	–	1	2	1	2
Enterovirus not typed/ pending	–	15	–	4	1	–	2	–	22	42	22	42
<b>Ortho/paramyxoviruses</b>												
Influenza A virus	–	1	–	5	15	–	1	–	22	40	22	40
Influenza B virus	–	–	–	3	21	1	2	–	27	12	27	12
Parainfluenza virus type 1	–	1	–	1	4	–	1	–	7	40	7	40
Parainfluenza virus type 2	–	1	–	–	5	–	–	–	6	2	6	2
Parainfluenza virus type 3	–	17	–	–	20	–	–	–	37	88	37	88
Respiratory syncytial virus	–	35	–	39	12	2	1	–	89	200	89	200
<b>Other RNA viruses</b>												
HTLV-1	–	–	–	–	1	–	1	–	2	2	2	2
Rotavirus	–	10	–	–	36	–	1	–	47	77	47	77
Norwalk agent	–	–	–	–	–	–	2	–	2	83	2	83

**Table 4. Virology and serology laboratory reports by state or territory<sup>1</sup> for the reporting period 1 January to 31 March 2005, and total reports for the year,<sup>2</sup> *continued***

	State or territory								This period 2005	This period 2004	Year to date 2005 <sup>3</sup>	Year to date 2004
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA				
<b>Other</b>												
<i>Chlamydia trachomatis</i> not typed	10	205	3	506	415	13	4	1	1,157	1,185	1,157	1,185
<i>Chlamydia pneumoniae</i>	–	1	–	–	–	–	2	–	3	2	3	2
<i>Chlamydia psittaci</i>	–	1	–	–	–	–	13	–	14	62	14	62
<i>Mycoplasma pneumoniae</i>	–	7	2	86	69	1	61	8	234	355	234	355
<i>Mycoplasma hominis</i>	–	1	–	–	–	–	–	–	1	1	1	1
<i>Coxiella burnetii</i> (Q fever)	–	2	–	6	25	–	1	–	34	48	34	48
<i>Rickettsia prowazeki</i>	–	–	–	–	22	–	–	–	22	–	22	–
<i>Rickettsia tsutsugamushi</i>	–	–	–	–	11	–	–	–	11	–	11	–
<i>Rickettsia</i> - Spotted fever group	–	–	–	–	47	2	–	–	49	–	49	–
<i>Streptococcus</i> group A	–	2	–	75	–	–	27	–	104	125	104	125
<i>Yersinia enterocolitica</i>	–	4	–	–	–	–	–	–	4	1	4	1
<i>Brucella abortus</i>	–	–	–	–	–	–	1	–	1	3	1	3
<i>Brucella</i> species	–	–	–	2	–	–	–	–	2	–	2	–
<i>Bordetella pertussis</i>	–	12	3	78	201	–	87	–	381	156	381	156
<i>Legionella pneumophila</i>	–	–	–	–	2	–	4	–	6	20	6	20
<i>Legionella longbeachae</i>	–	–	–	–	7	–	4	–	11	16	11	16
<i>Cryptococcus</i> species	–	–	–	4	6	–	–	–	10	13	10	13
<i>Leptospira</i> species	–	–	–	3	–	–	–	–	3	13	3	13
<i>Treponema pallidum</i>	1	9	1	114	98	–	–	–	223	328	223	328
<i>Entamoeba histolytica</i>	–	–	–	2	–	–	2	–	4	4	4	4
<i>Toxoplasma gondii</i>	–	1	–	2	3	–	2	–	8	14	8	14
<i>Echinococcus granulosus</i>	–	1	–	–	4	–	–	–	5	4	5	4
<b>Total</b>	<b>22</b>	<b>499</b>	<b>67</b>	<b>1,648</b>	<b>1,480</b>	<b>22</b>	<b>266</b>	<b>123</b>	<b>4,127</b>	<b>5,145</b>	<b>4,127</b>	<b>5,145</b>

1. State or territory of postcode, if reported, otherwise state or territory of reporting laboratory.
  2. 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 January to 31 March 2005\***

State or territory	Laboratory	January 2005	February 2005	March 2005	Total this period
Australian Capital Territory	The Canberra Hospital	-	-	-	-
New South Wales	Institute of Clinical Pathology and Medical Research, Westmead	62	88	129	279
	New Children's Hospital, Westmead	29	47	43	119
	Repatriation General Hospital, Concord	-	-	-	-
	Royal Prince Alfred Hospital, Camperdown	29	30	3	62
	South West Area Pathology Service, Liverpool	-	-	-	0
Queensland	Queensland Medical Laboratory, West End	603	543	596	1,742
	Townsville General Hospital	-	-	-	-
South Australia	Institute of Medical and Veterinary Science, Adelaide	436	463	578	1,477
Tasmania	Northern Tasmanian Pathology Service, Launceston	6	6	10	22
	Royal Hobart Hospital, Hobart	-	-	-	-
Victoria	Monash Medical Centre, Melbourne	9	-	-	9
	Royal Children's Hospital, Melbourne	46	54	39	139
	Victorian Infectious Diseases Reference Laboratory, Fairfield	48	37	24	109
Western Australia	PathCentre Virology, Perth	-	-	-	-
	Princess Margaret Hospital, Perth	-	-	-	-
	Western Diagnostic Pathology	35	58	76	169
<b>Total</b>		<b>1,303</b>	<b>1,326</b>	<b>1,498</b>	<b>4,127</b>

\* The complete list of laboratories reporting for the 12 months, January to December 2005, 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.

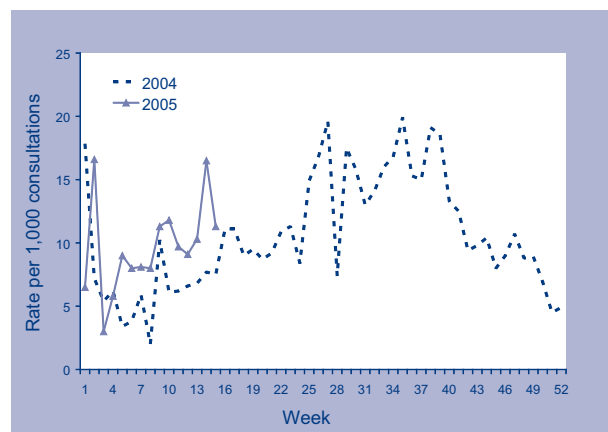
There are currently about 50 general practitioners participating in the network from all states and territories. Seventy-five per cent of these are in metropolitan areas and the remainder are rural based. Between 4,000 and 6,000 consultations are recorded each week.

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

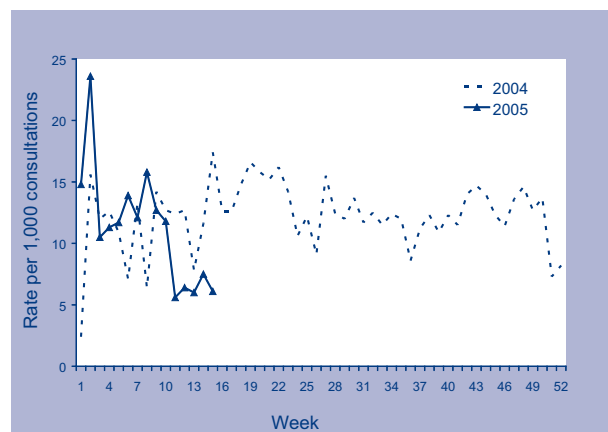
In 2005, six conditions are being monitored, four of which are related to communicable diseases. These include influenza, gastroenteritis, varicella and shingles. There are two definitions for influenza for 2005. A patient may be coded once or twice depending on their symptoms. The definition for influenza 1 will include more individuals. Definitions of these conditions were published in *Commun Dis Intell* 2005;29:91.

Data from 1 January to 31 March 2005 are shown as the rate per 1,000 consultations in Figures 5 and 6.

**Figure 5. Consultation rates for influenza-like illness, ASPREN, 1 January to 31 March 2005, by week of report**



**Figure 6. Consultation rates for gastroenteritis, ASPREN, 1 January to 31 March 2005, 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 October and 31 December 2003, at 24 months of age for the cohort born between 1 October and 31 December 2002, and at 6 years of age for the cohort born between 1 October and 31 December 1998 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](mailto:brynleyh@chw.edu.au).

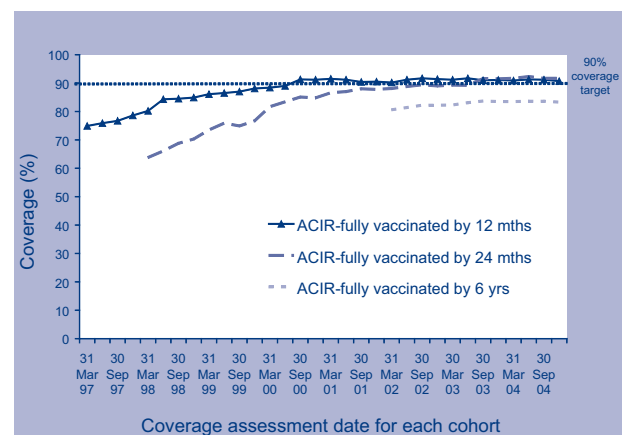
Immunisation coverage for children 'fully immunised' at 12 months of age for Australia decreased marginally from the last quarter by 0.4 percentage points to 90.7 per cent (Table 6). There was a substantial decrease in 'fully immunised' coverage by state or territory in Western Australia, with a decrease of 2.5 percentage points, and a substantial increase of 2.4 per cent in the Northern Territory, whilst all other jurisdictions experienced very little significant change in coverage. As expected, Western Australia also had decreases in coverage for individual vaccines.

There was no change in coverage for children 'fully immunised' at 24 months of age for Australia, which remained at 91.7 per cent (Table 7). Coverage for individual vaccines remained largely unchanged 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 six years of age for Australia and by state or territory. 'Fully immunised' coverage at six years of age for Australia was largely unchanged overall, apart from small decreases in South Australia (-1.5%), Queensland (-1.0%) and in the Northern Territory (-1.6%), also reflected in individual vaccines. Coverage for vaccines assessed at six years is at or near 85 per cent in the most jurisdictions, but Western Australia and Queensland remain below the average.

Figure 7 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. The figure shows that there have now been six 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. However, both measures have been above 90 per cent for this 18-month period and show levels of high coverage being maintained over a significant period of time.

**Figure 7. Trends in vaccination coverage, Australia, 1997 to 2004, by age cohorts**



**Table 6. Percentage of children immunised at 1 year of age, preliminary results by disease and state or territory for the birth cohort 1 October to 31 December 2003; assessment date 31 March 2005**

Vaccine	State or territory								Australia
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	
Number of children	1,061	21,546	857	12,581	4,338	1,487	15,793	6,086	63,749
Diphtheria, tetanus, pertussis (%)	93.4	92.1	92.9	92.2	92.0	94.6	92.6	90.3	92.2
Poliomyelitis (%)	93.4	92.0	92.3	92.0	91.8	94.2	92.5	90.2	92.0
<i>Haemophilus influenzae</i> type b (%)	95.9	94.2	97.2	94.2	95.1	95.6	94.4	94.1	94.4
Hepatitis B (%)	95.5	95.0	97.1	94.8	95.4	95.5	94.2	93.8	94.7
Fully immunised (%)	92.7	90.7	92.2	90.8	91.2	92.9	90.8	89.2	90.7
Change in fully immunised since last quarter (%)	-0.0	-0.0	+2.4	-0.6	+0.2	-0.1	-0.5	-2.5	-0.4

**Table 7. Percentage of children immunised at 2 years of age, preliminary results by disease and state or territory for the birth cohort 1 October to 31 December 2002; assessment date 31 March 2005<sup>5</sup>**

Vaccine	State or territory								Australia
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	
Total number of children	1,013	21,810	875	12,289	4,257	1,460	15,577	6,148	63,429
Diphtheria, tetanus, pertussis (%)	96.0	94.6	96.8	94.9	95.4	96.4	95.1	93.7	94.9
Poliomyelitis (%)	96.1	94.5	96.7	94.8	95.4	96.2	95.1	93.8	94.8
<i>Haemophilus influenzae</i> type b (%)	94.6	92.7	95.5	93.6	93.9	94.6	93.6	92.2	93.2
Measles, mumps, rubella (%)	94.5	92.8	96.2	93.6	94.3	94.8	94.0	92.2	93.4
Hepatitis B (%)	96.7	95.3	97.8	95.6	95.8	96.6	95.7	94.9	95.5
Fully immunised (%)	93.7	90.9	95.0	91.9	92.7	94.0	92.2	90.6	91.7
Change in fully immunised since last quarter (%)	+1.7	-0.2	+1.2	+0.3	-0.5	+1.1	-0.4	+0.7	0.0

\* The 12 months age data for this cohort was published in *Commun Dis Intell* 2004;28:297.

**Table 8. Percentage of children immunised at 6 years of age, preliminary results by disease and state or territory for the birth cohort 1 October to 31 December 1998; assessment date 31 March 2005**

Vaccine	State or territory								Australia
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	
Total number of children	1,042	21,913	779	12,533	4,668	1,655	16,293	6,663	65,546
Diphtheria, tetanus, pertussis (%)	90.9	85.2	85.5	82.0	84.3	86.4	86.9	81.6	84.7
Poliomyelitis (%)	91.2	85.1	87.8	82.2	84.3	86.5	87.0	81.9	84.8
Measles, mumps, rubella (%)	90.1	84.9	88.3	82.1	84.1	85.6	87.1	81.4	84.6
Fully immunised (%) <sup>1</sup>	89.8	83.7	85.1	80.6	82.8	84.2	85.8	79.8	83.3
Change in fully immunised since last quarter (%)	+2.7	-0.0	-1.6	-1.0	-1.5	+0.9	+0.1	-0.8	-0.3

*Meningococcal surveillance*

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

The reference laboratories of the Australian Meningococcal Surveillance Programme report data on the number of laboratory confirmed cases confirmed either by culture or by non-culture based techniques. Culture positive cases, where a *Neisseria meningitidis* is grown from a normally sterile site or skin, and non-culture based diagnoses, derived from results of nucleic acid amplification assays and serological techniques, are defined as invasive meningococcal disease (IMD) according to Public Health Laboratory Network definitions. Data contained in the quarterly reports are restricted to a description of the number of cases per jurisdiction, and serogroup, where known. A full analysis of laboratory confirmed cases of IMD is contained in the annual reports of the Programme, published in *Communicable Diseases Intelligence*. For more information see *Commun Dis Intell* 2005;29:93.

Laboratory confirmed cases of invasive meningococcal disease for the period 1 January to 31 March 2005, are included in this issue of *Communicable Diseases Intelligence* (Table 9)

*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.

**Table 9. Number of laboratory confirmed cases of invasive meningococcal disease, Australia, 1 January to 31 March 2005, by jurisdiction and serogroup**

Jurisdiction	Year	Serogroup							
		A Q1	B Q1	C Q1	Y Q1	W135 Q1	ND Q1	All Q1 YTD	
Australian Capital Territory	05		1	1				2	2
	04		(4)	(2)				(6)	(6)
New South Wales	05		15	7	1		2	25	25
	04		(15)	(4)	(0)		(6)	(25)	(25)
Northern Territory	05		1	0				1	1
	04		(5)	(0)				(5)	(5)
Queensland	05		12	4				16	16
	04		(12)	(7)			(2)	(1)	(21)
South Australia	05		0	2				2	2
	04		(4)	(0)				(4)	(4)
Tasmania	05		0					0	0
	04		(2)				(2)	(4)	(4)
Victoria	05		7	1	0	2	1	11	11
	04		(10)	(4)	(2)	(0)	(2)	(17)	(17)
Western Australia	05		4	0	1			5	5
	04		(4)	(1)	(0)			(5)	(5)
Total	05		40	15	2	2	3	62	62
	04		(56)	(18)	(2)	(0)	(11)	(87)	(87)

\* Numbers of laboratory-confirmed diagnoses of invasive meningococcal disease made in the same period in 2004 are shown in parentheses.

Q1 = 1st quarter.

YTD = Year to 31 March 2005.

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 October to 31 December 2004, as reported to 31 March 2005, are included in this issue of Communicable Diseases Intelligence (Tables 10 and 11).

**Table 10. New diagnoses of HIV infection, new diagnoses of AIDS, and deaths following AIDS occurring in the period 1 October to 31 December 2004, by sex and state or territory of diagnoses**

	Sex	State or territory								Totals for Australia			
		ACT	NSW	NT	Qld	SA	Tas	Vic	WA	This period 2004	This period 2003	YTD 2004	YTD 2003
HIV diagnoses	Female	0	12	0	7	2	0	6	2	29	19	116	83
	Male	0	72	0	30	5	0	51	9	167	180	737	770
	Sex not reported	0	0	0	0	0	0	0	0	0	2	2	7
	Total*	0	84	0	37	7	0	57	11	196	201	856	861
AIDS diagnoses	Female	0	2	0	2	1	0	1	0	6	2	17	12
	Male	0	14	1	2	1	0	8	3	29	60	138	206
	Total*	0	16	1	4	2	0	9	3	35	62	156	219
AIDS deaths	Female	0	0	0	0	0	0	1	0	1	1	5	9
	Male	0	10	0	2	1	0	2	3	18	24	71	80
	Total	0	10	0	2	1	0	3	3	19	25	76	89

\* Totals include people whose sex was reported as transgender.

**Table 11. Cumulative diagnoses of HIV infection, AIDS, and deaths following AIDS since the introduction of HIV antibody testing to 31 December 2004 and reported by 31 March 2005, by sex and state or territory**

	Sex	State or territory								Australia
		ACT	NSW	NT	Qld	SA	Tas	Vic	WA	
HIV diagnoses	Female	31	781	18	230	84	8	312	164	1,628
	Male	246	12,663	123	2,436	833	89	4,768	1,097	22,255
	Not reported	0	238	0	0	0	0	22	0	260
	Total*	277	13,710	141	2,675	918	97	5,121	1,268	24,207
AIDS diagnoses	Female	9	225	2	63	31	4	97	35	466
	Male	92	5,165	42	976	387	48	1,873	410	8,993
	Total*	101	5,405	44	1,041	419	52	1,980	447	9,489
AIDS deaths	Female	6	128	1	41	20	2	59	23	280
	Male	71	3,506	26	638	269	32	1,369	287	6,198
	Total*	77	3,643	27	681	289	34	1,436	311	6,498

\* Totals include people whose sex was reported as transgender.

## 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 NEPSS 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*.

NEPSS is operated by the Microbiological Diagnostic Unit, Public Health Laboratory, Department of Microbiology and Immunology, University of Melbourne; and is overseen by a Steering Committee of state, territory and commonwealth stakeholders. NEPSS can be contacted at the above address or by telephone: +61 3 8344 5701, facsimile: +61 3 8344 7833 or email [joanp@unimelb.edu.au](mailto:joanp@unimelb.edu.au)

Scientists, diagnostic and reference laboratories contribute data to NEPSS, which is supported by state and territory health departments and the Australian Government Department of Health and Ageing.

Reports to the National Enteric Pathogens Surveillance System of *Salmonella* infection for the period 1 January to 31 March 2005 are included in

Tables 12 and 13. Data include cases reported and entered by 21 April 2005. 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* 2005;29:93–94.

### First quarter 2005

The total number of reports to NEPSS of human *Salmonella* infection increased to 2,551 in the first quarter of 2005, 45 per cent more than in the fourth quarter of 2004. This count is six per cent less than the comparable first quarter of 2004 but similar to the historical mean for this time of year.

During the first quarter of 2005, the 25 most common *Salmonella* types in Australia accounted for 1,789 cases, 70 per cent of all reported human *Salmonella* infections. Twenty-one of the 25 most common *Salmonella* infections in the first quarter of 2005 were among the 25 most commonly reported in the last quarter of 2004.

*S. Typhimurium* phage type 197 was the most common cause of human salmonellosis this quarter, reflecting a large point-source outbreak in Victoria in early 2005 and steady increases in sporadic cases of this phage type in Queensland and New South Wales since 2002. An outbreak in New South Wales ensured the continued prominence of *S. Typhimurium* phage type 170/108, although counts of this strain have declined in Victoria and South Australia.

Reports of other common salmonellae with recent increases and counts that remain above historical averages include *S. Saintpaul* (in northern Australia), *S. Aberdeen* (particularly in Queensland), *S. subsp I ser 16:l,v:-* (in New South Wales) and *S. Corvallis* and *S. Enteritidis* 6a (both typically acquired overseas). *S. Typhimurium* phage types 9 and 135 remain common, although less so than in the mid to late 1990s.

**Acknowledgement:** We thank scientists, contributing laboratories, state and territory health departments, and the Australian Government Department of Health and Ageing for their contributions to NEPSS.

**Table 12. Reports to the National Enteric Pathogens Surveillance System of *Salmonella* isolated from humans during the period 1 January to 31 March 2005, as reported to 21 April 2005**

	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Australia
Total all <i>Salmonella</i> for quarter	30	668	106	809	142	39	559	198	2,551
Total contributing <i>Salmonella</i> types	20	129	42	101	46	9	95	70	234

Table 14. Top 25 *Salmonella* types identified in Australia, 1 January to 31 March 2005, by state or territory

National rank	Salmonella type	State or territory								Total 1st quarter 2005	Last 10 years mean 1st quarter	Year to date 2005	Year to date 2004
		ACT	NSW	NT	Qld	SA	Tas	Vic	WA				
1	<i>S. Typhimurium</i> 197	1	51	0	61	3	2	262	1	381	18	381	86
2	<i>S. Typhimurium</i> 170	5	128	0	10	1	0	16	3	163	69	163	197
3	<i>S. Typhimurium</i> 9	1	51	3	8	33	3	51	7	157	176	157	147
4	<i>S. Saintpaul</i>	2	9	17	102	3	0	6	12	151	125	151	132
5	<i>S. Typhimurium</i> 135	5	43	1	25	2	6	26	16	124	236	124	198
6	<i>S. Virchow</i> 8	0	7	1	85	2	0	3	1	99	85	99	143
7	<i>S. Chester</i>	0	13	1	38	3	0	2	14	71	66	71	78
8	<i>S. Birkenhead</i>	0	34	0	35	0	0	1	0	70	96	70	107
9	<i>S. Aberdeen</i>	0	6	2	56	0	0	1	0	65	39	65	34
10	<i>S. Muenchen</i>	1	15	6	23	3	0	4	12	64	58	64	45
11	<i>S. Hvitvingfoss</i>	0	2	1	51	0	0	1	0	55	30	55	64
12	<i>S. Typhimurium</i> 12	0	17	3	15	2	0	9	8	54	27	54	140
13	<i>S. Infantis</i>	0	13	1	6	10	0	19	2	51	49	51	52
14	<i>S. Waycross</i>	0	13	0	28	0	0	3	0	44	44	44	59
15	<i>S. Mississippi</i>	0	2	0	0	1	23	4	2	32	36	32	41
16	<i>S. Typhimurium</i> RDNC	0	6	4	4	5	0	4	2	25	30	25	25
17	<i>S. Typhimurium</i> 4	0	20	0	2	1	0	2	0	25	23	25	29
18	<i>S. subsp I ser 16:i,v:-</i>	0	16	2	6	0	0	0	1	25	11	25	15
19	<i>S. Corvallis</i>	1	3	1	4	0	0	8	7	24	2	24	14
20	<i>S. Singapore</i>	0	6	0	5	0	0	3	5	19	21	19	40
21	<i>S. Typhimurium</i> 108	0	12	0	0	7	0	0	0	19	9	19	41
22	<i>S. Enteritidis</i> 6a	0	7	0	2	2	0	3	5	19	3	19	9
23	<i>S. Anatum</i>	0	3	0	11	0	0	1	3	18	32	18	46
24	<i>S. Litchfield</i>	0	2	9	4	0	0	0	3	18	13	18	14
25	<i>S. Enteritidis</i> 26	1	0	0	13	0	0	1	1	16	14	16	23