

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

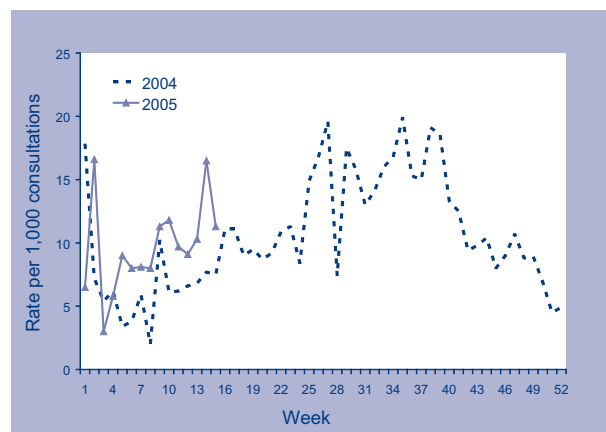
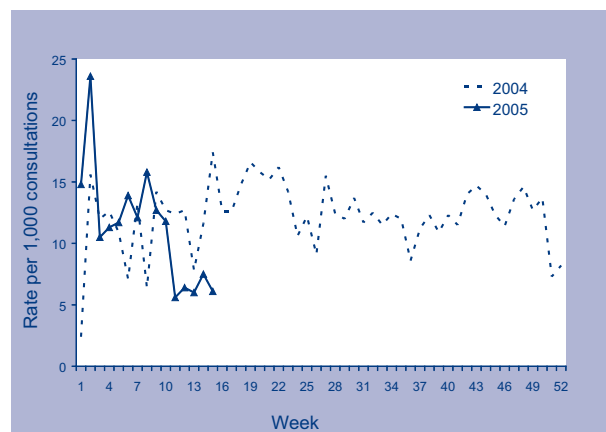


Figure 6. Consultation rates for gastroenteritis, ASPREN, 1 January to 31 March 2005, by week of report



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.

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

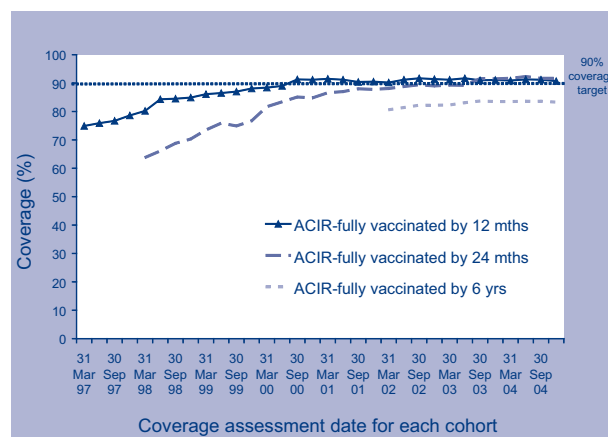


Table 6. Percentage of children immunised at 1 year of age, preliminary results by disease and state or territory for the birth cohort 1 October to 31 December 2003; assessment date 31 March 2005

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 2005⁵

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 (%) ¹	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

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