Additional reports

Australian childhood immunisation coverage

The Australian Childhood Immunisation Register (ACIR) commenced operation on 1 January 1996 and is now an important component of the Immunise Australia Program. *It is administered and operated by Medicare Australia (formerly the Health Insurance Commission). The Register was established by transferring data on all children under the age of 7 years enrolled with Medicare to the ACIR.*

Tables 1, 2 and 3 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 2008, at 24 months of age for the cohort born between 1 October and 31 December 2007, and at 5 years of age for the cohort born between 1 October and 31 December 2004 according to the National Immunisation Program Schedule. However from March 2002 to December 2007, coverage for vaccines due at 4 years of age was assessed at the 6-year milestone age.

For information about the Australian Childhood Immunisation Register see Surveillance systems reported in CDI, *published in* Commun Dis Intell *2008;32:134–135 and for a full description of the methodology used by the Register see* Commun Dis Intell *1998;22:36-37.*

Commentary on the trends in ACIR data is provided by the National Centre for Immunisation Research and Surveillance of Vaccine Preventable Diseases (NCIRS). For further information please contact the NCIRS at telephone: +61 2 9845 1435, Email: brynleyh@chw.edu.au

'Fully immunised' at 12 months of age is defined as a child having a record on the ACIR of 3 doses of a diphtheria (D), tetanus (T) and pertussis-containing (P) vaccine, 3 doses of polio vaccine, 2 or 3 doses of PRP-OMP containing Haemophilus influenzae *type b (Hib) vaccine or 3 doses of any other* Haemophilus influenzae *type b (Hib) vaccine, and 2 or 3 doses of comvax hepatitis B vaccine or 3 doses of all other hepatitis B vaccines. 'Fully immunised' at 24 months of age is defined as a child having a record on the ACIR of 3 or 4 doses of a DTP-containing vaccine, three doses of polio vaccine, 3 or 4 doses of PRP-OMP containing* Haemophilus influenzae *type b (Hib) vaccine or 4 doses of any other* Haemophilus influenzae *type b (Hib) vaccine, 3 or 4 doses of comvax hepatitis B vaccine or 4 doses of all other hepatitis B vaccines, and 1 dose of a measles, mumps and rubella-containing (MMR) vaccine. 'Fully immunised' at 5 years of age is defined as a child having a record on the ACIR of 4 or 5 doses of a DTP-containing vaccine, 4 doses of polio vaccine, and 2 doses of an MMR-containing vaccine.*

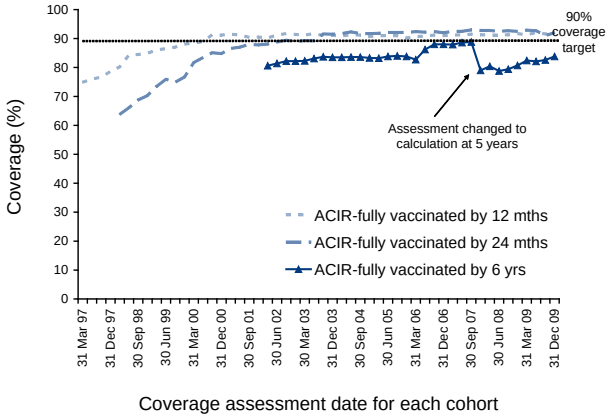
Immunisation coverage for 'fully immunised' at 12 months of age for Australia decreased slightly by 0.2 of a percentage point to 91.4% (Table 1). There were no important changes in coverage for any individual vaccines due at 12 months of age or by jurisdiction.

Immunisation coverage for 'fully immunised' at 24 months of age for Australia increased by 1 percentage point to 92.0 (Table 2). There were no important changes in coverage for any individual vaccines due at 24 months of age or by jurisdiction.

Immunisation coverage for 'fully immunised' at 5 years of age for Australia increased by 1.2 percentage points to sit currently at 83.8% (Table 3). However, 'fully immunised' coverage increased 2.1–2.2 percentage points in the Northern Territory and New South Wales and is now above 81% in all jurisdictions. These 2 jurisdictions also experienced similar increases in coverage for all individual vaccines due at 5 years of age.

Figure 1 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 (5 years from March 2008), although coverage for vaccines due at 4 years decreases sig-

Figure 1: Trends in vaccination coverage, Australia, 1997 to 31 December 2009, by age cohorts



nificantly due to the change in assessment age from 6 to 5 years. It should also be noted that, currently, coverage for the vaccines added to the NIP since 2003 (varicella at 18 months, meningococcal C conjugate at 12 months and pneumococcal conjugate at 2, 4, and 6 months) are not included in the 12 or 24 months coverage data respectively.

Table 1. 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 2008; assessment date 31 March 2010

Vaccine	State or territory								Aust
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	
Total number of children	1,258	24,814	887	15,241	4,896	1,691	17,861	7,428	74,076
Diphtheria, tetanus, pertussis (%)	93.5	92.2	90.9	92.0	91.4	93.3	92.9	90.0	92.1
Poliomyelitis (%)	93.4	92.2	90.8	92.0	91.4	93.3	92.8	89.9	92.0
Haemophilus influenzae type b (%)	93.5	92.0	93.1	91.8	90.9	93.1	92.5	89.9	91.9
Hepatitis B (%)	92.8	91.9	91.0	91.7	90.8	93.0	92.2	89.6	91.6
Fully immunised (%)	92.8	91.7	89.4	91.5	90.6	93.0	92.0	89.2	91.4
Change in fully immunised since last quarter (%)	-0.4	-0.4	+1.4	-0.3	-0.7	+0.5	+0.1	-0.1	-0.2

Table 2. 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 2007; assessment date 31 March 2010*

Vaccine	State or territory								Aust
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	
Total number of children	1,205	24,383	927	15,078	4,924	1,616	18,090	7,678	73,901
Diphtheria, tetanus, pertussis (%)	95.9	95.1	94.4	94.1	94.5	94.9	95.6	93.3	94.8
Poliomyelitis (%)	95.9	95.0	94.4	94.1	94.5	94.9	95.6	93.2	94.8
Haemophilus influenzae type b (%)	95.9	95.2	93.3	93.5	93.2	95.1	94.8	92.9	94.4
Measles, mumps, rubella (%)	94.9	93.6	94.3	93.7	93.5	94.4	94.6	92.4	93.8
Hepatitis B (%)	95.4	94.6	94.3	93.6	93.8	94.7	94.7	92.8	94.2
Fully immunised (%)	93.9	92.3	92.0	91.6	91.5	93.5	92.6	89.9	92.0
Change in fully immunised since last quarter (%)	+0.7	+0.6	+1.3	+2.0	+2.0	+0.7	+0.9	-0.2	+1.0

* The 12 months age data for this cohort were published in *Commun Dis Intell* 2010;33(2):151.

Table 3. Percentage of children immunised at 5 years of age, preliminary results by disease and state or territory for the birth cohort 1 October to 31 December 2004; assessment date 31 March 2010

Vaccine	State or territory								Aust
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	
Total number of children	1,122	21,923	776	13,501	4,467	1,495	16,366	6,736	66,386
Diphtheria, tetanus, pertussis (%)	87.3	83.7	84.7	83.1	81.6	85.2	88.0	83.3	84.6
Poliomyelitis (%)	87.4	83.7	84.7	82.9	81.6	85.2	87.9	83.2	84.5
Measles, mumps, rubella (%)	86.7	83.5	84.4	82.7	81.4	84.8	87.6	82.8	84.2
Fully immunised (%)	86.3	83.0	83.3	82.2	81.0	84.4	87.3	82.3	83.8
Change in fully immunised since last quarter (%)	+0.8	+2.3	+2.1	-0.1	+0.5	-1.8	+1.1	+1.4	+1.2

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 *2009;33:82.*

Laboratory confirmed cases of invasive meningococcal disease for the period 1 January to 31 March 2010, are included in this issue of Communicable Diseases Intelligence *(Table 4).*

Table 4: Number of laboratory confirmed cases of invasive meningococcal disease, Australia, 1 January to 31 March 2010, by serogroup and state or territory

State or territory	Year	Serogroup													
		A		B		C		Y		W135		ND		All	
		Q1	YTD	Q1	YTD	Q1	YTD	Q1	YTD	Q1	YTD	Q1	YTD	Q1	YTD
Australian Capital Territory	10			0		0		0		0		0		0	
	09			0		0		0		0		0		0	
New South Wales	10			13		0		0		1		1		15	
	09			12		3		0		1		0		16	
Northern Territory	10			0		0		0		0		0		0	
	09			2		1		0		0		0		3	
Queensland	10			6		0		0		0		0		6	
	09			11		0		0		0		0		11	
South Australia	10			4		0		1		0		0		5	
	09			4		0		0		0		0		4	
Tasmania	10			1		0		0		0		1		2	
	09			0		0		0		0		0		0	
Victoria	10			3		0		1		1		0		5	
	09			5		1		0		0		2		8	
Western Australia	10			2		1		0		0		0		3	
	09			2		2		0		0		0		4	
Total	10			29		1		2		2		2		36	
	09	0		36		7		0		1		2		46	

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Australian Sentinel Practices Research Network

The Australian Sentinel Practices Research Network (ASPREN) is a national surveillance system that is owned and operated by the Royal Australian College of General Practitioners and directed through the Discipline of General Practice at the University of Adelaide.

The network consists of general practitioners who report presentations on a number of defined medical conditions each week. ASPREN was established in 1991 to provide a rapid monitoring scheme for infectious diseases that can alert public health officials of epidemics in their early stages as well as play a role in the evaluation of public health campaigns and research of conditions commonly seen in general practice. Electronic data collection was established in 2006 and currently, further development of ASPREN is in progress to create an automatic reporting system.

The list of conditions is reviewed annually by the ASPREN management committee and an annual report is published. In 2009, four conditions are being monitored. They include influenza-like (ILI) illness, gastroenteritis and varicella infections (chickenpox and shingles). Definitions of these conditions are described in Surveillance systems reported in CDI, *published in* Commun Dis Intell *2010;34:82–83.*

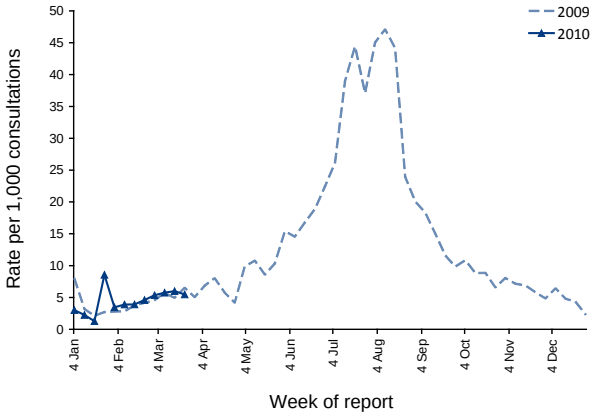
Data on influenza-like illness, gastroenteritis, chickenpox and shingles from 1 January to 31 March 2010 compared with 2009, are shown as the rate per 1,000 consultations in Figures 2, 3, 4 and 5, respectively.

Reporting period 1 January to 31 March 2010

Sentinel practices contributing to ASPREN were located in all jurisdictions other than the Northern Territory. A total of 98 general practitioners contributed data to ASPREN in the 1st quarter of 2010. Each week an average of 76 general practitioners provided information to ASPREN at an average of 7,334 (range 2,978 to 8,953) consultations per week and an average of 89 (range 29 to 120) notifications per week.

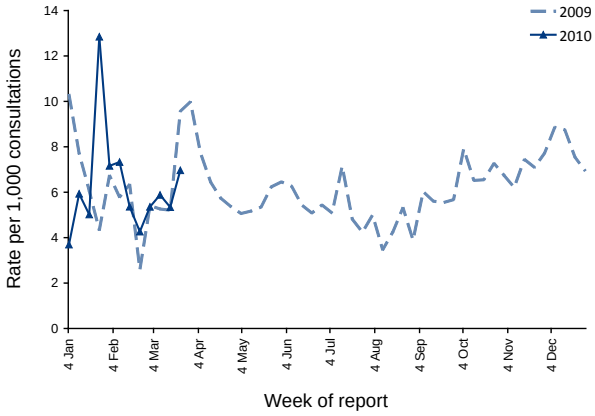
ILI rates reported from 1 January to 31 March 2010 were 1–9 cases per 1,000 consultations. The reported rates in January, February and March 2010 (1–9 cases per 1,000 consultations, 3–5 cases per 1,000 consultations and 5–6 cases per 1,000 consultations respectively) were relatively consistent compared with rates in the same reporting period in 2009 (2–8 cases per 1,000 consultations, 3–4 cases per 1,000 consultations and 5–7 cases per 1,000 consultations respectively) (Figure 2).

Figure 2: Consultation rates for influenza-like illness, ASPREN, 1 January 2009 to 31 March 2010, by week of report



During this reporting period, consultation rates for gastroenteritis ranged from 4 to 13 cases per 1,000 (Figure 3). This was slightly higher compared with the same reporting period in 2009 (3 to 10 cases per 1,000 consultations).

Figure 3: Consultation rates for gastroenteritis, ASPREN, 1 January 2009 to 31 March 2010, by week of report



Varicella infections were reported at a similar rate for the 1st quarter of 2010 compared with the same period in 2009. From 1 January to 31 March 2010, recorded rates for chickenpox were between 0 and 0.7 cases per 1,000 consultations (Figure 4).

In the 1st quarter of 2010, reported rates for shingles were between 0.3 and 1.9 cases per 1,000 consultations (Figure 5), slightly lower than the same reporting period in 2009 (0.3 to 2.6 cases per 1,000 consultations).

Figure 4: Consultation rates for chickenpox, ASPREN, 1 January 2009 to 31 March 2010, by week of report

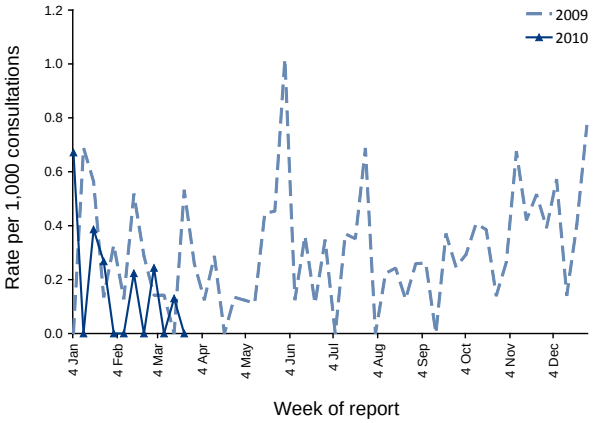


Figure 5: Consultation rates for shingles, ASPREN, 1 January 2009 to 31 March 2010, by week of report