

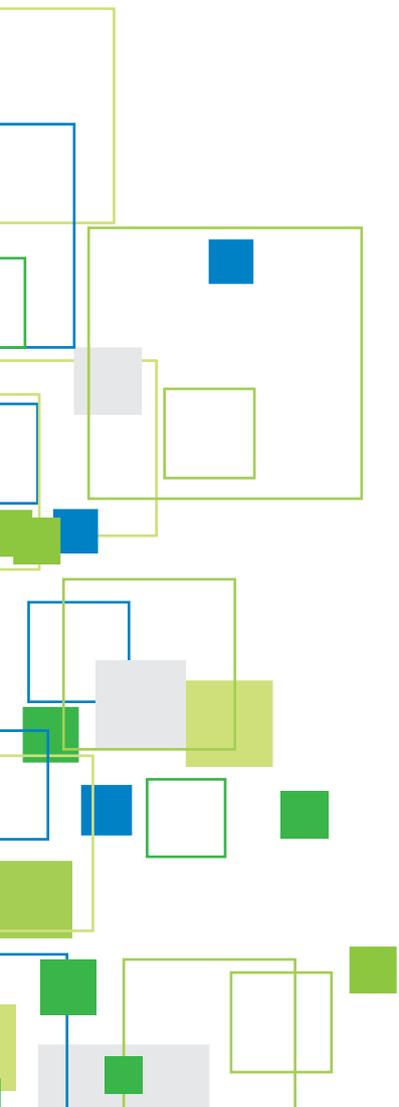


National Health Performance Authority

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Healthy Communities:

Immunisation rates for children in 2011–12





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Immunisation rates for children in 2011–12

National Health Performance Authority

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Paper-based publications

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Please check www.nhpa.gov.au for any amendments.

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About the Authority

The National Health Performance Authority (the Authority) is an independent body that provides locally relevant and nationally consistent information on the performance of hospitals and other health care organisations. The Authority was set up under the *National Health Reform Act 2011* and commenced full operations in 2012.

Under the terms of the Act, the Authority monitors, and reports on, the performance of Local Hospital Networks, public and private hospitals, primary health care organisations and other bodies that provide health care services.

The Authority's reports provide timely and impartial information that allows all Australians to fairly compare their local health care organisations against their peers.

The reports let people see, for the first time, how their local health care organisations measure up against comparable organisations across Australia.

The Authority's activities are guided by a document called the *Performance and Accountability Framework* agreed by the Council of Australian Governments (COAG). The framework contains 48 indicators that form the basis for the Authority's reports.

The Authority's role includes reporting on the performance of health care organisations against the 48 indicators in order to identify both high-performing Local Hospital Networks, Medicare Locals and hospitals (so effective practices can be shared), and Local Hospital Networks and Medicare Locals that perform poorly (so that steps can be taken to address problems).

The Authority releases reports on a quarterly basis, and also publishes performance data on the MyHospitals website and on **www.nhpa.gov.au**

The Authority consists of a Chairman, a Deputy Chairman and five other members, appointed for up to five years. Members of the Authority are:

- Ms Patricia Faulkner AO (Chairman)
- Mr John Walsh AM (Deputy Chairman)
- Dr David Filby PSM
- Prof Michael Reid
- Prof Bryant Stokes AM RFD
- Prof Paul Torzillo AM
- Prof Claire Jackson (acting member).

The conclusions in this report are those of the Authority. No official endorsement from any Minister, department of health or health care organisation is intended or should be inferred.

Summary

Immunisation helps protect individuals and the community generally against potentially serious diseases such as measles, polio, tetanus and whooping cough (pertussis).

Although the great majority of children in Australia are immunised, it is important to maintain high immunisation rates to reduce the risk of outbreaks of these and other diseases recurring.

Australian governments and experts endorse achieving high immunisation rates to protect individuals and those not immunised or too young to be immunised. States and territories are expected to maintain or improve their existing respective immunisation rates under the terms of the National Partnership Agreement on Essential Vaccines agreed in 2009.

This report allows the public, clinicians and health managers to see for all children, and for Aboriginal and Torres Strait Islander children, the percentages fully immunised and how those percentages differ across the country. It reports these immunisation rates for each of the 61 geographic areas covered by the new network of Medicare Locals, which have been established to improve the responsiveness, coordination and integration of local health services.

These data were sourced from the Australian Childhood Immunisation Register (ACIR). It is important to note that these data cover the period from July 2011 to June 2012. As Medicare Locals were still being set up during this time, this report establishes a baseline for comparisons that in future will help clinicians, health managers and others to assess whether improvements are occurring.

Where possible, the results are broken down into geographic areas that are smaller than Medicare Local catchments – more than 300 statistical areas and more than 1500 postcodes.

The report shows the percentages of children who were fully immunised at 1 year, 2 years and 5 years in each Medicare Local catchment, and in the smaller units of geography where applicable. Also reported are the numbers of children in each area who are not fully immunised.

Key findings

The report's findings can be considered in the context of three broad themes:

- The **percentages** of children fully immunised and variation between Medicare Local catchments, and between age groups
- The **numbers** of children who are **not** fully immunised in each Medicare Local catchment
- **Lower** immunisation rates among Aboriginal and Torres Strait Islander children.

Percentages fully immunised and variation between Medicare Local catchments

There was considerable variation between Medicare Local catchments in terms of the percentages of all children fully immunised across all three age groups (**Figure 3, page 10**).

The percentages of all children fully immunised at:

- **1 year of age** ranged from 85% in Far West NSW to 94% in Great South Coast (Vic), Hume (Vic), Barwon (Vic), Murrumbidgee (NSW), Grampians (Vic), Goulburn Valley (Vic) and Australian Capital Territory (**page 16**).

- **2 years of age** ranged from 89% in North Coast NSW, Eastern Sydney and Sunshine Coast (Qld) to 96% in Great South Coast (Vic) (page 20)
- **5 years of age** ranged from 84% in Eastern Sydney to 95% in Great South Coast (Vic) (page 24).
- **2 years of age** ranged from 80% in Central Adelaide and Hills to 97% in Northern Territory and Gold Coast (Qld) (page 22)
- **5 years of age** ranged from 70% in Perth North Metro to 95% in Central and North West Queensland (page 26).

Variation across age groups

Comparing the three age groups, percentages of children fully immunised were highest at 2 years of age. Out of the three age groups, percentages of all children fully immunised at 2 years of age were highest (or equal highest) for all but seven of the 61 Medicare Local catchments (Figure 3, page 10).

Rates were lowest at 5 years of age. Percentages of all children fully immunised at 5 years were lowest (or equal lowest) of the three age groups for all but four of the 61 Medicare Locals.

Aboriginal and Torres Strait Islander children

In many Medicare Local catchments, immunisation rates among Aboriginal and Torres Strait Islander children were considerably lower than they were for all children (Figure 5, page 12).

The percentages of Aboriginal and Torres Strait Islander children fully immunised at:

- **1 year of age** ranged from 69% in Bentley-Armadale (WA) to 94% in Gold Coast (Qld) (page 18)

Not only were the ranges wider when looking at Aboriginal and Torres Strait Islander children, but the percentages were lower among a large number of Medicare Local catchments.

The number of Medicare Local catchments where less than 90% of children were fully immunised was as follows¹:

1 year of age:

All children: 2 (of 61 reported)

Indigenous children: 46 (of 54 reported)²

2 years of age:

All children: 3 (of 61 reported)

Indigenous children: 16 (of 56 reported)

5 years of age:

All children: 23 (of 61 reported)

Indigenous children: 35 (of 55 reported)

There were also 12 Medicare Local catchments where less than 80% of Aboriginal and Torres Strait Islander children, in at least one age group, were fully immunised – eight for 1 year olds and nine for 5 year olds. No catchments returned results below 80% for all children (pages 18 and 26).

1. The level of 90% of children fully immunised does not relate to any benchmarks and is used here for indicative purposes only.

2. Results are not reported for Medicare Local catchments for any age group with less than 26 children registered with the ACIR.

Lower-level reporting

The report also shows the percentages of all children fully immunised in more than 300 smaller local areas called Statistical Areas Level 3 (SA3s).

There were 32 statistical areas where the percentages of all children fully immunised were 85% or lower for at least one age group.

There were 77 statistical areas where the percentages of all children fully immunised were 95% or higher for at least one age group.

There were 898,373 children aged 1, 2 or 5 years registered with the ACIR in 2011–12. Of these, the data suggests 76,769 are not fully immunised:

- for children aged 1 year - 24,360
- for children aged 2 years - 22,334
- for children aged 5 years - 30,075.

(pages 29 to 40).

Results for Aboriginal and Torres Strait Islander children are not reported for statistical areas because the populations of Indigenous children in those areas are too small to support reliable estimates.

Numbers of children not fully immunised

Some Medicare Local catchments contained high numbers of children who were not fully immunised. There are Medicare Local catchments where more than 1000 children aged 1, 2 or 5 years are not fully immunised (page 6).

Next steps

The National Immunisation Program Schedule has been expanded since the data in this report were collected. Future Authority reports will include data against the definition of fully immunised

applied in this report and also include data on the revised definition of fully immunised, which includes additional vaccines on the National Immunisation Program Schedule.

The Authority is aware of issues with measuring percentages of children fully immunised in some urban areas. Factors such as population mobility and large immigrant populations may make tracking childhood immunisation rates more difficult.

A better understanding is also needed of the level of identification of children as Aboriginal and/or Torres Strait Islander in the Medicare enrolment data that is used in the ACIR, and the impact for reporting immunisation rates for these children.

The Authority will consider ways to address these issues in the future.

What is the percentage of children who are fully immunised in your local area?

The National Health Performance Authority has released 2011–12 data for Medicare Local catchments, for more than 300 smaller geographic areas, and for more than 1500 postcodes, on the percentages of all children who are fully immunised at 1 year, 2 years and 5 years.

For information about your local area, go to www.nhpa.gov.au

Introduction

About this report

The Authority bases its performance reports on the 48 indicators agreed by the Council of Australian Governments (COAG). In this report, the Authority has focused on the indicator that relates to rates of childhood immunisation.

While the percentages of children fully immunised are periodically reported at the state and national level, this report is different in that it provides this information at much smaller units of geography.

This report states the percentages for all children, and for all Aboriginal and Torres Strait Islander children, who are fully immunised at three time points – 1 year, 2 years and 5 years – for each area served by the new network of Medicare Locals.

There are 61 Medicare Locals across Australia, which were established in 2011 to improve the responsiveness, coordination and integration of local health services.

This report provides some data for even smaller geographic areas, called Statistical Areas Level 3 (SA3s), which are used by the Australian Bureau of Statistics. Some data are also available at the level of individual postcodes at www.nhpa.gov.au

The Authority has chosen to focus this report on childhood immunisation at this level of geographic detail in order to help clinicians and health managers better understand where more work needs to be done to increase the percentages of fully immunised children.

Fully immunised means that a child has received a subset of vaccinations that are detailed in the National Immunisation Program Schedule for their age. Four vaccinations on that Schedule are excluded for the purposes of measuring fully immunised status. Fully immunised for age means a child received the most recent vaccination for each disease, and assumes all previous vaccinations were administered (**Figure 1, page 2**).

It is important to note that these data relate to the period July 2011 to June 2012, while Medicare Locals were still being set up. Accordingly, the findings do not reflect on the performance of Medicare Locals as organisations.

Why immunisation matters

Routine childhood immunisations protect babies and children against potentially serious diseases such as measles, polio, tetanus and whooping cough (pertussis) (**Glossary, page 41**).

Although the majority of children in Australia are immunised, it is important to maintain high immunisation rates. When high percentages of people are fully immunised, diseases such as whooping cough have less opportunity to spread because there are fewer people who can be infected.

In addition, people who remain susceptible to infection – such as babies too young to be immunised and people with specific medical conditions that prevent them from being immunised – may be indirectly protected, as they are less likely to be exposed to disease. This concept is called “herd immunity” or “community immunity”.

According to the World Health Organization (WHO), measles is a potentially serious and highly contagious disease (with a single infected person able to infect up to 17-20 other people).³ The WHO has advocated an immunisation rate of greater than 93–95% for all districts within a country to ensure measles elimination.⁴ The US Centers for Disease Control and Prevention considers whooping cough to be so infectious (with a single infected person able to infect up to 12-15 other people) that it is important everyone gets the recommended vaccine.⁵

Improving uptake

From 1 July 2012, Medicare Locals are responsible for ensuring high immunisation rates are maintained across their catchments.⁶

The National Partnership Agreement (NPA) on Essential Vaccines, established by Commonwealth, state and territory governments through COAG in 2009, set benchmarks for maintaining or improving the percentage of children fully immunised for:

- all children at 4 years of age (measured at 5 years of age)
- Aboriginal and Torres Strait Islander children at 1, 2 and 5 years of age
- all children in areas of low immunisation.

Figure 1: Vaccinations measured for fully immunised status

Age due	Vaccinations	Measured for fully immunised at
2 months	<ul style="list-style-type: none"> • Hepatitis B (hepB) • Diphtheria, tetanus and whooping cough (DTPa) • <i>Haemophilus influenzae</i> type b (Hib) • Polio (IPV) 	
4 months	<ul style="list-style-type: none"> • Hepatitis B (hepB) • Diphtheria, tetanus and whooping cough (DTPa) • <i>Haemophilus influenzae</i> type b (Hib) • Polio (IPV) 	
6 months	<ul style="list-style-type: none"> • Hepatitis B (hepB) • Diphtheria, tetanus and whooping cough (DTPa) • <i>Haemophilus influenzae</i> type b (Hib) • Polio (IPV) 	1 year
12 months	<ul style="list-style-type: none"> • <i>Haemophilus influenzae</i> type b (Hib) • Measles, mumps and rubella (MMR) 	2 years
4 years	<ul style="list-style-type: none"> • Diphtheria, tetanus and whooping cough (DTPa) • Polio (IPV) • Measles, mumps and rubella (MMR) 	5 years

Note: For the purposes of reporting the data, fully immunised means a child receives the vaccinations due at or immediately prior to the age at which the measurement occurs. It is assumed that all previous vaccinations were received.

3. World Health Organization, WHO guidelines for epidemic preparedness and response to measles outbreaks, WHO, Geneva, May 1999.
 4. World Health Organization, Measles vaccines: WHO position paper, *Weekly epidemiological record*, No 35, 84, 349–360, WHO, Geneva, 2009.
 5. Centers for Disease Control and Prevention (2013), Pertussis frequently asked questions (factsheet), [Online] Available at: www.cdc.gov/pertussis/about/faqs.html Accessed 26 March 2013.
 6. Medicare Local Key Reporting Areas for 2012–13. Key Reporting Area 2: Maintain or improve immunisation coverage rates for children.

The Commonwealth government pays for the purchase of all essential vaccines and provides payments to the states and territories and general practices that are linked to achieving high rates of immunisation and notification to the ACIR.

About the data

Data for this report, *Healthy Communities: Immunisation rates for children in 2011–12*, were sourced from the Australian Childhood Immunisation Register (ACIR) which is administered by the Australian Government Department of Human Services (Medicare).

It has been estimated that ACIR includes close to 99% of Australian children.⁷

The report includes data on both the percentages of children fully immunised and the numbers of children not fully immunised. All data from the ACIR are mapped to Medicare Local catchment areas in which children live (i.e. by the postcode for their address), rather than the areas in which the services are provided.

For more information, see *Healthy Communities: Immunisation rates for children in 2011–12, Technical Supplement* at www.nhpa.gov.au

Australian Childhood Immunisation Register

The Australian Childhood Immunisation Register (ACIR) is a national register that records immunisations given to children up to the age of 7 years.

The ACIR helps parents and guardians keep track of children's immunisations. It also enables governments and health managers to monitor immunisation coverage in Australia.

The ACIR provides immunisation history statements that can be used as proof of immunisation status for childcare and school enrolments. Children who are not immunised are subject to exclusion from childcare and school when disease outbreaks occur.

Lower-level data

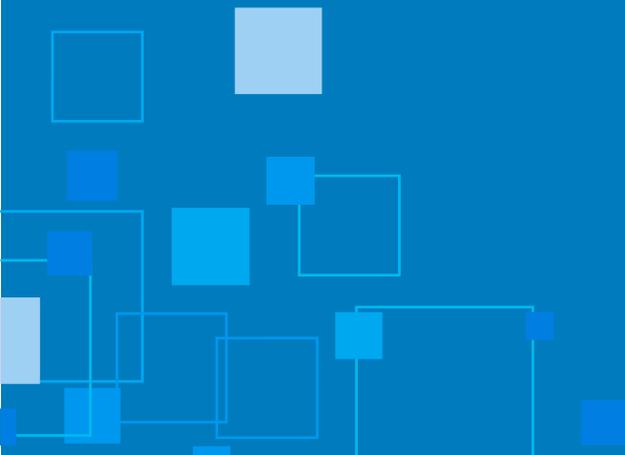
Information on the percentages of children fully immunised is available for local communities across Australia at www.nhpa.gov.au

The purpose of providing local information is to help clinicians and health managers to target their efforts to protect the health of children and the broader community. Note that where the number of children for an area is very small, data has been withheld to preserve confidentiality.

7. Hull BP, Shelley LD, McIntyre PB. The Australian Childhood Immunisation Register - A model for universal immunisation registers? *Vaccine* 2009; 27: 5054–5060.

Child immunisation rates

Key findings 2011–12



Key findings: All children

Percentages fully immunised: Variation by Medicare Local catchment

There was considerable variation between Medicare Local catchments in terms of the percentages of all children fully immunised across all three age groups.

Percentages of 1 year olds fully immunised, by Medicare Local catchment

The percentage of children aged 1 year fully immunised ranged from:

Highest 94% – Great South Coast (Vic), Hume (Vic), Barwon (Vic), Murrumbidgee (NSW), Grampians (Vic), Goulburn Valley (Vic), Australian Capital Territory

Lowest 85% – Far West NSW ([pages 15 and 16](#)).

Percentages of 2 year olds fully immunised, by Medicare Local catchment

The percentage of children aged 2 years fully immunised ranged from:

Highest 96% – Great South Coast (Vic)

Lowest 89% – North Coast NSW, Eastern Sydney, Sunshine Coast (Qld) ([pages 19 and 20](#)).

Percentages of 5 year olds fully immunised, by Medicare Local catchment

The percentage of all children aged 5 years fully immunised ranged from:

Highest 95% – Great South Coast (Vic)

Lowest 84% – Eastern Sydney ([pages 23 and 24](#)).

Percentages fully immunised: Variation by age

Immunisation rates were highest at 2 years of age. Out of the three age groups, percentages of children fully immunised at 2 years of age were highest (or equal highest) for all but seven of the 61 Medicare Local catchments.

Rates were lowest at 5 years of age. Percentages of children fully immunised at 5 years were lowest (or equal lowest) of the three age groups for all but four of the 61 Medicare Local catchments ([Figure 3, page 10](#)).

For children aged 1 year, two Medicare Local catchments recorded percentages fully immunised of less than 90%, while three catchments had less than 90% for children aged 2 years.

For children aged 5 years, 23 Medicare Local catchments had less than 90% of children fully immunised.⁸

Numbers of children not fully immunised

In a Medicare Local catchment with a large population, a high **percentage** of children who are fully immunised can conceal a high **number** of children who are not fully immunised ([Figure 2, page 9](#)).

In four Medicare Local catchments, there were more than 1000 children who were not fully immunised in one or more age groups. One Medicare Local catchment (Western Sydney) had

8. The level of 90% of children fully immunised does not relate to any benchmarks and is used here for indicative purposes only.

nearly 3600 children who were not fully immunised across the three age groups combined (pages 16, 20 and 24).

The largest single group of children not fully immunised in one Medicare Local catchment was 1287 (recorded in Western Sydney for 5 year olds).

Numbers of 1 year olds not fully immunised, by Medicare Local catchment

The number of all children aged 1 year not fully immunised ranged from **more than 1100**, recorded in Western Sydney, Greater Metro South Brisbane and South Western Sydney, to **fewer than 80** recorded in Far West NSW, Central and Northern Queensland and Great South Coast (Vic) (page 16).

Numbers of 2 year olds not fully immunised, by Medicare Local catchment

The number of all children aged 2 years not fully immunised ranged from **almost 1100**, recorded in Western Sydney, to **fewer than 80**, recorded in Lower Murray (Vic), Great South Coast (Vic), Central and North West Queensland, and Far West NSW (page 20).

Numbers of 5 year olds not fully immunised, by Medicare Local catchment

The number of all children aged 5 years not fully immunised ranged from **more than 1200**, recorded in Western Sydney, South Western Sydney and Greater Metro South Brisbane to **fewer than 80** recorded in Greater South Coast (Vic), Far West NSW, and Central and North West Queensland (page 24).

Lower-level reporting

Where possible, the percentages of children fully immunised have been broken down by smaller local areas called Statistical Areas Level 3 (SA3) which are used by the Australian Bureau of Statistics. There are 333 statistical areas covering the whole of Australia without gaps or overlaps.

There were 32 statistical areas where the percentages of all children fully immunised were 85% or lower for at least one age group:

- for children 1 year of age - 4 statistical areas
- for children 2 years of age - 4
- for children 5 years of age - 30.

There were 77 statistical areas where the percentages of all children fully immunised were 95% or higher for at least one age group:

- for children 1 year of age - 23 statistical areas
- for children 2 years of age - 72
- for children 5 years of age - 3 (pages 29 to 40).

Results for Aboriginal and Torres Strait Islander children are not reported for statistical areas because the populations of these children in most of statistical areas are too small to support reliable estimates.

Local-level data are available at www.nhpa.gov.au

Key findings: Aboriginal and Torres Strait Islander children

The data presented here reflect results for those children who were identified as Aboriginal and Torres Strait Islander in the Australian Childhood Immunisation Register (ACIR) during 2011–12. The ACIR data are based on Medicare enrolment records and levels of identification may vary between Medicare Local catchments.

Percentages fully immunised: Variation by Medicare Local catchment

There was considerable variation between Medicare Local catchments in terms of the percentages of Aboriginal and Torres Strait Islander children fully immunised across all three age groups.

Percentages of 1 year olds fully immunised, by Medicare Local catchment

The percentage of Aboriginal and Torres Strait Islander children aged 1 fully immunised ranged from:

Highest 94% – Gold Coast (Qld)

Lowest 69% – Bentley-Armadale (WA) (pages 17 and 18).

Percentages of 2 year olds fully immunised, by Medicare Local catchment

The percentage of Aboriginal and Torres Strait Islander children aged 2 fully immunised ranged from:

Highest 97% – Northern Territory and Gold Coast (Qld)

Lowest 80% – Central Adelaide and Hills (pages 21 and 22).

Percentages of 5 year olds fully immunised, by Medicare Local catchment

The percentage of Aboriginal and Torres Strait Islander children aged 5 years fully immunised ranged from:

Highest 95% – Central and North West Queensland

Lowest 70% – Perth North Metro (pages 25 and 26).

Percentages fully immunised: Variation by age

Immunisation rates were highest at 2 years of age. Out of the three age groups, percentages of Aboriginal and Torres Strait Islander children fully immunised at 2 years of age were highest (or equal highest) for all but seven of the 56 Medicare Local catchments reported (Figure 5, page 12).⁹

Rates were lowest for children at 1 year of age. Percentages of Aboriginal and Torres Strait Islander children fully immunised at 1 year were lowest (or equal lowest) of the three age groups for 35 of the 56 Medicare Local catchments reported.

The percentages fully immunised for Aboriginal and Torres Strait Islander children aged 1 year and 5 years were also much lower than the 2 year age group.

For Aboriginal and Torres Strait Islander children aged 2 years, 16 Medicare Local catchments recorded percentages fully immunised of less than 90%.¹⁰

9. Results are not reported for Medicare Local catchments for any age group with less than 26 children registered with the ACIR.
10. The level of 90% of children fully immunised does not relate to any benchmarks and is used here for indicative purposes only.

But for children aged 1 year, there were 46 Medicare Local catchments with percentages below 90%, and 35 catchments had less than 90% for children aged 5 years.

There were also eight Medicare Local catchments with percentages below 80% for children aged 1 year, and nine catchments with results below 80% for children aged 5 years.

Numbers of children not fully immunised

There were three Medicare Local catchments that recorded more than 100 Aboriginal and Torres Strait Islander children aged 1 year who were not fully immunised (**Figure 4, page 11**).

At 148, the largest single group of Aboriginal and Torres Strait Islander children not fully immunised was recorded for 1 year olds. Next were 5 year olds, with 110 in the largest group of children not fully immunised. The largest group of 2 year olds not fully immunised was 63 (**pages 18, 22 and 26**).

Numbers of 1 year olds not fully immunised, by Medicare Local catchment

The number of Aboriginal and Torres Strait Islander children aged 1 year not fully immunised ranged from 148 to 5 or fewer (**page 18**).

Numbers of 2 year olds not fully immunised, by Medicare Local catchment

The number of Aboriginal and Torres Strait Islander children aged 2 years not fully immunised ranged from 63 to 5 or fewer (**page 22**).

Numbers of 5 year olds not fully immunised, by Medicare Local catchment

The number of Aboriginal and Torres Strait Islander children aged 5 years not fully immunised ranged from 110 to 5 or fewer (**page 26**).

Comparison between percentages of Aboriginal and Torres Strait Islander children fully immunised and all children

The highest percentages recorded for Aboriginal and Torres Strait Islander children in Medicare Local catchments exceeded or equalled those recorded for all children. However, the lowest percentages recorded for Aboriginal and Torres Strait Islander children were substantially lower than those recorded for all children (**pages 18, 22 and 26**).

The lowest percentage of fully immunised Aboriginal and Torres Strait Islander children recorded for 1 year olds was 69%, compared with 85% for all children – a variation of 16 percentage points (**pages 16 and 18**).

The lowest percentage of fully immunised Aboriginal and Torres Strait Islander children recorded for 5 year olds was 70%, compared with 84% for all children – a variation of 14 percentage points (**pages 24 and 26**).

At 80%, the lowest percentage of fully immunised Aboriginal and Torres Strait Islander children recorded for 2 year olds was closest to that recorded for all children, which was 89%. The variation was 9 percentage points (**pages 20 and 22**).

Children fully immunised: Medicare Local catchment snapshot

It is important to look at the **percentages** of children who were fully immunised in conjunction with the **numbers** of children who were not fully immunised. **(For the numbers of children aged 1, 2 and 5 not fully immunised see pages 16, 20 and 24.)** A Medicare Local catchment with a large population can have a high percentage of children that are fully immunised **and** a high number of children who are not fully immunised.

Figure 2 shows the percentages of children that were fully immunised and the numbers of children not fully immunised at 1 year, 2 years and 5 years.

Each dot represents a Medicare Local catchment. The size of each dot is scaled to represent the number of children in each Medicare Local catchment that were not fully immunised.

The figure shows that there were Medicare Local catchments with 93% of children who were fully immunised that still contain groups of more than 600 children who were not fully immunised. The largest single group of children who were not fully immunised was recorded for 5 year olds (1287 children).

Figure 3 on the opposite page compares the percentages of children fully immunised for 1 year olds, 2 year olds and 5 year olds by Medicare Local catchment.

The figure shows that the percentage of children who were fully immunised at 2 years generally exceeded that recorded for 1 year olds. In most cases, the percentage recorded for 5 year olds was the lowest.

Figure 2: Percentages of all children¹ in each of 61 Medicare Local catchments that are fully immunised by age and number not fully immunised, 2011–12

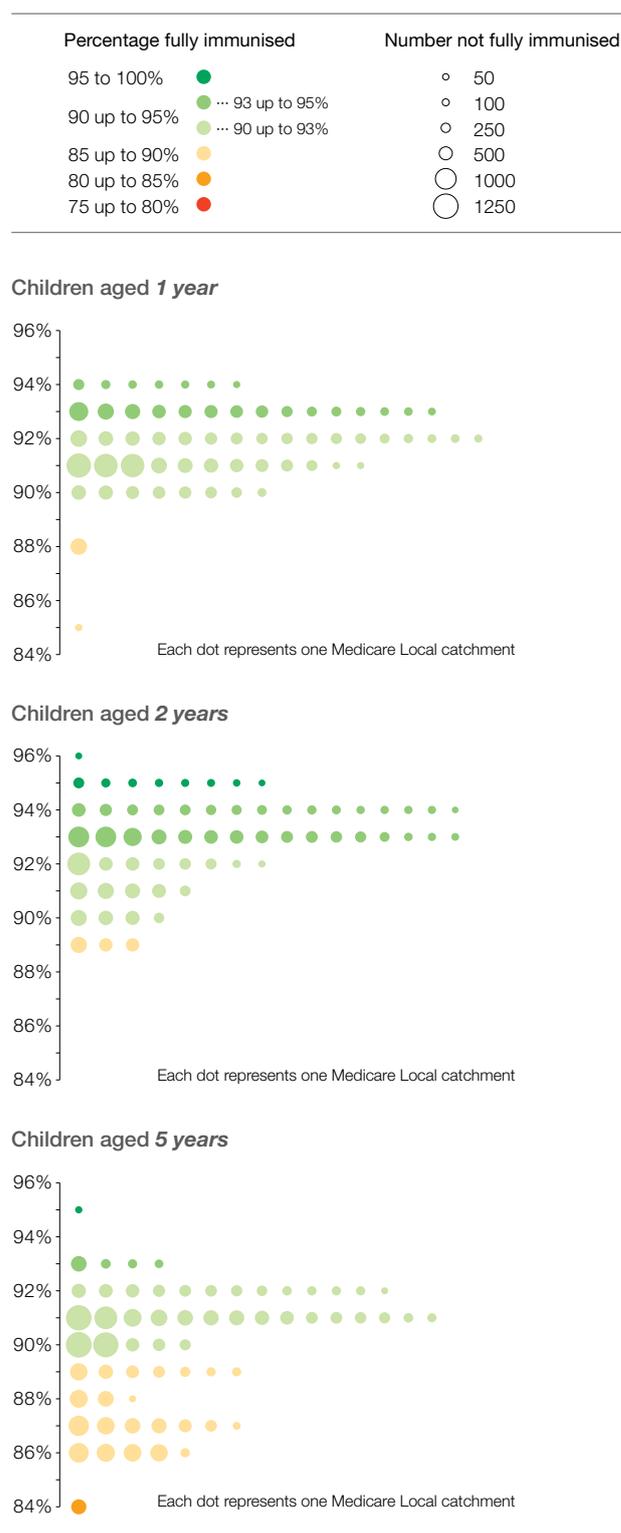
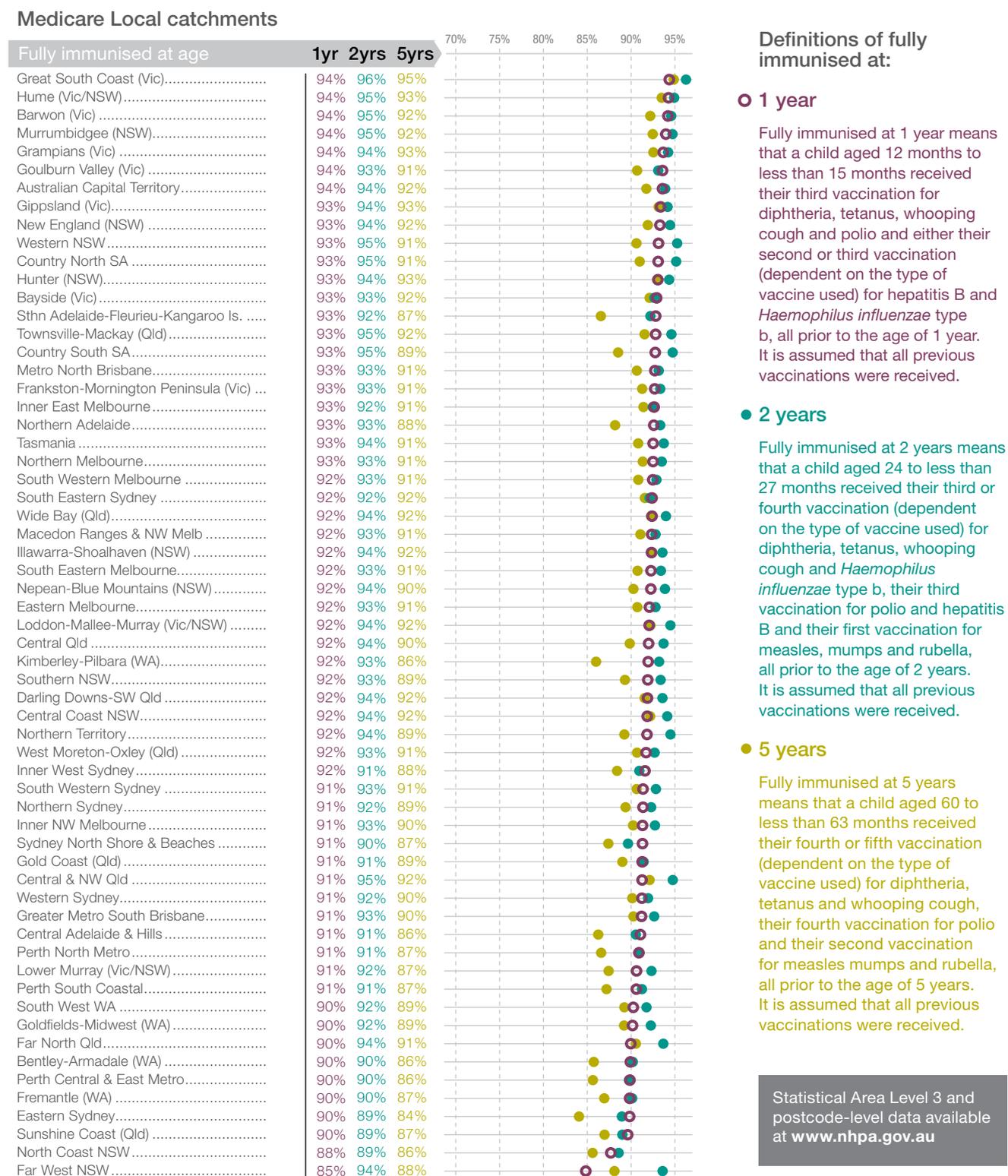


Figure 3: Percentages of all children¹ in each of 61 Medicare Local catchments that are fully immunised by age, 2011–12



Definitions of fully immunised at:

○ 1 year

Fully immunised at 1 year means that a child aged 12 months to less than 15 months received their third vaccination for diphtheria, tetanus, whooping cough and polio and either their second or third vaccination (dependent on the type of vaccine used) for hepatitis B and *Haemophilus influenzae* type b, all prior to the age of 1 year. It is assumed that all previous vaccinations were received.

● 2 years

Fully immunised at 2 years means that a child aged 24 to less than 27 months received their third or fourth vaccination (dependent on the type of vaccine used) for diphtheria, tetanus, whooping cough and *Haemophilus influenzae* type b, their third vaccination for polio and hepatitis B and their first vaccination for measles, mumps and rubella, all prior to the age of 2 years. It is assumed that all previous vaccinations were received.

● 5 years

Fully immunised at 5 years means that a child aged 60 to less than 63 months received their fourth or fifth vaccination (dependent on the type of vaccine used) for diphtheria, tetanus and whooping cough, their fourth vaccination for polio and their second vaccination for measles mumps and rubella, all prior to the age of 5 years. It is assumed that all previous vaccinations were received.

Statistical Area Level 3 and postcode-level data available at www.nhpa.gov.au

1. Data are reported as whole numbers. However, for graphical display they are plotted by 2 decimal places.

Source: Department of Human Services, Australian Childhood Immunisation Register statistics 2011–12, data supplied 14/01/2013.

Aboriginal and Torres Strait Islander children fully immunised: Medicare Local catchment snapshot

Figure 4 shows the percentages of Aboriginal and Torres Strait Islander children that were fully immunised and the numbers of children not fully immunised at 1 year, 2 years and 5 years.

Each dot represents a Medicare Local catchment. The size of each dot is scaled to represent the number of children in each Medicare Local catchment that were not fully immunised.

There were large variations in the percentages of Aboriginal and Torres Strait Islander children who were fully immunised in all three age groups. The largest variation was recorded for 1 year olds and 5 year olds. The percentages of children aged 1 who were fully immunised ranged from 94% to

69%, and for children aged 5, the percentages ranged from 95% to 70%. The percentages of children aged 2 years who were fully immunised ranged from 97% to 80%.

Figure 5 on the opposite page compares the percentages of Aboriginal and Torres Strait Islander children fully immunised for 1 year olds, 2 year olds and 5 year olds by Medicare Local catchment.

The figure shows that the percentages of children who were fully immunised at 2 years almost always exceeded that recorded for 1 year olds. The percentages recorded for 5 year olds was almost always lower than that for 2 year olds.

Figure 4: Percentages of Aboriginal and Torres Strait Islander children¹ in each of 61 Medicare Local catchments that are fully immunised by age and number not fully immunised, 2011–12

Percentage fully immunised

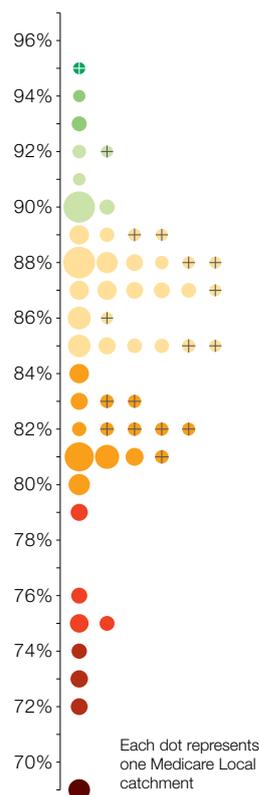
- 95 to 100% ●
- 90 up to 95% ●
- 85 up to 90% ●
- 80 up to 85% ●
- 75 up to 80% ●
- 70 up to 75% ●
- 65 up to 70% ●

Number not fully immunised

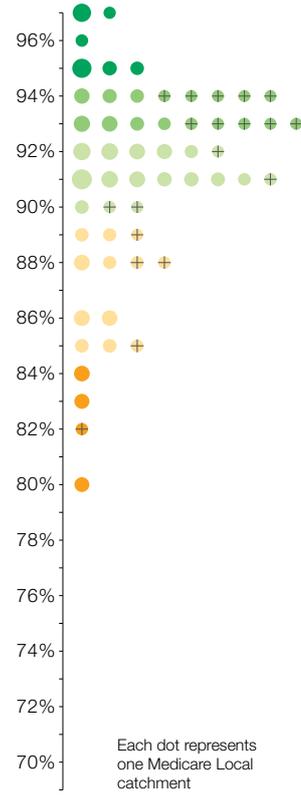
- ≤5
- 25
- 50
- 75
- 100
- 150

⊕ Interpret with caution, population between 26 and 100 children

Aboriginal and Torres Strait Islander children aged 1 year



Aboriginal and Torres Strait Islander children aged 2 years



Aboriginal and Torres Strait Islander children aged 5 years

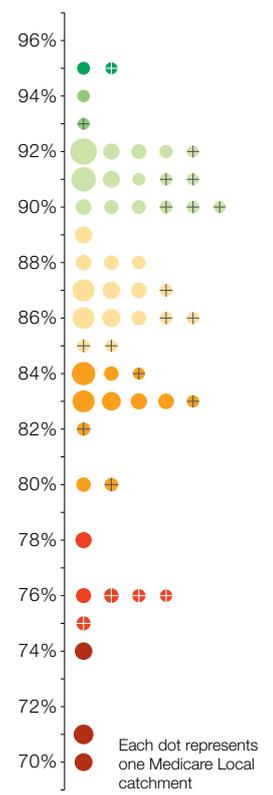
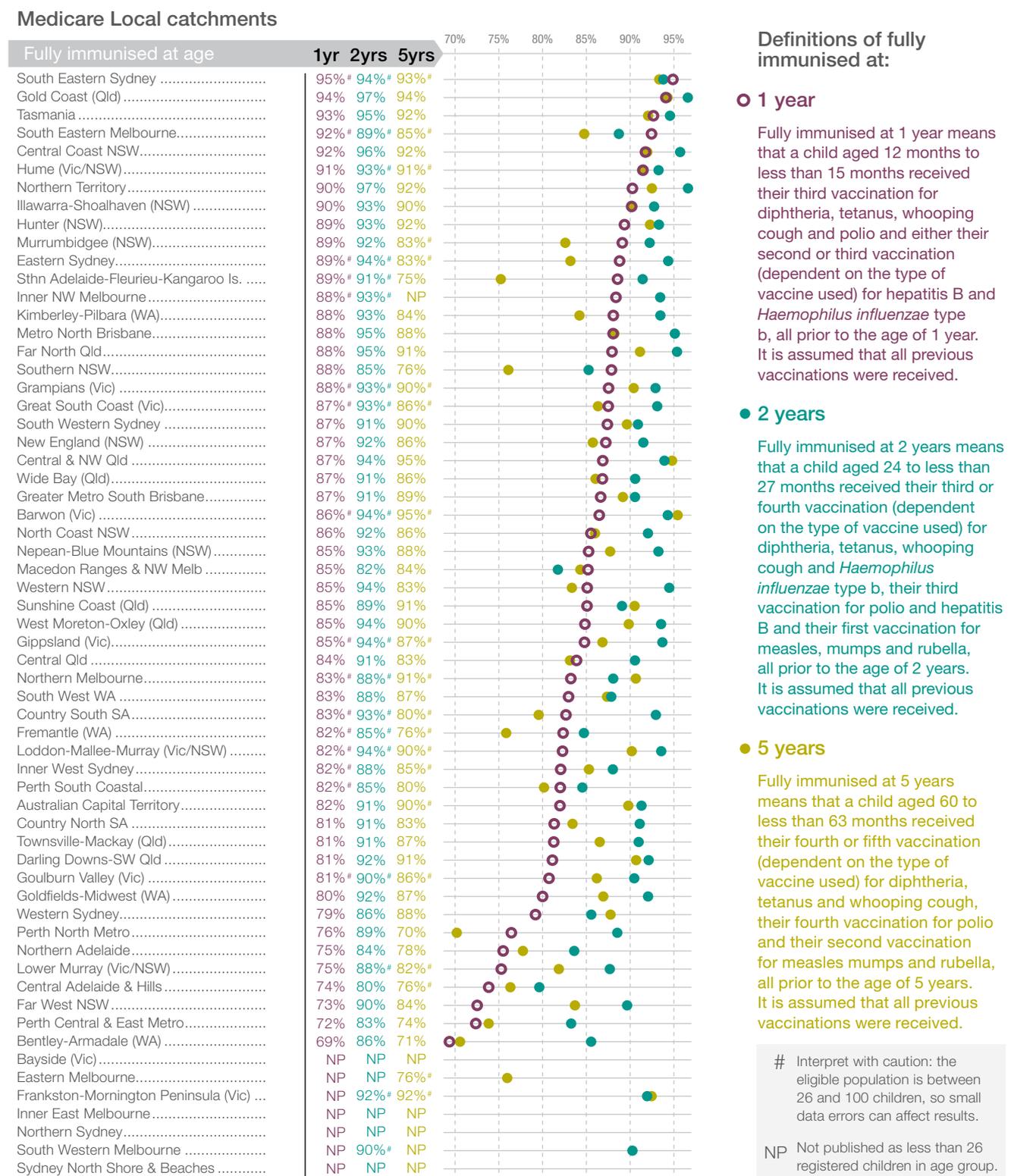


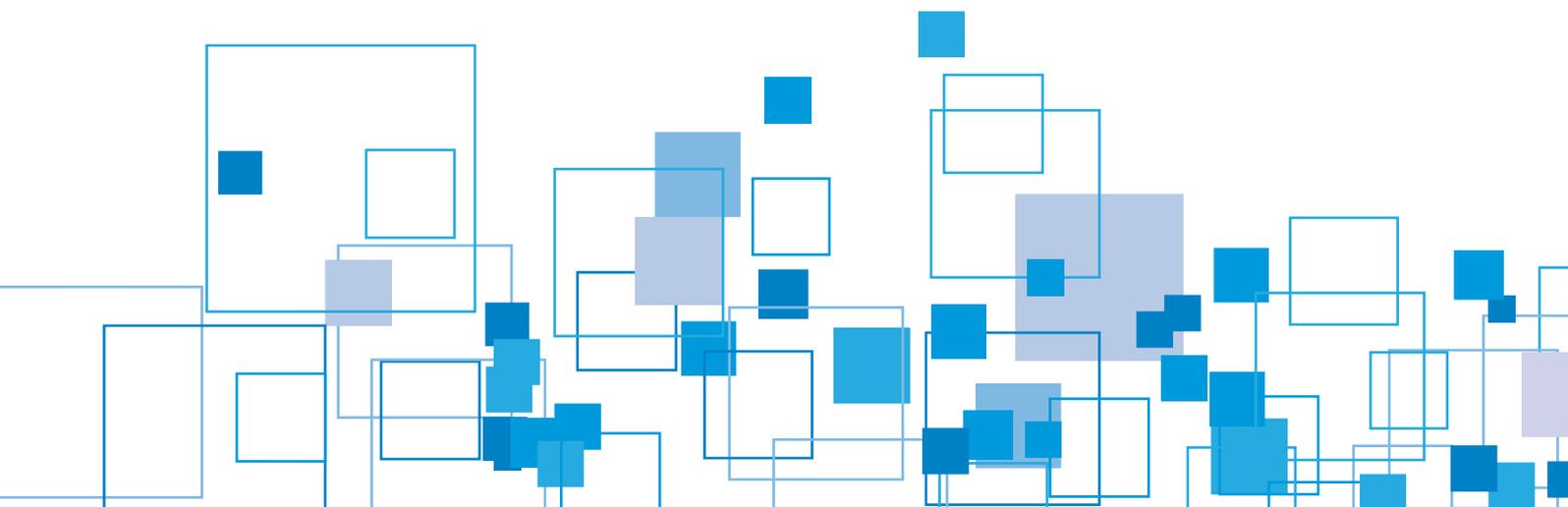
Figure 5: Percentages of Aboriginal and Torres Strait Islander children¹ in each of 61 Medicare Local catchments that are fully immunised by age, 2011–12



1. Data are reported as whole numbers. However, for graphical display they are plotted by 2 decimal places.

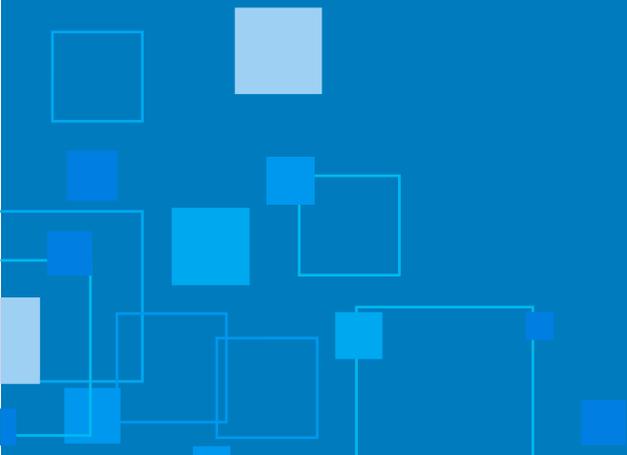
Note: Interpret with caution: the eligible population is between 26 and 100 Aboriginal or Torres Strait Islander children, so small data errors can affect results.

Source: Department of Human Services, Australian Childhood Immunisation Register statistics 2011–12, data supplied 14/1/2013.



Child immunisation rates

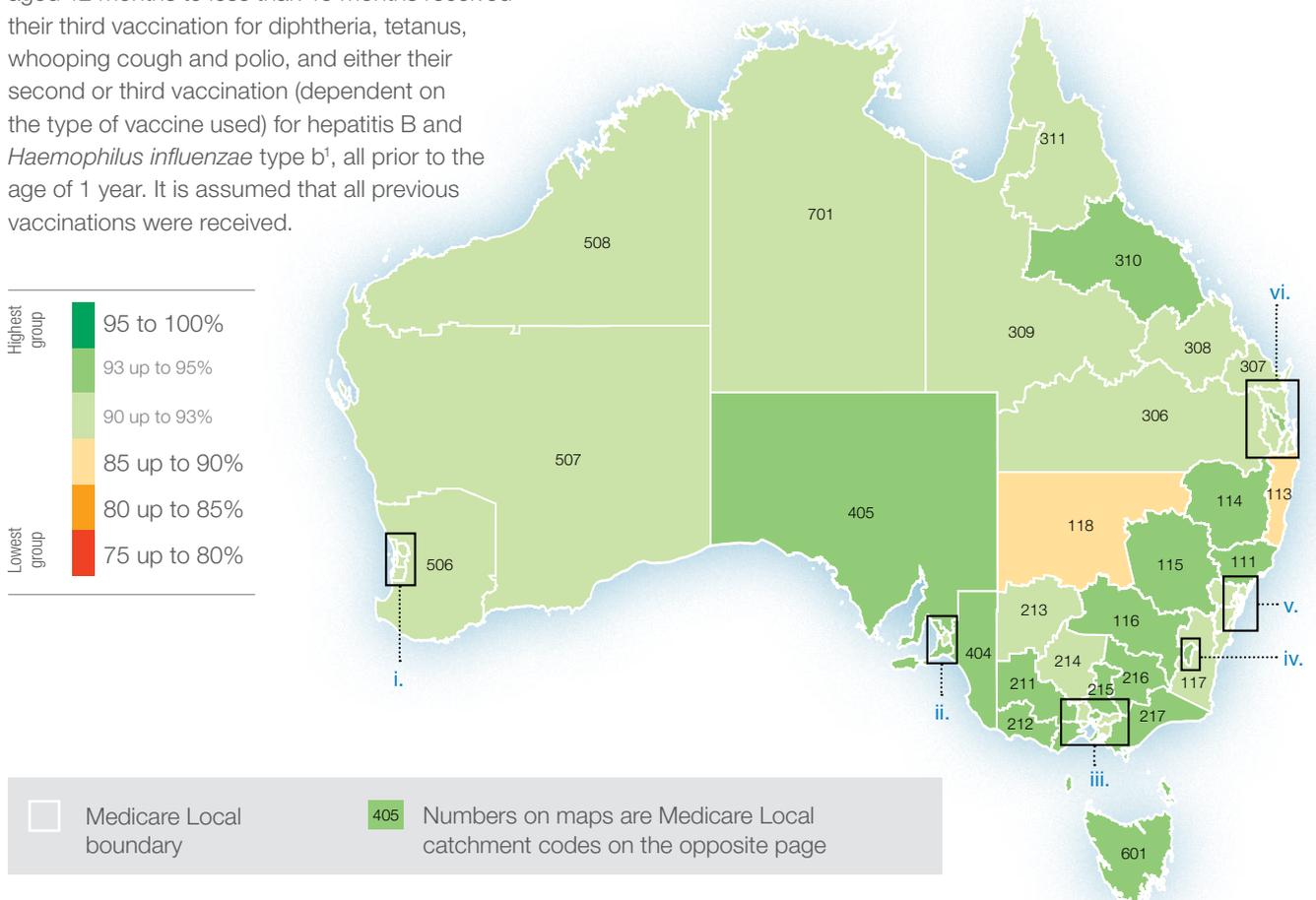
Medicare Local catchments 2011–12



Children aged 1 year who were fully immunised, 2011–12

Percentages of children aged 1 year fully immunised, by Medicare Local catchment, 2011–12

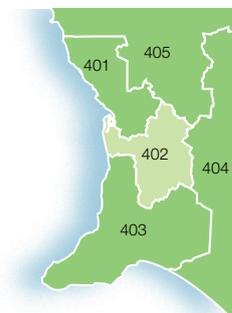
Fully immunised at 1 year means that a child aged 12 months to less than 15 months received their third vaccination for diphtheria, tetanus, whooping cough and polio, and either their second or third vaccination (dependent on the type of vaccine used) for hepatitis B and *Haemophilus influenzae* type b¹, all prior to the age of 1 year. It is assumed that all previous vaccinations were received.



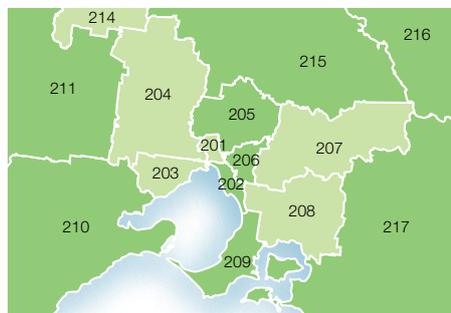
i. Greater Perth



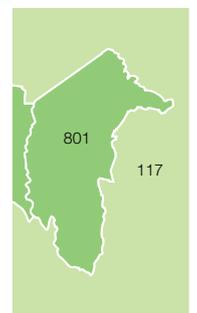
ii. Greater Adelaide



iii. Greater Melbourne



iv. ACT



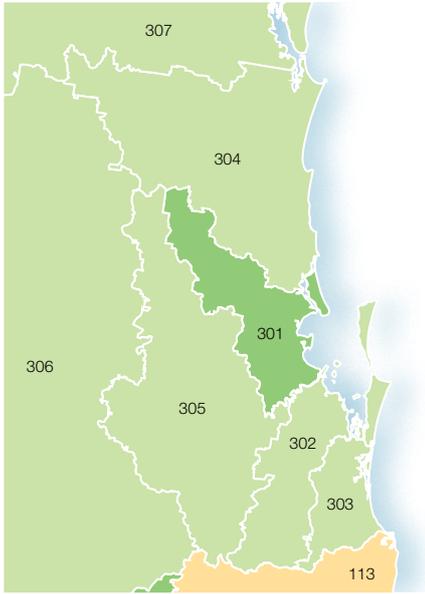
1. For more details on the diseases and immunisations see Immunise Australia Program. Diseases and Programs A - Z. www.immunise.health.gov.au Accessed 26/02/2013.

2. Results are reported as whole numbers. However, for graphical display they are plotted by 2 decimal places.

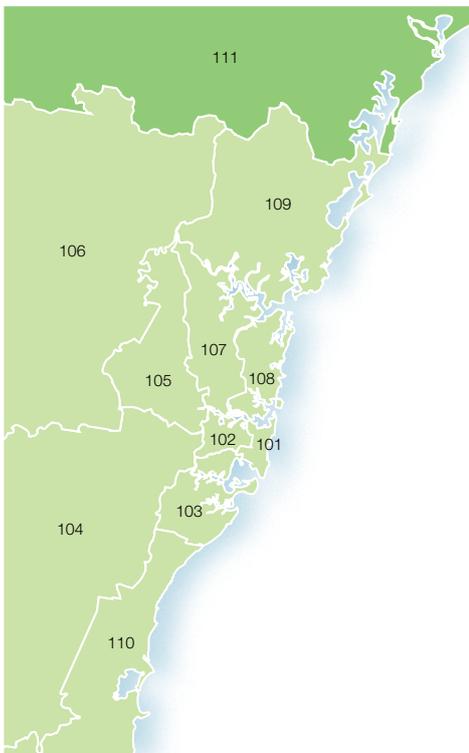
Note: Data exclude a number of invalid and unallocated postcodes – for more information see *Healthy Communities: Immunisation rates for children in 2011–12, Technical Supplement* www.nhpa.gov.au

Source: Department of Human Services, Australian Childhood Immunisation Register statistics 2011–12, data supplied 14/01/2013.

vi. Greater Brisbane



v. Greater Sydney



Statistical Area Level 3 and postcode-level data available at www.nhpa.gov.au

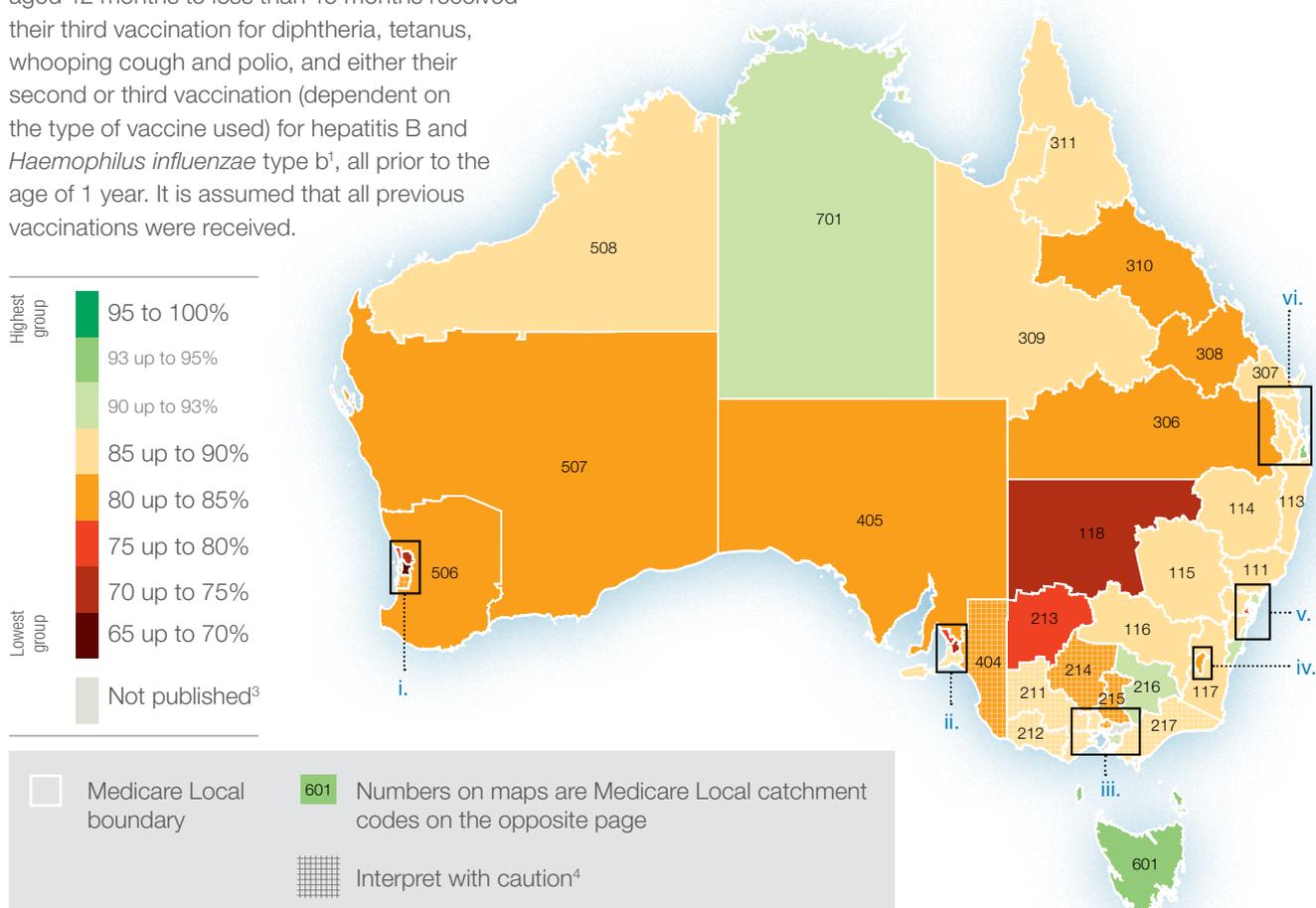
Percentages of children aged 1 year fully immunised², by Medicare Local catchment, 2011–12



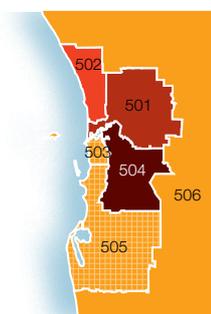
Aboriginal and Torres Strait Islander children aged 1 year who were fully immunised, 2011–12

Percentages of Aboriginal and Torres Strait Islander children aged 1 year fully immunised, by Medicare Local catchment, 2011–12

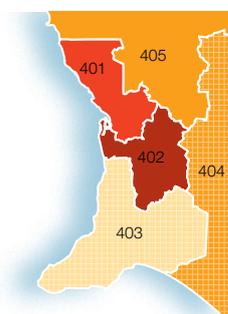
Fully immunised at 1 year means that a child aged 12 months to less than 15 months received their third vaccination for diphtheria, tetanus, whooping cough and polio, and either their second or third vaccination (dependent on the type of vaccine used) for hepatitis B and *Haemophilus influenzae* type b¹, all prior to the age of 1 year. It is assumed that all previous vaccinations were received.



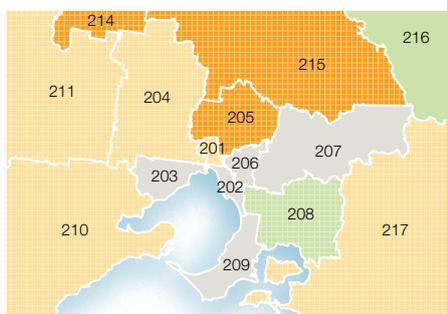
i. Greater Perth



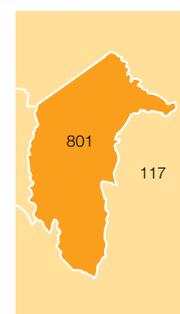
ii. Greater Adelaide



iii. Greater Melbourne

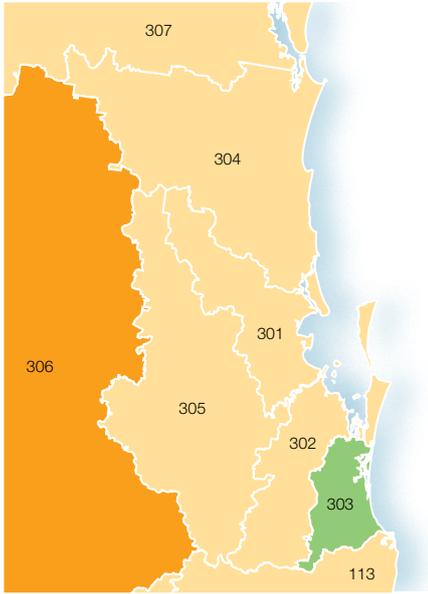


iv. ACT

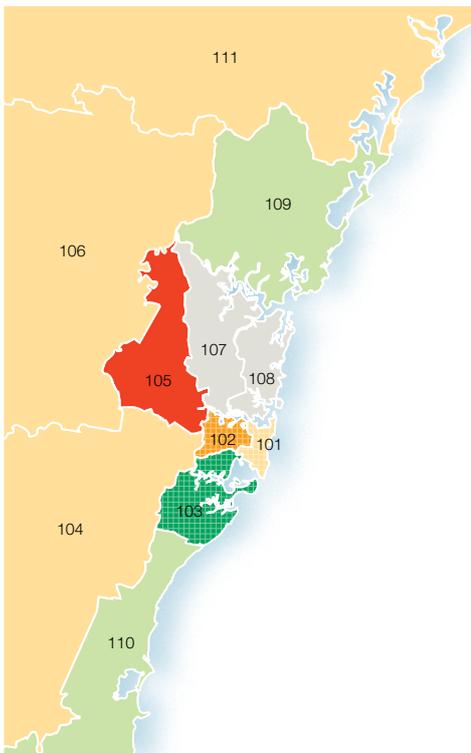


1. For more details on the diseases and immunisations see Immunise Australia Program. Diseases and Programs A - Z. www.immunise.health.gov.au Accessed 26/02/2013.
 2. Results are reported as whole numbers. However, for graphical display they are plotted by 2 decimal places.
 3. Medicare Local catchments with less than 26 registered children in the age group are not reported. For more information see *Healthy Communities: Immunisation rates for children in 2011–12, Technical Supplement* www.nhpa.gov.au
 4. Interpret with caution as the eligible population is between 26 and 100 children so small data errors can affect results.
Source: Department of Human Services, Australian Childhood Immunisation Register statistics 2011–12, data supplied 14/01/2013.

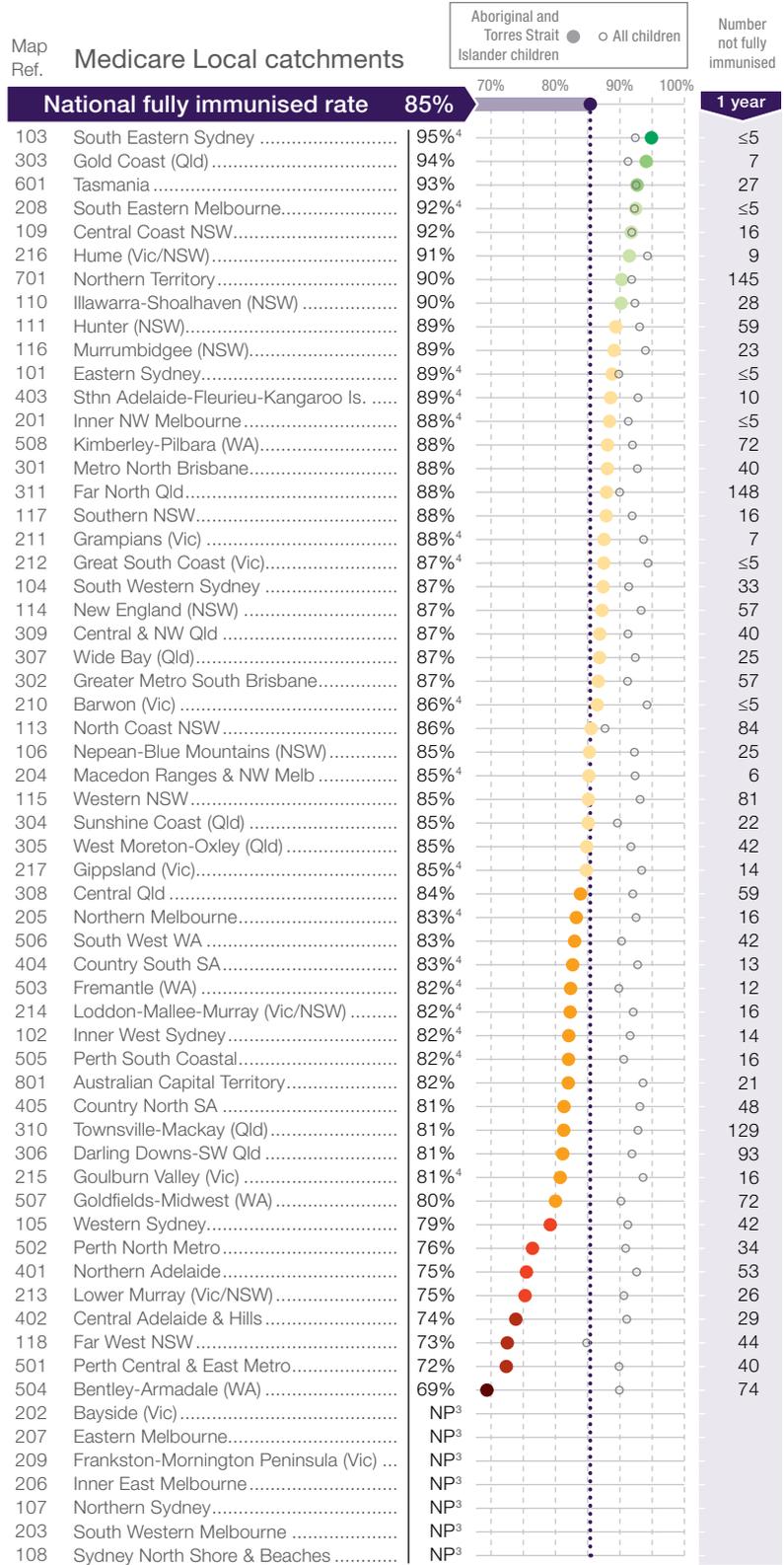
vi. Greater Brisbane



v. Greater Sydney



Percentage of Aboriginal and Torres Strait Islander children aged 1 year fully immunised², by Medicare Local catchment, 2011–12

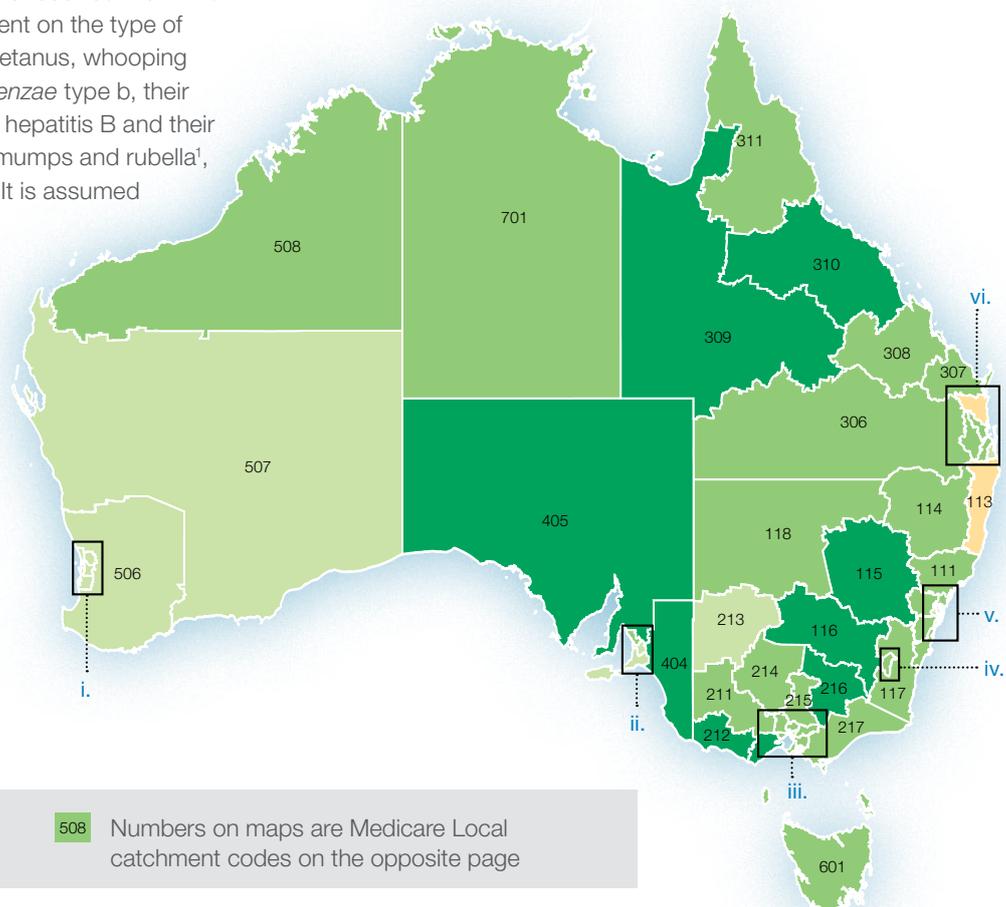
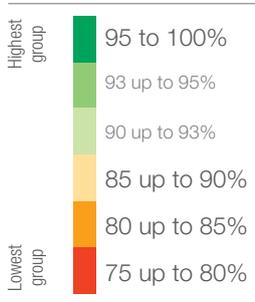


Notes: Data exclude a number of invalid and unallocated postcodes – for more information see *Healthy Communities: Immunisation rates for children in 2011–12, Technical Supplement* www.nhpa.gov.au
 This data reflects the results for children identified as Aboriginal and Torres Strait Islander in the ACIR in 2011–12. Levels of identification may vary between Medicare Local catchments.

Children aged 2 years who were fully immunised, 2011–12

Percentages of children aged 2 years fully immunised, by Medicare Local catchment, 2011–12

Fully immunised at 2 years means that a child aged 24 to less than 27 months received their third or fourth vaccination (dependent on the type of vaccine used) for diphtheria, tetanus, whooping cough and *Haemophilus influenzae* type b, their third vaccination for polio and hepatitis B and their first vaccination for measles, mumps and rubella¹, all prior to the age of 2 years. It is assumed that all previous vaccinations were received.

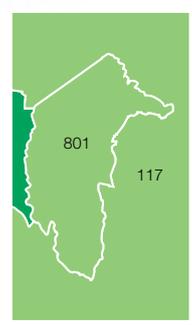
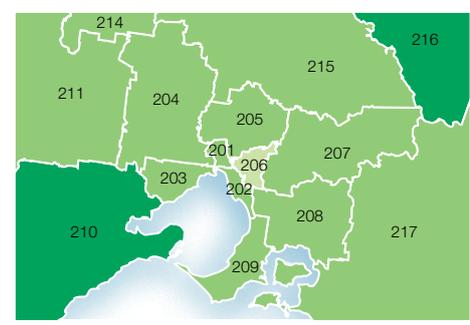
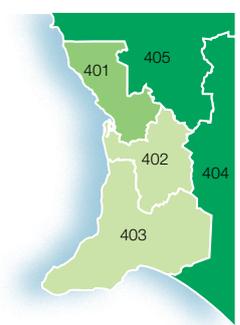


i. Greater Perth

ii. Greater Adelaide

iii. Greater Melbourne

iv. ACT



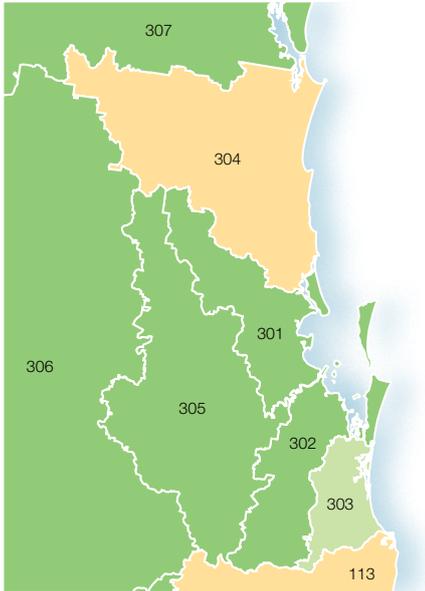
1. For more details on the diseases and immunisations see Immunise Australia Program. Diseases and Programs A - Z. www.immunise.health.gov.au Accessed 26/02/2013.

2. Results are reported as whole numbers. However, for graphical display they are plotted by 2 decimal places.

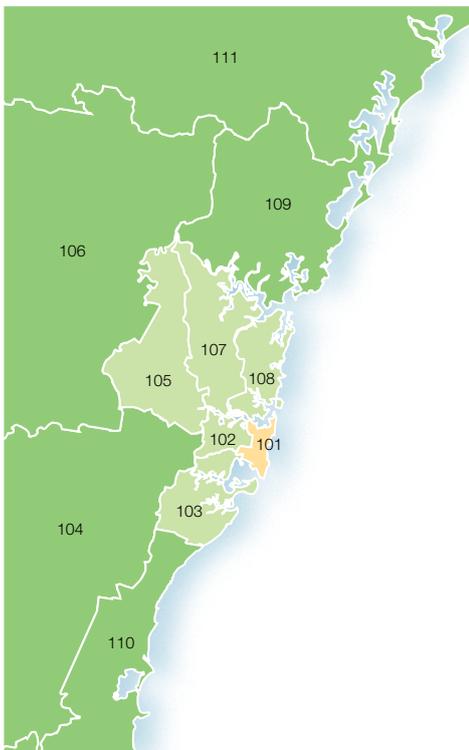
Note: Data exclude a number of invalid and unallocated postcodes – for more information see *Healthy Communities: Immunisation rates for children in 2011–12, Technical Supplement* www.nhpa.gov.au

Source: Department of Human Services, Australian Childhood Immunisation Register statistics 2011–12, data supplied 14/01/2013.

vi. Greater Brisbane

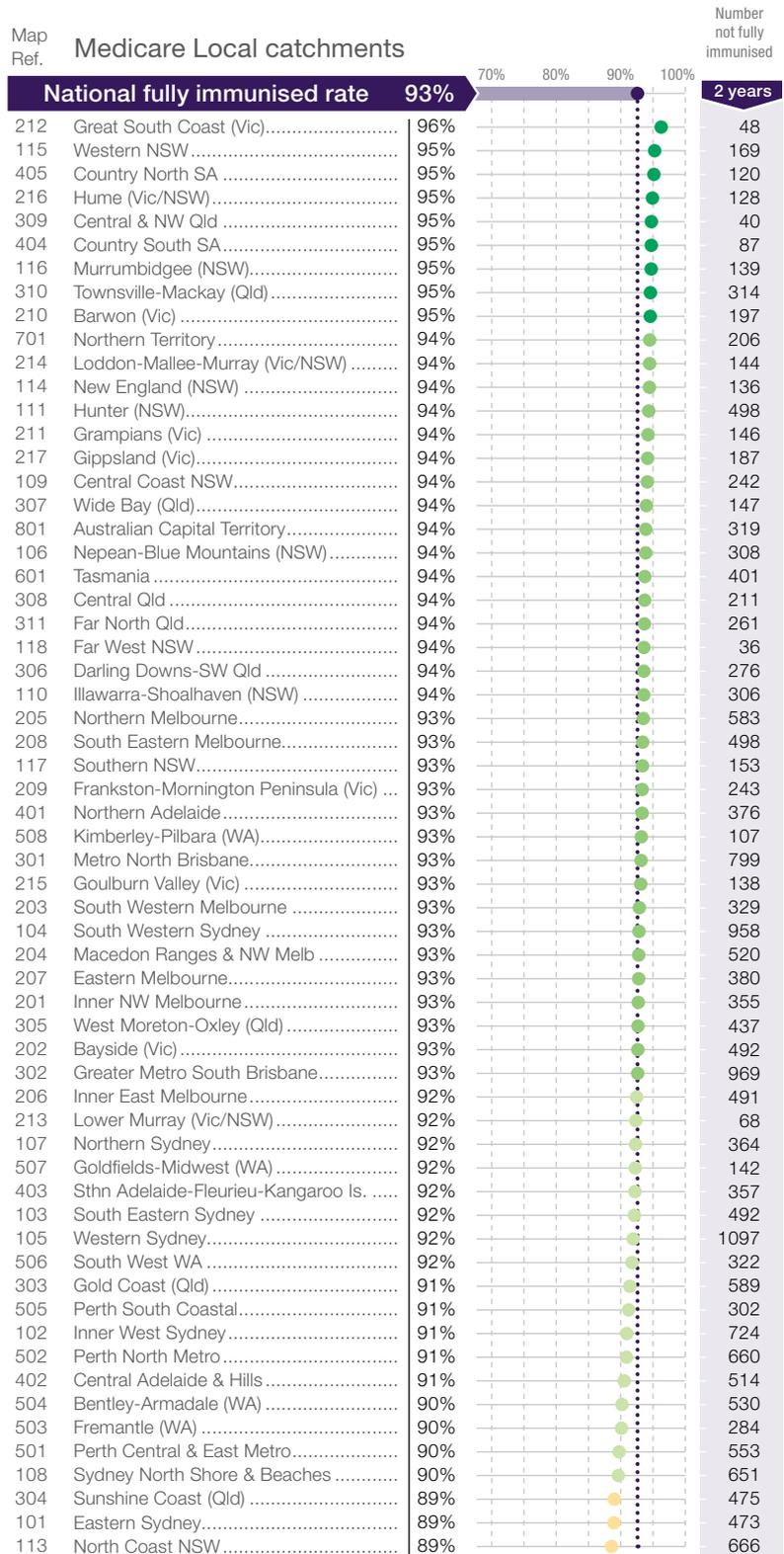


v. Greater Sydney



Statistical Area Level 3 and postcode-level data available at www.nhpa.gov.au

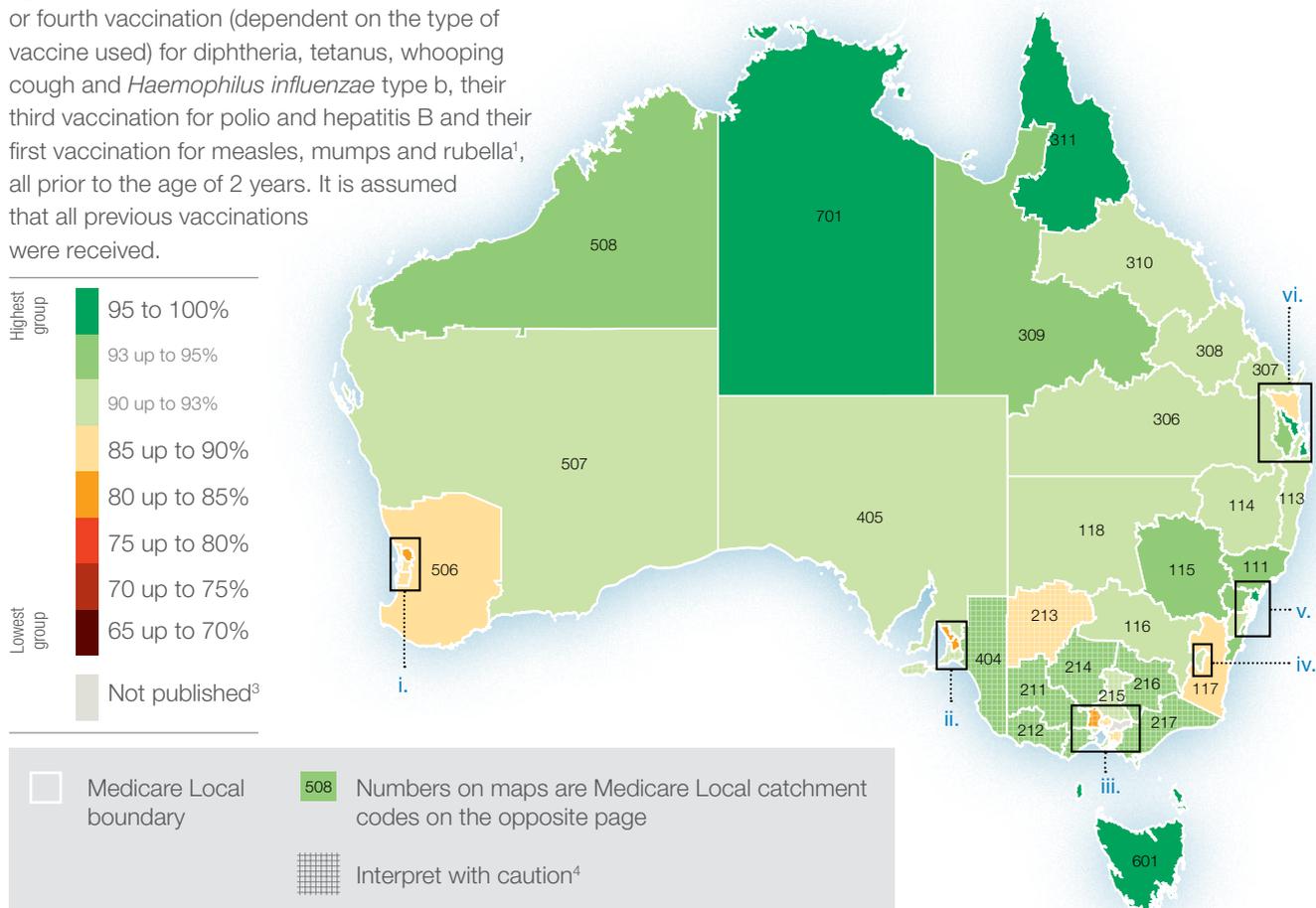
Percentages of children aged 2 years fully immunised², by Medicare Local catchment, 2011–12



Aboriginal and Torres Strait Islander children aged 2 years who were fully immunised, 2011–12

Percentages of Aboriginal and Torres Strait Islander children aged 2 years fully immunised, by Medicare Local catchment, 2011–12

Fully immunised at 2 years means that a child aged 24 to less than 27 months received their third or fourth vaccination (dependent on the type of vaccine used) for diphtheria, tetanus, whooping cough and *Haemophilus influenzae* type b, their third vaccination for polio and hepatitis B and their first vaccination for measles, mumps and rubella¹, all prior to the age of 2 years. It is assumed that all previous vaccinations were received.

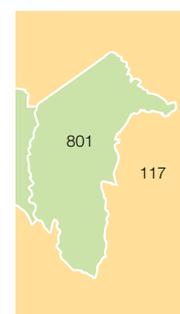
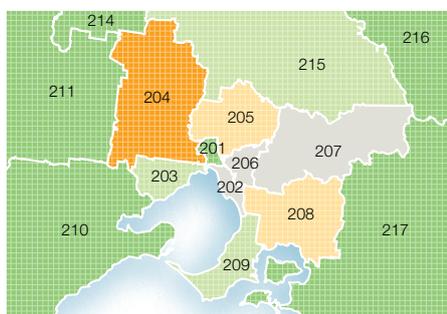
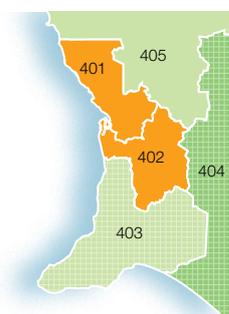
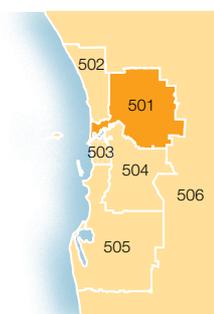


i. Greater Perth

ii. Greater Adelaide

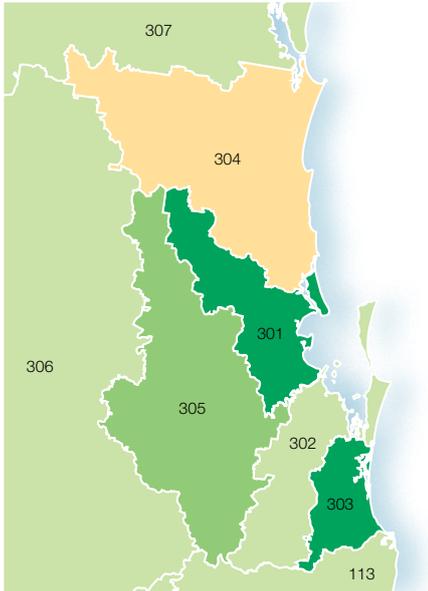
iii. Greater Melbourne

iv. ACT

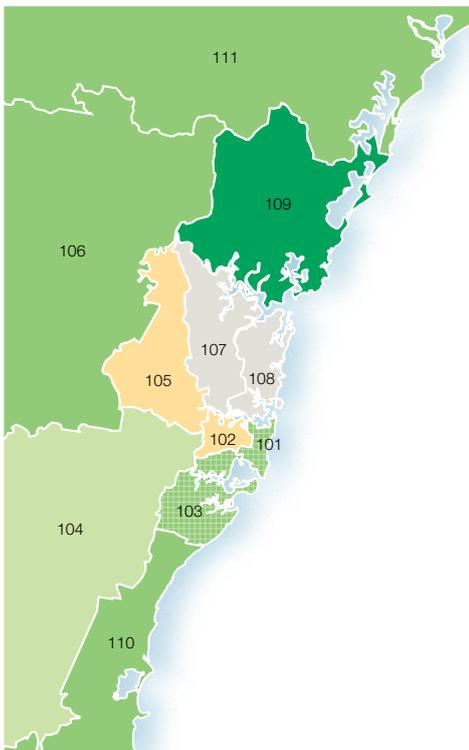


1. For more details on the diseases and immunisations see Immunise Australia Program. Diseases and Programs A - Z. www.immunise.health.gov.au Accessed 26/02/2013.
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 4. Interpret with caution as the eligible population is between 26 and 100 children so small data errors can affect results.
Source: Department of Human Services, Australian Childhood Immunisation Register statistics 2011–12, data supplied 14/01/2013.

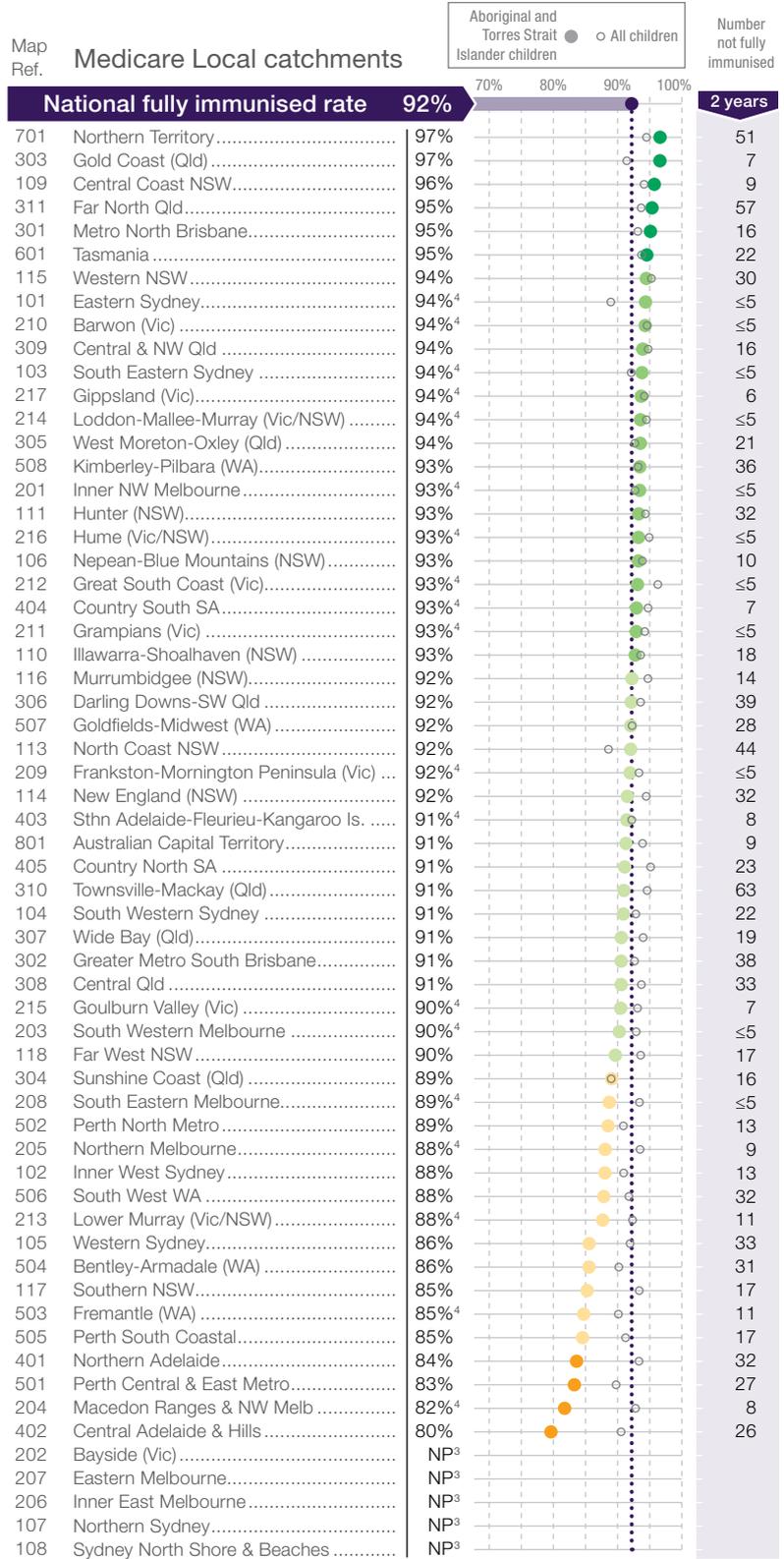
vi. Greater Brisbane



v. Greater Sydney



Percentages of Aboriginal and Torres Strait Islander children aged 2 years fully immunised², by Medicare Local catchment, 2011–12

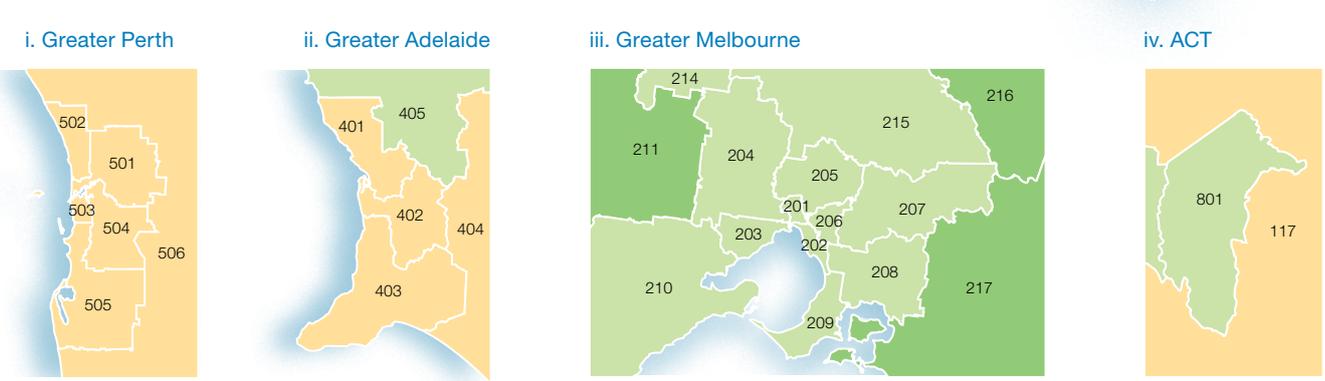
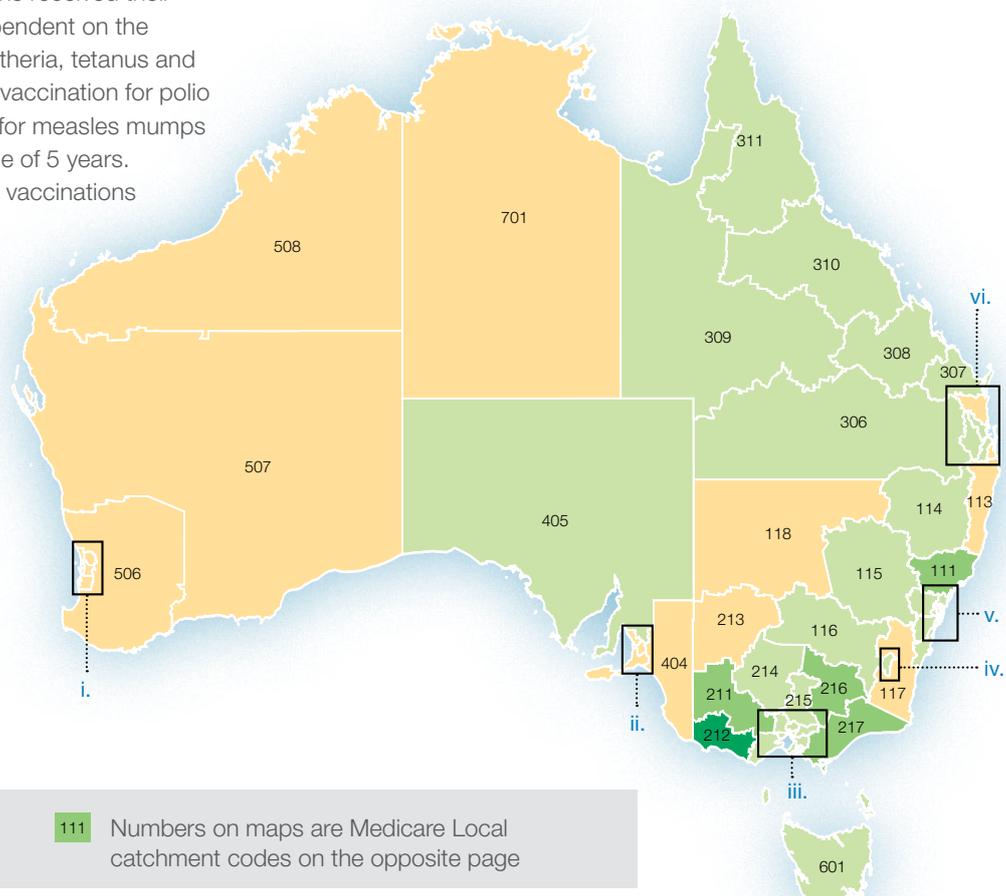
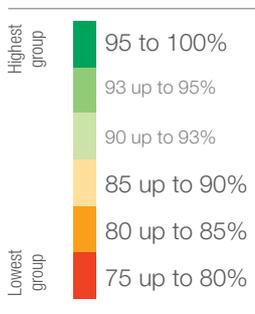


Notes: Data exclude a number of invalid and unallocated postcodes – for more information see *Healthy Communities: Immunisation rates for children in 2011–12, Technical Supplement* www.nhpa.gov.au
 This data reflects the results for children identified as Aboriginal and Torres Strait Islander in the ACIR in 2011–12. Levels of identification may vary between Medicare Local catchments.

Children aged 5 years who were fully immunised, 2011–12

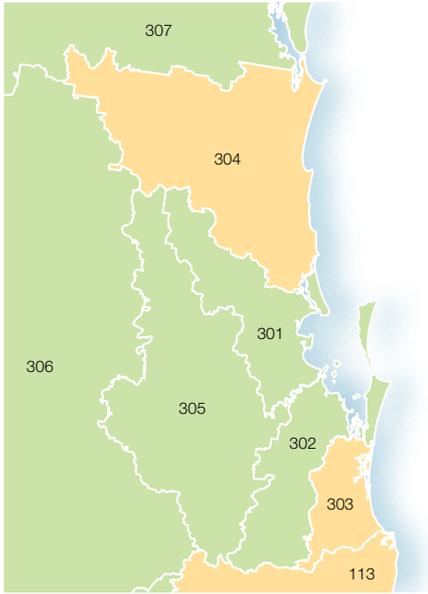
Percentages of children aged 5 years fully immunised, by Medicare Local catchment, 2011–12

Fully immunised at 5 years means that a child aged 60 to less than 63 months received their fourth or fifth vaccination (dependent on the type of vaccine used) for diphtheria, tetanus and whooping cough, their fourth vaccination for polio and their second vaccination for measles mumps and rubella¹, all prior to the age of 5 years. It is assumed that all previous vaccinations were received.

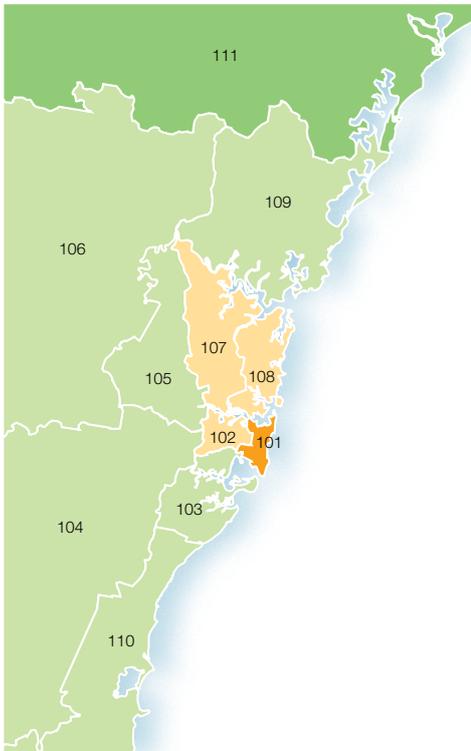


1. For more details on the diseases and immunisations see Immunise Australia Program. Diseases and Programs A - Z. www.immunise.health.gov.au Accessed 26/02/2013.
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Source: Department of Human Services, Australian Childhood Immunisation Register statistics 2011–12, data supplied 14/01/2013.

vi. Greater Brisbane

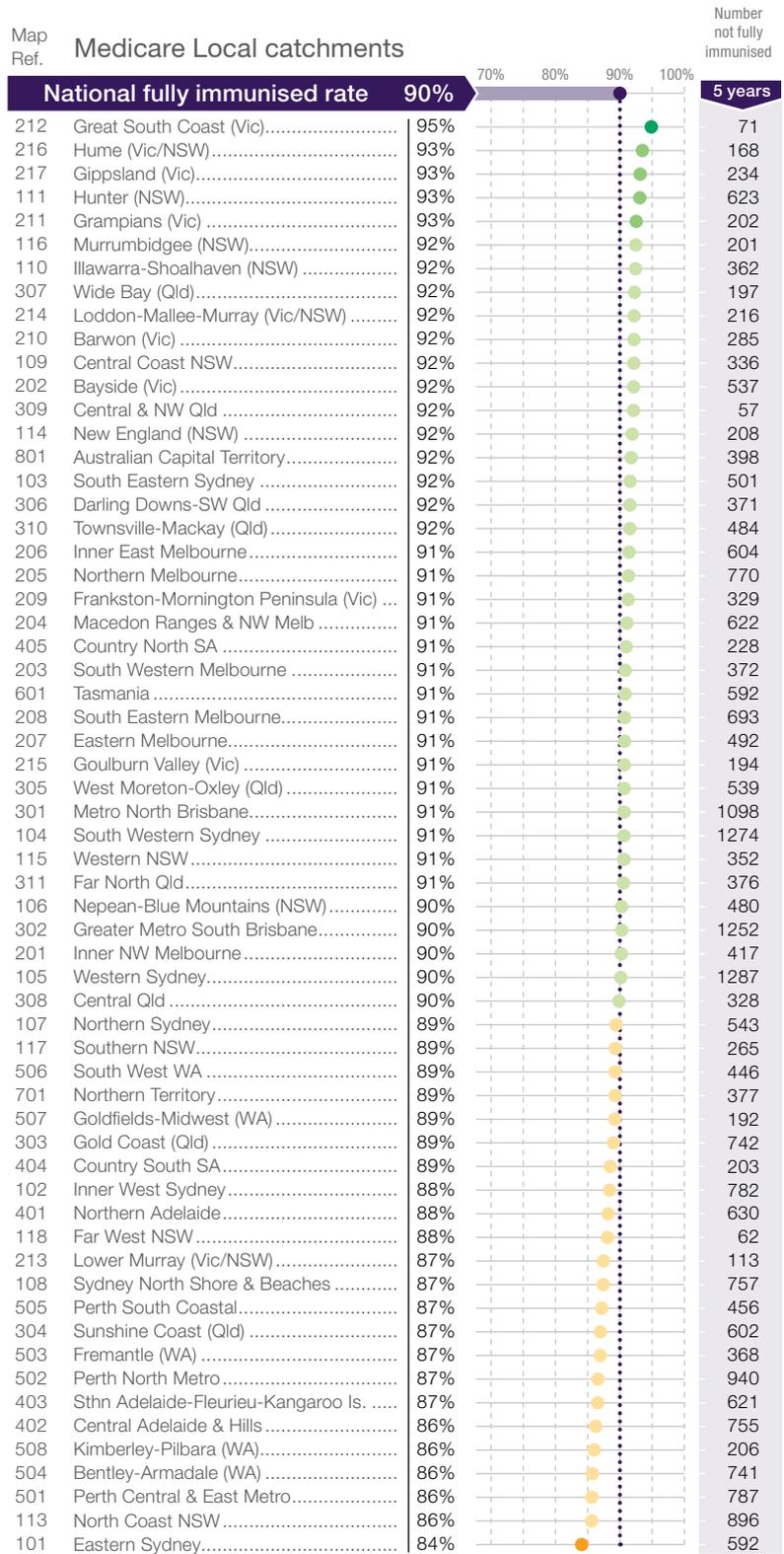


v. Greater Sydney



Statistical Area Level 3 and postcode-level data available at www.nhpa.gov.au

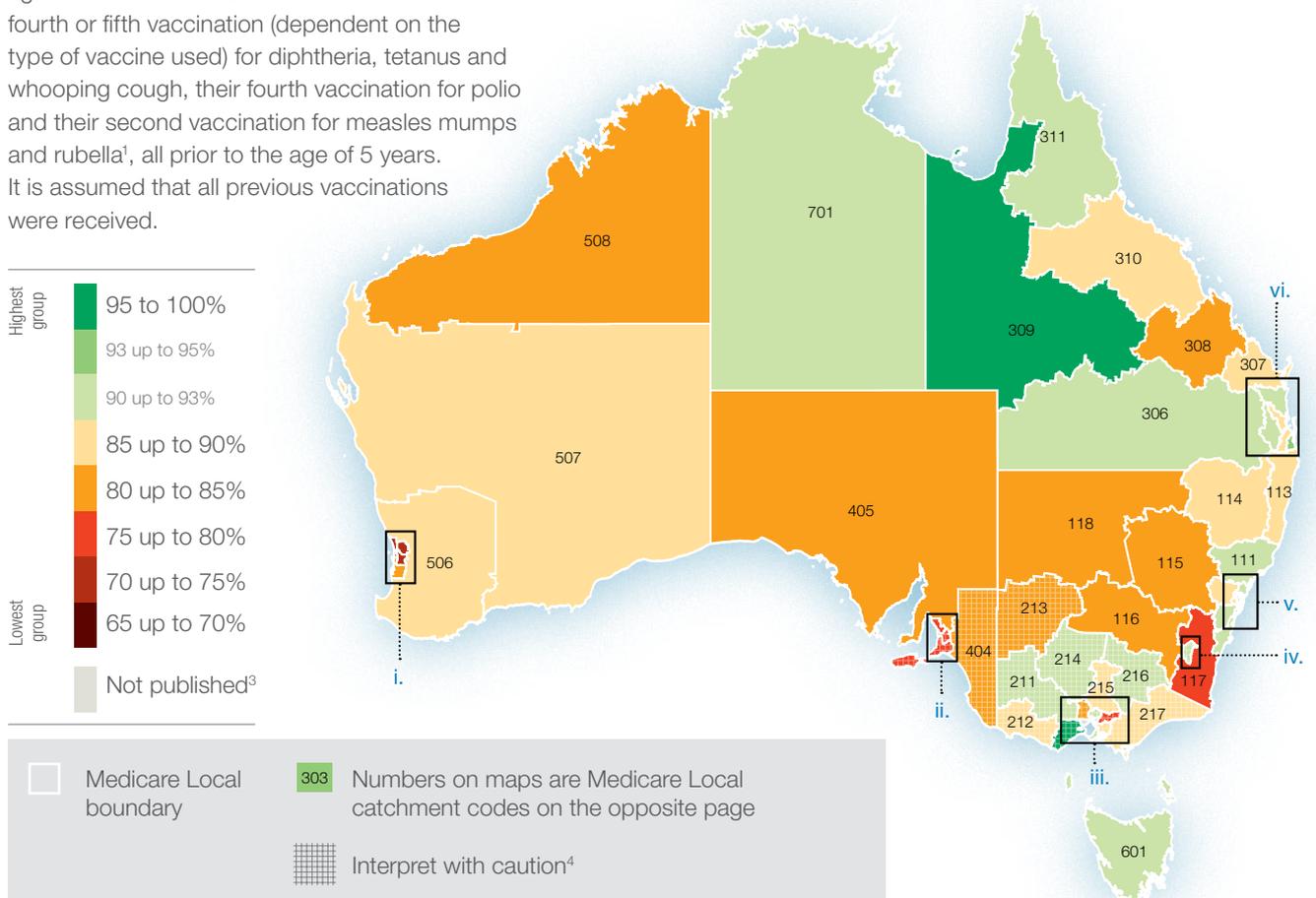
Percentages of children aged 5 years fully immunised², by Medicare Local catchment, 2011–12



Aboriginal and Torres Strait Islander children aged 5 years who were fully immunised, 2011–12

Percentages of Aboriginal and Torres Strait Islander children aged 5 years fully immunised, by Medicare Local catchment, 2011–12

Fully immunised at 5 years means that a child aged 60 to less than 63 months received their fourth or fifth vaccination (dependent on the type of vaccine used) for diphtheria, tetanus and whooping cough, their fourth vaccination for polio and their second vaccination for measles mumps and rubella¹, all prior to the age of 5 years. It is assumed that all previous vaccinations were received.

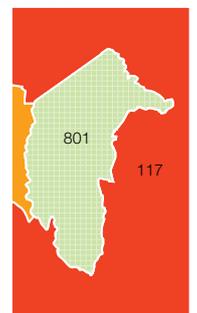
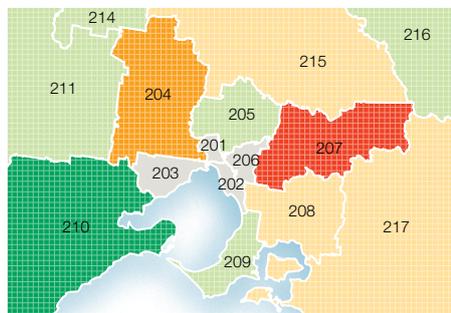
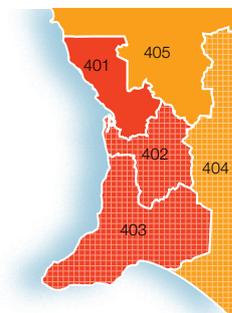
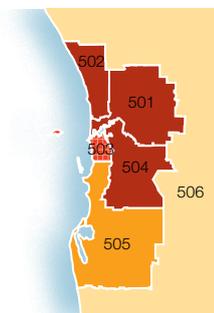


i. Greater Perth

ii. Greater Adelaide

iii. Greater Melbourne

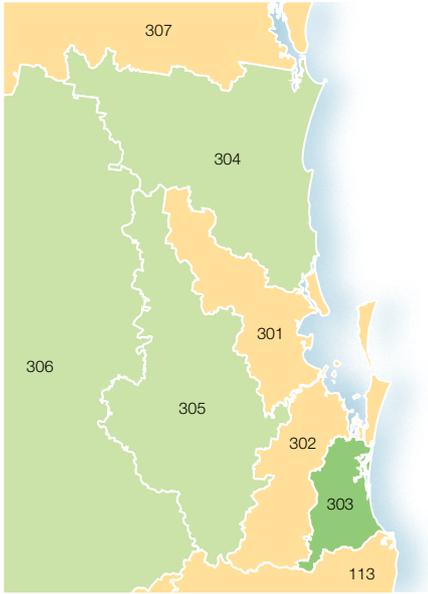
iv. ACT



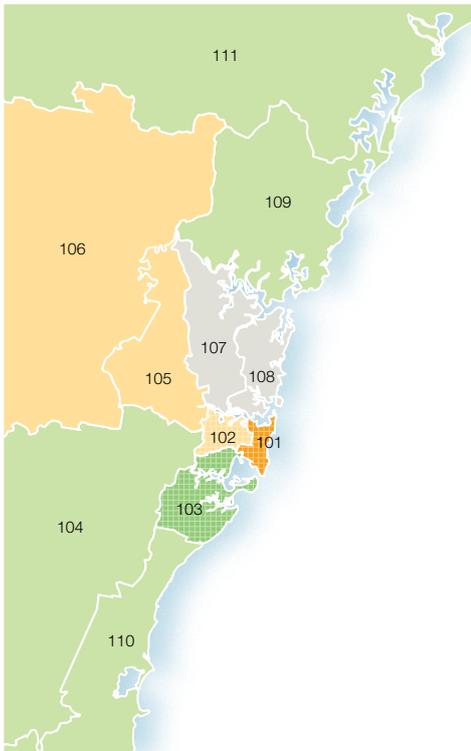
1. For more details on the diseases and immunisations see Immunise Australia Program. Diseases and Programs A - Z. www.immunise.health.gov.au Accessed 26/02/2013.
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 4. Interpret with caution as the eligible population is between 26 and 100 children so small data errors can affect results.

Source: Department of Human Services, Australian Childhood Immunisation Register statistics 2011–12, data supplied 14/01/2013.

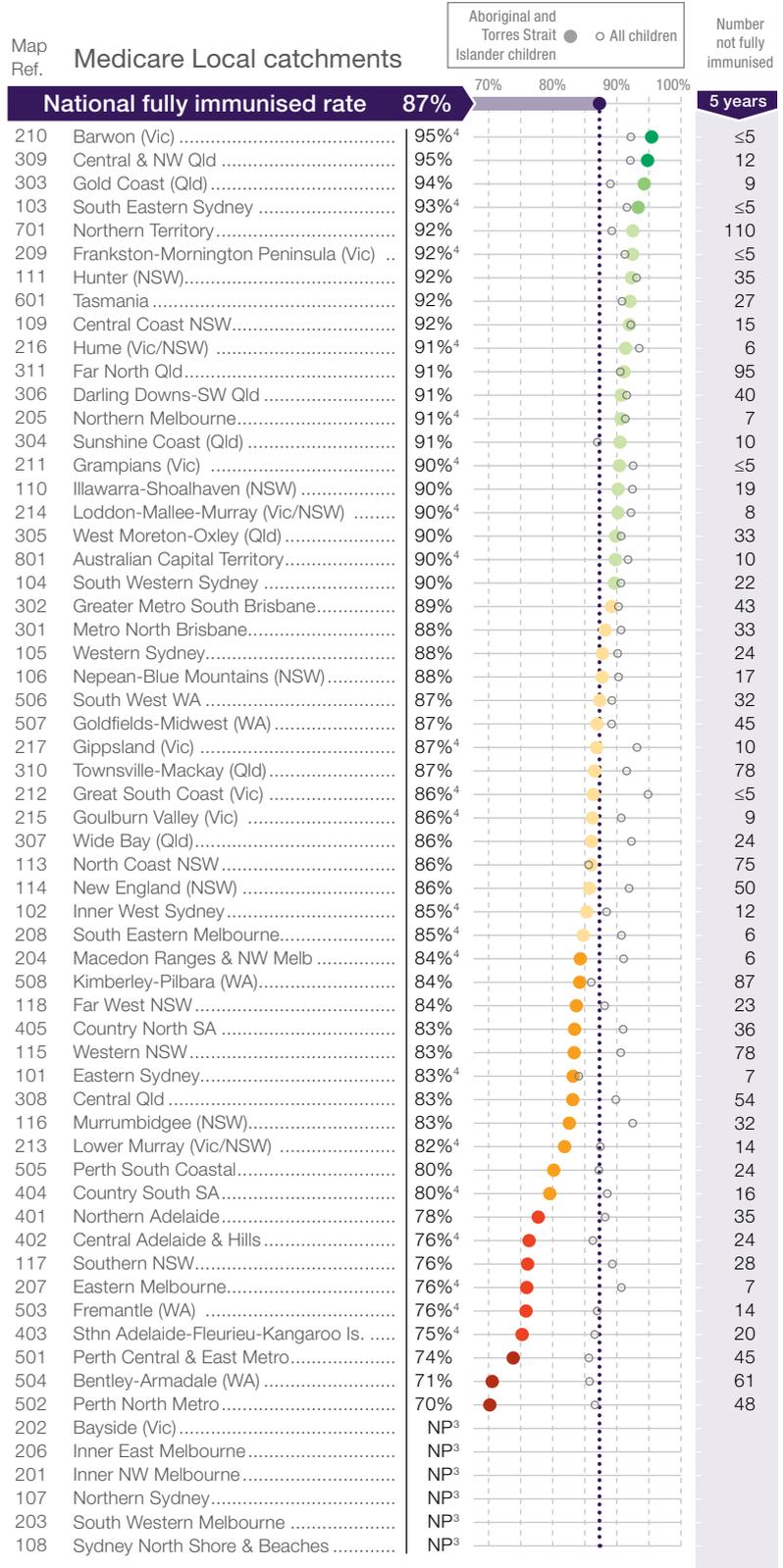
vi. Greater Brisbane



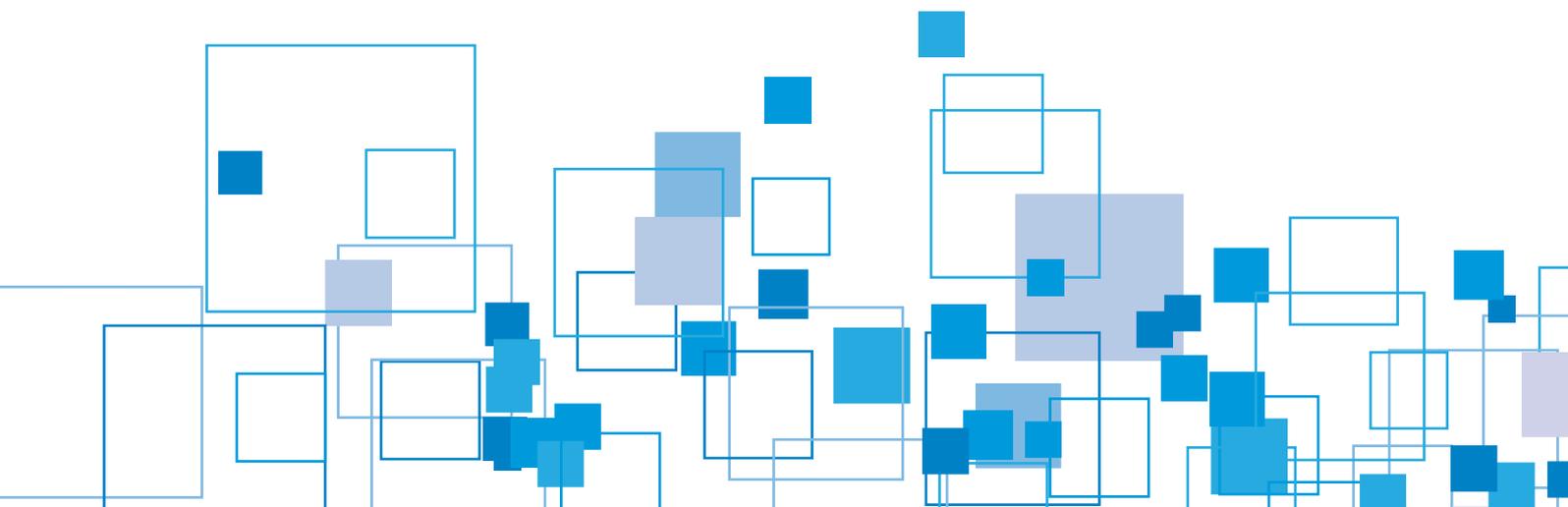
v. Greater Sydney



Percentages of Aboriginal and Torres Strait Islander children aged 5 years fully immunised², by Medicare Local catchment, 2011–12

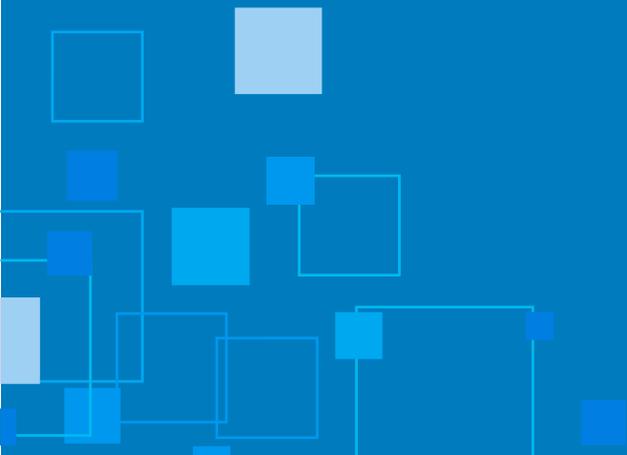


Notes: Data exclude a number of invalid and unallocated postcodes – for more information see *Healthy Communities: Immunisation rates for children in 2011–12, Technical Supplement* www.nhpa.gov.au
 This data reflects the results for children identified as Aboriginal and Torres Strait Islander in the ACIR in 2011–12. Levels of identification may vary between Medicare Local catchments.



Child immunisation rates

Statistical areas 2011–12



Children aged 1 year who were fully immunised, by statistical area, 2011–12

Variation *within* Medicare Local catchments

The maps on these pages show the percentages of children aged 1 year who were fully immunised by geographic areas referred to as Statistical Areas Level 3 (SA3).¹ The numbers of children not fully immunised for each statistical area¹ are also shown.

There was large variation in the number of children aged 1 year not fully immunised across statistical areas¹, ranging from less than 25 children to around 270.

Findings

In 2011–12, the percentages of children aged 1 year who were fully immunised varied across statistical areas¹, ranging from 96% to 82%.

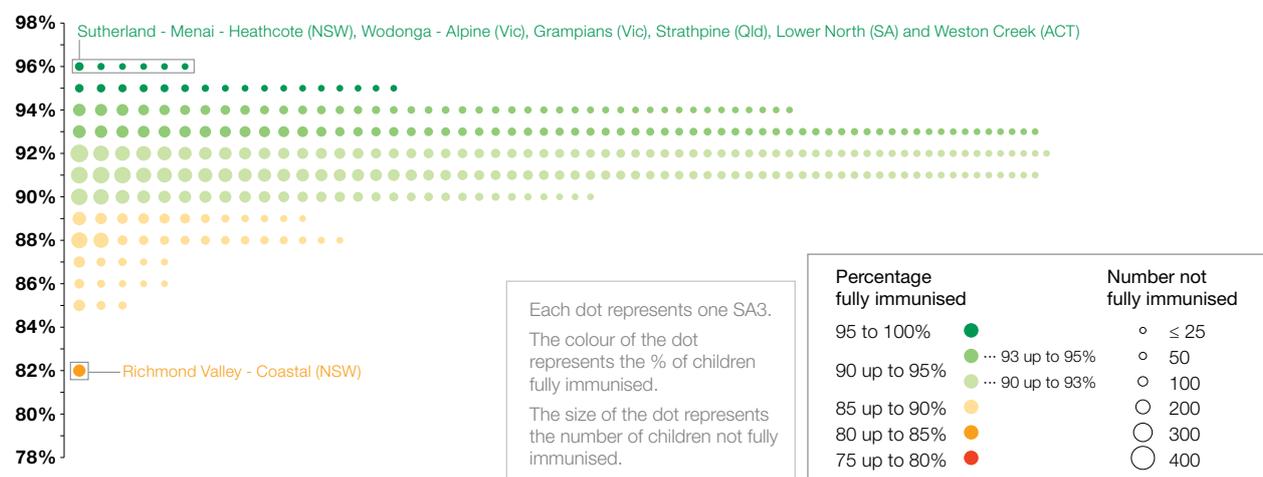
The statistical areas¹ with the highest percentage were Sutherland - Menai - Heathcote (NSW), Wodonga - Alpine (Vic), Grampians (Vic), Strathpine (Qld), Lower North (SA) and Weston Creek (ACT). The statistical area¹ with the lowest percentage was Richmond Valley - Coastal (NSW).

The location of the statistical areas¹ with the highest and lowest percentages are shown on the maps.

What does fully immunised at 1 year mean?

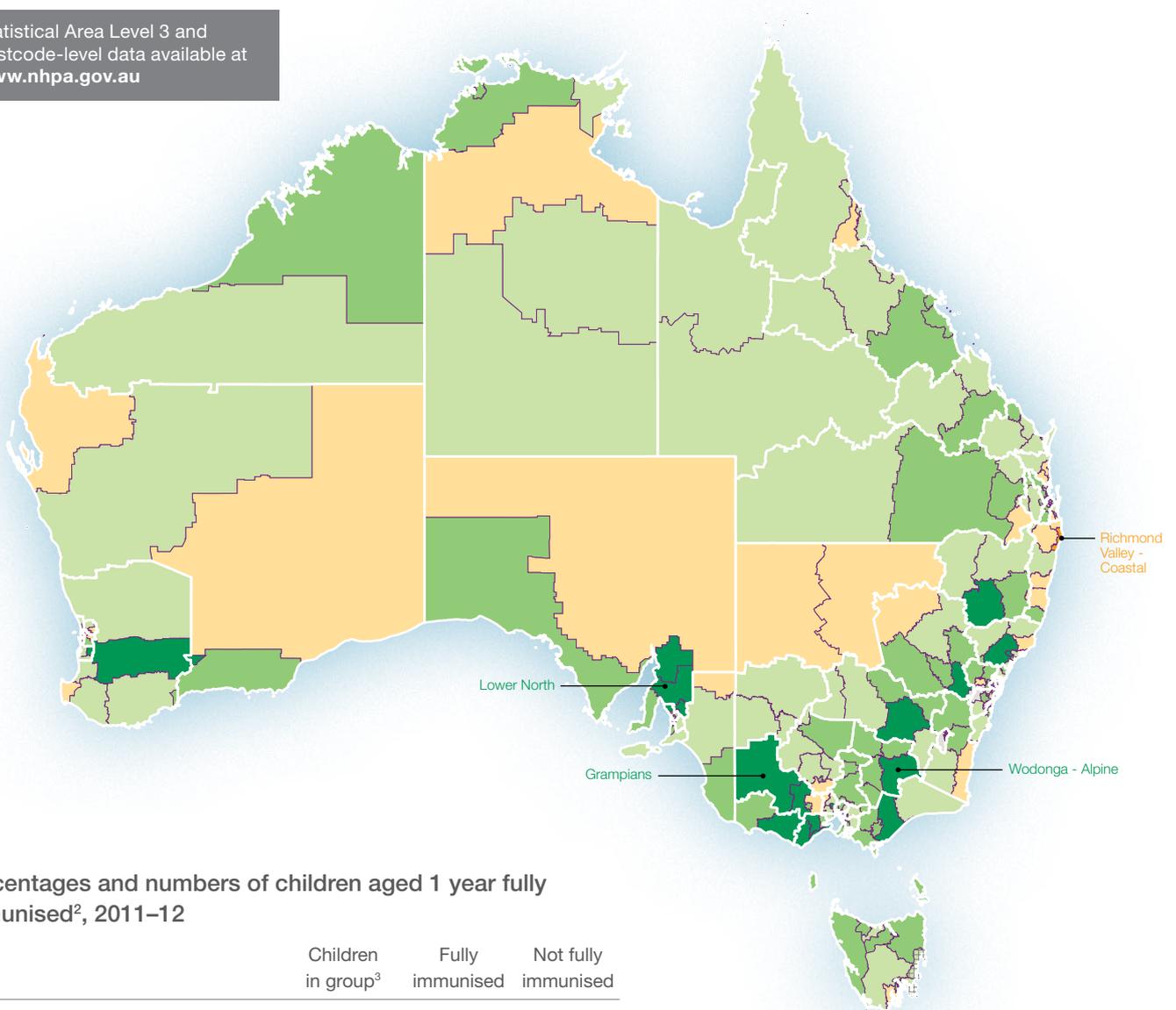
Fully immunised at 1 year means that a child aged 12 months to less than 15 months received their third vaccination for diphtheria, tetanus, whooping cough and polio, and either their second or third vaccination (dependent on the type of vaccine used) for hepatitis B and *Haemophilus influenzae* type b, all prior to the age of 1 year. It is assumed that all previous vaccinations were received.

Percentages of children aged 1 year who are fully immunised by number not fully immunised² and statistical area¹, 2011–12



Percentages of children aged 1 year fully immunised, by statistical area, 2011–12

Statistical Area Level 3 and postcode-level data available at www.nhpa.gov.au



Percentages and numbers of children aged 1 year fully immunised², 2011–12

		Children in group ³	Fully immunised	Not fully immunised
Highest group	95 to 100%	15,350	14,598	752
	93 up to 95%	254,335	234,078	20,257
	90 up to 93%	25,228	22,203	3,025
Lowest group	85 up to 90%	844	696	148
	80 up to 85%			
	75 up to 80%			
	Not published ³	1,581	1,403	178
Total		297,338	272,978	24,360

-  Medicare Local catchment boundary
-  ABS Statistical Area Level 3 (SA3) boundary
-  Highest % fully immunised
-  Lowest % fully immunised
-  Interpret with caution⁴

1. For more information about SA3s see Australian Bureau of Statistics (2010) Australian Statistical Geography Standard (ASGS): Volume 1 – Main Structure and Greater Capital Cities Statistical Areas, July 2011. www.abs.gov.au Accessed 26/02/2013.

2. Figures are rounded - see *Healthy Communities: Immunisation rates for children in 2011–12, Technical Supplement* www.nhpa.gov.au

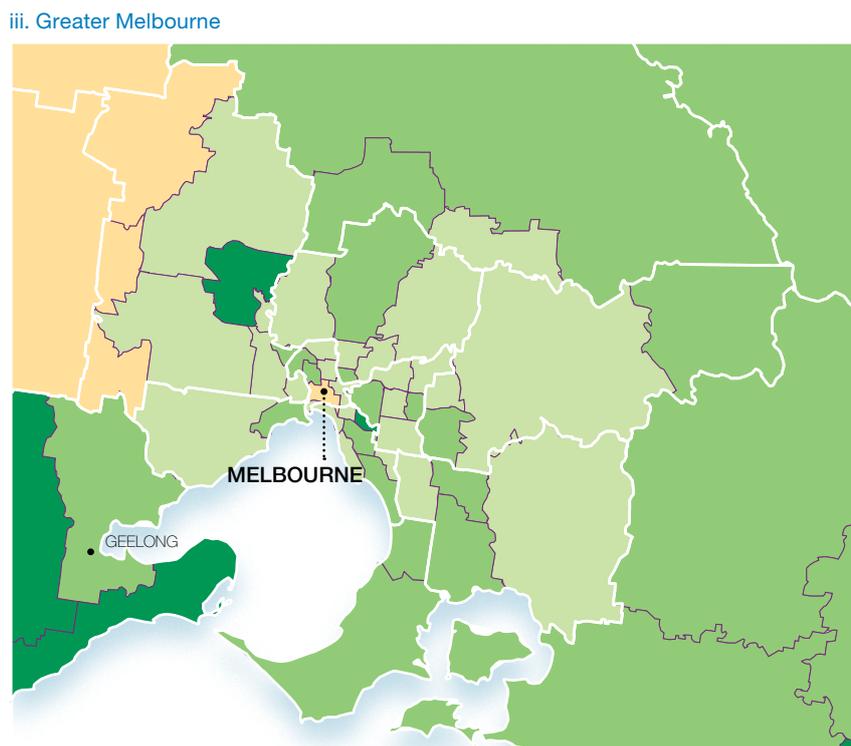
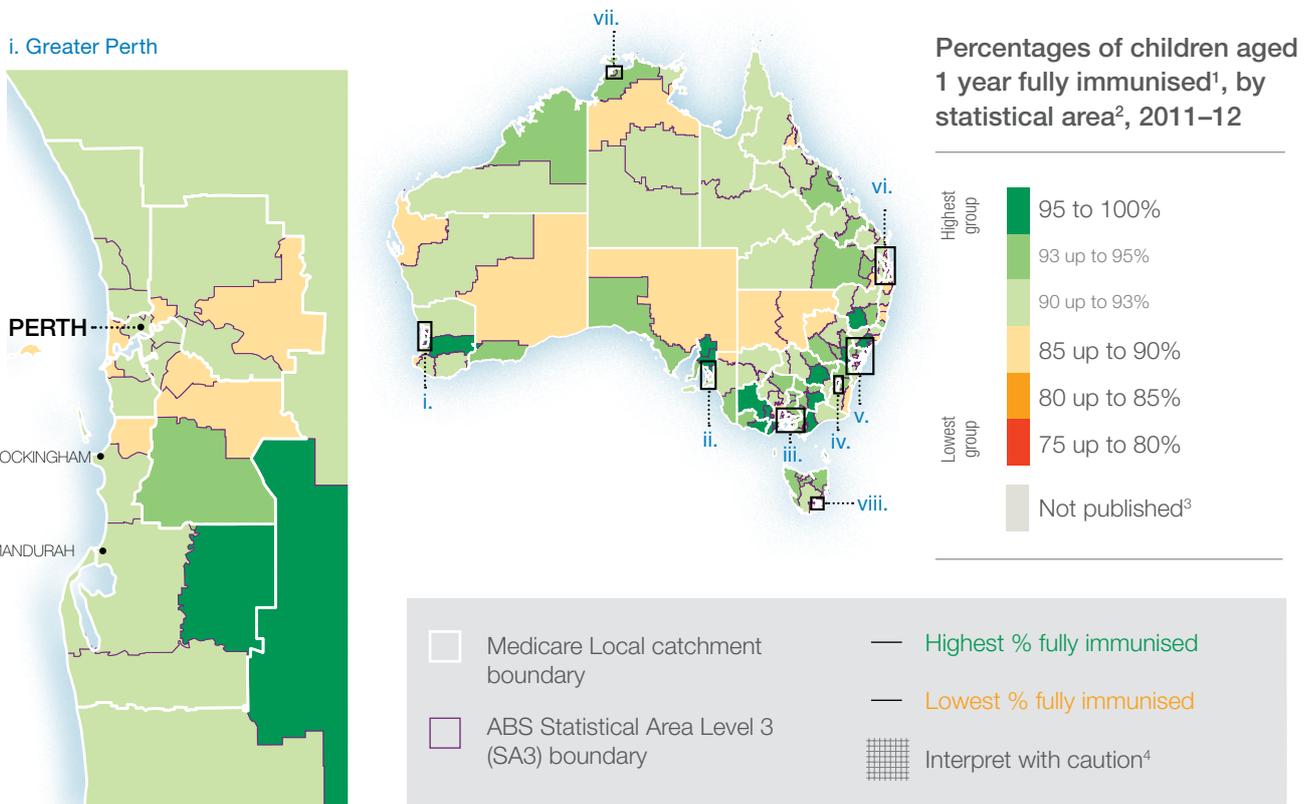
3. SA3 data exclude a number of invalid and unallocated postcodes, and SA3s with less than 26 registered children in the age group are not reported. For more information see *Healthy Communities: Immunisation rates for children in 2011–12, Technical Supplement* www.nhpa.gov.au

4. Interpret with caution as the eligible population is between 26 and 100 children so small data errors can affect results.

Source: Department of Human Services, Australian Childhood Immunisation Register statistics 2011–12, data supplied 14/01/2013.

Children aged 1 year who were fully immunised, by statistical area, 2011–12

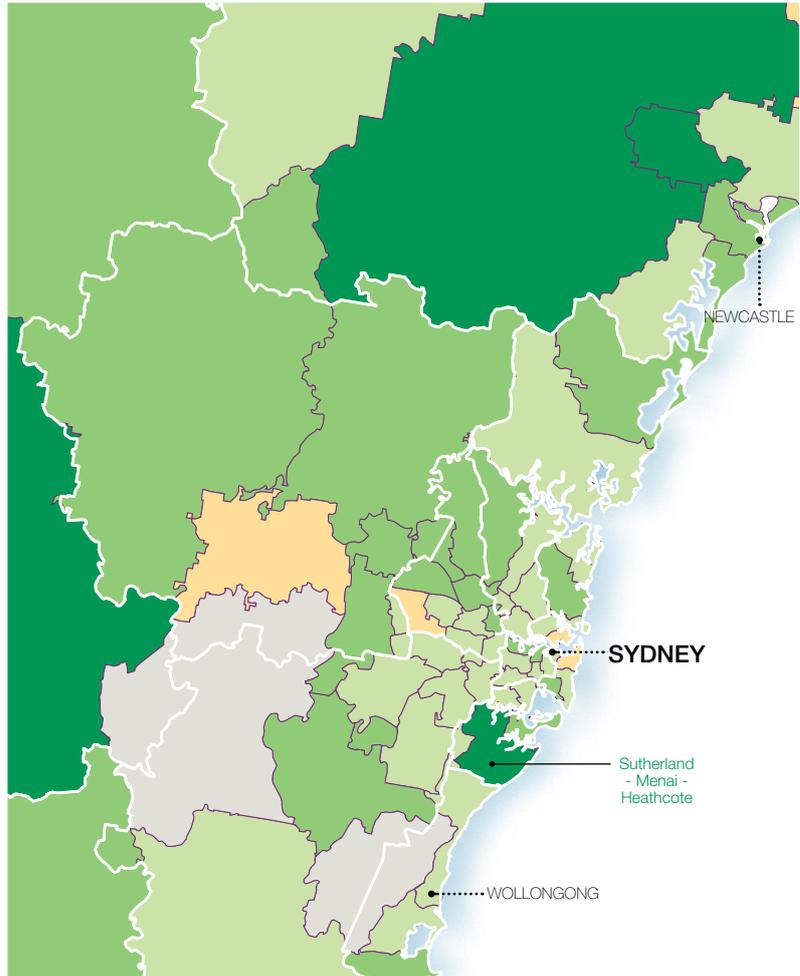
Variation *within* Medicare Local catchments



iv. ACT



v. Greater Sydney



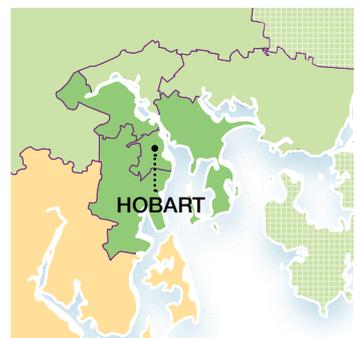
vi. Greater Brisbane



vii. Greater Darwin



viii. Greater Hobart



1. Figures are rounded - see *Healthy Communities: Immunisation rates for children in 2011–12, Technical Supplement* www.nhpa.gov.au
 2. For more information about SA3s see Australian Bureau of Statistics (2010) *Australian Statistical Geography Standard (ASGS): Volume 1 – Main Structure and Greater Capital Cities Statistical Areas*, July 2011. www.abs.gov.au Accessed 26/02/2013.
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 4. Interpret with caution as the eligible population is between 26 and 100 children so small data errors can affect results.

Source: Department of Human Services, Australian Childhood Immunisation Register statistics 2011–12, data supplied 14/01/2013.

Children aged 2 years who were fully immunised, by statistical area, 2011–12

Variation *within* Medicare Local catchments

The maps on these pages show the percentages of children aged 2 years who were fully immunised by geographic areas referred to as Statistical Areas Level 3 (SA3).¹ The numbers of children not fully immunised for each statistical area¹ are also shown.

There was large variation in the number of children aged 2 years not fully immunised across statistical areas¹, ranging from less than 25 children to around 260.

Findings

In 2011–12, the percentage of children aged 2 years who were fully immunised varied across statistical areas¹, ranging from 97% to 80%.

The statistical areas¹ with the highest percentage were Camden (NSW), Charters Towers - Ayr - Ingham (Qld), Mid North (SA), East Arnhem (NT), Whitsunday (Qld) and Loddon-Elmore (Vic).

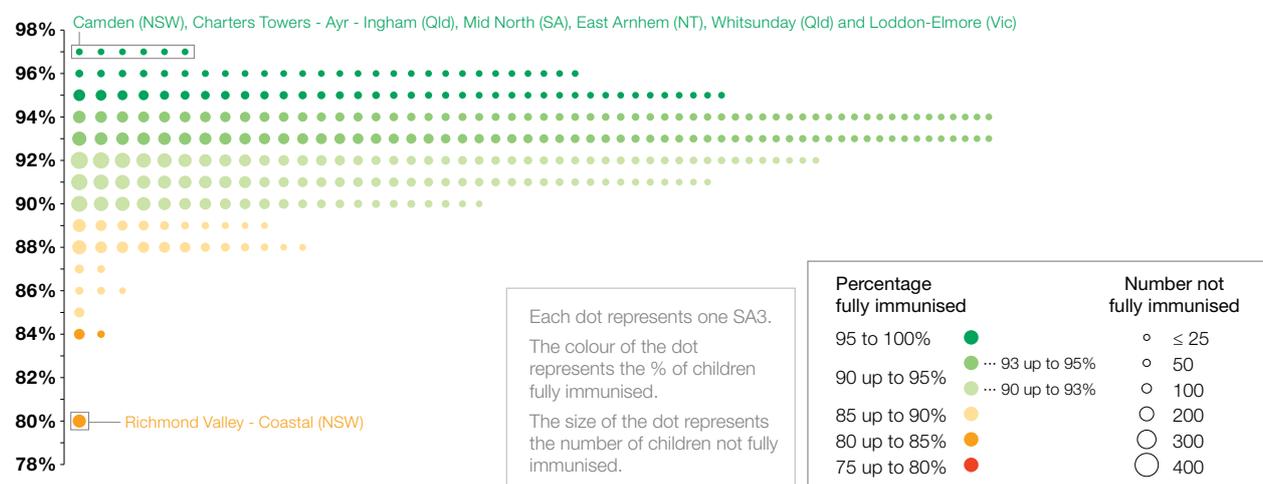
The statistical area¹ with the lowest percentage was Richmond Valley - Coastal (NSW).

The location of the statistical areas¹ with the highest and lowest percentages are shown on the maps.

What does fully immunised at 2 years mean?

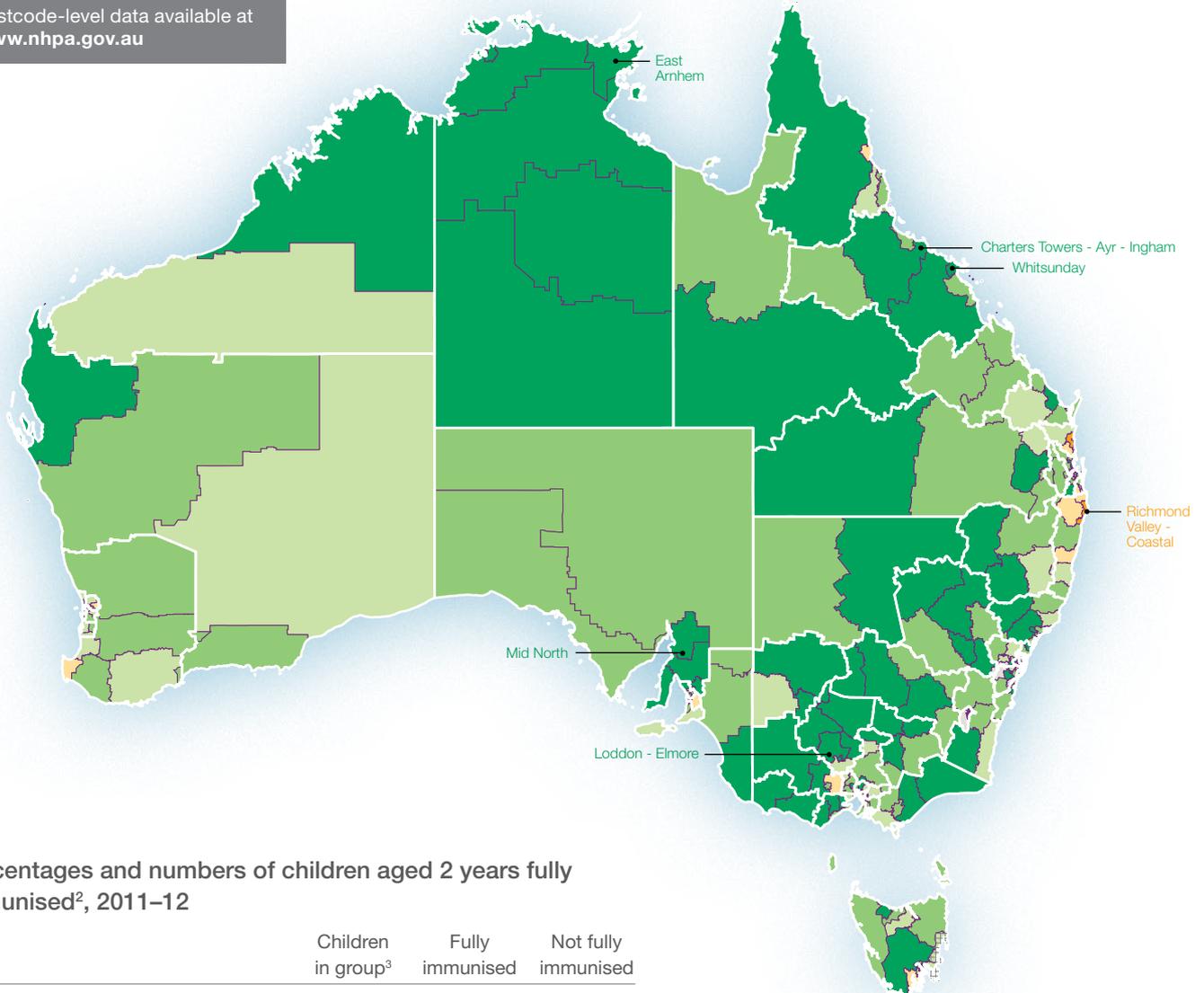
Fully immunised at 2 years means that a child aged 24 to less than 27 months received their third or fourth vaccination (dependent on the type of vaccine used) for diphtheria, tetanus, whooping cough and *Haemophilus influenzae* type b, their third vaccination for polio and hepatitis B and their first vaccination for measles, mumps and rubella, all prior to the age of 2 years. It is assumed that all previous vaccinations were received.

Percentages of children aged 2 years who are fully immunised by number not fully immunised² and statistical area¹, 2011–12



Percentages of children aged 2 years fully immunised, by statistical area, 2011–12

Statistical Area Level 3 and postcode-level data available at www.nhpa.gov.au



Percentages and numbers of children aged 2 years fully immunised², 2011–12

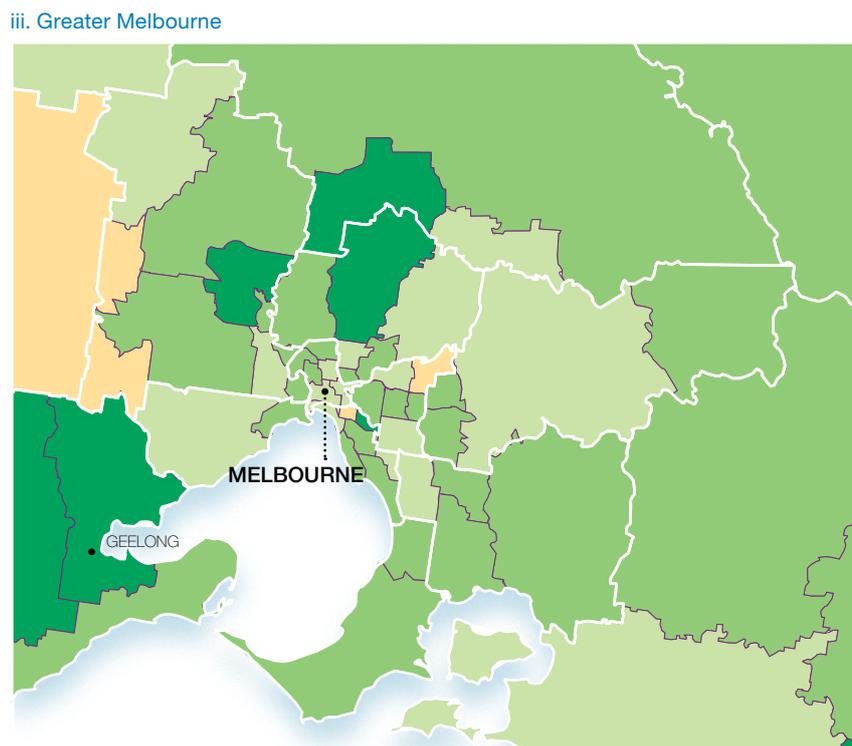
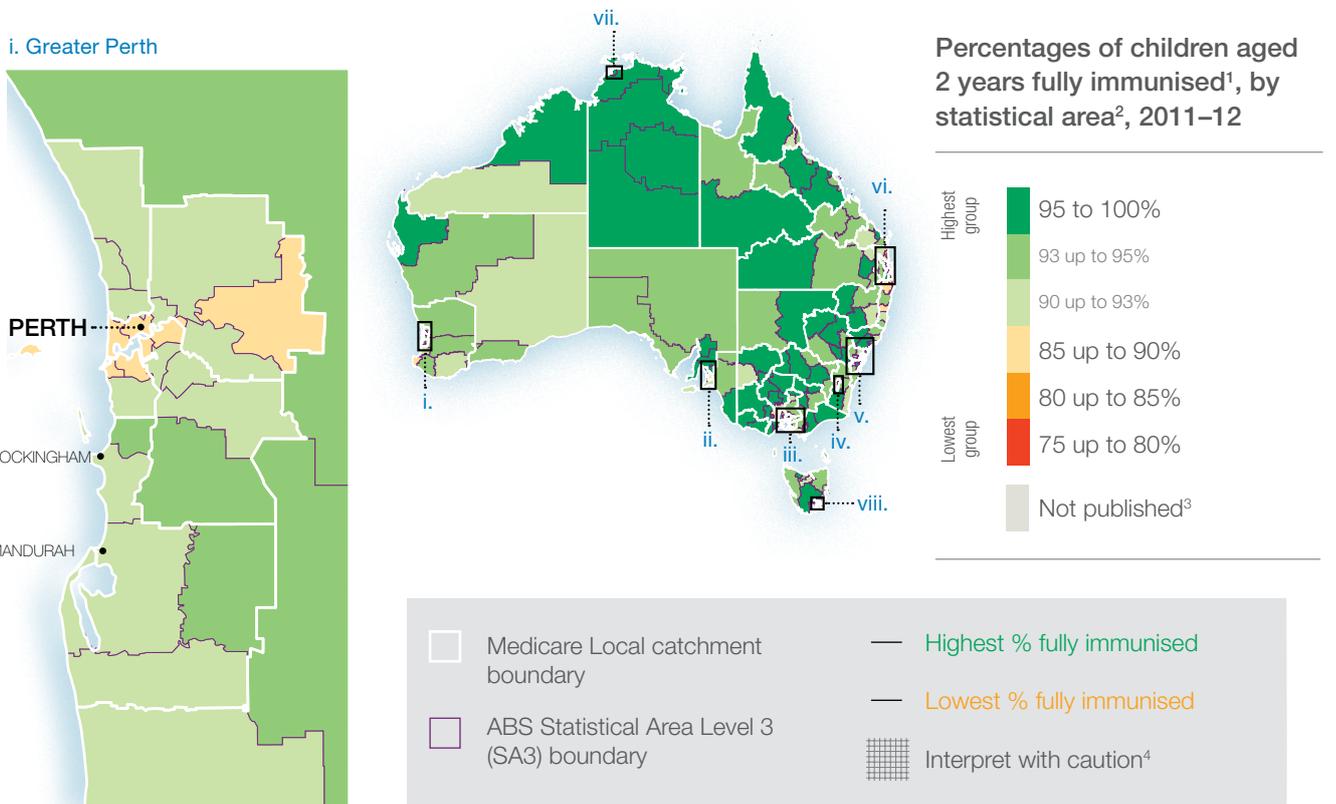
		Children in group ³	Fully immunised	Not fully immunised
Highest group	95 to 100%	51,631	49,235	2,396
	93 up to 95%	228,182	210,934	17,248
	90 up to 93%			
Lowest group	85 up to 90%	18,401	16,226	2,175
	80 up to 85%	1,852	1,525	327
	75 up to 80%			
	Not published ³	1,618	1,428	190
Total		301,683	279,349	22,334

- Medicare Local catchment boundary
- ABS Statistical Area Level 3 (SA3) boundary
- Highest % fully immunised
- Lowest % fully immunised
- Interpret with caution⁴

1. For more information about SA3s see Australian Bureau of Statistics (2010) Australian Statistical Geography Standard (ASGS): Volume 1 – Main Structure and Greater Capital Cities Statistical Areas, July 2011. www.abs.gov.au Accessed 26/02/2013.
 2. Figures are rounded - see *Healthy Communities: Immunisation rates for children in 2011–12, Technical Supplement* www.nhpa.gov.au
 3. SA3 data exclude a number of invalid and unallocated postcodes, and SA3s with less than 26 registered children in the age group are not reported. For more information see *Healthy Communities: Immunisation rates for children in 2011–12, Technical Supplement* www.nhpa.gov.au
 4. Interpret with caution as the eligible population is between 26 and 100 children so small data errors can affect results.
Source: Department of Human Services, Australian Childhood Immunisation Register statistics 2011–12, data supplied 14/01/2013.

Children aged 2 years who were fully immunised, by statistical area, 2011–12

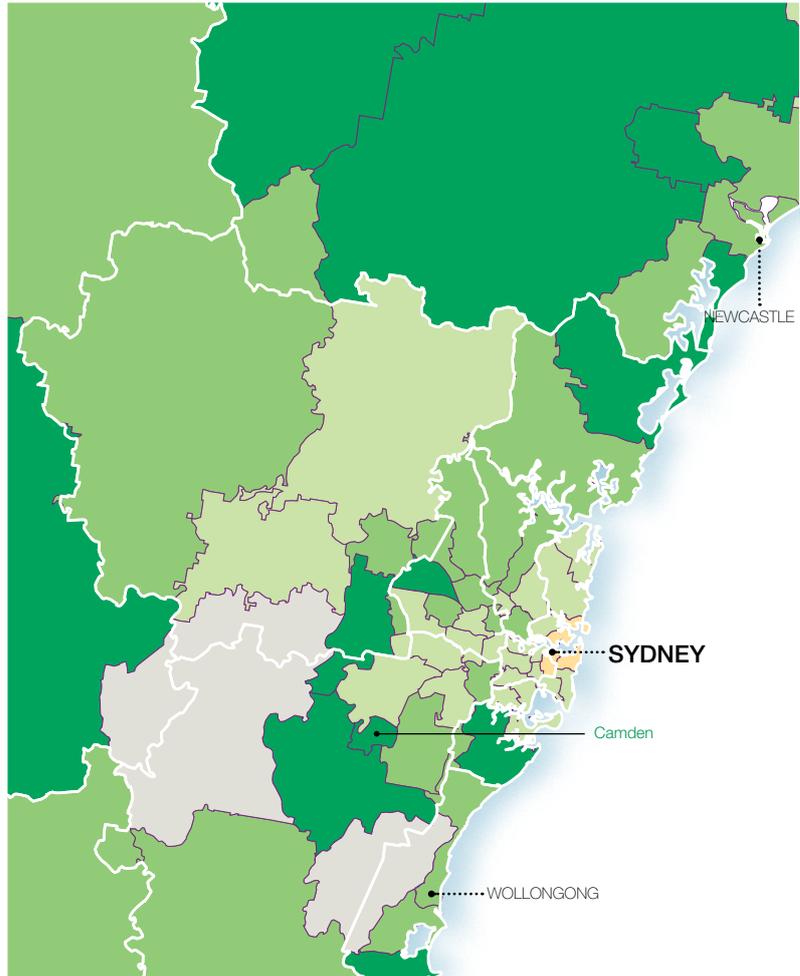
Variation *within* Medicare Local catchments



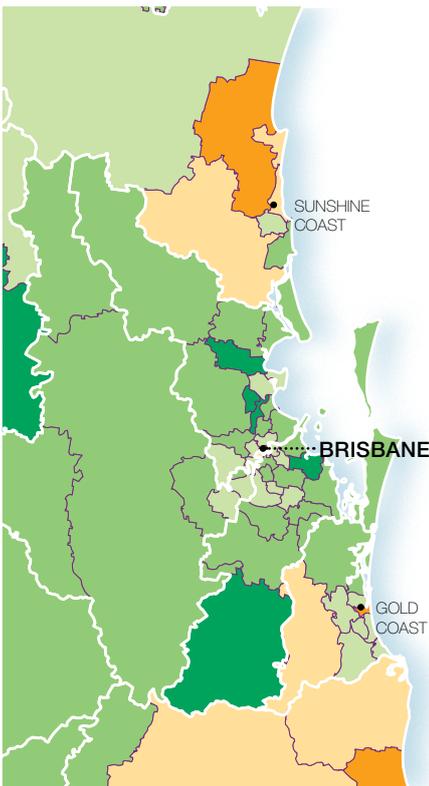
iv. ACT



v. Greater Sydney



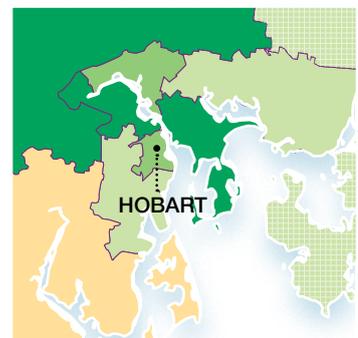
vi. Greater Brisbane



vii. Greater Darwin



viii. Greater Hobart



1. Figures are rounded - see *Healthy Communities: Immunisation rates for children in 2011–12, Technical Supplement* www.nhpa.gov.au
 2. For more information about SA3s see Australian Bureau of Statistics (2010) Australian Statistical Geography Standard (ASGS): Volume 1 – Main Structure and Greater Capital Cities Statistical Areas, July 2011. www.abs.gov.au Accessed 26/02/2013.
 3. SA3s with less than 26 registered children in the age group are not reported. For more information see *Healthy Communities: Immunisation rates for children in 2011–12, Technical Supplement* www.nhpa.gov.au
 4. Interpret with caution as the eligible population is between 26 and 100 children so small data errors can affect results.

Source: Department of Human Services, Australian Childhood Immunisation Register statistics 2011–12, data supplied 14/01/2013.

Children aged 5 years who were fully immunised, by statistical area, 2011–12

Variation *within* Medicare Local catchments

The maps on these pages show the percentages of children aged 5 years who were fully immunised by geographic areas referred to as Statistical Areas Level 3 (SA3)¹. The numbers of children not fully immunised for each statistical area¹ are also shown.

There was large variation in the number of children aged 5 years not fully immunised across statistical areas¹, ranging from less than 25 children to around 360.

Findings

In 2011–12, the percentages of children aged 5 years who were fully immunised varied across statistical areas¹, ranging from 96% to 79%.

The statistical areas¹ with the highest percentage were Maitland (NSW) and Yorke Peninsula (SA).

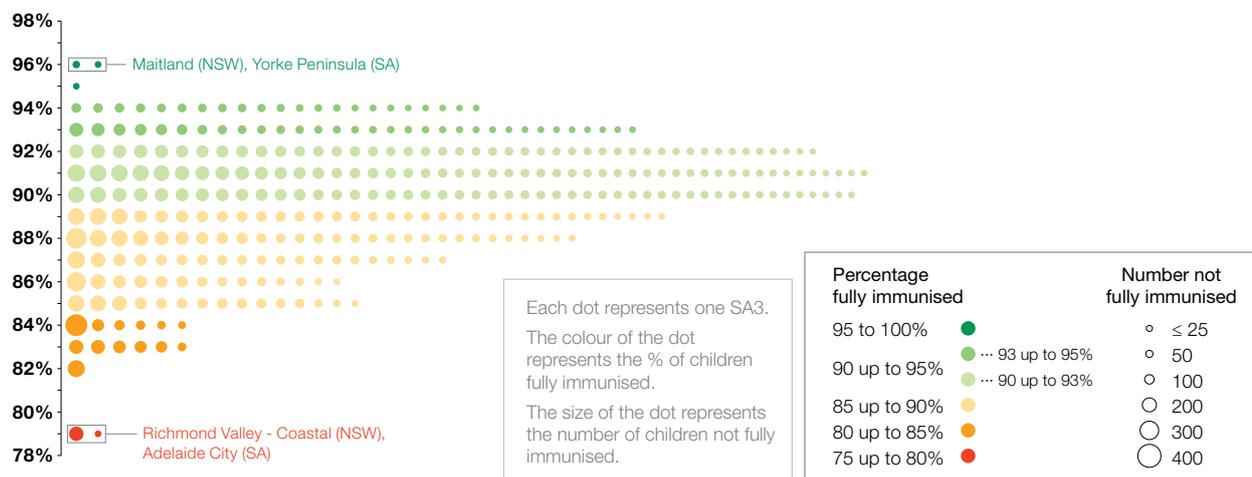
The statistical areas¹ with the lowest percentage were Richmond Valley - Coastal (NSW) and Adelaide City (SA).

The location of the statistical areas¹ with the highest and lowest percentages are shown on the maps.

What does fully immunised at 5 years mean?

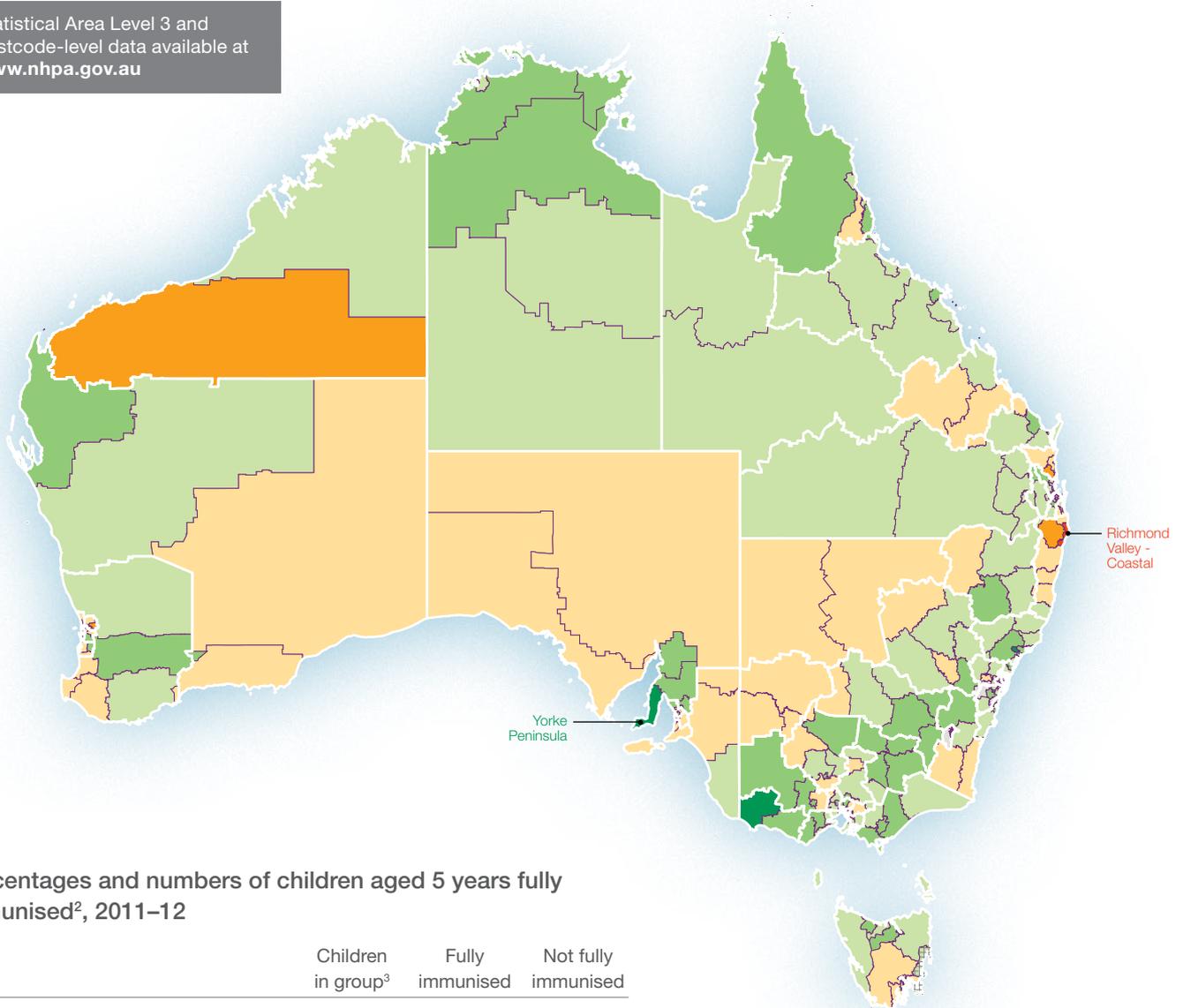
Fully immunised at 5 years means that a child aged 60 to less than 63 months received their fourth or fifth vaccination (dependent on the type of vaccine used) for diphtheria, tetanus and whooping cough, their fourth vaccination for polio and their second vaccination for measles mumps and rubella, all prior to the age of 5 years. It is assumed that all previous vaccinations were received.

Percentages of children aged 5 years who are fully immunised by number not fully immunised² and statistical area¹, 2011–12



Percentages of children aged 5 years fully immunised, by statistical area¹, 2011–12

Statistical Area Level 3 and postcode-level data available at www.nhpa.gov.au



Percentages and numbers of children aged 5 years fully immunised², 2011–12

		Children in group ³	Fully immunised	Not fully immunised
Highest group	95 to 100%	1,714	1,637	77
	93 up to 95%	191,119	175,091	16,028
	90 up to 93%			
Lowest group	85 up to 90%	92,138	80,581	11,557
	80 up to 85%	11,660	9,716	1,944
	75 up to 80%	1,023	806	217
	Not published ³	1,699	1,446	253
Total		299,352	269,277	30,075

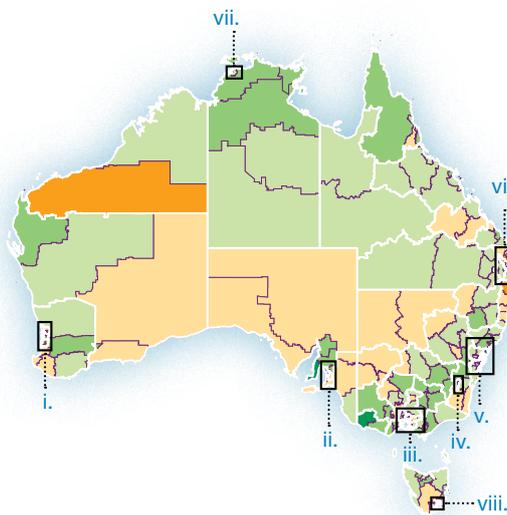
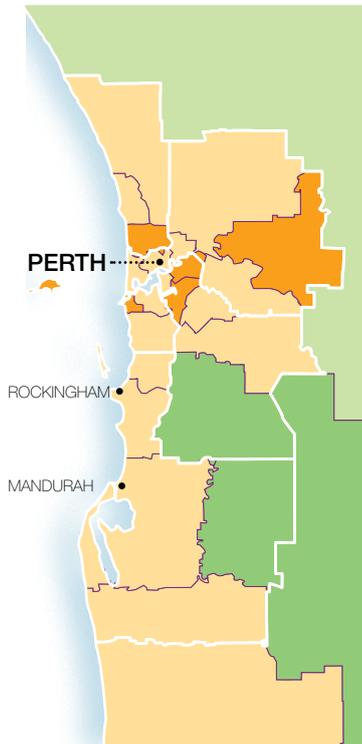
- Medicare Local catchment boundary
- ABS Statistical Area Level 3 (SA3) boundary
- Highest % fully immunised
- Lowest % fully immunised
- Interpret with caution⁴

1. For more information about SA3s see Australian Bureau of Statistics (2010) Australian Statistical Geography Standard (ASGS): Volume 1 – Main Structure and Greater Capital Cities Statistical Areas, July 2011. www.abs.gov.au Accessed 26/02/2013.
 2. Figures are rounded - see *Healthy Communities: Immunisation rates for children in 2011–12, Technical Supplement* www.nhpa.gov.au
 3. SA3 data exclude a number of invalid and unallocated postcodes, and SA3s with less than 26 registered children in the age group are not reported. For more information see *Healthy Communities: Immunisation rates for children in 2011–12, Technical Supplement* www.nhpa.gov.au
 4. Interpret with caution as the eligible population is between 26 and 100 children so small data errors can affect results.
Source: Department of Human Services, Australian Childhood Immunisation Register statistics 2011–12, data supplied 14/01/2013.

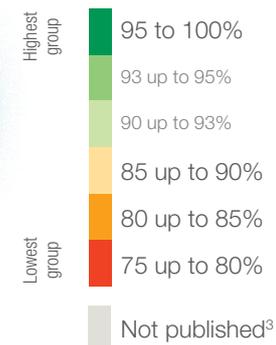
Children aged 5 years who were fully immunised, by statistical area, 2011–12

Variation *within* Medicare Local catchments

i. Greater Perth



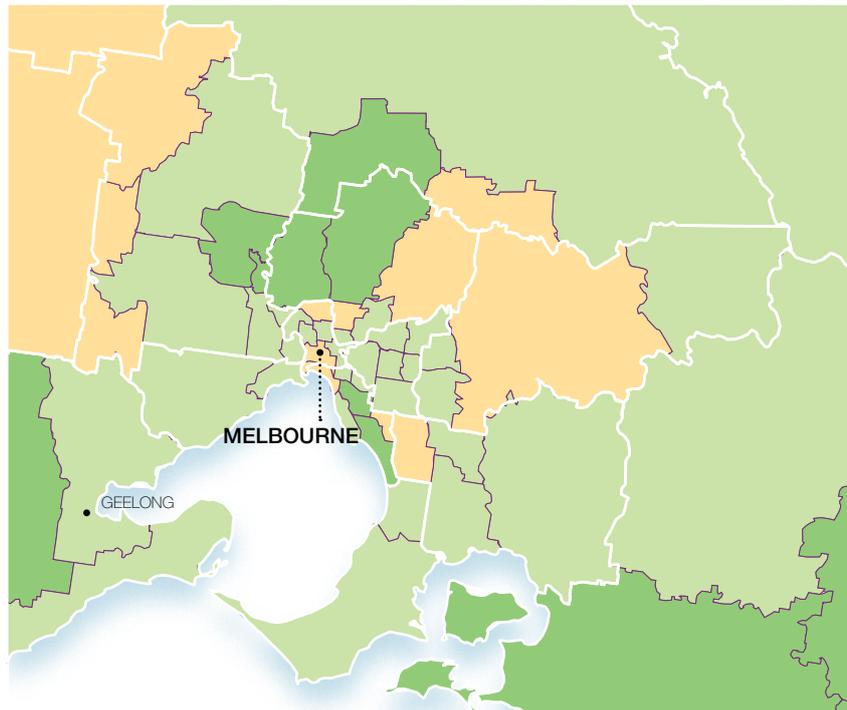
Percentages of children aged 5 years fully immunised¹, by statistical area², 2011–12



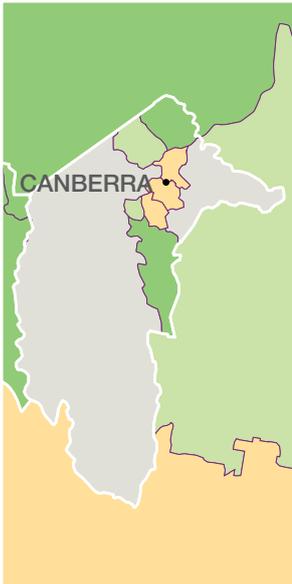
ii. Greater Adelaide



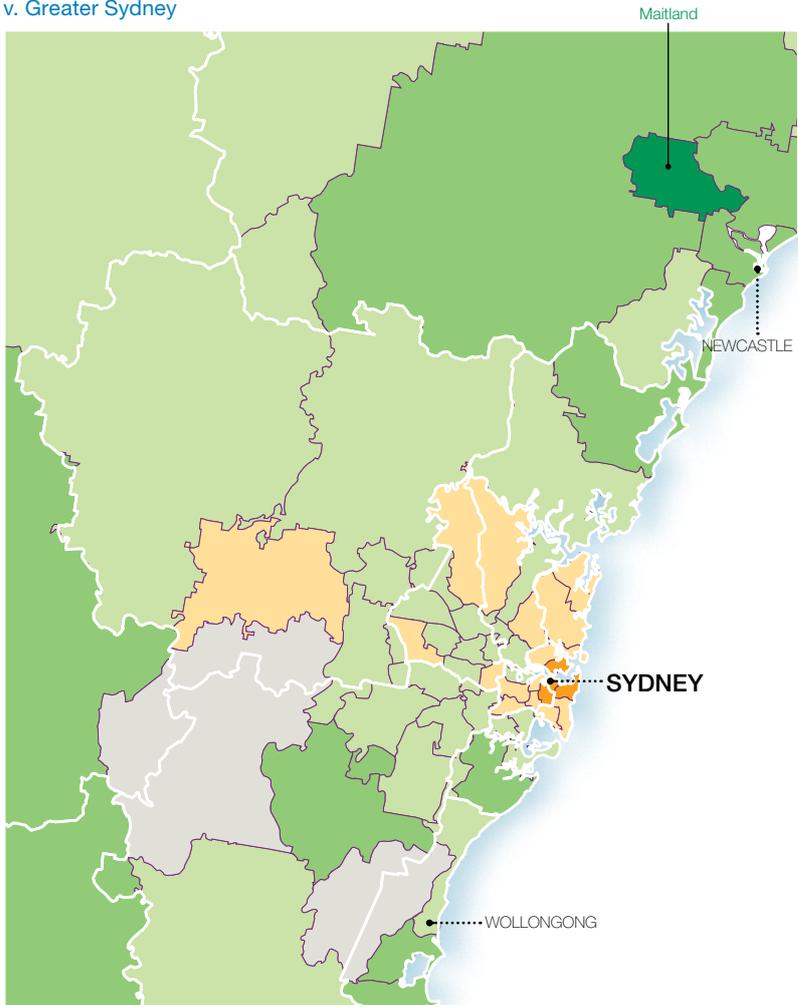
iii. Greater Melbourne



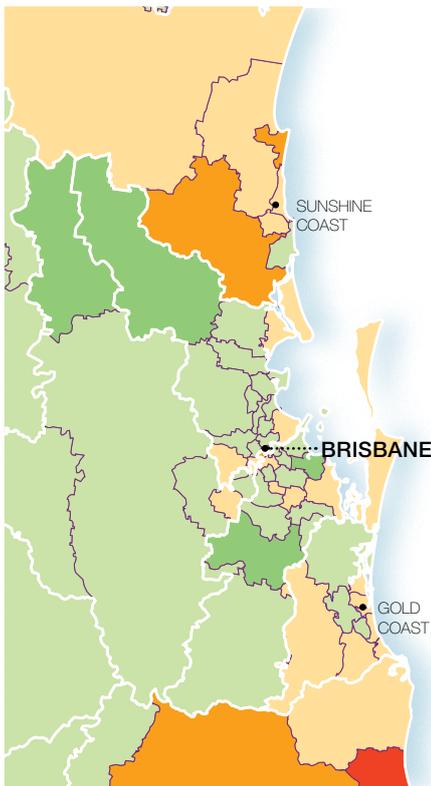
iv. ACT



v. Greater Sydney



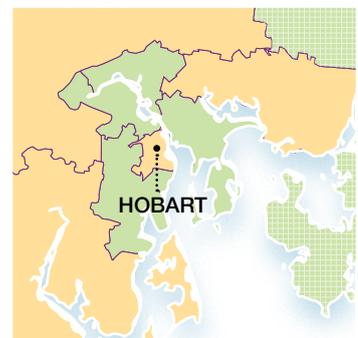
vi. Greater Brisbane



vii. Greater Darwin



viii. Greater Hobart



1. Figures are rounded - see *Healthy Communities: Immunisation rates for children in 2011–12, Technical Supplement* www.nhpa.gov.au
 2. For more information about SA3s see Australian Bureau of Statistics (2010) Australian Statistical Geography Standard (ASGS): Volume 1 – Main Structure and Greater Capital Cities Statistical Areas, July 2011. www.abs.gov.au Accessed 26/02/2013.
 3. SA3s with less than 26 registered children in the age group are not reported. For more information see *Healthy Communities: Immunisation rates for children in 2011–12, Technical Supplement* www.nhpa.gov.au
 4. Interpret with caution as the eligible population is between 26 and 100 children so small data errors can affect results.

Source: Department of Human Services, Australian Childhood Immunisation Register statistics 2011–12, data supplied 14/01/2013.

Glossary

This glossary defines technical and medical terms used in this report. For more information, please see *Healthy Communities: Immunisation rates for children in 2011–12, Technical Supplement*.

Diphtheria	Diphtheria is an acute illness caused by the bacterium <i>Corynebacterium diphtheriae</i> . Symptoms include severe inflammation of the nose, throat and windpipe leading to breathing and swallowing problems. Diphtheria can cause nerve and heart damage, and result in death.
Fully immunised	Fully immunised means received the scheduled vaccinations according to age for hepatitis B (hepB); diphtheria, tetanus and whooping cough (acellular pertussis) (DTPa); <i>Haemophilus influenzae</i> type B (Hib); poliomyelitis (inactivated poliomyelitis IPV); and measles, mumps and rubella (MMR). See <i>Healthy Communities: Immunisation rates for children in 2011–12, Technical Supplement</i> for more information.
German measles	See rubella.
<i>Haemophilus influenzae</i> type B (Hib)	<i>Haemophilus influenzae</i> type B is a bacterium that causes meningitis and other serious infections in young children.
Hepatitis	Hepatitis means inflammation of the liver. The most common types of viral hepatitis are hepatitis A, hepatitis B and hepatitis C.
Infection	An infection occurs when bacteria or viruses enter the human body. If the body cannot fight the infection, the person may get sick. Measles, rubella, mumps, polio and hepatitis B are examples of infections caused by viruses. Diphtheria, tetanus, pertussis and Hib are examples of infections caused by bacteria.
Immunisation	Immunisation means both receiving a vaccine and becoming immune to a disease as a result of being vaccinated.
Measles	Measles is a highly infectious disease caused by the <i>Morbillivirus</i> . Symptoms include rash, fever cough, runny nose and inflammation of the eye.
Medicare Local	A Medicare Local is an organisation that has responsibility for the provision, delivery and coordination of primary health care services in a defined geographical area. There are 61 Medicare Locals across Australia.

Medicare Local catchment	A Medicare Local catchment is a population that lives in a specific geographical area defined as a Medicare Local. See Medicare Local.
Meningitis	See <i>Haemophilus influenzae</i> type B (Hib).
Mumps	Mumps is a salivary gland infection caused by the <i>Rubulavirus</i> . Symptoms include swelling under the jaw, fever, headache and aching muscles.
National Immunisation Program Schedule	The schedule which describes the 16 vaccinations that are provided free to Australians under childhood programs, school programs and programs for special groups.
Pertussis	See whooping cough.
Polio	Polio, also known as poliomyelitis, is caused by a highly infectious virus. Symptoms include headache, nausea and vomiting, tiredness, stiffness and muscle pain. Polio also causes paralysis and in some cases is fatal.
Rubella	Rubella, also known as German measles, is a viral illness that causes a rash and joint pains.
Statistical area	A statistical area or a Statistical Area Level 3 is a geographic area defined by the Australian Bureau of Statistics (ABS) which has a population of between 30,000 and 130,000 people. There are more than 300 Statistical Areas Level 3 in Australia.
Tetanus	Tetanus, also known as lockjaw, is a serious disease caused by the bacterium <i>Clostridium tetani</i> . Caused by a toxin made by bacteria present in soil, dust and manure, tetanus attacks the nervous system and causes severe muscle spasms leading to breathing difficulties, painful convulsions and abnormal heart rhythms.
Vaccination	Vaccination means having a vaccine – that is actually getting the injection.
Vaccine	A product made from whole, or extracts of, killed viruses or bacteria, or from live weakened strains of viruses or bacteria.
Whooping cough	Whooping cough, also known as pertussis, is a serious, contagious respiratory infection caused by the bacterium <i>Bordetella pertussis</i> .

Acknowledgements

This report has benefited from advice from a number of individuals and organisations with interest and expertise in immunisation.

The National Health Performance Authority received advice from its Immunisation Advisory Group. The Advisory Group comprised:

- Professor Peter McIntyre
 - National Immunisation Committee
 - Director, National Centre for Immunisation Research & Surveillance
 - Professor, Discipline of Paediatrics and Child Health and School of Public Health, University of Sydney
- Dr Aditi Dey
 - National Centre for Immunisation Research & Surveillance
- Professor Terry Nolan
 - Chair, Australian Technical Advisory Group on Immunisation
 - Head, Melbourne School of Population and Global Health, University of Melbourne
- Ms Debra Petrys
 - Consumer representative nominated to bring a consumer perspective by the Consumers Health Forum of Australia
- Ms Helen Moore
 - National Immunisation Committee
 - National Principal Adviser – Immunisation, Australian Medicare Local Alliance
- Ms Karen Peterson
 - National Immunisation Committee
 - Immunisation Manager, Queensland Health

- Dr Michael Crampton
 - RACGP representative, National Immunisation Committee
 - General Practitioner, Clinical Director, WentWest Ltd
- Mr Michael Frost
 - Deputy Head of Secretariat, COAG Reform Council

The Authority also received advice from representatives of:

- the National Advisory Group on Aboriginal and Torres Strait Islander Health Information Data
- the National Aboriginal and Torres Strait Islander Health Standing Committee
- the National Aboriginal Community Controlled Health Organisation.

This report relies on data provided by the Australian Government Department of Health and Ageing (DoHA) from the Australian Childhood Immunisation Register (ACIR). These data were used to calculate the performance measures in this report. The Authority does a number of checks to ensure data quality, and also relies on the data quality work of DoHA and the Australian Government Department of Human Services for the ACIR.

Thanks are extended to all those who contributed.

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