Australian Government

CLOSING THE GAP

Report 2020

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Prime Minister's Foreword

This year, the Closing the Gap report marks a new era. An era of partnership based on an historic agreement with Aboriginal and Torres Strait Islander people.

Last year, I hoped this report would be on a new Closing the Gap framework. But, this is not a process we should rush. Getting it right is worth the time it takes. So while we don't yet have a new framework in place, a new process has begun. A process that is truthful, strengths-based, community-led, and that puts Aboriginal and Torres Strait Islander people at the centre.

In March 2019, I entered into the Partnership Agreement on Closing the Gap, a landmark agreement to work together to develop the new Closing the Gap framework. It's a commitment by the Commonwealth, all states and territories, the Australian Local Government Association and the Coalition of Aboriginal and Torres Strait Islander Peak Organisations to work together in genuine partnership.

This is no small achievement. For the first time, we have constructed something that sits at the very centre of government and demonstrates a strong commitment to Indigenous Australians having a real say.

That's what was missing from the original Closing the Gap framework. As we turn the last page on that framework, we take the evidence of the last twelve years and provide the final results. These results are not what we had hoped for, and it's important to acknowledge them. But it's also important to celebrate the stories and successes that lie beyond the targets. On almost every measure, there has been progress.

There have been heartening improvements in key areas of health and education. These are the things that create pathways to better futures.

It's clear we have more to do, but we must do things differently. Without a true partnership with Aboriginal and Torres Strait Islander people, we will hamper our own progress.

The new framework is based on true partnership, and on a commitment by all governments to work together, and to work with Aboriginal and Torres Strait Islander people.

The new Joint Council on Closing the Gap is developing priorities, realistic targets and metrics that all governments and the Coalition of Peaks can commit to achieving. At the core of this new process is the expertise of Aboriginal and Torres Strait Islander people, guiding local action and local change.

Our refreshed Closing the Gap will focus on how we deliver services, as well as what is being delivered, and on solutions, not problems.

This means changing the way we work. It means expanding the opportunities for shared decision-making and making sure all mainstream agencies provide high quality programs and services. It means making sure Aboriginal and Torres Strait Islander people have better access to high-quality services, including building community-controlled sectors, and ensuring we have the data needed for ongoing improvement. It means making sure we have the systems in place to share responsibility, and to measure our progress. Without this, we can have no meaningful action and no real progress.

For example, we are investing in Aboriginal and Torres Strait Islander-led data to support decision-making at a local level. This will mean richer data to build programs that work for people in the place they live. It will also help to develop regional profiles to better understand how we are tracking towards Closing the Gap targets and other community priorities.

In making this commitment, together we have made a new path. Together we are setting out towards a goal we all share: that is, for every Aboriginal and Torres Strait Islander child to grow up with at least the same opportunities in life as every other Australian.

I look forward to honouring our commitment to partnership. I want to make sure Indigenous Australians are genuinely positioned to make informed choices, forge their own pathways and reach their goals. I want to make sure all governments renew our efforts to help close the gap. We can all play a part. Together we can all improve the lives of Aboriginal and Torres Strait Islander people in this generation and the next.

Closing the Gap 2020

Overview

Closing the Gap began in response to a call for governments to commit to achieving equality for Aboriginal and Torres Strait Islander people in health and life expectancy within a generation.

It is the story of a collective journey—a shared commitment to empower Aboriginal and Torres Strait Islander people to live healthy and prosperous lives.

In 2020, there is a greater focus on partnership between governments and Aboriginal and Torres Strait Islander people. At the centre of this new way of working is local action, and a determination to make a difference and to achieve change. This Closing the Gap report points to the future, a new path where Aboriginal and Torres Strait Islander people share ownership to improve life outcomes for current and future generations. It closes off on an era of reporting against targets set by governments.

In partnership with Aboriginal and Torres Strait Islander people, we are moving towards a new National Agreement on Closing the Gap setting out priorities for the next ten years.

Closing the Gap

In 2017, the Government began a process to refresh the Closing the Gap agenda. A Special Gathering of prominent Aboriginal and Torres Strait Islander Australians called for the next phase to deliver a community-led, strengths-based approach. Aboriginal and Torres Strait Islander people are at the centre of this new strategy.

Recognising a formal partnership between government and Aboriginal and Torres Strait Islander people would achieve greater progress in the future, the Prime Minister sought agreement from the Council of Australian Governments (COAG) to a new way of working.

In 2019, all levels of government and a Coalition of Aboriginal and Torres Strait Islander Peak Organisations signed a formal agreement to work in genuine partnership. This means shared accountability and jointly developing an agreed framework and new targets. The Partnership is helping to capture the aspirations and priorities of Aboriginal and Torres Strait Islander individuals and communities in the design of policies and programs which impact them.

The significance of this new partnership is reflected in the establishment of the Joint Council on Closing the Gap. This is the first time a COAG Ministerial Council has included non-government representatives.

As governments work in this new way, there is increasing involvement and support for local communities to set their own priorities and tailor services to their unique contexts. The Indigenous-designed and led Empowered Communities initiative, which is reshaping the relationship between Indigenous communities and governments, is just one example. In a commitment to devolving decision-making as close to the ground as possible, community leaders are directly involved in making recommendations to government about how services and funding align with community priorities. Transparency and data sharing informs a 'learn and adapt as you go' approach and underpins local action.

Annual report on progress in Closing the Gap

In 2007, Commonwealth, state, territory and local governments made a commitment to work together to close the gap in Indigenous disadvantage. This led to the National Indigenous Reform Agreement, a significant step toward more coordinated action.

The first Closing the Gap framework outlined targets to reduce inequality in Aboriginal and Torres Strait Islander people's life expectancy, children's mortality, education and employment. The commitment focused on delivering policies and programs across fundamental 'building blocks' as priority areas, which would underpin improvement. These were: early childhood, schooling, health, economic participation, healthy homes, safe communities, and governance and leadership.

The Commonwealth Government has delivered an annual report on progress on Closing the Gap since the National Indigenous Reform Agreement was established.

There has been good progress made in early childhood education. The target to ensure 95 per cent of all Aboriginal and Torres Strait Islander four year-olds are enrolled in early childhood education by 2025 is on track, with 86.4 percent of children enrolled in 2018. This means more Aboriginal and Torres Strait Islander children are getting access to learning opportunities that will set them up for a better future. Early childhood is a time of important cognitive and social development. The achievement of this target sets up children to achieve better outcomes across their lives.

Connected Beginnings is an example of a program that has contributed to progress on this target. Integrating early childhood health, education and family support services, including funding local Aboriginal and Community Controlled Health Services to undertake outreach activities on school grounds, it provides children and families with holistic support and timely access to existing services. This helps children meet the learning and development milestones necessary to thrive and make a positive transition to school. There are funded initiatives in 15 Indigenous communities across Australia, with many sites reporting that it has been instrumental in laying the foundation for increased participation in preschool and early childhood education.

The target to halve the gap in Year 12, or equivalent, attainment for Indigenous Australians aged 20–24 by 2020 is also on track. Year 12 attainment is an important achievement in itself, but it is also a stepping stone to higher education and employment, opening the door to a breadth of opportunities for young people. This is promising for Indigenous employment that has improved slightly but not enough to meet the target. For Indigenous Australians with higher levels of education, there is virtually no gap in employment rates.

Regional University Centres, such as the Wuyagiba Bush Hub Aboriginal Corporation in the Northern Territory, are focused on supporting young people to access higher education on country. Under the leadership of local Elder Kevin Rogers, and Dr Emilie Ens of Macquarie University, the Wuyagiba Bush Hub is providing a curriculum that includes cultural content interwoven with academic skills. In 2019, nine students completed the university preparation course—five of these students have been offered places at Macquarie University and the remaining four at Batchelor Institute of Indigenous Tertiary Education.

Chloe Backhouse, a proud Weilwan and Gamilaroi woman living in Sydney, is benefitting from programs being delivered as part of the Closing the Gap commitment. Chloe participated and successfully completed a traineeship with Camden Council. Chloe learned valuable office and customer service skills while studying for a Certificate III in Business Administration and working at the Camden Council. This experience gave Chloe a strong foundation on which to build a career and led to employment.

These are examples of programs being delivered at a local level to make a real difference in the lives of Aboriginal and Torres Strait Islander people. They are all achievements to be celebrated, especially the personal successes of participants. But there remains more to be done.

The child mortality rate for Aboriginal and Torres Strait Islander children has reduced slightly since 2008, and risk factors related to this target have improved, including attendance at antenatal care and reduced smoking during pregnancy. However, as mortality rates for non-Indigenous children have also improved, this has not yet translated into stronger improvements in Indigenous child mortality rates, and the gap has not narrowed.

Targets to close the gap in school attendance and halve the gap in reading and numeracy and employment by 2018 were not met, although there has been improvement in reading and numeracy and the gap has narrowed across all year levels. More Aboriginal and Torres Strait Islander children are exceeding national minimum standards better positioning them to transition to further study and work. However, about one in four Indigenous children in Years 5, 7 and 9 remain below the national minimum standards in reading, and one in five in Year 3 remain below the national minimum standard in reading.

Since 2006 there has been an improvement in Indigenous mortality rates, driven primarily by improvements in one of the leading causes of death, circulatory disease. However, non-Indigenous mortality rates have improved at a similar pace and the gap has not narrowed. Of concern is a worsening of cancer mortality rates. The Tackling Indigenous Smoking program seeks to address smoking-related cancer and other diseases. It is also Aboriginal-led, community focused and place-based. Local campaigns, such as the one developed by the Flinders Island Aboriginal Association Incorporated, use the experience of local residents and transform community members into champions. Daily smoking among Indigenous Australians aged 15 years and over has decreased from 41 per cent in 2012–13 to 37 per cent in 2018–19.

While on almost every measure, there has been progress, achieving equality in life expectancy and closing the gap in life expectancy within a generation is not on track to be met by 2031. Aboriginal and Torres Strait Islander people still have a lower life expectancy than non-Indigenous people.

The Commonwealth, with the National Aboriginal Community Controlled Health Organisation, and the Australian Medical Association, have negotiated a Primary Health Care Funding Model under the Indigenous Australians' Health Programme. Over three years, a new funding model will work to deliver primary health care that is appropriate to the unique culture, language, and circumstances of Aboriginal and Torres Strait Islander people. In developing a new funding model, the Aboriginal Community Controlled Health Service sector informed the design and it is changing the funding model that distributes primary health care grants.

Progress in the overarching life expectancy target is dependent not only on further progress in health, but also in other outcomes such as education, employment, housing and income. There is more work to be done to close the gap in health inequality, including by harnessing the strength of culture as an underlying determinant of good health through identity and belonging, supportive relationships, resilience and wellbeing.

Although it is concerning not all targets have been met, there are positive signs that working together can accelerate progress and achieve better outcomes.

The chapters that follow provide more detail on the most recent data against each of the seven targets. They show many Aboriginal and Torres Strait Islander people continue to experience disparity with non-Indigenous people in important areas of their lives. That disparity is even greater for people living in remote areas. It is important to acknowledge the truth of this, and continue to build better data at the regional level and expand opportunities for shared decision-making, so that we move forward with a clear understanding of the challenge.

Working in Partnership and a new framework for Closing the Gap

To rise to this challenge, the Closing the Gap framework is moving toward a strengths-based agenda—one that partners with Aboriginal and Torres Strait Islander people, enables more community control and embeds shared decision-making.

The Commonwealth, state, territory governments, and the Australian Local Government Association, in partnership with representatives of the Coalition of Aboriginal and Torres Strait Islander Peak Organisations, are working to develop the new Closing the Gap framework and targets to set the direction for the next ten years.

> *"Never have Aboriginal and Torres Strait Islander peak bodies from across the country come together in this way, to bring their collective expertise, experiences, and deep understanding of the needs of our people to the task of closing the gap… We have an unprecedented opportunity to change the lived experience of too many of our people who are doing it tough."*
>
> *Ms Pat Turner AM, CEO of the National Aboriginal Community Controlled Health Organisation*

The new national agreement will be one where all parties commit to achieving the priorities and targets—where there is greater accountability to Aboriginal and Torres Strait Islander communities for progress.

Aboriginal and Torres Strait Islander people who participated in consultations during the Closing the Gap Refresh process expressed their desire for a strong and inclusive partnership and a greater say in the design and delivery of programs and services. The partnership is changing the conversation. It is becoming clear that priorities for the future involve creating more opportunities for shared decision-making, improving access to and collection of data to increase transparency, building the Aboriginal and Torres Strait Islander community-controlled services sector, and ensuring all mainstream institutions deliver programs and services that meet the needs of Aboriginal and Torres Strait Islander people.

A framework will be developed to incorporate these important elements, and provide indicators to monitor progress toward outcomes, and incorporate regular independent oversight of implementation.

Stories of local action to create change

There are many examples that demonstrate what can be achieved at a local level when governments work with Aboriginal and Torres Strait Islander people.

A partnership in New South Wales and Victoria is making a real difference to employment opportunities for Aboriginal and Torres Strait Islander people. As part of the Echuca/Moama Aboriginal Workforce Development Strategy a steering committee of industry, land councils, elders and community leaders, and all levels of government has worked together to deliver 45 new jobs.

The Jawoyn Association Aboriginal Corporation is another example of all levels of government, business, local Aboriginal people and the non-government sector working together to stimulate the local economy and improve social outcomes.

The Multi-Agency Partnership Agreement between the Gurindji Aboriginal Corporation, Northern Territory Government and the National Indigenous Australians Agency is also delivering real benefits to the local people of Kalkaringi. The partnership has resulted in six new local jobs and delivery of key infrastructure projects to upgrade housing and community facilities. It also supports the continuation of the Freedom Day Festival celebrating local culture and history, commemorating the Wave Hill walk off which put Aboriginal land rights onto the national agenda in the 1960s, and is a significant source of revenue for the community.

These examples show that it is possible to work together more effectively to get tangible outcomes.

For more than a decade, Commonwealth, state, territory and local governments, Aboriginal and Torres Strait Islander and non-Indigenous organisations, and Aboriginal and Torres Strait Islander communities have been working to improve outcomes. Some progress has been made and a stronger partnership approach will accelerate these improvements, with Aboriginal and Torres Strait Islander people taking greater ownership over the design, development and delivery of policies and programs that impact their lives.

In 2005, the Aboriginal and Torres Strait Islander Social Justice Commissioner's report recommended that Commonwealth, state, territory and local governments commit to achieving equality in health and life expectancy outcomes within 25 years. The data contained in this report shows that more work is needed. These are complex issues needing persistence and flexibility. We have seen that solutions are most successful when they are led by Aboriginal and Torres Strait Islander people. A genuine partnership with Aboriginal and Torres Strait Islander people, which values their expertise and lived experience, is integral to achieving equality in life outcomes.

Closing the gap was expected to take a generation—the effort must continue.

Progress against the Targets

Progress against the Closing the Gap targets has been mixed over the past decade.

As four targets expire, we can see improvements in key areas, but also areas of concern that require more progress.

- The target to **halve the gap in child mortality rates by 2018** has seen progress in maternal and child health, although improvements in mortality rates have not been strong enough to meet the target.
- The target to **halve the gap for Indigenous children in reading, writing and numeracy within a decade (by 2018)** has driven improvements in these foundational skills, but more progress is required.
- There has not been improvement in school attendance rates to **close the gap between Indigenous and non-Indigenous school attendance within five years (by 2018)**.
- The national Indigenous employment rate has remained stable against the target to **halve the gap in employment outcomes between Indigenous and non-Indigenous Australians within a decade (by 2018).**

Two of the continuing targets are on track.

- The target to have **95 per cent of Indigenous four year-olds enrolled in early childhood education by 2025**.
- The target to **halve the gap for Indigenous Australians aged 20–24 in Year 12 attainment or equivalent by 2020**.

However, the target to **close the gap in life expectancy by 2031** is not on track.

Jurisdictions agreed to measure progress towards the targets using a trajectory, or pathway, to the target end point. The trajectories indicate the level of change required to meet the target and illustrate whether the current trends are on track. See the Technical Appendix for further information.

When the Council of Australian Governments established the National Indigenous Reform Agreement (NIRA) as a framework for the Closing the Gap targets, it was recognised that improvements in data quality were necessary to support reporting and measurement of progress. Work has been undertaken to improve the data collections that inform the targets, such as the Census, deaths registrations, and the perinatal data collection.

The need to continuously improve the quality of the data is important for strengthening the evidence base. However, this also impacts upon the measurement of outcomes and poses challenges for interpreting trends in the targets. These issues are touched on in the report and in the Technical Appendix.

Trend results in this report are statistically significant, unless indicated otherwise.
See the Technical Appendix for more information.

Progress across states and territories

Progress against the targets for each state and territory varies, and is summarised in Table 1.1. This table serves as a guide to progress, but should not be used in isolation as there are limitations for each target trajectory, and for the data sources used to measure outcomes. More detailed analysis of progress in each of the target areas is found in the chapters of this report.

Table 1.1

Progress against the targets[a]

Target	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	AUS
Child mortality (2018)[b]	—	—	—	—	—	—	—	—	
Early childhood education (2025)	■	■	■	■	■	■		■	■
School attendance (2018)									
Literacy and Numeracy (2018)[c]									
Year 12 or equivalent (2020)[d]				■	■		■	■	■
Employment (2018)[e]									
Life expectancy (2031)[f]		—		—	—	—		—	

Notes: (a) A blue box indicates the target is on track. A dash indicates the data is either not published or there is no agreed trajectory. The other targets are not on track or have not been met. For more information on the target trajectories see the Technical Appendix.
(b) Due to the small numbers involved, state and territory trajectories were not developed for the child mortality target. The national target reflects results for New South Wales, Queensland, South Australia, Western Australia and the Northern Territory combined, which are the jurisdictions considered to have adequate levels of Indigenous identification in the deaths data suitable to publish.
(c) For the purposes of this summary table, states and territories are considered to have met the target if more than half of the eight National Assessment Program – Literacy and Numeracy (NAPLAN) areas (Years 3, 5, 7, and 9 reading and numeracy) were met in each jurisdiction.
(d) The Census is the primary data source for the target which was published in the 2018 Closing the Gap Report.
(e) Progress against trajectories for the employment target was assessed using the 2018–19 National Aboriginal and Torres Strait Islander Health Survey data.
(f) Estimates of Aboriginal and Torres Strait Islander life expectancy are published every five years for New South Wales, Queensland, Western Australia and the Northern Territory only. Due to the small number of Aboriginal and Torres Strait Islander deaths in Victoria, South Australia, Tasmania and the Australian Capital Territory, it is not possible to construct separate reliable life tables for these jurisdictions. However, as indicated in the table, only three jurisdictions have agreed life expectancy trajectories to support this target.

Child Mortality

Target

Halve the gap in mortality rates for Indigenous children under five within a decade (by 2018)

Key points

- In 2018, the Indigenous child mortality rate was 141 per 100,000—twice the rate for non-Indigenous children (67 per 100,000).
- Since the 2008 target baseline, the Indigenous child mortality rate has improved slightly, by around 7 per cent. However, the mortality rate for non-Indigenous children has improved at a faster rate and, as a result, the gap has widened.
- Some of the major health risk factors for Indigenous child mortality are improving. There is a need for further research to understand why these improvements have not translated into stronger improvements in Indigenous child mortality rates.

What the data tells us

National

Tragically, in 2018, there were 117 Indigenous child deaths. This was equivalent to a rate[1] of 141 per 100,000—twice the rate for non-Indigenous children (67 per 100,000). This was not within the range required to meet the target (94 per 100,000) (Figure 1.1).

Maternal health is a key driver for this target, and health outcomes for Indigenous mothers and children have improved over the past decade. However, this has not translated into stronger improvements for Indigenous child mortality rates. Further research (including data linkage) is required to understand why. This is discussed in more detail below at Factors that influence Indigenous child mortality.

Indigenous child mortality rates have improved (by 7 per cent) between 2008 and 2018.[2] However, this improvement was not as strong as prior to the 2008 baseline.[3] Non-Indigenous child mortality rates also improved between 2008 and 2018, and at a faster rate than for Indigenous children. Therefore, the gap between Indigenous and non-Indigenous child mortality rates has widened.

Over the period 2014 to 2018, the main cause of Indigenous child deaths was perinatal conditions (49 per cent), such as complications of pregnancy and birth. Most Indigenous child deaths (85 per cent) occurred during the first year of life. This was similar for non-Indigenous children. This is discussed in more detail below at Causes of death.

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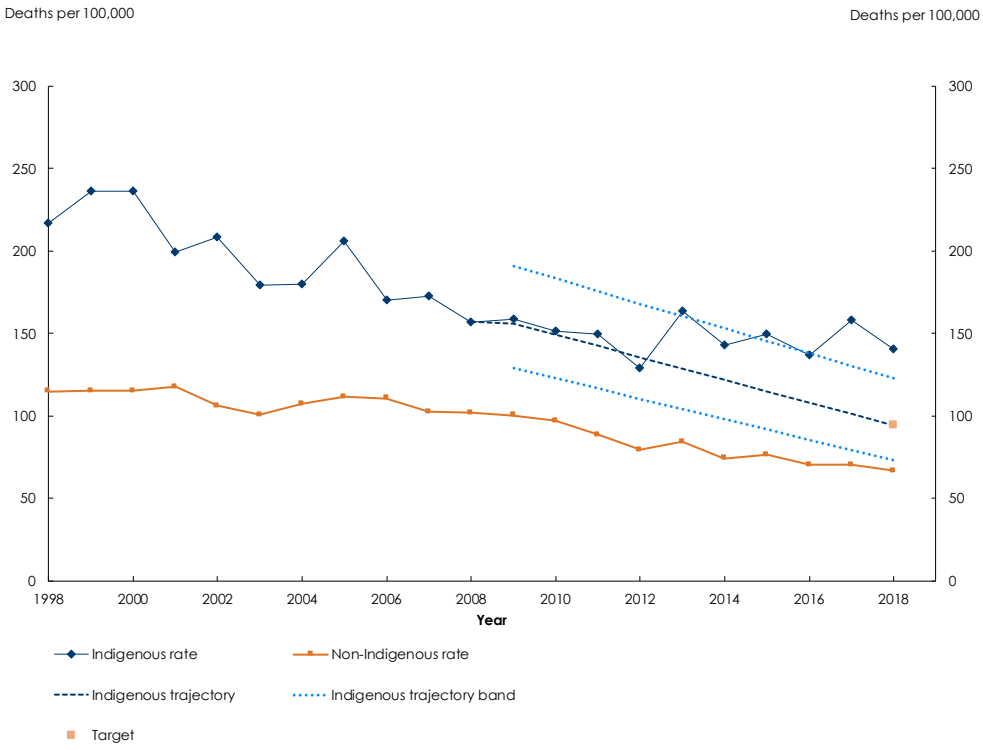
1 The child mortality rate is defined as the number of deaths among children aged 0–4 years old as a proportion of the total number of children in that age group, presented as a rate per 100,000 population. Note that the number of Indigenous child deaths is volatile from year to year.

2 This result was not statistically significant. References to per cent change in mortality rates in this chapter are derived through linear regression analysis, and tested at the 5 per cent level of significance. For details on the specifications for the child mortality indicator used in this report, refer to the National Indigenous Reform Agreement data specifications on the Australian Institute of Health and Welfare (AIHW) METeOR website.

3 Data quality issues may overstate the early declines from 1998 to 2008. See the Data notes and the Technical Appendix for further information.

Figure 1.1

Child mortality rates, 0–4 years old, 1998–2018[a, b, c]



Sources: Australian Bureau of Statistics and Australian Institute of Health and Welfare analysis of the National Mortality Database, unpublished, and National Indigenous Reform Agreement Performance Information Management Group, unpublished.
Notes: (a) Child mortality rates are based on data for New South Wales, Queensland, South Australia, Western Australia and the Northern Territory combined.
(b) The Indigenous trajectory indicates the level of change required to meet the target. The trajectory has been revised to include the 2016 Census-based backcast population estimates. Consequently, the target has also been revised to reflect the result needed to halve the gap (as measured at the 2008 baseline).
(c) The low Indigenous child mortality rate in 2012 is likely to reflect the unusually large number of Indigenous infant deaths that occurred in 2012, but were registered in 2013. This also results in an overstating of mortality rates in 2013. In 2015, Queensland included Indigenous status from the Medical Certificate of Cause of Death which led to an increase in the number of deaths identified as Indigenous. Although this was an improvement in data quality, it contributed to data volatility and thus caution is required in interpreting annual variation. See the Technical Appendix for further information.

States and territories

Of the five jurisdictions with Indigenous mortality data of acceptable quality, the Northern Territory continued to have the highest Indigenous child mortality rate (305 per 100,000) over the period 2014 to 2018.[4] The gap was also largest in the Northern Territory (209 per 100,000) (Figure 1.2). New South Wales had the lowest Indigenous child mortality rate with 95 per 100,000.

Causes of death

Over the period 2014 to 2018,[5] the main cause of Indigenous child deaths was perinatal conditions (49 per cent).[6] For example, birth trauma, foetal growth disorders, complications of pregnancy, respiratory and cardiovascular disorders. This was followed by signs, symptoms and abnormal clinical and laboratory findings not classified elsewhere (13 per cent). This includes sudden unexpected deaths in infancy and Sudden Infant Death Syndrome.

In this period, 514 of the 603 Indigenous child deaths (85 per cent) were infants (less than 1 year old). More than half (57 per cent) of these infant deaths were due to perinatal conditions. About 15 per cent of Indigenous child deaths were children aged 1–4 years old, nearly half of which were from external causes (including transport accidents, drowning, other accidents and injuries).

In 2018, the Indigenous infant mortality rate was 1.8 times as high as for non-Indigenous infants (5.1 compared with 2.9 per 1,000 live births). The trend in infant mortality is similar to child mortality. The Indigenous infant mortality rate has improved slightly between 2008 and 2018, but not as strongly as prior to the 2008 baseline.[7] Non-Indigenous infant mortality rates have improved at a faster rate since 2008, so the gap has not narrowed.

4 Five years of data are combined for more detailed reporting of Indigenous child and infant mortality by state and territory to overcome the volatility in rates associated with the small numbers involved.

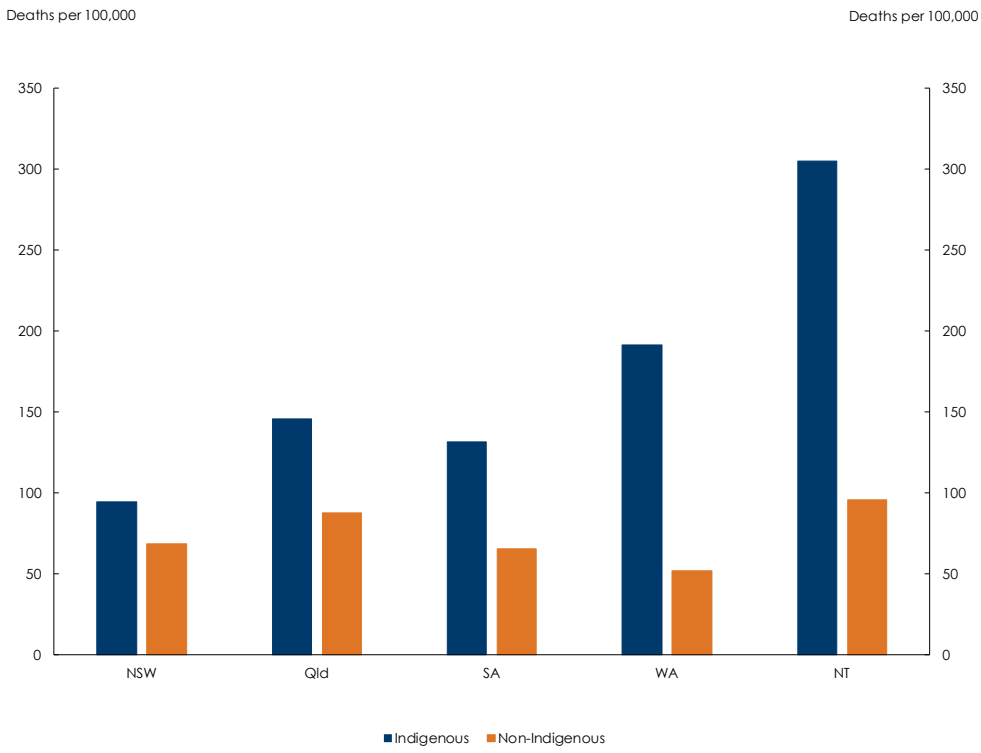
5 Five years of data are combined for more detailed reporting of Indigenous child mortality by cause to overcome the volatility in rates associated with the small numbers involved.

6 Perinatal conditions originate during pregnancy (from 20 weeks of gestation) and up to 28 days after birth.

7 The improvement in the Indigenous infant mortality rate from 2008 and 2018 was not statistically significant.

Figure 1.2

Child mortality rates, by jurisdiction, 2014–2018



Source: Steering Committee for the Review of Government Service Provision 2019, National Agreement Performance Information 2018–19, Productivity Commission: Canberra.

Factors that influence Indigenous child mortality

Child mortality is associated with a variety of health and social determinants. Although a complex set of factors are involved, maternal health (such as hypertension, obesity, and diabetes) and risk factors during pregnancy (such as smoking and alcohol use) are key drivers of birth outcomes and deaths among Indigenous children. However, access to quality medical care, public health initiatives and safe living conditions serve as protective factors and can improve the chances of having a healthy baby (AIHW 2018).

The prevalence of some of these factors is broadly improving. There has been an increase in Indigenous mothers attending antenatal care in the first trimester, a slight increase in attendance at five or more antenatal sessions, and a decrease in smoking during pregnancy (AIHW 2019).

However, progress in these indicators has not translated into a stronger improvement in Indigenous child mortality rates. Substantial gaps still exist between outcomes for Indigenous and non-Indigenous mothers and babies. There is a need for more progress in this area and further research (including data linkage) to better understand the reasons why.

Data notes

Progress against this target is measured using the Australian Bureau of Statistics (ABS) mortality data for 0–4 year olds.

ABS Indigenous deaths data are reported for New South Wales, Queensland, South Australia, Western Australia and the Northern Territory only, which are considered to have adequate levels of Indigenous identification suitable to publish.

The Indigenous child mortality rate is influenced by changes in Indigenous identification in the deaths data as well as in data sources used in calculating population estimates.

The number of Indigenous child deaths is volatile from year to year. This can reflect real variations in the numbers of deaths, lags in the registration of births and deaths, and changes in Indigenous identification.

The denominator for these statistics has been rebased using the July 2019 release of Estimates and Projections, Aboriginal and Torres Strait Islander people, ABS, 2006 to 2031. Consequently, previously published mortality rates are not comparable to those published in this report.

For more information see the Technical Appendix.

Early Childhood Education

Target

95 per cent of all Indigenous four year-olds enrolled in early childhood education (by 2025)

Key points

- In 2018, 86.4 per cent of Indigenous four year-olds were enrolled in early childhood education compared with 91.3 per cent of non-Indigenous children.
- Between 2016 and 2018, the proportion of Indigenous children enrolled in early childhood education increased by almost 10 percentage points. There was a slight decline of less than 1 percentage point for non-Indigenous children.
- The attendance rate for Indigenous children was highest in Inner Regional areas (96.6 per cent), almost 17 percentage points higher than the lowest attendance rate in Very Remote areas (79.7 per cent).

What the data tells us

National

The target to have 95 per cent of Indigenous four year-olds enrolled in early childhood education by 2025 is on track. In 2018, 86.4 per cent of the estimated population of Indigenous children were enrolled in early childhood education programs (the year before full-time school).[8] This was higher than the agreed trajectory point for 2018 to reach the target by 2025 (Figure 2.1).

Early childhood education is important for children's cognitive and social development. It prepares them for the transition to school, to progress through school and beyond (Holzinger and Biddle 2015; Social Research Centre 2016; Jorgensen et al. 2017; Biddle and Bath 2013). Children who attend early childhood education are more likely to perform well at school, including in literacy and numeracy (DEECD and Melbourne Institute of Applied Economic and Social Research 2013).

Developmental vulnerability can be mitigated by children's regular participation in early childhood education and care, although services must be high quality for benefits to be realised (AIHW 2018; Harrison et al. 2012). This is because the relative value of early childhood education is 'directly proportional to what it replaces' in terms of the home environment (CESE 2018).

Between 2016 and 2018, the proportion of Indigenous children enrolled in early childhood education programs increased by almost 10 percentage points (from 76.7 per cent to 86.4 per cent).[9] In comparison, the proportion of non-Indigenous children enrolled in early childhood education programs declined slightly from 91.9 per cent to 91.3 per cent between 2016 and 2018.

8 Estimated population eligible for enrolment in the year before full-time school. For more information see the Data notes. In 2018, there were 16,389 Indigenous children enrolled in early childhood education programs.

9 Trend results in this chapter have not been tested for statistical significance as only three years of trend data are available. While the baseline for this target is 2015, comparable enrolment data are available only from 2016. The ABS changed the data collection methodology for the 2016 NECECC to improve data quality. Therefore, data for 2016 onwards are not fully comparable to the 2015 data. For more information see the ABS 2017, Preschool Education, Australia 2016, Cat. No. 4240.0, ABS: Canberra.

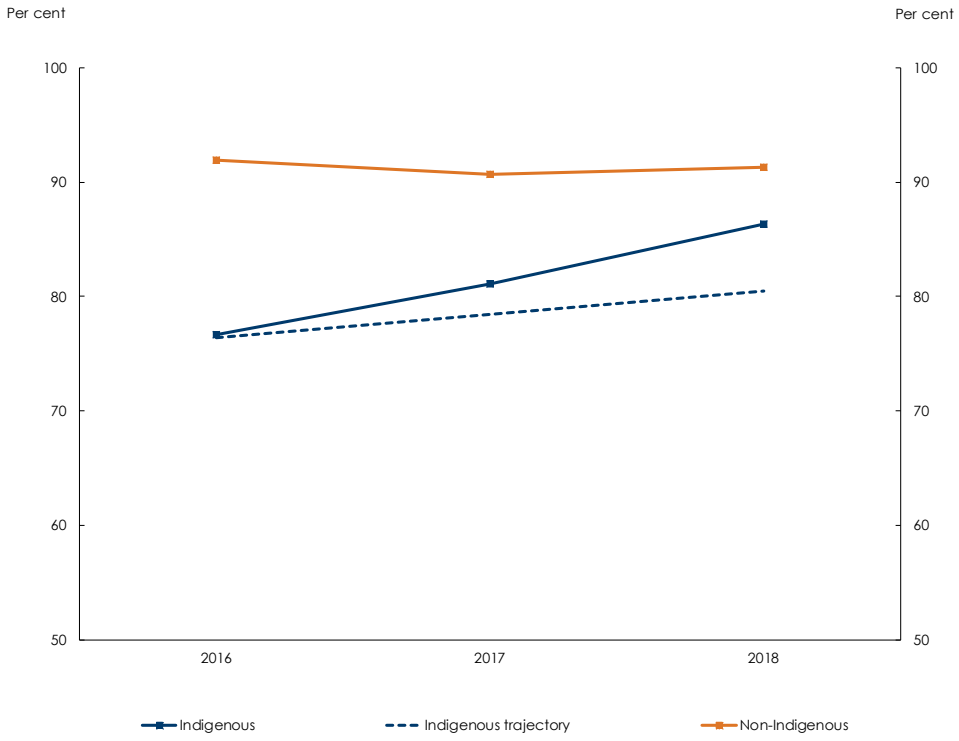
While the target focuses on enrolment, attendance rates provide more of an insight into how children are preparing for schooling into the future. The proportion of enrolled Indigenous children attending early childhood education[10] (attendance rate) has remained relatively stable between 2016 and 2018 (93.4 per cent to 93.7 per cent). The equivalent attendance rate improved slightly for non-Indigenous children during this period (from 96.4 per cent to 97.8 per cent).

Barriers to Indigenous children's participation in early childhood education include: out of pocket costs, a limited awareness of services, administrative complexity, lack of transport or locally available services, poor child health, a perception that the child is too young to participate, a lack of confidence in the value of early education services or fear of racism and judgment (AIHW 2018; Holzinger and Biddle 2015; Productivity Commission 2014).

10 The attendance rate for early childhood education is a supporting indicator for the target. It includes attendance for at least one hour in the reference week. The reference week—30 July 2018 to 5 August 2018—includes the Census date for the 2018 collection—Friday 3 August 2018. Some jurisdictions may adopt a two-week reference period that includes the Census week.

Figure 2.1

Early childhood education enrolment rates, 2016–2018



Sources: Steering Committee for the Review of Government Service Provision 2019, National Agreement Performance Information 2018–19, Productivity Commission: Canberra; and National Indigenous Reform Agreement Performance Information Management Group, unpublished.

States and territories

The target to have 95 per cent of Indigenous four year-olds enrolled in early childhood education by 2025 is on track for all jurisdictions except the Northern Territory (based on 2018 data) (Figure 2.2).

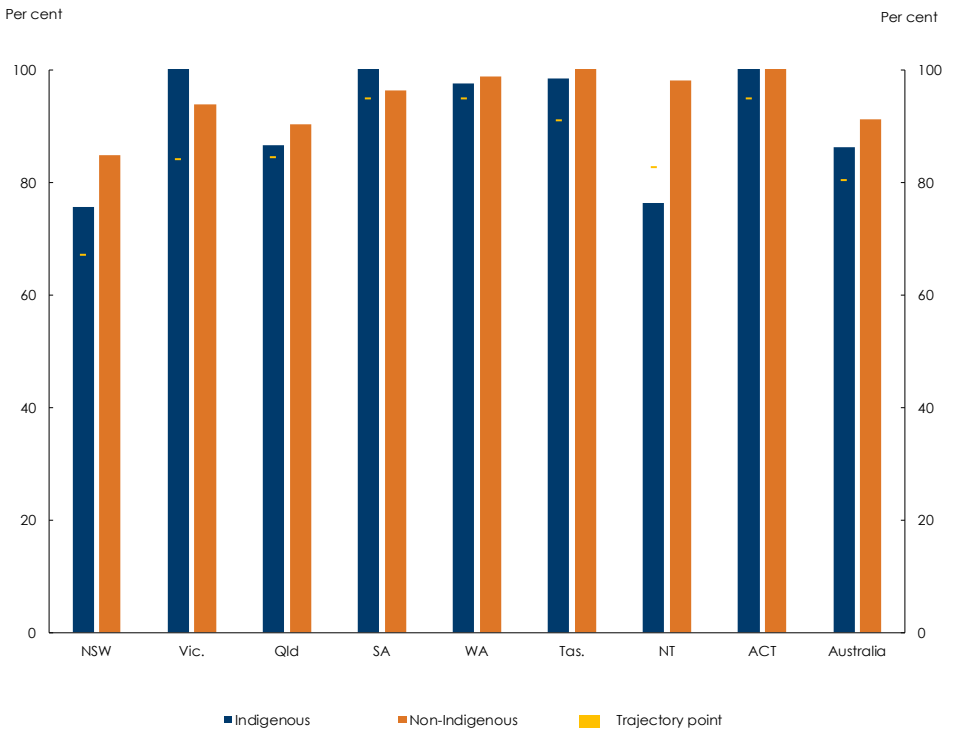
In 2018, Victoria, South Australia and the Australian Capital Territory achieved full enrolment for Indigenous children, while Western Australia (97.7 per cent) and Tasmania (98.5 per cent) achieved close to full enrolment. The other three jurisdictions—New South Wales (75.7 per cent), Queensland (86.7 per cent) and the Northern Territory (76.4 per cent)—had lower proportions of Indigenous children enrolled than the national rate (86.4 per cent).

Enrolments of non-Indigenous children in early childhood education varied from 85 per cent in New South Wales to full enrolment in Tasmania and the Australian Capital Territory.

Indigenous enrolment rates in Victoria and South Australia were higher than those for non-Indigenous children. Other jurisdictions had lower enrolment rates for Indigenous children ranging from a 1 percentage point gap in Western Australia to a 22 percentage point gap in the Northern Territory (Figure 2.2).

Figure 2.2

Early childhood education enrolment rates, by jurisdiction, 2018[a]



Sources: Steering Committee for the Review of Government Service Provision 2019, National Agreement Performance Information 2018–19, Productivity Commission: Canberra; and National Indigenous Reform Agreement Performance Information Management Group, unpublished.
Note: (a) Each jurisdiction has a specific target trajectory, which is a straight line from the 2015 baseline to the 2025 target. There is an annual 'trajectory point' along each trajectory that serves as a guide to the progress needed to be on track to meet the target in 2025.

All jurisdictions (except for the Northern Territory), had Indigenous early childhood education attendance rates close to the national rate (93.7 per cent)—ranging from 90.5 per cent in Western Australia to 97.9 per cent in Tasmania. The Northern Territory had the lowest attendance rate (73.1 per cent).

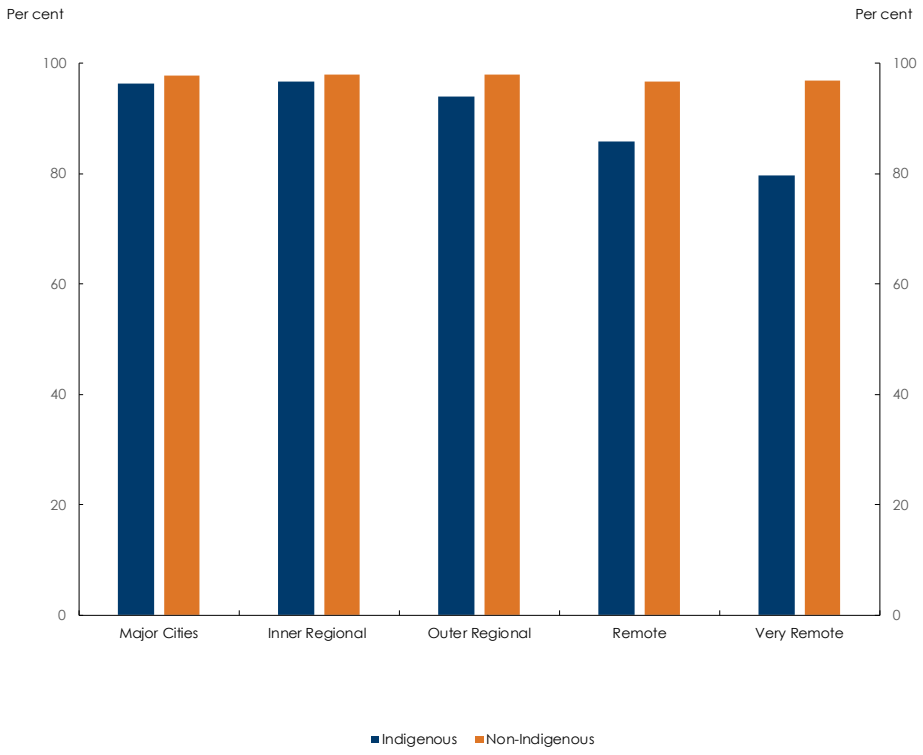
Non-Indigenous early childhood education attendance rates had relatively less variation across jurisdictions (ranging from 96.0 per cent in Victoria to 99.4 per cent in New South Wales). The gap between Indigenous and non-Indigenous attendance rates was largest in the Northern Territory (around 23 percentage points), followed by Western Australia (around 6 percentage points).

Attendance rates by remoteness

Indigenous early childhood education attendance rates tended to decrease with increasing remoteness. In 2018, the attendance rate for Indigenous children varied from 96.6 per cent in Inner Regional, to 79.7 per cent in Very Remote areas. However, the non-Indigenous rates were fairly similar across remoteness areas (ranging from 97.9 per cent in both Inner and Outer Regional areas to 96.6 per cent in Remote areas) (Figure 2.3).

Figure 2.3

Attendance rates, by remoteness, 2018



Sources: Steering Committee for the Review of Government Service Provision 2019, National Agreement Performance Information 2018–19, Productivity Commission: Canberra; and National Indigenous Reform Agreement Performance Information Management Group, unpublished.

Data notes

Progress against this target is measured by the number of children enrolled in early childhood education in the year before full-time schooling as a proportion of the estimated or 'potential' population of children in the year before full-time schooling.

The National Early Childhood Education and Care Collection (NECECC) is the source of enrolment numbers and attendance rates.

Population estimates are adjusted for the school starting age provisions in each state and territory. These are sourced from Estimates and Projections, Aboriginal and Torres Strait Islander people, 2006 to 2031 (ABS 2019a), based on the 2016 Census. Further information on how the year before full-time schooling potential population is calculated to adjust for school starting age can be found in the Preschool Education, Australia, 2018 (ABS 2019c) publication.

For this report, previously published rates of enrolment in early childhood education have been revised due to the application of the new 2016 Census based population estimates. This provides a consistent data source to enable comparison of enrolment rates for 2016, 2017 and 2018. Previously published rates are not comparable to those published in this report. Because of these revisions, including to the 2015 target baseline, the trajectory to the 95 per cent target benchmark has also been revised. This allows the rebased enrolment rates to be compared with the trajectory for monitoring progress.

For more information see the Technical Appendix.

School Attendance

Target

Close the gap between Indigenous and non-Indigenous school attendance within five years (by 2018)

Key points

- The majority of Indigenous students attended school for an average of just over 4 days a week in 2019. These students largely lived in Major Cities and regional areas.
- School attendance rates for Indigenous students have not improved over the past five years. Attendance rates for Indigenous students remain lower than for non-Indigenous students (around 82 per cent compared to 92 per cent in 2019).
- Gaps in attendance are evident for Indigenous children as a group from the first year of schooling. The attendance gap widens during secondary school. In 2019, the attendance rate for Indigenous primary school students was 85 per cent—a gap of around 9 percentage points. By Year 10, Indigenous students attend school 72 per cent of the time on average—a gap of around 17 percentage points.

What the data tells us

National

The target to halve the gap for Indigenous children in school attendance within five years (by 2018) was not met.

School attendance is associated with a range of interrelated and complex factors (DETE 2013). Parent's education levels, occupation and employment status have been linked to school attendance (Hancock et al. 2013). Where students live, their socioeconomic status and their mobility (measured by new school enrolments) have also been associated with school attendance.

Based on Semester 1 school attendance rates for Years 1 to 10, attendance has not improved for Indigenous students over the past five years to 2019.[11]

Over this period, attendance rates have declined by around 1.2 percentage points for non-Indigenous students and around 2.0 percentage points for Indigenous students (Figure 3.1).[12] The reasons for school absences (including the prevalence of unexplained absences) are not reported on a consistent basis across states and territories. As such, the drivers of the recent changes in attendance rates could not be considered.

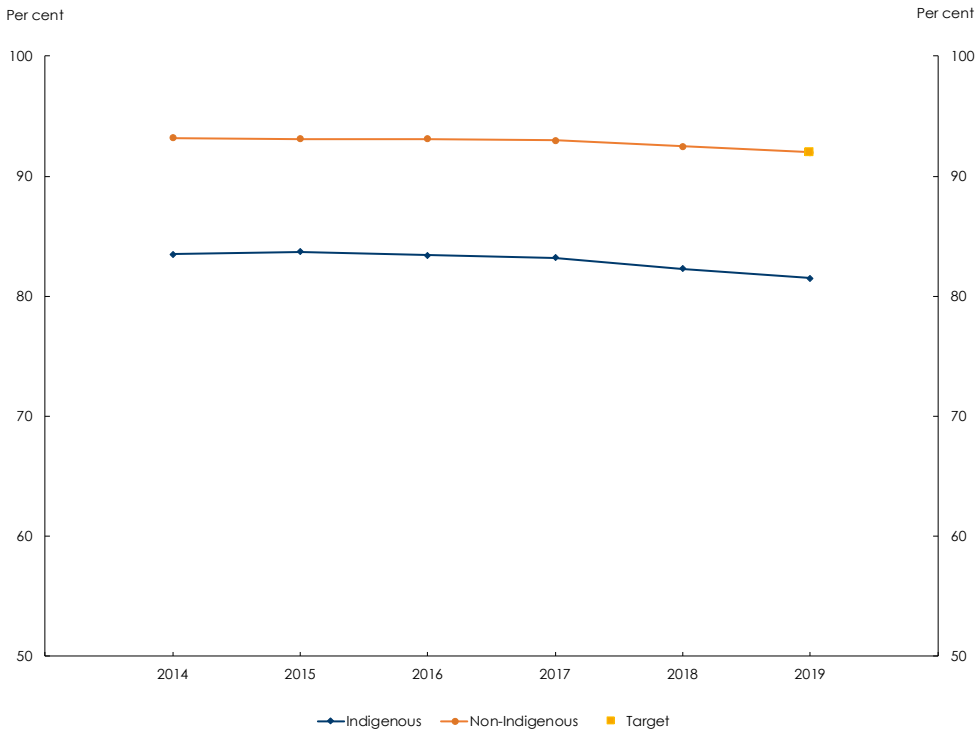
Indigenous students attended school for around 82 per cent of the time in 2019—that is, for just over 4 days a week on average. This is around 10 percentage points lower than the attendance rate for non-Indigenous students (92 per cent). The gap did not narrow between 2014 and 2019.

11 The Australian Curriculum, Assessment and Reporting Authority (ACARA) collects school attendance data for Semester 1 and Term 3 each year. Semester 1 2019 attendance data are used to elevate the target, because they better represent changes in school attendance during 2018.

12 The statistical significance of changes in attendance rates are not reported by ACARA.

Figure 3.1

Student attendance rates in Semester 1, Years 1–10, 2014–2019



Source: Australian Curriculum, Assessment and Reporting Authority, 2019, unpublished.

Primary and secondary school outcomes

From the first year of schooling there is a gap in attendance for Indigenous children (Figure 3.2). Evidence suggests attendance gaps are influenced by factors and events that occur before a child starts school, including caregiver expectations towards education, family functioning and the health of family members (Keating and Hertzman 1999; Gray and Beresford 2002; Dalziel and Henthorne 2005; Zubrick et al. 2006; Hancock et al. 2013).

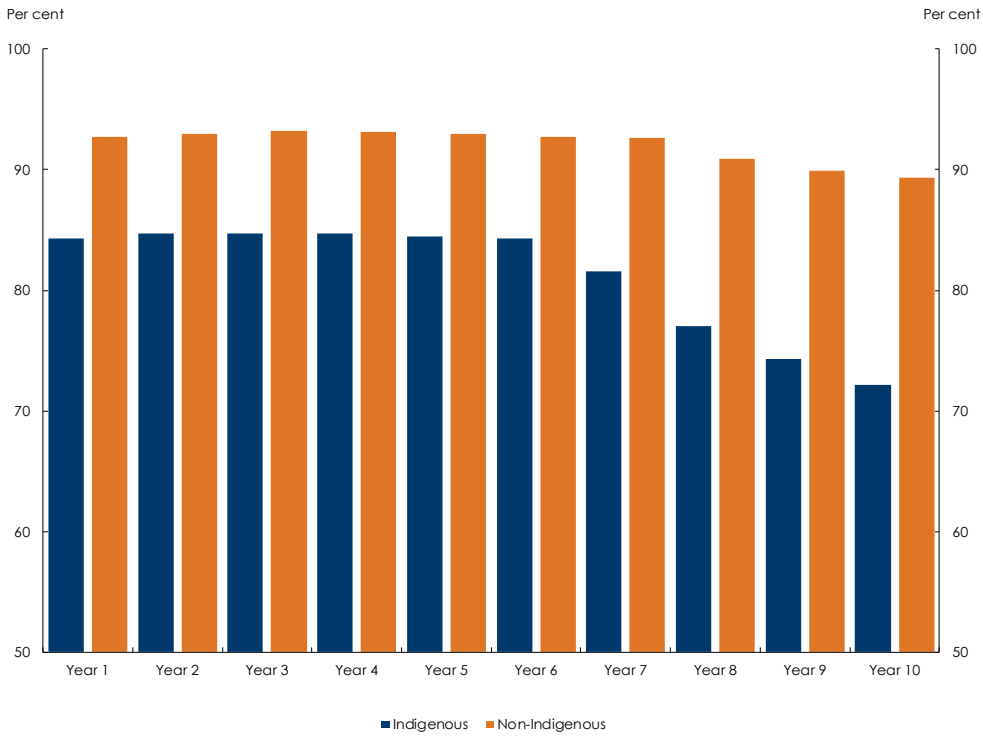
The gap in attendance is carried through and widens during secondary school. For Indigenous primary school students, the gap was around 9 percentage points in 2019. A larger fall is seen in attendance during Years 7 to 10 for Indigenous students. By Year 10, the attendance gap widened to around 17 percentage points (Figure 3.2).

Regular school attendance has been associated with improvements in NAPLAN outcomes at the individual and school level (DETE 2013; Hancock et al. 2013; Ladwig and Luke 2014).

Evidence from Queensland suggests poor school attendance during the early years has a greater impact on student performance than during later years. Based on 2009 NAPLAN results for Queensland students in government schools, the effect of attending school for 95 per cent of the time or less (10 or more days absent) on reading outcomes was estimated to be around 2.1 times greater for Year 3 students compared with Year 9 students (DETE 2013). The effect of attending school for 85 per cent or less (30 or more days absent) on reading outcomes was around 1.2 times greater during Year 3 compared with Year 9.

Figure 3.2

The gap in attendance widens throughout secondary school, Years 1–10, Semester 1 2019



Source: Australian Curriculum, Assessment and Reporting Authority, 2019, unpublished.

States and territories

The target to halve the gap for Indigenous children in school attendance within five years was not met in any state or territory.

Attendance rates for Indigenous students declined to some extent in all jurisdictions over the past five years (Figure 3.3). Except for the Northern Territory, this decline largely occurred between 2017 and 2019. The decline has been observed across both the Indigenous and non-Indigenous student population.

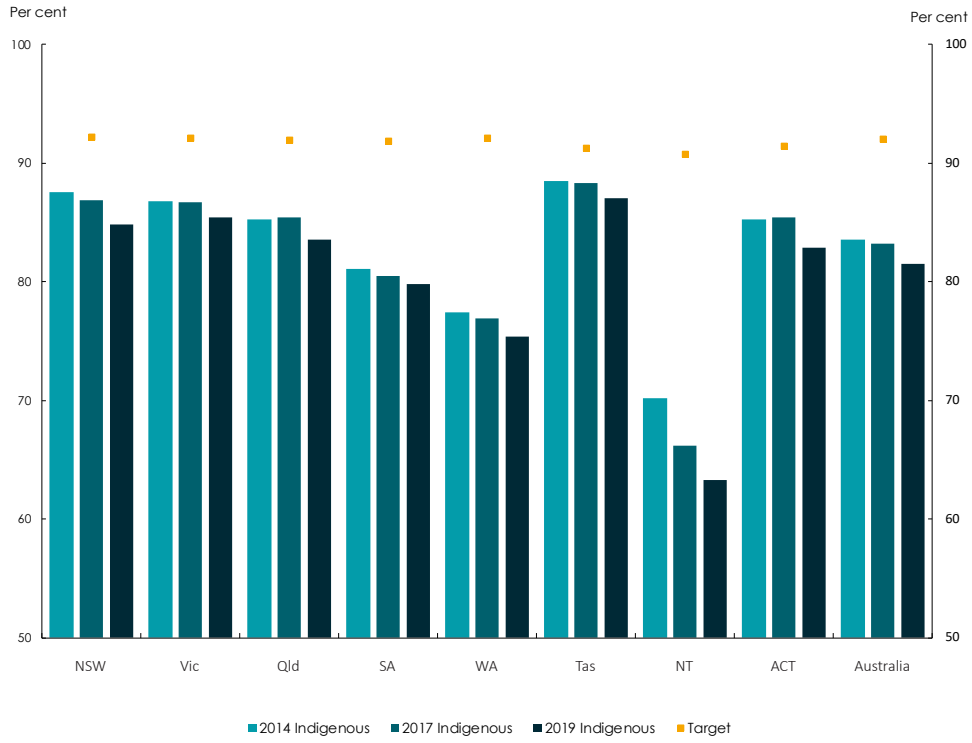
Between 2014 and 2019, school attendance declined by less than 2 percentage points in Victoria, Queensland, South Australia and Tasmania. Together these four states accounted for 46 per cent of Indigenous school-aged children (5–16 years old) in 2016 (ABS 2016).

For Indigenous students in Northern Territory, however, school attendance fell by around 7 percentage points over the period. That said, nearly three in five Indigenous children (aged 5–16 years old) in the Northern Territory lived in Very Remote areas in 2016 (ABS 2016). Across Australia, Very Remote areas saw the largest decline in Indigenous attendance rates between 2016 and 2019, with a fall of around 5 percentage points to 61 per cent in 2019 (Figure 3.4).[13]

13 Remoteness categories in the ACARA attendance data were updated in 2015. As a result, changes in attendance by remoteness cannot be compared prior to 2016.

Figure 3.3

Indigenous student attendance rates, by jurisdiction, Semester 1 2014–2019

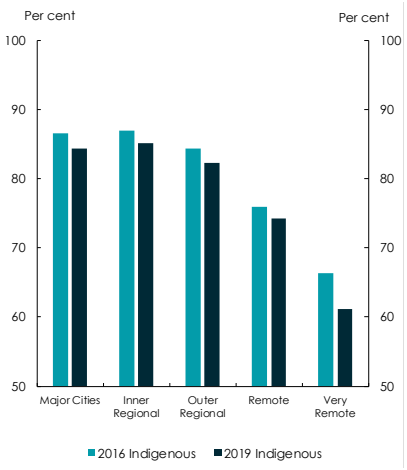


Source: Australian Curriculum, Assessment and Reporting Authority, 2019, unpublished.

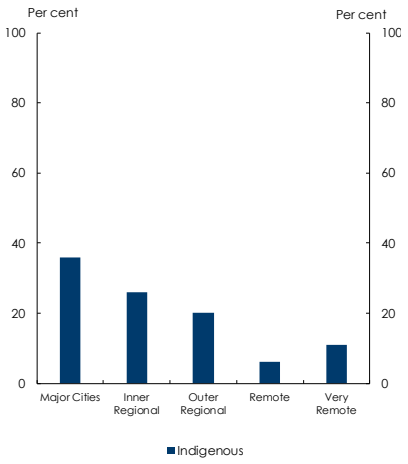
Figure 3.4

Student attendance rates and population, by Indigenous status and remoteness, Semester 1 2016–2019

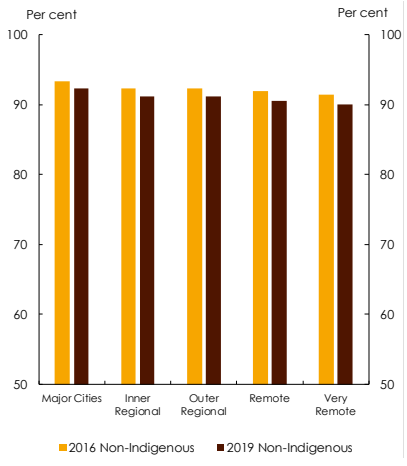
Indigenous attendance rates, Semester 1 2016–2019[a]



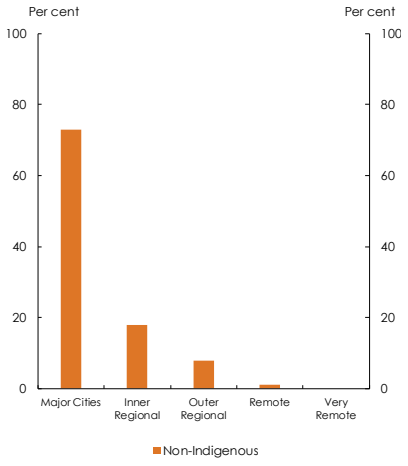
Indigenous population, 5–16 years, 2016[b]



Non-Indigenous attendance rates, Semester 1 2016–2019[a]



Non-Indigenous population, 5–16 years, 2016[b]



Sources: Australian Bureau of Statistics, 2016, Census of Population and Housing, TableBuilder. Findings based on use of ABS TableBuilder data; Australian Curriculum, Assessment and Reporting Authority, 2019, unpublished.

Notes: (a) As remoteness categories were updated in 2015, changes in attendance by remoteness cannot be compared prior to 2016.

(b) Population proportion based on 2016 Census counts of 5 to 16 year-old children.

Geographic analysis

The majority of Indigenous students attended school for an average of just over 4 days a week. These students largely lived in Major Cities and regional areas (Figure 3.4).

For the 17 per cent of Indigenous children aged 5 to 16 years living in Remote and Very Remote Australia (ABS 2016), children attended 3 to 4 days per week on average. In comparison, school attendance rates for non-Indigenous students do not vary substantially by remoteness (Figure 3.4).

Consideration of any one factor, however, cannot provide a comprehensive understanding of school attendance for Indigenous students. A more detailed geographic level analysis of attendance accounting for students' year level and where they live, provides a better understanding of what is happening 'in place'.

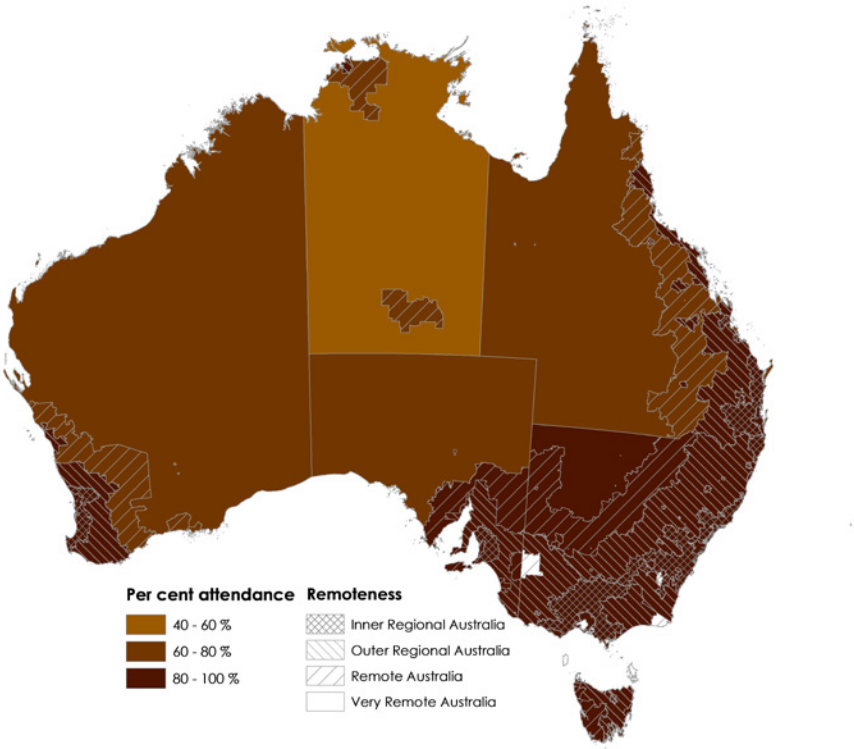
Very Remote Indigenous primary school students in New South Wales, for example, attended school 4 to 5 days per week on average in 2019 (Figure 3.5). In other states, Very Remote Indigenous primary school students attended on average 3 to 4 days per week. For the Northern Territory it was as low as 2 to 3 days per week (around 56 per cent).

At a national level, attendance rates dropped off during secondary school (Figure 3.2). The extent of the drop varied across Australia (Figure 3.5 and Figure 3.6). Notably, average attendance rates of 2 to 3 days per week extended to Indigenous secondary students living in Remote and Very Remote areas of the Northern Territory, as well as Indigenous students in Very Remote areas of Western Australia and South Australia.

The relatively high Remote and Very Remote Indigenous attendance rates for primary school students in New South Wales were not evident in secondary school. Attendance rates also declined to 3 to 4 days per week for Indigenous secondary students living in Outer Regional areas of Western Australia and Queensland.

Figure 3.5

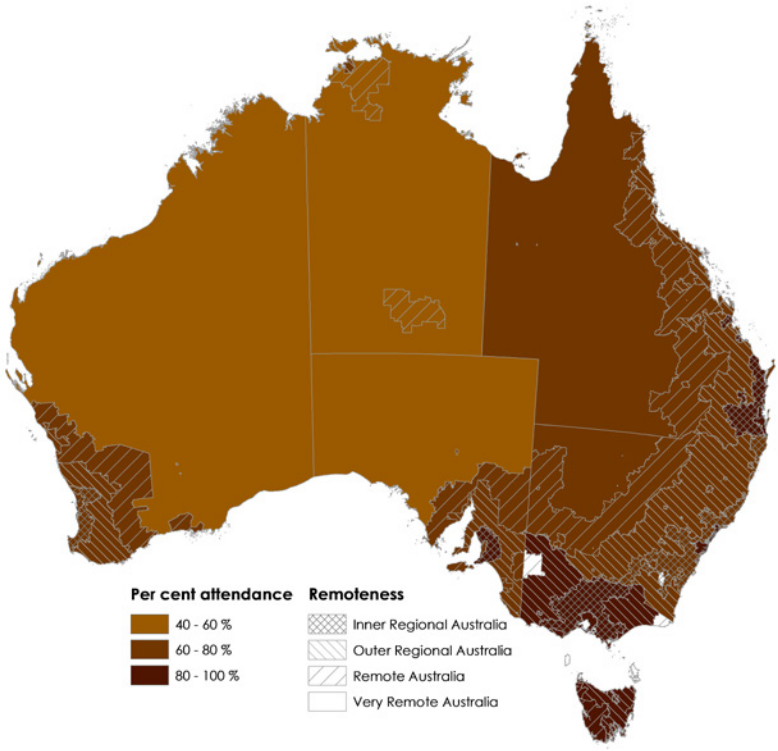
Primary school attendance rates for Indigenous students, by jurisdiction, by remoteness, Semester 1 2019[a, b]



Source: Australian Curriculum, Assessment and Reporting Authority, 2019, unpublished.
Notes: (a) For the Australian Capital Territory, as well as some areas in Tasmania and Victoria, results cannot be published due to low numbers of Indigenous students or schools.
(b) The map provides an indication of the variation in primary school attendance across Australia. Confidence intervals—that is, the level of uncertainty associated with the measurement of results—within a remoteness area and jurisdiction are not available.

Figure 3.6

Secondary school attendance rates for Indigenous students, by jurisdiction, by remoteness, Semester 1 2019[a, b]



Source: Australian Curriculum, Assessment and Reporting Authority, 2019, unpublished.
Notes: (a) For the Australian Capital Territory as well as some areas in Tasmania and Victoria, results cannot be published due to low numbers of Indigenous students or schools.
(b) The map provides an indication of the variation in secondary school attendance across Australia. Confidence intervals—that is, the level of uncertainty associated with the measurement of results—within a remoteness area and jurisdiction are not available.

Literacy and Numeracy

Target

Halve the gap for Indigenous children in reading, writing and numeracy within a decade (by 2018)

Key points

- At the national level, the share of Indigenous students at or above national minimum standards in reading and numeracy has improved over the past decade to 2018. The gap has narrowed across all year levels by between 3 and 11 percentage points.
- Despite these improvements, in 2018 about one in four Indigenous students in Years 5, 7 and 9, and one in five in Year 3, remained below national minimum standards in reading. Between 17 to 19 per cent of Indigenous students were below the national minimum standards in numeracy.
- Looking at students exceeding national minimum standards provides a better understanding of how well Indigenous children are placed to successfully transition to further study or work. Between 2008 and 2018, for example, the share of Year 3 students exceeding the national minimum standard in reading increased by around 20 percentage points.

What the data tells us

National

The target to halve the gap in the share of Indigenous children at or above national minimum standards in reading and numeracy within the decade (by 2018) was not met.[14,15] National minimum standards represent a performance standard below which students have difficulty progressing at school (ACARA 2016a).

Successfully progressing through and transitioning from school is important for children to improve social mobility and intergenerational outcomes. Education has a strong association with employability and income, health, and control over one's life (Pagnini et al. 2014; World Bank 2018). Better education outcomes can also have positive intergenerational flow-on effects. More educated mothers, for example, have been associated with healthier children (Ewald and Boughton 2002; Schochet et al. 2020).

At the national level, the share of Indigenous students at or above national minimum standards in reading and numeracy has improved over the past decade and the gap has narrowed (Figure 4.1 and Figure 4.2).

Between 2008 and 2018, for students in Years 3, 5, 7 and 9:

- the share of Indigenous students at or above national minimum standards increased by 3 to 14 percentage points in reading, and by 4 to 12 percentage points in numeracy.[16]
- the gap in reading and numeracy outcomes narrowed by between 3 and 11 percentage points. The largest improvement in the gap was for Years 3 and 5 reading (11 and 10 percentage points respectively), and Year 5 and Year 9 numeracy (10 and 9 percentage points respectively).[17]

14 Schooling outcomes from the 2019 National Assessment Program – Literacy and Numeracy (NAPLAN) were not available for inclusion in this report.

15 The target as originally agreed in 2008 also included writing results. However, due to a change in the test from narrative to persuasive writing, the writing results from 2011 onwards cannot be directly compared to the results from previous years, and so have been excluded.

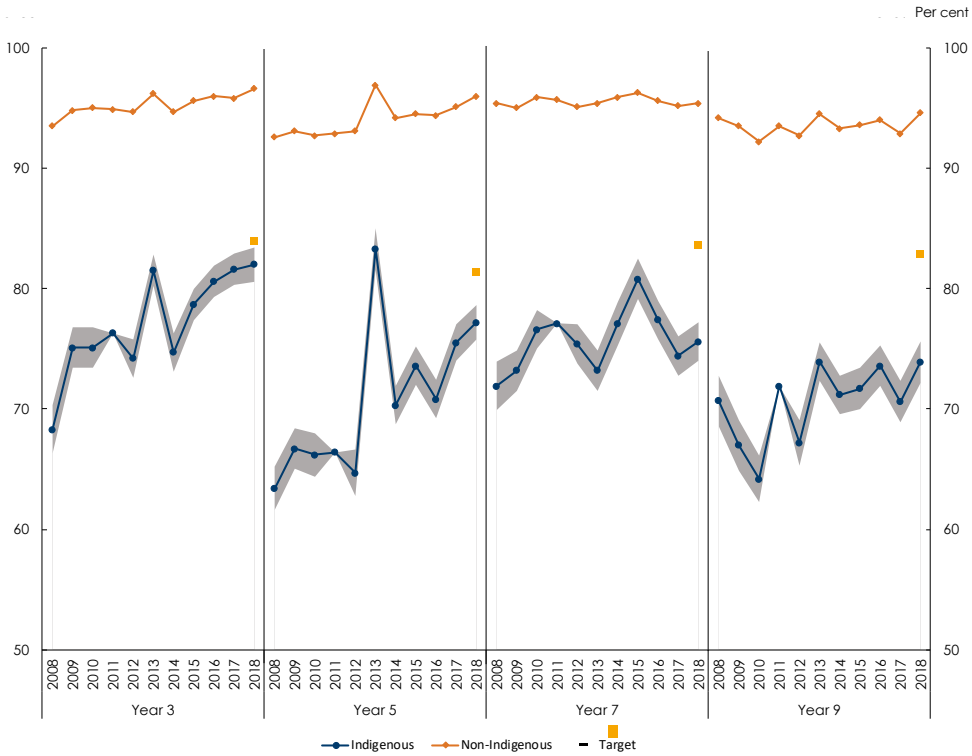
16 Between 2008 and 2018, the increase in the share of Indigenous students at or above national minimum standards in reading were not statistically significant for Years 7 and 9.

17 Statistical significance of the changes in the gap between 2008 and 2018 were not available.

Despite these improvements, in 2018 about one in four Indigenous children in Years 5, 7 and 9, and one in five in Year 3, remained below national minimum standards in reading (Figure 4.1). Between 17 to 19 per cent of Indigenous students were below national minimum standards in numeracy (Figure 4.2).

Figure 4.1

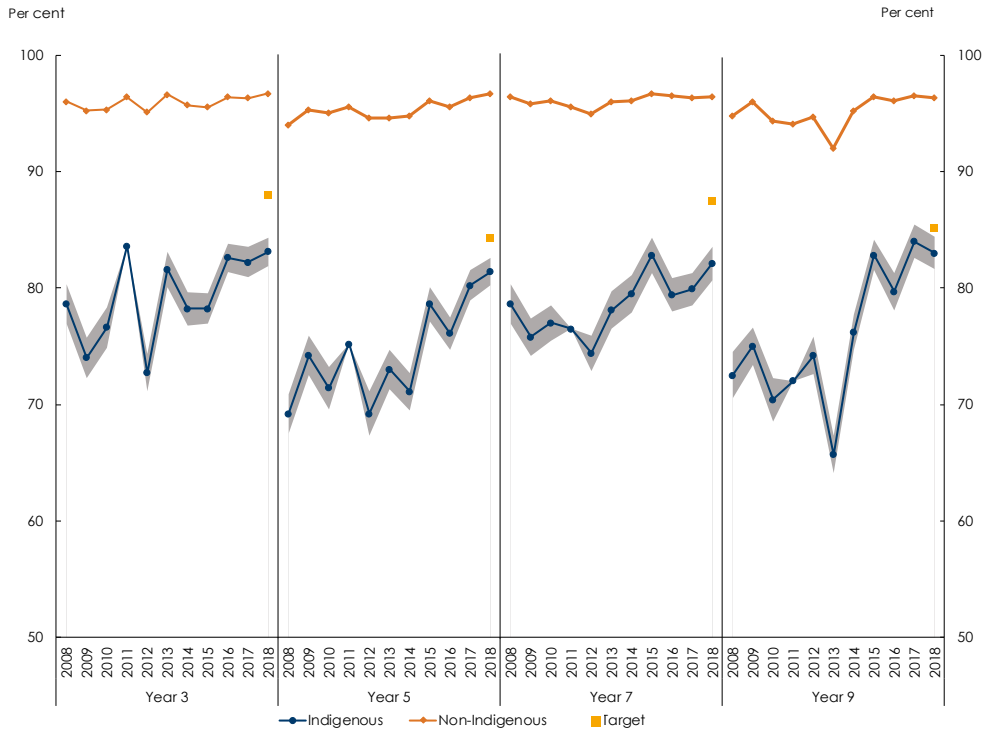
Students at or above national minimum standards for reading, 2008–2018[a]



Source: Australian Curriculum, Assessment and Reporting Authority, 2019, unpublished.
Note: (a) Shaded areas represent the 95 per cent confidence interval in school results for Indigenous Australians. Confidence intervals reflect the level of uncertainty associated with the measurement of results. They define a range of values within which the actual result is likely to lie.

Figure 4.2

Students at or above national minimum standards for numeracy, 2008–2018[a]



Source: Australian Curriculum, Assessment and Reporting Authority, 2019, unpublished.
Note: (a) Shaded areas represent the 95 per cent confidence interval in school results for Indigenous Australians. Confidence intervals reflect the level of uncertainty associated with the measurement of results. They define a range of values within which the actual result is likely to lie.

States and Territories

At the jurisdictional level, the target to halve the gap in reading and numeracy outcomes was assessed across 64 result areas.[18] The target was met in 13 of these result areas (Table 4.1).[19]

For Year 9 numeracy outcomes, five jurisdictions met the target over the decade to 2018. This result was largely driven by improvements over the decade in outcomes for Indigenous students living in Major Cities and regional areas.[20]

Table 4.1

Target outcome for reading and numeracy areas, by jurisdiction, 2018

	NSW	VIC	QLD	SA	WA	TAS	ACT	NT	AUST
Reading									
Year 3			■						
Year 5			■			■			
Year 7									
Year 9							■		
Numeracy									
Year 3									
Year 5			■			■			
Year 7						■	■		
Year 9		■	■	■	■		■		

■ *Target met*

Source: Australian Curriculum, Assessment and Reporting Authority, 2019, unpublished.

18 The 64 result areas cover each of the eight jurisdictions' results measured across the four year levels (Years 3, 5, 7 and 9) for both reading and numeracy NAPLAN outcomes.

19 As noted above, the statistical significance of the changes in the gap were not available.

20 Across these five jurisdictions, improvements in NAPLAN outcomes for Indigenous students in Major Cities and regional areas were statistically significant. Improvements in Year 9 numeracy outcomes for Indigenous students living in Remote and Very Remote areas of these five jurisdictions were not statistically significant.

Geographic analysis

School performance is associated with a range of health, family and community level factors. The incidence of hearing impairments, for example, is higher for Indigenous children living in remote Australia relative to Indigenous children living in non-remote areas (AHMAC 2017). Studies have linked health issues, such as hearing loss, with lower school attendance (Su et al. 2019) and lower educational attainment (Conti et al. 2010).

As the factors contributing to schooling performance vary across Australia, geographic level analysis can provide greater insight into student NAPLAN outcomes. Year 3 results broken down by remoteness and jurisdiction, for example, provide a better understanding of outcomes for students early in their schooling than national figures. Year 3 is the first year that children sit for the NAPLAN, and is more closely associated with the time during a child's schooling when measures affecting development are likely to be most effective (Heckman 2008).

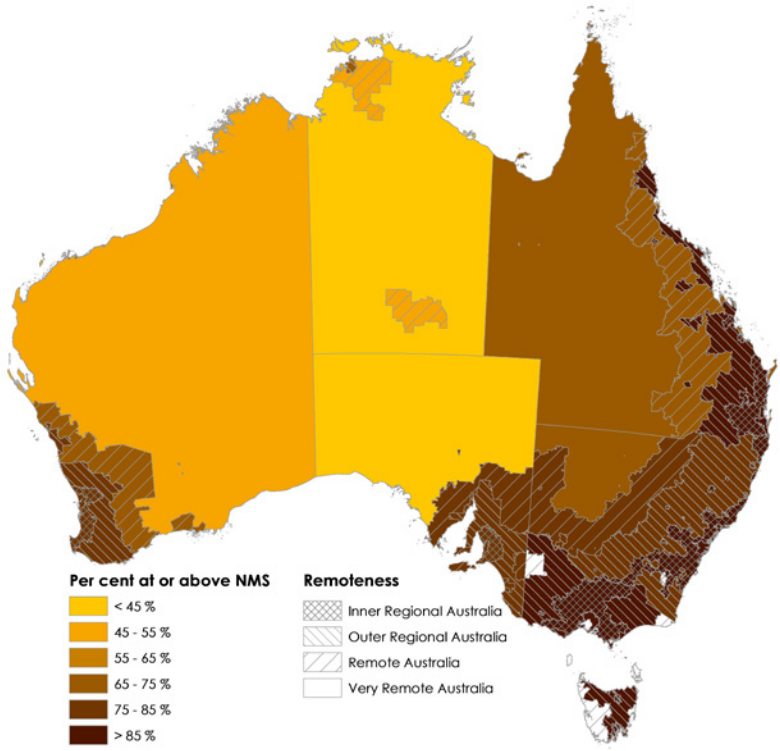
Nine in ten (around 89 per cent) Indigenous Year 3 students living in Major Cities met or were above national minimum standards in reading and numeracy in 2018. Outside Major Cities, there was considerable variation in Year 3 reading and numeracy outcomes (Figure 4.3 and Figure 4.4). The same variation in Remote and Very Remote areas is not observed in Year 3 outcomes for non-Indigenous students.

Reading and numeracy outcomes were relatively low for Year 3 Indigenous students living in Remote and Very Remote areas. These areas of Australia also recorded the lowest levels of primary school attendance in 2019 (Figure 3.4).

However, as with school attendance, there was considerable variation in outcomes for students living in remote Australia.

Figure 4.3

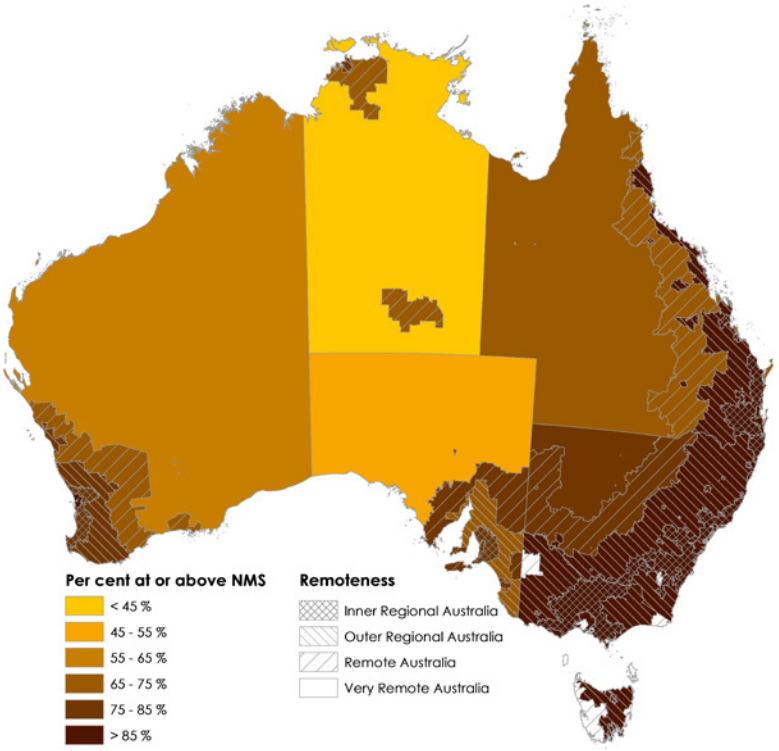
Proportion of Year 3 Indigenous students at or above the national minimum standard in reading, 2018[a, b]



Source: Australian Curriculum, Assessment and Reporting Authority, 2019, unpublished.
Notes: (a) For the Australian Capital Territory as well as some areas in Tasmania and Victoria, results cannot be published due to low numbers of Indigenous students or schools.
(b) The map provides an indication of the variation in reading outcomes across Australia. Confidence intervals—that is, the level of uncertainty associated with the measurement of results—within a remoteness area and jurisdiction are not reported.

Figure 4.4

Proportion of Year 3 Indigenous students at or above the national minimum standard in numeracy, 2018[a, b]



Source: Australian Curriculum, Assessment and Reporting Authority, 2019, unpublished.
Notes: (a) For the Australian Capital Territory as well as some areas in Tasmania and Victoria, results cannot be published due to low numbers of Indigenous students or schools.
(b) The map provides an indication of the variation in numeracy outcomes across Australia. Confidence intervals—that is, the level of uncertainty associated with the measurement of results—within a remoteness area and jurisdiction are not reported.

Eight in ten (around 80 per cent) Indigenous Year 3 students in Remote and Very Remote New South Wales, for example, were at or above the national minimum standard in numeracy in 2018. Remote New South Wales also had relatively high rates of primary school attendance in 2019 (Figure 3.5). In comparison, in 2018, the share of Year 3 students at or above the national minimum standard in numeracy in Very Remote Northern Territory and Very Remote South Australia was around 37 per cent and 53 per cent respectively.

Participation in NAPLAN is lower for Indigenous students in remote Australia. In 2018, participation by Indigenous students ranged from around 90 per cent for Years 3 and 5 in Major Cities and regional areas, to 49 per cent for Year 9 students in Very Remote areas. Low participation can skew the measurement of results, as students who were absent or withdrawn from NAPLAN are more likely to have relatively poor reading and numeracy outcomes (COAG Reform Council 2012, Thompson 2013).

School achievement across the distribution

Successfully progressing through school is important for students' transition to further study or work. There is some evidence that Indigenous and non-Indigenous students who reach the same level of academic achievement by age 15 (as measured by the Programme for International Student Assessment) have similar Year 12 completion rates and participation rates in university and vocational training (Mahuteau et al. 2015).

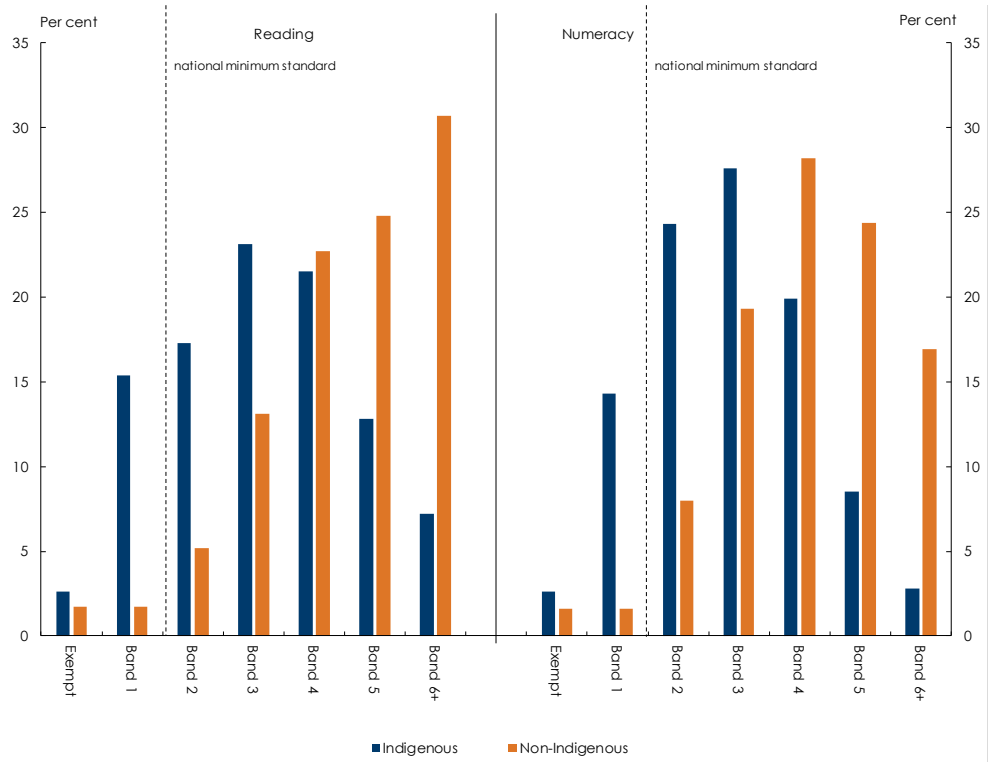
The six reported NAPLAN achievement bands provide a measure of the distribution of student outcomes (ACARA 2016b). As noted earlier, students achieving below national minimum standards—the first NAPLAN band—may have difficulty progressing at school. Students meeting national minimum standards are at the second achievement band, and those exceeding national minimum standards are in the third or higher bands.

A large share (close to 65 per cent) of Indigenous Year 3 students were exceeding the national minimum standard in reading in 2018 (band 3 or higher) (Figure 4.5). As noted above, Year 3 is the first year children sit NAPLAN, and is more closely associated with the time during a child's schooling when measures affecting development are likely to be most effective (Heckman 2008).

Achievement in reading (and numeracy) was skewed towards the middle bands (Figure 4.5). In 2018, one in five Indigenous Year 3 students achieved in the top two bands for reading (band 5 and 6). In comparison, more than half (around 56 per cent) of Year 3 non-Indigenous students achieved in the top two bands for reading (band 5 and 6).

Figure 4.5

Proportion of students by NAPLAN attainment band, Year 3, 2018[a, b]



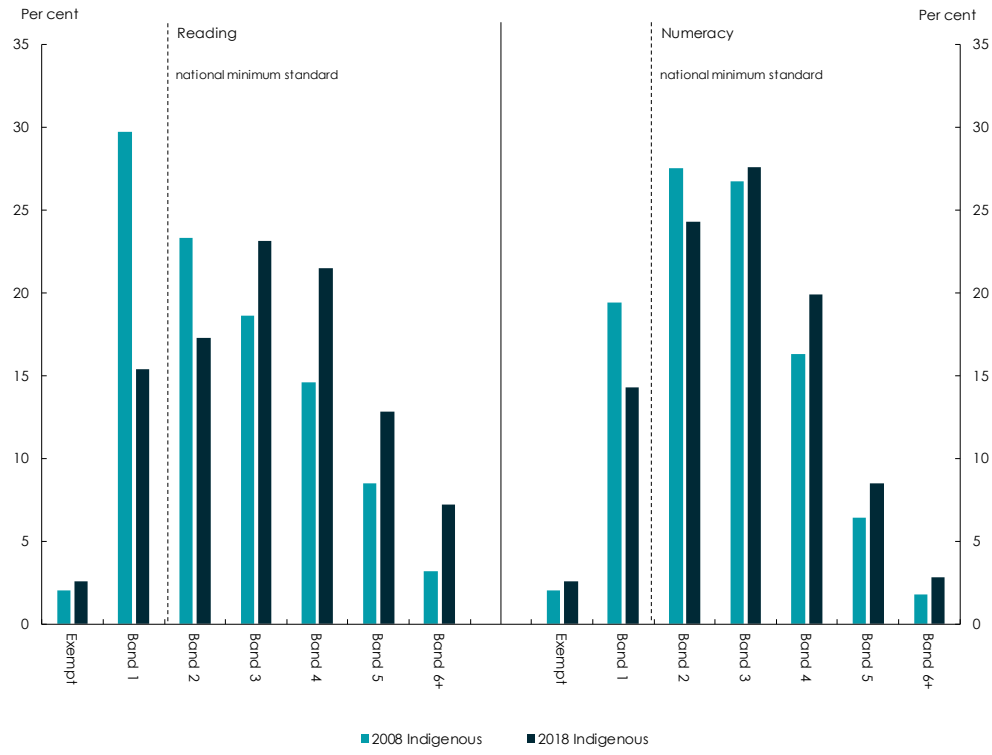
Source: Australian Curriculum, Assessment and Reporting Authority, 2019, unpublished.
Notes: (a) Exempt status applies to students with a significant disability or from a non-English speaking background.
(b) Confidence intervals for the results by band are not published by ACARA.

Over the past decade to 2018, schooling achievement for Year 3 Indigenous students in reading and numeracy has improved across the distribution (Figure 4.6). In reading, the share of Indigenous Year 3 students exceeding the national minimum standard (bands 3 or higher) increased by around 20 percentage points, while the share of Indigenous Year 3 students in the top two bands increased by just over 8 percentage points.[21]

21 The statistical significance of the changes in the NAPLAN band proportions were not available.

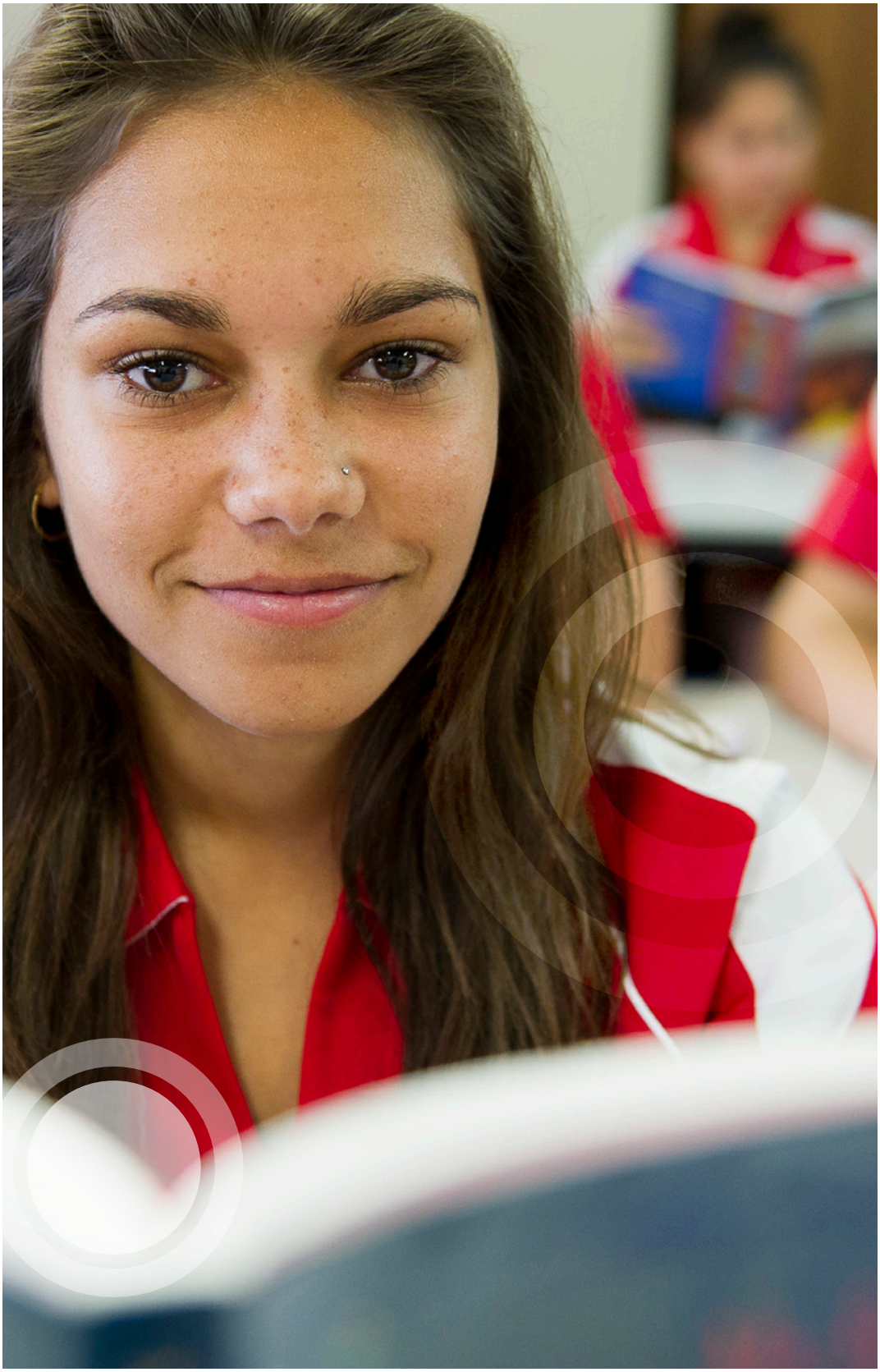
Figure 4.6

Proportion of Indigenous students by NAPLAN attainment band, Year 3, 2008 and 2018[a, b]



Source: Australian Curriculum, Assessment and Reporting Authority, 2019, unpublished.
Notes: (a) Exempt status applies to students with a significant disability or from a non-English speaking background.
(b) Confidence intervals for the results by band are not published by ACARA.

A similar pattern of improvement across the distribution of numeracy scores occurred over the decade to 2018 for Year 3 Indigenous students. The share of Indigenous Year 3 students exceeding the national minimum standard (bands 3 or higher) in numeracy increased by just under 8 percentage points, while the share of Indigenous Year 3 students in the top two bands increased by around 3 percentage points.



Year 12 Attainment

Target

Halve the gap for Indigenous Australians aged 20–24 in Year 12 attainment or equivalent (by 2020)

Key points

- In 2018–19, around 66 per cent of Indigenous Australians aged 20–24 years had attained Year 12 or equivalent.
- Between 2008 and 2018–19, the proportion of Indigenous Australians aged 20–24 years attaining Year 12 or equivalent increased by around 21 percentage points. The gap has narrowed by around 15 percentage points, as non-Indigenous attainment rates have improved at a slower pace.
- The biggest improvement in Year 12 attainment rates was in Major Cities, where the gap narrowed by around 20 percentage points—from 26 percentage points in 2012–13 to 6 percentage points in 2018–19.

What the data tells us

National

The target to halve the gap in Year 12 or equivalent attainment rates by 2020 is on track.

One of the main indicators of educational achievement is completing high school to Year 12. This is a prerequisite for many jobs and is seen as an indicator of aptitude and attitude (Biddle 2010). Indigenous Australians, who complete Year 12, or a higher qualification, are substantially more likely to be employed. They are also more likely to work full-time and in higher-skilled occupations than early school leavers (Shirodkar et al. 2018; Venn 2018).

The Year 12 attainment rate is the proportion of 20–24 year old Indigenous Australians who have completed Year 12 or obtained a Certificate level II or above qualification. The two data sources used to measure progress against this target are the Australian Bureau of Statistics (ABS) Census of Population and Housing (Census),[22] and the ABS National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) 2018–19.[23]

Over the past decade, the Year 12 attainment rate for Indigenous Australians increased by around 21 percentage points, from around 45 per cent in 2008 to 66 per cent in 2018–19. The proportion of non-Indigenous students attaining Year 12 or equivalent also increased, but by a smaller amount (around 5 percentage points). As such, the gap has narrowed by 15 percentage points—from around 40 percentage points in 2008 to 25 percentage points in 2018–19 (Figure 5.1).

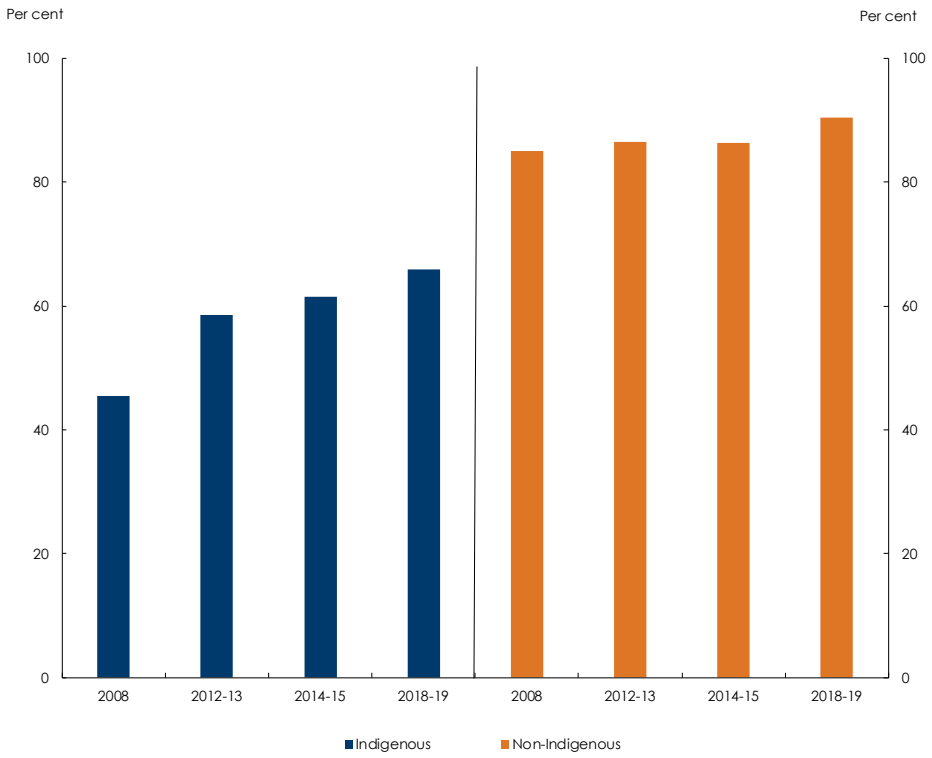
Year 12 attainment is associated with a range of complex and multi-faceted factors. Enablers and barriers include: prior educational experience, academic ability, access to secondary schools (particularly for those in remote communities), and financial and other support from parents (Biddle and Cameron 2012). Students thrive at schools that engage with communities, provide a culturally inclusive curriculum with appropriate support, and have skilled teachers with high expectations (Ockenden 2014; Osborne and Guenther 2013; McRae 2002; Stronger Smarter Institute 2014).

22 The Census is the primary data source. The next Census will be conducted in 2021.

23 This NATSIHS is a supplementary data source and is not directly comparable with Census data. Caution should be taken when Interpreting NATSIHS data at disaggregated levels (i.e. by jurisdiction or remoteness). See the Technical Appendix for further information.

Figure 5.1

National Year 12 or equivalent attainment rate, 20–24 year olds, 2008–2019[a]



Sources: Australian Bureau of Statistics, National Aboriginal and Torres Strait Islander Social Survey 2008, Unpublished, ABS: Canberra; Australian Bureau of Statistics, 2014, Australian Aboriginal and Torres Strait Islander Health Survey: Updated Results 2012–13, Cat. no. 4727.0.55.006, ABS: Canberra; Australian Bureau of Statistics, 2016, National Aboriginal and Torres Strait Islander Social Survey 2014-15, Cat. no. 4714.0, ABS: Canberra; Australian Bureau of Statistics, 2019, Australian Aboriginal and Torres Strait Islander Health Survey 2018–19, Cat. no. 4715.0, ABS: Canberra; Australian Bureau of Statistics, 2008, 2012, 2014, and 2018, Education and Work, Australia, May 2008, 2012, 2014, and 2018, Cat. no. 6227.0, ABS: Canberra.

Note: (a) Trajectories are not able to be included for the supplementary NATSIHS data. For trajectories based on the 2016 Census, see the Closing the Gap Report 2019.

States and territories

Over the past decade, there have been improvements in Indigenous Year 12 attainment rates across all jurisdictions. The greatest increase was in the Australian Capital Territory (Figure 5.2). [24,25]

Remoteness

The proportion of Indigenous Australians aged 20–24 years attaining Year 12 or equivalent level of education decreases with remoteness. The Year 12 attainment rate is 85 per cent in Major Cities compared with 38 per cent in Very Remote areas.

Major Cities experienced the largest increase in the proportion of Indigenous students who had attained Year 12 or equivalent (Figure 5.3). In Major Cities, where over 40 per cent of the Indigenous population aged 20–24 years live, the Year 12 attainment rate increased by around 22 percentage points, from 63 percent in 2012–13, to 85 per cent in 2018–19.[26]

In 2018–19, the gap in Year 12 attainment rates was narrowest in Major Cities (around 6 percentage points) and widest in Very Remote Australia (around 52 percentage points). Between 2012–13 and 2018–19, the gap between Indigenous and non-Indigenous Australians widened in all areas, except for Major Cities (Figure 5.4).[27]

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24 Note that cross-border enrolment in the Australian Capital Territory has a larger impact on the statistics than other jurisdictions due to a smaller population. It is not unusual for rates in the Australian Capital Territory to exceed 100 per cent. This is mainly due to the enrolment of students who are usual residents in the surrounding New South Wales regions.

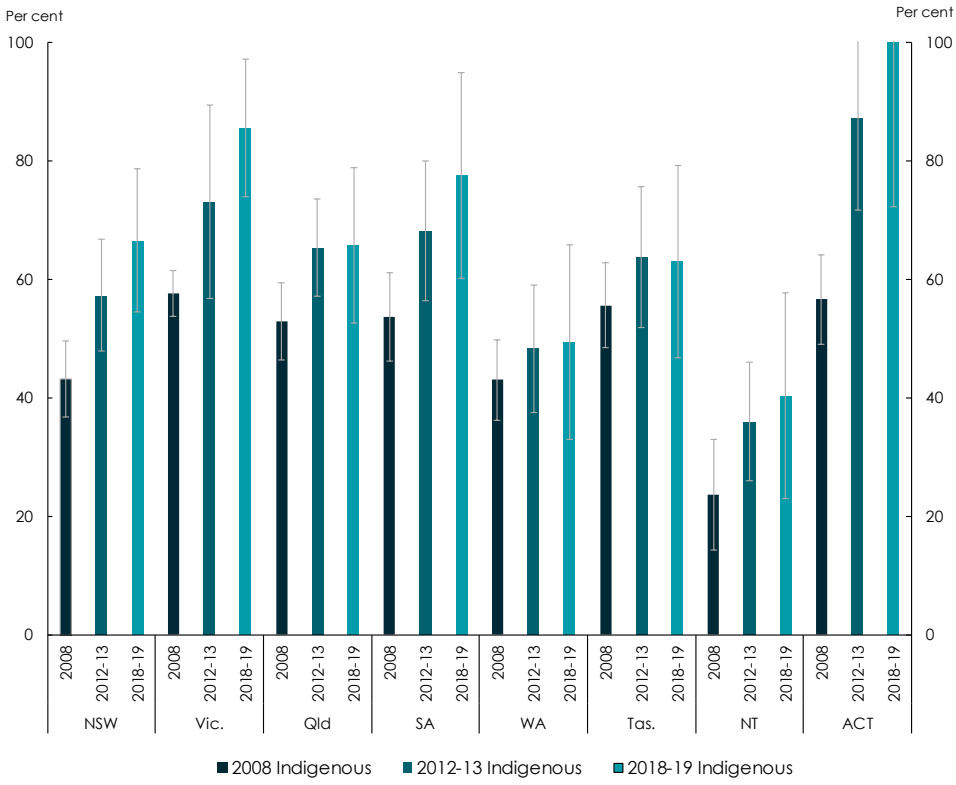
25 Jurisdictional progress using 2016 Census data is available in Figure 20; Closing the Gap: Prime Minister's report 2018.

26 The increase in Indigenous population between the 2011 and 2016 Census was partially due to changes in Indigenous identification. See the Technical Appendix for further information.

27 These results are not statistically significant for Inner Regional and Remote areas.

Figure 5.2

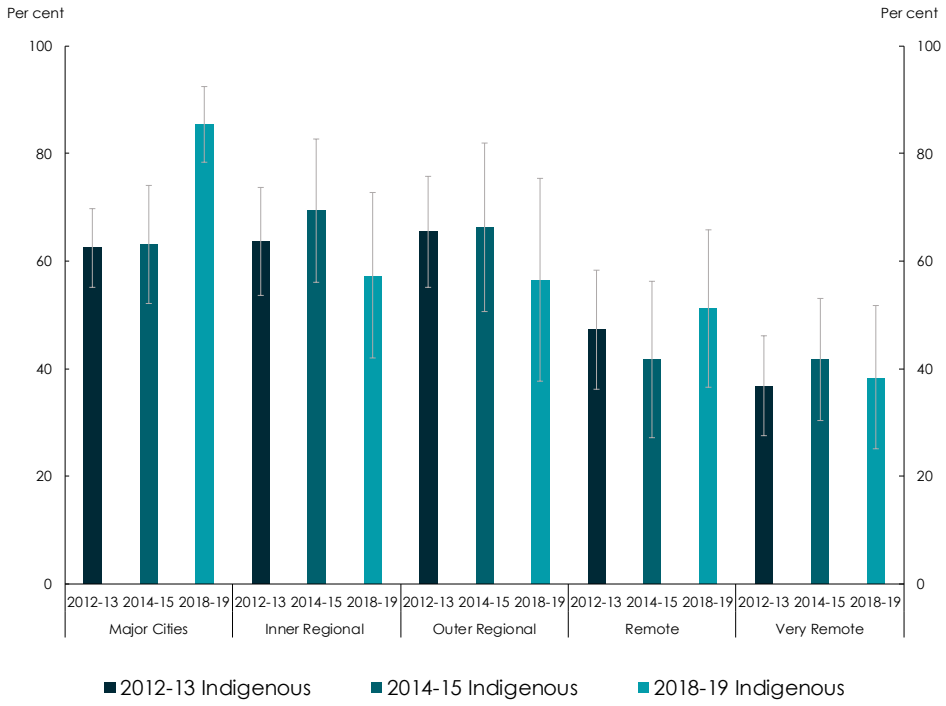
Indigenous Year 12 or equivalent attainment rate, by jurisdiction, 20–24 year olds, 2008–2019[a]



Sources: Australian Bureau of Statistics, National Aboriginal and Torres Strait Islander Social Survey 2008, Unpublished, ABS: Canberra; Australian Bureau of Statistics, 2019. Australian Aboriginal and Torres Strait Islander Health Survey 2018–19, Cat. no. 4715.0, ABS: Canberra; Australian Bureau of Statistics, 2014. Australian Aboriginal and Torres Strait Islander Health Survey: Updated Results 2012–13, Cat. no. 4727.0.55.006, ABS: Canberra; Australian Bureau of Statistics, 2008, 2012, 2014, and 2018. Education and Work, Australia, May 2008, 2012, 2014, and 2018, Cat. no. 6227.0, ABS: Canberra.
Note: (a) Confidence intervals reflect the level of uncertainty associated with the measurement of attainment. They define a range of values within which the actual level of attainment is likely to lie. Due to the large confidence intervals for Indigenous Year 12 attainment estimates in individual state and territories, caution should be exercised when making direct comparisons between these estimates.

Figure 5.3

Indigenous Year 12 or equivalent attainment rate, by remoteness, 20–24 year olds, 2012–2019[a]

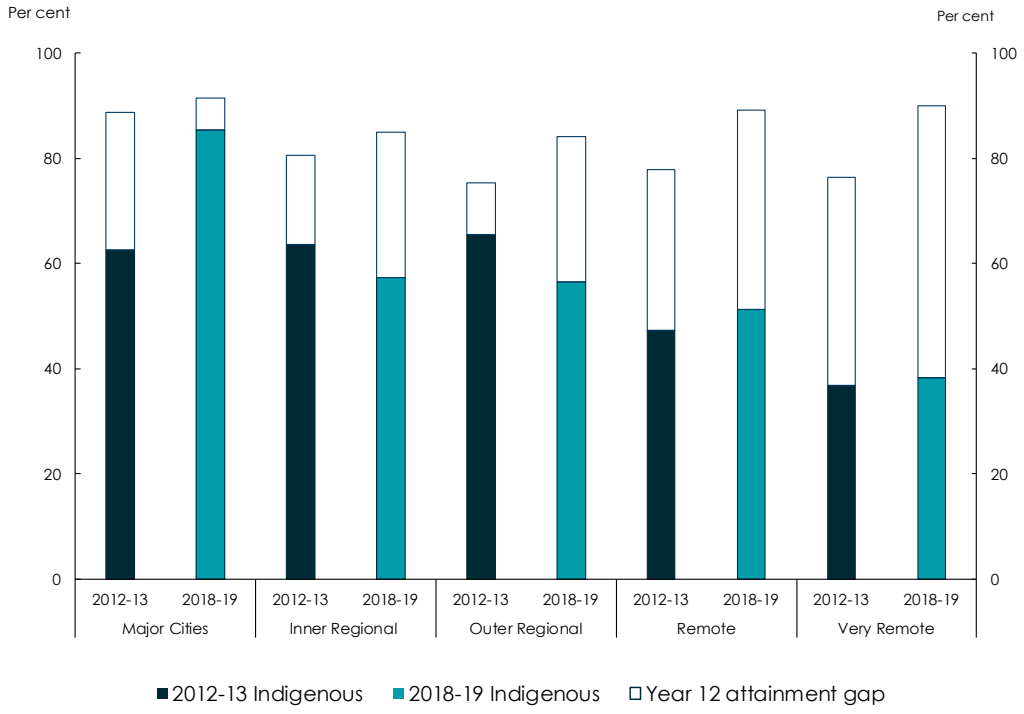


Sources: Australian Bureau of Statistics, 2016. National Aboriginal and Torres Strait Islander Social Survey 2014-15, Cat. no. 4714.0, ABS: Canberra; Australian Bureau of Statistics, 2019. Australian Aboriginal and Torres Strait Islander Health Survey 2018–19, Cat. no. 4715.0, ABS: Canberra; Australian Bureau of Statistics, 2014. Australian Aboriginal and Torres Strait Islander Health Survey: Updated Results 2012–13, Cat. no. 4727.0.55.006, ABS: Canberra.

Note: (a) Confidence intervals reflect the level of uncertainty associated with the measurement of attainment. They define a range of values within which the actual level of attainment is likely to lie. Due to the large confidence intervals for Indigenous Year 12 attainment estimates in remoteness areas, caution should be exercised when making direct comparisons between these estimates.

Figure 5.4

Indigenous Year 12 Attainment gap, by remoteness, 20–24 year olds, 2012–13 and 2018–19



Sources: Australian Bureau of Statistics, 2014, Australian Aboriginal and Torres Strait Islander Health Survey: Updated Results 2012–13, Cat. no. 4727.0.55.006, ABS: Canberra; Australian Bureau of Statistics, 2019, Australian Aboriginal and Torres Strait Islander Health Survey 2018–19, Cat. no. 4715.0, ABS: Canberra.

Employment

Target

Halve the gap in employment outcomes between Indigenous and non-Indigenous Australians within a decade (by 2018)

Key points

- In 2018, the Indigenous employment rate was around 49 per cent compared to around 75 per cent for non-Indigenous Australians.
- Over the past decade (2008–2018), the employment rate for Indigenous Australians increased slightly (by 0.9 percentage points), while for non-Indigenous Australians it fell by 0.4 percentage points. As a result, the gap has not changed markedly.
- The Indigenous employment rate varied by remoteness. Major Cities had the highest employment rate at around 59 per cent compared to around 35 per cent in Very Remote areas. The gap in employment outcomes between Indigenous and non-Indigenous Australians was widest in Remote and Very Remote Australia.

What the data tells us

National

The target to halve the gap in employment outcomes within a decade was not met.

Participation in employment provides financial and economic security and assists in opening the door to self-determination. Employment status also has associations with outcomes for health, social and emotional wellbeing, and living standards (Bambra 2011; Gray et al. 2014; Marmot 2015).

Progress against this target is measured using data from the National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) 2018–19,[28] based on the proportion of Indigenous Australians aged 15–64 years who are employed (employment-to-population ratio, referred to herein as the employment rate).

In order to consistently compare the employment rate, the Community Development Employment Projects (CDEP) program has been excluded from this analysis. Under the CDEP, participants were classified as employed on the basis of being paid wages (derived from income support) for activities or training. The CDEP was phased out before the 2014–15 NATSIHS. Job seekers are now supported through the Community Development Program (CDP)[29] (in Remote and Very Remote areas), jobactive and Disability Employment Services, and are not classified as employed by the Australian Bureau of Statistics.

The employment rate for Indigenous Australians has remained relatively stable over the past decade. Between 2008 and 2018–19, the national Indigenous employment rate increased slightly from 48.2 per cent to 49.1 per cent (Figure 6.1).[30] The employment rate for non-Indigenous Australians over the same period remained relatively stable at around 75 per cent.[31] The enablers and barriers to Indigenous Australians' participation in employment are multiple and intertwined with social, cultural, geographic and economic factors. Acquiring skills—particularly literacy, numeracy and digital problem solving skills—is associated with better labour market outcomes (OECD 2019). For those Indigenous Australians with higher levels of education, there was virtually no gap in employment rates with non-Indigenous Australians (AHMAC 2017).[32]

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28 NATSIHS is the primary data source for the employment target, and Census data are supplementary when current. Survey data are not directly comparable with Census data. See the Technical Appendix for further information.

29 The CDP is delivered in 60 regions and more than 1,000 communities.

30 These results are not statistically significant.

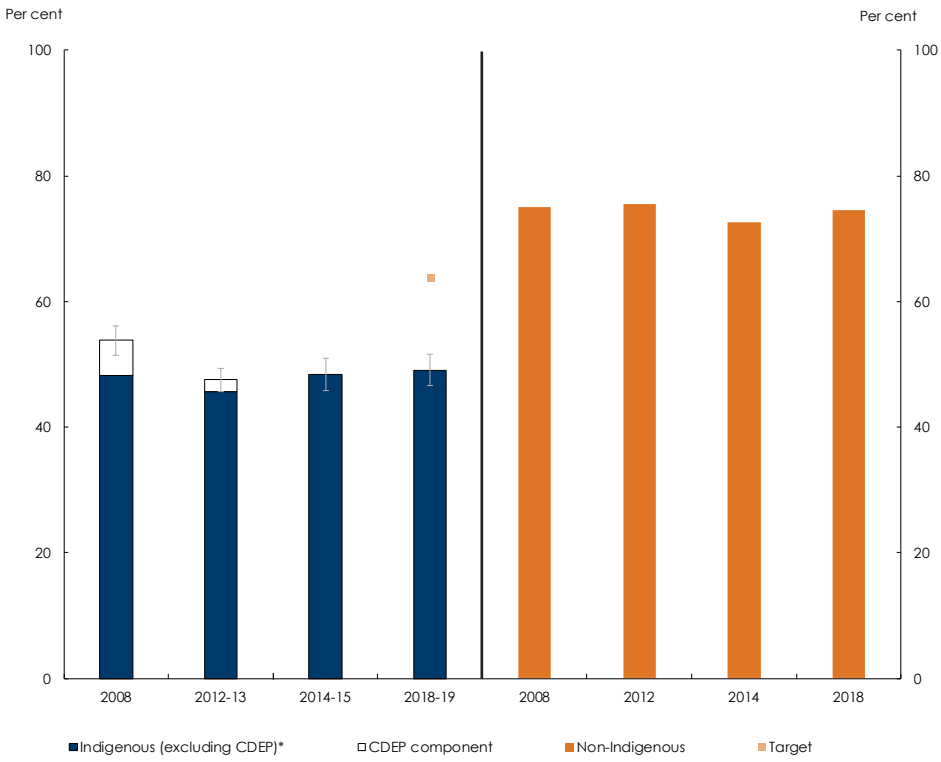
31 Comparisons with non-Indigenous Australians for this target are sourced from the ABS Survey of Education and Work.

32 This is based on previous analysis of the 2014–15 National Aboriginal and Torres Strait Islander Social Survey. This was not included in the 2018–19 NATSIHS. Characteristics of Indigenous Australians with higher education (e.g. age, experience and field of study) may be different to Indigenous Australians who attain higher levels of education in the future, and their employment outcomes may also be different.

Many Indigenous Australians face a conflict between family responsibilities, which are seen as a primary obligation, and the requirements associated with finding and keeping a job (Venn and Biddle 2018). Major chronic diseases and fair/poor self-assessed health status have a strong negative relationship with participation in the labour force (Belachew and Kumar 2014).

Figure 6.1

Employment to population rate, 15–64 year olds, 2008–2019[a, b]



Sources: Australian Bureau of Statistics, Unpublished and 2016, National Aboriginal and Torres Strait Islander Social Survey 2008 and 2014–15, Unpublished and Cat. no. 4714.0; Australian Bureau of Statistics, 2014, Australian Aboriginal and Torres Strait Islander Health Survey: Updated Results 2012–13, Cat. no. 4727.0.55.006; Australian Bureau of Statistics, 2019, National Aboriginal and Torres Strait Islander Health Survey, Cat. no. 4715.0; Australian Bureau of Statistics, 2008, 2012, 2014 and 2018, Education and Work, Australia May 2008, 2012, 2014 and 2018, Cat. no. 6227.0.
Notes: (a) Confidence intervals reflect the level of uncertainty associated with the measurement of employment rates. They define a range of values within which the actual level of employment is likely to lie.
(b) The target is based on the employment gap in 2008 (including the CDEP component).

States and territories

The target to halve the gap in employment outcomes within a decade was not met in any state or territory.

Employment rates for Indigenous Australians increased in New South Wales and the Northern Territory,[33] while other jurisdictions experienced a decline over the past decade[34] (Figure 6.2).

Since 2008, the Indigenous employment rate in the Northern Territory increased from around 33 per cent to 37 per cent,[35] reducing the gap by around 4 percentage points. In New South Wales, employment rates increased from around 45 per cent to 54 per cent, reducing the gap by around 9 percentage points. The gap widened in the remaining jurisdictions (Figure 6.3).

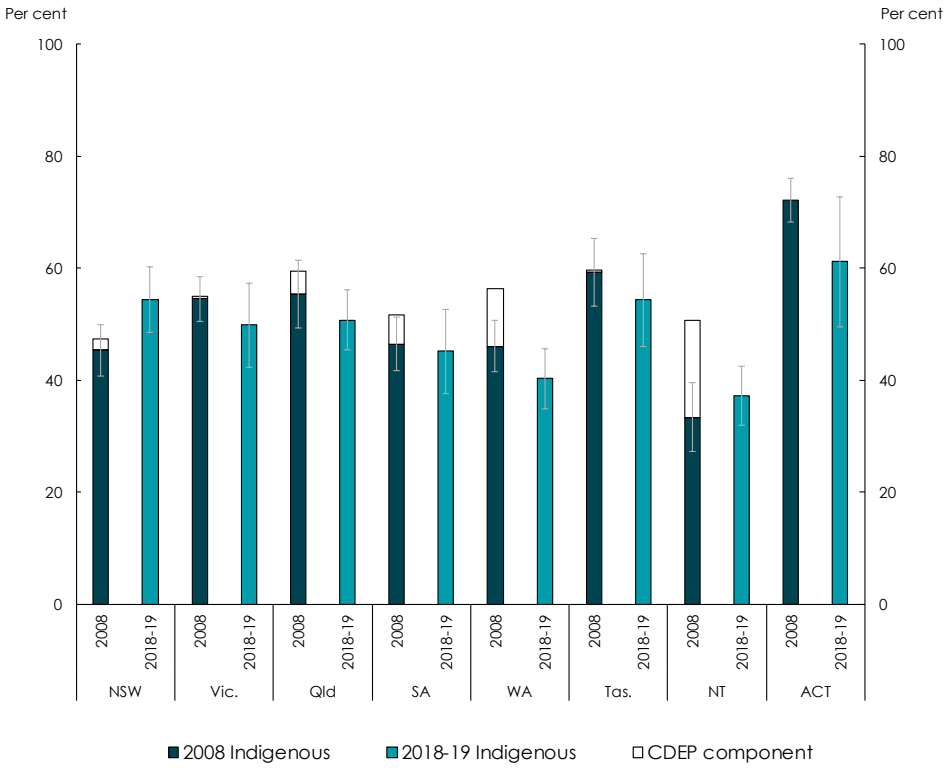
33 The results for the Northern Territory are not statistically significant.

34 These results are not statistically significant.

35 These results are not statistically significant.

Figure 6.2

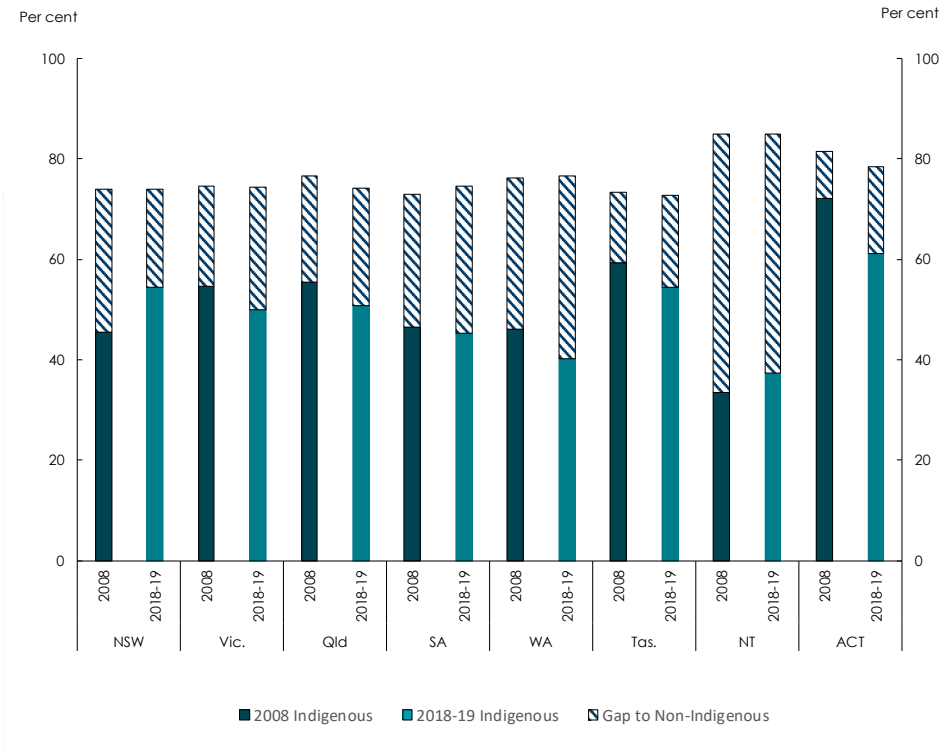
Employment to population rate, by jurisdiction, by Indigenous Australians, 15–64 year olds, 2008 and 2018–19[a, b]



Sources: Australian Bureau of Statistics, National Aboriginal and Torres Strait Islander Social Survey 2008, Unpublished, ABS: Canberra; Australian Bureau of Statistics 2019, Australian Aboriginal and Torres Strait Islander Health Survey 2018–19, Cat. no. 4715.0 ABS: Canberra.
Notes: (a) Confidence intervals reflect the level of uncertainty associated with the measurement of employment rates. They define a range of values within which the actual level of employment is likely to lie.
(b) The target is based on the employment gap in 2008 (including the CDEP component).

Figure 6.3

Employment rate gap by jurisdiction, 15–64 year olds, 2008 and 2018–19



Sources: Australian Bureau of Statistics, National Aboriginal and Torres Strait Islander Social Survey 2008, Unpublished, ABS: Canberra; Australian Bureau of Statistics, 2019, Australian Aboriginal and Torres Strait Islander Health Survey 2018–19, Cat. no. 4715.0, ABS: Canberra; Australian Bureau of Statistics, 2008 and 2018, Education and Work, Australia, May 2008 and 2018, Cat. no. 6227.0, ABS: Canberra.

Remoteness

The Indigenous employment rate varied considerably by remoteness. In 2018–19, the Indigenous employment rate was highest in Major Cities (around 59 per cent) and lowest in Very Remote areas (around 35 per cent).[36]

There has been limited movement in the employment rate by remoteness over the past decade. The largest changes were in Outer Regional areas where there was a decrease of around 11 percentage points. In Very Remote areas, the employment rate increased by around 6 percentage points (Figure 6.4).[37]

There was less variation by remoteness for the non-Indigenous employment rate and consequently the gap widens with remoteness (Figure 6.5). The largest gap was in Very Remote areas where the Indigenous employment rate was around 49 percentage points less than the non-Indigenous employment rate. The smallest gap was in Major Cities (around 15 percentage points).

There are exceptions to the pattern of employment rates by remoteness (Figure 6.5). The most noticeable exception was in Remote South Australia with an Indigenous employment rate of around 67 per cent—the highest in Remote Australia. This was twice the Indigenous employment rate for Inner Regional South Australia (around 33 per cent), and higher than Major Cities (around 45 per cent). In contrast, the Indigenous employment rate was highest in Inner Regional Queensland (around 60 per cent) (Figure 6.6 and Figure 6.7).[38]

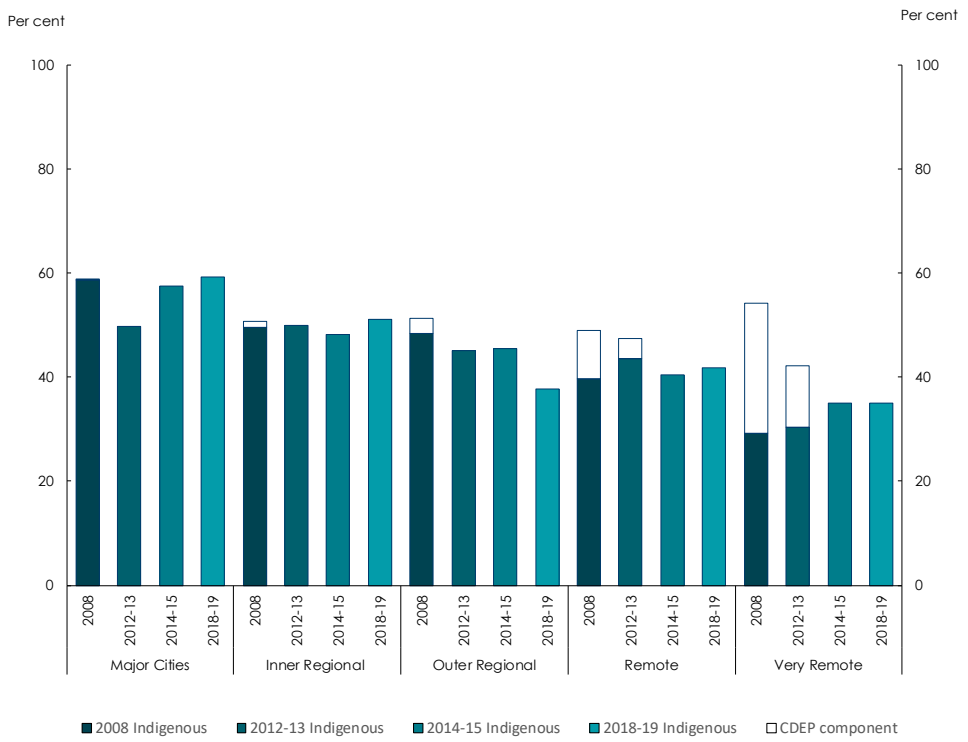
36 Data in this section have been adjusted to exclude CDEP participants, due to the reasons outlined above.

37 These results are not statistically significant.

38 Figures serve as an indication of variation in outcomes across Australia.

Figure 6.4

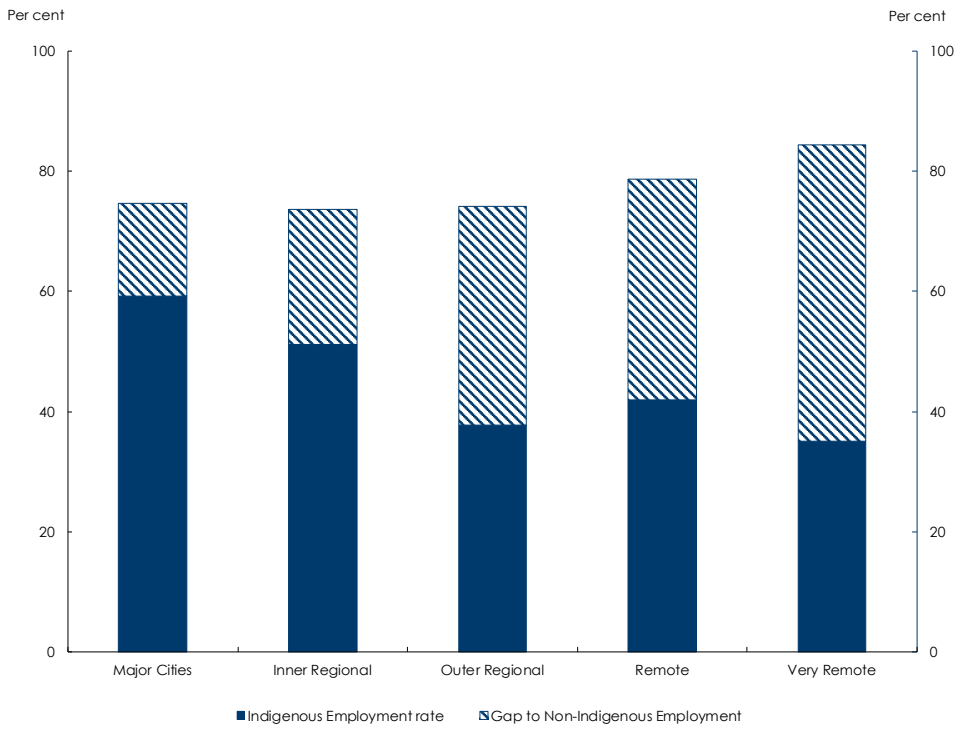
Employment to population rate for Indigenous Australians, 15–64 year olds, by remoteness, 2008–2019



Sources: Australian Bureau of Statistics, Unpublished and 2016, National Aboriginal and Torres Strait Islander Social Survey 2008 and 2014–15, Unpublished and Cat. no. 4714.0, ABS: Canberra; Australian Bureau of Statistics, 2014, Australian Aboriginal and Torres Strait Islander Health Survey: Updated Results 2012–13, Cat. no. 4727.0.55.006, ABS: Canberra; Australian Bureau of Statistics 2019, National Aboriginal and Torres Strait Islander Health Survey, Cat. no. 4715.0, ABS: Canberra.

Figure 6.5

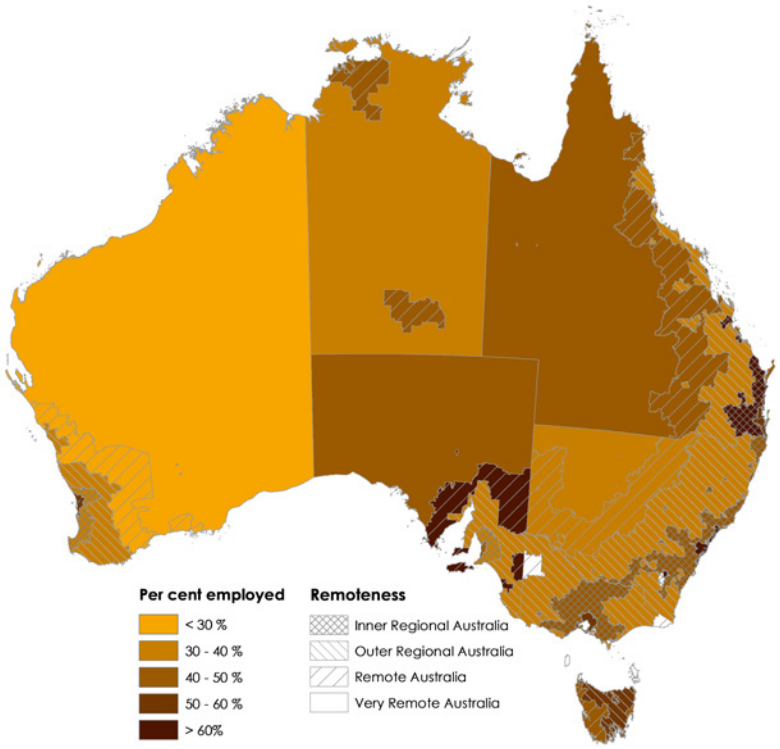
Employment rate gap, 15–64 year olds, by remoteness, 2018–19



Sources: Australian Bureau of Statistics, 2019, Australian Aboriginal and Torres Strait Islander Health Survey 2018–19, Cat. no. 4715.0 ABS: Canberra; Australian Bureau of Statistics, 2018, Education and Work, Australia, May 2018, Cat. no. 6227.0, ABS: Canberra.

Figure 6.6

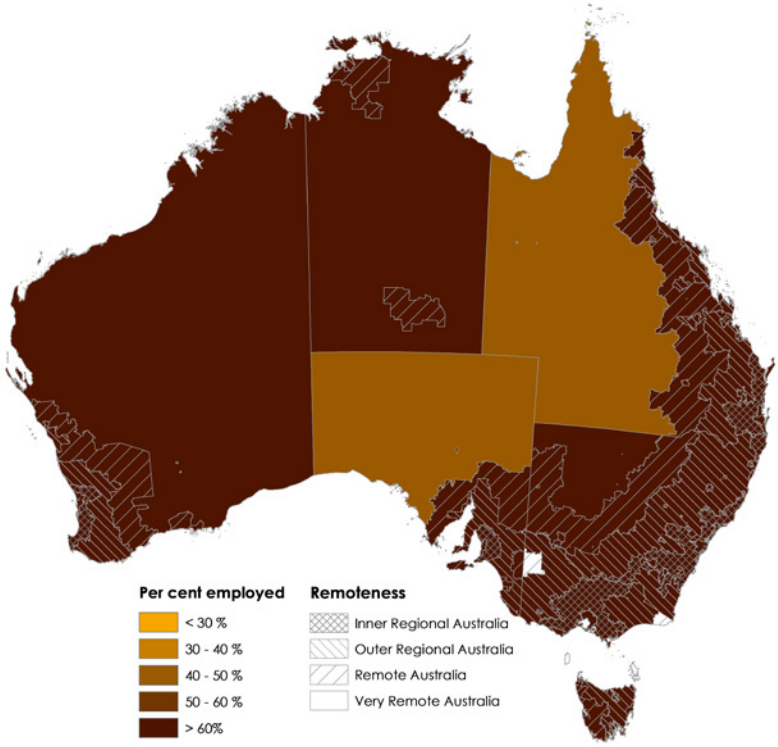
Indigenous employment rates, 15–64 year olds, by jurisdiction, by remoteness, 2018–19[a]



Source: Australian Bureau of Statistics, 2019, Australian Aboriginal and Torres Strait Islander Health Survey 2018–19, Cat. no. 4715.0, ABS: Canberra.
Note: (a) The Relative Standard Error (RSE) for Indigenous estimates in Inner Regional Western Australia, Outer Regional Victoria and South Australia, and Remote Tasmania all exceed 25 per cent. Estimates with RSEs of 25 per cent or greater should be used with caution.

Figure 6.7

Non–Indigenous employment rates, 15–64 year olds, by jurisdiction, by remoteness, 2018–19[a]



Source: Australian Bureau of Statistics, 2018, Education and Work, Australia, May 2018, Cat. no. 6227.0, ABS: Canberra.
Note: (a) The RSE for non-Indigenous Australians in Remote Queensland, South Australia and Western Australia and Very Remote Northern Territory all exceed 25 per cent. Estimates with RSEs of 25 per cent or greater should be used with caution.

Life Expectancy

Target

Close the life expectancy gap within a generation (by 2031)

Key points

- In 2015–2017, life expectancy at birth was 71.6 years for Indigenous males (8.6 years less than non-Indigenous males) and 75.6 years for Indigenous females (7.8 years less than non-Indigenous females).
- Over the period 2006 to 2018, there was an improvement of almost 10 per cent in Indigenous age-standardised mortality rates. However, non-Indigenous mortality rates improved at a similar rate, so the gap has not narrowed.
- Since 2006, there has been an improvement in Indigenous mortality rates from circulatory disease (heart disease, stroke and hypertension). However, this has coincided with an increase in cancer mortality rates, where the gap is widening.

What the data tells us

National

The target to close the life expectancy gap by 2031 is not on track. The life expectancy target is measured using the Australian Bureau of Statistics (ABS) estimates of life expectancy at birth, which are available every five years.[39]

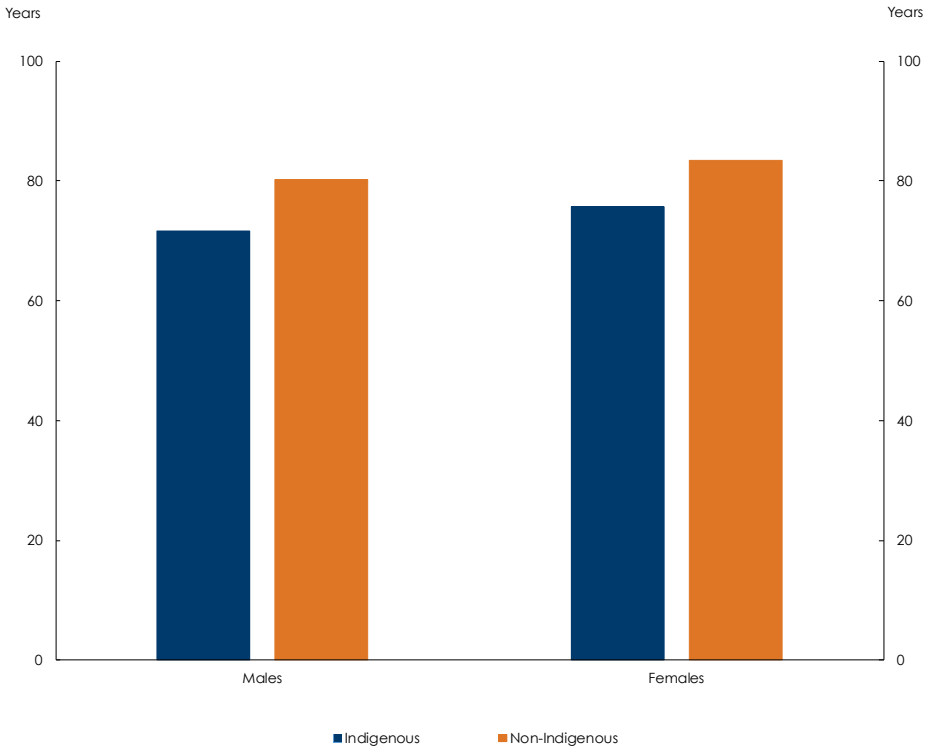
In 2015–2017, life expectancy at birth was 71.6 years for Indigenous males and 75.6 years for Indigenous females. In comparison, the non-Indigenous life expectancy at birth was 80.2 years for males and 83.4 years for females (Figure 7.1). This is a gap of 8.6 years for males and 7.8 years for females.

Life expectancy is an overarching target, which is dependent not only on health, but the social determinants (such as education, employment status, housing and income). Social determinants are estimated to be responsible for at least 34 per cent of the health gap between Indigenous and non-Indigenous Australians. Behavioural risk factors, such as smoking, obesity, alcohol use and diet, accounted for around 19 per cent of the gap (AHMAC 2017).

39 The ABS publishes life tables and calculates life expectancy for the Australian population and by Indigenous status. These Indigenous estimates are based on three years of data (for example, 2015–2017) to reduce the effect of variations in death rates from year to year. Updated estimates of Aboriginal and Torres Strait Islander life expectancy were published by the ABS in November 2018 and were covered in the Closing the Gap Report 2019. The trend in life expectancy estimates has not been presented. Caution is required when interpreting trends in life expectancy estimates, because of changing rates of Indigenous identification across data collections and variation across geographies and socioeconomic groups.

Figure 7.1

Life expectancy at birth by Indigenous status, 2015–2017



Source: Australian Bureau of Statistics, 2018, Life tables for Aboriginal and Torres Strait Islander Australians, 2015–2017, Cat. no. 3302.0.55.003, ABS: Canberra.

States and territories

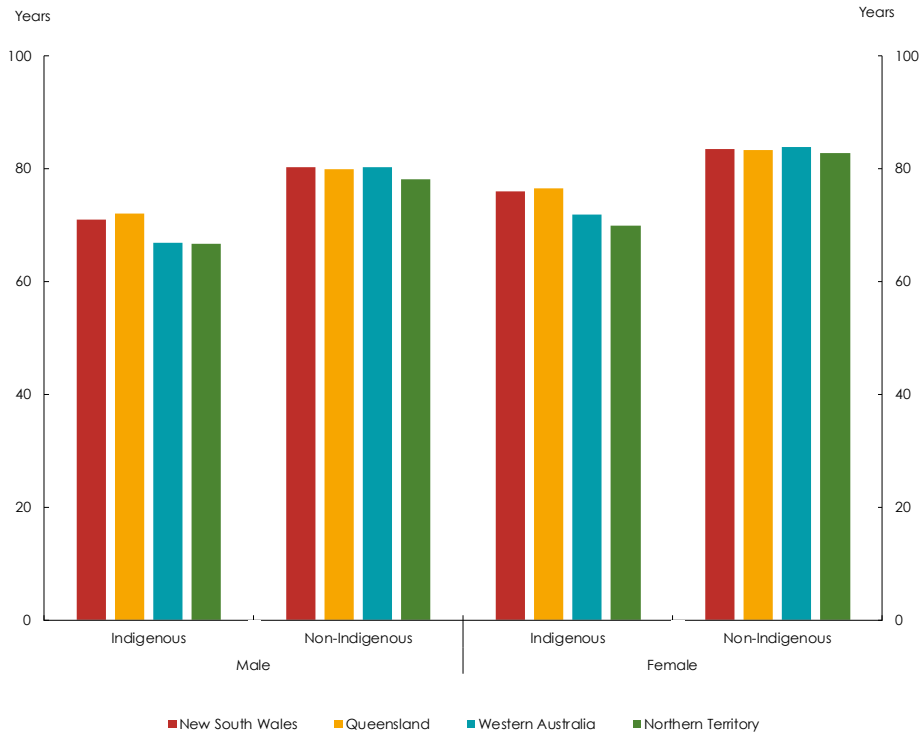
As reported last year, New South Wales, Queensland and the Northern Territory—the three jurisdictions with agreed trajectories for the life expectancy target—are not on track to meet the target.

In 2015–2017, Indigenous life expectancy was highest in Queensland (72.0 years for males, 76.4 years for females) and lowest in the Northern Territory (66.6 years for males, 69.9 years for females) (Figure 7.2).

The gap in life expectancy was the largest for males in Western Australia (13.4 years) and for females in the Northern Territory (12.8 years).

Figure 7.2

Life expectancy at birth by jurisdiction, 2015–2017



Source: Australian Bureau of Statistics, 2018, Life tables for Aboriginal and Torres Strait Islander Australians, 2015—2017, Cat. no. 3302.0.55.003, ABS: Canberra.

Life expectancy by remoteness

Life expectancy for Indigenous Australians living in remote Australia was lower than for those living in urban areas. In 2015–2017, life expectancy for Indigenous males living in Remote and Very Remote areas combined was estimated to be 6.2 years lower than that of Indigenous males living in Major Cities (65.9 years compared with 72.1 years). The equivalent comparison for Indigenous females was 6.9 years lower (69.6 years compared with 76.5 years).

While life expectancy for Indigenous males and females decreases with remoteness, life expectancy for non-Indigenous males and females is similar across all remoteness categories. This means that the gap is widest in Remote and Very Remote areas.

Mortality

Age-standardised mortality rates[40] are used as a proxy to track progress against the life expectancy target annually. This is because the ABS Indigenous life expectancy estimates are only available every five years, while mortality data are available annually.

In 2018, there were 3,218 Indigenous deaths (1,780 males and 1,438 females).[41] This was equivalent to an age-standardised mortality rate of 927 per 100,000—around 1.7 times the non-Indigenous rate (539 per 100,000). The Indigenous rate was not within the range required to meet the target (Figure 7.3).

Between 2006 to 2018, Indigenous age-standardised mortality rates improved by almost 10 per cent.[42] However, non-Indigenous rates improved at a similar rate, so the gap has not narrowed. As such, the Indigenous mortality rate has not been on track to meet the target since 2011. The rate of improvement of Indigenous mortality rates has not been as strong as prior to the 2006 baseline.

Further research (including data linkage) is required to understand the reasons why the rate of progress has slowed despite improvements in the detection and management of chronic disease. This is discussed in more detail at Causes of death.

States and territories

Although there is year on year volatility in jurisdictional specific mortality data, New South Wales, Queensland, South Australia and the Northern Territory showed little or no improvement since the 2006 baseline. They are not on track to meet the target.[43]

However, in Western Australia Indigenous mortality rates improved by 27 per cent between 2006 and 2018, which has contributed to a narrowing of the gap.

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40 The age-standardised mortality rate is the overall number of deaths for the population as a proportion of the total population, presented as a rate per 100,000 population and age-standardised using the direct method to adjust for the differences in the age profiles of the Indigenous and non-Indigenous populations.

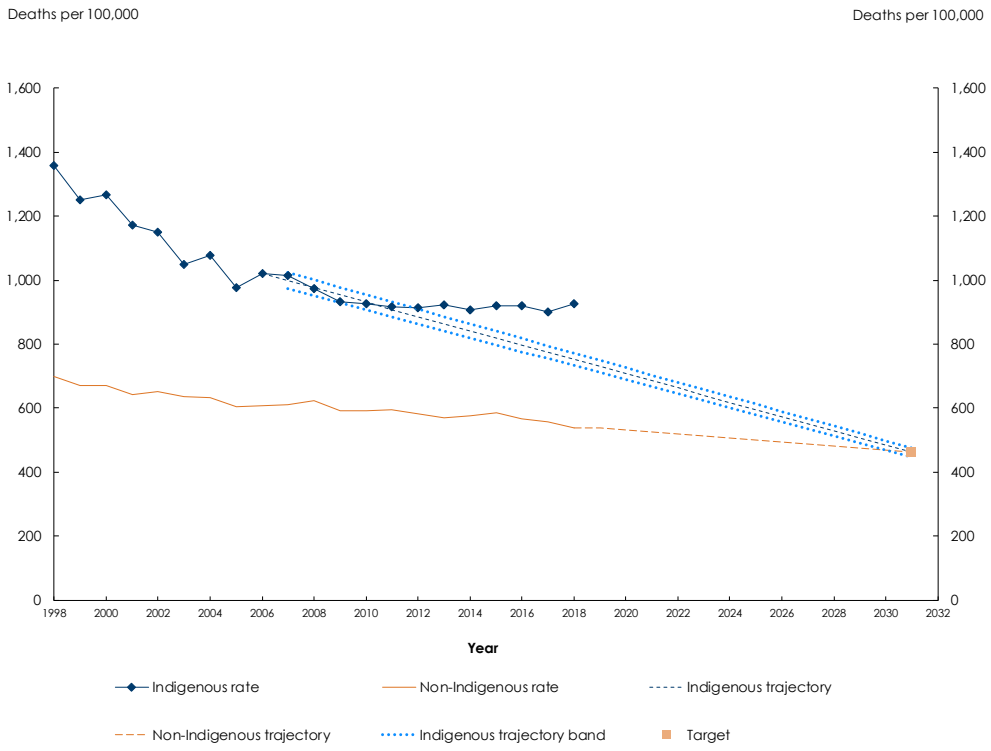
41 ABS Indigenous Australian deaths data are reported for New South Wales, Queensland, South Australia, Western Australia and the Northern Territory only, which are considered to have adequate levels of Indigenous identification suitable to publish.

42 The trend in Indigenous age-standardised mortality rates was statistically significant. References to per cent change in mortality rates in this chapter are derived through linear regression analysis, and tested at the 5 per cent level of significance. For details on the specifications for the mortality indicator used in this report, refer to the NIRA data specifications on the AIHW METeOR website.

43 Target trajectories, using age-standardised mortality rates as an annual proxy for life expectancy, have been agreed for New South Wales, Queensland, South Australia and the Northern Territory. Western Australia did not agree to a target trajectory when the original trajectories were set in 2010. For more information see the Technical Appendix.

Figure 7.3

Age-standardised mortality rates, trajectory to 2031 target [a,b]



Sources: Australian Bureau of Statistics and Australian Institute of Health and Welfare analysis of the National Mortality Database, unpublished and National Indigenous Reform Agreement Performance Information Management Group, unpublished.
Notes: (a) The Indigenous mortality rates over the period 1998 to 2006 may be less reliable than rates since 2006 as the reliability of population estimates lessens the further away the time series moves from the 2016 Census upon which they are based.
(b) The Indigenous trajectory indicates the level of change required to meet the target. The trajectory has been revised to include the 2016 Census-based backcast population estimates. For more information see the Technical Appendix.

Causes of death

Improvements in the mortality rate from circulatory disease (heart disease, stroke and hypertension) have primarily driven improvements in the Indigenous age-standardised mortality rate. However, since 2006, this has coincided with a worsening of Indigenous cancer mortality rates. In 2017, for the first time, the Indigenous mortality rate from cancer was higher than for circulatory disease. Furthermore, the gap with non-Indigenous cancer mortality rates is widening.

Further research is required to understand the reasons for changes in the trends in circulatory disease and cancer mortality—the two leading causes of death among Indigenous Australians. The Aboriginal and Torres Strait Islander Health Performance Framework Report provides greater detail about the trends in the other leading causes of death and the factors that drive them (AHMAC 2017).

Reductions in smoking, and improved early detection and management of chronic disease, are playing a vital role in driving gradual improvements in health outcomes impacting on life expectancy. However, later diagnoses of cancer, comorbidities and the types of cancer affecting Indigenous Australians are likely to be contributing to lower cancer survival (AHMAC 2017). It is important to note that population health interventions, such as smoking reduction, have a long lead time before measurable impacts can be seen.

Daily smoking among Indigenous Australians aged 15 years and over has decreased from 41 per cent in 2012–13 to 37 per cent in 2018–19 (ABS 2019b). While this is encouraging, there can be a long lag time for lung cancer to emerge (up to 30 years). This means that smoking related deaths may continue to rise over the next decade before declining, when the longer term impact of smoking reduction may be realised (Lovett et al. 2017).

Between 2003 and 2011, the decrease in the burden from Indigenous smoking-related circulatory disease has coincided with an increase in the burden of smoking-related cancer and respiratory disease (AIHW 2016 as cited by Lovett et al. 2017).[44]

44 The trends in the burden of smoking-related diseases for Indigenous Australians have not been tested for statistical significance.

Data notes

New Indigenous population estimates based on the 2016 Census have been used to rebase the denominator for calculating mortality rates and the trajectory to the target. This potentially makes the Indigenous mortality rates over the period 1998 to 2006 less reliable than rates since 2006.

For more information see the Technical Appendix.

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Technical Appendix

Target trajectories

The purpose of the trajectories is to provide a guide as to whether the current trends are on track to achieving the targets within the target timeframes. Assessment of progress needs to take into account the limitations of both the trajectories and of the data sources used to measure outcomes.

The trajectories suggest an indicative direction of change needed to meet the target and do not attempt to provide an exact measure of predicted progress each year. This acknowledges that there are too many factors impacting upon progress in order to accurately predict when the expected change would occur over the period of the target.

Policy interventions can take a number of years to roll out and it can be many years before the impact upon outcomes can be measured. As such, the binary 'on track'/'not on track' determination is limited in conveying progress and should not be used in isolation. This is why Closing the Gap reports have provided other measures of progress to inform governments and the public.

Population estimates and projections

In July 2019 the Australian Bureau of Statistics (ABS) released Estimates and Projections, Aboriginal and Torres Strait Islander people 2006 to 2031 based on the 2016 Census. These new population estimates and projections have been used as denominators for calculating Indigenous statistics (and consequently non-Indigenous comparator statistics) for government reporting. The purpose of this change is to ensure that Indigenous population statistics more closely reflect the 2016 Indigenous Estimated Resident Population based on the 2016 Census. Previous estimates and projections had been based on the 2011 Census, and the Indigenous population has changed since that time. Consequently, statistics published in this report that rely on population estimates and projections are not comparable with previously published statistics.

This change affects child mortality, early childhood education enrolment and the age-standardised mortality rates used as a supporting indicator for the life expectancy target. Furthermore, this change has also required revisions to the trajectories for these targets in order to ensure consistency in the data sources for monitoring progress against the targets over time. As such previously published results for these targets are not comparable with those in this report.

The population estimates include 'backcast' population denominators to allow for time series analysis using a demographically consistent data source. These are population estimates going back in time, to better reflect the Indigenous population estimated from the 2016 Census counts of Indigenous Australians, adjusted for net undercount as measured by the Post Enumeration Survey. There are also projections for future years which will provide the denominators for the next five years of reporting until the estimates are updated again following the 2021 Census. These projections are also used for target trajectories and are produced using demographic assumptions on future levels of fertility, paternity, migration and life expectancy. These projections were compiled without an assumption of changes in Indigenous identification.

The ABS published these estimates and projections spanning the period 2006 to 2031 which covers the timeline for the current Closing the Gap targets. However, the ABS also provided additional backcast estimates for the period 1998 to 2006 to support analysis of mortality targets prior to the baseline years. The reliability of backcast population estimates tends to decrease the further away the time series moves from the Census upon which they are based. This potentially makes the Indigenous mortality rates over the period 1998 to 2006 less reliable than rates since 2006 and hence, rates prior to 2006 should be interpreted with caution.

The growth in the Indigenous population between the 2011 and 2016 Census counts reflects both demographic factors (births, deaths and migration) as well as other non-demographic factors including changes in the propensity to identify as Indigenous in the Census.

The ABS found that measuring the impact of changes in the propensity to identify is complex. Intercensal improvements in some outcomes appear to be a result of demographic and geographic population change, genuine progress and changes in propensity to identify. However, the way these factors contribute is not consistent across indicators (ABS 2018). Markham and Biddle (2017) also highlighted the potential for identification changes to confound changes in socioeconomic outcomes between the 2011 and 2016 Censuses, and urged caution in interpreting such changes.

This complexity suggests that where the data allow, analysis of variation in outcomes within the Indigenous population (such as by geography or by socioeconomic status) will help provide greater understanding of where improvements are most greatly needed. For example, in last year's report life expectancy at birth was analysed by remoteness and by socioeconomic status.

Other datasets that supply the numerators for the targets are also subject to data quality issues such as changes in identification of Indigenous status, lags in registrations and volatility caused by small numbers.

Confidence intervals and statistical significance

Confidence intervals (CIs) are used to indicate the reliability of an estimate. A CI is a specified interval, with the sample statistic at the centre, within which the corresponding population value can be said to lie with a given level of confidence (ABS 2013). CIs are calculated from the population estimate and its associated Standard Error. The CIs used in this report are at the 95 per cent level of probability (Figure 1).

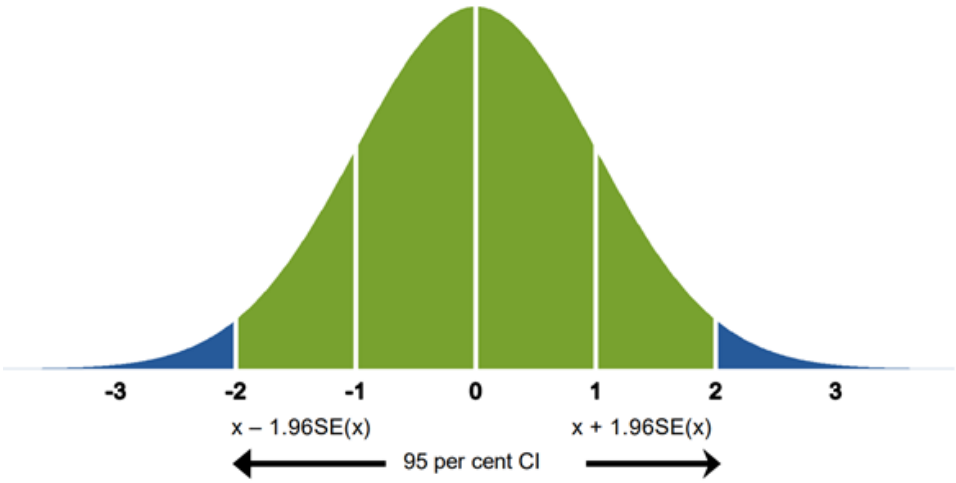
CIs can be used to test whether the results reported for two estimated proportions are statistically different. If the CIs for the results do not overlap, then there can be confidence that there is a statistically significant difference between the estimated proportions. In some scenarios where the CIs do overlap, the estimated proportions may yet be statistically significantly different.

The t-test is used to test whether changes in trends (including point estimates and gaps over time) are significantly different at the 5 per cent level of significance.

Per cent change in mortality rates in the Child Mortality and Life Expectancy chapters are derived through linear regression analysis, and tested at the 5 per cent level of significance.

Figure 1

Normal distribution with 95 per cent confidence intervals



It can be said with 95 per cent confidence that the population lies within the green area

Source: Productivity Commission 2019, Report on Government Services 2019 Statistical context.

Child mortality

Measurement of Indigenous child mortality rates is particularly susceptible to quality issues in the data sources used for the population (denominator) and the number of registered deaths (numerator).

The relatively small number of Indigenous child deaths is volatile from year to year. This can reflect real variations in the numbers of deaths, lags in the registration of deaths, and changes in Indigenous identification in the deaths data. Descriptions of these issues have been covered in past Closing the Gap reports.

The 2015 Closing the Gap Report explained that the 2012 Indigenous child mortality rate appeared to be uncharacteristically low. This likely reflected the unusually large number of Indigenous infant deaths that occurred in 2012, but were registered in 2013, leading to a likely understating of mortality rates in 2012 and an overstating of mortality rates in 2013.

The 2019 Closing the Gap Report explained that in 2015, Queensland included Indigenous status from the Medical Certificate of Cause of Death which led to an increase in the number of deaths identified as Indigenous. Although this was an improvement in data quality it nonetheless contributed to data volatility and thus caution is required in interpreting annual variation.

The population and deaths data sources are subject to different levels of Indigenous identification and both are impacted by lags in the registration of births and deaths.

As discussed above, the reliability of backcast population estimates tends to decrease the further away the time series moves from the Census upon which they are based. This potentially makes the Indigenous mortality rates over the period 1998 to the 2008 baseline less reliable than rates since 2008. This is of greater relevance with the change to using the 2016 Census-based population estimates. Further, there has also been uncharacteristically slow population growth in the Indigenous child population estimates between 2011 and 2018. Over the same period, the number of Indigenous child deaths stopped declining. As such, with no trend in the numerator or denominator, the mortality rates plateaued.

The slow population growth is (at least partly) attributable to slow or negative growth in Indigenous births registrations during this period. Birth registrations data is one of the data sources used to inform the population estimates, and it too is subject to changes in Indigenous identification as well as occasional lags in birth registrations.

The child mortality trajectory has also been revised to include the 2016 Census-based population estimates. The target end point has been revised to reflect the result needed to halve the gap (as measured at the 2008 baseline) added to the 2018 non-Indigenous child mortality rate (the latest available). The 2018 Indigenous child mortality rate is then presented for comparison against the revised target end point.

Because the target ceases with the 2018 data, the target end point is based on the actual non-Indigenous rate. In previous years, the target end point was based on the modelled non-Indigenous trajectory. As the target end point is now known, the Indigenous trajectory has been recast back to the 2008 baseline. Therefore, these findings are not comparable to previously published results. However, as foreshadowed in last year's report, the target was not met.

Early childhood education

For this report, previously published rates of enrolment in early childhood education have been revised due to the application of the new 2016 Census-based population estimates. This provides for a consistent data source to enable comparison of enrolment rates for 2016, 2017 and 2018.

Because of these revisions, including to the 2015 target baseline, the trajectory to the 95 per cent target benchmark has also been revised. This allows the revised enrolment rates to be compared with the trajectory for monitoring progress to achieve the target. Accordingly, all jurisdictions agreed to have their specific trajectories revised.

However, direct comparisons between 2015 data and subsequent years cannot be made. Whilst the method for deriving data for these measures remains unchanged from 2015, there have been changes to data collection methods to improve data quality. For the 2016 National Early Childhood Education and Care Collection (NECECC) the ABS:

- improved its data linkage approach to enhance the accuracy of child counts, resulting in a lower count of preschool enrolments;
- incorporated data from an expanded child identification strategy in the Child Care Management System (CCMS—an input to the NECECC), resulting in a higher count of preschool enrolments from the CCMS data.

Enrolment proportions may exceed 100 per cent for some jurisdictions due to the numerator and denominator being from different sources. The data are also subject to the inconsistent identification of Indigenous status across different data collections.

Year 12 attainment

The main data source used to assess progress against the Year 12 or equivalent attainment target is the ABS Census. While not directly comparable with Census data, the ABS National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) provides an alternative source of data for this target. This report draws Year 12 attainment data from the 2018–19 NATSIHS, while the previous 2019 report drew from the 2016 Census. This report has avoided making direct comparisons between the survey results and Census results due to the differences in methodology. Where change over time has been discussed in this report, comparisons have been made instead between the latest survey results and previous survey results.

While both the 2018–19 NATSIHS and the Census collect information on highest educational attainment, there are slight differences between the wording of the education questions in the NATSIHS non-remote survey, the NATSIHS remote survey and the Census. This may lead to subtle variations in the data.

Since most Census forms are self-completed by respondents, a small number of respondents may not complete the education questions correctly. Invalid or incomplete responses to school completion or qualification questions may result in being categorised as 'not-stated'. In the NATSIHS, all survey respondents aged over 15 years are assigned a level of highest educational attainment; if they are unable to identify their qualification level, they are categorised as 'level not determined'.

Other differences between Census and NATSIHS methodologies, which may lead to differences in education attainment data, have been highlighted in the Employment technical note below.

Employment

The main data sources used to assess progress against the employment target are the ABS National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) and Social Survey (NATSISS). While not directly comparable, the ABS Census provides an alternative source of data for this target. This report draws employment data from the 2018–19 NATSIHS, however, the previous 2019 report drew from the 2016 Census. This report has avoided drawing direct comparisons between the survey results and Census results due to the differences in methodology. Where change over time has been discussed in this report, comparisons have been made instead between the latest survey results and previous survey results.

Employment data and the 2018–19 NATSIHS

The 2018–19 NATSIHS collected information from respondents using trained ABS interviewers using a computer based questionnaire. Employment data from the NATSIHS is drawn from a reduced set of questions from the ABS monthly Labour Force Survey (LFS). The questions capture detailed information about working arrangements, job search activities and availability to start work, and are designed to produce reliable national estimates of key economic indicators, including the employment to population ratio, the unemployment rate and the labour force participation rate. All survey respondents aged 15 years and over are categorised as either Employed, Unemployed or Not in the Labour Force.

The overall coverage of the 2018–19 NATSIHS was approximately 33 per cent of Indigenous Australians. The final sample has been weighted to population benchmarks which align with the scope of the survey to account for under-coverage. The benchmarks are based on the most recently released Estimated Resident Population. Data from the NATSIHS are subject to sampling error, which limits more detailed analysis of employment data, such as by local areas, or population subgroups.

Employment data and the 2016 Census

The Census provides a rich snapshot of all people living in the country on Census night. It is the leading source of information for small population groups and areas, and allows for the analysis of employment data at a more detailed level.

Because most Census forms are self-completed by respondents, four questions are used to determine labour force status, to ascertain if a person is working, actively looking for work and available to start work. These questions are simpler than the set of questions in the NATSIHS, and may therefore return a different result. Respondents may not complete the employment questions correctly; incomplete or invalid responses will be given a labour force status of 'not stated'.

The Census aims to count everyone in Australia on Census night, so it is not subject to sampling error. However, it is subject to some level of undercount—that is, persons missed in the Census. The Census undercount varies across geographies and between different subgroups in the population. The net undercount for Indigenous people in 2016 was 17.5 per cent. Census data are not adjusted for the net undercount, and therefore data on Indigenous employment using the Census may be affected by the net undercount.

Life expectancy

The latest Indigenous life expectancy estimates were published in November 2018 and reported in last year's Closing the Gap Report. These estimates are updated every five years.

However, caution is required in comparing Indigenous life expectancy estimates over time, because of changing Indigenous identification rates across data collections, including the Census. These changes do not occur at the same rate across states and territories and socio-economic groups.

The jurisdiction which is least impacted by the identification issues noted above is the Northern Territory, where Indigenous status identification is most consistent over time.

Age-standardised mortality

Measurement of Indigenous age-standardised mortality rates is susceptible to quality issues in the data sources used for the population (denominator) and the number of registered deaths (numerator). The population and deaths data sources are subject to different levels of accuracy with regards to Indigenous identification and are also impacted by lags in the registration of births and deaths.

As discussed in the report, the reliability of backcast population estimates tends to decrease the further away the time series moves from the Census upon which they are based. This potentially makes the Indigenous mortality rates over the period 1998 to the 2006 baseline less reliable than rates since 2006.

Indigenous mortality data are also only reported for New South Wales, Queensland, South Australia, Western Australia and the Northern Territory. These five jurisdictions are considered to have adequate levels of Indigenous identification in the deaths data suitable to publish.

Age-standardised mortality trajectories have been developed specifically for New South Wales, Queensland, South Australia, and the Northern Territory, as well as a trajectory for the five jurisdictions combined. Western Australia did not agree to a trajectory when the original trajectories were set in 2010. However, time series analysis for these jurisdictions, including Western Australia, is also used to provide a measure of progress.

As with child mortality and early childhood education, the target trajectories for age-standardised mortality have also been revised to incorporate the 2016 Census-based population estimates and projections. Using the non-Indigenous mortality rates from 1998 to 2018, the non-Indigenous mortality rates are projected forward to 2031 to provide an end point for the target to close the gap. A straight line trajectory is drawn from the 2031 target year back to the 2006 Indigenous baseline mortality rate. This provides an Indigenous trajectory to the target to close the gap. Actual Indigenous data points are included from the baseline to the current year for monitoring progress against the trajectory.

The previous version of the trajectory drew upon non-Indigenous rates from 1998 to 2012. With the update to the trajectory for the 2016 Census-based population estimates, it was also timely to update the 2031 target end point to reflect recent trends in the non-Indigenous rates to 2018 (the latest available). This makes the target more accurate in the future, recognising the target is to close the gap by 2031.

Mortality trajectory setting is additionally challenging because the Indigenous population projections include an assumption of improving life expectancy, resulting in a larger projected population. This circularity poses challenges for measuring mortality in the years beyond the Census upon which the population projections are based.

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