

# AUSTRALIAN CHILDHOOD IMMUNISATION COVERAGE, 1 JULY TO 30 JUNE COHORT, ASSESSED AS AT 30 SEPTEMBER 2015

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## Introduction

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 1423, email: alexandra.hendry@health.nsw.gov.au

Tables 1, 2 and 3 provide the latest rolling annualised quarterly report on childhood immunisation coverage from the Australian Childhood Immunisation Register (ACIR) for all children.

The data show the percentage of all children 'fully immunised' at 12 months, 24 months and 60 months, for four 3-month birth cohorts of children assessed at the stated ages between 1 July 2014 and 30 June 2015 using ACIR data up to 30 September 2015. 'Fully immunised' refers to vaccines on the National Immunisation Program Schedule, but excludes rotavirus, 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 3 doses of a diphtheria (D), tetanus (T) and pertussis-containing (P) vaccine, 3 doses of polio vaccine, 2 or 3 doses of *Haemophilus B* conjugate (PMP-OMP) containing *Haemophilus influenzae* type b (Hib) vaccine or 3 doses of any other Hib vaccine, 3 doses of hepatitis B vaccine, and 3 doses of 13-valent pneumococcal conjugate vaccine.

'Fully immunised' at 24 months of age is defined as a child having a record on the ACIR of 3 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 doses of hepatitis B vaccine, 2 doses of a measles-mumps-rubella-containing (MMR) vaccine, 1 dose of meningococcal C vaccine, and 1 dose of varicella vaccine.

'Fully immunised' at 60 months of age is defined as a child having a record on the ACIR of 4 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.

## Results

The rolling annualised percentage of all children 'fully immunised' by 12 months of age for Australia increased marginally from the previous report by 0.4 of a percentage point to 91.7% (Table 1). All jurisdictions experienced small increases in the percentage of children 'fully immunised' by 12 months of age. For individual vaccines due by 12 months of age all jurisdictions achieved coverage greater than 91%.

The rolling annualised percentage of all children 'fully immunised' by 24 months of age for Australia decreased again for the 3rd consecutive report by 0.6 percentage points to 88.6% (Table 2). All jurisdictions experienced similar decreases

**Table 1. Percentage of children immunised at 12 months of age for the birth cohort 1 July 2013 to 30 June 2014, preliminary results, by disease and state or territory; assessment date 30 September 2015**

Vaccine	State or territory								Aust
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	
Total number of children	5,656	98,857	3,739	62,832	20,077	5,924	76,197	34,229	307,511
Diphtheria, tetanus, pertussis (%)	94.3	92.3	92.5	92.7	92.4	91.9	92.4	92.5	92.5
Poliomyelitis (%)	94.3	92.3	92.5	92.6	92.3	91.8	92.4	92.5	92.4
<i>Haemophilus influenzae</i> type b (%)	94.0	92.1	92.4	92.5	92.2	91.8	92.2	92.3	92.3
Hepatitis B (%)	93.9	92.0	92.6	92.5	92.1	91.7	92.1	92.2	92.2
Pneumococcal	94.0	91.9	92.5	92.4	92.0	91.7	92.1	92.1	92.1
Fully immunised (%)	93.3	91.5	92.0	92.1	91.6	91.3	91.5	91.6	91.7

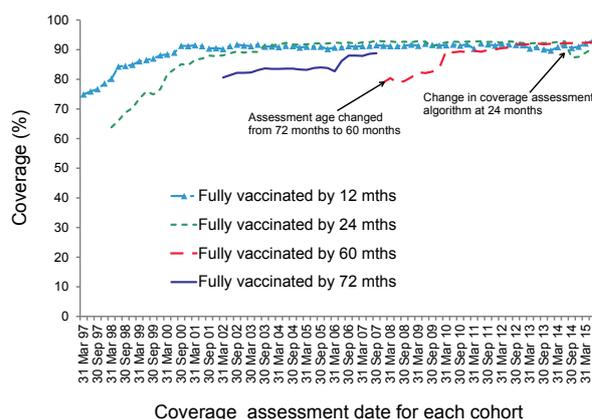
in fully immunised coverage for this age group. Coverage for individual vaccines due by 24 months remained high in all jurisdictions, except for varicella and the measles, mumps and rubella vaccine. This is likely due to the fact that the cohort used in this report for coverage at 24 months of age is the first full 12-month birth cohort (4 quarters) to be assessed at 24 months of age for the dose of measles-mumps-rubella-varicella vaccine due at 18 months of age (the 2nd dose of MMR and the 1st dose of varicella).

The rolling annualised percentage of all children ‘fully immunised’ by 60 months of age for Australia was the same as the previous report (92.3%) (Table 3). There were also only marginal changes in fully immunised coverage at 60 months of age in all jurisdictions. Coverage for individual vaccines due by 60 months remained greater than 90% in all jurisdictions.

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). From September 2014, coverage at 24 months is lower than coverage at 12 and 60 months of age. This was most likely due to the change in the 24 month coverage assessment algorithm as described above.

**Figure: Trends in vaccination coverage, Australia, 1997 to 30 June 2015, by age cohorts**



**Table 2. Percentage of children immunised at 24 months of age for the birth cohort 1 July 2012 to 30 June 2013, preliminary results, by disease and state or territory; assessment date 30 September 2015\***

Vaccine	State or territory								
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Aust
Total number of children	5,631	100,593	3,580	63,074	20,194	5,926	77,077	34,222	310,297
Diphtheria, tetanus, pertussis (%)	96.3	95.2	94.8	95.1	95.0	95.3	95.8	95.0	95.3
Poliomyelitis (%)	96.2	95.2	94.8	95.1	94.9	95.2	95.8	95.0	95.3
<i>Haemophilus influenzae</i> type b (%)	95.2	93.9	94.2	94.3	93.7	93.7	94.6	93.8	94.2
Measles, mumps, rubella (%)	92.5	90.4	90.4	91.1	89.8	89.5	90.9	89.1	90.5
Hepatitis B (%)	95.9	94.9	95.0	94.8	94.6	95.0	95.5	94.5	95.0
Meningococcal C (%)	94.7	93.8	94.1	94.3	92.9	93.9	94.1	92.9	93.9
Varicella (%)	94.1	91.5	90.0	91.6	90.7	89.7	92.2	90.4	91.5
Fully immunised (%)	90.8	88.3	87.2	89.7	87.2	86.9	89.0	87.0	88.6

**Table 3. Percentage of children immunised at 60 months of age for the birth cohort 1 July 2009 to 30 June 2010, preliminary results, by disease and state or territory; assessment date 30 September 2015**

Vaccine	State or territory								
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Aust
Total number of children	5,596	101,839	3,443	65,350	20,350	6,258	76,579	34,324	313,739
Diphtheria, tetanus, pertussis (%)	94.0	93.4	93.2	92.7	91.6	93.4	93.3	91.4	92.9
Poliomyelitis (%)	94.0	93.4	93.2	92.7	91.6	93.3	93.3	91.4	92.9
Measles, mumps, rubella (%)	93.8	93.3	93.6	92.7	91.6	93.2	93.3	91.3	92.9
Fully immunised (%)	93.5	92.9	92.5	92.2	91.0	92.7	92.7	90.7	92.3