

# AUSTRALIAN CHILDHOOD IMMUNISATION COVERAGE, 1 OCTOBER TO 31 DECEMBER COHORT, ASSESSED AS AT 31 MARCH 2013

Brynley Hull for the National Centre for Immunisation Research and Surveillance of Vaccine Preventable Diseases

## Introduction

Tables 1, 2 and 3 provide the 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, 24 months and 60 months, for 3-month birth cohorts of children at the stated ages between 1 October and 31 December 2012. 'Fully immunised' refers to vaccines on the National Immunisation Program Schedule, but excludes rotavirus, pneumococcal conjugate, varicella, and meningococcal C conjugate vaccines, and is outlined in more detail below.

'Fully immunised' at 12 months of age is defined as a child having a record on the ACIR of three 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 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, 3 doses of polio vaccine, 3 or 4 doses of PRP-OMP Hib vaccine or 4 doses of any other 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 60 months 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.

A full description of the basic methodology used can be found in *Commun Dis Intell* 1998;22(3):36–37.

The National Centre for Immunisation Research and Surveillance of Vaccine Preventable Diseases (NCIRS) provides commentary on the trends in ACIR data. For further information please contact NCIRS at: telephone +61 2 9845 1435, email: brynley.hull@health.nsw.gov.au

## Results

The percentage of children 'fully immunised' by 12 months of age for Australia decreased marginally from the previous quarter by 0.1 of a percentage point to 91.5% (Table 1). There were no important changes in coverage for any individual vaccines due at 12 months of age or by jurisdiction.

The percentage of children 'fully immunised' by 24 months of age for Australia decreased marginally from the previous quarter by 0.4 of a percentage point to 92.2% (Table 2). There were no important changes in coverage for any individual vaccines due at 24 months of age or by jurisdiction.

**Table 1. Percentage of children immunised at 12 months of age for the birth cohort 1 October to 31 December 2011, preliminary results, by disease and state or territory; assessment date 31 March 2013**

Vaccine	State or territory								Aust
	ACT	NSW	NT	Qld	SA	Tas.	Vic.	WA	
Total number of children	1,343	23,908	864	14,854	4,962	1,558	18,439	7,791	73,719
Diphtheria, tetanus, pertussis (%)	92.9	91.5	91.0	92.7	91.9	92.8	92.5	91.5	92.1
Poliomyelitis (%)	92.9	91.4	91.0	92.7	91.9	92.7	92.4	91.4	92.0
<i>Haemophilus influenzae</i> type b (%)	92.7	91.3	91.0	92.7	91.7	92.5	92.3	91.3	91.9
Hepatitis B (%)	92.6	91.0	91.1	92.4	91.5	92.4	92.0	90.7	91.6
Fully immunised (%)	92.4	90.9	91.0	92.3	91.4	92.4	91.8	90.6	91.5
Change in fully immunised since last quarter (%)	-0.0	-0.3	+0.4	+0.2	-0.2	-0.6	-0.4	+0.6	-0.1

**Table 2. Percentage of children immunised at 24 months of age for the birth cohort 1 October to 31 December 2010, preliminary results, by disease and state or territory; assessment date 31 March 2013\***

Vaccine	State or territory								Aust
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	
Total number of children	1,218	23,671	887	14,639	4,858	1,509	17,842	7,908	72,532
Diphtheria, tetanus, pertussis (%)	95.7	94.3	95.2	94.5	94.4	96.3	95.2	93.3	94.5
Poliomyelitis (%)	95.7	94.2	95.2	94.5	94.4	96.3	95.1	93.3	94.5
<i>Haemophilus influenzae</i> type b (%)	95.9	94.8	95.6	94.6	94.4	96.4	95.2	93.4	94.8
Measles, mumps, rubella (%)	94.2	93.6	94.4	94.1	93.5	95.8	94.1	92.4	93.7
Hepatitis B (%)	95.1	93.9	94.5	94.0	94.1	96.2	94.7	92.4	94.0
Fully immunised (%)	92.9	91.9	93.1	92.6	92.3	94.9	92.7	90.4	92.2
Change in fully immunised since last quarter (%)	-0.3	-0.4	-0.4	-0.1	+0.3	+1.0	-0.8	-0.4	-0.4

\* The 12 months age data for this cohort were published in *Commun Dis Intell* 2012;36(2):E203.

**Table 3. Percentage of children immunised at 60 months of age for the birth cohort 1 October to 31 December 2007, preliminary results, by disease and state or territory; assessment date 31 March 2013**

Vaccine	State or territory								Aust
	ACT	NSW	NT	Qld	SA	Tas.	Vic.	WA	
Total number of children	1,248	24,807	884	15,537	5,054	1,639	18,797	8,273	76,239
Diphtheria, tetanus, pertussis (%)	94.0	92.3	91.7	92.4	91.9	92.1	93.5	90.0	92.4
Poliomyelitis (%)	94.0	92.3	91.7	92.3	91.8	92.0	93.4	89.9	92.3
Measles, mumps, rubella (%)	94.0	92.0	91.7	92.3	91.6	92.2	93.2	89.8	92.1
Fully immunised (%)	93.7	91.7	91.4	91.9	91.1	91.8	92.9	89.3	91.8
Change in fully immunised since last quarter (%)	+1.7	+0.1	+0.9	-0.1	-0.4	-1.6	-0.3	-0.5	-0.1

The percentage of children ‘fully immunised’ by 60 months of age for Australia decreased marginally from the previous quarter by 0.1 of a percentage point to 91.8% (Table 3). This maintains the improvement in coverage for this age milestone. There were no important changes in coverage for any individual vaccines due at 60 months of age or by jurisdiction.

The Figure 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 60 months (from December 2007). Coverage at 60 months of age is now higher for the first time than coverage at 12 months of age.

**Figure: Trends in vaccination coverage, Australia, 1997 to 31 December 2012, by age cohorts**

