

Indigenous reform 2010–11: Comparing performance across Australia

Report to the Council of Australian Governments

30 April 2012



Indigenous reform 2010–11: Comparing performance across Australia

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About the COAG Reform Council

The COAG Reform Council has been established by the Council of Australian Governments (COAG) as part of the arrangements for federal financial relations. The council is independent of individual governments and reports directly to COAG.

The COAG Reform Council's mission is to assist COAG to drive its reform agenda by strengthening public accountability of the performance of governments through independent and evidence-based monitoring, assessment and reporting.

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Australian Bureau of Statistics

Australian Institute of Health and Welfare

Australian Curriculum, Assessment and Reporting Authority

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30 April 2012

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Dear Prime Minister

On behalf of the COAG Reform Council, I am pleased to present our report *Indigenous Reform 2010–11: Comparing performance across Australia*.

This report has been prepared in accordance with the Intergovernmental Agreement on Federal Financial Relations, which requires the council to publish performance information and a comparative analysis of the performance of governments.

This is the council's third report on the National Indigenous Reform Agreement, which has six targets for governments to improve health, education and employment outcomes for Indigenous Australians.

I am pleased to report some good news on the Agreement's health-related targets. We have seen good early progress toward halving the gap in death rates between Indigenous and non-Indigenous children within a decade. However, overall death rates for Indigenous Australians will need to fall faster to close the gap with non-Indigenous death rates by 2031.

The news is not as good for the education-related targets. We report that nearly all States and Territories are on track to halve the gap in Reading and some are on track in Numeracy—though this is based on only modest improvements in student performance in NAPLAN testing. We have also seen some improvements in the rate at which Indigenous children stay on to enrol in Years 10 and 12, but attendance is not improving.

We cannot report on the early childhood development and employment-related outcomes this year.

Consistent with the council's performance reporting and public accountability role, the council will publicly release this report in June 2012. The council hopes that the findings and recommendations in this report assist COAG with its reform agenda.

Yours sincerely



Paul McClintock AO
Chairman

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Indigenous reform: Key findings 2010–11

Early progress in closing the gap in Indigenous death rates by 2031 is slow

- We can report Indigenous death rates between 1998 and 2010 for four jurisdictions—NSW, Queensland, South Australia and the Northern Territory.
- Indigenous death rates in Queensland and the Northern Territory have significantly decreased. In NSW and South Australia there has been no significant change.
- Only the Northern Territory is on track to close the gap in death rates by 2031 if the trend from 1998 to 2010 continues.

However, the gap is closing in Indigenous child death rates

- The Indigenous child death rate decreased from 252 per 100 000 children in 1998 to 203 per 100 000 children in 2010. This was much faster than the rate for non-Indigenous children which decreased from 113 per 100 000 to 95 per 100 000.
- The Indigenous child death rate, however, is still double the non-Indigenous rate.

Despite progress in halving the gap in literacy and numeracy by 2018, only a small proportion of Indigenous students reach the national minimum standard

- In 2011, 'progress points' for Reading were met in all year levels at the national level. Progress points for Numeracy were met at the national level in Years 3 and 5 but not in Years 7 and 9 (progress points are explained in chapter 4).
- Between 2008 and 2011 at the national level, there were significant increases in the proportion achieving at or above the minimum standard in Reading in Years 3 and 7, and in Numeracy in Years 3 and 5.
 - However, only Queensland and Western Australia in Reading and NSW and Queensland in Numeracy had significant increases in some year levels.
- The proportion of Indigenous students reaching the national minimum standard remains low, particularly in the Northern Territory and to a lesser extent in Western Australia. In most jurisdictions there has been no significant increase over four years.

Enrolment of Indigenous students in the later years of school is improving, but attendance is not

- In 2010, the national apparent retention rate of Indigenous students to Year 10 was 95.8% for Indigenous students—5.3 percentage points higher than in 2007—and to Year 12 it was 47.2%—4.3 percentage points higher than in 2007. The Year 12 figure was 32.2 percentage points lower than for non-Indigenous students.
- School attendance rates for Indigenous students in Year 10 got worse in every State and Territory between 2007 and 2010.
- Attendance falls most steeply in Years 7 and 8—the first years of high school—and is especially steep in the Northern Territory and Western Australia.

Overview

This is the council's third annual report on progress against indicators in the National Indigenous Reform Agreement. The National Agreement sets out the policy framework and six targets for Commonwealth, State and Territory governments to 'Close the Gap' in Indigenous disadvantage in health, education and employment.

The COAG Reform Council assesses and publicly reports on the performance of governments against the agreed targets and performance indicators of the National Agreement, with a focus on change over time. Of the six targets in the National Agreement, this year the council can only report on **four targets** (see Box 1 below and also Figure 1.1).

Box 1 National Indigenous Reform Agreement targets

In this report

- Close the **life expectancy** gap within a generation—this year we report on the target to close the gap in death rates by 2031.
- Halve the gap in **death rates for Indigenous children under five** within a decade.
- Halve the gap for **Indigenous students in reading, writing and numeracy** within a decade.
- Halve the gap for **Indigenous 20–24 year olds in Year 12 or equivalent attainment** rates by 2020—we report proxy indicators: apparent retention to Year 10 and Year 12, and school attendance.

Not in this report

- Ensure all Indigenous four year olds in remote communities have access to quality early childhood education within five years.
- Halve the gap in employment outcomes between Indigenous and non-Indigenous Australians within a decade.

These targets are long-term commitments and it is still early days in working to meet them. There are also data quality issues for some indicators. As such, caution should be shown in drawing strong conclusions. See Appendix B for details of data quality and interpretation issues and the data quality statements in the statistical supplement.

Are we closing the gap on Indigenous health?

On the health-related targets:

- we report on death rates, cause of death and hospitalisation rates by principal diagnosis
- we report Indigenous child death rates, hospitalisation rates, low birth weight babies, tobacco smoking during pregnancy and attendance at antenatal care for the target to halve the gap in death rates for Indigenous children under five within a decade.

Early progress is slow on the target to close the gap in Indigenous death rates

Until the 2010–2012 life expectancy figures are available for the 2013–14 report, annual death rates provide a proxy target for Indigenous life expectancy. We can report Indigenous death rates between 1998 and 2010 for four jurisdictions—NSW, Queensland, South Australia and the Northern Territory. Going back to 1998 allows us to more reliably observe the trend in death rates than if we go back only to the baseline year, 2006.

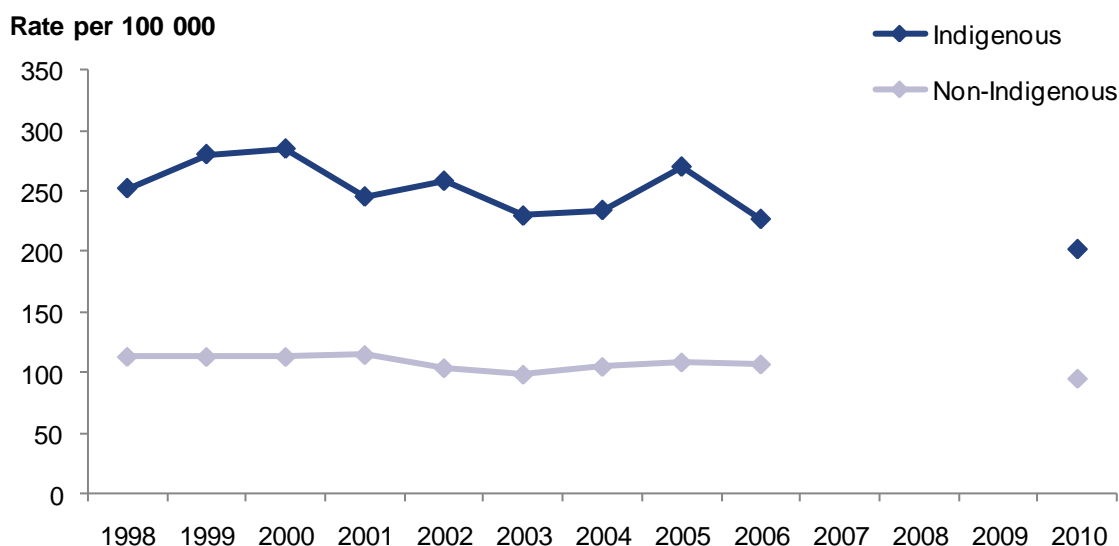
From 1998 to 2010, in NSW and South Australia there has been no significant change in Indigenous death rates. However, Indigenous death rates in Queensland and the Northern Territory have significantly decreased.

If these trends from 1998 to 2010 continue, the Northern Territory is the only jurisdiction of the four where early progress is on track to close the gap by 2031. This does not mean the other jurisdictions are off track—the reduction in death rates may accelerate with specific policy initiatives to reduce death rates.

However, Indigenous child death rates *are* decreasing

The Indigenous child death rate decreased from 252 per 100 000 children in 1998 to 203 per 100 000 children in 2010. This was a faster fall than the rate for non-Indigenous children which decreased from 113 per 100 000 to 95 per 100 000—which means the gap is beginning to close.

Figure 1 Child death rate, by Indigenous status, NSW, Queensland, Western Australia, South Australia and Northern Territory combined, 1998–2010



Notes:

1. Children aged 0–4 years.
2. Data are for NSW, Queensland, Western Australia, South Australia and the Northern Territory combined.
3. A combined total is not available for 2007 to 2009 due to data quality issues in Western Australia.
4. See statistical supplement, table NIRA 9.1 for data.

Source: AIHW analysis of National Mortality Database; ABS (unpublished) Perinatal Deaths, Australia, various years; ABS (unpublished) Births, Australia, various years; ABS (unpublished) Deaths, Australia, various years.

There is also some good news on other indicators related to child mortality.

The proportion of Indigenous mothers who smoked during pregnancy, which can be harmful to the foetus and infant, decreased between 2007 and 2009 in all jurisdictions except NSW and Queensland. The rate of babies born to Indigenous mothers who were low birth weight decreased nationally from 2007 to 2009.

Are we closing the gap on Indigenous education?

On the education-related targets:

- we report progress on halving the gap for Indigenous students in reading and numeracy within a decade
- we report on two proxy performance indicators of school attendance and retention rates to Year 10 and Year 12 in place of reporting on Year 12 or equivalent attainment.

Using these indicators, the overall picture for closing the gap on Indigenous educational disadvantage is not as promising as for health.

Some literacy and numeracy gaps may be closing, but rates of Indigenous achievement at the minimum standard are low

A student's success in school and transition to work or study is strongly related to their literacy and numeracy achievement.

COAG has set a target to halve the gap for Indigenous children in reading and numeracy within a decade. There are agreed targets and 'trajectories'—which show a path to the target—for Indigenous student achievement in NAPLAN in each State and Territory. 'Progress points' are where a jurisdiction could expect to be each year on the path to the target.

We can see some progress in halving the gap in reading and numeracy—particularly in the earlier years of testing—but actual achievement of the minimum standard remains low for Indigenous students.

Nationally in 2011, Reading progress points were met in all year levels and Numeracy progress points were met in Years 3 and 5 but not in Years 7 and 9.

Nationally between 2008 and 2011, there were significant increases in the proportion achieving at or above the national minimum standard in Reading in Years 3 and 7, and in Numeracy in Years 3 and 5.

- However, in Reading, only Queensland and Western Australia had significant increases in actual achievement in some year levels—all other jurisdictions either had no significant change or significant *decreases* in achievement in all Year levels.
- And rates of achievement at the national minimum standard remain low, particularly in the Northern Territory and to a lesser extent in Western Australia, and in most jurisdictions there has been no significant increase over four years.

There are improvements in the proportions of Indigenous students staying enrolled in later years, but school attendance is not improving

While we cannot report the proportion of Indigenous 20–24 year olds having attained at least Year 12 or equivalent, we can report on two steps towards Year 12 attainment:

- the rate of Indigenous students staying in school to Year 10 and Year 12
- school attendance rates from Years 1 to 10 in government schools.

These proxy indicators for Year 12 or equivalent attainment do not paint a promising picture either.

There is an increased proportion of Indigenous students staying on to enrol in Year 10 and 12 between 2007 and 2010, but attendance rates are declining through the later years of schooling.

While nationally a higher proportion of Indigenous students are staying on to enrol in Year 12, some States and Territories do not match this picture. The retention rate to Year 12 has declined in Victoria and the Northern Territory but improved in NSW, Queensland, Western Australia and South Australia.

And even though Indigenous student retention is improving in some jurisdictions, school attendance is not improving. As Table 2 shows, attendance rates for Indigenous students in Year 10 went backward in every State and Territory between 2007 and 2010.

Table 2 Attendance rates for Indigenous students, Year 10, government schools, by State and Territory, 2007 to 2010, per cent

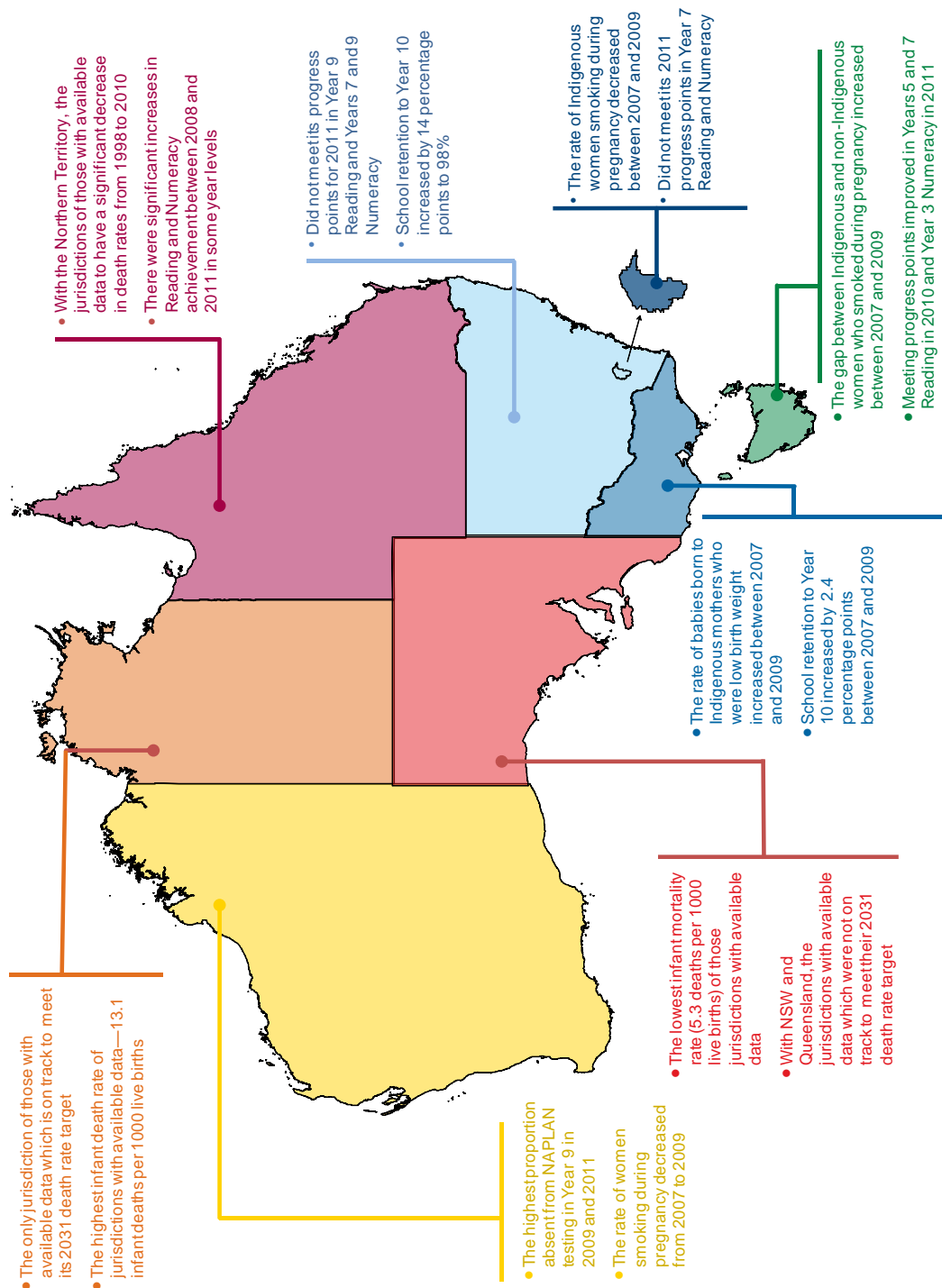
	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
2007	81	83	78	64	75	83	81	69
2008	81	82	76	64	70	81	80	69
2009	80	81	76	64	69	78	75	67
2010	78	80	77	62	70	82	72	61

Notes:

1. All attendance rates are reported in whole numbers.
2. No national average is available.
3. See statistical supplement, tables NIRA 20.1 and NIRA 20.4, statistical supplement to the 2009-10 report, table NIRA 20.1 and MCEETYA (2007) table 37.

Source: ACARA (unpublished), MCEEDYA (2008 and 2007) National Report on Schooling in Australia.

Figure 2 Key findings for each State and Territory



Recommendations

Box 2 Recommendation 1

The COAG Reform Council recommends that COAG:

- **note** that progress is being made to halve the gap in death rates between Indigenous and non-Indigenous children within a decade
- **note** that early progress is slow to close the gap in Indigenous death rates, with projections showing that only the Northern Territory is on track to meet its 2031 target based on trends since 1998
- **note** that there has been little improvement in Indigenous students' performance in:
 - NAPLAN testing
 - attendance at school, especially in the later years.

Box 3 Recommendation 2

The COAG Reform Council recommends that COAG:

- **note** that, for some existing National Partnerships, we cannot link activities or government performance to the objectives of the related National Agreement.
- **agree** that activities under future National Partnerships covered by National Agreements should clearly link to the objectives of the related National Agreement.

Chapter 1. About this report

1.1 National Indigenous Reform Agreement

In February 2011, COAG reaffirmed its commitment to Closing the Gap in Indigenous disadvantage, with its inclusion as one of the ‘five themes of strategic importance that lie at the intersection of jurisdictional responsibilities’ (COAG 2011c, p 1).

Under the National Indigenous Reform Agreement, COAG committed to work together with Indigenous Australians, and the broader community, to achieve the ambitious target of Closing the Gap across six key areas—life expectancy, child mortality, access to early childhood education, numeracy and literacy, educational attainment and economic participation. The six targets are to:

1. close the life expectancy gap within a generation
2. halve the gap in mortality rates for Indigenous children under five within a decade
3. ensure all Indigenous four year olds in remote communities have access to early childhood education within five years
4. halve the gap for Indigenous students in reading, writing and numeracy within a decade
5. halve the gap for Indigenous 20 to 24 year olds in Year 12 attainment or equivalent attainment rates by 2020
6. halve the gap in employment outcomes between Indigenous and non-Indigenous Australians within a decade.

COAG has agreed six targets and 27 performance indicators against these targets. The difference between Indigenous and non-Indigenous outcomes on these indicators, as well as agreed trajectories for each target, are used to help assess progress towards the Closing the Gap targets (COAG 2011c, p. 8). Figure 1.1 shows the relationships between the targets and indicators.

Throughout the report, we use the terms Indigenous Australians and Indigenous people to refer to Aboriginal and Torres Strait Islander people, the first nations of Australia.

1.2 How we report on performance

Each year, the COAG Reform Council (the council) assesses and publicly reports on the performance of governments against the targets and indicators of the National Indigenous Reform Agreement. We report to COAG directly and are independent of individual governments.

The 2010–11 report is our third annual report on the National Indigenous Reform Agreement. All three reports are available on our website at www.coagreformcouncil.gov.au.

Figure 1.1 Structure of the National Indigenous Reform Agreement

Targets	Indicators
Halve the gap in employment outcomes between Indigenous and non-Indigenous Australians within a decade	Employment to population ratio, for 15 to 64 year olds
	Unemployment rate
	Labour force participation rate
	CDEP participants and off-CDEP job placement
	Three-month employment outcomes (post-program monitoring)
	Indigenous 18 to 24 year olds engaged in full-time employment, education or training at or above a Certificate III
	Indigenous 20 to 64 year olds with or working towards post-school qualifications in Certificate III or above
Halve the gap for Indigenous 20–24 year olds in Year 12 attainment or equivalent attainment rates by 2020	Proportion of 20 to 24 year olds having attained at least a Year 12 or equivalent or Australian Qualification Framework Certificate II
	Apparent retention rates from Year 7/8 to Year 10 and Year 12
	Attendance rates Year 1 to Year 10
Halve the gap for Indigenous students in reading, writing and numeracy within a decade	Percentage of students at or above the national minimum standard in reading, writing and numeracy for Years 3, 5, 7 and 9
	Rates of participation in NAPLAN reading, writing and numeracy tests for Years 3, 5, 7 and 9
Ensure all Indigenous four year olds in remote communities have access to early childhood education within five years	The proportion of Indigenous children (by geographic location) who are enrolled in (and attending) a preschool program in the year before formal schooling
Halve the gap in mortality rates for Indigenous children under five within a decade	Child under five mortality rate (and excess deaths)
	Mortality rates (and excess deaths) by leading causes: <ul style="list-style-type: none"> • Perinatal • Infant • 1 to 4 years • 0 to 4 years
	Child under five hospitalisation rates by principal diagnosis
	Proportion of babies born of low birthweight
	Tobacco smoking during pregnancy
	Antenatal care
Close the life expectancy gap within a generation	Estimated life expectancy at birth
	Mortality rate (and excess deaths) by leading causes
	Hospitalisation rates by principal diagnosis
	Rates of current daily smokers
	Average daily alcohol consumption and associated risk level
	Levels of obesity—body mass index
	Level of physical activity
	Access to healthcare compared to need
	We report on the indicator this year
	We do not report on the indicator this year
	We cannot report on the indicator this year

Source: COAG (2011c) National Indigenous Reform Agreement (as revised 13 February 2011).

Treatment of data

We recognise that some of the data we report may look out of date. We use the best data that are available and approved for use in our reports by governments.

There are a number of issues associated with using these data for comparing the performance of jurisdictions. Appendix B explains these issues in more detail, and we provide notes against each indicator as required throughout the report.

The main aspects of data quality to consider are:

- All data derived from surveys have a certain amount of error, so sample survey data presented in this report consider relative standard errors and confidence intervals.
- Where possible, analysis of change over time or between jurisdictions has been statistically tested for significance. We only use the word 'significant' in its statistical context.
- Some adjustments or caveats are provided when reporting change over time or between jurisdictions with small populations.
- Some administrative data may not be comparable over time or between jurisdictions.
- The data quality of statistics about Indigenous Australians may differ across jurisdictions.

What is a 'significant difference' or a 'significant change'?

In this report, the word 'significant' has a specific statistical meaning. This meaning applies to data collected using surveys. Survey data contain a certain degree of error, because a survey will only include a sample of a population rather than the total population. Surveying just a sample of a population introduces the risk that results might not accurately reflect the population as a whole, but simply reflect who is included in the sample.

In statistics, 'significant' differences are those which are 'real' and unlikely to have occurred by chance. It does not necessarily mean 'significant' in the everyday sense of the word. In some cases, apparently small differences between numbers can be statistically 'significant'. In other cases, we might not be able to describe two numbers that look very different as being 'significantly different'.

The way that 'statistical significance' is determined is explained further in Appendix B.

1.3 Reporting on performance in 2010–11

What we report this year

This report focuses on assessing progress over time and identifying trends in reducing or closing the gap between Indigenous and non-Indigenous Australians. Reporting is limited to those performance indicators where there are reliable data available.

In this report, for some of the indicators we have three or four years of time series data. For some indicators we have used data from before the baseline to show progress in the context of longer term trends.

Of the six targets and 27 indicators in the National Agreement, this year the council can only report against four targets and eleven indicators of progress towards those targets. This year we report on death rates, child health, literacy and numeracy and education.

What we do not report this year

We do not report data on the employment target. Data for the headline indicators of the employment to population ratio, the unemployment rate and the labour force participation rate are available from the five-yearly Census and from surveys conducted on a three-yearly basis. However, Census data are considered to be the most reliable. Census data for these indicators will be available in 2012 and will be reported in the 2011-12 performance report.

Similarly, the two indicators, 18 to 24 year olds engagement in full time employment, education or training at or above a Certificate III and 20 to 64 year olds with or working towards post school qualifications in Certificate III or above, also rely on Census data.

We do not report CDEP participants and post-employment outcomes as they do not support a robust comparative analysis.

There are now two measures for the target that Indigenous four year olds in remote communities are enrolled in and attending a preschool program—one each for enrolment and attendance. Data are not available from the 2010 Early Childhood Education and Care collection. More comprehensive data will be available in 2012 for the 2012-13 report.

The statistical supplement contains all the data we use in the report, as well as the data that were available but we did not include in the report.

Box 1.1 Have we used the most recent data?

This report is for the 2010–11 year, though much of the data are from earlier than this.

The data we report are collated and provided to us by the Steering Committee for the Review of Government Service Provision. The data reported are always the most recent that were available to the Steering Committee in time to provide to us for this report.

In some cases, the data may look out of date. This is partly explained by the time that can be needed to check and clean large data sets. The council has previously highlighted the importance of data being as recent as possible.

In some instances, more recent data may be published elsewhere which were not available in time for inclusion in this report. The websites of relevant data agencies, such as the Australian Bureau of Statistics and the Australian Institute of Health and Welfare, can be checked for more up to date data.

Reporting changes in performance over time

The main focus of this report is assessing whether the gap is closing over time. Wherever possible, change is statistically tested. Data for death rates and most NAPLAN data have been statistically tested.

However, for other data, and the change in the NAPLAN gap, statistical testing is either inappropriate or has not yet been developed. Therefore, change data here are descriptive and are indicative only.

As the Indigenous population is small, some indicators naturally fluctuate over time. This makes identification of trends difficult, particularly over short time periods. In addition, for jurisdictions with small numbers of Indigenous people, data may be too volatile to report.

We recommend that readers bear these issues in mind when interpreting these results.

1.4 Review of the performance reporting framework

In February 2011, COAG agreed to review the six National Agreements under the Intergovernmental Agreement on Federal Financial Relations, including the National Indigenous Reform Agreement (COAG 2011b).

This review was conducted between May and August 2011. The final report is yet to be endorsed by COAG.

As the review is still to be approved and implemented, the council has chosen not to make any further recommendations on improving the current performance reporting framework in this report.

1.5 Outline of report

Chapter 2 assesses death rates and hospitalisations.

Chapter 3 assesses child deaths.

Chapter 4 assesses literacy and numeracy achievement.

Chapter 5 assesses Year 12 attainment.

Chapter 6 discusses the council's role in reporting on the contribution of National Partnerships to the National Agreement outcomes.

There are also six appendices.

- Appendix A summarises contextual factors among the States and Territories relevant to understanding performance information.
- Appendix B discusses our treatment of data issues.
- Appendix C summarises roles and responsibilities of governments under the Agreement.
- Appendix D lists the acronyms and abbreviations used in the report.
- Appendix E lists the references used.
- Appendix F lists the tables, figures and boxes used in the report.

The statistical supplement includes the performance data provided by the Steering Committee for the Review of Government Service Provision, including data quality statements and any additional data we have used.

Chapter 2. Life expectancy

At a glance

Early progress is slow on meeting the proxy target of closing the gap in Indigenous death rates

Life expectancy data are not available annually so we report progress toward the proxy target of closing the gap in Indigenous death rates.

- In 2010, in the five jurisdictions we can report—NSW, Queensland, Western Australia, South Australia and the Northern Territory combined—there were 1133.2 deaths per 100 000 Indigenous persons. This death rate was nearly twice that of non-Indigenous Australians.
- Over the 12 years from 1998 to 2010, of the four States and Territory on which we have reliable data:
 - The number of Indigenous deaths per 100 000 decreased significantly in Queensland and the Northern Territory.
 - However, the death rate did not change significantly in NSW or South Australia.
- Of these jurisdictions we can report on individually, only the Northern Territory is on track to close this gap by 2031 if the trend from 1998 to 2010 continues.

About this chapter

COAG has committed to the target of closing the gap in life expectancy within a generation, that is, 25 years. The baseline period is 2005–2007 and the target year is 2031.

In 2005–07 the life expectancy for an Indigenous male was 67.2 years and for an Indigenous female 72.9 years—a gap of 11.5 years for males and 9.7 years for females.

Many factors have resulted in Australians living longer, including medical advances, social and environmental factors and individual factors such as changes in smoking, drinking, nutrition and exercise behaviours.

How do we report on life expectancy?

Two indicators are reported in this chapter—death rates and hospitalisation rates. Life expectancy data are not available annually. As a result, COAG has set a proxy target of closing the gap between Indigenous and non-Indigenous death rates. COAG also agreed trajectories, or paths, to meet this proxy target. The death rate is the number of deaths in a population per 100 000 people in that population.

Death rates are closely related to life expectancy. Life expectancy is the expected years of life of a newborn infant if they were subject to current death rates over their life course. Death rates, therefore, are a good proxy for life expectancy. The next available life expectancy data will be for the 2010–2012 period and will be reported in the 2013–14 report.

Reliable annual deaths data are only available for NSW, Queensland, Western Australia, South Australia and the Northern Territory (except Western Australia between 2007 and 2009, see below).

The baseline for death rates is 2006. In addition to baseline and current (2010) death rates, we report data from 1998 to establish more reliable trends. We also report on progress toward closing the gap in death rates.

The second indicator is hospitalisations. The hospitalisation rate is the number of hospitalisations per 1000 people. The interpretation of hospitalisation rates is difficult and data are only briefly reported. For a full definition of hospitalisations see Appendix B. For complete data see the statistical supplement, Tables NIRA 3.1 to NIRA 3.7.

The source of data for these indicators is the Australian Bureau of Statistics Death Registrations Database, the Australian Institute of Health and Welfare's National Mortality Database and its National Hospital Morbidity Database.

What do I need to know about data quality?

Due to a data quality issue, deaths data are currently not available for Western Australia from 2007 to 2009. As a result data for these years are reported only for NSW, Queensland, South Australia and the Northern Territory—the jurisdictions on which we have reliable data. A combined total figure is not produced for 2007 to 2009. This means that data for Western Australia and the combined States and Territories are currently available up to 2006 and then from 2010 (see Appendix B).

2.2 Closing the gap in death rates within a generation

What changed between 2006 and 2010?

The 2006 baseline death rate, for Indigenous persons in NSW, Queensland, Western Australia, South Australia and the Northern Territory combined, was 1160.9 deaths per 100 000 persons. In 2010, the death rate was 1133.2 deaths of Indigenous people per 100 000 persons. Both were nearly twice the death rate for non-Indigenous Australians.

There were no significant changes in Indigenous death rates between 2006 and 2010 in any of the five States and Territory with available data.

This does not necessarily mean there has been no progress as death rates are slow to change. Five years of data may not be long enough to see any differences.

What changed between 1998 and 2010?

Historical data from 1998 onward were used to establish more reliable trends by reducing the effect of random variation in the data series. The choice of a starting point for the series could affect the trend identified but, in general, the longer the time series, the lower the chance of this happening.

The target rate for NSW, Queensland, Western Australia, South Australia and the Northern Territory combined, in 2031, is 315.7 deaths per 100 000. Each of the States and Territory with available data has an agreed target and trajectory except for Western Australia.

Table 2.1 shows:

- the 1998 and 2010 death rates for Indigenous and non-Indigenous people
- the annual average rate of change from 1998 to 2010 and the significance of this change.

For Indigenous Australians, there were only significant decreases in death rates from 1998 to 2010 in Queensland and the Northern Territory. In contrast there were significant decreases in death rates in all jurisdictions for non-Indigenous Australians. The most notable change is a very large average annual decrease in the Northern Territory for Indigenous people compared to non-Indigenous people.

Table 2.1 Age-standardised death rates, by Indigenous status, by selected States and Territories, 1998 and 2010

	1998 death rate (rate per 100 000)	2010 death rate (rate per 100 000)	Average annual change 1998– 2010 (rate per 100 000)	Significance of annual average change between 1998 to 2010
Indigenous persons				
NSW	920.0	956.4	1.9	—
Qld	1309.9	1095.6	-18.0	▼
SA	1258.9	1181.3	-10.4	—
NT	1933.2	1432.6	-45.9	▼
Non-Indigenous persons				
NSW	682.7	582.2	-7.3	▼
Qld	714.4	579.9	-10.8	▼
SA	716.5	619.8	-7.0	▼
NT	764.1	584.3	-9.3	▼

Notes:

1. ▼ = Significant decrease. — = No significant change.
2. Due to data quality issues, data for Western Australia are not shown.
3. See statistical supplement, Table NIRA 2.10, for data and technical notes.

Source: AIHW analysis of National Mortality Database.

Did the actual 2010 rates meet the projected 2010 rates?

Projected rates are annual points along agreed trajectories leading to 2031 targets. They are points on a straight line from the baseline (2006) to target (2031). However, death rates are a slow moving indicator and increased effort may not show for some years. As a result, improvement is unlikely to follow a straight line. Whether a jurisdiction meets their annual point on the trajectory, therefore, is only a rough indication of how well a jurisdiction is travelling toward its target.

The projected rates for any year are single numbers. However, projecting into the future involves some degree of uncertainty. This uncertainty is accounted for by using a range of rates in reporting progress to the 2031 target.

For example, for NSW the 2010 projected death rate for Indigenous persons was 836 deaths per 100 000. However, in reporting the Indigenous death rates for NSW, we show the 2010 point on the trajectory as a range between 745 and 932 deaths per 100 000.

If the actual result falls within the projected range (or is below it) then that jurisdiction is on track for that year and on track to meet its long term target. In the example for NSW, the actual 2010 rate for Indigenous persons was 956 per 100 000. This does not lie within the range of 745–932 per 100 000 so NSW is not on track to meet its 2031 target.

Table 2.2 shows the projected range for 2010 and the actual 2010 result for both Indigenous and non-Indigenous persons for all four States and Territory with available data. Whether or not the 2010 rate fell within the projected range is indicated by green shading for within the range and orange for outside it.

Based on this approach, only the Northern Territory is on track to close the gap in death rates by 2031.

The last two columns in table 2.2 give the gap, or rate difference, between Indigenous and non-Indigenous death rates in 2010. The gap also has uncertainty attached to it as it is the difference between the Indigenous and non-Indigenous ranges. In Queensland and the Northern Territory the actual gap was in the expected range. For NSW it was the same as the expected range. But in South Australia, the gap was not in the expected range suggesting that performance was worse than the projection.

Table 2.2 Age-standardised death rates, by Indigenous status, by selected States and Territories, projected and actual, whether actual within projected, 2010

	Indigenous deaths per 100 000		Non-Indigenous deaths per 100 000		Gap between Indigenous and non-Indigenous	
	Projected 2010 range	Actual 2010 rate	Projected 2010 range	Actual 2010 rate	Projected 2010 range	Actual 2010 rate
NSW	745–932	956	567–578	582	162–374	374
Qld	850–1046	1096	524–538	580	318–522	516
SA	683–1053	1181	552–573	620	137–497	562
NT	1241–1590	1433	530–661	584	640–1010	848

Notes:

1. The projected range is the variability band around the projected death rate.
2. The gap is the difference between Indigenous and non-Indigenous rates.
3. Green shading—2010 actual rate was within projected variability band.
4. Orange shading—2010 actual rate was not within projected variability band.
5. Due to data quality issues, data for Western Australia are not shown (see Appendix B).
6. See statistical supplement, Table NIRA 2.10, for data and technical notes.

Source: AIHW analysis of National Mortality Database.

What were the rates and projections between 1998 and 2031?

It is helpful to compare Indigenous and non-Indigenous death rates over a long time period to establish more reliable trends. Figures 2.1 to 2.4 present death rates for NSW, Queensland, South Australia and the Northern Territory. These graphs show:

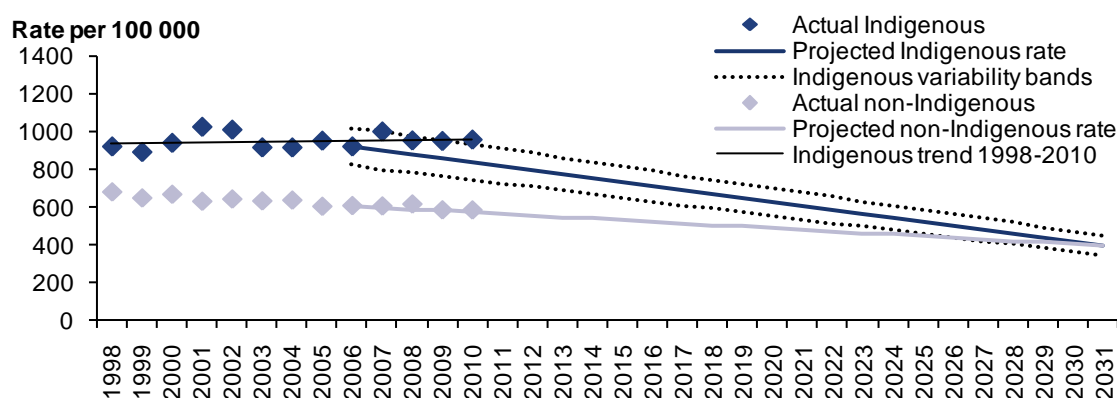
- actual data from 1998 to 2010 for Indigenous and non-Indigenous persons (dark blue and light blue diamonds)
- a trend line from 1998 to 2010 for Indigenous persons only (thin black line)
- the 2031 target (end point of lines)
- the projection from 2006 to 2031 for Indigenous and non-Indigenous persons (dark blue and light blue lines)
- variability bands on either side of the projection for Indigenous persons from 2006 to 2031 (dashed lines)
- the actual and projected size of the gap from 1998 to 2031 (difference between dark blue and light blue lines).

When 1998–2010 trend lines are compared to 2006–2031 projections, they clearly show that, in some States and Territories, progress must speed up in order to meet the 2031 target.

In **New South Wales** (see Figure 2.1):

- Death rates were lowest in NSW, but they did not significantly change from 1998 to 2010.
- Based on the trend line from 1998 to 2010, NSW will not meet its 2031 target unless Indigenous death rates begin to fall faster.

Figure 2.1 Age-standardised death rate per 100 000, actual and projected rates, by Indigenous status, NSW, 1998–2031



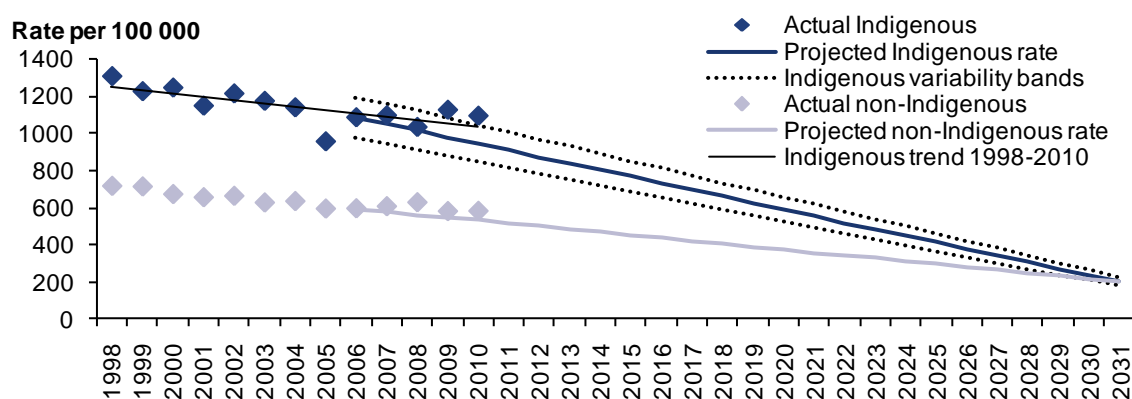
1. See statistical supplement, Table NIRA 2.10, for data and technical notes.

Source: AIHW analysis of National Mortality Database.

In **Queensland** (see Figure 2.2):

- From 1998 to 2010, Indigenous death rates significantly decreased by an average annual rate of 18.0 deaths per 100 000.
- Based on the trend line from 1998 to 2010, Queensland will not meet its 2031 target unless Indigenous death rates begin to fall faster.

Figure 2.2 Age-standardised death rate per 100 000, actual and projected rates, by Indigenous status, Queensland, 1998–2031



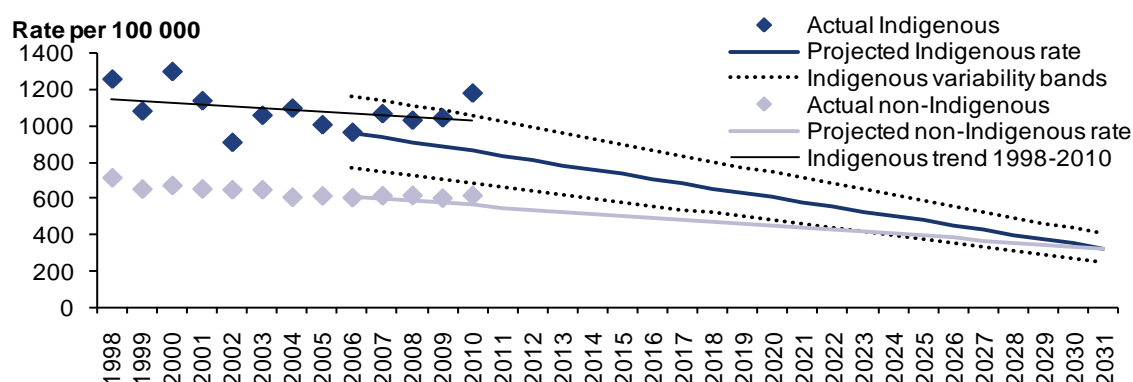
1. See statistical supplement, Table NIRA 2.10, for data and technical notes.

Source: AIHW analysis of National Mortality Database.

In **South Australia** (see Figure 2.3):

- Death rates did not significantly change from 1998 to 2010.
- Based on the trend line from 1998 to 2010, South Australia will not meet its 2031 target unless Indigenous death rates begin to fall faster.

Figure 2.3 Age-standardised death rate per 100 000, actual and projected rates, by Indigenous status, South Australia, 1998–2031



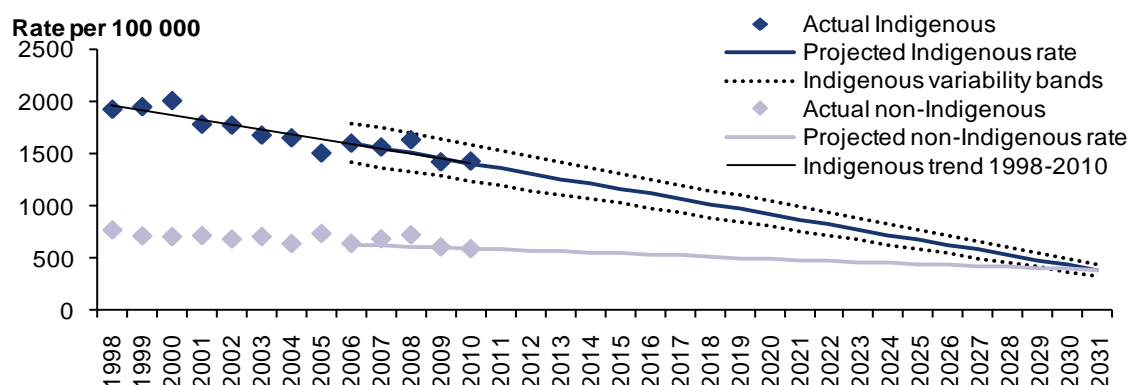
1. See statistical supplement, Table NIRA 2.10, for data and technical notes.

Source: AIHW analysis of National Mortality Database.

In the **Northern Territory** (see Figure 2.4):

- Indigenous death rates significantly decreased by an average annual rate of 45.9 deaths per 100 000 between 1998 and 2010.
- Based on the trend line from 1998 to 2010, the Northern Territory is the only jurisdiction which is on track to meet its 2031 target.

Figure 2.4 Age-standardised death rate per 100 000, actual and projected rates, by Indigenous status, Northern Territory, 1998–2031



Notes:

1. A different scale to Figures 2.1, 2.2 and 2.3 is used.

2. See statistical supplement, Table NIRA 2.10, for data and technical notes.

Source: AIHW analysis of National Mortality Database.

2.3 Cause of death

What changed in causes of death between 2006 and 2009?

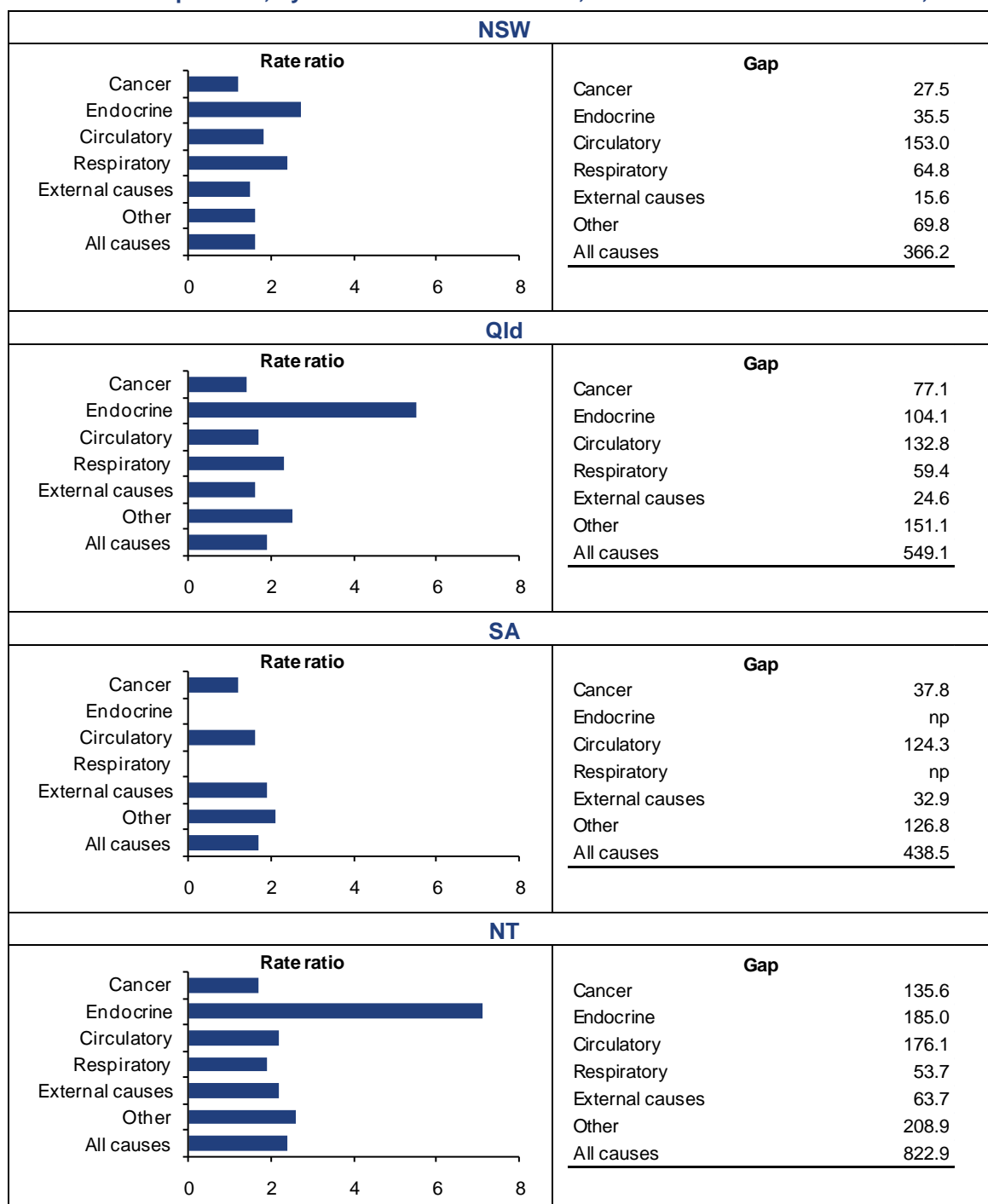
There were no significant changes in any of the selected causes of death rates for Indigenous people over the period, 2006 to 2009 in NSW, Queensland, South Australia and the Northern Territory (see statistical supplement, Tables NIRA 2.1 to NIRA 2.4 for data). In other words, Indigenous Australians continued to die of the same causes at approximately the same rates. However, this is a short period of time for an indicator that changes slowly.

What was the gap in death rates between Indigenous and non-Indigenous people in 2009 by causes of death?

In the following points data for rates and gaps for 2009 are shown (see Figure 2.5).

- **Circulatory diseases** (eg heart attack, stroke). In 2009, Indigenous rates of circulatory disease were around twice as high as non-Indigenous rates in each of the four jurisdictions with reliable data. These differences were significant in all four jurisdictions.
- **Cancers**. Indigenous death rates for cancer were higher than non-Indigenous death rates for cancer in the four jurisdictions but these gaps were only significant in Queensland (1.4 times higher) and the Northern Territory (1.7 times higher).
- **External causes** (eg accidents, suicide, assault). Indigenous death rates for external causes were higher than non-Indigenous death rates in the four jurisdictions but these gaps were only significant in Queensland (1.6 times higher than non-Indigenous people) and the Northern Territory (2.2 times higher).
- **Respiratory diseases** (eg pneumonia, asthma, bronchitis). In 2009, the gap between Indigenous and non-Indigenous death rates was only significant in NSW and Queensland and the Indigenous rate was over twice as high as the non-Indigenous rate in these jurisdictions.
- **Endocrine, metabolic and nutritional disorders** (eg diabetes). The gap between Indigenous and non-Indigenous people was significant in NSW, Queensland and the Northern Territory. There were some very large differences in these rates between Indigenous and non-Indigenous people. In the Northern Territory, Indigenous Australians were seven times as likely to die of endocrine and related disorders than non-Indigenous people. In Queensland it was nearly six times and in NSW it was nearly three times.

Figure 2.5 Age-standardised rate ratio and gap, Indigenous and non-Indigenous persons, by selected causes of death, selected States and Territories, 2009



Notes:

1. The rate ratio is the Indigenous rate divided by the other Australian rate. The gap is the Indigenous rate minus other Australian rate. It is also known as the rate difference.
2. In South Australia the endocrine and respiratory causes of death are not published due to small numbers. These causes of death are included in the total South Australia figure.
3. Categories are ordered by ICD-10 chapter. For more information see Appendix B.
4. See statistical supplement, Table NIRA 2.1, for data and technical notes.

Source: ABS (unpublished) Causes of Death, Australia, 2009.

2.4 Hospitalisation rates

What does hospitalisation data tell us about life expectancy?

Hospitalisation rates can provide an indirect measure of the prevalence of a disease or disorder in a population group.

However, interpretation can be difficult because either an increase or decrease could be seen as progress. Higher hospitalisations can mean better access or better medical treatments. On the other hand, they could mean higher rates of disease.

Hospitalisation rates may also be affected by a number of factors other than the prevalence of a disease or condition, including:

- advances in diagnosis or treatment
- better access to hospital services
- the availability of primary care and alternative sources of health care
- improved identification of Indigenous people in hospital records.

Given the difficulties with interpretation, these results should be treated with caution.

What data are reported?

Hospitalisation data were reported for all States and Territories. However data are not considered reliable enough for Tasmania and the ACT to publish a national total. The remaining jurisdictions—NSW, Victoria, Queensland, Western Australia, South Australia and the Northern Territory—represent 96% of the Australian Indigenous population so provide good coverage for reporting. Data for all States and Territories are available in the statistical supplement, tables NIRA 3.1 to NIRA 3.7.

Hospitalisation data cannot be tested for statistical significance; therefore comparisons over time and between jurisdictions are indicative only and should be used cautiously. See Appendix B for further information.

From 2009–10, for the six jurisdictions combined, dialysis was the most common reason for hospitalisation of Indigenous people, accounting for about half of all hospitalisations. Over the three years, 2007–08 to 2009–10, there were few changes in the rate of dialysis (after adjusting for age this was 479.8 per 1000 hospitalisations in 2009–10).

Injury and poisoning was the second most common reason for hospitalisation among Indigenous Australians in 2009–10, accounting for 7.5% of hospitalisations in the six States and Territory. After adjusting for age the rate was 48.0 per 1000 hospitalisations in 2009–10.

In 2009–10, Indigenous people were hospitalised for all diagnoses at 2.4 times the rate than for other Australians. The hospitalisation rate for dialysis was 11.1 times the rate of other Australians. After excluding dialysis, Indigenous people were hospitalised at only 1.3 times the rate of other Australians.

Chapter 3. Child death rates

At a glance

The gap is closing in child (0–4 years) death rates between Indigenous children and non-Indigenous children

- The Indigenous child death rate decreased significantly by an annual average of 5.2 deaths per 100 000 from 1998 to 2010 compared to a reduction of 1.5 non-Indigenous child deaths per 100 000 in the jurisdictions with reliable data (NSW, Queensland, Western Australia, South Australia and the Northern Territory combined).

There have been improvements in other health indicators for Indigenous children

- The proportion of Indigenous mothers who smoked during pregnancy decreased between 2007 and 2009 in all jurisdictions except NSW and Queensland. However, the proportion also decreased in all jurisdictions for non-Indigenous mothers.
- Nationally, the proportion of babies born to Indigenous mothers with low birth weight decreased between 2007 and 2009, but remained more than twice as high as for babies born to non-Indigenous mothers.
- Indigenous mothers' attendance at antenatal care at least once in the first trimester increased from 2007 to 2009 in NSW, South Australia and the Northern Territory where there was reliable data. The rate for non-Indigenous mothers also increased.

3.1 About this chapter

Experiences in the earliest stages of life can influence health and wellbeing later in life. The health of mothers and babies are vital indicators of the overall health status of the population. Among other things, changes in maternal behaviours during pregnancy such as tobacco use and better antenatal care may improve outcomes for infants and children.

How do we report on child death rates?

COAG agreed a target to halve the gap in the deaths of children aged 0–4 years in a decade. The target has been set for a total of selected States and Territories, rather than individual jurisdictions as there are only a small number of deaths of Indigenous children each year. The baseline is 2008 and the target year is 2018.

Annual data are used to assess change over time and progress against this target. Annual reporting is limited to the combined total of NSW, Queensland, Western Australia, South Australia and the Northern Territory as there are only a small number of deaths of Indigenous children each year.

As for total deaths data in chapter 2, annual data for Western Australia are not available for 2007 to 2009. As this period includes the baseline year (2008) further work needs to be done around establishing a baseline. For this reason only single year data to 2006 and then for 2010 are presented. Data for 2007 to 2009 cannot be used as they cannot form part of a five State and Territory total. For more information on this and the council's treatment of data in general refer to Appendix B.

In addition to the target, four indicators are reported in this chapter. The first of these is hospitalisation rates. As discussed in chapter 2, it is difficult to interpret hospitalisation rates and only a short analysis is presented. For complete data see the statistical supplement, tables NIRA 11.1 to NIRA 11.4.

The final three indicators all relate to pregnancy. We report change from 2007 to 2009 and the size of the gap between Indigenous and non-Indigenous mothers for these indicators:

- Proportion of Indigenous mothers who smoked tobacco during pregnancy
- Proportion of Indigenous mothers attending antenatal care in the first trimester
- Proportion of low birth weight babies born to Indigenous mothers.

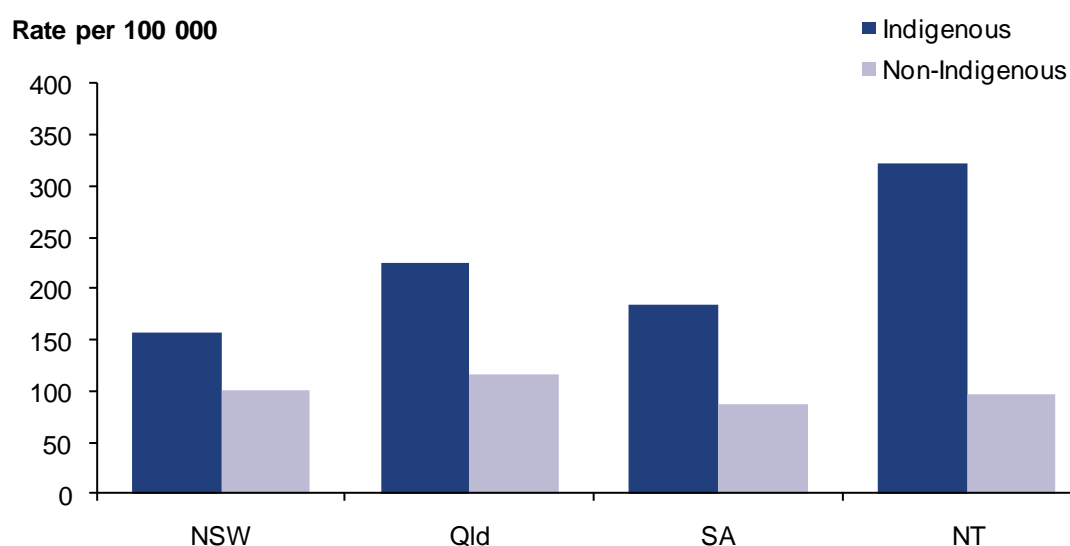
The sources of data for these indicators are the Australian Bureau of Statistics Death Registrations Database and its Birth Registrations Database and the Australian Institute of Health and Welfare's National Perinatal Data Collection and its National Hospital Morbidity Database.

3.2 Halving the gap in child death rates within a decade

What was the child death rate in the five year average, 2006–2010?

The five-year period, 2006–2010, is the most recent for which child death rates are available by individual jurisdiction. In this five-year period, the average death rate for Indigenous children aged 0–4 years was highest in the Northern Territory (322.2 per 100 000 children) and lowest in NSW (157.4 per 100 000 children) (Figure 3.1). The rate for Indigenous children was higher than for non-Indigenous children in each jurisdiction.

Figure 3.1 Child death rate, by Indigenous status, selected States and Territories, 2006–2010



Notes:

1. Children aged 0–4 years.
2. See statistical supplement, table NIRA 9.5 for data and technical notes.

Source: ABS (unpublished) Deaths, Australia, various years.

What changed between 1998 to 2010 in Indigenous child death rates?

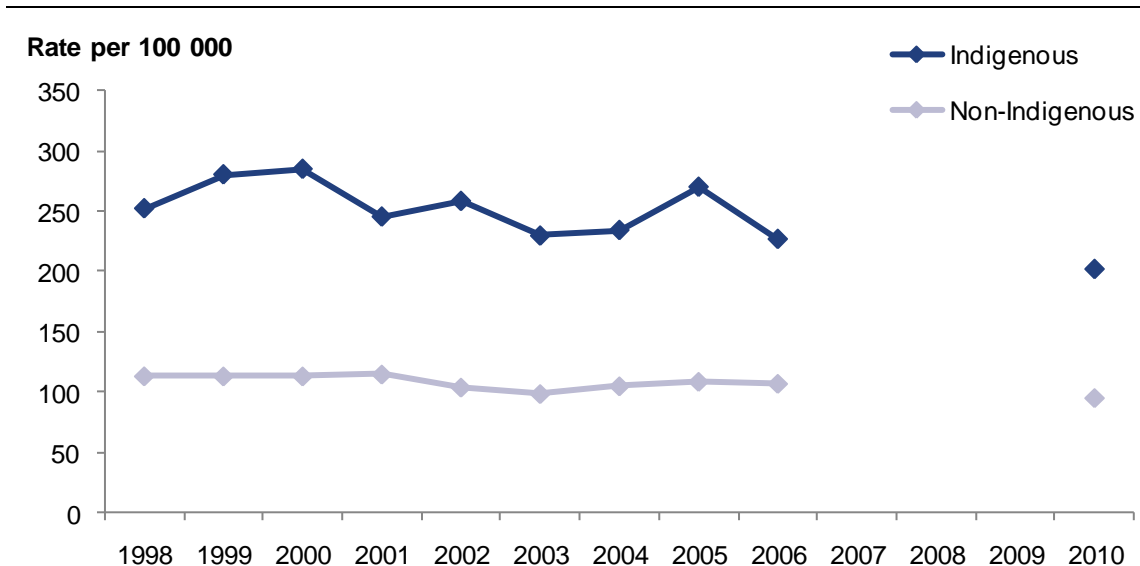
Analyses of death rates for single years over time are for the combined total of NSW, Queensland, Western Australia, South Australia and the Northern Territory and do not include any data for 2007 to 2009 (see Appendix B). No trajectories or targets are used.

In these jurisdictions combined, death rates for Indigenous children aged 0–4 decreased from 252.3 deaths per 100 000 children in 1998 to 202.6 per 100 000 children in 2010. This was a significant decrease.

There was also a significant decrease for non-Indigenous children from 113.3 to 94.8 per 100 000. However, the average annual change was much higher for Indigenous children and therefore the gap reduced (see Figure 3.2).

- The child death rate decreased by an average 5.2 deaths per 100 000 per year for Indigenous children.
- In contrast, the child death rate for non-Indigenous children decreased by an average of 1.5 deaths per 100 000 annually.

Figure 3.2 Child death rate, by Indigenous status, NSW, Queensland, Western Australia, South Australia and the Northern Territory combined, 1998–2010



Notes:

1. Children aged 0–4 years.
2. Data are for NSW, Queensland, Western Australia, South Australia and the Northern Territory combined.
3. A combined total is not available for 2007 to 2009 due to data quality issues in Western Australia.
4. See statistical supplement, table NIRA 9.1 for data.

Source: AIHW analysis of National Mortality Database; ABS (unpublished) Perinatal Deaths, Australia, various years; ABS (unpublished) Births, Australia, various years; ABS (unpublished) Deaths, Australia, various years.

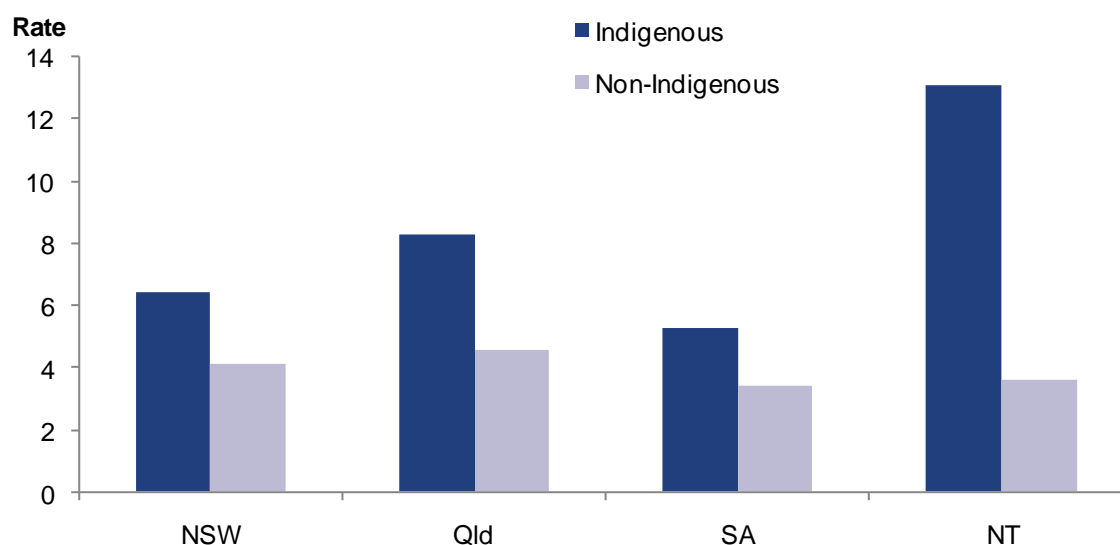
A focus on infant deaths (less than 1 year)

For the five-year average period, 2006–2010:

- In each of NSW, Queensland, South Australia and the Northern Territory, around 83% of Indigenous child deaths were of children aged less than one (infant deaths). Infant death rates for Indigenous children were highest in the Northern Territory (13.1 infant deaths per 1000 live births) and lowest in South Australia (5.3 deaths per 1000 live births).
- The gap between Indigenous and non-Indigenous infant death rates was 9.5 per 1000 live births in the Northern Territory and 1.9 per 1000 in South Australia (see Figure 3.3).

For single years, in NSW, Queensland, Western Australia, South Australia and the Northern Territory combined, the infant death rate was 10.0 per 1000 live births in 2006 and 7.5 in 2010. This was a difference of only three actual deaths and the change was not significant.

Figure 3.3 Infant deaths per 1000 live births, by Indigenous status, selected States and Territories, 2006–2010



Notes:

1. Infant deaths are those of children in the first year of life.
2. See Statistical supplement, table NIRA 9.3 for data.

Source: ABS (unpublished) Deaths, Australia; ABS (unpublished) Births, Australia.

3.3 Child hospitalisation rates from 2007–08 to 2009–10

Higher hospitalisations can mean better access or better medical treatments. On the other hand, they could mean higher rates of disease. These results should be treated with caution as they do not support detailed analysis.

The total hospitalisation rate for Indigenous children aged 0–4 years, in NSW, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined was 312.0 per 1000 in 2007–08. This increased to 332.6 hospitalisations per 1000 in 2009–10. In that year, Indigenous children were hospitalised at 1.4 times the rate of other children.

For full data see statistical supplement, Tables NIRA 11.1 to NIRA 11.4.

3.4 Tobacco smoking during pregnancy

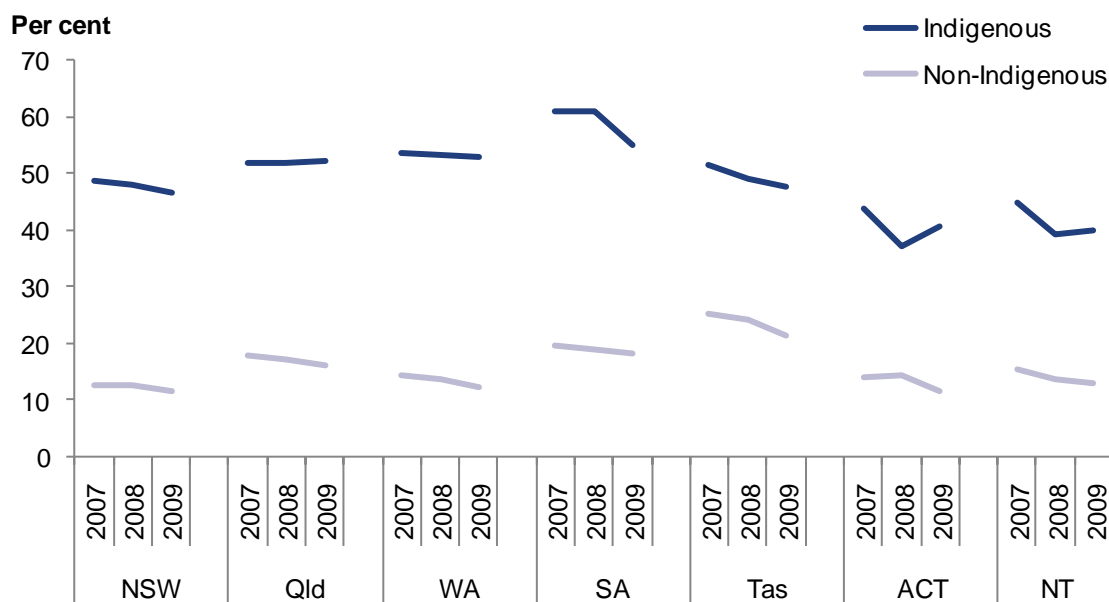
Smoking during pregnancy is a risk factor for adverse events in pregnancy and early life, including pre-term birth, slow foetal growth, still births, low birth weight, birth defects and death in the immediate post-birth period. Data for Victoria are now available for 2009 but were not in 2007 and 2008. Therefore totals are not comparable for 2007 and 2008. As a result, no national and no Victorian data are presented. As these data could not be tested for statistical significance, results can be considered indicative only and should be used cautiously.

What changed between 2007 and 2009?

Across **States and Territories** (excluding Victoria, see Figure 3.4):

- From 2007 to 2009, in all States and Territories, except NSW and Queensland, there was a decrease in the rate of smoking during pregnancy by Indigenous women. The largest decreases were in South Australia (6.1 percentage points) and the Northern Territory (5.6 percentage points).
- The gap between Indigenous and non-Indigenous women from 2007 to 2009 decreased in all jurisdictions except Queensland, Western Australia and Tasmania.

Figure 3.4 Mother's tobacco smoking during pregnancy, age-standardised rate, by Indigenous status, 2007–2009



Notes:

1. Data for Victoria were not available for 2007 and 2008. As a result, data for Victoria and a national total are not shown.
2. The Northern Territory has a high non-response rate to the smoking status question. Smoking rates will be higher than those reported once not stated responses are assigned.
3. See statistical supplement to this report, table NIRA 13.2 and the statistical supplement to the 2009–10 report, tables NIRA 13.3 and 13.4 for data.

Source: AIHW (unpublished) National Perinatal Data Collection.

3.5 Access to antenatal care in the first trimester

The health of women during pregnancy is an important factor in good child health. This is especially relevant to Indigenous mothers and babies who experience greater risks of ill-health during pregnancy and after birth. Antenatal care in the first trimester enables identification of potential problems in the early stages of pregnancy which, if not addressed or treated, could increase the risk of adverse outcomes for mother and baby.

Data on the proportion of Indigenous women who attended an antenatal visit at least once in the first trimester are available for NSW, South Australia and the Northern Territory only from 2007 to 2009.

What changed between 2007 and 2009?

The proportion of Indigenous mothers who attended an antenatal visit at least once in the first trimester increased between 2007 and 2009 in NSW, South Australia and the Northern Territory (see Figure 3.5).

The following statistics have been adjusted for differing age structures to allow comparisons between Indigenous and non-Indigenous mothers. For actual (crude) Indigenous rates of

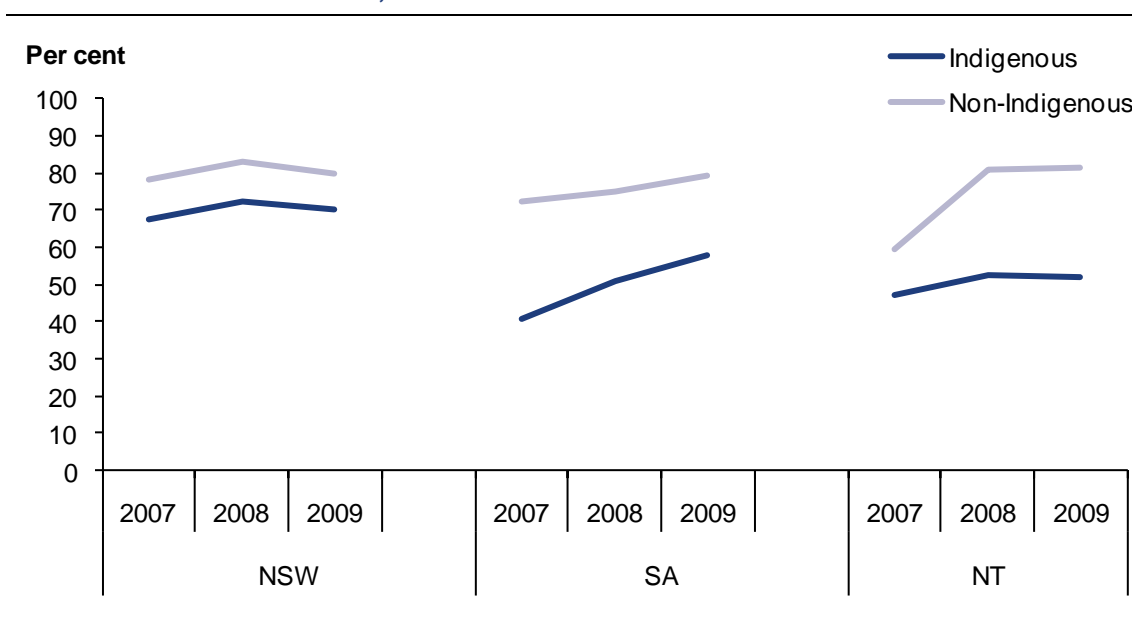
accessing antenatal care in the first trimester, please refer to the statistical supplement, table NIRA 14.3.

In the Northern Territory, the rate of Indigenous mothers attending antenatal care improved from 47.3% in 2007 to 52.2% in 2009. However, the gap between Indigenous and non-Indigenous mothers increased. This was because the attendance rate for non-Indigenous mothers increased at a faster rate than for non-Indigenous mothers. The gap increased from 12.4% in 2007 to 29.4% in 2009, a change of 17.0 percentage points.

In South Australia the rate of Indigenous mothers attending antenatal care increased by 17.1 percentage points from 40.7% to 57.7%. This was a faster change than the rate for non-Indigenous mothers and the gap reduced from 31.8% to 21.4%, a change of 10.4 percentage points.

There was an increase of 2.8 percentage points from 67.5% to 70.3% in NSW from 2007 to 2009. This was a faster increase than of non-Indigenous mothers who increased by 1.8 percentage points. As a result, the gap narrowed slightly from 10.5% to 9.4%.

Figure 3.5 Age-standardised rate of women who gave birth and attended at least one antenatal visit in the first trimester, by Indigenous status, selected States and Territories, 2007–2009



Notes:

1. Queensland was included for the first time in 2009 and, as a result, no trend data are shown here.
2. See Statistical supplement to this report, tables NIRA 14.1 and 14.2, and the statistical supplement to the 2008–09 report, table NIRA 14.2 for data.

Source: AIHW (unpublished) National Perinatal Data Collection.

3.6 Low birth weight babies

Low birth weight has been associated with poorer health outcomes not only in childhood but also in later life. From 2007 to 2009, babies born to Indigenous mothers were two and a half times more likely to be of low birth weight than babies born to non-Indigenous mothers.

What changed between 2007 and 2009?

Nationally:

- 10.9% of babies born to Indigenous mothers were of low birth weight in 2009. This is a smaller proportion than in 2007 when it was 11.2%. In comparison, the rate for non-Indigenous babies was less than half that at around 4.5% in both 2007 and 2009 meaning that babies born to Indigenous mothers were two and a half times more likely to be of low birth weight than those born to non-Indigenous mothers.
- The gap between babies born to Indigenous and non-Indigenous mothers was stable from 2007 to 2009. The gap was 6.8% in 2007 and 6.4% in 2009.

Across States and Territories:

- In NSW, Queensland and the Northern Territory, the proportion of babies born to Indigenous mothers who were of low birth weight was mostly stable from 2007 to 2009. In NSW and the Northern Territory, babies born to Indigenous mothers were around two and a half times more likely to be of low birth weight than their non-Indigenous counterparts. In Queensland, the rate was two times that for their non-Indigenous peers.
- In South Australia, the proportion of low birth weight babies born to Indigenous mothers declined by 3.4 percentage points from 13.8% to 10.4% from 2007 to 2009. This was the largest decrease over the period. However, the rate of babies born to non-Indigenous mothers with low birth weight *increased*. This means that the gap narrowed from 9.2% in 2007 to 5.4% in 2009. It should also be noted that there were a small numbers of births to Indigenous mothers in South Australia.
- In Western Australia, the proportion of low birth weight babies born to Indigenous mothers declined by 1.4 percentage points from 14.4% in 2007 to 13.0% in 2009.
- The rate in Victoria increased from 10.6% in 2007 to 12.2% in 2009, an increase of 1.7 percentage points. This was the only increase.

See statistical supplement, Table NIRA 12.1 for data.

Chapter 4. Literacy and numeracy achievement

At a glance

All governments have agreed paths—called ‘trajectories’—toward the target of halving the gap in literacy and numeracy by 2018

- Progress points are where the results should be on that trajectory in any given year. They are based on the proportion of Indigenous students achieving at or above the national minimum standard.
- They are not targets, but rather are indicators of progress toward the 2018 target.

Despite meeting some progress points with some gaps closing, there are still low rates of Indigenous students achieving at or above the national minimum standard

- Nationally in 2011, Reading progress points were met in all year levels.
 - However, Year 9 Reading progress points were not met in NSW or Tasmania in 2009, 2010 and 2011.
- Nationally in 2011, Numeracy progress points were met in Years 3 and 5 but not in Years 7 and 9.
 - NSW, Tasmania and the Northern Territory have not met their Year 7 and 9 progress points this year. The ACT did not meet its Year 7 progress point.
- Nationally between 2008 and 2011, the gap between Indigenous and non-Indigenous students who achieved at or above the national minimum standard decreased for all year levels in Reading, and in Years 3, 5 and 9 in Numeracy.
 - In Reading, this gap decreased in every year level in Queensland, Western Australia, South Australia and the Northern Territory.
 - In Numeracy, there were some decreases in the gap. The largest was in Queensland, but the gap did not decrease in every year level in any State or Territory.
- Nationally between 2008 and 2011, there were significant increases in the proportion of Indigenous students achieving at or above the national minimum standard in Reading in Years 3 and 7, and in Numeracy in Years 3 and 5.
 - However, in Reading, only Queensland and Western Australia had significant increases in actual achievement in some year levels—all other jurisdictions either had no significant change or significant *decreases* in achievement in all Year levels.
 - In Numeracy, only NSW and Queensland had significant increases in achievement in some year levels— all other jurisdictions either had no significant change or significant *decreases* in achievement in all Year levels.

4.1 About this chapter

A student's success in school and transition to work or study is strongly related to their literacy and numeracy achievement. Literacy and numeracy achievement is a component of the schooling 'building block' under the National Indigenous Reform Agreement. COAG has set a target to halve the gap for Indigenous children in reading, writing and numeracy within a decade and has agreed targets and trajectories in each jurisdiction. To measure progress towards the target, data from the National Assessment Program—Literacy and Numeracy (NAPLAN) are used.

4.2 How do we report on literacy and numeracy achievement?

The gap between Indigenous and non-Indigenous students is the focus of this chapter. The gap is measured by the proportion of students achieving at or above the national minimum standard. This achievement is reported in three ways in this chapter.

First, progress in 2011 towards agreed targets is assessed against indicative trajectories. These show how jurisdictions are meeting progress points along the way to their targets.

Second, the gap, that is the difference between Indigenous and non-Indigenous students, is reported for each year from 2008 to 2011. Movement in the gap is shown over the four years.

Finally, we present actual achievement by students in NAPLAN testing. This provides context to the analysis of achievement. Changes in the gap should be seen in the light of performance.

NAPLAN data for Indigenous students are also reported in the National Education Agreement and the National Partnership on Literacy and Numeracy.

NAPLAN data, except for changes in the gap, are tested for statistical significance.

NAPLAN tests for Reading and Numeracy have been equated so that the 2011 results can be compared with those from previous years. Equating is a complex process which involves placing one year's results on the same scale as previous years.

Variation in NAPLAN results from year to year may also occur due to changes in testing, and cohort effects particularly when results are reported for small numbers of students, for example, in Tasmania and the ACT.

In 2011, the Narrative Writing test was replaced with a Persuasive Writing test. Due to this change, 2011 results for Writing are not comparable to previous years. As a result, data for Writing are not included in this report.

For more information on the council's treatment of data please see Appendix B.

4.3 What do I need to know about halving the gap, trajectories and progress points?

What do I need to know about halving the gap?

The gap is the difference between the achievement of Indigenous students and non-Indigenous students. The gap is measured by the proportion achieving at or above the national minimum standard.

Halving the gap in Indigenous students' literacy and numeracy achievement within a decade is a COAG target with a baseline year of 2008 and a target year of 2018. States and Territories have agreed trajectories to achieve their halving the gap targets.

Change in the gap over time is measured by comparing the 2011 gap with the 2008 gap using both absolute and relative changes (see Appendix B for definitions). We now have four years of data. Data agencies have advised that change in the gap over time does not have an appropriate test for statistical significance.

It should be noted that progress towards halving the gap may not proceed uniformly from year to year. It may be that little progress is shown in the early years of a program with the majority of improvement occurring in the latter part of the intervention.

What do I need to know about the national minimum standard?

The national minimum standard is the level at which a student has demonstrated the basic elements of literacy and numeracy for their year level. Between 90% and 95% of non-Indigenous students achieve at or above the national minimum standard in all years. This is not true of Indigenous students for whom achievement across all years is in the range of less than 30% (Year 5 Reading in the Northern Territory) to about 90% (Year 3 Numeracy in NSW).

What are trajectories and progress points?

Trajectories are the agreed paths to halve the gap from 2008 to 2018 between the proportion of non-Indigenous and Indigenous students achieving at or above the national minimum standard in each jurisdiction. Progress points are yearly markers along the trajectories.

The test used in this section for determining whether a jurisdiction has met its progress point is simple: a State or Territory is identified as *not* having met its progress point if its result (estimate) and its *entire* confidence interval are below the progress point.

This is a more generous test than those used in other National Agreements or National Partnerships. For example, in the National Partnership on Literacy and Numeracy, partial achievement ratings were used depending on how much the confidence interval overlapped the estimate.

Why do results differ across indicators?

Data for achievement may seem to conflict with data for meeting progress points and for changes in the gap. Given how they are calculated and reported, it is possible for governments to meet their progress points and reduce the gap even where there is no significant change in achievement at the national minimum standard.

4.4 What do I need to know about participation in NAPLAN?

Participation in testing

Participation rates are also important in understanding NAPLAN data. It is possible that students who do not participate have different abilities from students who complete the test and this may affect State and Territory results. The comparison of student achievement with participation rates may be helpful in understanding NAPLAN results (see Appendix B).

Absent from testing

Students may not participate in NAPLAN testing due to being exempt, withdrawn from testing or absent from school on the day of testing. Absence from school was the most common reason for Indigenous non-participation in NAPLAN testing. In some States and Territories and year levels, absenteeism for Indigenous students was quite high. In Year 9, especially, the proportion of students who were absent from school was 30% in Western Australia and the Northern Territory and 27% in Victoria, South Australia and the ACT. The rate in NSW and Tasmania was 18% and the lowest rate was in Queensland at 13% (see Table 4.1).

Table 4.1 Proportion absent, Reading test, Indigenous students, by States and Territories, 2009 and 2011

	Year 3		Year 5		Year 7		Year 9	
	2009	2011	2009	2011	2009	2011	2009	2011
NSW	4.8	4.4	4.8	4.5	8.0	8.3	16.1	18.1
Vic	9.3	9.1	7.4	7.3	14.2	11.6	23.1	26.7
Qld	4.7	5.3	5.2	5.7	5.9	6.0	13.6	13.3
WA	13.6	14.3	12.0	13.4	14.2	15.9	27.9	29.7
SA	12.8	13.9	9.3	11.2	10.3	8.8	25.8	27.2
Tas	4.0	4.1	4.3	2.5	10.9	10.3	16.3	17.9
ACT	4.9	2.9	10.3	3.0	16.8	10.5	24.3	26.7
NT	11.1	18.8	7.5	18.6	12.6	23.6	25.1	29.7
Aust	7.3	8.3	6.6	8.0	9.0	10.3	18.6	19.5

Notes:

1. See statistical supplement, Tables NIRA 16.10 and NIRA 16.16 for data.

Source: MCEECDYA (2009) and (2010) National Assessment Program—Literacy and Numeracy, ACARA (2011 and unpublished) National Assessment Program—Literacy and Numeracy.

4.5 Halving the gap in literacy and numeracy by 2018—progress in 2011

Nationally, in 2011 all Reading and Years 3 and 5 Numeracy NAPLAN progress points along the trajectory were met

- In Reading, all progress points were met in all States and Territories except NSW, Tasmania and the ACT—each of which did not meet one progress point out of four.
- In Numeracy, only Queensland, Western Australia and South Australia met all points. Victoria and the ACT three progress points out of four and NSW, Tasmania and the Northern Territory met two out of four.

Did States and Territories meet their 2011 indicative progress points towards halving the gap by 2018?

Reading

Nationally, in 2011, all progress points were met. This was an improvement from 2009 and 2010 when Australia did not meet its progress point in Year 9 (see Table 4.2).

Across **States and Territories**, most progress points were met.

- Year 3:
 - In 2011 (and 2009 and 2010), progress points were met by all jurisdictions.
- Year 5:
 - In 2011, progress points were met by all jurisdictions.
 - All jurisdictions met their progress points in 2009 and 2010 except for Tasmania in 2009. This means that Tasmania's performance has improved from 2009.
- Year 7:
 - In 2011, progress points were met by all jurisdictions except the ACT.
 - All jurisdictions met their progress points in 2009 and 2010 except for Tasmania in 2009. This means that Tasmania's performance improved between 2009 and 2010 and that the ACT's performance got worse between 2010 and 2011.
- Year 9:
 - In 2011, progress points were met by all jurisdictions except NSW and Tasmania.
 - NSW and Tasmania also did not meet their progress points in either 2009 or 2010.
 - Queensland and Western Australia improved in 2011 as they did not meet their progress points in either 2009 or 2010.

Numeracy

Nationally, in 2011, Year 3 and 5 progress points were met. This was an improvement from 2010 when the Year 3 progress point was not met. Years 7 and 9 progress points were not met in 2011 (see Table 4.2).

Across **States and Territories**, fewer progress points were met in Numeracy than in Reading.

- Year 3:
 - In 2011, all jurisdictions except Victoria, met their progress points.
 - Victoria also did not meet its progress points in 2009 and 2010.
 - NSW, Tasmania and the Northern Territory improved from 2009 and 2010 to meet the 2011 progress point.
 - Western Australia and South Australia did not meet their progress points in 2009 but did so in 2010 and 2011.
- Year 5:
 - In 2011 (and 2009 and 2010), all jurisdictions met their progress points.
- Year 7:
 - In 2011, all jurisdictions except NSW, Tasmania, the ACT and the Northern Territory met their progress points.
 - NSW and Tasmania also did not meet their progress points in either of 2009 and 2010.
 - The Northern Territory did not meet its progress point in 2010.
 - The ACT worsened as it met its 2009 and 2010 progress points but not its 2011 one.
 - Queensland improved as it did not meet its 2009 progress point but did so in 2010 and 2011.
- Year 9:
 - In 2011, all jurisdictions except NSW, Tasmania and the Northern Territory met their progress points.
 - NSW and the Northern Territory did not meet their progress points in 2010.

Table 4.2 Progress points, achievement at or above the national minimum standard, Reading and Numeracy, by year level, by State and Territory, 2009 to 2011

Reading progress point						
Year	2009		2010		2011	
	Met	Not met	Met	Not met	Met	Not met
Year 3	NSW, Vic, Qld, WA, SA, Tas, ACT, NT, Aust	—	NSW, Vic, Qld, WA, SA, Tas, ACT, NT, Aust	—	NSW, Vic, Qld, WA, SA, Tas, ACT, NT, Aust	—
Year 5	NSW, Vic, Qld, WA, SA, ACT, NT, Aust	Tas	NSW, Vic, Qld, WA, SA, Tas, ACT, NT, Aust	—	NSW, Vic, Qld, WA, SA, Tas, ACT, NT, Aust	—
Year 7	NSW, Vic, Qld, WA, SA, ACT, NT, Aust	Tas	NSW, Vic, Qld, WA, SA, Tas, ACT, NT, Aust	—	NSW, Vic, Qld, WA, SA, Tas, NT, Aust	ACT
Year 9	Vic, SA, ACT, NT	NSW, Qld, WA, Tas, Aust	Vic, SA, ACT	NSW, Qld, WA, Tas, NT, Aust	Vic, Qld, WA, SA, ACT, NT, Aust	NSW, Tas
Numeracy progress point						
Year	2009		2010		2011	
	Met	Not met	Met	Not met	Met	Not met
Year 3	Qld, ACT	NSW, Vic, WA, SA, Tas, NT, Aust	Qld, WA, SA, ACT	NSW, Vic, Tas, NT, Aust	NSW, Qld, WA, SA, Tas, ACT, NT, Aust	Vic
Year 5	NSW, Vic, Qld, WA, SA, Tas, ACT, NT, Aust	—	NSW, Vic, Qld, WA, SA, Tas, ACT, NT, Aust	—	NSW, Vic, Qld, WA, SA, Tas, ACT, NT, Aust	—
Year 7	Vic, WA, SA, ACT, NT	NSW, Qld, Tas, Aust	Vic, Qld, WA, SA, ACT	NSW, Tas, NT, Aust	Vic, Qld, WA, SA	NSW, Tas, ACT, NT, Aust
Year 9	NSW, Vic, Qld, WA, SA, Tas, ACT, NT, Aust	—	Vic, Qld, WA, SA, Tas, ACT	NSW, NT, Aust	Vic, Qld, WA, SA, ACT	NSW, Tas, NT, Aust

Notes:

1. Progress points are the proportion of students achieving at or above the national minimum standard.
2. States have not met their progress point when their result and its entire confidence interval are below the progress point.
3. See statistical supplement, Tables NIRA 15.1 to NIRA 15.24, and statistical supplement to the 2009-10 report, Tables NIRA 15.1 to NIRA 15.12 for data.

Source: MCEECDYA (2009) and (2010) National Assessment Program—Literacy and Numeracy, ACARA (2011 and unpublished) National Assessment Program—Literacy and Numeracy.

4.6 Change in the size of the gap from 2008 to 2011

Nationally, in Reading and Numeracy the gap between Indigenous and non-Indigenous students at or above the national minimum standard decreased in all years except Year 7 Numeracy

- In Reading, between 2008 and 2011, the gap decreased in all year levels in Queensland, Western Australia, South Australia and the Northern Territory.
- In Numeracy, there were some decreases in the gap between 2008 and 2011 but in no jurisdiction were there decreases in all year levels.

Did the gap narrow between 2008 and 2011?

Reading

Data for Tasmania and the ACT are shown in Table 4.3 but are not included in the analysis due to small numbers of Indigenous students.

Nationally, from 2008 to 2011, the gap decreased in all Year levels. The largest relative decrease was for Year 3 which decreased by 26.2%, from 25.2% in 2008 to 18.6% in 2011. The other large relative decrease was in Year 7 which went down by 20.9% (see Table 4.3).

Across **States and Territories** (excluding Tasmania and the ACT):

Comparing 2008 with 2011 (absolute change) shows that:

- Year 3:
 - The gap decreased in all jurisdictions.
- Year 5:
 - The gap decreased in all jurisdictions except Victoria.
 - The gap increased in Victoria.
- Year 7:
 - The gap decreased in all jurisdictions.
- Year 9:
 - The gap decreased in all jurisdictions except NSW.
 - The gap increased in NSW.

Relative changes compare the difference between 2008 and 2011 against the 2008 result. For relative differences (see Table 4.3):

- The gap decreased by over 30% in Queensland and Western Australia in Year 3. In Victoria in Years 7 and 9, Queensland in Year 7, Western Australia in Year 7 and South Australia in Years 5, 7 and 9 there were decreases above 20%.
 - However, the gap increased by 23.4% in NSW in Year 9.

Numeracy

Data for Tasmania and the ACT are shown in Table 4.3 but are not included in the analysis due to small numbers of Indigenous students.

Nationally, from 2008 to 2011, the gap decreased in Years 3, 5 and 9. The largest relative decrease was in Year 3 which decreased by 26.4%, from 17.4% in 2008 to 12.8% in 2011. The gap in Year 5 decreased by 18.1% (see Table 4.3).

Across **States and Territories** (excluding Tasmania and the ACT):

Comparing 2008 with 2011 shows that:

- Year 3:
 - The gap decreased in NSW, Queensland, Western Australia and the Northern Territory.
 - The gap increased in Victoria and South Australia.
- Year 5:
 - The gap decreased in all jurisdictions.
- Year 7:
 - The gap decreased in South Australia only.
- Year 9:
 - The gap decreased in all jurisdictions except for NSW and the Northern Territory.

Relative changes compare the difference between 2008 and 2011 against the 2008 result. For relative differences (see Table 4.3):






- The gap in Year 3 nearly halved in Queensland. The gap decreased by 20% or more in NSW in Year 5, Queensland in Year 5 and in the Northern Territory in Year 3. There were no decreases of 20% or more in Years 7 and 9.
 - However the gap increased in NSW in Years 7 and 9 and in Victoria in Years 3 and 7.

Table 4.3 Gap between Indigenous and non-Indigenous students 2011 (number), size of relative change between 2008 and 2011 (shading)

	Year 3	Year 5	Year 7	Year 9
Reading				
NSW	10.8	16.0	13.0	15.8
Vic	7.5	11.6	8.3	11.0
Qld	13.9	22.4	15.6	21.0
WA	23.4	37.2	23.7	28.7
SA	20.6	23.7	18.9	23.4
Tas	7.5	9.7	8.4	9.7
ACT	9.0	8.7	11.0	5.6
NT	49.4	60.6	49.5	52.1
Aust	18.6	26.5	18.6	21.6
Numeracy				
NSW	7.6	12.6	14.6	19.0
Vic	7.0	9.8	9.8	14.5
Qld	9.1	17.0	15.0	19.7
WA	16.7	28.4	24.1	26.3
SA	15.7	19.8	18.3	24.4
Tas	5.7	7.6	10.6	11.8
ACT	7.7	9.6	16.5	11.9
NT	35.2	49.4	49.5	49.3
Aust	12.8	20.3	19.0	22.1

Notes:

1. Shading is as follows.

-  Improvement with a decrease in the gap of over 20%
-  Improvement with a decrease in the gap of 10% to 20%
-  The difference in the gap is between a 10% decrease and a 10% increase
-  No improvement with an increase in the gap of 10% to 20%
-  No improvement with an increase in the gap of over 20%

2. No shading is shown for Tasmania or the ACT due to the volatility in the data.

3. See statistical supplement, Tables NIRA 15.1 to NIRA 15.12 and statistical supplement to 2009-10 report, Tables NIRA 15.13 to NIRA 15.24 for data.

Source: MCEECDYA (2008, 2009, 2010) National Assessment Program—Literacy and Numeracy, ACARA (2011) National Assessment Program—Literacy and Numeracy.

4.7 Change in achievement in NAPLAN from 2008 to 2011

Nationally achievement at or above the national minimum standard increased in Years 3 and 7 in Reading and Years 3 and 5 in Numeracy—this was also true for Queensland

- However, in Reading, only Queensland and Western Australia had significant increases in achievement in some year levels—all other jurisdictions either had no significant change or significant *decreases* in achievement in all Year levels.
- In Numeracy, only NSW and Queensland had significant increases in achievement in some year levels— all other jurisdictions either had no significant change or significant *decreases* in achievement in all Year levels.
- Despite few increases in students achieving the national minimum standard, most progress points along indicative trajectories have been met.

How did student achievement at or above the national minimum standard change between 2008 and 2011?

Reading

Nationally, in Years 3 and 7, the proportion of Indigenous students at or above the national minimum standard was significantly higher in 2011 than in 2008 (see Table 4.4).

Only Queensland and Western Australia had significant increases in achievement in some year levels. There was either no significant change or a significant decrease in all Year levels in all other jurisdictions.

Table 4.4 gives the proportion of students at or above the national minimum standard for all years in Reading. Significant changes between 2008 and 2011 are shown by green (significantly higher) and by orange (significantly lower) shading.

Numeracy

Nationally, in Years 3 and 5, the proportion of Indigenous students at or above the national minimum standard was significantly higher in 2011 than in 2008 (see table 4.4).

Only NSW and Queensland had significant increases in achievement in some year levels. In all other jurisdictions, there was either no significant change or a significant decrease in all Year levels. However, in NSW although there was an increase in achievement in Year 5, there were decreases in Years 7 and 9.

Table 4.4 gives the proportion of students at or above the national minimum standard for all years in Numeracy. Significant changes between 2008 and 2011 are shown by green (significantly higher) and by orange (significantly lower) shading.

Table 4.4 Proportion of Indigenous students achieving at or above the national minimum standard, Reading and Numeracy, 2011 (number), significance of change between 2008 and 2011 (shading), by State and Territory

	Year 3	Year 5	Year 7	Year 9
Reading				
NSW	85.0	77.8	82.6	77.9
Vic	88.2	83.1	87.8	83.2
Qld	80.0	68.0	79.9	72.1
WA	70.4	55.0	72.6	63.9
SA	72.2	67.4	76.1	69.1
Tas	85.5	81.1	85.7	82.2
ACT	86.8	86.0	86.1	89.0
NT	39.9	28.5	42.9	37.2
Aust	76.3	66.4	77.1	71.9
Numeracy				
NSW	89.2	83.4	80.5	74.9
Vic	89.6	86.1	86.3	80.3
Qld	86.9	77.8	80.7	74.5
WA	79.8	67.0	72.2	67.3
SA	79.0	74.2	76.4	68.2
Tas	90.2	86.9	83.2	80.3
ACT	88.9	86.0	79.6	83.0
NT	59.3	45.2	43.8	42.4
Aust	83.6	75.2	76.5	72.0

Notes:

1. Green shading—significant increase between 2008 and 2011.
2. Orange shading—significant decrease between 2008 and 2011.
3. See statistical supplement, Tables NIRA 15.1 to NIRA 15.12 and statistical supplement to 2009-10 report, Tables NIRA 15.13 to NIRA 15.24 for data.

Source: MCEECDYA (2008, 2009, 2010) National Assessment Program—Literacy and Numeracy, ACARA (2011) National Assessment Program—Literacy and Numeracy.

Chapter 5. Year 12 attainment

At a glance

There have been some improvements in the proportion of Indigenous students staying in school, which is a step toward Year 12 attainment

- In 2010, the national apparent retention rate of Indigenous students staying to Year 10 was 95.8%. This was 5.3 percentage points higher than in 2007.
 - There were substantial increases in retention to Year 10 in NSW, from 84.0% in 2007 to 98.0% in 2010 and in South Australia from 87.6% in 2007 to 99.2% in 2010.
 - However, the apparent retention rate to Year 10 declined in Western Australia between 2007 and 2010.
- The national apparent retention rate of Indigenous students staying to Year 12 increased from 2007 to 2010 by 4.3 percentage points to 47.2%. However, it remains 32.2 percentage points behind non-Indigenous student retention to Year 12.
 - For the apparent retention rate to Year 12, Queensland, Western Australia and South Australia showed large improvements. The smallest gaps between Indigenous and non-Indigenous students staying to Year 12 were in Queensland and South Australia (21.5 and 20.5 percentage points respectively in 2010).
 - The apparent retention rate to Year 12 has declined in Victoria and the Northern Territory. In the Northern Territory in 2010, just 29.8% of Indigenous students who enrolled in the first year of high school went on to enrol in Year 12.
- Note that some students may choose to complete their Year 12 in the Vocational Education and Training system and these students will not appear in the apparent retention rate data.

Indigenous student attendance is either not improving or getting worse

- The decrease in Indigenous student attendance is most acute in Years 7 and 8—the first years of high school—and the decline is especially steep in the Northern Territory and Western Australia.
- School attendance rates for Indigenous students in Year 10 decreased in every State and Territory between 2007 and 2010.

5.1 About this chapter

Increasing the attainment of Year 12 or its vocational equivalent (Certificate II) remains a fundamental component of reducing disadvantage amongst Indigenous Australians. In 2006, only 47.4% of Indigenous 20–24 year olds had attained Year 12 or its equivalent compared to 83.8% of non-Indigenous people of the same age.

Both the National Indigenous Reform Agreement and the National Education Agreement include a target to halve the gap in Indigenous Year 12 or equivalent attainment by 2020. In this chapter, ‘Year 12 attainment’ means attainment of at least a Year 12 certificate or an equivalent secondary certificate (such as the International Baccalaureate) or an Australian Qualification Framework Certificate II or above qualification.

As part of the Compact with Young Australians, COAG implemented a National Youth Participation requirement which, commencing from 1 January 2010, requires all young people to be in full-time education, training or employment or a combination of education and employment until age 17. This may affect apparent retention rates to Year 10 since 2010.

How do we report on Year 12 attainment?

It is not possible to report year 12 (or equivalent) attainment annually. The main source for this information for Indigenous Australians is the five-yearly census. In the meantime, reporting is limited to two proxy indicators—retention to Years 10 and 12 and attendance at school. These are considered to be steps towards attainment.

The apparent retention rate is a measure of the student cohorts in Year 10 and Year 12 as a proportion of the cohorts in the first year of secondary schooling (Year 7 or 8 depending on jurisdiction). They do not measure the proportion of students who successfully complete Year 10 or Year 12, but are based on enrolled numbers.

Attendance at school is clearly necessary for successful attainment. However, attendance data are not nationally comparable. For instance, there is no consistency in the treatment of part day attendance or the collection period. Only attendance for government schools is reported as there are small numbers of Indigenous students in Catholic and independent schools.

Attendance data are likely to be affected by the 2010 initiative of COAG that all young people should be in full-time education, training or employment or a combination of these until the age of 17.

Although the baseline for these indicators is 2008, 2007 data have been included to assist in identifying trends over time.

Data from the 2011 Census will be available for inclusion in the 2011–12 report.

Why are retention rates ‘apparent’?

Apparent retention rates are not an exact measure of the same group of students from the beginning of secondary school to Year 10 and 12. It is a calculation of the proportion in the reference year (in this case Years 10 and 12 in 2010) divided by the number enrolled at the commencement of secondary school, Year 7 or Year 8, some years previously, depending on the jurisdiction.

In terms of accuracy, it should also be noted that:

- Reporting change for jurisdictions with smaller numbers of Indigenous students such as Tasmania and the ACT is limited, as relatively small changes in the total number of enrolments can result in large fluctuations in apparent retention rates.
- In some cases, the reliability of the data is questionable as apparent retention rates can be greater than 100% if more students enrol than leave during the time period or numbers are small. Some factors which may affect the results are:
 - repeating students
 - migration of students between jurisdictions
 - mature age students returning to schooling
 - flows from the vocational, education and training (VET) sector to and from schools—apparent retention rates exclude students who are completing Year 12 or equivalent studies at a VET institution (such as TAFE)
 - differences in the organisation of grades, policies on student intake and advancement.

Data are for full-time students only. More information about the limits of these data is in Appendix B and the data quality statements in the statistical supplement.

How is attendance calculated?

Attendance rates are obtained by dividing the actual number of student days attended by the number of possible student days during the period. These data were also reported by the council in its 2010 report on the National Education Agreement (section 2.5, COAG Reform Council 2011).

The council has chosen to focus on government school attendance as there are small numbers of Indigenous students enrolled in Catholic and independent schools (data for Catholic and independent schools are published in the statistical supplement, Tables NIRA 20.2 and NIRA 20.3). The quality of the data used is affected by differences in the collection and processing methods of different governments. These differences include the completeness and accuracy of the identification of Indigenous status in different collections and methods of adjustment for shortcomings in the data.

These data therefore cannot be compared across jurisdictions or sectors, although comparisons can be made over time within a jurisdiction. Changes in attendance rates can not be tested for statistical significance.

5.2 Apparent retention rates to Years 10 and 12

What changed between 2007 and 2010?

Data for Tasmania and the ACT are shown in Table 5.1 but are not included in the analysis due to small numbers of Indigenous students.

Apparent retention rates to Year 10

Nationally between 2007 and 2010:

- 95.8% of Indigenous students who enrolled in Year 7/8 were still enrolled in Year 10—an increase of 5.3 percentage points from 2007. The increase was mostly achieved in the last year (4.9 percentage points between 2009 and 2010). Enrolment in Year 10 is compulsory in all jurisdictions but Indigenous students are still behind their non-Indigenous peers—the data suggest that in 2010 all non-Indigenous students stayed to Year 10.

Across **States and Territories** (excluding Tasmania and the ACT):

- There was an increase in the apparent retention rate for Indigenous students in NSW, Victoria, Queensland and South Australia.
- NSW's 14.0 percentage point improvement to 98.0% and South Australia's 11.6 percentage point improvement to 99.2% were the largest improvements; although both moved from relatively low apparent retention rates in 2007.
- Queensland showed relatively steady progress over this time from an above average baseline, reporting the highest apparent retention rate in 2010 (99.6%).
- In Western Australia, retention to Year 10 declined in each year between 2007 and 2010, decreasing by 5.5 percentage points from an above average rate in 2007 to one of the lowest rates in 2010 (90.7%).
- There was no change in the Northern Territory.

See table 5.1 below for the rates between 2007 and 2010 for all jurisdictions.

Apparent retention rates to Year 12

Nationally:

While the Indigenous student apparent retention rate to Year 12 increased by 4.3 percentage points over the period, it remained at a low 47.2% in 2010—more than 30 percentage points lower than the rate for non-Indigenous students (79.4%).

The increase over the period was modest considering the size of the gap and mostly occurred from 2007 to 2008 with little change since 2008.

Across **States and Territories** (excluding Tasmania and the ACT):

- South Australia showed a steady increase over time, from 43.9% to 62.1%, and the largest overall increase in the apparent retention rate (18.2 percentage points).
- Rates for Queensland fluctuated, however, along with South Australia, recorded the highest apparent retention rates of 62.3% and 62.1%, respectively.
- Both Queensland and South Australia also reported the smallest gap between Indigenous and non-Indigenous students staying to Year 12 (21.5 and 20.5 percentage points respectively in 2010).

- In the Northern Territory the Indigenous apparent retention rate to Year 12 decreased by a substantial 16.1 percentage points to just 29.8% in 2010. The apparent retention rate in Victoria also decreased by 4.3 percentage points to 41.8%.
- Western Australia had the second largest improvement from 2007 (29.5%) to 2010 (42.9%), an increase of 13.4 percentage points.
- Gaps between Indigenous and non-Indigenous apparent retention rates to Year 12 were largest in NSW (35.3 percentage points), Victoria (39.7 percentage points), Western Australia (37.8 percentage points) and the Northern Territory (39.5 percentage points).

See table 5.1 below for the rates between 2007 and 2010 for all jurisdictions.

Table 5.1 Apparent retention rates for Indigenous students, Year 7/8 to Year 10 and Year 12, all schools, by State and Territory, 2007 to 2010, per cent

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
Year 7/8 to Year 10									
2007	84.0	88.3	95.8	96.2	87.6	99.8	102.4	81.8	90.5
2008	85.1	81.7	97.3	94.5	95.6	103.5	78.4	71.9	89.8
2009	87.6	80.4	97.8	91.2	98.0	107.3	97.4	75.0	90.9
2010	98.0	90.7	99.6	90.7	99.2	110.8	96.4	81.0	95.8
Year 7/8 to Year 12									
2007	34.0	46.1	56.5	29.5	43.9	45.5	59.8	45.9	42.9
2008	36.1	46.4	61.3	42.7	48.2	36.7	53.1	49.7	47.2
2009	36.7	43.4	58.0	39.7	56.0	39.7	69.5	34.5	45.4
2010	38.6	41.8	62.3	42.9	62.1	43.4	58.8	29.8	47.2

Notes:

1. The apparent retention rate to Year 10 is a measure of the 2010 Year 10 student cohort as a proportion of the same cohort that commenced secondary school in either 2007 (NSW, Victoria, Tasmania and the ACT) or 2008 (Queensland, Western Australia, South Australia and the Northern Territory).
2. The apparent retention rate to Year 12 is a measure of the 2010 Year 12 student cohort as a proportion of the same cohort that commenced secondary school in either 2005 (NSW, Victoria, Tasmania and the ACT) or 2006 (Queensland, Western Australia, South Australia and the Northern Territory).
3. Apparent retention rates may be over 100% if more students enrol than leave during the time period or numbers are small.
4. See statistical supplement, tables NIRA 19.1 and NIRA 19.2 for data.

Source: ABS (unpublished) Schools Australia, 2010.

5.3 Attendance at school

What changed between 2007 and 2010?

Indigenous student attendance in Years 1 to 10 in government schools

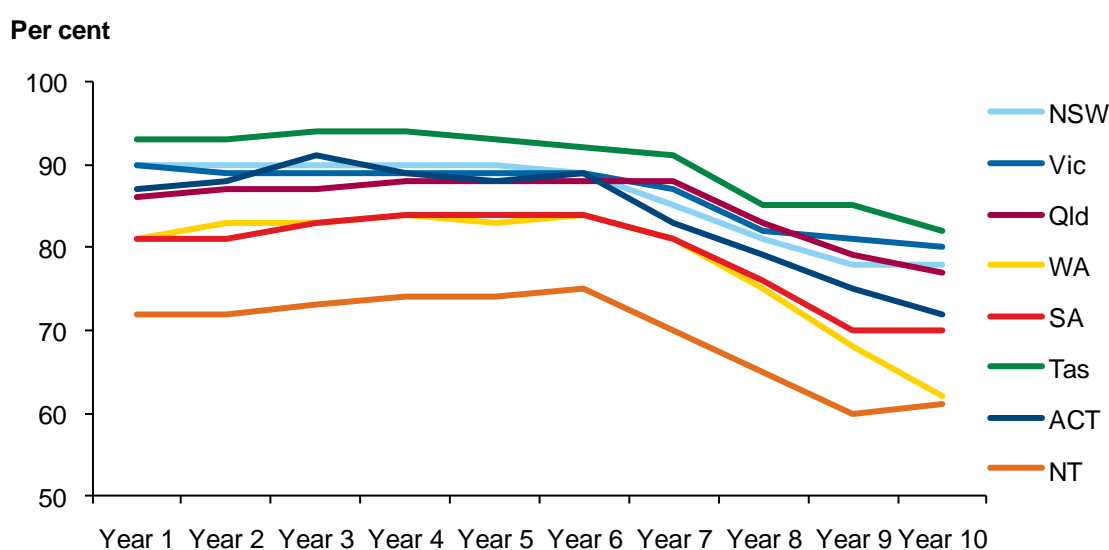
Indigenous student attendance in each jurisdiction continues to follow the trend for all students—there is a marked decrease in student attendance rates at Years 7 and 8—the first

years of high school—for all States and Territories (see Figure 5.1). The decline is more pronounced for Indigenous students than non-Indigenous students.

Within States and Territories:

- For NSW, Victoria, Queensland, Western Australia and Tasmania the differences between 2007 and 2010 were between zero and three percentage points.
- In South Australia, the attendance rate decreased by four percentage points in Years 2 and 9 and by five percentage points in Year 10.
- Rates in the ACT decreased by six percentage points in Years 8 and 9 and by nine points in Year 10.
- In the Northern Territory, between 2007 and 2010, the attendance rate decreased by five percentage points in Year 7, 10 points in Year 8, 11 points in Year 9 and eight points in Year 10.
- It should be noted that data for Tasmania and the ACT are based on small numbers of students.

Figure 5.1 Attendance rates for Indigenous students, government schools, by State and Territory, 2010, per cent



Notes:

1. No national average is available. Data for States and Territories are not comparable.
2. See statistical supplement, table NIRA 20.1 for data.

Source: ACARA (unpublished).

A focus on Indigenous student attendance in Year 10 in government schools

Despite falling attendance from the first year of high school, attendance in Year 10 is still important for learning in order to underpin upper secondary school.

Within States and Territories:

- Attendance rates for Indigenous students in Year 10 decreased in every State and Territory between 2007 and 2010 (see Table 5.2) .
- In particular, between 2007 and 2010, Year 10 attendance rates decreased by 8 percentage points in the Northern Territory to 61% in 2010.
- South Australia's attendance rate decreased by 5 percentage points in Year 10 between 2007 and 2010.

Table 5.2 Attendance rates for Indigenous students, Year 10, government schools, by State and Territory, 2007 to 2010, per cent

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
2007	81	83	78	64	75	83	81	69
2008	81	82	76	64	70	81	80	69
2009	80	81	76	64	69	78	75	67
2010	78	80	77	62	70	82	72	61

Notes:

1. All attendance rates are reported in whole numbers.
2. No national average is available.
3. See statistical supplement, tables NIRA 20.1 and NIRA 20.4, statistical supplement to the 2009-10 report, table NIRA 20.1 and MCEETYA (2007) table 37.

Source: ACARA (unpublished), MCEETYA (2008 and 2007) National Report on Schooling in Australia.

Chapter 6. Reporting on National Partnerships

At a glance

We are not reporting all information on National Partnerships that support the objectives of the National Indigenous Reform Agreement this year

- We cannot clearly link the activity to the outcomes and objectives of the National Indigenous Reform Agreement.
- We cannot clearly mark progress on commitments or analyse the information comparatively.
- We often do not have the information to report on activity, for example, of the six National Partnerships that relate to the National Indigenous Reform Activity, we have:
 - received on time reports on two National Partnerships
 - received late a report on one National Partnership
 - received partial information on one National Partnership
 - not received reports on two National Partnerships.

The highlight from the National Partnerships is in remote Indigenous housing

- We note that governments have exceeded their targets for 2010–11 by building 490 new homes and refurbishing a further 2288 homes in remote Indigenous communities.

6.1 National Partnerships that support National Agreements

National Partnerships between the Commonwealth and the States and Territories are based on agreed policy objectives in areas of nationally significant reform or service delivery improvement, and define the associated outputs and performance benchmarks (COAG 2011b).

Some National Partnerships involve ‘reward funding’ from the Commonwealth to States and Territories that deliver on outcomes according to agreed performance benchmarks, and the council’s reports on these are on our website at www.coagreformcouncil.gov.au.

The council’s role

In addition to reward reports, the council also has a role to publish performance data relating to National Partnerships to the extent that they support the objectives in National Agreements (COAG 2011b, cl. C 5 (C)).

This is the second year we have reported on National Partnerships in National Agreement reports.

- **Our task.** Our task is to highlight progress implementing National Partnerships that support the objectives of the National Indigenous Reform Agreement. We do not report on detailed implementation of the National Partnerships or measure if that activity is contributing to the outcomes of the Agreement.
- **Information.** State and Territory performance information is provided in annual reports for each National Partnership. Annual reports are submitted to COAG and then provided to the council by the relevant Commonwealth agency.

6.2 Reporting performance in 2010–11

There are six National Partnerships that support the six targets of the National Indigenous Reform Agreement:

- National Partnership Agreement on Indigenous Economic Participation
- National Partnership Agreement on Indigenous Early Childhood Development
- National Partnership Agreement on Closing the Gap in Indigenous Health Outcomes
- National Partnership Agreement on Remote Indigenous Housing
- National Partnership Agreement on Indigenous Remote Service Delivery
- National Partnership Agreement on Remote Indigenous Public Internet Access.

Progress can only be highlighted against three National Partnerships and for partial data against a fourth Partnership—the council is awaiting annual reports on two Partnerships as well as additional data for another, as shown in table 6.1.

Table 6.1 National Partnerships that support the National Indigenous Reform Agreement

National Partnership	Annual reports due to COAG	Received by council
Indigenous Economic Participation	November 2011	Not received
Indigenous Early Childhood Development	August 2011	Received late
Closing the Gap in Indigenous Health Outcomes	September 2011	Received
Remote Indigenous Housing	January 2012	Draft data received
Indigenous Remote Service Delivery	September 2011	Received
Remote Indigenous Public Internet Access	July 2011	Received late

Concerns with reporting on National Partnerships in National Agreement reports

The council has three main concerns about reporting on National Partnerships in National Agreement reports:

We cannot link the activity reported to the outcomes and objectives in the National Agreement. Reports on National Partnerships generally provide information on the activity without evidence of the effect the activity has on outcomes.

We cannot clearly mark progress against commitments or analyse them comparatively. Reports on National Partnerships generally do not provide context that would allow us to assess progress in that the information is:

- reported against implementation plans that are not structured to allow for clear and comparative progress reporting
- not clearly linked to the agreed milestones or indicators contained in implementation plans.

We often do not have the information to report. We rely on timely annual reports on National Partnerships. However, for some National Agreements, we have not received annual reports for all of the National Partnerships this year. This is either because the dates for reporting do not align with the reporting timeframe under the National Agreement or the reports are not ready for release.

As a result of these concerns, we have recommended that COAG:

- note that, for some existing National Partnerships, we cannot link activities or government performance to the objectives of the related National Agreement
- agree that activities under future National Partnerships covered by National Agreements clearly link to the objectives of the related National Agreement.

What have we found this year?

Each year, the council will review the annual reports it receives on National Partnerships and report notable achievements or specific information that can be linked to the targets of the National Indigenous Reform Agreement.

This year, the council is not reporting the large amount of information provided in the annual reports, noting that the annual reports we have received to date contain some progress highlights:

- To improve remote Indigenous housing, in 2010–11, 490 new houses and 2288 refurbishments were completed as part of the Remote Indigenous Housing National Partnership—exceeding the targets for 2010–11.
- To improve remote Indigenous service delivery, a single government interface now operates in each priority location, which is a single point of service delivery for remote residents.

Appendix A. Contextual factors

A.1 Indigenous population estimates

In 2010, the projected Australian Indigenous population was 563 101 which was 2.5% of the total Australian population. In 2009, the population was 551 042, giving a growth rate of 2.2% between 2009 and 2010. These projections are based on the 2006 Census. The 2006 estimate was 517 043 persons and is used in some of the following analysis.

In 2010, NSW and Queensland had the highest numbers of Indigenous Australians—around 160 000 each—but these accounted for only 2.3% of NSW's total population and 3.6% of Queensland's. In all jurisdictions the Indigenous population was 4% or less of the total population, except in the Northern Territory where 29.9% of the population was Indigenous (Table A.1). These proportions were not projected to change from 2009.

In addition, the proportion of Indigenous Australians living in each of the States and Territories varied. Nearly six in ten Indigenous Australians lived in NSW and Queensland combined. Around three in ten lived in Western Australia, South Australia and the Northern Territory combined. And one in ten lived in Victoria, Tasmania and the ACT combined.

Table A.1 Estimated projected Indigenous population, 2010

	Number	Proportion of State or Territory population (%)	Proportion of total Indigenous population (%)	Growth rate 2009 to 2010 (%)
NSW	165 306	2.3	29.4	2.1
Vic	36 761	0.7	6.5	2.4
Qld	160 632	3.6	28.5	2.6
WA	76 271	3.3	13.5	1.9
SA	30 403	1.8	5.4	2.1
Tas	20 106	4.0	3.6	2.3
ACT	4 711	1.3	0.8	2.4
NT	68 661	29.9	12.2	1.8
Aust	563 101	2.5	100.0	2.2

Notes:

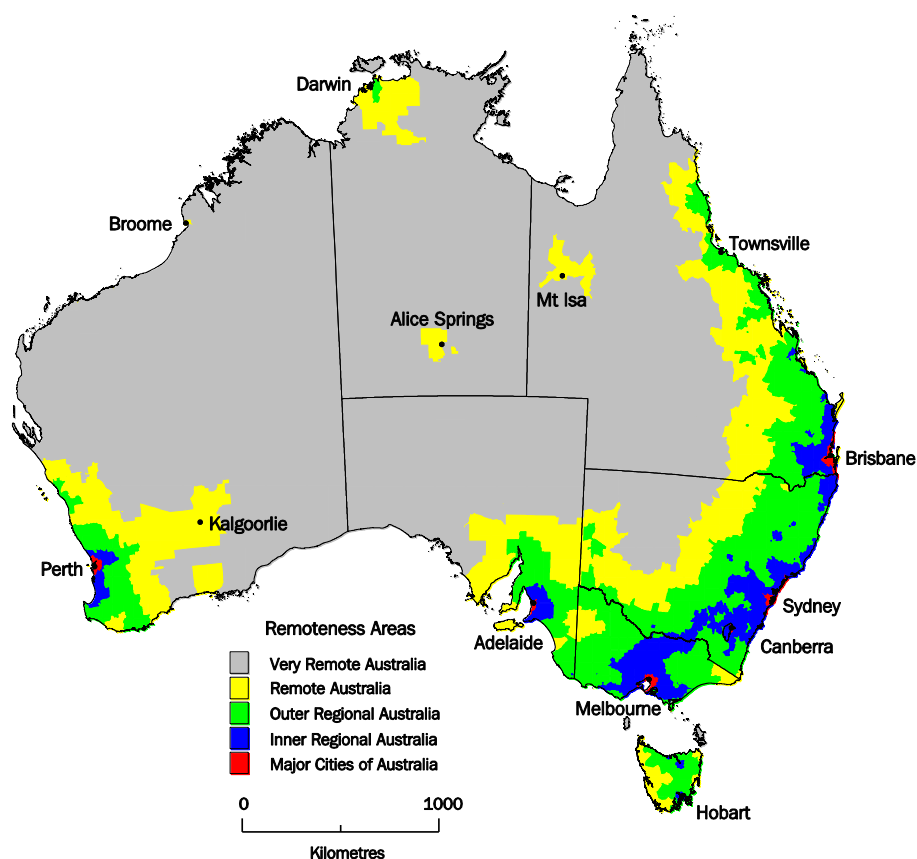
1. Series B projection.
2. See statistical supplement, table AA.15 for data.

Source: ABS (2009) Experimental Estimates and Projections, Aboriginal and Torres Strait Islander Australians, 1991 to 2021.

A.2 Geo-location of Indigenous Australians

Where someone lives can have a significant impact on education, employment and social and cultural well-being. A substantial part of Australia is classified as very remote, particularly in Queensland, Western Australia, South Australia and the Northern Territory (see Figure A.1).

Figure A.1 Remoteness areas in Australia, 2008



Source: ABS (2008) Australian Social Trends.

Remoteness data for Indigenous Australians are based on Census data (see table A.2). As 2011 Census estimates will not be available until 2013, there are no new data in this section.

- Nationally in 2006, just under one-third of Indigenous Australians lived in major cities in comparison to over two-thirds of non-Indigenous Australians—less than half the rate.
- Also nationally, one-quarter of Indigenous people lived in remote or very remote areas whereas only two per cent of non-Indigenous people did.
- In 2006 in NSW, Victoria and Queensland, about half the Indigenous population lived in regional areas. Unlike Queensland, only 5% of Indigenous people in NSW lived in remote and very remote areas.

- In the Northern Territory, in 2006, 80% of Indigenous Australians lived in remote or very remote areas compared to 30% of non-Indigenous people—more than two and a half times less.
- In Western Australia 40% of Indigenous Australians lived in remote and very remote areas, a quarter in regional areas and about a third of the Indigenous population lived in major cities.

Table A.2 Number and proportion of Indigenous Australians, by remoteness area, by State and Territory, 2006

	Major cities		Inner and Outer regional		Remote and Very remote		Total	
	No.	%	No.	%	No.	%	No.	%
NSW	66 068	43.3	78 751	51.6	7 866	5.2	152 685	100.0
Vic	16 629	49.6	16 841	50.2	47	0.1	33 517	100.0
Qld	40 685	28.1	71 991	49.7	32 209	22.2	144 885	100.0
WA	24 429	34.4	16 312	23.0	30 225	42.6	70 966	100.0
SA	13 714	48.9	9 102	32.4	5 239	18.7	28 055	100.0
Tas	0	0.0	17 759	96.4	656	3.6	18 415	100.0
ACT	4 279	99.9	3	0.1	0	0.0	4 282	100.0
NT	0	0.0	12 951	20.2	51 054	79.8	64 005	100.0
Aust	165 804	32.1	223 923	43.3	127 316	24.6	517 043	100.0

Notes:

1. Some States and Territories do not have all remoteness classifications.
2. Australia includes Other Territories.
3. See statistical supplement, table AA.16 for data.

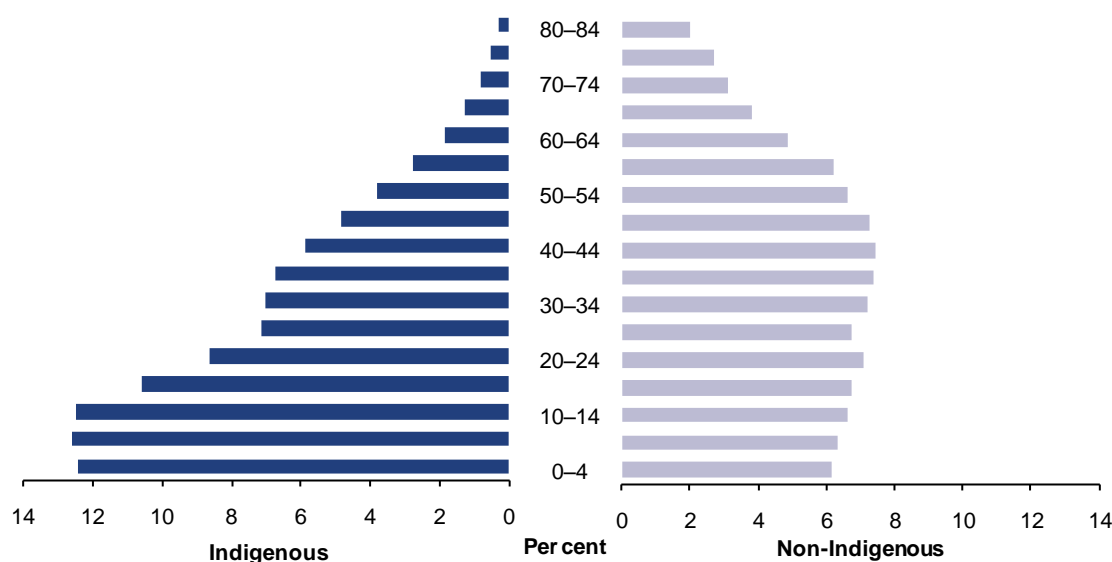
Source: ABS (2009) Experimental Estimates of Aboriginal and Torres Strait Islander Australians, June 2006.

A.3 Age structure

The age structure of Indigenous and non-Indigenous populations is markedly different (see Figure A.2). In 2006:

- The proportion of Indigenous Australians aged under 15 years was 37.6%, compared to 19.1% of the non-Indigenous population.
- At the older end of the age spectrum, the proportion of Indigenous Australians aged 65 years or over was 3.1% compared to 13.3% of the non-Indigenous population.
- All states and territories had similar Indigenous age profiles.

Figure A.2 Estimated resident population by age, by Indigenous status, 2006



Notes:

1. See statistical supplement, table AA.12 for data.

Source: ABS (2009) Experimental Estimates of Aboriginal and Torres Strait Islander Australians, June 2006.

A.4 Other socio-demographic characteristics

Further key social and demographic characteristics are presented in Table A.2.

Table A.2 Selected characteristics by Indigenous status, 2006

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
Indigenous (%)									
Indigenous language spoken at home	0.6	1.0	9.2	13.9	12.2	0.2	2.1	59.1	12.1
One-parent families	32.9	29.5	29.8	34.0	35.2	20.7	25.4	31.7	31.3
Renting from State/Territory authority	21.0	19.6	16.4	25.9	28.9	16.7	26.5	14.5	20.0
Households in bottom income 10%	28.8	26.5	22.3	31.5	32.0	21.1	21.5	38.1	28.0
Total population (%)									
Non-English (excluding Indigenous) language spoken at home	20.0	20.4	7.5	11.2	12.0	3.5	14.5	8.0	15.6
One-parent families (non-Indigenous)	15.6	15.2	15.4	14.3	15.8	16.5	15.0	14.7	15.4
Renting from State/Territory authority	4.7	3.1	3.4	4.1	6.9	5.7	7.9	8.3	4.3
Households in bottom income 10%	10.8	10.4	8.9	9.0	10.9	11.7	5.7	14.8	10.1

Notes:

1. Persons who spoke a non-English language at home excludes those who spoke an Indigenous language.
2. An Indigenous family is where either the reference person and/or spouse/partner is Indigenous. The comparison for this indicator is non-Indigenous families not total families.
3. An Indigenous household is where at least one resident is Indigenous.
4. Household income is adjusted to take into account the size of the household.
5. See statistical supplement, tables AA.6, AA.17, AA.22, AA.23 and AA.32 for data.

Source: ABS 2006 Census of Population and Housing.

Appendix B. Treatment of data issues

The data used in this report are derived from a variety of administrative datasets and surveys. There are a number of issues associated with using the data for comparing the performance of jurisdictions which vary according to the data source.

Detailed information on each performance indicator and related data quality statements are provided in the statistical supplement.

B.1 Sources of error

Variability bands and confidence intervals

A variability band is used to describe the variability of an indicator. It does not take into account other sources of variation (such as variation in population estimates, and Indigenous under-identification in the indicator). The term ‘variability band’ is used here when referring to administrative data. The term ‘confidence interval’ is used when referring to survey data.

Variability bands are used for only some administrative data. In this report they are used for deaths data only.

Small numbers

Some data in this report are based on small numbers. This includes small States and Territories and more detailed disaggregations. Care should be taken when analysing data for small populations. The report notes, with an appropriate caveat, when data are based on small numbers. Some data may also be rounded or suppressed due to small numbers.

Mortality data for Western Australia in 2007 to 2009

Indigenous deaths data for Western Australia are not published for the years 2007, 2008 and 2009 due to unusually high numbers of deaths of Indigenous people in those years. This issue has been investigated by the ABS which advises that deaths for Indigenous people in Western Australia have been overcounted by up to 20% in this period.

As the revised data are not yet available, data are reported only for NSW, Queensland, South Australia and the Northern Territory—the jurisdictions with reliable data. A combined total figure is not produced for 2007 to 2009. This means that data for Western Australia and the combined States and Territories are available up to 2006 and from 2010.

Identification of Indigenous people in hospital collections

The completeness of identification of Indigenous people in hospital collections varies across States and Territories so comparisons should be made with caution. Data for Tasmania and the ACT are shown but they are not included in the total figure. Further work is needed to assess the completeness of Indigenous identification in these jurisdictions.

B.2 Measures of change

Change over time

Change over time is the comparison of data for two time points. It can be difficult to detect change if only comparing data for a few years. A longer time series can reveal patterns that would be masked in a shorter time series. Where possible, a time series reaching prior to the baseline has been used to identify trends.

Change in the size of the gap

The gap is the difference between Indigenous and non-Indigenous Australians. The size of the gap depends on both the performance of non-Indigenous Australians as well as Indigenous Australians. If non-Indigenous rates change at a different speed than Indigenous rates, it is possible for the gap to widen.

Absolute and relative changes

Absolute changes are simply one value taken away from another. In Reading performance for Australia, the 2008 figure was 25.2% and the 2011 figure was 18.6%. Using this example the absolute difference is 2011 minus 2008 (the later time minus the earlier time).

$$\text{Absolute change} = \text{later (2011)} - \text{earlier (2008)}$$

$$\text{Absolute change} = 18.6 - 25.2$$

$$\text{Absolute change} = -6.6 \text{ percentage points}$$

As this is negative, the later time is lower than the earlier time, ie the proportion *decreased* over time. If the difference was positive then that means that there was an increase in the proportion.

Relative changes compare the absolute change between two groups as a proportion of the earlier group. Again, using Reading performance for Australia, relative change is the absolute change divided by the 2008 figure which is the earlier time.

$$\text{Relative change} = \frac{\text{absolute change (2011 - 2008)}}{\text{earlier time (2008)}}$$

$$\text{Relative change} = \frac{-6.6}{25.2}$$

$$\text{Relative change} = -26.2\%$$

This means that the 2011 figure was 26% lower than the 2008 figure. As 26% is close to 25% and 25% is one-quarter, we can say that, in this instance, the relative difference is around one-quarter.

B.3 Definitions

Administrative data

Administrative data is derived from non-survey or census collections, such as death registrations or school enrolment. For some administrative data, there are limitations related to the comparability of jurisdictions and over time.

There may be differences across jurisdictions in:

- collection methods and definitions
- the proportion of Indigenous people who are missed from the data collection
- the accuracy with which Indigenous status is identified in the data collection
- whether the number of Indigenous persons counted in the data collection is of sufficient size to enable reliable reporting by Indigenous status.

ICD-10 codes for diseases in chapter 2

Box B.1 Explanation of disease labels

Shorthand	ICD-10 code and name	Examples
Cancer	C00-D48 Neoplasms	Cancer
Endocrine	E00-E07 Endocrine, nutritional and metabolic diseases	Diabetes
Circulatory	I00-I99 Diseases of the circulatory system	Heart attack, stroke, rheumatic fever, kidney disease, heart failure
Respiratory	J00-J99 Diseases of the respiratory system	Pneumonia, influenza, bronchitis, emphysema, asthma
Injury & poisoning	S00-T98 Injury, poisoning and certain other consequences of external causes	Injuries, burns, poisoning
External causes	V01-Y98 External causes of morbidity and mortality	Accidents, falls, intentional self-harm (eg suicide), assault

Notes:

1. ICD-10—International Classification of Diseases, tenth revision (1994), 2010 update. ICD-10 is an internationally agreed and used classification.

Source: WHO 2010. <http://www.who.int/classifications/icd/en/>

Low birth weight

Low birth weight is defined as a live birth under 2500 grams. Twins and other multiple births are excluded.

Hospitalisation

The term ‘hospitalisation’ rate is more accurately known as the hospital separation rate. A separation occurs when one of the following actions is taken:

- discharge
- transfer
- death
- change of type of care (for example, from acute to rehabilitation).

Hospitalisation data has not been tested for statistical significance as an agreed methodology is yet to be determined.

‘Non-Indigenous’ and ‘Other Australians’

The term ‘non-Indigenous’ means only those people whose stated response was non-Indigenous. ‘Other Australians’ means non-Indigenous people and those people who did not answer the Indigenous status question.

B.4 Significance testing

What is a ‘significant difference’ or a ‘significant change’?

In this report, the word ‘significant’ has a specific statistical meaning. This meaning applies to data that are collected using surveys. Survey data contain a certain degree of error, because a survey will only include a sample of a population rather than the total population. Surveying just a sample of a population introduces the risk that results might not accurately reflect the population as a whole, but simply reflect who is included in the sample.

Data are collected by governments as a by-product of many types of administration including the registration of deaths. These data are not a sample of people who died but should be a count of all people who died. However, this may not always be true. There may also be other errors such as poor or no information recorded. Because of these potential errors the concept of ‘significant’ is also relevant. It only applies to some data such as deaths.

In statistics, ‘significant’ differences are those which are ‘real’ and unlikely to have occurred by chance. It does not necessarily mean ‘significant’ in the everyday sense of the term. In some cases, apparently small differences between numbers can be statistically ‘significant’. In other cases, we might not be able to describe two numbers that look very different as being ‘significantly different’.

Testing for statistical significance was done for the council by the Australian Bureau of Statistics, the Australian Institute of Health and Welfare and the Australian Curriculum and Reporting Authority.

B.5 NAPLAN

What is NAPLAN?

The National Assessment Program—Literacy and Numeracy annually tests the literacy and numeracy abilities of students in Years 3, 5, 7 and 9. Test results in each domain are reported on a scale from 1 to 1000. Each year is marked against the same scale so that, in general, a Year 9 student will have a higher score than a Year 7 student who will be higher than a Year 5 student who will be higher than a Year 3 student (see COAG Reform Council, 2011 for a full discussion of NAPLAN).

The measure used in this report is the proportion at or above the national minimum standard as that is the basis for the COAG literacy and numeracy target. COAG have set a target to halve the gap between Indigenous and non-Indigenous students in reading, writing and numeracy by 2018.

The national minimum standard is basic. It is not a very discriminatory indicator for non-Indigenous students who achieve above 90% in all year levels. It is useful, however, for Indigenous students whose achievement against the national minimum standard can be as low as 30% in some years and jurisdictions.

Participation and assessment concepts in NAPLAN

The level of student participation in NAPLAN may affect a jurisdiction's results. In addition to participation there is the overlapping concept of not assessed students.

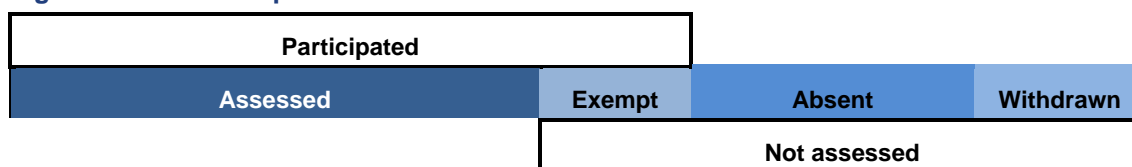
Test results for absent and withdrawn, but not exempt, students are imputed from other statistical information and are included in the calculation of average scores and the proportion at or above the national minimum standard.

There are four categories of participation and assessment (see figure C.1):

- **Assessed:** students who sat the test.
- **Exempt:** the student is eligible for exemption from one or more of the tests if they have (i) arrived in Australia less than a year before the tests and are of a language background other than English, or (ii) the student has a severe intellectual disability. Exempt students are not assessed but are deemed to be below the national minimum standard.
- **Absent:** students who were not at school on the test day or were not able to sit the test as a result of an accident or mishap.
- **Withdrawn:** students withdrawn from participating in the test by their parent or guardian. They are intended to address issues such as religious beliefs and philosophical objections to testing.

Participation rates are calculated as all assessed and exempt students as a percentage of the total number of students in the year level, as reported by schools, which includes those absent and withdrawn. Figure B.1 shows the relationships between participation and assessed students.

Figure B.1 Participation and assessment in NAPLAN



Participation in NAPLAN testing in 2011

In 2011, participation rates for Indigenous students were lower than non-Indigenous rates in all jurisdictions although the size of the difference varied (table B.1, see statistical supplement tables NIRA 16.1 to NIRA 16.4 for non-Indigenous data). Reading has been chosen to illustrate participation as rates are similar across all domains.

Table B.1 Proportion participating in the Reading test, Indigenous students, by State and Territory, change 2008 to 2011, actual 2011

	Year 3		Year 5		Year 7		Year 9	
	2011	Change 2008– 2011	2011	Change 2008– 2011	2011	Change 2008– 2011	2011	Change 2008– 2011
NSW	93.9	▲ (0.3)	94.4	▲ (1.7)	91.2	▲ (1.7)	81.4	▲ (1.2)
Vic	88.1	▼ (1.6)	90.3	▲ (0.1)	87.5	▲ (2.3)	70.7	▼ (7.0)
Qld	93.2	▼ (1.8)	93.2	▼ (1.7)	92.7	▼ (2.0)	84.2	▼ (2.9)
WA	85.0	▲ (0.4)	85.8	▲ (1.7)	83.5	▼ (2.8)	69.6	▼ (1.8)
SA	80.8	▼ (14.8)	85.0	▼ (11.7)	88.5	▼ (7.2)	70.7	▼ (19.7)
Tas	95.2	▼ (1.4)	96.6	▼ (0.5)	89.1	▼ (3.9)	81.5	▼ (0.1)
ACT	87.4	▼ (2.3)	93.0	▲ (1.6)	85.1	▲ (4.6)	69.5	▲ (0.1)
NT	80.5	▲ (9.5)	80.7	▲ (9.2)	76.1	▲ (12.9)	69.5	▲ (7.7)
Aust	90.1	▼ (0.1)	90.8	▲ (0.7)	88.8	▲ (0.9)	79.0	▼ (0.7)

Notes:

1. See statistical supplement of this report, tables NIRA 16.1 to 16.4 for 2011 data. See volume 2 of 2008–09 report, tables 16.5 to 16.8 for 2008 data.

Source: ACARA (2011 and unpublished) 2011 National Assessment Program — Literacy and Numeracy: Achievement in reading, writing, language conventions and numeracy, Melbourne; MCEECDYA (2009) 2008 National Assessment Program — Literacy and Numeracy: Achievement in reading, writing, language conventions and numeracy.

Absent on the test day

The majority of students who did not participate were absent on the test day. Table 4.1 in chapter 4 shows the absent rate for 2009 and 2011. Absent rates increase markedly from Year 7 to Year 9 in both 2009 and 2011.

How are NAPLAN data tested for significance?

The use of confidence intervals (standard errors) to determine the statistical significance of a comparison is used in NAPLAN. When deriving confidence intervals, several sources of error are taken into account including equating error which measures the error introduced by using different tests each year.

Multiple types of data comparisons can be made, for instance between Indigenous and non-Indigenous students within one year or between one year and another. Different confidence intervals will be used for each one. With each additional year of testing, the number of sets of confidence intervals increases in number and complexity.

For this report, the council contracted the Australian Curriculum, Assessment and Reporting Authority (ACARA) to do the significance testing. ACARA is the data custodian of the 2011 NAPLAN dataset.

Measuring the gap in NAPLAN

The gap is defined as the difference between the achievement of Indigenous and non-Indigenous students. It can be compared to see whether the gap is closing over time. In NAPLAN the gap is available for the four years from 2008 to 2011.

On advice from data agencies, the approach taken here is simple. We compare results from 2008 to 2011 to see if there are any trends down or up by seeing if the gap in 2011 is smaller or larger than in 2008.

Appendix C. Roles and Responsibilities

The Commonwealth, State and Territory governments have shared responsibility for achieving the agreed COAG targets for Closing the Gap in Indigenous disadvantage, as acknowledged in the National Indigenous Reform Agreement (Box C.1). In recognising this joint responsibility, where possible, this report presents the data for each performance indicator both at the national level—for Australia as a whole, providing a national perspective on the issues—and at the State and Territory levels.

Box C.1 Roles of the Commonwealth and the State and Territory governments under the National Indigenous Reform Agreement

Shared roles and responsibilities

- Achieve the agreed COAG targets for Closing the Gap in Indigenous disadvantage.
- Develop a comprehensive and integrated approach to addressing Indigenous disadvantage.
- Develop, progress and review the national objectives and outcomes for Indigenous reform, including monitoring and reviewing the national objectives and outcomes for Indigenous reform against the COAG targets.
- Meet obligations outlined in the National Agreements and National Partnership Agreements.
- Provide public leadership which encourages the community to recognise and embrace the importance of the nationally agreed outcomes for Indigenous Australians.
- Ensure the ongoing development of a suitably skilled Indigenous workforce.
- Ensure the data are of high quality and are available for reporting, including research and evaluation. This includes data and other information required for —
 - meeting the requirements of National Agreements and National Partnership Agreements
 - the Steering Committee for the Review of Government Service Provision in its role of producing the Overcoming Indigenous Disadvantage: Key Indicators Report and the Report on Government Services
 - the reporting requirements under the Indigenous Expenditure Framework.
- Ensure data quality improvements set out at schedule F [of the Agreement] are met within the specified timeframes.
- Work across inter-agency and sectoral boundaries, including with the non-government providers of Indigenous services.
- Engage with Indigenous Australians in the meeting of these responsibilities

Source: COAG (2011c) National Indigenous Reform Agreement, p. 9.

No national specific purpose payment (SPP) is directly linked with the National Indigenous Reform Agreement as funding associated with the other National Agreements (in the areas of health, education, disability, housing, and vocational education and training) is required to be implemented consistently with the National Indigenous Reform Agreement. Six specific National Partnership Agreements contribute \$4.6 billion in funding to address gaps and shortfalls in existing Commonwealth, State and Territory initiatives (Commonwealth of Australia, 2010). Funding is also provided under other National Partnerships that include outcomes to be achieved for Indigenous Australians.

C.1 The role of the Commonwealth and the States and Territories

COAG and the Working Group on Indigenous Reform (WGIR) are the principal intergovernmental bodies charged with ensuring all levels of government work together to improve the lives of Indigenous Australians. Other Standing Councils, such as the Standing Council on Communities, Housing and Disability Services, the Standing Council on School Education and Early Childhood and the Standing Council on Health, also have a role in developing objectives, outcomes, outputs and implementing strategies in their respective policy areas.

The Commonwealth and the State and Territory governments share responsibility for policy development and the purchase and/or supply of government services to Indigenous Australians.

The Commonwealth is responsible for the funding and provision of a wide range of services to all eligible Australians, including Indigenous Australians. Examples include aged care, employment services, income support payments and Medicare. The Commonwealth also administers targeted, Indigenous-specific programs, such as the Indigenous Employment Program and Abstudy, in addition to providing funding to non-government bodies to deliver services, such as Aboriginal Community Controlled Health Services.

The State and Territory governments have primary responsibility for the delivery of key government services, including education, public housing, police, public hospitals and community health. As well as being providers of government services, the State and Territory governments also administer Indigenous-specific programs and provide funding to non-government organisations to deliver services to Aboriginal and Torres Strait Islander peoples.

Appendix D. Acronyms and abbreviations

ABS	Australian Bureau of Statistics
ACARA	Australian Curriculum, Assessment and Reporting Authority
ACER	Australian Council for Educational Research
ACT	Australian Capital Territory
AIHW	Australian Institute of Health and Welfare
COAG	Council of Australian Governments
DEEWR	Department of Education, Employment and Workplace Relations
FaHCSIA	Department of Families, Housing, Community Services and Indigenous Affairs
ICD-10	International Classification of Diseases, tenth revision
IGA	Intergovernmental Agreement on Federal Financial Relations
MCATSIA	Ministerial Council for Aboriginal and Torres Strait Islander Affairs
MCEECDYA	Ministerial Council for Education, Early Childhood Development and Youth Affairs
MCEETYA	Ministerial Council for Education, Employment, Training and Youth Affairs
NAPLAN	National Assessment Program—Literacy and Numeracy
NFI	no further information
NHMD	National Hospital Morbidity Database
NIRA	National Indigenous Reform Agreement
NPDC	National Perinatal Data Collection
NSSC	National Schools Statistics Collection
NSW	New South Wales
NT	Northern Territory
PC	Productivity Commission
Qld	Queensland
SA	South Australia
SCRGSP	Steering Committee for the Review of Government Service Provision
SPP	Specific Purpose Payments
TAFE	Technical and further education
Tas	Tasmania
VET	vocational education and training
Vic	Victoria
WA	Western Australia
WGIR	Working Group on Indigenous Reform

Appendix E. Reference list

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