

# AUSTRALIAN CHILDHOOD IMMUNISATION COVERAGE, 1 APRIL 2015 TO 31 MARCH 2016 COHORT, ASSESSED AS AT 30 JUNE 2016

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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 of age, for four 3-month birth cohorts of children assessed at the stated ages between 1 April 2015 and 31 March 2016 using ACIR data up to 30 June 2016. '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 three 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 (PRP-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, Infanrix

Hexa or Hiberix vaccine (3 doses only of Infanrix Hexa or Hiberix if given after 11.5 months of age), or 4 doses of any other Hib vaccine, 3 doses of hepatitis B vaccine, 2 doses of a measles, mumps and 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 *Communicable Diseases Intelligence* 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 0.3 of a percentage point to 93.0% (Table 1). Small increases in the percentage of children 'fully immunised' by 12 months of age were experienced in all jurisdictions and coverage was greater than 92% in all jurisdictions. For individual vaccines due by 12 months of age all jurisdictions achieved coverage greater than 93%.

The rolling annualised percentage of all children 'fully immunised' by 24 months of age for Australia has continued to rise with coverage increasing by 0.6 percentage points to reach 90.7% (Table 2). Coverage for individual vaccines due by 24 months of age reached above 94% in all jurisdictions, except for the measles, mumps and rubella vaccine and varicella. Coverage for these antigens at 24 months

**Table 1: Percentage of children immunised at 12 months of age for the birth cohort 1 April 2014 to 31 March 2015, preliminary results, by disease and state or territory; assessment date 30 June 2016**

Vaccine	State or territory								Aust.
	ACT	NSW	NT	Qld	SA	Tas.	Vic.	WA	
Total number of children	5,660	98,635	3,779	62,133	19,834	5,790	77,117	34,551	307,499
Diphtheria, tetanus, pertussis (%)	95.3	93.8	93.6	93.8	93.7	93.9	94.0	93.4	93.8
Poliomyelitis (%)	95.2	93.8	93.6	93.8	93.7	93.9	94.0	93.4	93.8
<i>Haemophilus influenzae</i> type b (%)	94.9	93.5	93.5	93.6	93.4	93.8	93.6	93.2	93.5
Hepatitis B (%)	95.1	93.7	94.0	93.8	93.6	94.0	93.8	93.1	93.7
Pneumococcal	94.9	93.4	93.5	93.5	93.4	93.8	93.6	93.1	93.5
Fully immunised (%)	94.5	92.9	93.0	93.2	93.0	93.5	93.0	92.6	93.0

of age have however, continued to improve with measles, mumps and rubella coverage increasing from the previous report by 0.5 of a percentage point to 92.3% and varicella coverage increasing by 0.3 of a percentage point to 92.4%.

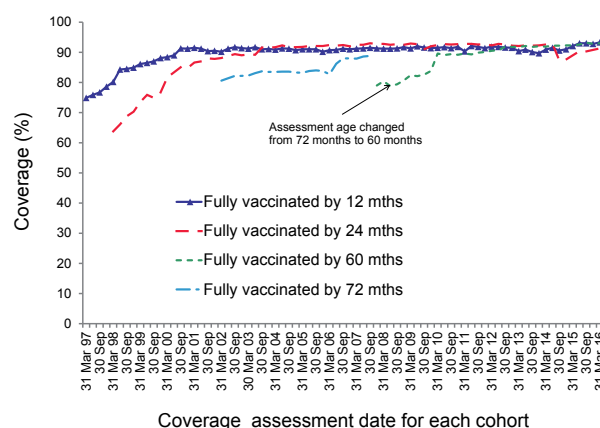
The rolling annualised percentage of all children ‘fully immunised’ by 60 months of age for Australia increased from the previous report by 0.2 of a percentage point to 92.9% (Table 3). Coverage for individual vaccines due by 60 months of age was 92% or greater in all jurisdictions.

The Figure shows the trends in vaccination coverage from the first ACIR-derived published coverage estimates in 1997 to the current estimates. Overall 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 by 24 months did fall below the 12 and 60 month coverage estimates following the change in the 24 month coverage assessment algorithm to include MMR dose 2 instead of MMR dose 1, varicella dose 1, and meningococcal C dose 1. However, ‘fully immunised’ coverage by 24 months has been steadily increasing since this change and as at 31 March 2016 reached 91.3%, which is an increase of 0.5 of a percentage point from the previous quarterly report. In the 1st quarter of

2016 there have also been marginal increases in the ‘fully immunised’ coverage estimates by 12 and 60 months to 93.3% and 93.0% respectively.

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**Figure: Trends in vaccination coverage, Australia, 1997 to 31 March 2016, by age cohorts**



**Table 2: Percentage of children immunised at 24 months of age for the birth cohort 1 April 2013 to 31 March 2014, preliminary results, by disease and state or territory; assessment date 30 June 2016**

Vaccine	State or territory								Aust.
	ACT	NSW	NT	Qld	SA	Tas.	Vic.	WA	
Total number of children	5,681	99,173	3,549	62,337	19,969	5,953	76,890	33,960	307,512
Diphtheria, tetanus, pertussis (%)	97.0	95.7	95.4	95.7	95.8	96.1	96.2	95.7	95.9
Poliomyelitis (%)	96.9	95.7	95.4	95.7	95.7	96.1	96.1	95.7	95.8
<i>Haemophilus influenzae</i> type b (%)	95.9	94.7	94.4	95.0	94.8	95.1	95.3	94.7	94.9
Measles, mumps, rubella (%)	93.4	92.2	91.5	92.6	92.4	93.0	92.6	91.2	92.3
Hepatitis B (%)	96.7	95.5	95.8	95.6	95.5	96.0	95.9	95.4	95.7
Meningococcal C (%)	95.5	94.6	94.3	94.9	94.5	95.0	94.9	94.1	94.7
Varicella (%)	93.6	92.3	90.7	92.5	92.5	92.7	92.8	91.2	92.4
Fully immunised (%)	91.8	90.4	88.9	91.4	90.5	90.7	91.0	89.6	90.7

**Table 3: Percentage of children immunised at 60 months of age for the birth cohort 1 April 2010 to 31 March 2011, preliminary results, by disease and state or territory; assessment date 30 June 2016**

Vaccine	State or territory								Aust.
	ACT	NSW	NT	Qld	SA	Tas.	Vic.	WA	
Total number of children	5,550	101,092	3,497	64,952	20,112	6,229	76,211	34,455	312,098
Diphtheria, tetanus, pertussis (%)	94.1	93.9	92.7	93.3	93.0	94.5	93.9	92.0	93.5
Poliomyelitis (%)	94.2	94.0	92.8	93.3	93.0	94.5	94.0	92.0	93.5
Measles, mumps, rubella (%)	94.3	94.0	93.1	93.2	93.0	94.5	93.9	92.2	93.6
Fully immunised (%)	93.5	93.4	91.9	92.7	92.3	93.8	93.3	91.3	92.9