Australian Government

Australian Institute of Health and Welfare

infocus Healthy Communities

Child and maternal health in 2013–2015

Published April 2018

This report provides the latest, local-level information on four indicators of child and maternal health, nationally and across Australia's 31 Primary Health Network (PHN) areas. Information on Aboriginal and Torres Strait Islander mothers and babies is included where available.

Internationally, Australia performs well on key indicators of child and maternal health.[1] Over time, national rates have improved for infant and young child mortality, and smoking during pregnancy. Relatively good results for the rate of low birthweight babies and antenatal care during the first trimester of pregnancy have been maintained.

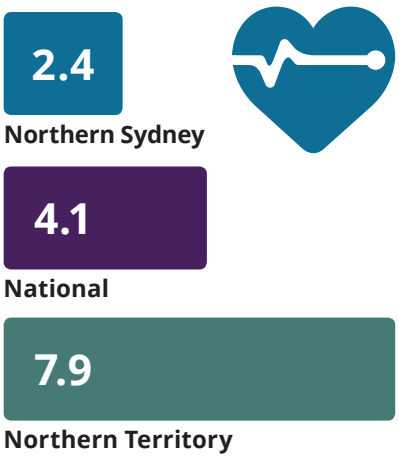
Across Australia's 31 PHN areas in 2013–2015, the areas with the highest rates of infant and young child mortality, low birthweight babies and first trimester antenatal visits had rates up to 3 times as high as those with the lowest rates. Smoking during pregnancy showed much wider variation—a difference in rates of nearly 18 times between the PHN areas with the highest and lowest results.

Northern Sydney PHN area recorded the lowest rates for three of the four health indicators: low birthweight babies (3.7%), mothers smoking during pregnancy (1.3%) and infant and child mortality (2.4 deaths per 1,000 live births).

In contrast, Northern Territory PHN area had high rates for two indicators: low birthweight babies (7.5%) and infant and child mortality (7.9 deaths per 1,000 live births); while Western NSW PHN area had the highest rate of mothers smoking during pregnancy (22.9%).

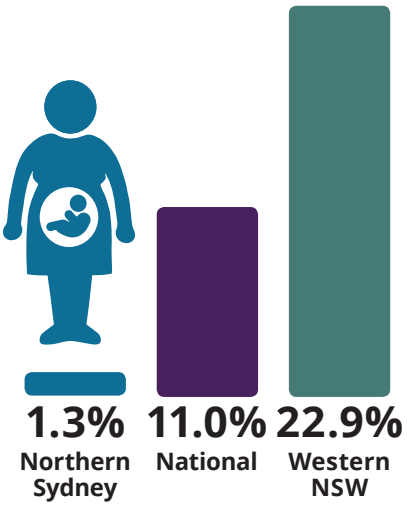
Visit www.myhealthycommunities.gov.au for more detailed results

Infant and young child (0 to <5 years) mortality rates varied across PHN areas:



deaths per 1,000 live births

The percentage of mothers who smoked during pregnancy varied across PHN areas:



AIHW

Summary findings: Child and maternal health

This report presents results for three population health outcome indicators for mothers and babies—infant and young child mortality, low birthweight babies and smoking during pregnancy. The fourth indicator—antenatal visits in the first trimester of pregnancy—relates to equality and access to health services.

Infant and young child mortality

In 2013–2015, the rate of infant and young child mortality (before 5 years of age) was:

- 4.1 deaths per 1,000 live births nationally
- lowest in Northern Sydney PHN area (2.4 per 1,000)
- highest in Northern Territory PHN area (7.9 per 1,000).

The rate of infant mortality (before 1 year of age) was:

- 3.4 deaths per 1,000 live births nationally
- lowest in Northern Sydney PHN area (2.1 per 1,000)
- highest in Northern Territory PHN area (6.4 per 1,000).

Low birthweight babies

In 2013–2015, the proportion of low birthweight babies was:

- 4.9% nationally
- lowest in Northern Sydney PHN area (3.7%)
- highest in Northern Territory PHN area (7.5%).

Smoking during pregnancy

In 2013–2015, the percentage of mothers who smoked during pregnancy was:

- 11.0% nationally
- lowest in Northern Sydney PHN area (1.3%)
- highest Western NSW PHN area (22.9%).

Antenatal visits in the first trimester of pregnancy

In 2013–2015, the percentage of mothers who attended at least one antenatal visit in the first trimester was:

- 62.7% nationally
- lowest in South Eastern NSW PHN area (41.5%)
- highest in Tasmania PHN area (87.2%).

MyHealthy Communities

Reporting local information, driving better health outcomes

This report and its technical note are available to download at **www.myhealthycommunities.gov.au**

The website contains additional information at the PHN and local area level.

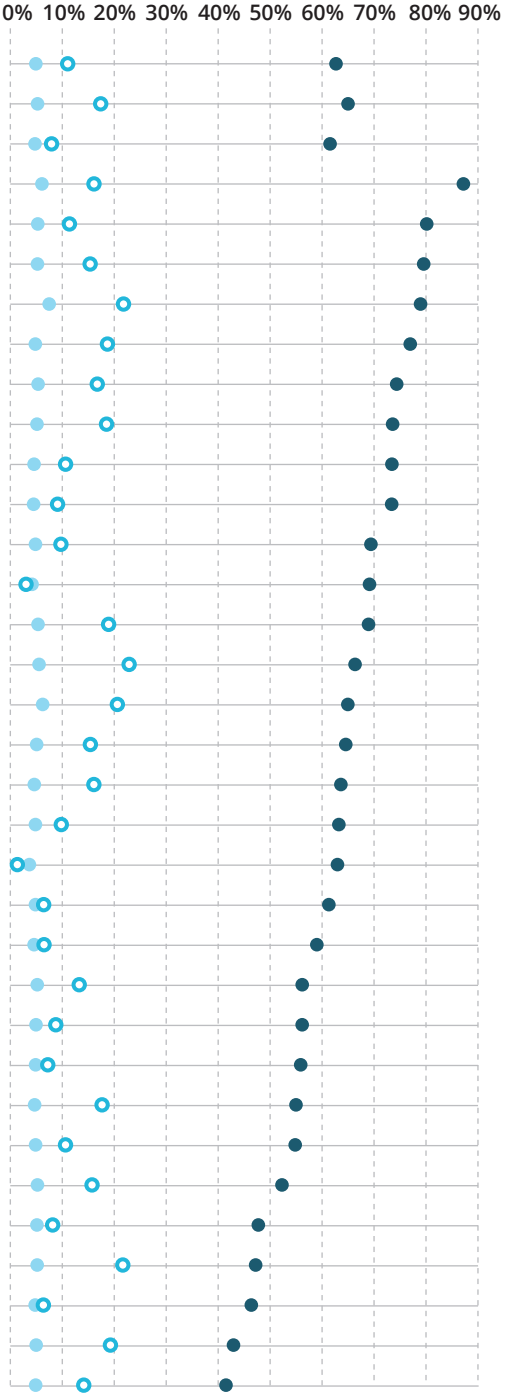
Three measures are presented at the local level for all mothers (by Statistical Area Level 3) and for Aboriginal and Torres Strait Islander mothers (by Statistical Area Level 4):

- Percentage of low birthweight babies
- Percentage of mothers who smoked during pregnancy
- Percentage of mothers who had at least one antenatal visit in the first trimester of pregnancy

Infant and young child mortality data are presented by Statistical Area Level 3 from 2010–2012 through to 2013–2015.

Figure 1: Percentage of all mothers who had at least one antenatal visit in the first trimester of pregnancy, by measures of child and maternal health, by Primary Health Network area, 2013–2015

Primary Health Network area	Antenatal visit in first trimester	Smoking during pregnancy	Low birth-weight	Infant & young child mortality rate per 1,000
Australia	**62.7%**	**11.0%**	**4.9%**	4.1
All regional PHN areas	**65.0%**	**17.4%**	**5.2%**	4.9
All metropolitan PHN areas	**61.5%**	**7.9%**	**4.7%**	3.5
Tasmania	87.2%	16.1%	6.1%	4.5
Adelaide	80.1%	11.4%	5.3%	3.4
North Coast (NSW)	79.6%	15.4%	5.2%	5.0
Northern Territory	79.0%	21.8%	7.5%	7.9
Country SA	77.0%	18.7%	4.8%	4.5
Northern Queensland	74.4%	16.7%	5.3%	5.7
Country WA	73.6%	18.5%	5.1%	4.3
Brisbane North	73.4%	10.6%	4.6%	4.3
Gold Coast (Qld)	73.4%	9.1%	4.5%	3.4
Perth South	69.4%	9.7%	4.8%	3.0
Central & Eastern Sydney	69.1%	3.0%	4.2%	3.1
Darling Downs & West Moreton (Qld)	68.9%	18.9%	5.3%	6.2
Western NSW	66.3%	22.9%	5.5%	5.4
Western Queensland	65.0%	20.6%	6.2%	6.3
Hunter New England & Central Coast (NSW)	64.6%	15.4%	5.1%	5.1
Central Qld, Wide Bay & Sunshine Coast	63.6%	16.1%	4.6%	5.1
Brisbane South	63.2%	9.8%	4.8%	4.9
Northern Sydney	63.0%	1.3%	3.7%	2.4
Perth North	61.3%	6.4%	4.8%	2.7
Eastern Melbourne	59.0%	6.5%	4.6%	3.0
Nepean Blue Mountains (NSW)	56.2%	13.3%	5.2%	5.2
South Western Sydney	56.2%	8.7%	4.9%	4.5
Western Sydney	55.9%	7.2%	4.9%	4.4
Murrumbidgee (NSW)	55.0%	17.7%	4.7%	4.6
South Eastern Melbourne	54.8%	10.6%	4.9%	2.8
Western Victoria	52.3%	15.7%	5.2%	3.8
North Western Melbourne	47.7%	8.1%	5.1%	3.6
Gippsland (Vic)	47.2%	21.6%	5.2%	3.8
Australian Capital Territory	46.4%	6.4%	4.8%	3.5
Murray (Vic & part NSW)	42.9%	19.3%	5.0%	3.4
South Eastern NSW	41.5%	14.1%	4.9%	4.0



Antenatal visit in first trimester · Smoking during pregnancy · Low birthweight

Sources: AIHW National Perinatal Data Collection 2013–2015, AIHW National Mortality Database 2013–2015 and Australian Bureau of Statistics Birth Registrations Collection 2013–2015

For more in-depth detail on Low Birthweight babies, Smoking during pregnancy and Antenatal visits in the first trimester, see our Indicator Specifications in this reports accompanying Technical Note at www.myhealthycommunities.gov.au

Infant and young child mortality

Infant and young child mortality is a broad measure of the overall health of a population and provides insight into the effectiveness of the maternal and perinatal health system.

Infant and young child mortality refers to deaths among children aged under 5 years. More than 8 in 10 (84%) infant and young child deaths occur in infancy (before 1 year of age) and nearly 6 in 10 (59%) occur before 28 days of life (neonatal death) (Figure 2).

Australia compares well internationally on infant mortality rates (before 1 year of age), which decreased by one-third (32%) from 4.7 to 3.2 deaths per 1,000 live births in the decade between 2005 and 2015. Australia ranked 15th of 39 OECD countries for which infant mortality rates were reported in 2015.[1,2] There are currently no international comparisons on infant and young child mortality (0 to <5 years) available for use in this report.

Variation across metropolitan and regional areas

In Australia in 2013–2015, there were 4.1 infant and young child deaths per 1,000 live births. Regional PHN areas had a rate of 4.9 deaths per 1,000 live births, 1.4 times the rate for metropolitan PHN areas (3.5 per 1,000) (Figure 3).

Variation across PHN areas

The highest infant and young child mortality rates were reported in the Northern Territory (7.9 deaths per 1,000 live births), Western Queensland (6.3 per 1,000), and Darling Downs and West Moreton (Qld) (6.2 per 1,000) PHN areas (Figure 3).

Northern Sydney (2.4 deaths per 1,000 live births), Perth North (2.7 per 1,000) and South Eastern Melbourne (2.8 per 1,000) PHN areas recorded the lowest rates.

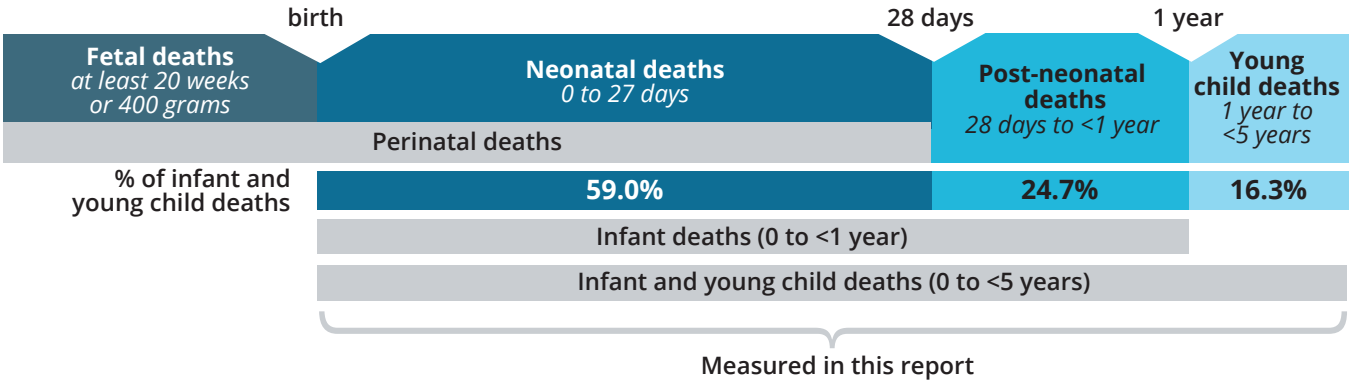
Aboriginal and Torres Strait Islander infant and young child mortality

Between 2011 and 2015, Aboriginal and Torres Strait Islander infant and young child mortality rates were nearly double the non-Indigenous rate (6.1 deaths per 1,000 live births compared with 3.3 per 1,000).

However, infant and young child mortality rates for Aboriginal and Torres Strait Islander children have fallen by more than two-thirds during the past decade.

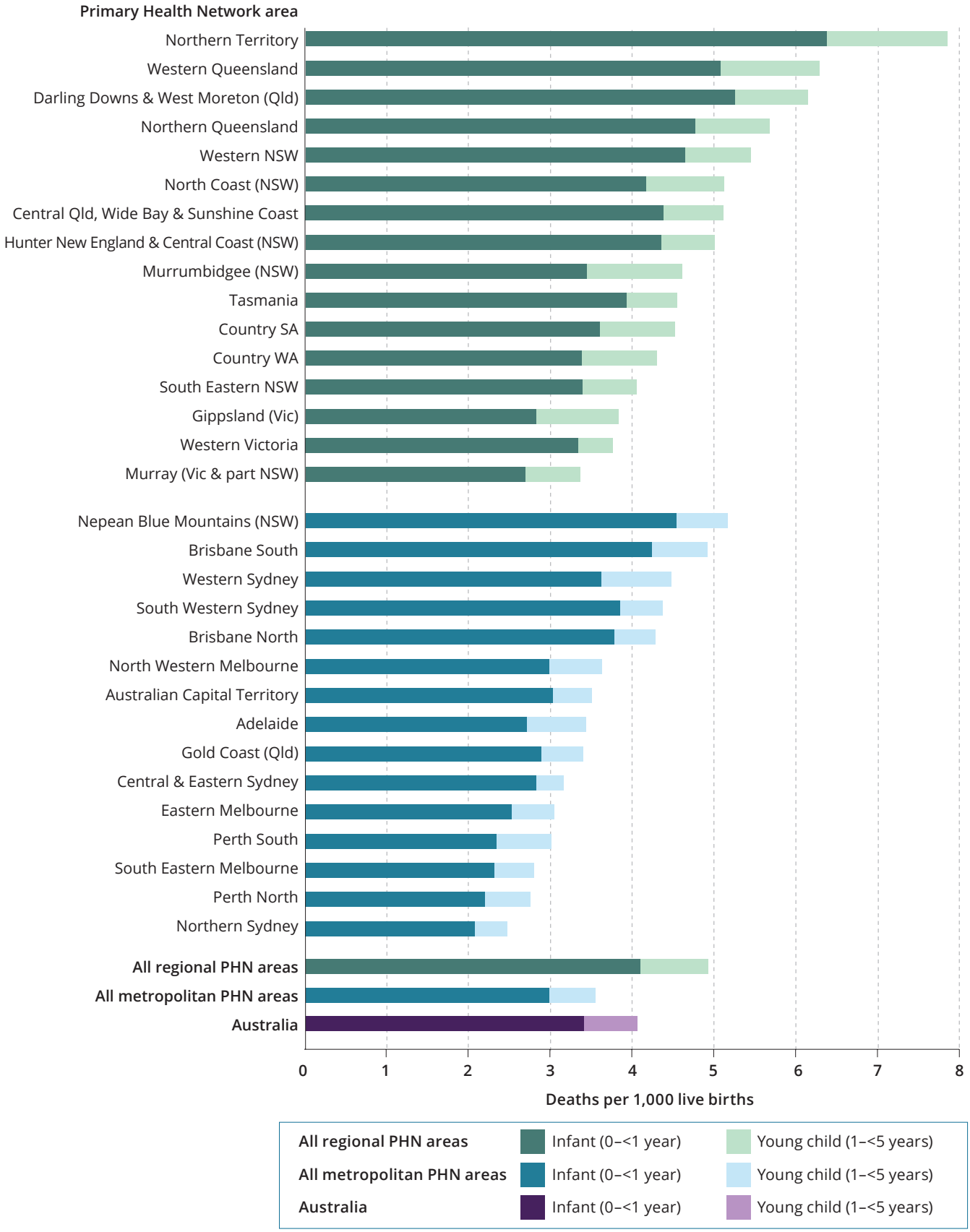
The recent Australian Government report on Closing the Gap (2017), showed that this decline is just outside the range to meet the target of halving the gap in mortality rates between Indigenous and non-Indigenous infants and young children by 2018.[3]

Figure 2: Composition of infant (neonatal and post-neonatal) and young child deaths, 2013–2015



Source: AIHW National Mortality Database 2013-2015

Figure 3: Infant and young child mortality rates (per 1,000 live births) by Primary Health Network area, 2013–2015



Notes: Deaths are attributed to the area in which the infant or young child usually resided
Births are attributed to the area in which the mother usually resided

Sources: AIHW National Mortality Database 2013-2015 and Australian Bureau of Statistics Birth Registrations Collection 2013–2015

More information can be found at www.myhealthycommunities.gov.au and in this report's Technical Note

Low birthweight babies

Birthweight is used globally as an indicator of a population's health. At the individual level, it is a key determinant of a baby's health and survival.

Low birthweight babies are live born singleton babies who weigh less than 2,500 grams at birth. Low birthweight is closely linked with pre-term birth, with almost 3 in 4 low birthweight babies born pre-term (between 20 and 36 weeks gestation) in 2015.[4]

A baby's low birthweight may reflect its mother's health (or illness) during her pregnancy, including risky behaviours such as smoking or excessive alcohol consumption, and other factors such as poor nutrition or a lack of antenatal care.[5]

Teenage (under 20 years) and older (40 years and over) mothers are also more likely to deliver low birthweight babies.

In Australia, the proportion of low birthweight singleton babies remained steady in the decade to 2015 (4.8% in 2005; 5.0% in 2015).[6]

Variation across metropolitan and regional areas

In Australia in 2013–2015, 4.9% of live born singleton babies were of low birthweight (44,048). Mothers in regional PHN areas had slightly higher rates of low birthweight babies than those in metropolitan PHN areas (5.2% and 4.7%, respectively).

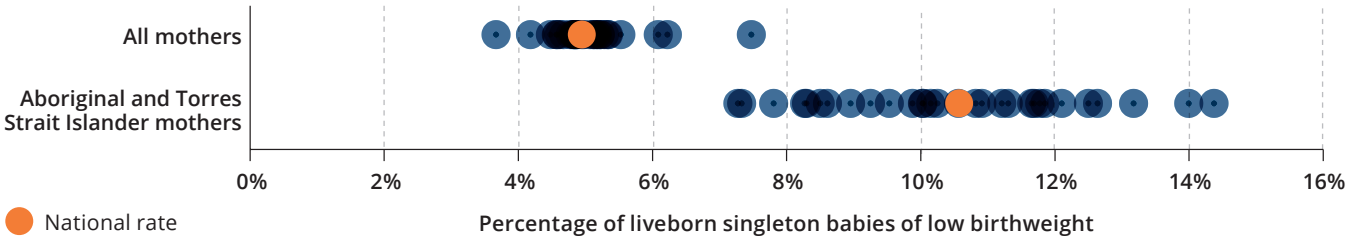
Aboriginal and Torres Strait Islander mothers gave birth to a higher proportion of low birthweight babies when compared to the result for all mothers (Figure 4). One in 10 (10.6%) liveborn singleton babies of Aboriginal and Torres Strait Islander mothers were of low birthweight (3,955), with no difference between metropolitan (10.4%) and regional PHN areas (10.6%).

Variation across PHN areas

Across PHN areas, Northern Territory recorded the highest proportion (7.5%) of low birthweight babies, nearly twice that in Northern Sydney (3.7%) (Map 1).

For live born singleton babies to Aboriginal and Torres Strait Islander mothers, the highest proportion was in Perth South PHN area (14.4%), while the lowest was in Murrumbidgee (NSW) PHN area (7.3%).

Figure 4: Percentage of low birthweight babies of all mothers and Aboriginal and Torres Strait Islander mothers, by Primary Health Network area, 2013–2015

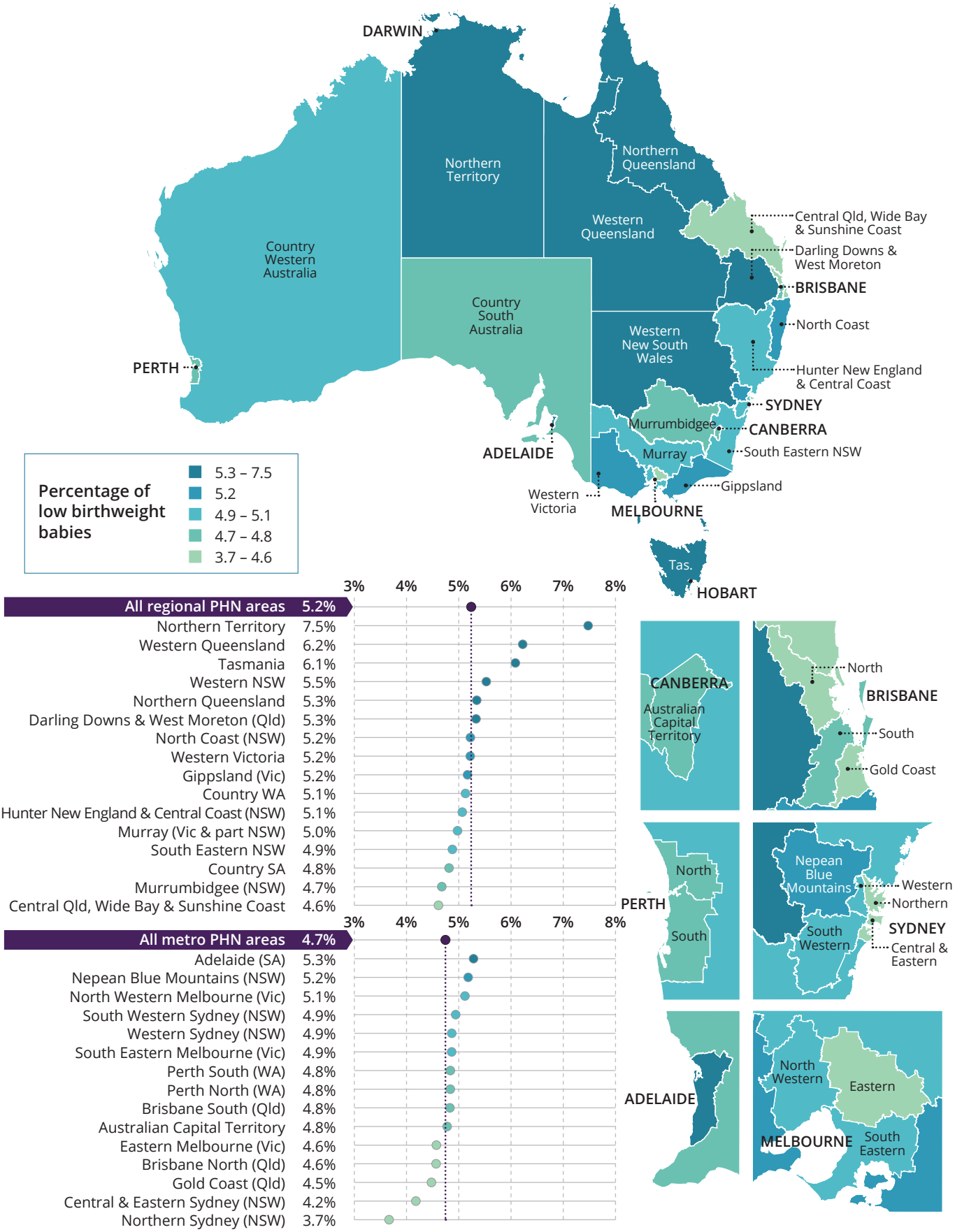


Notes: Each circle represents the percentage of low birthweight babies in an area, excluding areas with less than 100 live born singleton births.
Multiple births and stillbirths have been excluded
Births are attributed to the area in which the mother usually resided at the time of the birth
Data excludes births that could not be allocated because their usual residence was not stated or was not valid

Source: AIHW National Perinatal Data Collection 2013–2015

More information can be found at www.myhealthycommunities.gov.au and in this report's Technical Note

Map 1: Percentage of low birthweight babies by Primary Health Network area, 2013–2015



Notes: Multiple births and stillbirths have been excluded
Births are attributed to the area in which the mother usually resided at the time of the birth
Data excludes births that could not be allocated because their usual residence was not stated or was not valid

Source: AIHW National Perinatal Data Collection 2013–2015

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Smoking during pregnancy

Smoking tobacco during pregnancy is an avoidable risk factor for expectant mothers. Smoking during pregnancy can lead to pregnancy complications and poorer outcomes for babies, including low birthweight, pre-term birth, and perinatal death.[5]

The percentage of mothers who smoked during pregnancy is based on the number of mothers who self-reported having smoked tobacco at any time during pregnancy.

Nationally, there has been a consistent decrease in the proportion of mothers smoking during pregnancy. In 2015, 10.4% of mothers smoked during pregnancy, down from 14.6% in 2009.[5]

Variation across metropolitan and regional areas

Nationally in 2013–2015, one in 10 (11.0%) mothers smoked at some point during their pregnancy. In regional PHN areas (17.4%) smoking rates were more than double those of mothers in metropolitan PHN areas (7.9%) (Figure 5).

Nearly half (46.5%) of Aboriginal and Torres Strait Islander mothers smoked during pregnancy, with rates slightly higher in regional (47.8%) PHN areas, compared with metropolitan areas (42.6%).

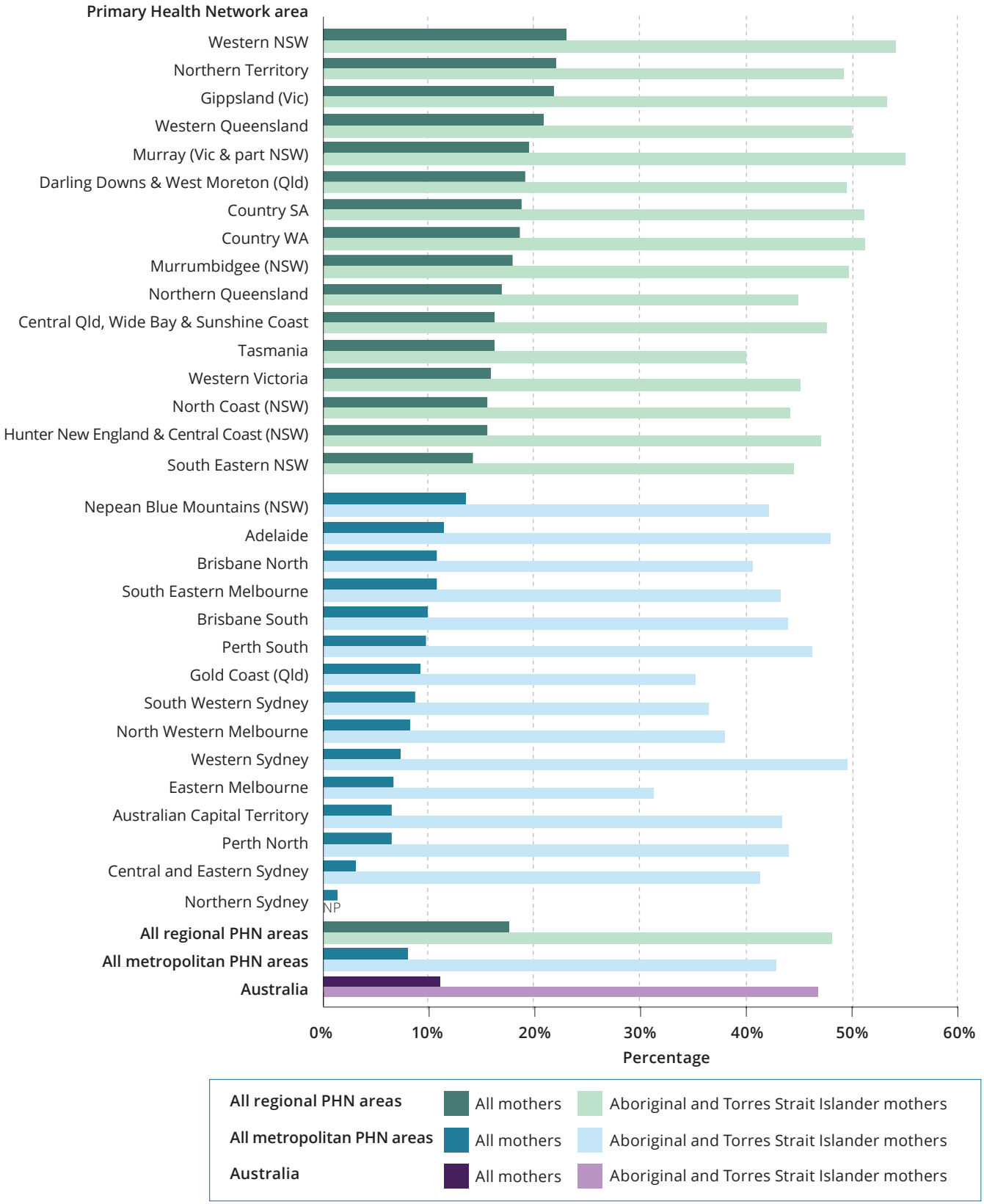
Variation across PHN areas

The lowest percentages of mothers who smoked during pregnancy were in Northern Sydney (1.3%) and Central and Eastern Sydney (3.0%) PHN areas. The highest percentages were in Western NSW (22.9%), Northern Territory (21.8%) and Gippsland (Vic) (21.6%) PHN areas. The areas with the highest rates were up to 18 times as high as the areas with the lowest rates.

Nationally, nearly 1 in 5 (18%) mothers who smoked during pregnancy identified as Aboriginal and Torres Strait Islander. The high smoking rates in some PHN areas can be partly explained by the high proportions of Aboriginal and Torres Strait Islander women in those areas. For example, in the Northern Territory PHN area, 32% of expectant mothers identified as Indigenous but 72% of mothers who smoked during pregnancy identified as Indigenous. Similarly, in Western Queensland, 1 in 4 (25%) mothers identified as Indigenous, 61% of whom reported smoking during pregnancy.

The highest rate of smoking during pregnancy for Aboriginal and Torres Strait Islander mothers was 54.7% in Murray (Vic & part NSW) PHN area, nearly twice that of Eastern Melbourne PHN area (31.1%), which reported the lowest rate.

Figure 5: Percentage of mothers who smoked during pregnancy, for all mothers and Aboriginal and Torres Strait Islander mothers, by Primary Health Network area, 2013–2015



NP: Data not published for PHN areas with less than 100 mothers who gave birth

Notes: Smoking during pregnancy is self-reported smoking of tobacco at any time during pregnancy
Data excludes mothers who gave birth that could not be allocated because their usual residence was not stated or was not valid or whose smoking status was not stated

Source: AIHW National Perinatal Data Collection 2013–2015

More information can be found at www.myhealthycommunities.gov.au and in this report's Technical Note

Antenatal visits in the first trimester of pregnancy

An antenatal visit in the first trimester of pregnancy (before 14 weeks' gestational age) is important to monitor the health of a mother and her baby. Antenatal care may be provided in hospital, in primary health care or specialist practices, or in the home.[5]

The data on mothers who attended at least one antenatal visit within the first trimester were either reported by the women themselves or drawn from medical records that showed an antenatal visit occurred within the first trimester.

Variation across metropolitan and regional areas

More than 6 in 10 (62.7%) mothers had at least one antenatal visit in the first trimester of their pregnancy. The proportion was slightly higher for mothers in regional PHN areas (65.0%) compared with metropolitan PHN areas (61.5%) (Map 2).

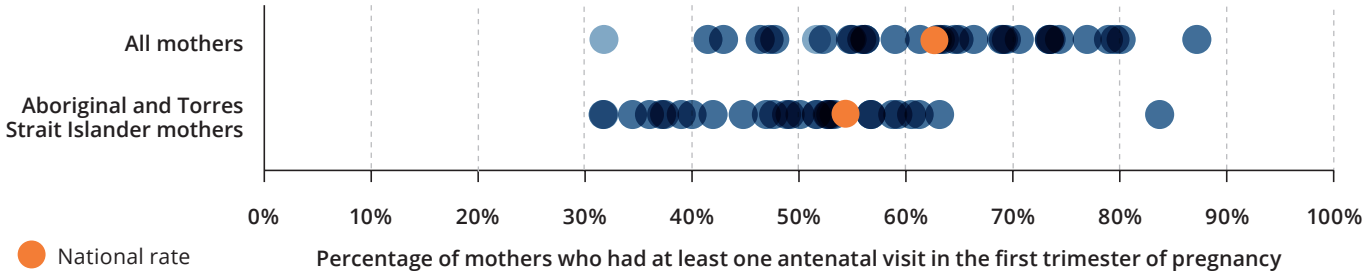
For Aboriginal and Torres Strait Islander mothers, 54.2% had at least one antenatal visit in the first trimester of their pregnancy. Mothers in regional PHN areas had higher rates than those in metropolitan PHN areas (57.1% and 45.8%, respectively).

Variation across PHN areas

The highest percentages of mothers who had at least one antenatal visit in the first trimester were in Tasmania (87.2%), Adelaide (80.1%) and North Coast (NSW) (79.6%) PHN areas. The lowest percentages of mothers were in South Eastern NSW (41.5%), Murray (Vic & part NSW) (42.9%) and Australian Capital Territory (46.4%).

The highest rates of antenatal visits for Aboriginal and Torres Strait Islander mothers were reported in Tasmania (83.7%), North Coast (NSW) (70.6%) and Gold Coast (Qld) (63.2%). The lowest percentages of mothers were in South Eastern Melbourne (31.7%) and North Western Melbourne (31.8%).

Figure 6: Percentage of mothers who had at least one antenatal visit in the first trimester of pregnancy, for all mothers and Aboriginal and Torres Strait Islander mothers, by Primary Health Network area, 2013–2015

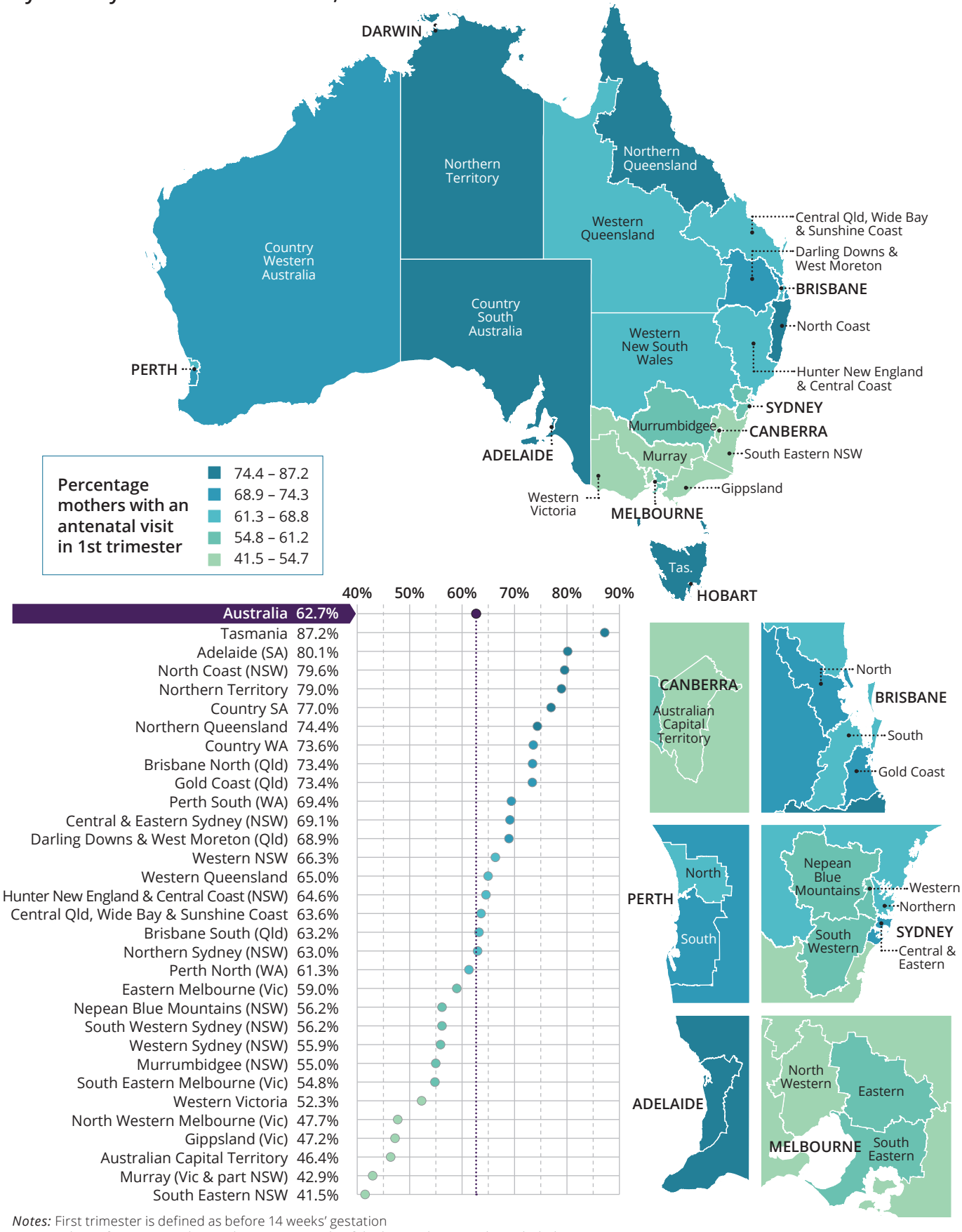


Notes: Each circle represents the percentage of women who had at least one antenatal visit in the first trimester in an area, excluding areas with less than 100 mothers who gave birth
First trimester is defined as before 14 weeks of gestation
In WA and ACT, first antenatal visits that occur outside of the hospital may not be included
Data excludes mothers who gave birth that could not be allocated because their usual residence was not stated or was not valid or whose gestation at first antenatal visit was not stated

Source: AIHW National Perinatal Data Collection 2013–2015

More information can be found at www.myhealthycommunities.gov.au and in this report's Technical Note

Map 2: Percentage of mothers who had at least one antenatal visit in the first trimester, by Primary Health Network area, 2013–2015



Notes: First trimester is defined as before 14 weeks' gestation
In WA and ACT, first antenatal visits that occur outside of the hospital may not be included
Data excludes mothers who gave birth that could not be allocated because their usual residence was not stated or was not valid or whose gestation at first antenatal visit was not stated

Source: AIHW National Perinatal Data Collection 2013–2015

More information can be found at www.myhealthycommunities.gov.au and in this report's Technical Note

About the data

Infant and young child mortality rates were calculated using data from the Australian Institute of Health and Welfare (AIHW) National Mortality Database and the ABS Birth Registrations Collection for the calendar years 2013, 2014 and 2015. ABS births data contain administrative information supplied by the Births, Deaths and Marriages Registries in each state and territory.

Data on low birthweight, smoking during pregnancy and antenatal visits is from the National Perinatal Data Collection (NPDC). The NPDC is a national population-based cross-sectional data collection of pregnancy and childbirth. Perinatal data are collected for each birth in each state and territory by midwives and other birth attendants. The data are collated by the relevant state or territory health department and a standard de-identified extract is provided to the AIHW on an annual basis to form the NPDC.

State and territory health departments are acknowledged for their contribution to the NPDC and their review of this report.

For more information refer to the Technical Note at **www.myhealthycommunities.gov.au/publications**

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