



## 6.3 Indigenous child mortality and life expectancy

Child mortality and life expectancy are widely used as overall indicators of population health. Although Australia's national child mortality rates are low and life expectancy is high compared with that of other countries, there are significant disparities in both these measures between Aboriginal and Torres Strait Islander people and non-Indigenous Australians. In 2008, the Council of Australian Governments (COAG) committed to halving the gap in child (ages 0–4) mortality rates within 10 years (2018) and closing the gap in life expectancy between Indigenous and non-Indigenous Australians within a generation (by 2031).

### Child mortality

The latest available data from the jurisdictions with acceptable levels of Indigenous identification in their mortality data (New South Wales, Queensland, Western Australia, South Australia and the Northern Territory) show that, in 2016, 113 Indigenous children aged 0–4 and 726 non-Indigenous children aged 0–4 died, yielding:

- a child death rate of 146 per 100,000 for Indigenous children and 70 per 100,000 for non-Indigenous children
- a gap of 76 deaths per 100,000 children
- a rate ratio of 2.1 (that is, Indigenous children were 2.1 times as likely to die during early childhood as non-Indigenous children) (AIHW 2018).

To meet the Closing the Gap target and halve the gap in child mortality rates by 2018, a reduction of at least 26 deaths (across the jurisdictions with available data combined) is required between 2016 and 2018. Achieving this goal begins with understanding the age distribution and causes of death underpinning these patterns.

### Age distribution of Indigenous child deaths

The risk of dying during early childhood varies by age, with deaths during the first year of life making up 82% of all Indigenous child deaths and 84% of all non-Indigenous child deaths. There is a great deal of variation across the first year, with 40% of Indigenous infant deaths and 42% of non-Indigenous infant deaths occurring on the first day of life (Table 6.3.1).





Table 6.3.1: Percentage distribution of infant deaths, by age at death and Indigenous status, NSW, Qld, WA, SA and the NT combined, 2011–2015

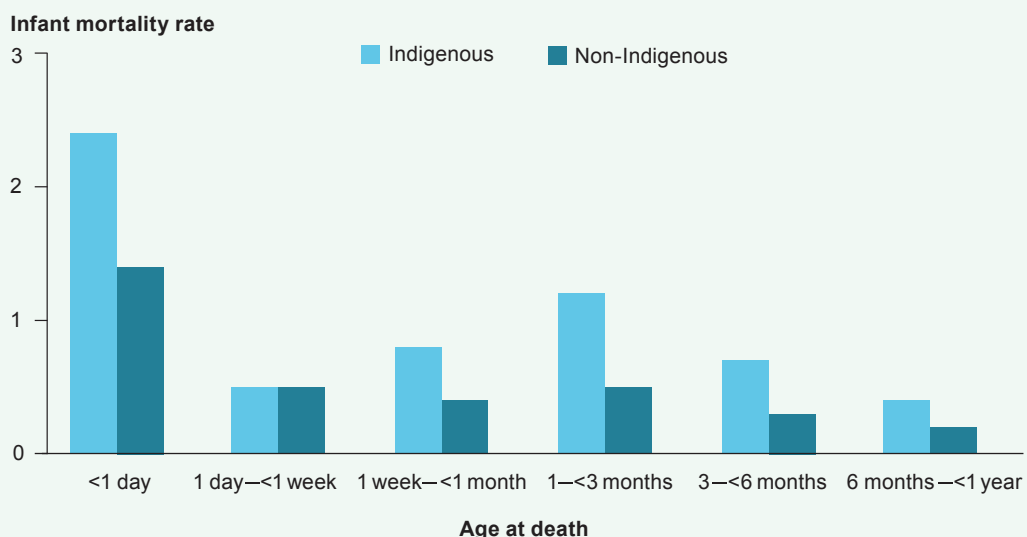
Age at death	Indigenous	Non-Indigenous
<1 day	40.0	42.0
1 day – 1 week	8.8	15.9
1 week – 1 month	13.2	13.0
1–3 months	19.8	14.3
3–6 months	11.6	8.1
6 months – 1 year	6.6	6.6
<b>Number of infant deaths</b>	<b>500</b>	<b>3,393</b>

Note: Deaths registered in 2012 and earlier are based on the final version of cause of death data; deaths registered in 2013 are based on revised data; deaths registered in 2014 and 2015 are based on preliminary cause of death data. Revised and preliminary data are subject to further revision by the Australian Bureau of Statistics.

Source: National Mortality Database.

Infant mortality rates (which measure the risk of dying) for these age groups show that Indigenous infants are 3 times as likely as non-Indigenous infants to die between 1 and 6 months of age, and twice as likely to die for all other age categories (except for 1 day–1 week, where the risks are equal) (Figure 6.3.1).

Figure 6.3.1: Infant deaths per 1,000 live births, by age at death and Indigenous status, 2011–15 (NSW, Qld, SA, WA and the NT combined)



Note: Deaths registered in 2012 and earlier are based on the final version of cause of death data; deaths registered in 2013 are based on revised data; deaths registered in 2014 and 2015 are based on preliminary cause of death data. Revised and preliminary data are subject to further revision by the Australian Bureau of Statistics.

Source: National Mortality Database.

The age distribution of child deaths is related to the cause-of-death distribution.



## Causes of death responsible for the child mortality gap

Three causes of death accounted for 85% of the gap in child mortality rates between Indigenous and non-Indigenous children aged 0–4 in 2011–15: pregnancy/birth-related conditions (40% of the gap); sudden infant death syndrome (SIDS) and other unknown causes (26%); and accidents, injuries and other external causes (18%) (Supplementary Table S6.3.2).

These causes are not randomly distributed throughout infancy and early childhood but are related to the age of the child (Supplementary Table S6.3.3). Data from 2011–15 show that during the first month of life, pregnancy/birth-related conditions were responsible for 78% of Indigenous infant deaths (241 babies). Between 1 and 3 months, SIDS and other unknown causes were the leading cause of death, responsible for 89 Indigenous infant deaths (47% of Indigenous deaths in this age group). Accidents, injuries and other external causes were responsible for the highest proportion of Indigenous child deaths between ages 1–4 (59 deaths; 54% of all Indigenous child deaths in this age group).

## Opportunities for improvement

The factors underlying the higher infant and child mortality rates for Indigenous children are complex; they include higher rates of preterm birth and low birthweight, higher rates of maternal smoking during pregnancy, poorer pre-pregnancy maternal health, higher levels of social disadvantage, poorer access to antenatal and birthing services, and higher likelihood of living in overcrowded housing (AHMAC 2017; AIHW 2014).

Analyses of the child mortality data show that there are three targeted areas with potential to improve outcomes for Indigenous infants and young children:

- reducing preterm births
- reducing tobacco smoking
- reducing SIDS and sleep-related deaths (see AIHW 2018 for more detail).

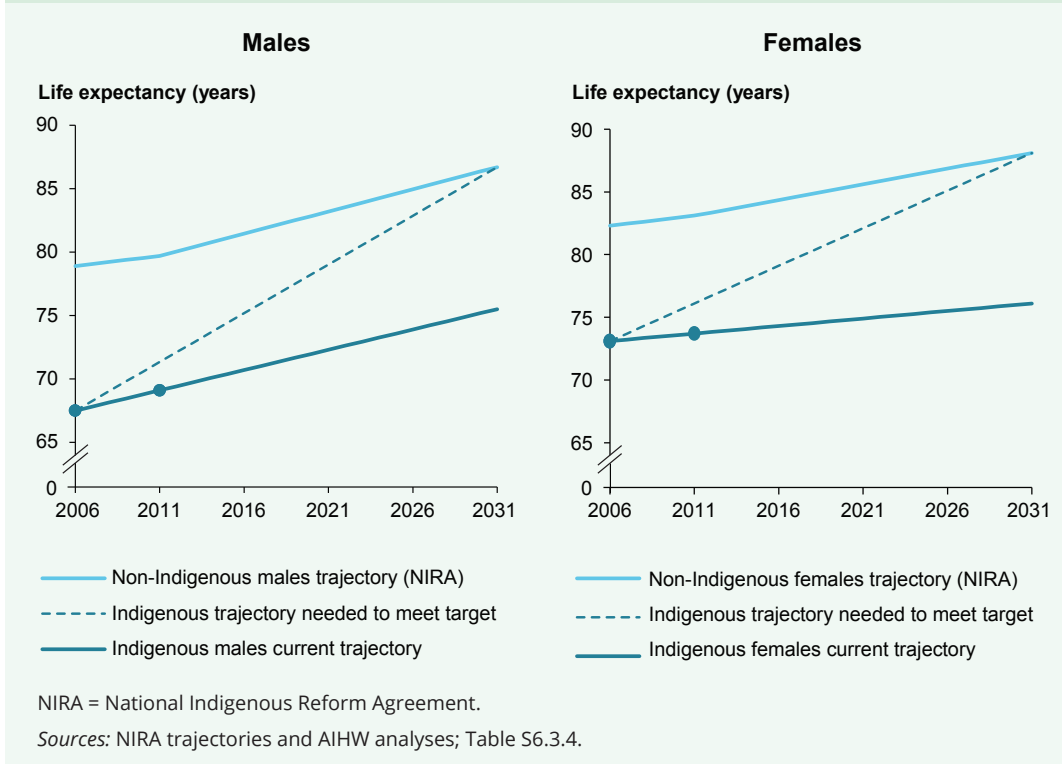
## Life expectancy

In 2010–2012, life expectancy at birth for Indigenous Australians was estimated to be 69.1 years for males and 73.7 years for females. By comparison, the life expectancy at birth for non-Indigenous Australians was 79.7 years for males and 83.1 years for females.

Between 2005–2007 and 2010–2012, the gap in life expectancy between Indigenous and non-Indigenous Australians decreased from 11.4 to 10.6 years for males, and from 9.6 to 9.5 years for females. Although the life expectancy of Indigenous Australians is slowly improving, the current rate of progress indicates that the COAG target will not be met by 2031. Meeting the target is made more challenging as non-Indigenous life expectancy is expected to increase over the coming years (PM&C 2016). Including the projected gains in non-Indigenous life expectancy, in order to close the gap there would need to be a 15–19 year increase in Indigenous life expectancy in the 25-year period from 2006 to 2031 (Figure 6.3.2).



Figure 6.3.2: Trajectories of life expectancy at birth, by sex and Indigenous status, 2006–2031



## What is missing from the picture?

Indigenous deaths data are reported for only five jurisdictions (New South Wales, Queensland, Western Australia, South Australia and the Northern Territory) and may not reflect the national picture. The other jurisdictions have lower levels of identification and a small number of Indigenous deaths.

There is also a need for improved capture of factors in the pre-conception, pregnancy, birth and early childhood periods that may influence childhood mortality outcomes—for example, diet and nutrition, exposure to stress, psychological distress, domestic violence, alcohol use during pregnancy, breastfeeding, immunisation, and sleep-related behaviours.

## Where do I go for more information?

See the AIHW reports *Closing the Gap targets: analysis of progress and key drivers of change* and *Timing impact assessment for COAG Closing the Gap targets: child mortality* for more information.

## References

- AHMAC (Australian Health Ministers' Advisory Council) 2017. Aboriginal and Torres Strait Islander Health Performance Framework 2017 report. Canberra: AHMAC.
- AIHW (Australian Institute of Health and Welfare) 2014. Timing impact assessment of COAG Closing the Gap targets: Child mortality. Cat. no. IHW 124. Canberra: AIHW.
- AIHW 2018. Closing the Gap targets: 2017 analysis of progress and key drivers of change. Cat. no. IHW 193. Canberra: AIHW.
- PM&C (Department of the Prime Minister and Cabinet) 2016. Closing the Gap Prime Minister's report. Canberra: PM&C.