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Aboriginal and Torres Strait Islander Health Performance Framework 2010 report

New South Wales

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Abbreviations

ABS	Australian Bureau of Statistics
AIHW	Australian Institute of Health and Welfare
FaHCSIA	Department of Families, Housing, Community Services and Indigenous Affairs
WHO	World Health Organization

Symbols

—	nil or rounded to zero
..	not applicable
n.a.	not available
n.p.	not publishable because of small numbers, confidentiality or other concerns about the quality of the data

Key findings

This report contains detailed analyses against indicators in the Aboriginal and Torres Strait Islander Health Performance Framework (the HPF) for New South Wales. The HPF is the basis for monitoring the impact of the National Strategic Framework for Aboriginal and Torres Strait Islander Health (NSFATSH) and informs policy analyses, planning and program implementation. The HPF consists of 71 indicators covering three tiers – health status and outcomes, determinants of health and health systems performance.

The key findings in each tier are summarised below, and in tabular form on page xii.

Health status and outcomes

Areas of improvement

- The proportion of low birthweight babies of Indigenous mothers decreased 8% between 2000 and 2008. The rate ratio Indigenous to non-Indigenous decreased from 2.5 to 2.3 in the same period.
- Between 1999–2003 and 2004–2008 there was a drop in the Indigenous perinatal mortality rate from 12.5 to 9.6 per 1,000 births. This rate remained relatively constant for other babies in New South Wales at 8.8 per 1,000 births.
- From 2001–2002 to 2005–2007, the SIDS mortality rate declined from 2.0 to 1.4 deaths per 1,000 live births for Indigenous infants, while remaining stable for non-Indigenous infants.

Areas needing further work

- Hospitalisation rates among Indigenous people have increased 10% between 2004–05 and 2007–08
 - hospitalisation rate for circulatory disease increased 11%
 - diabetes hospitalisation rate increased 36%
 - hospitalisations for diseases of the ear and mastoid process among children aged 0–14 increased 11%
 - hospitalisations for mental health conditions increased 7%.
- From 1991 to 2008 there were significant increases in the incidence of end-stage renal disease for Indigenous Australians in New South Wales.
- Notification for hepatitis C among Indigenous people was four times the rate for other people in 2006–08.
- There was no significant change in mortality rates between 2001 and 2007:
 - Mortality from all causes showed no significant change for Indigenous people, while there was a decline for non-Indigenous people, thus widening the gap
 - Similarly the gap between Indigenous and non-Indigenous deaths from avoidable and preventable causes widened

Determinants of health

Areas of improvement

- A high proportion of Indigenous people aged 15 and over were studying in 2008 (20%), compared with non-Indigenous people of the same age (15%).
- In 2004-05, 99% of Indigenous people reported eating vegetables and 88% eating fruit every day.
- In 2008, about 70% of Indigenous babies had been breastfed.

Areas needing further work

- About half of Indigenous men and women were current smokers in 2008.
- Indigenous mothers were four times as likely as non-Indigenous mothers to smoke during pregnancy (48% and 12% respectively).
- From 2005-06 to 2008-09, the proportion of Aboriginal and Torres Strait Islander children who were subjects of substantiations increased from 27 per 1,000 to 57 per 1,000. The rate ratio between Indigenous children and other children increased from 5 to 8.
- Indigenous Australians were 13 times as likely as non-Indigenous people to be imprisoned in 2009 (2,153 and 164 per 100,000 people respectively).

Health system performance

Areas of improvement

- In 2007, 96% of Indigenous mothers attended at least one antenatal session in pregnancy.
- 90% of Indigenous children aged 1 and 80% of children aged 2 were fully vaccinated in 2009.
- The proportion of Indigenous women aged 50-69 who participated in the BreastScreen Australia program increased from 32% to 37% between 2003-04 and 2007-08.

Areas needing further work

- Over the period 2004-05 to 2007-08, the gap in hospitalisation rates for potentially preventable acute conditions and potentially preventable chronic conditions for Indigenous people compared with other people increased:
 - the hospitalisation rates for *potentially preventable acute conditions* increased 16% from 21 to 25 per 1,000 population for Indigenous people, and 8% from 12.3 to 13.3 per 1,000 population for other people
 - the hospitalisation rates for *potentially preventable chronic conditions* increased 25% from 70 to 88 per 1,000 population for Indigenous people, and for others the rate increased 19% from 21 to 26 per 1,000 population.

Summary of progress against key indicators in the Health Performance Framework, NSW

Health status and outcomes		Determinants of health		Health system performance	
Improving	Needs improvement	Improving	Needs improvement	Improving	Needs Improvement
<p>Low birthweight Decreased 8% for Indigenous babies. Gap has narrowed. (2000-2008)</p> <p>Perinatal mortality Gap has narrowed, as the rate dropped from 12.5 to 9.6 per 1,000 for Indigenous and remained constant for non-Indigenous. (1999-2003 to 2004-08)</p> <p>SIDS mortality The rate for Indigenous declined but not significantly, and for non-Indigenous remained constant. (2001-02 to 2005-07)</p>	<p>Hospitalisation Hospitalisation rate increased 10% for Indigenous people, 5% for others. Gap has widened. (2004-05 to 2007-08)</p> <p>Circulatory disease Hospitalisation rate increased 11% for Indigenous people, decreased 3% for others. Gap has widened. (2004-05 to 2007-08)</p> <p>Diabetes Hospitalisation rate increased 36% for Indigenous people, 12% for others. Gap has widened. (2004-05 to 2007-08)</p> <p>End-stage renal disease Incidence rate for Indigenous people increased 326%, for non-Indigenous 65%. (1991-2008)</p> <p>Children's hearing loss The hospitalisation rate of the ear and mastoid process for Indigenous children aged 0-14 increased 11%; no significant change for other children. Gap has widened. (2004-05 to 2007-08)</p> <p>Hepatitis C In 2006-08, notification rate for hepatitis C among Indigenous people was four times the rate for other people.</p> <p>Mental health Hospitalisation rate increased 7% for Indigenous people and 2% for other people. Gap has widened. (2004-05 to 2007-08)</p> <p>All-causes mortality The mortality rate did not significantly change for Indigenous people, declining by 6%. Gap has widened. (2001-2007)</p> <p>Avoidable causes of death The mortality rate from avoidable causes showed no significant decline for Indigenous people, declining 19%. Gap has widened. (2001-2007)</p>	<p>Adult education In 2008, a higher proportion of Indigenous Australians aged 15 and over was currently studying than non-Indigenous Australians (20% compared with 15%).</p> <p>Dietary behaviour In 2004-05, 99% of Indigenous Australians aged 12 and over reported eating vegetables daily; 88% reported eating fruit daily.</p> <p>Breastfeeding In 2008, about 70% of Indigenous infants aged 0-3 years had been breastfed.</p>	<p>People in prison custody At June 30 2009, the age standardised rate of imprisonment for Indigenous Australians was 13 times the rate for non-Indigenous Australians.</p> <p>Children subjects of substantiations Indigenous children aged 0-16 were 8 times as likely as non-Indigenous children to be the subject of substantiations in 2008-09</p> <p>Smoking status In 2008, about half of Indigenous men and women were smokers.</p> <p>Smoking during pregnancy In 2007, four times as many Indigenous women smoked during pregnancy as non-Indigenous women (48% vs 12%).</p> <p>Stressors In 2008, 79% of Indigenous Australians aged 18 and over, or their family members and close friends, experienced at least one stressor in the last 12 months compared with 48% of non-Indigenous Australians</p>	<p>Antenatal care In 2007, 96% of Indigenous mothers attended at least one antenatal care session, an increase of 3.1% between 1998 and 2007.</p> <p>Child immunisation In 2009, nearly 90% of Indigenous children aged 1, and about 80% of those aged 2, were fully immunised. From 2008 to 2009, the proportion of Indigenous children aged 5 who were fully vaccinated increased by 12%.</p> <p>BreastScreen The proportion of Indigenous women aged 50-69 participating in the BreastScreen Australia program increased from 32% to 37%. (2003-04 to 2007-08)</p>	<p>Ambulatory care Gap between Indigenous and other Australians for potentially preventable hospitalisation has widened. (2004-05 to 2007-08)</p> <p>Potentially preventable acute conditions hospitalisations increased 16% among Indigenous people, 8% among other people; Potentially preventable chronic conditions increased 25% among Indigenous people and 19% for other people.</p>

Introduction

This report examines a range of indicators on health status, determinants and health system performance in relation to Aboriginal and Torres Strait Islander people in New South Wales. The report is based on the *Aboriginal and Torres Strait Islander Health Performance Framework 2010 report, detailed analysis*, the third in a series of reports on performance compared with the Aboriginal and Torres Strait Islander Health Performance Framework (HPF). Analysis in this report includes both jurisdiction-specific measures and their comparison with national measures.

The HPF comprises three tiers:

Tier 1 – health status and outcomes. This tier covers prevalence of health conditions (for example, circulatory disease, diabetes); human function (for example, disability); life expectancy, and wellbeing and deaths. This tier aims to provide an overall indication of current health status and recent trends. Issues include child and maternal health, chronic diseases, injury, communicable diseases, social and emotional wellbeing.

Tier 2 – determinants of health. This Tier measures the determinants of health, focusing on factors outside the health system. The domains covered include socioeconomic status (e.g. income and education), environmental factors (e.g. overcrowding), community capacity (e.g. child protection), health behaviours (e.g. risky alcohol consumption and dietary behaviours) and person-related factors (e.g. prevalence of overweight and obesity). Such factors have been shown to have a strong association with disease and ill health.

Tier 3 – health system performance. This tier includes measures the performance of the health system, including population health, primary health care and secondary/tertiary care services. Six domains are covered: effectiveness of health services, responsiveness of health services to Aboriginal and Torres Strait Islander communities and individuals, accessibility of services, capability and sustainability. It includes measures dealing with programs and service types that include child and maternal health, early detection and chronic disease management, continuous care, access to secondary/tertiary care, the health workforce and expenditure.

The tiers and domains of the HPF with indicators under each domain are shown in Figure 1. At present, 71 indicators can be reported against at national level but not all these indicators can be reported for New South Wales due to issues related to data availability and data quality. Information on why these indicators were selected can be found in the Aboriginal and Torres Strait Islander Health Performance Framework 2010 policy report (AHMAC 2011).

Health status and outcomes (Tier 1)		
Health conditions 1.01 Low birthweight infants 1.02 Top reasons for hospitalisation 1.03 Hospitalisation for injury and poisoning 1.04 Hospitalisation for pneumonia 1.05 Circulatory disease 1.06 Acute rheumatic fever & rheumatic heart disease * 1.07 High blood pressure 1.08 Diabetes 1.09 End-stage renal disease 1.10 Decayed, missing, filled teeth 1.11 HIV/AIDS, hepatitis C and sexually transmissible infections 1.12 Children's hearing loss	Human function 1.13 Disability 1.14 Community functioning Life expectancy & wellbeing 1.15 Perceived health status 1.16 Social and emotional wellbeing 1.17 Life expectancy at birth 1.18 Median age at death	Deaths 1.19 Infant mortality rate 1.20 Prenatal mortality 1.21 Sudden infant death syndrome 1.22 All-causes age-standardised deaths rates 1.23 Leading causes of mortality 1.24 Maternal mortality* 1.25 Avoidable and preventable deaths
Determinants of health (Tier 2)		
Environmental factors 2.01 Access to functional housing with Utilities 2.02 Overcrowding in housing 2.03 Environmental tobacco smoke Socioeconomic factors 2.04 Educational participation and attainment of Aboriginal and Torres Strait Islander adults 2.05 Years 10 and 12 retention and attainment 2.06 Year 3, 5 and 7 literacy and numeracy 2.07 Employment status including CDEP participation 2.08 Income 2.09 Housing tenure type 2.10 Index of disparity	Community capacity <i>Demography</i> 2.11 Dependency ratio 2.12 Single-parent families by age group* <i>Safety and Crime</i> 2.13 Community safety 2.14 Contact with the criminal justice system 2.15 Child protection <i>Other</i> 2.16 Transport 2.17 Indigenous people with access to their traditional lands	Health behaviours <i>Tobacco, alcohol and other drug use</i> 2.18 Tobacco use 2.19 Tobacco smoking during pregnancy 2.20 Risky and high-risk alcohol consumption 2.21 Drug and other substance use including inhalants <i>Physical activity</i> 2.22 Level of physical activity <i>Nutrition</i> 2.23 Dietary behaviours 2.24 Breastfeeding practices <i>Other health behaviours</i> 2.25 Unsafe sexual practices Person-related factors 2.24 Prevalence of overweight and obesity
Health system performance (Tier 3)		
Effective/Appropriate/Efficient 3.01 Antenatal care 3.02 Immunisation (child and adult) 3.03 Early detection and early treatment (including cancer screening) 3.04 Chronic disease management* 3.05 Differential access to key hospital procedures 3.06 Ambulatory care sensitive hospital admissions 3.07 Health promotion Responsive 3.08 Discharge against medical advice 3.09 Access to mental health services 3.10 Aboriginal and Torres Strait Islander Australians in the health workforce 3.11 Competent governance	Accessible 3.12 Access to services by types of service compared to need 3.13 Access to prescription medicines* 3.14 Access to after-hours primary health care Continuous 3.15 Regular GP or health service 3.16 Care planning for client with chronic diseases	Capable 3.17 Accreditation 3.18 Aboriginal and Torres Strait Islander people in Tertiary Education for health related disciplines Sustainable 3.19 Expenditure on Aboriginal and Torres Strait Islander health compared to need 3.20 Recruitment and retention of clinical and management staff (including GPs)

Figure 1: Aboriginal and Torres Strait Islander Health Performance Framework measures

* Measures for which New South Wales data are unavailable, or data are not of sufficient quality for reporting.

Note: The **Safe** domain is measured within the National Health Performance Committee framework.

Demographic information

In 2010, there were an estimated 165,306 Aboriginal and Torres Strait Islander people in New South Wales, accounting for nearly one-third (29.4%) of the Indigenous population in Australia. Indigenous people represent 2.3% of the New South Wales population, similar to their proportion of the total Australian population (2.6%).

Table 1: Estimated resident population by Indigenous status, New South Wales and Australia, 2010

	Indigenous		Non-Indigenous		Total			
	No.	%	No.	%	No.	%	% Indig.	% Non-Indig.
New South Wales	165,306	29.4	6,955,992	32.5	7,121,298	32.4	2.3	97.7
Australia^(a)	563,101	100.0	21,427,910	100.0	21,991,011	100.0	2.6	97.4

(a) Includes territories other than New South Wales, Victoria, Queensland, South Australia, Western Australia, Tasmania, the Northern Territory and the Australian Capital Territory.

Source: AIHW analysis of ABS population estimates based on 2006 Census.

Aboriginal and Torres Strait Islander people have an age structure significantly younger than that of other Australians. For example, in New South Wales, Aboriginal and Torres Strait Islander people aged under 15 constitute 35.6% of the Indigenous population, whereas this age group represents about 18.8% of the total population. Conversely, those aged 65 and over comprise only 3.7% of the Indigenous population, compared with 14.3% of the total New South Wales population (Figure 2).

In New South Wales, the vast majority of Aboriginal and Torres Strait Islander people live in major cities (43.4%), inner regional (33.2%) and outer regional areas (18.4%). Only about 5% of them live in the remote and very remote areas. In comparison, about three-quarters of the total Indigenous population in Australia live in major cities (32.1%), inner regional (21.4%) and outer regional areas (21.9%), with just under a quarter residing in remote (9%) and very remote areas (15%).

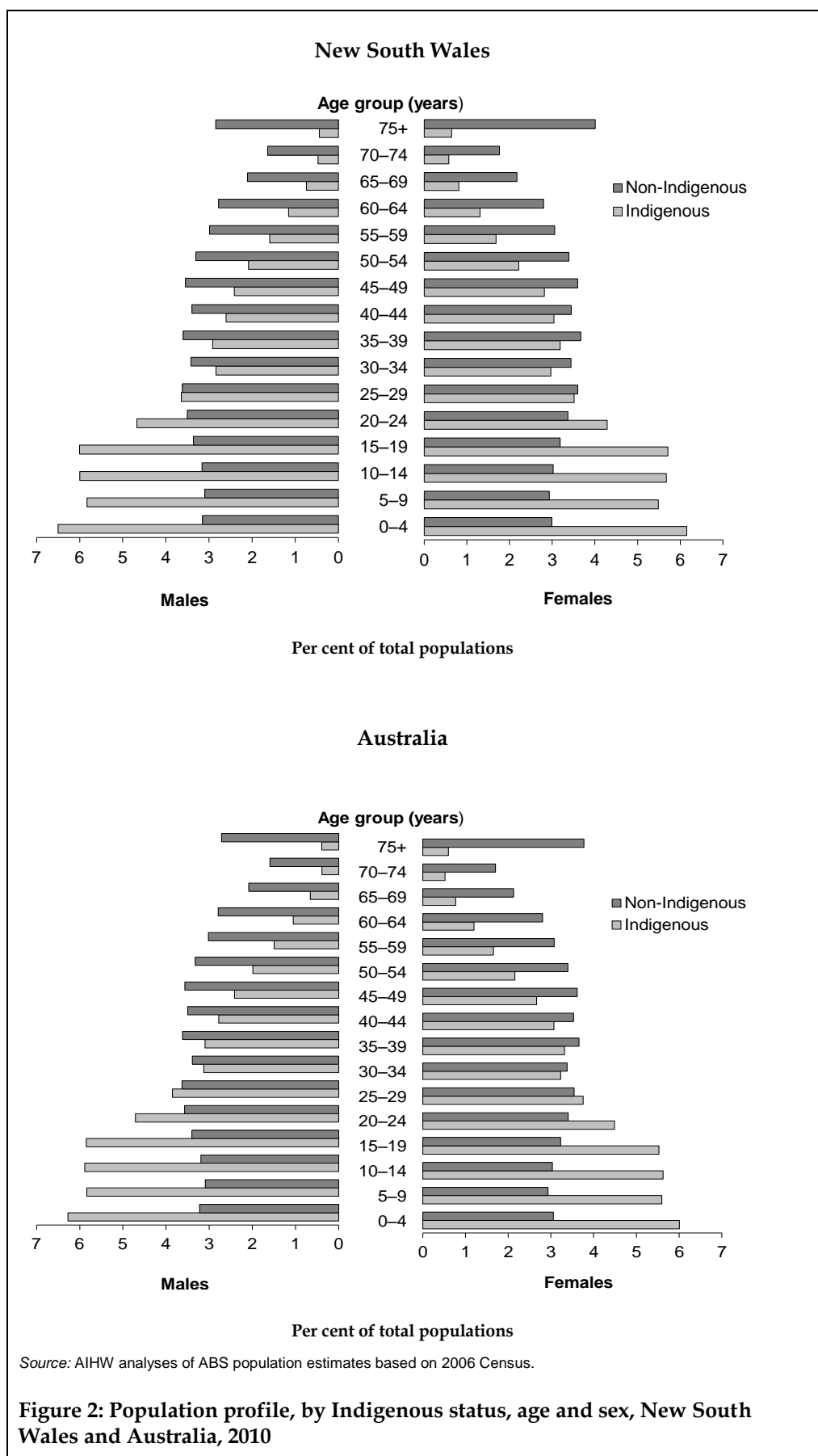


Table 2: Estimated resident population by remoteness area and Indigenous status, New South Wales and Australia, 2006

	Indigenous		Non-Indigenous		Total			
	No.	Per cent	No.	Per cent	No.	Per cent	Per cent Indig.	Per cent Non-Indig.
New South Wales								
Major cities	66,068	43.3	4,880,280	73.2	4,946,348	72.6	1.3	98.7
Outer regional	50,705	33.2	1,335,859	20.0	1,386,564	20.3	3.7	96.3
Inner regional	28,046	18.4	417,053	6.3	445,099	6.5	6.3	93.7
Remote	6,616	4.3	26,912	0.4	33,528	0.5	19.7	80.3
Very remote	1,250	0.8	3,298	0.0	4,548	0.1	27.5	72.5
New South Wales	152,685	100.0	6,663,402	100.0	6,816,087	100.0	2.2	97.8
Australia								
Major cities	165,804	32.1	13,996,454	69.4	14,162,258	68.4	1.2	98.8
Outer regional	110,643	21.4	3,974,764	19.7	4,085,407	19.7	2.7	97.3
Inner regional	113,280	21.9	1,854,024	9.2	1,967,304	9.5	5.8	94.2
Remote	47,852	9.3	267,199	1.3	315,051	1.5	15.2	84.8
Very remote	79,464	15.4	86,017	0.4	165,481	0.8	48.0	52.0
Australia	517,043	100.0	20,180,837	100.0	20,697,880	100.0	2.5	97.5

Source: AIHW analysis of ABS population estimates based on 2006 Census.

Data sources and methodology

Data in this report come from a number of administrative data sets and surveys. A description of all data sources used is presented in Appendix 1.

Health-related administrative data sets used are the Australian Institute of Health and Welfare (AIHW) National Hospital Morbidity Database, the AIHW National Mortality Database, the AIHW National Perinatal Data Collection, Australia and New Zealand Dialysis and Transplant Registry and the National Notifiable Diseases Surveillance System.

Administrative data related to education are the ABS National Schools Statistics Collection, DEEWR Higher Educations Statistics Collection and the National Centre for Vocational Education Research database; and community services-related data include the AIHW Community Mental Health Care Database and the AIHW National Child Protection Data collections. Administrative data related to other government services and programs such as the Service Activity Reporting Database, Australian Childhood Immunisation Register and Medicare databases have also been used.

Surveys used to obtain data include Indigenous-specific surveys such as the National Aboriginal and Torres Strait Islander Health Survey, the National Aboriginal and Torres Strait Islander Social Survey, and the Community Housing Infrastructure Needs Survey.

Data from the 2006 Census of Population and Housing have also been used.

Age-standardised rates, rate differences and ratios have been used in many of the indicators to show how Indigenous people fare relative to other Australians. All age-standardised rates and rate ratios have been calculated using the direct standardisation method and the 2001 Australian population as the standard population.

Time series analyses have used linear regression analysis to determine whether there have been significant increases or decreases in the observed rates over the period. Many of the tables also include a * to indicate that rates for the Indigenous and non-Indigenous populations are statistically different at the $p < 0.05$ level.

Data limitations

A number of limitations should be noted when interpreting data analyses and making comparisons across jurisdictions and over time. The main issue in most administrative data collections is the under-identification of Aboriginal and Torres Strait Islander people. Under-identification is a major problem in mortality, hospital morbidity and communicable disease data, particularly in some states and territories. Data analysis has therefore been limited to jurisdictions with adequate identification of Indigenous people. Appendix 1 presents a brief description of each data source and a comprehensive data quality statement covering the data sources and specific issues to be noted when reading the indicator and interpreting the data.

For recent hospital separations New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory are considered as having data of sufficient quality to be included in the analyses. For longer-term hospital separations, data from only Queensland, Western Australia, South Australia and the Northern Territory are used. Longer-term mortality trend data are limited to three jurisdictions – Western Australia, South Australia and the Northern Territory, which have more than 10 years of adequate identification of Indigenous deaths in their recording systems. Queensland data from 1998 and NSW data from 2001 onwards are considered to be of adequate quality for mortality analyses.

Data on communicable diseases from the National Notifiable Disease Surveillance System are assessed as having a varying level of completeness across diseases and jurisdictions. Only New South Wales had adequate identification for reporting on hepatitis C.

The incompleteness of Indigenous identification means the number of hospital separations, deaths and disease notifications recorded as Indigenous are an underestimation of the true level of morbidity and mortality of Aboriginal and Torres Strait Islander people. As a result, the observed differences between the Indigenous and non-Indigenous populations are underestimates of the true differences.

Surveys are also subject to data limitations such as bias in responses and under-identification. Survey data are also subject to sampling and non-sampling errors. In most tables in this report, estimates with large relative standard errors, which is a measure of the sampling variability, have been footnoted to indicate that they should be used with caution or are considered too unreliable for general use.

Population data

Indigenous population data are required when computing rates from administrative data collections. The Indigenous population estimates used in this report are the Indigenous estimated resident population (ERP) figures, based on the 2006 Census (ABS 2009b). The 2006 Census enumerated the Indigenous population from responses to a question on a person's Indigenous status. The Indigenous ERP for 2006 is computed using this enumerated Indigenous population from the Census, and adjusted for undercount based on results from the PES as well as for non-response to the Indigenous status question (ABS 2009b).

Population numbers for other years are projected based on assumed future levels of fertility, mortality and migration (ABS 2009b).

The use of Indigenous ERP based on the 2006 Census showed a greater impact on mortality time series which showed substantially different results from those published in previous national reports such as the Aboriginal and Torres Strait Islander Health Performance Framework. The implications of using 2006 ERP are discussed in Box 1.

Box 1: Effect of changing from 2001 to 2006 Census-based Indigenous population denominator

The 2010 Aboriginal and Torres Strait Islander Health Performance Framework report uses ABS experimental estimates of the Indigenous resident population based on the 2006 Census (referred to as 2006 ERP) as the denominator when calculating rates from a range of data sources (see Appendix 1). Previously published data in 2006 and 2008 Aboriginal and Torres Strait Islander Health Performance Framework reports used a denominator based on the 2001 Census estimates (referred to as 2001 ERP).

Rates based on 2006 ERP are different from those based on the 2001 ERP, often resulting in a significant closing of the gap in measures such as mortality between Indigenous and non-Indigenous Australians. However, the two sets of rates are not comparable. While the greatest impact of 2006 ERP was seen in mortality rates, the rates based on other administrative data were also affected.

The main factor contributing to the change is the increase in the estimated Indigenous population between the 2001 and 2006 Census-based ERPs, resulting in lower rates for Indigenous Australians. The growth in Indigenous population between 2001 and 2006 is about 12 per cent, compared with about 6 per cent for the total Australian population. Some of this growth may be attributable to changes in Indigenous identification.

According to the ABS, by extending the Census post-enumeration survey to more remote areas, the post-2006 Census adjustment provides a more accurate estimate of Indigenous population than previous estimates.

The ABS also used the findings from the 2006 Census and mortality data enhancement project to produce a revised backcast Indigenous population series. For backcast estimates, it was assumed that Indigenous male and female life expectancy at birth would increase by 0.2 years per year between 1986 and 2006 (this assumes Indigenous life expectancy at birth of 63.1 years for males and 68.8 years for females in 1986). This resulted in fewer Indigenous people between 1986 and 1999 and more people from 2000 to 2006.

Similar adjustments have not been made to numerator data which also contribute to the differences in rates based on 2006 ERP.

Structure of this report

Chapter 1 presents analyses for Tier 1 – health status and health outcomes; Chapter 2 presents analyses for Tier 2 – determinants of health, and Chapter 3 presents analyses for Tier 3 – health system performance. The layout for each indicator is constant and includes a definition according to the technical specifications followed by analyses undertaken. For each indicator, jurisdiction-specific data are analysed in comparison with national data, or data from a group of jurisdictions with sufficient data quality. Where possible, analyses are presented by age, sex, and Indigenous status. Time trends are also presented where possible for years that have adequate identification of Indigenous people in their recording systems.

Health status and outcomes (Tier 1)

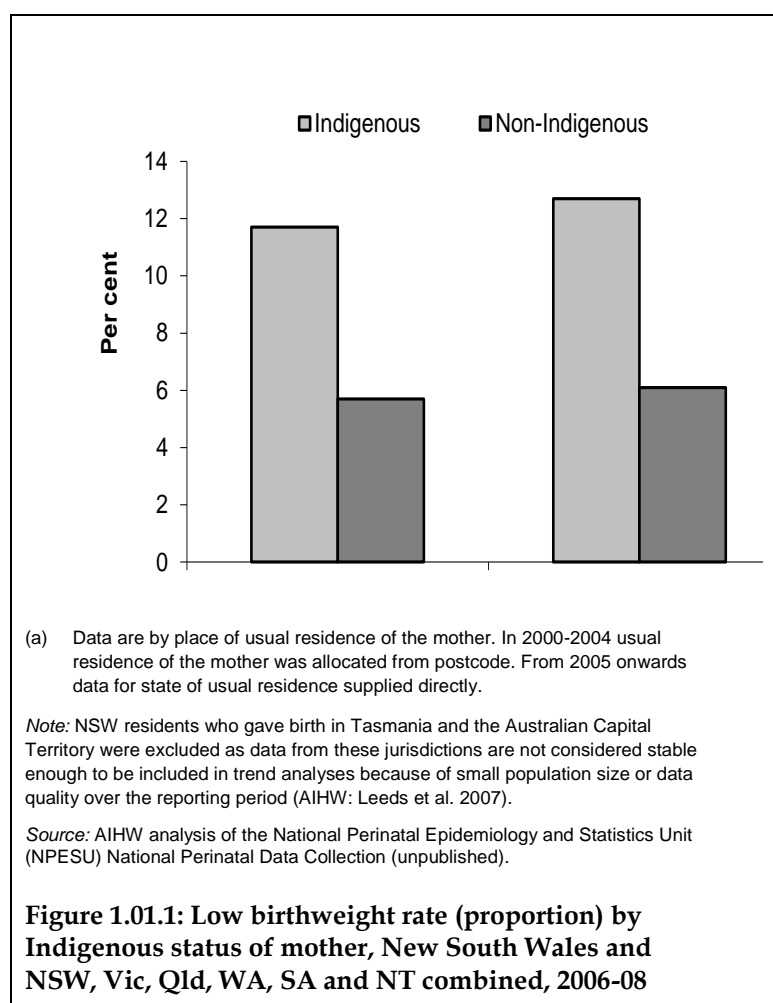
1.01 Low birthweight infants

The incidence of low birthweight among live-born babies of Aboriginal and Torres Strait Islander mothers

Incidence is the number of new cases (of an illness or event, and so on) occurring during a given period.

Low birthweight by Indigenous status

- Over the period 2006–08 in New South Wales, live-born babies born to Indigenous mothers were about twice as likely (11.6% compared with 5.7%) to be of low birthweight (that is, less than 2,500 grams) than live-born babies born to non-Indigenous mothers.
- These figures were slightly higher for New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, but babies born to Indigenous mothers were still about twice as likely to be of low birthweight (12.4% compared to 6.0%) as babies born to non-Indigenous mothers.



Low birthweight trends

- Over the 9-year period 2000 to 2008 in New South Wales, the proportion of low birthweight babies born to Indigenous mothers decreased significantly, with an annual average decrease in the rate of 0.17%, equivalent to an 8% decrease over the period. The low birthweight rate ratio and rate difference between singleton live-born babies of Indigenous and non-Indigenous mothers also decreased significantly over the same period. The fitted trend implies an average yearly decrease of 0.03 in the rate ratio, and 0.15% in the rate difference.
- Over the same period in NSW, Vic, Qld, WA, SA & NT combined, there was no significant change in the proportion of low birthweight babies born to Indigenous mothers or non-Indigenous mothers.

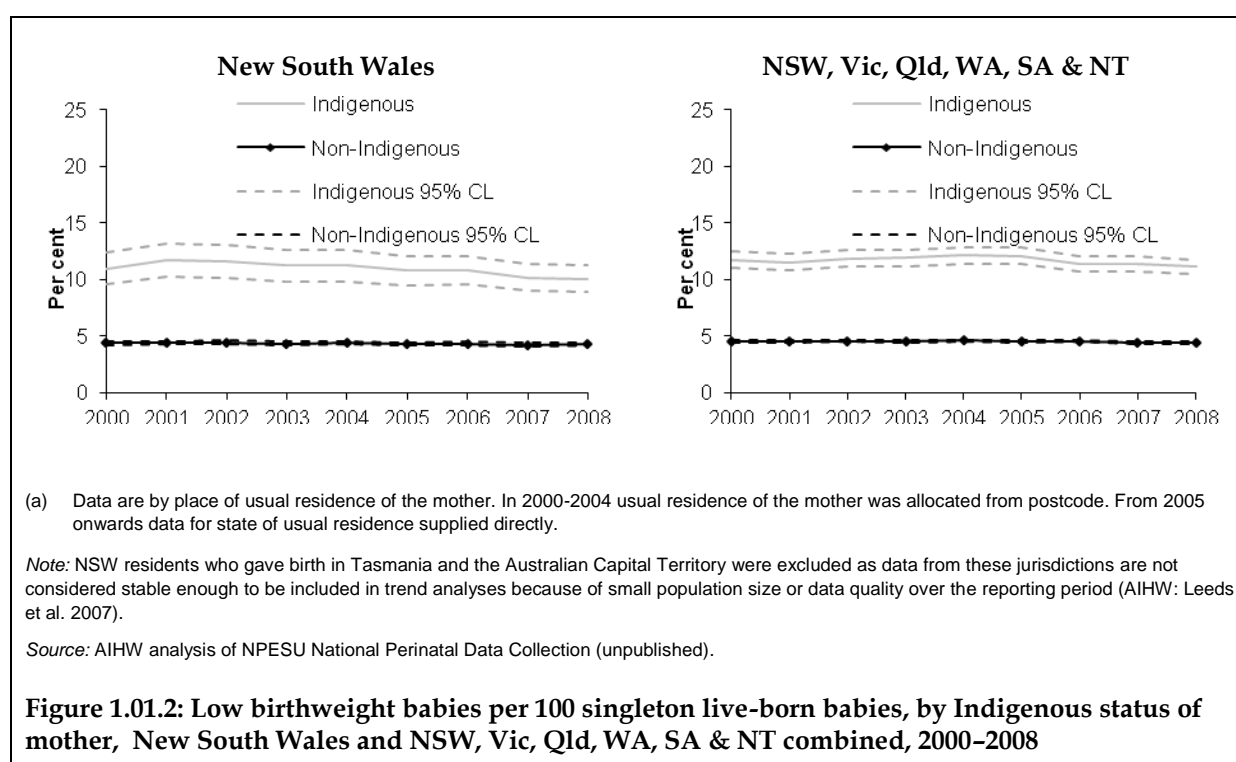


Table 1.01.1: Low birthweight rate (proportion), ratio and difference between singleton live-born babies of Indigenous and other mothers, New South Wales and NSW, Vic, Qld, WA, SA & NT combined, 2000-2008^(a)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	Annual change ^(b)
New South Wales										
Rate per 100 live births (%)										
Indigenous	11.0	11.7	11.6	11.2	11.2	10.8	10.8	10.2	10.1	-0.17*
Non-Indigenous	4.4	4.4	4.4	4.3	4.4	4.3	4.3	4.2	4.3	-0.02*
Rate ratio	2.5	2.7	2.6	2.6	2.5	2.5	2.5	2.4	2.3	-0.03*
Rate difference	6.6	7.3	7.2	6.9	6.8	6.5	6.4	6.0	5.8	-0.15*
NSW, Vic, Qld, WA, SA & NT										
Rate per 100 live births (%)										
Indigenous	11.7	11.5	11.9	11.9	12.1	12.1	11.4	11.3	11.1	-0.06
Non-Indigenous	4.5	4.5	4.6	4.5	4.6	4.5	4.6	4.4	4.4	-0.01
Rate ratio	2.6	2.6	2.6	2.6	2.6	2.7	2.5	2.6	2.5	-0.01
Rate difference	7.2	7.0	7.3	7.4	7.5	7.5	6.8	6.9	6.7	-0.05

* Represents results with statistically significant increases or decreases at the $p < .05$ level over the period 2000-2008.

(a) Data are by place of usual residence of the mother. In 2000-2004 usual residence of the mother was allocated from postcode. From 2005 onwards data for state of usual residence supplied directly.

(b) Average annual change in rate, rate ratio, and rate difference of low birthweight babies determined using linear regression analysis.

Note: NSW residents who gave birth in Tasmania and the Australian Capital Territory were excluded as data from these jurisdictions are not considered stable enough to be included in trend analyses because of small population size or data quality over the reporting period (AIHW: Leeds et al. 2007).

Source: AIHW analysis of NPESU National Perinatal Data Collection (unpublished).

1.02 Top reasons for hospitalisation

Hospital admissions for the leading ICD-10-AM categories for Aboriginal and Torres Strait Islander people expressed as a rate by age group, age-standardised rate and rate ratio

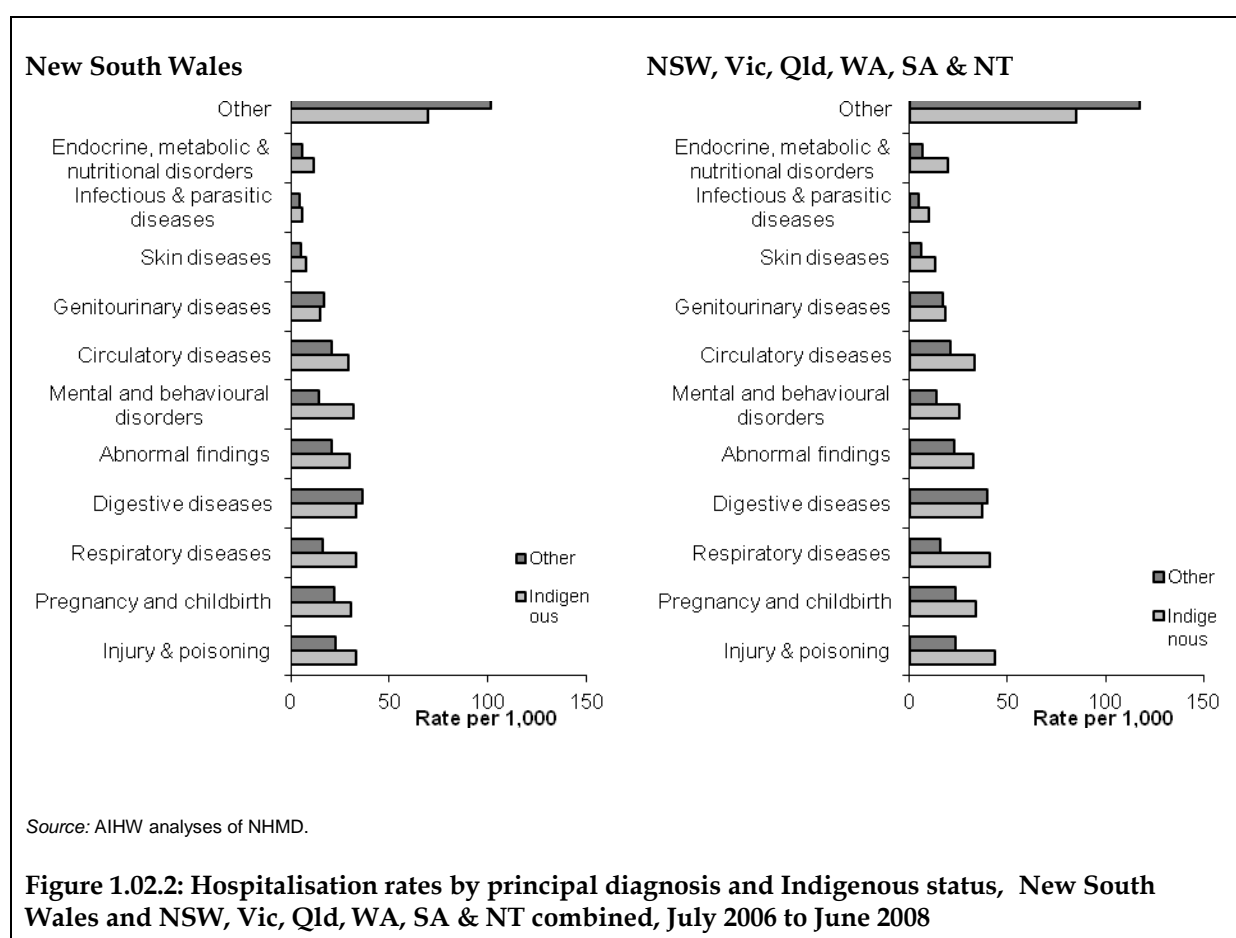
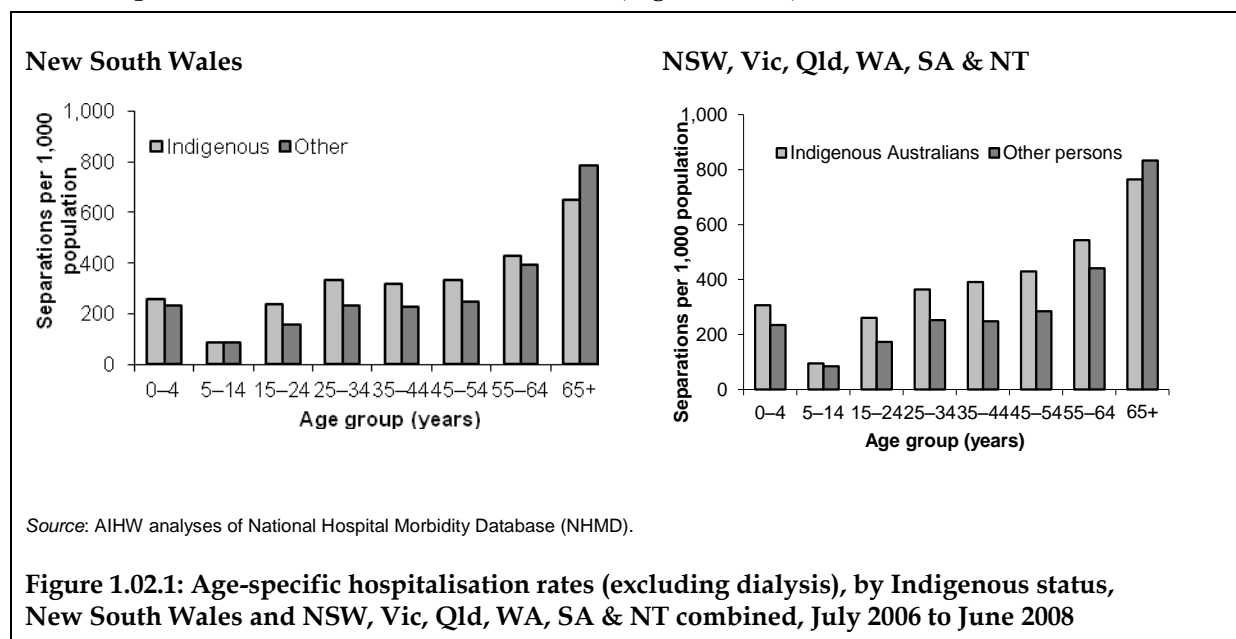
Hospitalisations by age

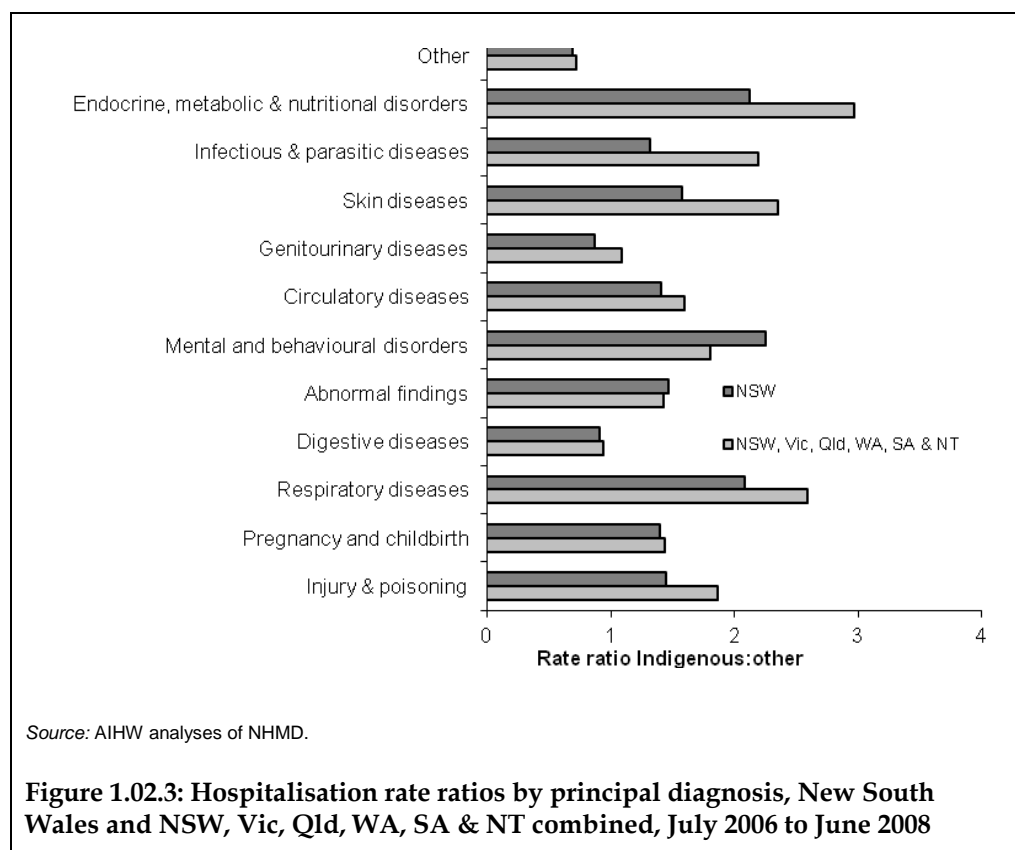
- For the 2-year period July 2006 to June 2008 in New South Wales there were 4,676,100 hospitalisations, 2.3% of which were of Indigenous Australians.
- Overall, Indigenous Australians were hospitalised at 1.6 times the rate of other people in New South Wales. In the six jurisdictions combined, Indigenous Australians were hospitalised at 2.3 times the rate of other people.
- Excluding dialysis (due to the frequent admissions for the same disease), Indigenous Australians in New South Wales were hospitalised at 1.2 times the rate of other people. Indigenous Australians in New South Wales, Victoria, Queensland, Western Australia, South Australia, and the Northern Territory combined were hospitalised at 1.3 times the rate of other people.
- For the 2-year period July 2006 to June 2008 in New South Wales, when hospitalisations for dialysis are excluded, Indigenous Australians had higher hospitalisation rates than other people across all age groups with the exception of those aged 5–14 years and those aged 65 and over. In New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, Indigenous Australians had higher hospitalisation rates than other people across all age groups with the exception of those aged 65 and over.
- The greatest differences in hospitalisation rates between Indigenous and other people in New South Wales were for those in the 15–24, 25–34, 35–44 and 45–54 age groups, where Indigenous Australians were hospitalised at about 1.4 times the rate of other people in these age groups.
- For both New South Wales alone, and the six jurisdictions combined, hospitalisation rates were highest in the 65 and over age group and lowest among those aged 5–14 for all people.

Hospitalisations by principal diagnosis

- The most common principal diagnosis among Indigenous Australians in New South Wales was respiratory disease, followed by digestive disease. In New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, the most common principal diagnosis was injury and poisoning, followed by respiratory disease.
- The greatest differences in hospitalisation rates between Indigenous and other people in New South Wales was for mental and behavioural disorders, and respiratory disease. Indigenous Australians in New South Wales were hospitalised at around twice the rate of other people for these conditions.
- Hospitalisation rates for Indigenous Australians in New South Wales were lower than for Indigenous Australians in the six jurisdictions combined for most principal diagnoses except mental and behavioural disorders (Figure 1.02.2).

- Rate ratios between Indigenous and other Australian hospitalisation rates were lower in New South Wales than in the six jurisdictions combined for most principal diagnoses except mental and behavioural disorders (Figure 1.02.3).

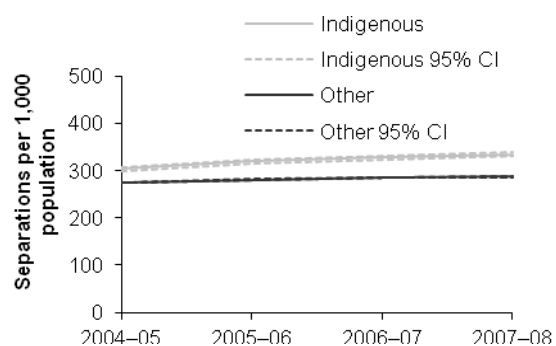




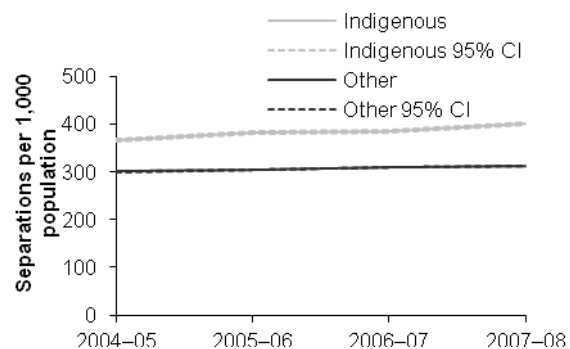
Hospitalisation trends

- There was a significant increase in hospitalisation rates for Indigenous Australians in New South Wales over the 4-year period 2004–05 to 2007–08. The fitted trend implies an average yearly increase in hospitalisation rates of 10.5 per 1,000 which is equivalent to an increase of 10%.
- Over the same period, hospitalisation rates for other people in New South Wales also showed a significant increase of 5%.
- Significant increases were also seen in the hospitalisation rate ratio and rate difference between Indigenous and other people in New South Wales. The fitted trend implies an annual average increase of 0.02 in the rate ratio and 6.3 per 1,000 in the rate difference.
- In New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, there were significant increases in hospitalisation rates among Indigenous and other people over the 4-year period 2004–05 to 2007–08 (an average yearly increase of 10.6 per 1,000 for Indigenous Australians and 4.2 per 1,000 for other people).

New South Wales



NSW, Vic, Qld, WA, SA & NT



Source: AIHW analyses of NHMD.

Figure 1.02.4: Trends in hospitalisation rates (excluding dialysis) by Indigenous status, New South Wales and NSW, Vic, Qld, WA, SA & NT combined, 2004-05 to 2007-08

1.03 Hospitalisation for injury and poisoning

The number of hospitalisations with a principal diagnosis of injury and poisoning for Aboriginal and Torres Strait Islander people expressed as a rate by age group, age-standardised rate and rate ratio

Hospitalisations by age and sex

- For the 2-year period July 2006 to June 2008, in New South Wales, Indigenous males and females had higher hospitalisation rates for injury and poisoning than other males and females across all age groups with the exception of those aged 65 and over.
- The greatest difference in hospitalisation rates occurred in the 25–34 and 35–44 age groups for males and females. Indigenous males were hospitalised at twice the rate of other males in these age groups, and females were hospitalised at about three times the rate of other females in these age groups respectively.
- For Indigenous females, hospitalisation rates for injury and poisoning were highest among those aged 65 and over. For Indigenous males, hospitalisation rates were highest among those aged 25–34.
- For Indigenous males and females in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, hospitalisation rates were highest among those aged 35–44, while for other males and females rates were highest among those aged 65 and over.

Hospitalisations by external cause of injury and poisoning

- In the 2-year period July 2006 to June 2008, in New South Wales, accidental falls were the most common cause of hospitalisation for Indigenous males and females with a principal diagnosis of injury and poisoning (22% and 24% respectively), followed by assault (17% for both males and females). In New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, assault was the most common cause of hospitalisation for Indigenous males and females with a principal diagnosis of injury and poisoning, followed by accidental falls.
- The greatest difference in hospitalisation rates for external causes of injury and poisoning between Indigenous and other people in New South Wales was for assault. Indigenous males and females were hospitalised for assault at 4 and 15 times the rate of other males and females respectively. Rate ratios for assault between Indigenous and non-Indigenous Australians in the six jurisdictions combined were 7 and 36 for males and females respectively.
- Aboriginal and Torres Strait Islander males and females in New South Wales and the six jurisdictions combined were more than twice as likely as other males and females to be hospitalised for intentional self-harm and accidental poisoning by exposure to noxious substances.

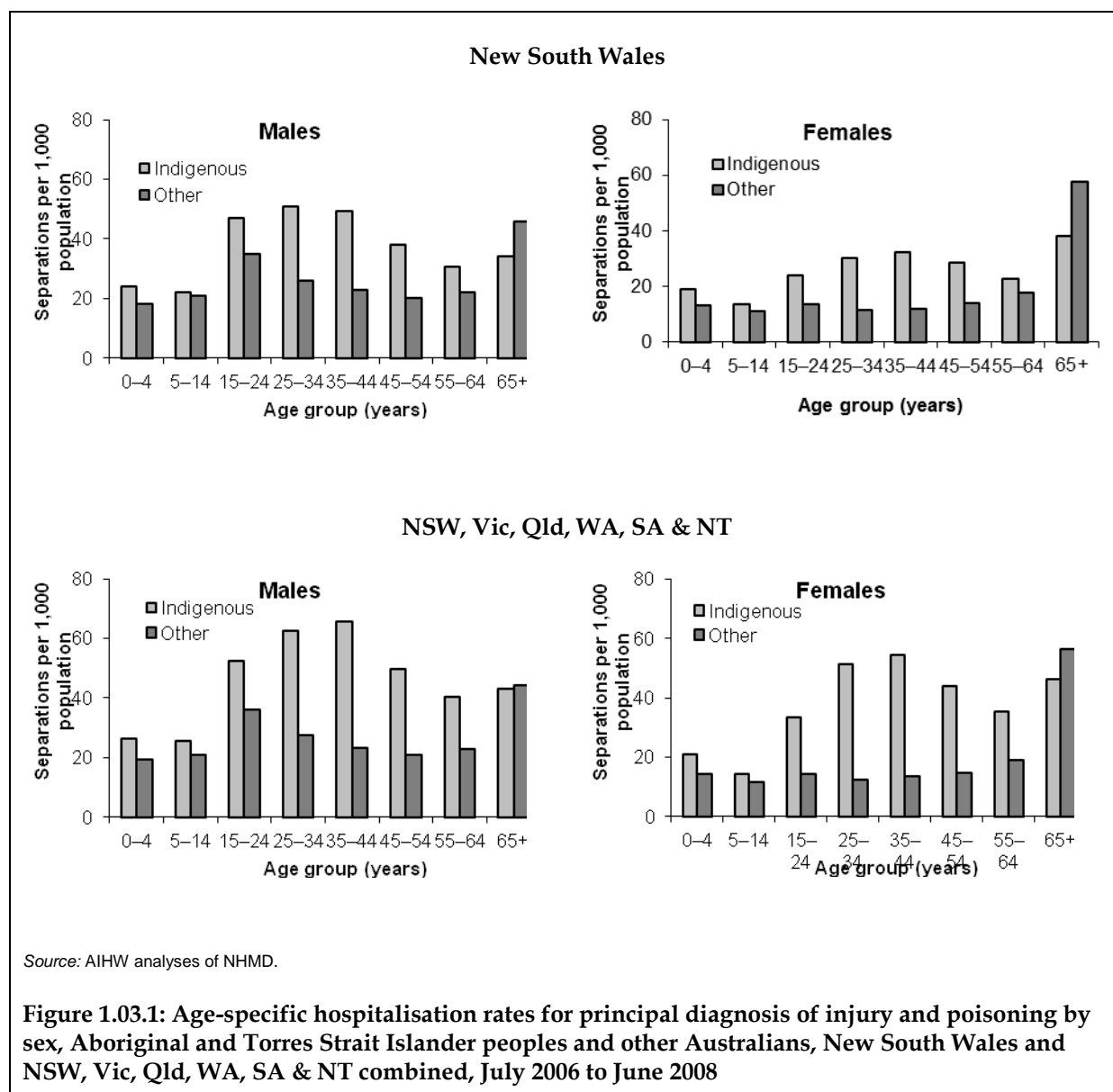


Table 1.03.1: Hospitalisations for external causes of injury and poisoning for Aboriginal and Torres Strait Islander people by sex, New South Wales and NSW, Vic, Qld, WA, SA and NT combined, July 2006 to June 2008^{(a)(b)(c)(d)}

External cause	Males				Females				People			
	No.	% ^(e)	No. per 1,000 ^(f)	Ratio ^(g)	No.	% ^(e)	No. per 1,000 ^(f)	Ratio ^(g)	No.	% ^(e)	No. per 1,000 ^(f)	Ratio ^(g)
New South Wales												
Assault	960	17.0	6.6	4.4*	635	17.3	4.3	14.5*	1,595	17.1	5.4	5.9*
Accidental falls	1,212	21.5	9.1	1.3*	864	23.5	8.0	1.1	2,076	22.3	8.7	1.1*
Exposure to inanimate mechanical forces	916	16.2	5.4	1.3*	351	9.5	2.0	1.5*	1,267	13.6	3.7	1.4*
Transport accidents	694	12.3	4.1	1.1*	252	6.9	1.5	1.0*	946	10.1	2.8	1.1
Medical/ surgical complications	389	6.9	4.1	1.1	426	11.6	4.0	1.2*	815	8.7	4.0	1.1*
Other accidental exposures ^(h)	399	7.1	2.5	0.8*	201	5.5	1.4	0.9	600	6.4	2.0	0.8*
Exposure to animate mechanical forces	261	4.6	1.5	1.7*	114	3.1	0.6	2.0*	375	4.0	1.1	1.8*
Intentional self-harm	325	5.8	2.4	2.7*	515	14.0	3.4	2.5*	840	9.0	2.9	2.6*
Exposure to electric current/smoke/ fire/animals/ nature ⁽ⁱ⁾	220	3.9	1.1	1.8*	107	2.9	0.5	1.6*	327	3.5	0.8	1.7*
Accidental poisoning by and exposure to noxious substances	139	2.5	0.9	1.9*	115	3.1	0.7	1.7*	254	2.7	0.8	1.8*
Other external causes ^(j)	105	1.9	0.7	2.5*	81	2.2	0.5	2.6*	186	2.0	0.6	2.5*
Total (all categories)^(k)	5,649	100.0	38.7	1.4*	3,677	100.0	27.1	1.5*	9,326	100.0	33.0	1.5*

(continued)

Table 1.03.1 (continued): Hospitalisations for external causes of injury and poisoning for Aboriginal and Torres Strait Islander people by sex, New South Wales and NSW, Vic, Qld, WA, SA and NT combined, July 2006 to June 2008^{(a)(b)(c)(d)}

External cause	Males				Females				People			
	No.	% ^(e)	No. per 1,000 ^(f)	Ratio ^(g)	No.	% ^(e)	No. per 1,000 ^(f)	Ratio ^(g)	No.	% ^(e)	No. per 1,000 ^(f)	Ratio ^(g)
NSW, Vic, Qld, WA, SA & NT												
Assault	5,003	22.5	10.8	7.0*	5,309	30.7	10.9	35.5*	10,312	26.1	10.9	11.6*
Accidental falls	3,936	17.7	9.2	1.4*	3,130	18.1	8.7	1.2*	7,066	17.9	9.1	1.3*
Exposure to inanimate mechanical forces	3,285	14.8	6.0	1.4*	1,405	8.1	2.5	1.9*	4,690	11.9	4.2	1.5*
Transport accidents	2,569	11.5	4.8	1.2*	1,154	6.7	2.2	1.4*	3,723	9.4	3.5	1.3*
Medical/ surgical complications	1,939	8.7	6.1	1.4*	2,208	12.8	6.6	1.8*	4,147	10.5	6.4	1.6*
Other accidental exposures ^(h)	1,627	7.3	3.4	1.0	969	5.6	2.2	1.3*	2,596	6.6	2.8	1.1*
Exposure to animate mechanical forces	1,106	5.0	2.0	2.0*	529	3.1	1.0	2.6*	1,635	4.1	1.5	2.2*
Intentional self-harm	1,077	4.8	2.4	2.7*	1408	8.1	2.8	2.0*	2485	6.3	2.6	2.3*
Exposure to electric current/smoke/ fire/animals/ nature ⁽ⁱ⁾	940	4.2	1.8	2.5*	491	2.8	0.9	2.5*	1431	3.6	1.3	2.5*
Accidental poisoning by and exposure to noxious substances	410	1.8	0.7	1.6*	382	2.2	0.8	1.6*	792	2.0	0.8	1.6*
Other external causes ^(j)	334	1.5	0.7	2.5*	309	1.8	0.6	2.5*	643	1.6	0.7	2.5*
Total (all categories)^(k)	22,263	100.0	47.9	1.7*	17,311	100.0	39.3	2.1*	39,574	100	43.6	1.9*

(continued)

Table 1.03.1 (continued): Hospitalisations for external causes of injury and poisoning for Aboriginal and Torres Strait Islander people by sex, New South Wales and NSW, Vic, Qld, WA, SA and NT combined, July 2006 to June 2008^{(a)(b)(c)(d)}

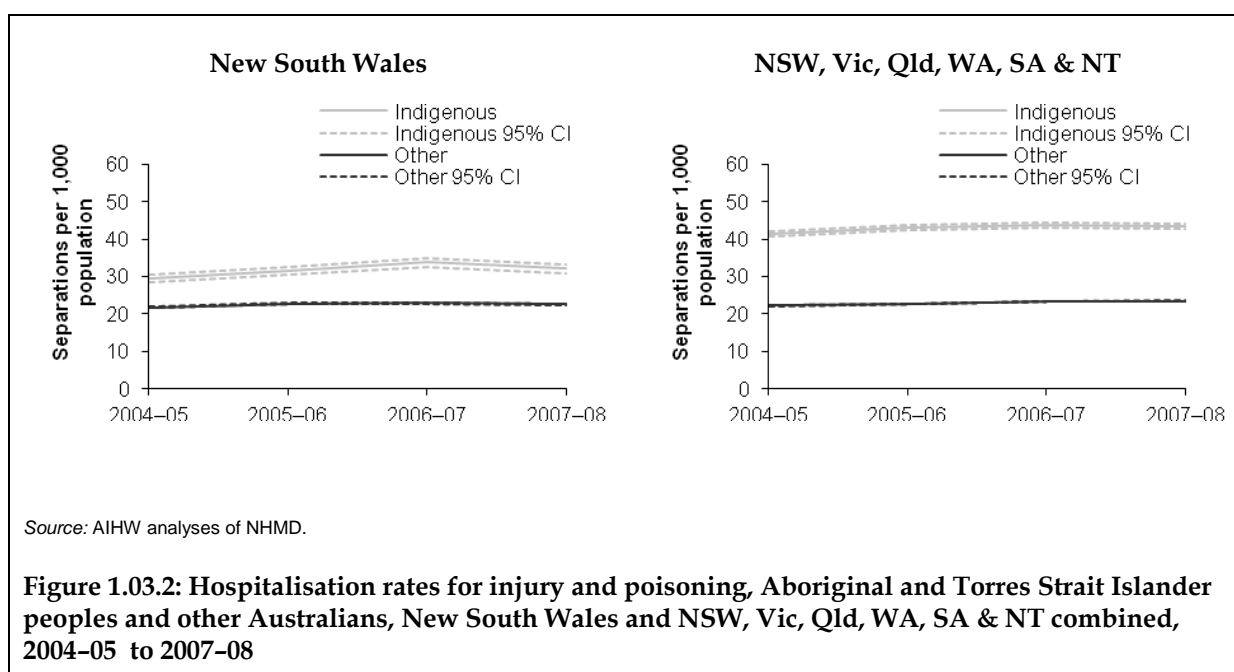
* Represents results with statistically significant differences in the Indigenous/other comparisons at the $p < 0.05$ level.

- (a) Data are from public and most private hospitals. Excludes private hospitals in the Northern Territory.
- (b) Categories are based on the International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification (ICD-10-AM), 4th Edition (National Centre for Classification in Health 2004). Cause of injury is based on the first reported external causes where the principal diagnosis was 'injury, poisoning and certain other consequences of external causes'. ICD-10-AM codes V01-Y98.
- (c) Financial year reporting.
- (d) Data are reported by state/territory of usual residence of the patient hospitalised and are for New South Wales, Victoria, Western Australia, South Australia, the Northern Territory and Queensland only. These six jurisdictions are considered to have adequate levels of Indigenous identification, although the level of accuracy varies by jurisdiction and hospital. Data for these six jurisdictions over-represent Indigenous populations in less urbanised and more remote locations. Hospitalisation data for six jurisdictions should not be assumed to represent the hospitalisation experience in the other jurisdictions.
- (e) Percentage of male, female and total hospitalisations of Indigenous Australians in the period 2004-05 to 2005-06.
- (f) Directly age standardised using the Australian 2001 Standard population.
- (g) Rate ratio Indigenous: Other.
- (h) Accidental drowning and submersion (W65-W74), accidental threats to breathing (W75-W84), overexertion, travel and privation (X50-X57), accidental exposure to other and unspecified factors (X58-X59),
- (i) Includes exposure to electrical current, radiation and extreme ambient air temperature and pressure (W85-W99), smoke, fire and flames (X00-X09), contact with heat and hot substances (X10-X19), contact with venomous animals and plants (X20-X29), exposure to forces of nature (X30-X39)
- (j) Includes event of undetermined intent (Y10-Y34), legal intervention and operation of war (Y35-Y36), sequelae of external causes of morbidity and mortality (Y85-Y89), supplementary factors classified elsewhere (Y9-Y98).
- (k) Includes injuries where no external cause was reported.

Source: AIHW analyses of NHMD.

Hospitalisation trends

- In New South Wales there were no significant changes in the hospitalisation rates for injury and poisoning among both Indigenous and other people during the period 2004–05 to 2007–08.
- There was no significant change in the hospitalisation rate ratio or rate difference between Indigenous and other people for injury and poisoning in New South Wales (an average yearly increase of 0.03 in the rate ratio and 0.8 per 1,000 population in the rate difference).
- The hospitalisation rates for injury and poisoning increased significantly among Indigenous and other people in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined during the period 2004–05 to 2007–08 (an average yearly increase of 0.7 per 1,000 population for Indigenous Australians, and 0.4 per 1,000 for other people).



1.04 Hospitalisation for pneumonia

The number of hospital separations with a principal diagnosis of pneumonia for Aboriginal and Torres Strait Islander people expressed as a rate by age group, age-standardised rate and ratio

Hospitalisations by age

- In the 2-year period July 2006 to June 2008 Indigenous Australians had higher hospitalisation rates for pneumonia than other people across all age groups in both New South Wales, and New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined.
- The greatest difference in hospitalisation rates for pneumonia between Indigenous and other Australians in New South Wales occurred in the 25–34 age group, where Indigenous Australians were hospitalised at 4 times the rate of other people. In the six jurisdictions combined, the greatest difference in rates occurred in the 35–44 and 45–54 age groups where Indigenous Australians were hospitalised at 9 and 10 times the rate of other people in these age groups respectively.
- For both Indigenous and other people in New South Wales, hospitalisation rates for pneumonia were highest among those aged 65 and over and lowest among those aged 15–24. The same pattern was evident in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined.
- Hospitalisation rates for pneumonia for Indigenous Australians in New South Wales were lower than for Indigenous Australians in the six jurisdictions combined (around 6 per 1,000 compared to 11 per 1,000).

Hospitalisations by sex

- For the 2-year period July 2006 to June 2008, about 51% of Indigenous Australians in New South Wales who were hospitalised for pneumonia were males, and 49% were females.
- Indigenous Australians in New South Wales were hospitalised at twice the rate of other people in New South Wales. In New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, Indigenous Australians were hospitalised at four times the rate of other people.
- Hospitalisation rates were slightly higher for Indigenous females than males.

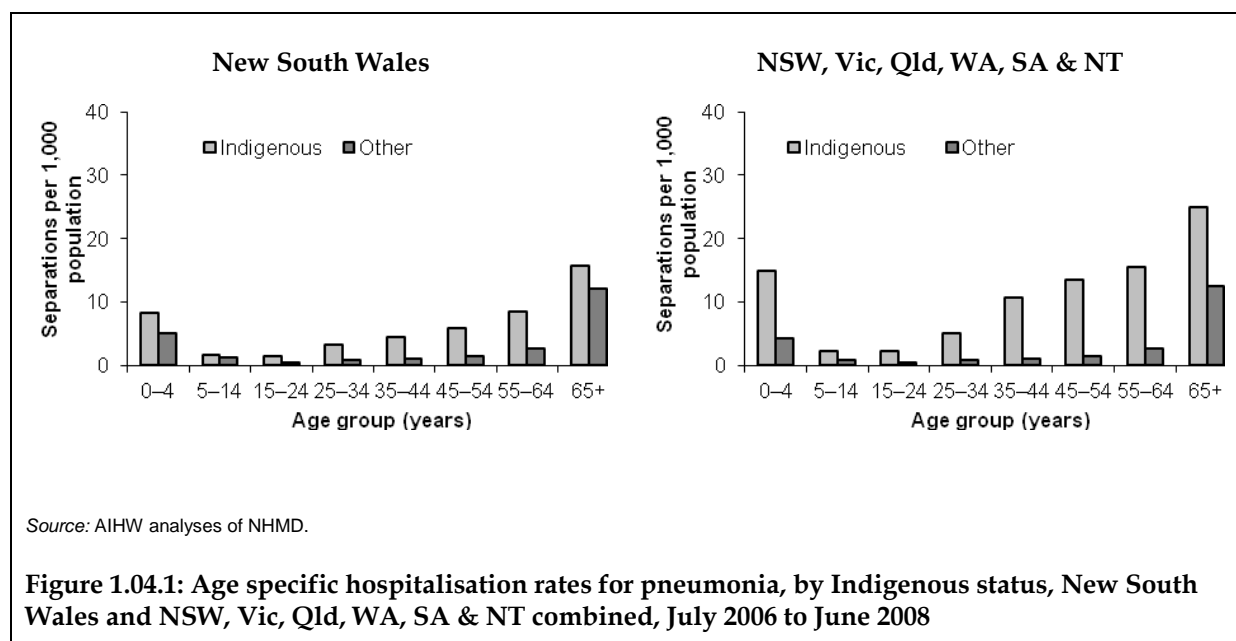


Table 1.04.1: Hospitalisations for pneumonia for Aboriginal and Torres Strait Islander peoples, by sex, New South Wales and NSW, Vic, Qld, WA, SA & NT combined, July 2006 to June 2008 ^{(a)(b)(c)}

	New South Wales			NSW, Vic, Qld, WA, SA & NT ^(d)		
	Number	No. per 1,000 ^(e)	Ratio ^(f)	Number	No. per 1,000 ^(e)	Ratio ^(f)
Males	672	5.7	1.8*	3,987	11.5	3.6*
Females	651	5.9	2.4*	3,754	10.1	4.2*
People	1,323	5.9	2.1*	7,741	10.7	3.9*

* Represents results with statistically significant differences in the Indigenous/Other comparisons at the $p < .05$ level.

(a) Data are from public and most private hospitals. Excludes private hospitals from the Northern Territory.

(b) Categories are based on the International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification (ICD-10-AM), 4th Edition (National Centre for Classification in Health 2004). ICD-10-AM codes J12–J18.

(c) Financial year reporting.

(d) Data are reported by state/territory of usual residence of the patient hospitalised and are for New South Wales, Victoria, Queensland, Western Australia, South Australia, and the Northern Territory only. These six jurisdictions are considered to have adequate levels of Indigenous identification, although the level of accuracy varies by jurisdiction and hospital. Data for these six jurisdictions over-represent Indigenous populations in less urbanised and more remote locations. Hospitalisation data for six jurisdictions should not be assumed to represent the hospitalisation experience in the other jurisdictions.

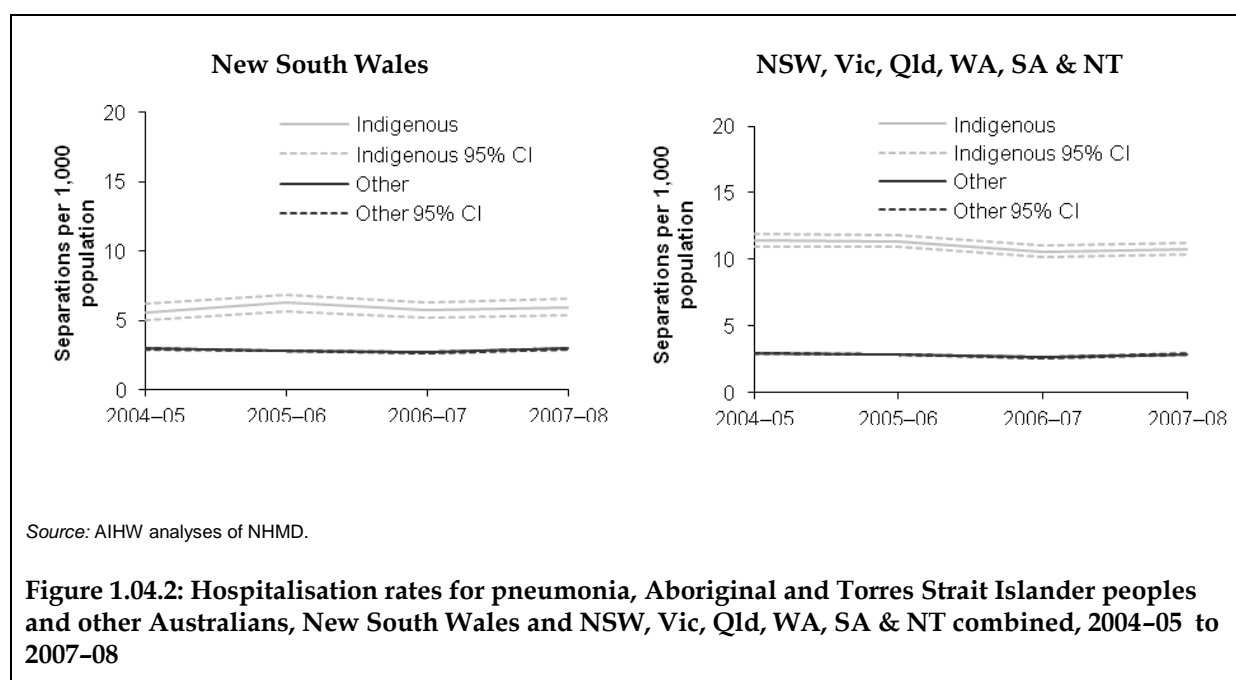
(e) Directly age standardised using the Australian 2001 Standard population.

(f) Rate ratio Indigenous: Other.

Source: AIHW analyses of NHMD.

Hospitalisation trends

- In New South Wales, there was no significant change in the hospitalisation rate for pneumonia among Indigenous Australians over the 4year period from 2004–05 to 2007–08. The fitted trend implies an average yearly increase of 0.1 hospitalisations per 1,000 population; however, this change was not statistically significant.
- There was no significant change in the hospitalisation rate for pneumonia among other people in New South Wales over the same period.
- There were no significant changes in the hospitalisation rate ratios and rate differences between Indigenous and other people in New South Wales for pneumonia (average yearly increase of 0.04 in the rate ratio and 0.1 per 1,000 in the rate difference for the period 2004–05 to 2007–08).
- Over the same period there was a significant decline in the hospitalisation rate for pneumonia among Indigenous Australians in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined; however, there was no significant change among other people.



1.05 Circulatory disease

Prevalence, incidence and number of hospital separations with a principal diagnosis of circulatory disease for Aboriginal and Torres Strait Islander people expressed as a rate by age group, age-standardised rate and rate ratio

Prevalence is the number or proportion (of cases, instances, and so forth) present in a population at a given time.

Self-reported prevalence

- In 2004-05 in New South Wales, 10% of Indigenous males and 15% of Indigenous females reported heart or circulatory conditions as a long-term condition. This compared with 10% and 14% of Indigenous males and females in Australia (Table 1.05.1).
- After adjusting for differences in age structure between the Indigenous and non-Indigenous populations, in New South Wales, Indigenous males and females were more likely than non-Indigenous males and females to report heart and circulatory conditions.
- Prevalence of heart and circulatory conditions was highest among Indigenous Australians aged 55 years and over (around 55% in New South Wales and 54% in Australia). In New South Wales, the greatest difference in rates between Indigenous and non-Indigenous Australians occurred in the 0-4 and 15-24 age groups (ratio of 2).

Hospitalisations by age

- From July 2006 to June 2008 in New South Wales, Indigenous Australians had higher hospitalisation rates for circulatory disease than other people across all age groups with the exception of those aged 15-24 and 65 and over where the rates were almost equivalent.
- The greatest difference in hospitalisation rates occurred in the 35-44 and 45-54 age groups where Indigenous Australians were hospitalised at around twice the rate of other people in the same age groups.
- The same pattern was evident for New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, however the ratios were higher, with Indigenous Australians hospitalised at around three times the rate of other people in the 35-44 and 45-54 age groups.
- Hospitalisation rates for circulatory diseases increased with age for both Indigenous and other people in New South Wales, and were highest among those aged 65 and over.

Table 1.05.1: Number and proportion of people reporting heart and circulatory conditions, by age, sex and Indigenous status, New South Wales and Australia, 2004–05

	Indigenous			Non-Indigenous		
	Males	Females	People	Males	Females	People
New South Wales						
	Number					
0-4	162	367	529	2,654	2,527	5,181
5-14	227	56	283	6,383	4,635	11,018
15-24	374	561	935	6,904	8,107	15,011
25-34	718	1,705	2,423	25,950	42,740	68,690
35-44	1,238	2,095	3,333	50,790	63,105	113,895
45-54	1,779	2,316	4,096	87,583	111,276	198,859
55+	2,039	3,642	5,680	318,376	383,189	701,565
Total	6,537	10,743	17,279	498,640	615,579	1,114,219
	Proportion					
0-4	1.7	4.3	2.9	1.2	1.3	1.3
5-14	1.2	0.3	0.8	1.4	1.1	1.3
15-24	2.8	4.3	3.5	1.5	1.9	1.7
25-34	8.1	16.7	12.7	5.6	9.0	7.3
35-44	15.7	23.1	19.6	10.5	13.3	11.9
45-54	30.6	37.4	34.1	19.5	24.7	22.1
55+	42.6	65.7	55.0	43.1	47.3	45.3
Total	9.6	15.2	12.4	15.4	19.0	17.2
Total age-standardised^(a)	17.8	26.5	22.4	15.1	17.7	16.4

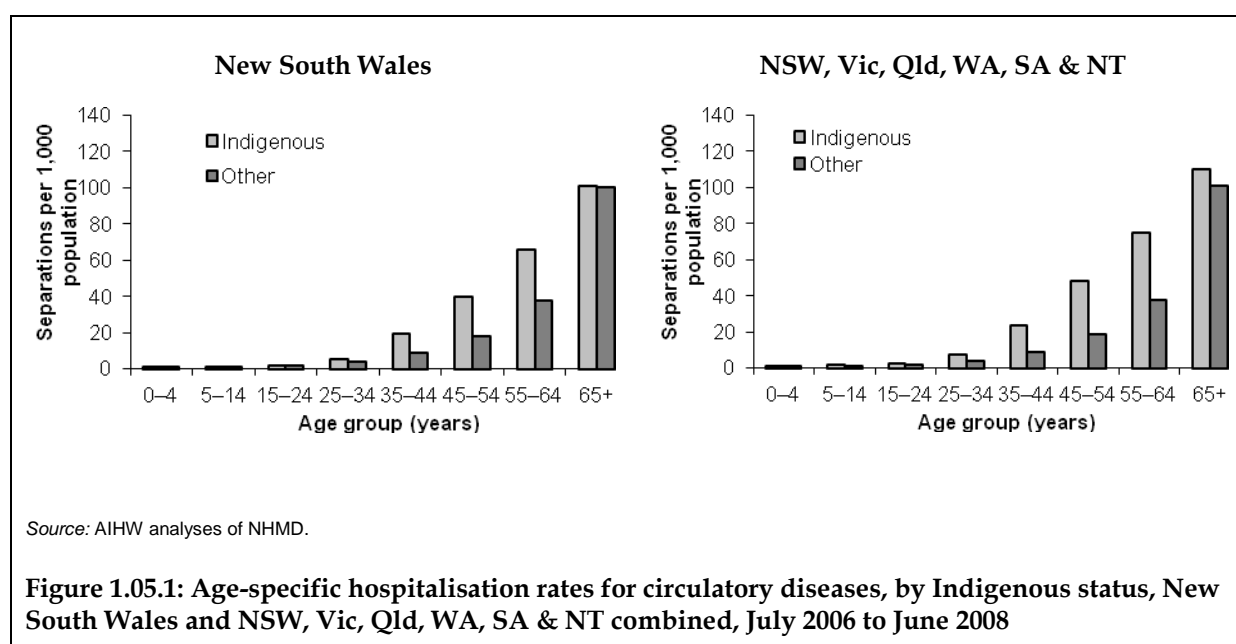
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Table 1.05.1 (continued): Number and proportion of people reporting heart and circulatory conditions, by age, sex and Indigenous status, New South Wales and Australia, 2004–05

	Indigenous			Non-Indigenous		
	Males	Females	People	Males	Females	People
Australia						
	Number					
0-4	471	962	1,433	7,511	5,024	12,535
5-14	725	558	1,283	23,915	12,920	36,835
15-24	1,037	1,963	3,000	35,797	45,996	81,793
25-34	2,518	5,101	7,618	77,067	141,316	218,384
35-44	4,978	7,273	12,250	144,104	213,600	357,704
45-54	5,381	7,044	12,425	262,723	341,746	604,469
55+	6,880	11,006	17,885	993,128	1,167,302	2,160,430
Total	21,989	33,906	55,895	1,544,245	1,927,905	3,472,149
	Proportion					
0-4	1.5	3.3	2.4	1.2	0.9	1.0
5-14	1.2	1.0	1.1	1.8	1.0	1.4
15-24	2.3	4.2	3.3	2.7	3.6	3.1
25-34	7.7	13.7	10.9	5.6	10.1	7.9
35-44	18.3	22.8	20.7	10.0	14.6	12.3
45-54	28.6	33.9	31.4	19.6	25.0	22.3
55+	45.3	61.2	53.9	45.8	49.5	47.7
Total	9.5	14.0	11.8	16.1	19.9	18.0
Total age-standardised^(a)	18.4	24.6	21.7	15.8	18.7	17.3

(a) Directly age-standardised proportions to the 2001 Australian Standard population.

Source: AIHW analyses of National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) 2004-05 and National Health Survey (NHS) 2004-05.



Hospitalisations by principal diagnosis

- For the 2-year period July 2006 to June 2008, in both New South Wales and New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, of all hospitalisations with a principal diagnosis of diseases of the circulatory system, ischaemic heart disease was the most common reason among Aboriginal and Torres Strait Islander peoples (46% and 44% respectively).
- Indigenous males in New South Wales were hospitalised for circulatory disease at 1.3 times the rate of other males, and Indigenous females were hospitalised at 1.6 times the rate of other females. In the six jurisdictions, these figures were slightly higher (1.4 and 1.8).
- Aboriginal and Torres Strait Islander people in New South Wales were hospitalised for rheumatic heart disease at 2.7 times the rate of other Australians. This compared with a ratio of 6.9 for New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined.

Table 1.05.2: Hospitalisations of circulatory disease by principal diagnosis for Aboriginal and Torres Strait Islander people – age-standardised rates and rate ratios by sex, New South Wales and NSW, Vic, Qld, WA, SA and NT combined, July 2006 to June 2008 ^{(a)(b)(c)(d)}

Principal diagnosis	Males				Females				People			
	No.	% ^(e)	No. per 1,000 ^(f)	Ratio ^(g)	No.	% ^(e)	No. per 1,000 ^(f)	Ratio ^(g)	No.	% ^(e)	No. per 1,000 ^(f)	Ratio ^(g)
New South Wales												
Ischaemic heart disease	1,199	49.1	15.4	1.5*	844	41.5	10.9	2.5*	2,043	45.6	13.0	1.8*
Acute myocardial infarction	489	20.0	6.1	1.7*	291	14.3	4.0	2.6*	780	17.4	5.0	2.0*
Other heart disease	681	27.9	10.2	1.3*	607	29.8	8.6	1.7*	1,288	28.8	9.3	1.5*
Cerebrovascular disease	167	6.8	2.8	1.3*	187	9.2	2.6	1.6*	354	7.9	2.7	1.4*
Stroke	143	5.9	2.4	1.3*	158	7.8	2.3	1.6*	301	6.7	2.3	1.5*
Rheumatic heart disease	20	0.8	0.2	2.0*	46	2.3	0.3	3.4*	66	1.5	0.2	2.7*
Hypertension disease	71	2.9	0.7	2.5*	58	2.8	0.6	1.5*	129	2.9	0.7	1.9*
Other circulatory diseases ^(h)	305	12.5	3.5	0.6*	294	14.4	3.0	0.7*	599	13.4	3.2	0.7*
Total	2,443	100.0	32.8	1.3*	2,036	100.0	26.0	1.6*	4,479	100.0	29.2	1.4*

(continued)

Table 1.05.2 (continued): Hospitalisations of circulatory disease by principal diagnosis for Aboriginal and Torres Strait Islander people – age-standardised rates and rate ratios by sex, New South Wales and NSW, Vic, Qld, WA, SA and NT combined, July 2006 to June 2008^{(a)(b)(c)(d)}

Principal diagnosis	Males				Females				People			
	No.	% ^(e)	No. per 1,000 ^(f)	Ratio ^(g)	No.	% ^(e)	No. per 1,000 ^(f)	Ratio ^(g)	No.	% ^(e)	No. per 1,000 ^(f)	Ratio ^(g)
NSW, Vic, Qld, WA, SA & NT												
Ischaemic heart disease	4,069	47.1	17.2	1.7*	3,143	39.8	12.4	2.8*	7,212	43.6	14.6	2.1*
Acute myocardial infarction	1,742	20.2	7.2	2.2*	1,129	14.3	4.6	3.1*	2,871	17.4	5.8	2.5*
Other heart disease	2,516	29.2	11.5	1.5*	2,469	31.3	10.2	1.9*	4,985	30.2	10.8	1.7*
Cerebrovascular disease	646	7.5	3.5	1.6*	683	8.6	3.0	1.9*	1,329	8.0	3.2	1.8*
Stroke	557	6.5	3.0	1.7*	603	7.6	2.8	2.1*	1,160	7.0	2.9	1.9*
Rheumatic heart disease	274	3.2	0.5	5.3*	428	5.4	0.9	8.2*	702	4.2	0.7	6.9*
Hypertension disease	200	2.3	0.7	2.6*	269	3.4	1.0	2.5*	469	2.8	0.8	2.5*
Other circulatory diseases ^(h)	925	10.7	3.4	0.6*	908	11.5	3.1	0.6*	1,833	11.1	3.2	0.6*
Total	8,630	100.0	36.8	1.4*	7,900	100.0	30.5	1.8*	16,530	100.0	33.4	1.6*

(continued)

Table 1.05.2 (continued): Hospitalisations of circulatory disease by principal diagnosis for Aboriginal and Torres Strait Islander people — age-standardised rates and rate ratios by sex, New South Wales and NSW, Vic, Qld, WA, SA and NT combined, July 2006 to June 2008^{(a)(b)(c)(d)}

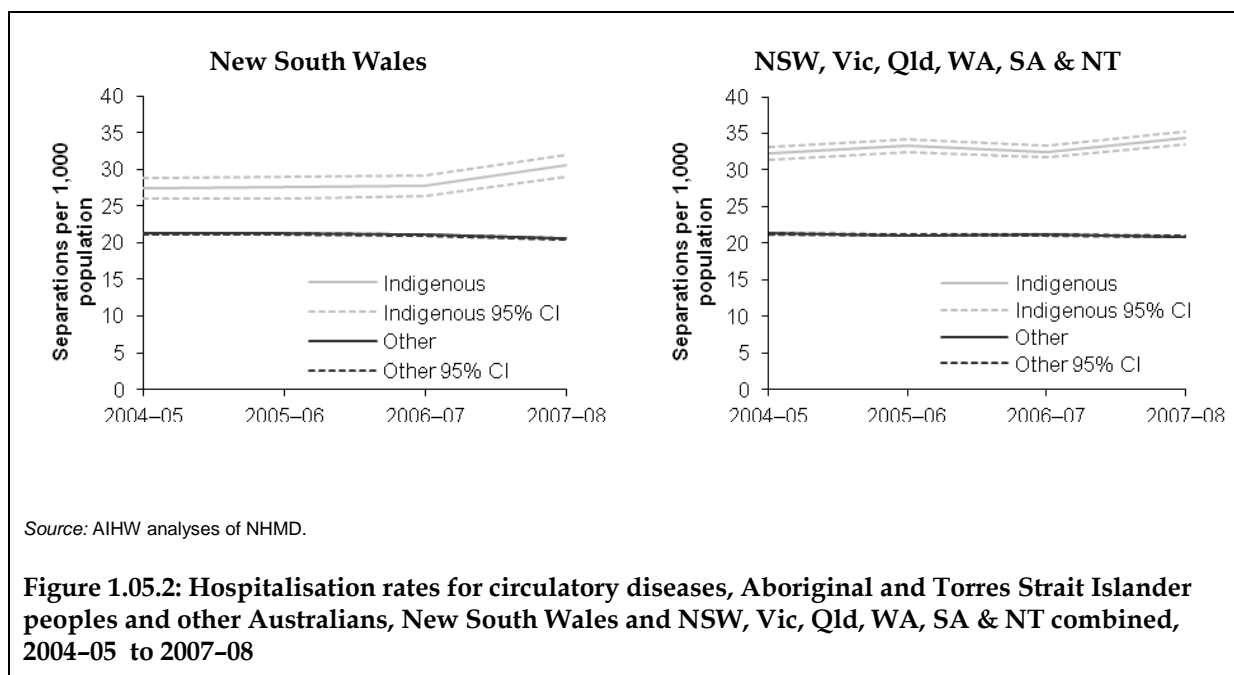
*Represents results with statistically significant differences in the Indigenous/Other comparisons at the $p < .05$ level.

- (a) Data are from public and most private hospitals. Excludes private hospitals in the Northern Territory.
- (b) Categories are based on the International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification (ICD-10-AM) 4th Edition (National Centre for Classification in Health 2004). ICD-10-AM codes I00-I99.
- (c) Financial year reporting.
- (d) Data are reported by state/territory of usual residence of the patient hospitalised and are for New South Wales, Victoria, Queensland, Western Australia, South Australia, and the Northern Territory only. These six jurisdictions are considered to have adequate Indigenous identification, although the level of accuracy varies by jurisdiction and hospital. Data for these six jurisdictions over-represent Indigenous populations in less urbanised and more remote locations. Hospitalisation data for six jurisdictions should not be assumed to represent the hospitalisation experience in the other jurisdictions.
- (e) Percentage of male, female and total hospitalisations of Indigenous Australians in the period 2006-07 to 2008-09.
- (f) Directly age standardised using the Australian 2001 Standard population.
- (g) Rate Ratio Indigenous: Other.
- (h) Includes disease of arteries, arterioles and capillaries, diseases of veins, lymphatic vessels and lymph nodes and other unspecified disorders of the circulatory system.

Source: AHIW analyses of NHMD.

Hospitalisation trends

- In New South Wales, there was a significant increase in the hospitalisation rate for circulatory disease among Indigenous Australians for the 4-year period 2004–05 to 2007–08. The fitted trend implies an average yearly increase in the rate of 1.0 per 1,000, equivalent to an 11% increase over the period.
- There was a significant decline in the hospitalisation rate for circulatory disease among other people in New South Wales for the same period. The total decline was 3%.
- The hospitalisation rate ratios and rate differences between Indigenous and other people in New South Wales showed a significant increase during the period (an average yearly increase of 0.06 in the rate ratio, and 1.2 per 1,000 in the rate difference).
- In New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined there was no significant change in the hospitalisation rate for circulatory disease among Indigenous Australians during the period; however, there was a significant decline in the hospitalisation rate among other people. There were no significant changes in the rate ratio or the rate difference over this period.



1.07 High blood pressure

The prevalence of hypertension among Aboriginal and Torres Strait Islander Australians expressed as a rate by age group, age-standardised rate and ratio

Crude prevalence rate is the number or proportion (of cases, instances, and so forth) present in a population at a given time, unadjusted for age differences across the Indigenous and non-Indigenous populations.

Self-reported prevalence

- In 2004–05 in New South Wales, after adjusting for differences in age structure between the Indigenous and non-Indigenous populations, about 13% of Indigenous males and 17% of Indigenous females reported high blood pressure or hypertension compared with 10% of non-Indigenous males and 11% of non-Indigenous females. These percentages are similar to those reported for Australia.
- In both New South Wales and Australia, high blood pressure or hypertension was most prevalent among those aged 55 and over for both Indigenous Australians and other Australians. In New South Wales, 36% of Indigenous males and 51% of Indigenous females reported high blood pressure/hypertension in this age group compared with 30% and 35% of non-Indigenous males and females respectively.
- In 2004–05, the crude prevalence rates of high blood pressure or hypertension among Indigenous people in New South Wales (6% for males and 8% for females) were similar to the crude prevalence rates for Indigenous people in Australia (7% for males and 8% for females).
- For both New South Wales and Australia, the prevalence of high blood pressure or hypertension was slightly higher among Indigenous females than Indigenous males.

Table 1.07.1: People reporting high blood pressure/hypertension, by Indigenous status, age group and sex, New South Wales and Australia, 2004-05

Age group	Male		Female	
	Indigenous (%)	Non-Indigenous (%)	Indigenous (%)	Non-Indigenous (%)
New South Wales				
25-34	4	2	7	2
35-44	7	7	11	4
45-54	23	15	22	13
55+	36	30	51	35
Total	6	10	8	12
Total age-standardised^(a)	13	10	17	11
Australia				
25-34	4	3	5	2
35-44	14	6	11	4
45-54	22	15	24	13
55+	39	32	46	36
Total	7	10	8	12
Total age-standardised^(a)	14	10	16	10

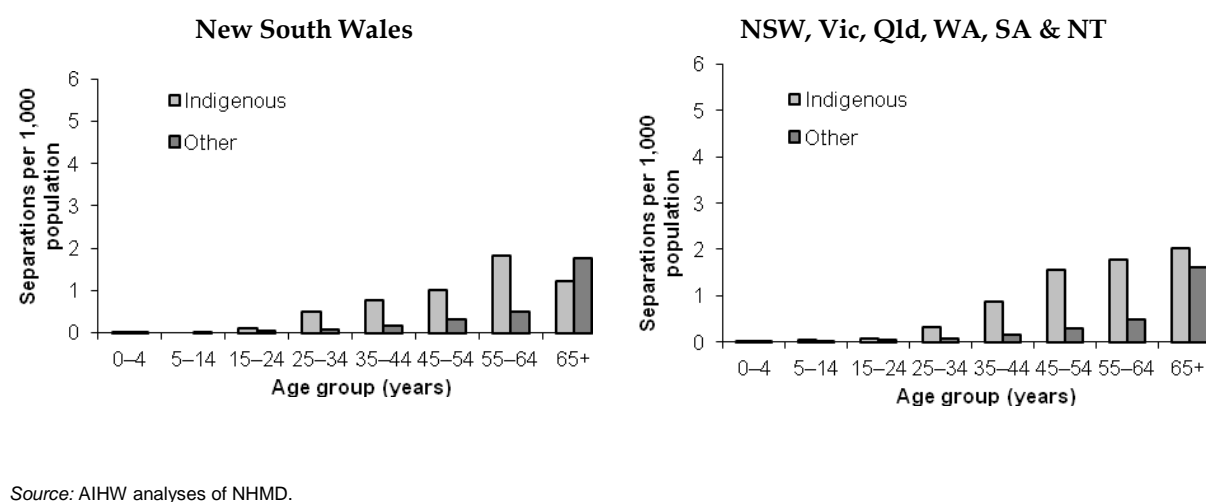
(a) Age-standardised proportions.

Source: ABS and AIHW analyses of NATSIHS 2004-05 and NHS 2004-05.

Hospitalisations

Hospitalisations by age

- For the 2-year period July 2006 to June 2008 in New South Wales, Indigenous Australians had higher hospitalisation rates for hypertensive disease than other people across all age groups with the exception of those aged 0-4, 5-14 and 65 and over.
- Indigenous Australians in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined had higher hospitalisation rates across all age groups.
- In New South Wales the greatest difference in rates occurred in the 25-34 age group where Indigenous Australians were hospitalised at 7 times the rate of other people in this age group.
- In New South Wales, hospitalisation rates for hypertensive disease for Indigenous Australians were highest in the 55-64 age group, whereas for other people they were highest in the 65 and over age group. In the six jurisdictions combined, hospitalisation rates for hypertensive disease generally increased with age and were highest in the 65 and over age group for both Indigenous and other people.



Source: AIHW analyses of NHMD.

Figure 1.07.1: Age-specific hospitalisation rates for principal diagnosis of hypertensive disease, by Indigenous status, New South Wales and NSW, Vic, Qld, WA, SA & NT combined, July 2006 to June 2008

1.08 Diabetes

Prevalence of diabetes for Aboriginal and Torres Strait Islander people expressed as a rate by age group, age-standardised rate and ratio

Self-reported prevalence

- In 2004–05 in New South Wales, after adjusting for differences in age structure, about 10% of Indigenous people reported diabetes or high sugar levels compared with 4% of non-Indigenous people. In the same period in Australia, 13% of Indigenous people and 4% of non-Indigenous people reported diabetes or high sugar levels.
- In both New South Wales and Australia, and for both Indigenous and non-Indigenous Australians, prevalence of diabetes increased with age. For Indigenous Australians in New South Wales, prevalence increased from less than 2% among those aged 25–34 to 30% among those aged 55 and over. Correspondingly, for non-Indigenous Australians in New South Wales, prevalence increased from less than 1% among those aged 25–34 to 13% among those aged 55 and over. Data for total Australia also shows these increasing trends.
- In 2004–05, the crude prevalence rates of diabetes/high blood sugar among Indigenous people in New South Wales (4% for males and 6% for females) were slightly lower than the crude prevalence rates for Indigenous people in Australia (6% for males and 7% for females).
- For both New South Wales and Australia, the prevalence of diabetes/high blood sugar was slightly higher among Indigenous females than Indigenous males.

Table 1.08.1: People reporting diabetes/high sugar levels, by Indigenous status and age group, New South Wales and Australia, 2004–05

Age group	New South Wales		Australia	
	Indigenous (%)	Non-Indigenous (%)	Indigenous (%)	Non-Indigenous (%)
25-34	1.5	0.4	4.4	0.8
35-44	8.2	1.8	10.1	2.3
45-54	15.1	3.8	21.0	4.1
55+	29.9	12.6	33.4	11.8
Total age-standardised^(a)	10.2	3.7	12.6	3.7

(a) Total is directly age standardised proportion.

Source: AIHW analyses of NATSIHS 2004–05 and NHS 2004–05.

Table 1.08.2: Aboriginal and Torres Strait Islander peoples reporting diabetes/high sugar levels, by sex, NSW and Australia, 2004-05

	Male	Female	Total
	%	%	%
New South Wales	4.4	5.5	5.0
Australia	5.5	7.1	6.3

Source: AIHW analyses of NATSIHS 2004–05.

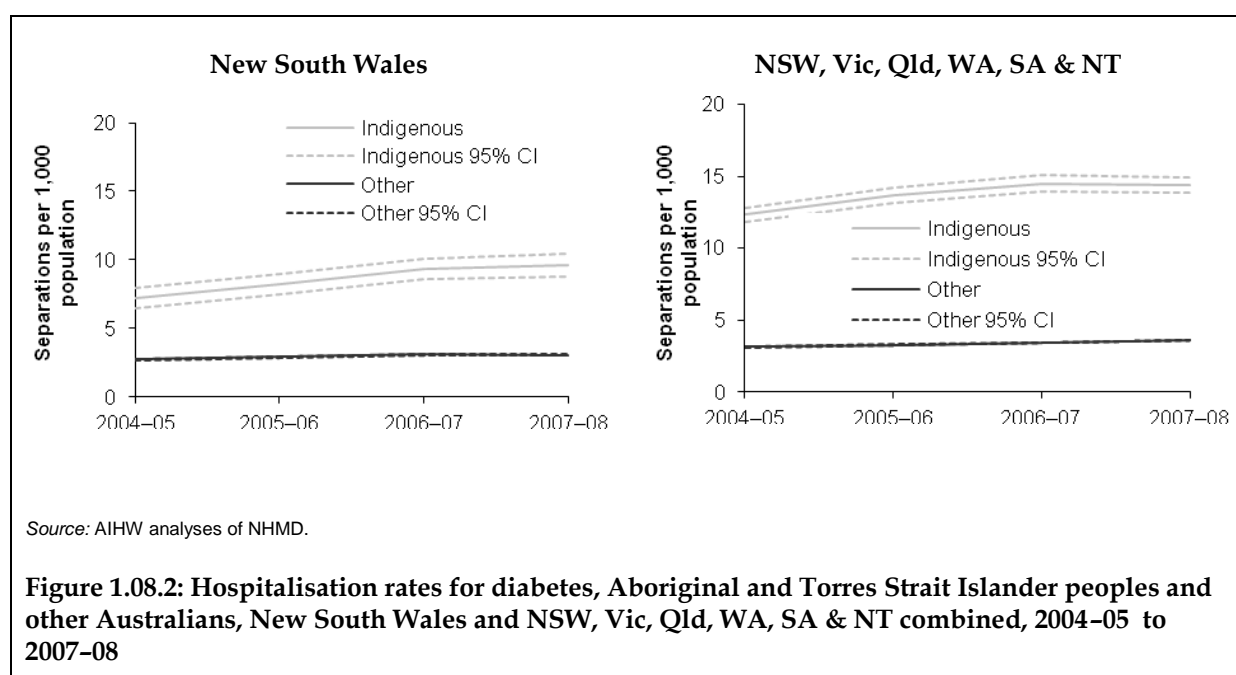
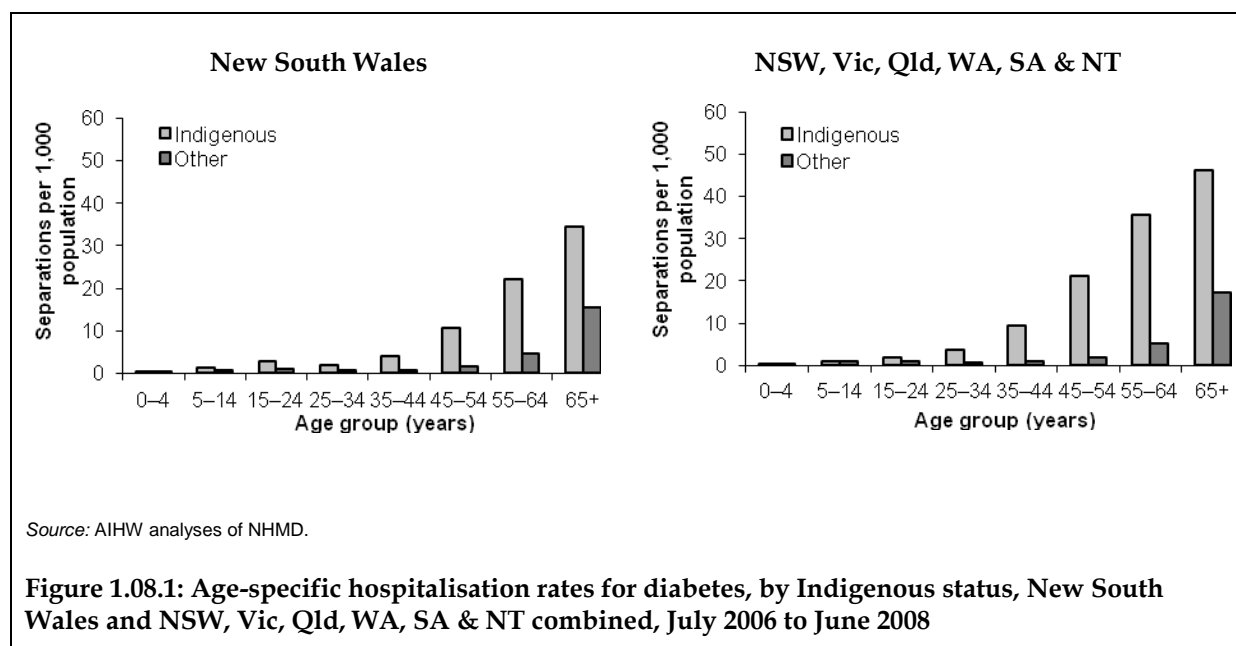
Hospitalisations

Hospitalisations by age

- For the 2-year period July 2006 to June 2008, in New South Wales, Indigenous Australians had higher hospitalisation rates for diabetes than other people in all age groups from 5–14 onwards. The greatest difference in rates occurred in the 45–54 age group where Indigenous Australians were hospitalised at six times the rate of other people.
- Indigenous Australians from New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined had higher rates of hospitalisation for diabetes than other people in all age groups from 5–14 onwards. The greatest difference in rates occurred in the 45–54 age group where Indigenous Australians were hospitalised at 11 times the rate of other people.
- The hospitalisation rate for Indigenous Australians with a principal diagnosis of diabetes in New South Wales was lower than that in the six jurisdictions combined for all age groups from age 25–34 onwards.

Hospitalisation trends

- In New South Wales there was a significant increase in hospitalisation rates for diabetes among Indigenous and other people during the period 2004–05 to 2007–08. Over this period, the hospitalisation rate increased 36% for Indigenous people and 12% for other people.
- Over the same period, hospitalisation rates for diabetes increased significantly among Indigenous and other people in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined (average yearly increase in the rate for Indigenous Australians of 0.7 hospitalisations per 1,000 population, and 0.2 per 1,000 for other people).
- The rate difference between Indigenous and other people in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined also increased significantly during the period 2004–05 to 2007–08 (average yearly increase 0.5 hospitalisations per 1,000).

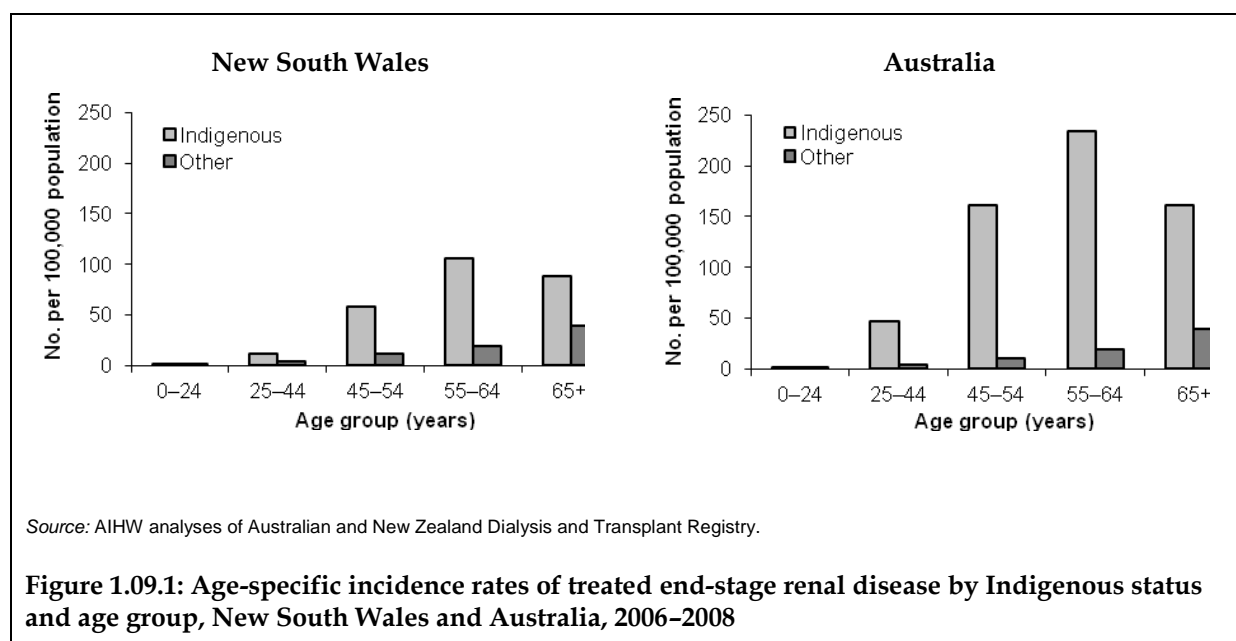


1.09 End-stage renal disease

The number of Aboriginal and Torres Strait Islander people with a principal diagnosis of end-stage renal disease as registered by the Australia and New Zealand Dialysis and Transplant Registry (ANZDATA); expressed as a rate by age group, age-standardised rate and ratio

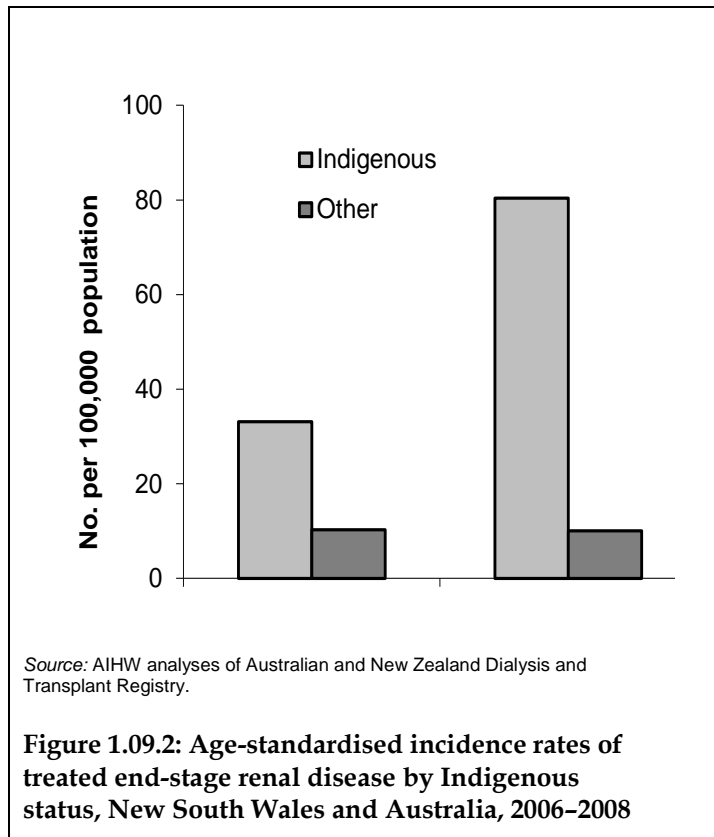
Incidence by age

- Between 2006–2008 in New South Wales and Australia, the incidence rate of ESRD for Indigenous Australians was higher than for non-Indigenous Australians across all age groups except for the 0–24 age group.
- In New South Wales, the greatest differences in incidence rates were among the 55–64 age group, where Indigenous Australians were more than five times as likely as non-Indigenous Australians to be registered for ESRD treatment.
- For Australia, the greatest difference in incidence rates between Indigenous and non-Indigenous Australians was among those aged 45–54, where Indigenous people were registered for ESRD treatment at nearly 15 times the rate of their non-Indigenous counterparts.



Incidence by Indigenous status

- For the period 2006–2008, the incidence rate of ESRD was considerably lower for Indigenous Australians in New South Wales than for throughout Australia. Incidence rates for non-Indigenous Australians in New South Wales and Australia were similar.

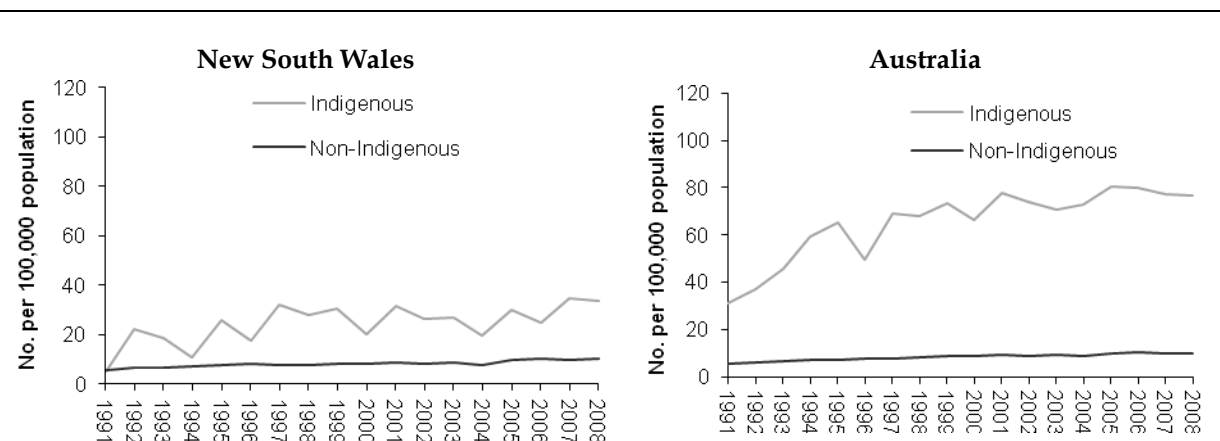


Time trends

- Over the period 1991–2008 there were significant increases in the incidence rate of ESRD among Indigenous Australians in New South Wales, with the rate increasing by an average of 1 per 100,000 population per year. Totally the incidence rate of ESRD among Indigenous Australians in New South Wales increased 326% over this period.
- There was also a significant increase in the incidence rate of ESRD among non-Indigenous Australians in New South Wales; however this increase was not as rapid, averaging 0.2 per 100,000 population per year. Totally the incidence rate of ESRD among non-Indigenous Australians in New South Wales increased 65% over this period.
- These changes resulted in a significant increase in the rate difference between Indigenous and non-Indigenous Australians in New South Wales, with the rate difference increasing by an average of 0.8 per 100,000 population per year.
- The same pattern was evident among Indigenous and non-Indigenous people in Australia, with significant increases in the incidence rate of ESRD over the same period.

The rate increased by an average yearly amount of 2.4 per 100,000 population for Indigenous Australians, and 0.2 per 100,000 population for non-Indigenous Australians.

- There was no significant change in the incidence rate ratio between Indigenous and non-Indigenous Australians over the period 1991–2008; however there was a significant increase in the rate difference with an average yearly increase of 2.1 per 100,000 population.



Source: AIHW analyses of Australian and New Zealand Dialysis and Transplant Registry.

Figure 1.09.3: Age-standardised incidence rates of treated end-stage renal disease by Indigenous status, New South Wales and Australia, 1991–2008

1.10 Decayed, missing, filled teeth

The number of decayed, missing and filled deciduous infant teeth (dmft) and the number of decayed, missing and filled permanent adult teeth (DMFT), for Aboriginal and Torres Strait Islander people

- In New South Wales, the mean number of decayed, missing or filled teeth for Indigenous children aged 4–6, 8–10, and 12–14 was higher than for non-Indigenous children.
- Indigenous children in New South Wales had lower dmft and DMFT scores than Indigenous children in South Australia and the Northern Territory.

Table 1.10.1: Mean number of decayed, missing or filled teeth for Aboriginal and Torres Strait Islander and other Australian children, NSW (2000), SA (2003) and NT (2002)

	NSW			SA			NT		
	Indigenous	Non-Indigenous	Ratio	Indigenous	Non-Indigenous	Ratio	Indigenous	Non-Indigenous	Ratio
4–6 year olds, deciduous teeth									
decayed	1.63	0.71	2.30	2.23	0.91	2.40	3.26	0.86	3.80
missing	0.22	0.04	5.00	0.33	0.08	4.00	0.14	0.05	2.70
filled	0.41	0.21	1.90	1.10	0.58	1.90	0.42	0.46	0.90
dmft	2.26	0.97	2.30	3.66	1.58	2.30	3.82	1.37	2.80
8–10 year olds, permanent teeth									
Decayed	0.32	0.15	2.20	0.48	0.19	2.50	0.51	0.14	3.60
Filled	0.13	0.10	1.30	0.31	0.25	1.20	0.14	0.16	0.90
DMFT	0.46	0.25	1.80	0.83	0.45	1.80	0.68	0.31	2.20
12–14 year olds, permanent teeth									
Decayed	0.67	0.32	2.10	0.94	0.41	2.30	1.16	0.41	2.80
Filled	0.37	0.33	1.10	0.86	0.65	1.30	0.37	0.52	0.70
DMFT	1.09	0.67	1.60	1.85	1.08	1.70	1.62	1.00	1.60

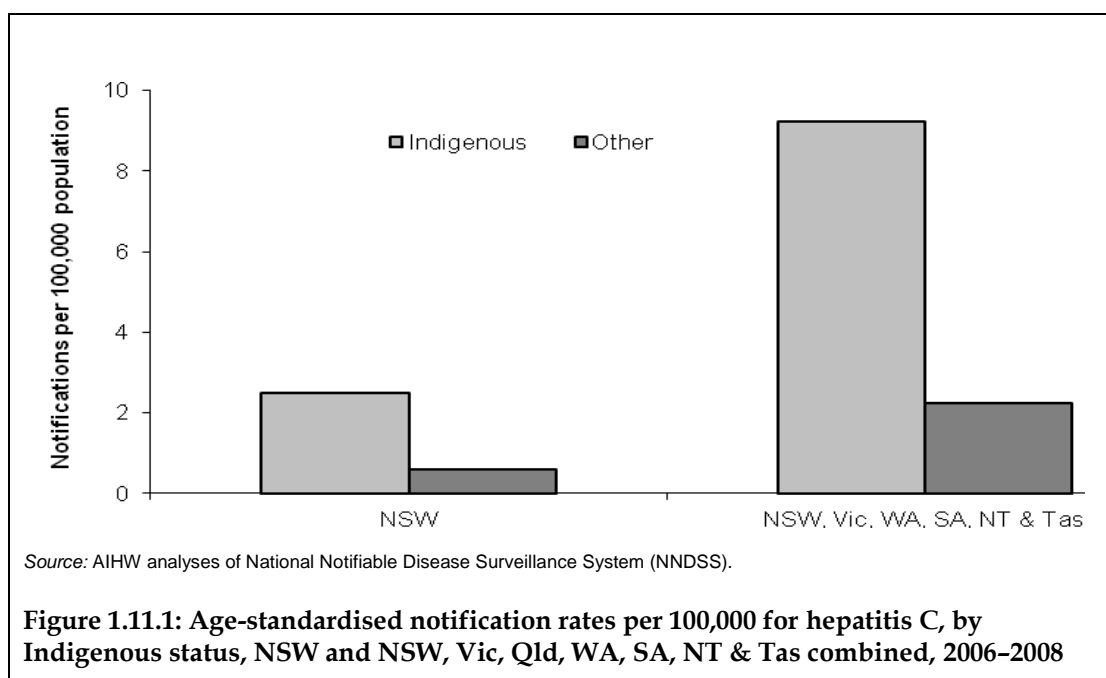
Source: AIHW Dental Statistics Research Unit.

1.11 Hepatitis C and sexually transmissible infections

The rate of notified sexually transmissible infections for chlamydia, donovanosis, gonorrhoea, syphilis, hepatitis C and HIV/AIDS for Aboriginal and Torres Strait Islander people expressed as a rate by age group, gender, age-standardised rate and ratio

Notifications by Indigenous status

- For the period 2006–08, notification rates for hepatitis C among Aboriginal and Torres Strait Islander people in New South Wales were four times the rates for other people.
- For the period 2006–2008, hepatitis C was more common among Aboriginal and Torres Strait Islander people than other people in New South Wales, Victoria, Queensland, Western Australia, South Australia, the Northern Territory and Tasmania combined.
- Notification rates for hepatitis C for Indigenous Australians were lower in New South Wales than in New South Wales, Victoria, Queensland, Western Australia, South Australia, Tasmania and the Northern Territory combined.



1.12 Children's hearing loss

This indicator includes a number of measures of children's hearing including prevalence rates and hospitalisation rates for diseases of the ear and mastoid process, and rates of ear and hearing problems managed at consultations with general practitioners

Self-reported prevalence

- In 2004–05, about 10% of Indigenous children aged 0–14 in New South Wales were found to have ear or hearing problems compared with 2% of non-Indigenous children of the same age.
- The prevalence of ear/hearing problems among Indigenous children in New South Wales and Australia was similar while the prevalence among non-Indigenous children was slightly lower in New South Wales than Australia (2% compared with 3%).
- Disease of the ear and mastoid were more prevalent among Indigenous children aged 5–14 than among Indigenous children aged 0–4 (12% compared with 6% in New South Wales).
- Complete/partial deafness or hearing loss and otitis media were both more prevalent among Indigenous children than among non-Indigenous children. In New South Wales, about 5% of Indigenous children aged 0–14 reported complete or partial hearing loss or deafness compared with less than 1% of non-Indigenous children and similarly, 5% of Indigenous children in New South Wales reported otitis media compared with 1% of non-Indigenous children.

Table 1.12.1: Diseases of the ear and mastoid reported for children aged 0 – 14, by Indigenous status, New South Wales and Australia, 2004 – 05

	0–4 years		5–14 years		Total 0–14 years	
	Indigenous	Non-Indigenous	Indigenous	Non-Indigenous	Indigenous	Non-Indigenous
	%	%	%	%	%	%
New South Wales						
Complete/ partial deafness or hearing loss	2.7	0.3	5.9	0.5	4.8	0.5
Otitis media	2.5	1.8	5.6	1.0	4.6	1.2
Other diseases of the ear and mastoid	0.3	0.0	1.1	0.3	0.8	0.2
Total	5.5	2.2	12.1	1.7	9.9	1.9
Australia						
Complete/ partial deafness or hearing loss	1.8	0.5	5.9	1.6	4.5	1.2
Otitis media	3.6	1.8	4.7	1.4	4.4	1.5
Other diseases of the ear and mastoid	0.4	0.1	1.5	0.5	1.2	0.4
Total	5.5	2.3	11.5	3.4	9.5	3.0

Source: ABS and AIHW analyses of NATSIHS 2004–05 and NHS 2004–05.

- In New South Wales in 2004–05, prevalence of diseases of the ear and mastoid process was slightly higher among Indigenous girls aged 0–14 years (11%) than among Indigenous boys of the same age group (9%). For Australia, prevalence rates were similar for Indigenous males and females.

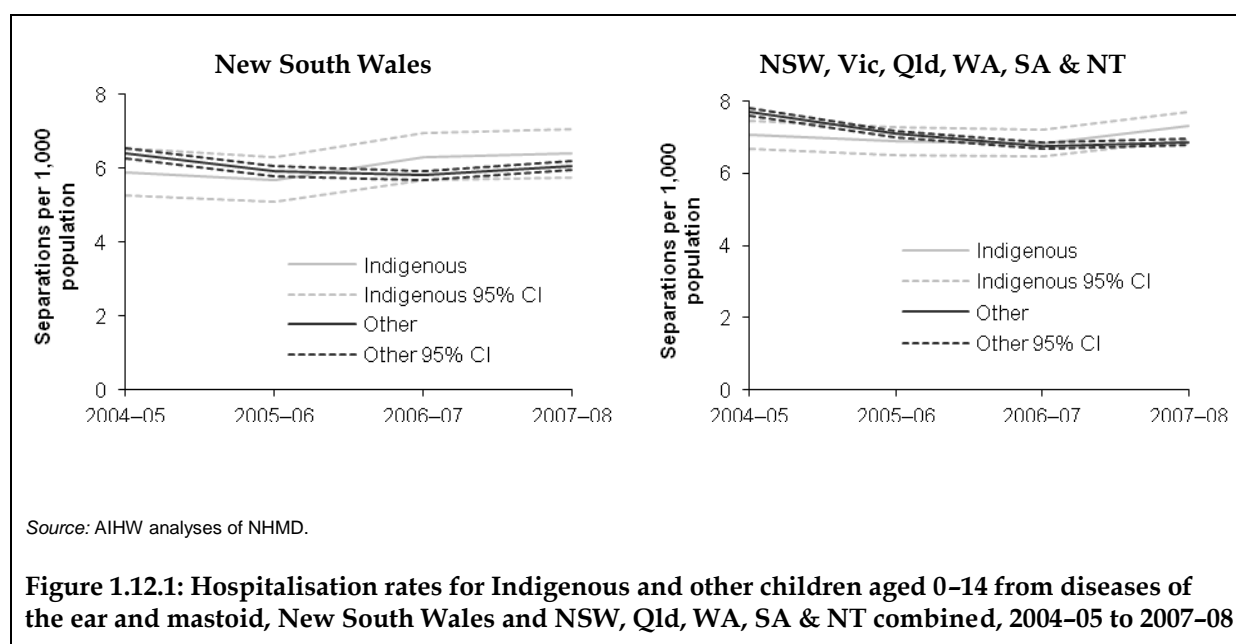
Table 1.12.2: Diseases of the ear and mastoid reported for Aboriginal and Torres Strait Islander children aged 0–14, by sex, New South Wales and Australia, 2004–05

	Males	Females
	%	%
New South Wales	9	11
Australia	10	9

Source: ABS and AIHW analyses of NATSIHS 2004–05.

Hospitalisation trends

- In New South Wales, the hospitalisation rates for diseases of the ear and mastoid among Indigenous children aged 0–14 were lower than in non-Indigenous children of the same age in 2004–05 and 2005–06, but higher in 2006–07 and 2007–08.
- There was a significant increase of 11% in hospitalisation rates for diseases of the ear and mastoid process among Indigenous children aged 0–14 during the period 2004–05 to 2007–08, with an average yearly increase in the rate of 0.2 hospitalisations per 1,000 population.
- Over the same period, there was no significant change in hospitalisation rates for diseases of the ear and mastoid process among other children aged 0–14.
- In New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, hospitalisation rates for diseases of the ear and mastoid process among Indigenous children aged 0–14 showed no significant change during the period 2004–05 to 2007–08. However, among other children there was a significant decline over the same period (average yearly decline of 0.3 hospitalisations per 1,000).

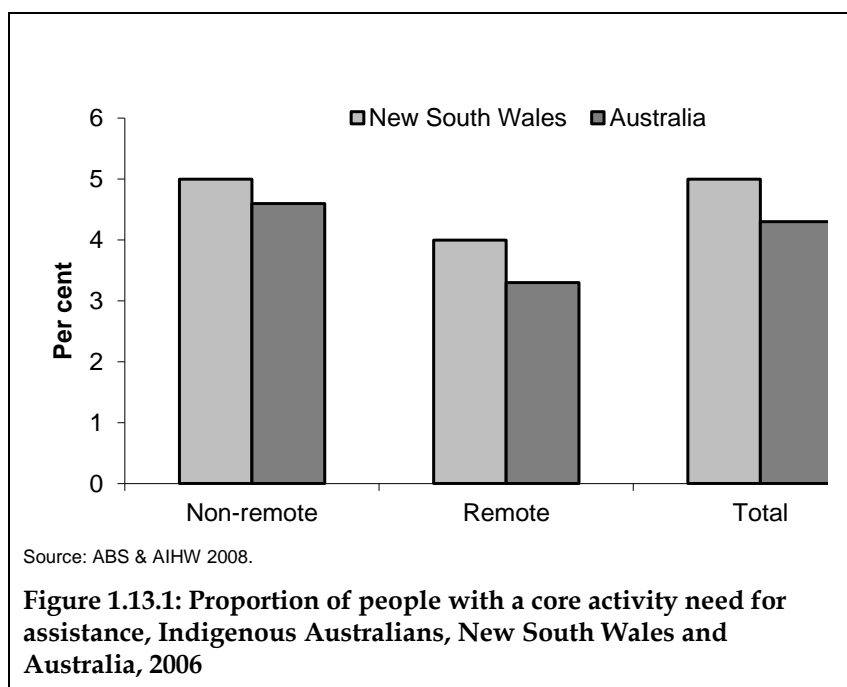


1.13 Disability

The prevalence of disability among Aboriginal and Torres Strait Islander people, including children with special needs

Self-reported prevalence

- In 2006, the proportion of Indigenous Australians who reported they needed assistance with one or more core activities in the areas of self-care, mobility and communication was around 5% in New South Wales and 4% in Australia.
- Indigenous Australians living in non-remote areas were more likely to report a need for assistance than those living in remote areas (5% compared with 4% in New South Wales).



1.14 Community functioning

Analyses of factors associated with community functioning for Indigenous Australians

Community and individual aspects contributing to community functioning scores

The following statements refer to Table 1.14.1 which presents data for variables contributing to community functioning as collected in 2002 National Aboriginal and Torres Strait Islander Social Survey (NATSISS).

Power to control choices and options

- In 2002 in New South Wales, over two-thirds (81%) of Indigenous Australians reported no stressors related to discrimination or racism and 35% could visit their homelands.
- Over one-quarter (26%) of Indigenous Australians reported involvement with an Aboriginal and Torres Strait Islander organisation and 92% had support in a time of crisis.

Connectedness to family land and history

- About 60% of Indigenous Australians in New South Wales reported recognition of their homeland.
- Around 87% of those aged 15 and over reported they were not removed from their natural family and 48% reported that their relatives were not removed from their natural family.

Health, chronic disease and substance use

- Around 43% of Indigenous Australians aged 15 and over in New South Wales reported excellent or very good health.
- Around 81% had not drunk alcohol at risky/high risk levels in the last 12 months and 65% had not used illicit substances in the last 12 months.

Culture

- The majority (59%) of Indigenous Australians in New South Wales participated in at least one cultural event in the last 12 months and 3% reported they spoke an Aboriginal or Torres Strait Islander language.

Identity

- Around 42% of Indigenous Australians in New South Wales reported identifying with a tribal group or clan.

Continuing employment

- In 2002, about 5% of Indigenous Australians in New South Wales were employed in Community Development Employment Projects (CDEP) and a further 39% were employed (not in CDEP).

Education

- Around 17% of Indigenous Australians aged 15 and over in New South Wales completed Year 12 and 33% of those aged 25–64 had a non-school qualification.

Infrastructure and community

- Around 64% of Indigenous Australians in New South Wales were living in a dwelling that had no major structural problems and three-quarters (86%) were living in a dwelling that was not overcrowded.
- About 81% reported having a working telephone, 61% had used a computer in the last 12 months and 48% had used the Internet in the last 12 months.
- Over half (57%) of Indigenous Australians aged 15 and over reported having access to a motor vehicle.

Coping in the internal world and external world

- Around 25% of Indigenous Australians in New South Wales reported no community problems and 20% reported experiencing no stressors in the last 12 months.
- Around three-quarters (78%) of Indigenous Australians reported they were not a victim of physical violence in the last 12 months and did not need legal services in the last 12 months (77%).

Structure and routine

- About 68% of Indigenous Australians in New South Wales reported living in only one dwelling in the last 12 months.
- Over half (62%) of Indigenous Australians reported they did not have a cash flow problem.

Income

- Around one-quarter (27%) of Indigenous Australians aged 15 and over in New South Wales were in the third quintile or above of equivalised household income.
- About 38% of Indigenous Australians reported that government support was not the main source of income during the last 2 years and 44% could raise \$2,000 within a week.

Table 1.14.1: Variables contributing to community functioning, Indigenous Australians aged 15 and over, New South Wales and Australia 2002

	NSW	Aust
Themes and community infrastructure	%	%
Power to control choices and options		
No stressors reported for discrimination/racism	80.5	82.3
Can visit homelands	35.0	46.2
Has support in a time of crisis	91.5	90.4
Involvement with Aboriginal/Torres Strait Islander organisation	26.1	26.1
Work allows for cultural responsibilities - can meet responsibilities	17.4	22.3
Used strategies to meet living expenses	45.4	48.5
Connectedness to family land and history		
Access to traditional lands		
Recognition of homelands	60.1	69.6
Lives in homelands	23.3	21.9
Removal		
Respondent not removed from natural family	86.7	87.2
Relatives not removed from natural family	48.3	44.4
Health, chronic disease and substance use		
Self-assessed health status excellent or very good	42.8	44.1
Has no disability or long-term health condition	62.2	63.5
Not a regular smoker ^(a)	49.3	50.7
Has not drunk alcohol in last 12 months at risky/high risk levels ^(b)	81.0	84.1
Has not used substances illicitly in last 12 months ^(c)	64.9	70.7
Culture		
Protection and maintenance of culture:		
Main language spoken at home is Aboriginal language/ Torres Strait Islander language	—**	12.0
Speaks an Aboriginal/Torres Strait Islander language	3*	21.1
Participating in cultural events		
Attended Aboriginal and Torres Strait Islander cultural event in last 12 months		
Attended funeral	36.8	46.6
Attended ceremony	12.4	23.5
Attended sports carnival	21.0	29.8
Attended festival/carnival involving arts, crafts, music or dance	29.0	35.7
Sub-total attended in last 12 months	58.6	68.1
Identity		
Identification with tribal group or language group/clan	41.7	54.1
Continuing employment		
Employed in CDEP	5.0	12.1
Employed not in CDEP	39.3	34.1

(continued)

Table 1.14.1 (continued): Variables contributing to community functioning, Indigenous Australians aged 15 and over, New South Wales and Australia, 2002

	NSW	Aust
Themes and community infrastructure	%	%
Education		
Year 12 highest year of school completed ^(d)	17	18
<i>Subtotal people 15 and over not at school</i>	100	100
Has a non-school qualification ^(e)	33	32
<i>Subtotal people aged 25-64</i>	100.0	100.0
Having a role		
Has done volunteer work for an organisation in the last 12 months	31.6	27.6
Expected to have the same employment in 12 months	38.6	40.6
Infrastructure of community		
Housing		
Living in a dwelling that has no major structural problems	64.3	60.4
Living in a dwelling that is not overcrowded (Canadian occupancy standard)	86.0	74.0
<i>Working household facilities for:</i>		
washing people	99.4	98.6
washing clothes and bedding	98.9	98.1
Storing/preparing foods	97.1	92.3
Sewerage facilities	99.7	98.1
Communication services		
Has working telephone	81.3	71.3
Used computer in last 12 months	60.9	55.5
Used internet in last 12 months	48.4	41.0
Transport		
Access to motor vehicles	56.7	54.6
Can easily get to places needed	73.4	70.1
<i>Main reasons for not using public transport:</i>		
Prefer to use own transport	33.6	29.2
No service available	21.3	29.1
No service available/convenient time	3.9	4.3
Cost considerations	2*	1.2
Other ^(f)	8.5	6.9
Coping within the internal world and external world/ role models		
Community problems		
No community problems reported	24.8	25.3
Community problems reported, but less than three types	32.7	28.8
No problems reported for theft	54.2	57.0

(continued)

Table 1.14.1 (continued): Variables contributing to community functioning, Indigenous Australians aged 15 and over, New South Wales and Australia, 2002

	NSW	Aust
Themes and community infrastructure	%	%
No problems reported for alcohol	69.7	66.5
No problems reported for illicit drugs	68.7	67.7
No problems reported for family violence	85.1	78.8
No problems reported for assault	85.6	80.1
No problems reported for sexual assault	93.9	91.9
Subtotal no. of people who reported a community problem	74.9	73.6
Stressors		
No stressors reported in last 12 months	20.3	17.7
Less than three types of stressors reported in the last 12 months ^(g)	60	56
No stressors reported for death of a family member or close friend	57.7	54.3
No stressors reported for serious illness or disability	71.9	69.2
No stressors reported for not able to get a job	72.5	73.0
No stressors reported for witness to violence	90.6	84.3
No stressors reported for member of family sent to jail/currently in jail	83.4	80.5
Subtotal no. of people who reported a stressor	79.7	82.3
Crime and Justice		
Not a victim of physical or threatened violence in the last 12 months	77.6	75.7
Did not need legal services in the last 12 months	77.0	77.1
Did not use legal services in the last 12 months	79.2	80.2
Not arrested by police in the last 5 years	82.6	83.6
Not incarcerated in the last 5 years	93.5	92.9
Structure and routine		
Has no difficulties communicating with service providers in English ^(h)	89.8	86.9
In the last 12 months has lived in only one dwelling	67.7	69.1
No days without money for basic living expenses in the last 12 months ⁽ⁱ⁾	57.2	56.3
No days without money for basic living expenses in the last 2 weeks ⁽ⁱ⁾	70.2	68.2
Did not have a cash flow problem ⁽ⁱ⁾	61.7	45.9
Income		
<i>Equivalised gross household income</i>		
3rd quintile or above	26.6	24.6
<i>Main current source of personal income</i>		
CDEP	4.1	10.3
Other wages/salaries	34.0	29.0
Government pensions and allowances	52.1	50.2
Total in labour force	61.4	60.0

(continued)

Table 1.14.1 (continued): Variables contributing to community functioning, Indigenous Australians aged 15 and over, New South Wales and Australia, 2002

	NSW	Aust
Themes and community infrastructure	%	%
Other sources ⁽ⁱ⁾	3.4	3.1
Government support was not the main source of income during the last 2 years	38.2	40.0
Household financial stress and cash flow problems		
Has a bank account	97.5	94.2
Could raise \$2000 within a week	44.4	40.6
Total people aged 15 and over	83,760	282,205

* Estimate has a relative standard error of 25% to 50% and should be used with caution.

** Estimate has a relative standard error greater than 50% and is considered too unreliable for general use.

- (a) Excludes regular smoker and not stated.
- (b) Excludes high risk, medium risk and not status.
- (c) Excludes non response, not stated and has used substance in the last 12 months.
- (d) Proportion of subtotal people aged 15 years and over, but not at school.
- (e) Proportion of subtotal people aged 25-64 years.
- (f) Includes takes too long, concerned about own personal safety, racial discrimination and other.
- (g) Includes values of zero to less than three.
- (h) Excludes with assistance.
- (i) Non-community responses only
- (j) Excludes not stated.

Source: AIHW and ABS analyses of National Aboriginal and Torres Strait Islander Social Survey (NATSISS) 2002.

Discrete Indigenous communities

Characteristics contributing to community functioning

Table 1.14.2 below presents data on characteristics contributing to community functioning in discrete Indigenous communities as collected in the 2006 Community Housing and Infrastructure Needs Survey (CHINS).

Housing

- In 2006, around 19% of permanent dwellings managed by Indigenous Housing Organisations in New South Wales needed major repair.
- In 2006, all of the discrete Indigenous communities in New South Wales reported having an organised water supply, 97% reported having an organised sewerage supply and all reported having an organised electricity supply.

Health and medical services

- Around 91% of discrete Indigenous communities in New South Wales were located less than 100 kilometres from the nearest hospital and two-thirds (67%) were located less than 100 kilometres from the nearest Aboriginal primary health care centre.
- In 2006, around 18% of discrete Indigenous communities reported having access to medical emergency air services.

Educational services

- Around one-quarter of discrete Indigenous communities in New South Wales reported having a primary school in the community. Around 5% reported having a secondary school up to Year 12 in the community, and 88% reported having a secondary school less than 50km away.

Communication services

- Around one-quarter of discrete Indigenous communities in New South Wales reported having access to a public telephone and 26% had access to the Internet.

Transport

- In 2006, all discrete Indigenous communities in New South Wales reported road as the main mode of transport to the nearest town with major services.

Community services

- Around 9% of discrete Indigenous communities in New South Wales reported having visitor accommodation, but none reported having aged care, disability or women's refuge accommodation.
- About one-quarter reported having an arts/cultural centre (28%), and a child care centre (23%).
- Around two-thirds (66%) reported having no sporting facilities.

Community priority needs plan

- In 2006, around one-half (49%) of discrete Indigenous communities in New South Wales reported having a community priority needs plan and one-third (36%) were developing a plan.
- Of those communities with a plan, 68% identified more housing, 60% identified transport, and 56% reported health care facilities as main priorities.

Table 1.14.2: Proportion^(a) of discrete Indigenous communities by characteristics contributing to community functioning, New South Wales and Australia, 2006

Community Infrastructure	New South Wales		Australia	
	Dwellings	Reported usual population	Dwellings	Reported usual population
Housing	%	%	%	%
<i>Condition of permanent dwellings managed by Indigenous Housing Organisations</i>				
Needing minor or no repairs	78.6	n.a.	69.5	n.a.
Needing major repairs	18.8	n.a.	23.4	n.a.
Needing replacement	2.7	n.a.	7.2	n.a.
Total dwellings	100.0	n.a.	100.0	n.a.
	Communities	Reported usual population	Communities	Reported usual population
No-one in community living in temporary dwellings	78.9	78.2	65.3	64.5
Population living in temporary dwellings	n.a.	1.2	n.a.	4.4
No-one in community requiring permanent dwelling	86.0	87.1	68.2	68.5
Population requiring permanent housing	n.a.	n.p.	n.a.	4.2
<i>Access to clean water</i>				
Organised water supply ^(b)	100.0	100.0	96.4	99.2
No organised water supply	0.0	0.0	3.6	0.8
Drinking water failed testing in last 12 months ^(c)	80.0	93.7	29.3	24.1
Drinking water not sent away for testing ^(d)	16.7	0.0	21.5	8.7
Experienced 5 or more water interruptions over last 12 months ^(d)	3.8	4.5	18.9	25.7
Experienced interruptions to water supply greater than 24 hours ^(d)	18.9	27.2	21.9	18.9
<i>Access to sewerage</i>				
Organised sewerage supply ^(e)	96.5	99.1	83.8	97.1
No organised system	3.5	n.p.	16.2	2.9
Experienced overflows or leakage ^(d)	23.5	28.3	39.3	36.5
Over a 12-month period 10 or more overflows ^(d)	5.9	8.2	8.6	6.5
Overflows or leakages longer than 48 hours ^(d)	19.6	25.2	22.4	17.4
Not all dwellings connected ^(d)	5.3	1.7	18.8	4.5
<i>Access to electricity</i>				
Organised electricity supply	100.0	100.0	97.0	99.7
No organised supply	0.0	0.0	3.0	0.3
20 or more interruptions in the last 12 months ^(d)	1.9	3.6	11.2	16.1
At least one interruption greater than 24 hours in last 12 months ^(d)	13.2	26.3	26.2	29.0
Not all dwellings connected	1.9	n.p.	3.3	1.9

(continued)

Table 1.14.2 (continued): Proportion^(a) of discrete Indigenous communities by characteristics contributing to community functioning, New South Wales and Australia, 2006

Community Infrastructure	New South Wales		Australia	
	Communities	Reported usual population	Communities	Reported usual population
		%		%
Access to rubbish disposal				
Community has organised rubbish collection ^(d)	92.5	89.9	92.1	96.9
Community does not have organised rubbish disposal ^(d)	7.5	10.1	7.9	3.1
Health and medical services				
Aboriginal primary health care centre				
Located within community	27.8	37.1	10.2	47.0
Located less than 100km	66.7	57.8	50.3	24.0
Located 100km or more	5.6	5.1	39.6	28.9
Total stated	100.0	100.0	100.0	100.0
Hospital				
Located within community	1.8	3.2	0.9	15.3
Located less than 100km	90.9	87.8	29.0	28.3
Located 100km or more	7.3	9.0	70.0	56.4
Total stated	100.0	100.0	100.0	100.0
Other (state funded) community health centre				
Located within community	13.0	20.1	9.9	42.9
Located less than 100km	85.2	78.3	54.8	29.2
Located 100km or more	1.9	1.6	35.4	28.0
Total stated	100.0	100.0	100.0	100.0
Emergency services^(f)				
Access to medical emergency air services	18.2	19.6	32.3	75.2
No access to medical emergency air services	81.8	80.4	67.7	24.8
Whether health professionals visiting or working in the community^(f)				
Male Indigenous health worker daily, weekly, fortnightly	63.3	65.0	42.4	64.2
Male Indigenous health worker monthly or longer	3.3	n.p.	9.0	6.0
No male Indigenous health worker	33.3	33.7	48.6	29.8
Female Indigenous health worker daily, weekly, fortnightly	73.3	76.5	55.2	79.7
Female Indigenous health worker monthly or longer	3.3	n.p.	7.3	3.7
No female Indigenous health worker	23.3	22.3	37.5	16.5
Doctor daily, weekly, fortnightly	53.3	64.7	41.0	60.9
Doctor monthly or longer	6.7	3.0	25.7	25.9

(continued)

Table 1.14.2 (continued): Proportion^(a) of discrete Indigenous communities by characteristics contributing to community functioning, New South Wales and Australia, 2006

Community Infrastructure	New South Wales		Australia	
	Communities	Reported usual population	Communities	Reported usual population
	%	%	%	%
No doctor	40.0	32.3	33.3	13.1
Registered nurse daily, weekly, fortnightly	50.0	55.2	63.9	86.5
Registered nurse monthly or longer	13.3	14.5	9.4	4.5
No registered nurse	36.7	30.2	26.7	9.0
Educational services				
Primary				
Located within community	24.6	29.7	22.6	72.8
Located less than 50km	75.4	70.3	49.2	22.5
Located 50km or more	0.0	0.0	28.2	4.7
Total stated	100.0	100.0	100.0	100.0
Secondary school up to Year 10				
Located within community	0.0	0.0	4.7	30.8
Located less than 50km	92.6	94.6	39.4	34.7
Located 50km or more	7.4	5.4	55.9	34.5
Total stated	100.0	100.0	100.0	100.0
Secondary school up to Year 12				
Located within community	5.3	5.7	3.7	23.0
Located less than 50km	87.7	89.2	27.3	28.1
Located 50km or more	7.0	5.1	69.0	48.9
Total stated	100.0	100.0	100.0	100.0
Access to educational services other than school				
Pre-primary	28.3	44.2	34.4	56.1
Homework centre	11.3	22.1	7.9	10.1
TAFE courses	26.4	38.5	19.1	37.4
Other adult education	13.2	20.2	13.7	21.4
Other educational services	1.9	1.5	4.9	7.0
No other educational services	58.5	44.4	54.1	28.5
Communication services				
Public access to community telecommunication facilities				
Public telephones	24.6	37.1	58.1	84.0
Satellite dish	7.5	5.3	49.2	67.8
Radio	98.1	98.5	92.1	96.2
Television	100.0	100.0	95.4	98.6

(continued)

Table 1.14.2 (continued): Proportion^(a) of discrete Indigenous communities by characteristics contributing to community functioning, New South Wales and Australia, 2006

Community Infrastructure	New South Wales		Australia	
	Communities	Reported usual population	Communities	Reported usual population
	%	%	%	%
Internet	26.4	24.0	37.2	57.8
Community has no access to a public telephone	75.4	62.9	41.9	16.0
Community has no access to Internet	73.6	76.0	62.8	42.2
Transport				
Access to community not located in town				
Main mode of transport				
Road	100.0	100.0	88.0	78.0
Air	0.0	0.0	9.4	18.9
Sea	0.0	0.0	2.7	3.1
Usual method of transport^(d)				
Private	82.1	79.0	85.8	78.7
Public	10.3	13.6	8.6	17.7
Community-owned vehicle	5.1	3.3	4.3	2.2
Other	2.6	4.1	1.3	1.4
Whether transport services available to/from community^(d)				
Public	35.9	32.6	17.8	32.6
Community	48.7	55.9	23.8	25.1
Road access^(d)				
Road access not cut	82.1	90.1	42.6	29.7
Road access cut 5 or more times	0.0	0.0	13.9	16.8
Inaccessible by road	0.0	0.0	11.5	23.1
Airstrip^(d)				
Airstrip located in community	7.7	6.7	48.5	69.1
Airstrip open all year round	100.0	100.0	74.1	75.9
Airstrip not open all year round	0.0	0.0	25.9	24.1
Community services^(d)				
Accommodation facilities				
Visitor	9.4	10.3	32.5	56.8
Camping	7.5	6.3	14.2	13.0
Single men's	1.9	1.0	13.1	19.7
Single women's	1.9	1.0	6.8	13.0
Hostel	3.8	3.2	2.2	2.6

(continued)

Table 1.14.2 (continued): Proportion^(a) of discrete Indigenous communities by characteristics contributing to community functioning, New South Wales and Australia, 2006

Community Infrastructure	New South Wales		Australia	
	Communities	Reported usual population	Communities	Reported usual population
	%	%	%	%
Contract workers	1.9	1.0	23.2	53.8
Disability	0.0	0.0	6.3	13.7
Aged	0.0	0.0	12.0	34.4
Women's refuge	0.0	0.0	8.7	34.9
Other	1.9	1.5	1.1	3.2
No accommodation facilities	84.9	83.9	48.6	20.4
Public facilities				
Hall/meeting area	49.1	58.3	56.8	75.8
Administration building	39.6	47.6	61.2	85.5
Store	11.3	21.2	47.8	80.0
Library	7.5	12.5	12.0	37.6
Arts/cultural centre	28.3	34.4	31.1	56.5
Women's centre	13.2	22.3	30.9	55.6
Child care centre	22.6	37.8	29.5	58.3
Youth centre	17.0	28.0	19.4	43.9
Canteen	5.7	11.3	12.8	34.9
Broadcasting facilities	3.8	5.9	30.9	63.2
Other	17.0	15.5	10.7	16.5
No public facilities	41.5	32.1	24.3	6.7
Recreation facilities				
Sports grounds	17.0	29.2	46.2	78.9
Outdoor basketball/netball courts	24.5	36.6	48.4	72.4
Indoor or covered sporting facilities	3.8	9.3	12.6	39.2
Swimming pools	1.9	3.2	7.4	23.4
Other buildings used for sport	7.5	14.1	15.6	36.8
Other community sporting facilities	1.9	3.1	6.0	10.2
No sporting facilities	66.0	48.6	38.5	12.1
Community priority needs plan^(d)				
Communities with a community priority needs plan	49.1	45.9	51.6	58.9
Of those with plan needs identified include:				
More housing	68.0	66.6	89.9	93.9
Upgrade water supply	24.0	23.8	45.5	46.8
Upgrade electricity supply	16.0	15.4	37.6	32.2

(continued)

Table 1.14.2 (continued): Proportion^(a) of discrete Indigenous communities by characteristics contributing to community functioning, New South Wales and Australia, 2006

Community Infrastructure	New South Wales		Australia	
	Communities	Reported usual population	Communities	Reported usual population
		%		%
Upgrade sewerage	24.0	23.8	43.4	46.2
Rubbish collection/disposal	32.0	43.6	45.0	40.1
Transport	60.0	64.3	40.7	40.3
Communication facilities	24.0	24.4	27.0	33.0
Education facilities	32.0	41.9	31.2	37.3
Sports facilities	40.0	46.8	55.6	62.9
Health care facilities	56.0	61.1	41.8	47.3
Animal control	24.0	35.5	38.6	50.8
Broadcasting capabilities	16.0	18.1	27.0	35.4
Other	24.0	40.6	25.4	26.9
Communities developing a community priority needs plan	35.8	45.2	35.2	34.3
No community priority needs plan being developed	15.1	9.0	13.1	6.9
Total no. of communities	57	5,082	1,187	92,960

(a) All proportions were calculated excluding not stated from denominator.

(b) Excluding communities with carted and other organised water supply.

(c) Percentage calculated as a proportion of all discrete Indigenous communities with a reported usual population of 50 people or more, and communities which have a reported usual population of less than 50 people but which are not administered by a larger discrete Indigenous community or Resource Agency, excluding communities where water not sent away for testing and communities connected to town supply.

(d) Percentage calculated as a proportion of all discrete Indigenous communities with a reported usual population of 50 people or more, and communities which have a reported usual population of less than 50 people but which are not administered by a larger discrete Indigenous community or Resource Agency.

(e) Excluding communities which reported pit and pan toilets as the main sewerage system type.

(f) Percentage calculated as a proportion of all discrete Indigenous communities with a reported usual population of 50 people or more, and communities which have a reported usual population of less than 50 people but which are not administered by a larger discrete Indigenous community or Resource Agency, and are located 10 kilometres or more from a hospital.

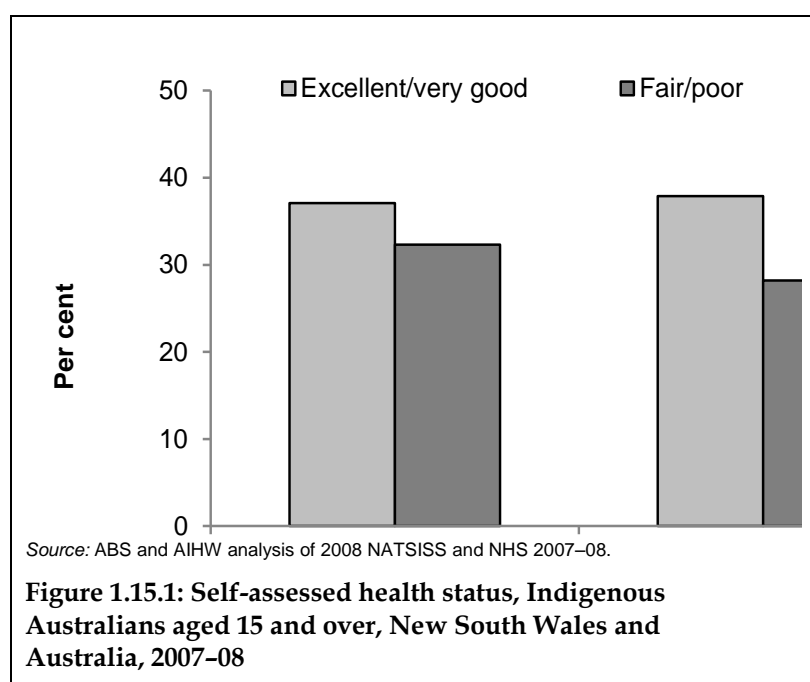
Source: AIHW analyses of Community Housing and Infrastructure Needs Survey (CHINS) 2006.

1.15 Perceived health status

Self-reported, self-assessed health status of Aboriginal and Torres Strait Islander Australians

Self-assessed health status

- The proportion of Indigenous Australians aged 15 and over reporting fair or poor health was similar in New South Wales and Australia (32% and 28% respectively). In New South Wales and Australia, a similar proportion of Indigenous Australians aged 15 and over reported excellent or very good health (37% and 38%, respectively).



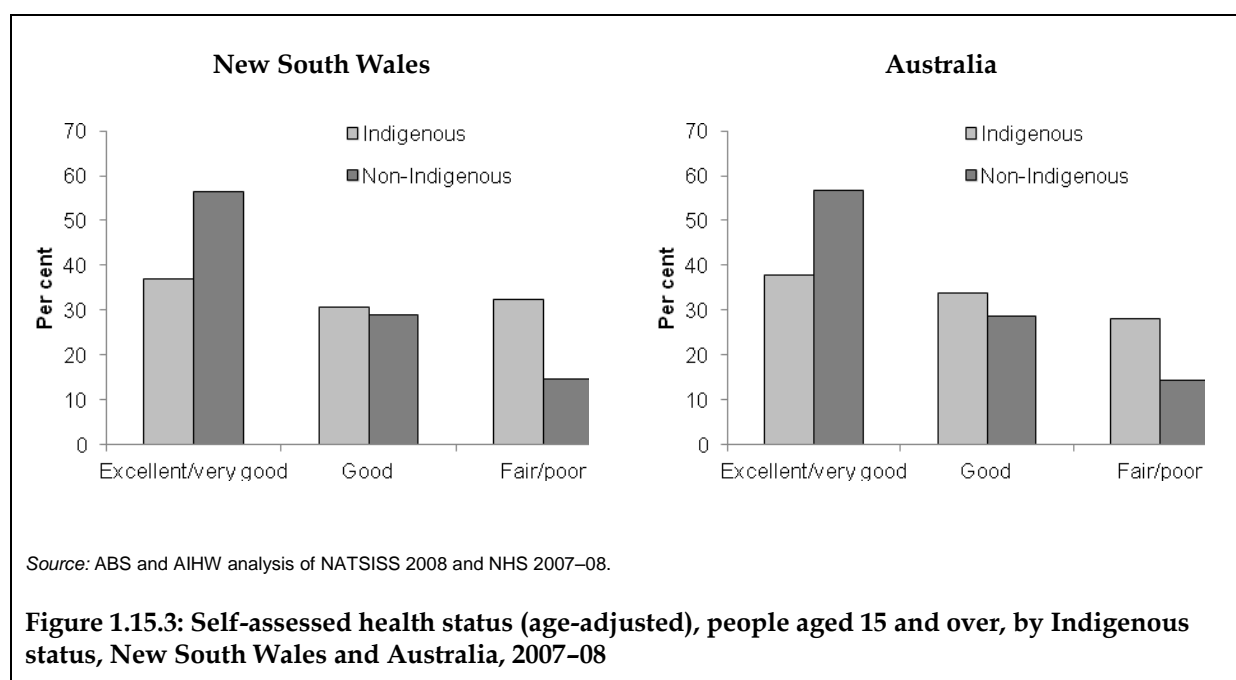
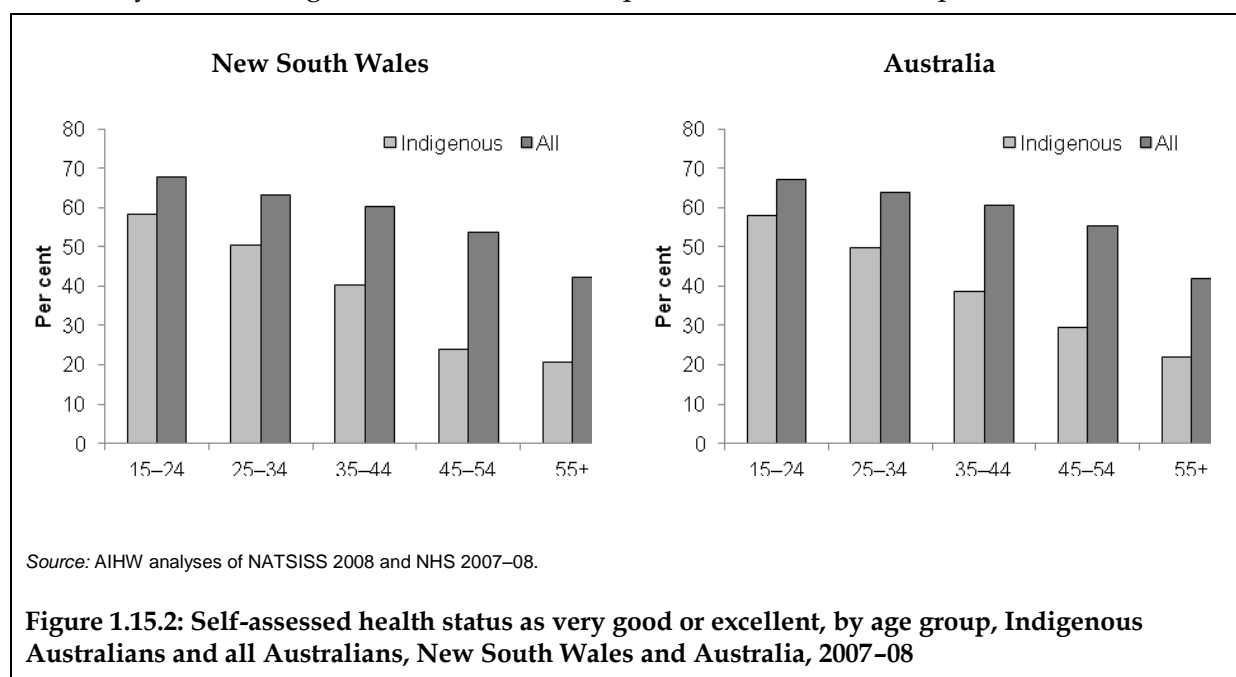
Self-assessed health status by age

- In New South Wales, Indigenous Australians were less likely than all Australians to report very good or excellent health across all age groups. The same pattern was evident for Australia.
- Indigenous Australians aged 15-24 in New South Wales were most likely to report excellent or very good health (58%) and Indigenous Australians aged 55 and over were least likely to report excellent or very good health (21%).

Self-assessed health status by Indigenous status (age-standardised)

- In 2007-08, after adjusting for differences in age structure between the Indigenous and non-Indigenous populations, around 37% of the Indigenous population in New South Wales aged 15 or over reported their health as very good or excellent, 31% reported their health as good and 32% reported their health as fair or poor. This compared with 56%, 29% and 15% for non-Indigenous Australians in New South Wales for these categories of health status.

- In both New South Wales and Australia, Indigenous Australians were about twice as likely as non-Indigenous Australians to report their health as fair/poor.



1.16 Social and emotional wellbeing

The social and emotional wellbeing of Aboriginal and Torres Strait Islander peoples expressed as a percentage by age group, age-standardised rate and ratio

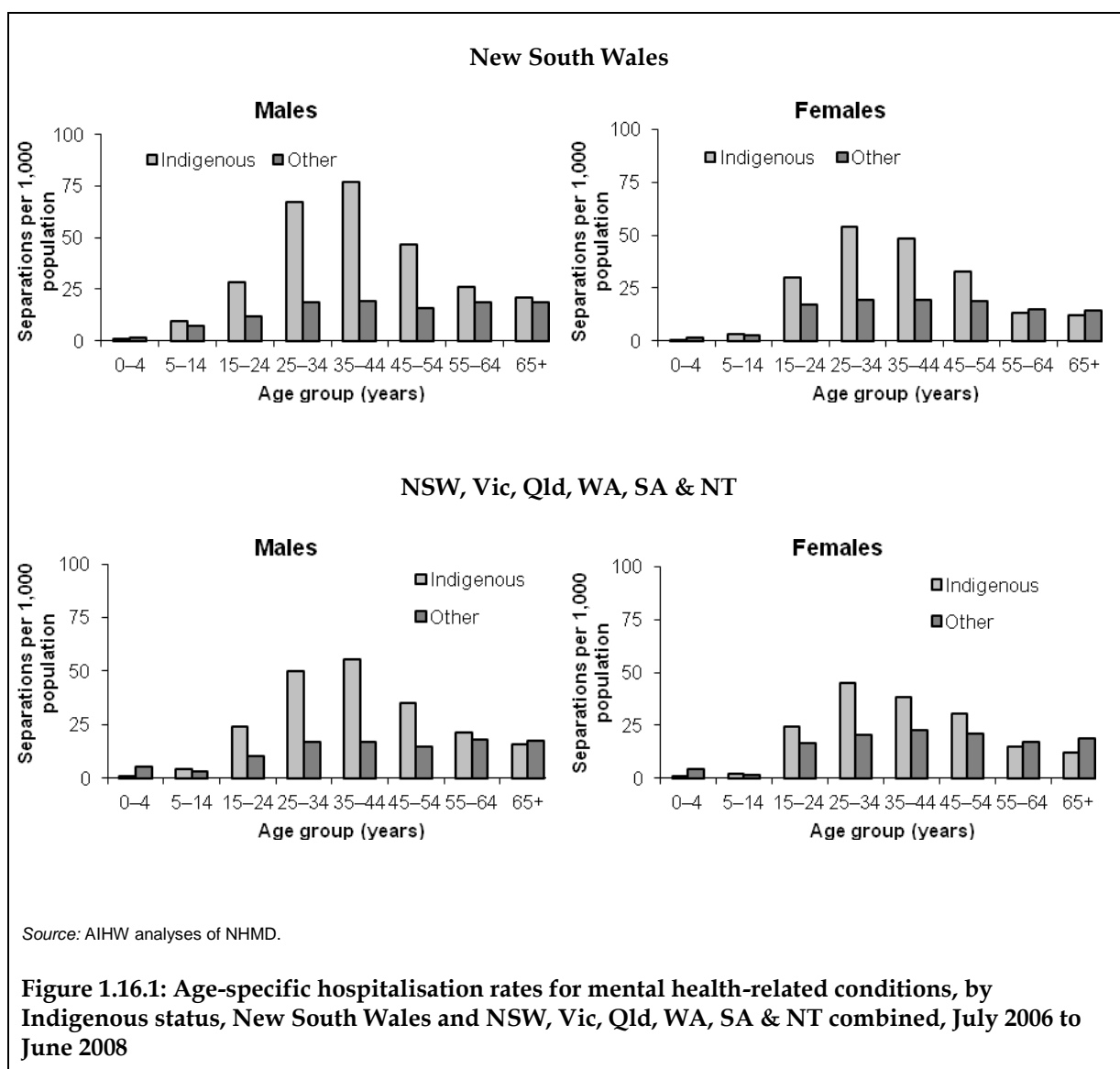
Hospitalisations

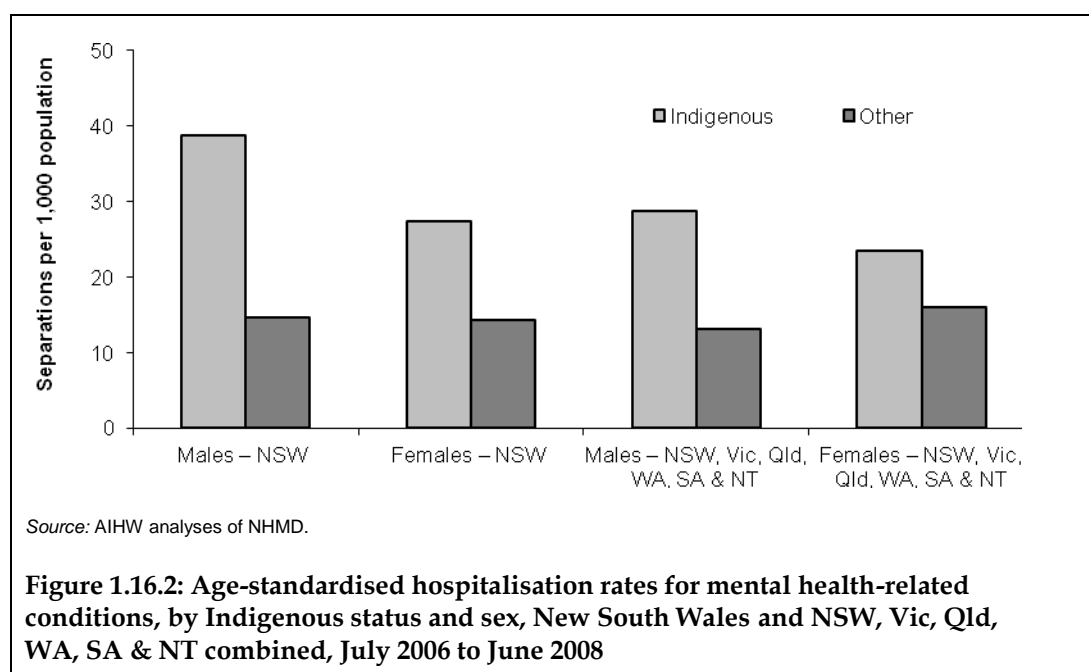
Hospitalisations by age and sex

- For the 2-year period July 2006 to June 2008 in New South Wales, Indigenous males and females had higher hospitalisation rates for mental health-related conditions than other males and females across all age groups with the exception of the 0–4 age group for males and females, and the 55–64 and 65+ age groups for females.
- For Indigenous males and females in New South Wales, the hospitalisation rate for mental health-related conditions was highest among those aged 25–34 and 35–44. The same pattern was evident for Indigenous males and females in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, but hospitalisation rates were lower than in New South Wales.
- The greatest difference in hospitalisation rates for mental health-related conditions between Indigenous and other people in New South Wales occurred in the 25–34 and 35–44 age groups where Indigenous males were hospitalised at around 4 times the rate of other males, and females around 3 times that of other females.

Hospitalisations by Indigenous status

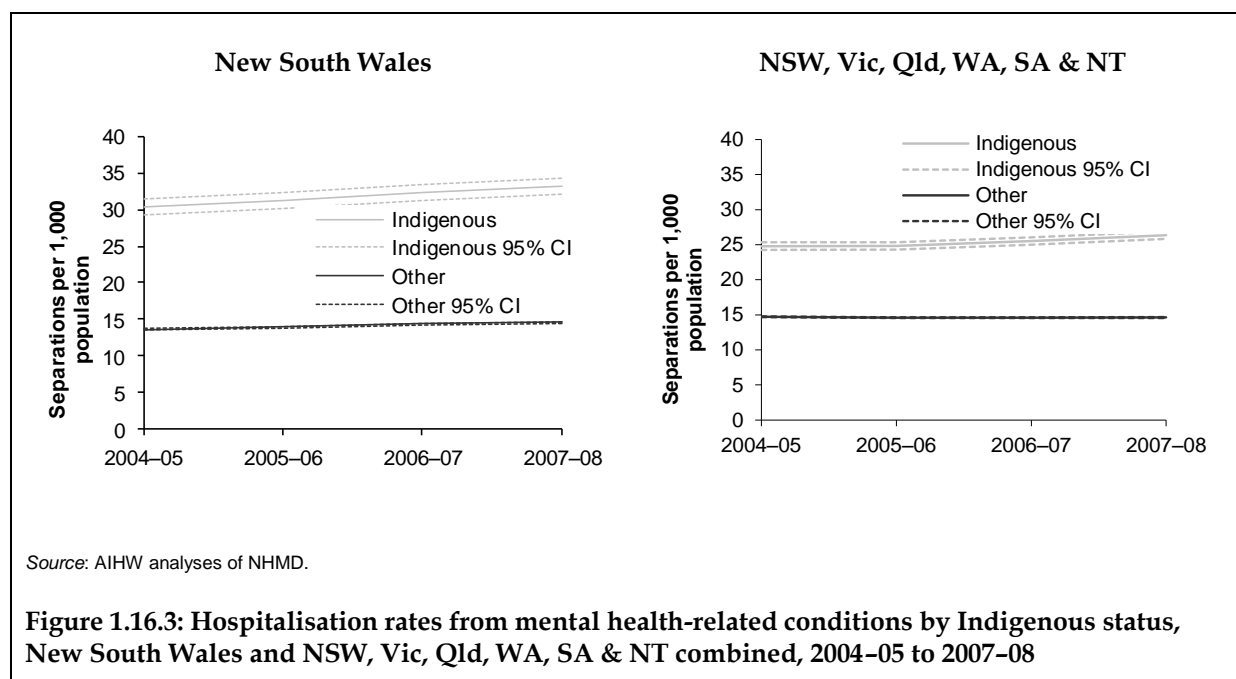
- For the 2-year period July 2006 to June 2008, Indigenous males in New South Wales were three times as likely, and Indigenous females twice as likely, to be hospitalised for mental health-related conditions as other males and females in New South Wales.
- In New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, Indigenous males were twice as likely and Indigenous females 1.5 times as likely to be hospitalised for mental health-related conditions as other males and females.
- Hospitalisation rates for mental health-related conditions were higher among Indigenous Australians in New South Wales than among Indigenous Australians in the six jurisdictions combined.





Hospitalisation trends

- In New South Wales there were significant increases in hospitalisation rates for mental health-related conditions among Indigenous and other people during the period 2004–05 to 2007–08. There was an average yearly increase in the rate of 1.0 hospitalisations per 1,000 population for Indigenous Australians and 0.3 per 1,000 for other people. Over this period, the hospitalisation rates for mental health-related conditions increased 7% for Indigenous people and 2% for other people.
- The combined hospitalisation rate for Indigenous people in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory, also increased significantly during the period 2004–05 to 2007–08. There was no significant change in the hospitalisation rate of other people.
- There were significant increases in the hospitalisation rate ratios for mental health-related conditions between Indigenous and other Australians in New South Wales and in the six jurisdictions combined (Figure 1.16.3).



1.17 Life expectancy at birth

The life expectancy of Aboriginal and Torres Strait Islander males and females for a given period

Life expectancy by sex and Indigenous status

- Over the period 2005–2007, the life expectancy at birth for Indigenous people in New South Wales was estimated to be 69.9 years for males and 75.0 years for females. Life expectancy was considerably higher for both total males (78.5 years) and total females (82.4 years) in New South Wales.
- Life expectancy was slightly higher for Indigenous males and females in New South Wales than in Australia.

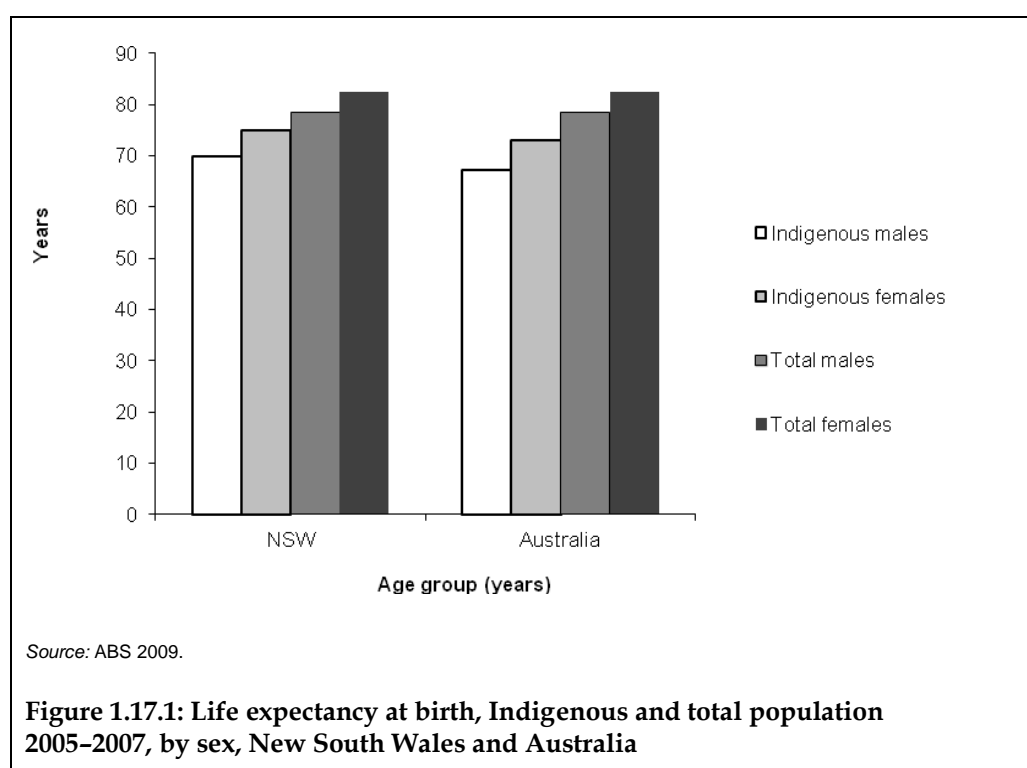


Table 1.17.1: Life expectancy at birth, Indigenous and total population 2005–2007, New South Wales and Australia

	Indigenous		Total population	
	Males	Females	Males	Females
New South Wales	69.9	75.0	78.5	82.4
Australia	67.2	72.9	78.5	82.4

Source: ABS 2009.

1.18 Median age at death

The age at which exactly half the deaths registered (or occurring) in a given time period were deaths of people above that age and half were deaths below that age

- For the period 2004 to 2008, in New South Wales, the median age at death for Indigenous males was 57 years and for Indigenous females was 63 years. This compared to 77 years for non-Indigenous males and 83 years for non-Indigenous females in New South Wales.
- The median age at death for Indigenous males and females in New South Wales was higher than for Indigenous males and females in New South Wales, Queensland, Western Australia, South Australia and the Northern Territory combined (Table 1.18.1).

Table 1.18.1: Median age at death by Indigenous status and sex, New South Wales and NSW, Qld, WA, SA & NT combined, 2004-2008

	Indigenous		Non-Indigenous	
	Male	Female	Male	Female
New South Wales	57	63	77	83
NSW, Qld, WA, SA & NT combined	52	59	77	83

Source: AIHW analyses of National Mortality Database.

1.19 Infant mortality

The number of Aboriginal and Torres Strait Islander people who die in the first year of life, expressed as a rate (per 1,000 live births) for that period

- For the period 2007-2008, there were 64 deaths of Aboriginal and Torres Strait Islander infants in New South Wales. The infant mortality rate for this period was around 8 per 1,000 live births for Indigenous infants compared with 4 per 1000 live births for non-Indigenous infants.
- The infant mortality rate for Indigenous infants was lower in New South Wales than in New South Wales, Queensland, Western Australia, South Australia and the Northern Territory combined for this period of study.

Table 1.19.1: Infant mortality rates per 1,000 live births, by Indigenous status, New South Wales and NSW, Qld, WA, SA & NT combined, 2007–2008^{(a)(b)(c)(d)}

	Indigenous				Non-Indigenous				Rate ratio ^(h)
	Deaths	Rate per 1,000 ^(e)	LCL 95% ^(f)	UCL 95% ^(g)	Deaths	Rate per 1,000 ^(e)	LCL 95% ^(f)	UCL 95% ^(g)	
2007-2008 ⁽ⁱ⁾									
NSW	64	8.3	6.3	10.3	729	4.1	3.8	4.4	2.0*
NSW, Qld, WA, SA & NT	219	8.4	7.3	9.5	1,545	4.0	3.8	4.2	2.1*

* Represents results with statistically significant differences in the Indigenous/non-Indigenous comparisons at the $p < 0.05$ level.

(a) Data are reported for New South Wales, Queensland, Western Australia, South Australia and the Northern Territory only. These jurisdictions are considered to have adequate levels of Indigenous identification in mortality data for this period. They do not represent a quasi-Australian figure.

(b) Data are presented in 2-year groupings because of small numbers each year.

(c) Although most deaths of Indigenous Australians are registered, it is likely that some are not accurately identified as Indigenous. Therefore, these statistics are likely to underestimate the Indigenous infant deaths and, depending on the under-identification in births, may either underestimate or overestimate the rates. The ABS calculated the completeness of identification of Indigenous deaths for the period 2002–2006 using population estimates as 51% for Queensland, 72% for Western Australia, 62% for South Australia and 90% for the Northern Territory. The completeness of Indigenous identification for infant mortality may differ from the estimates for 'all causes'.

(d) Deaths are by year of registration and state/territory of usual residence.

(e) No. per 1,000 live births.

(f) LCL = lower confidence limit.

(g) UCL = upper confidence limit.

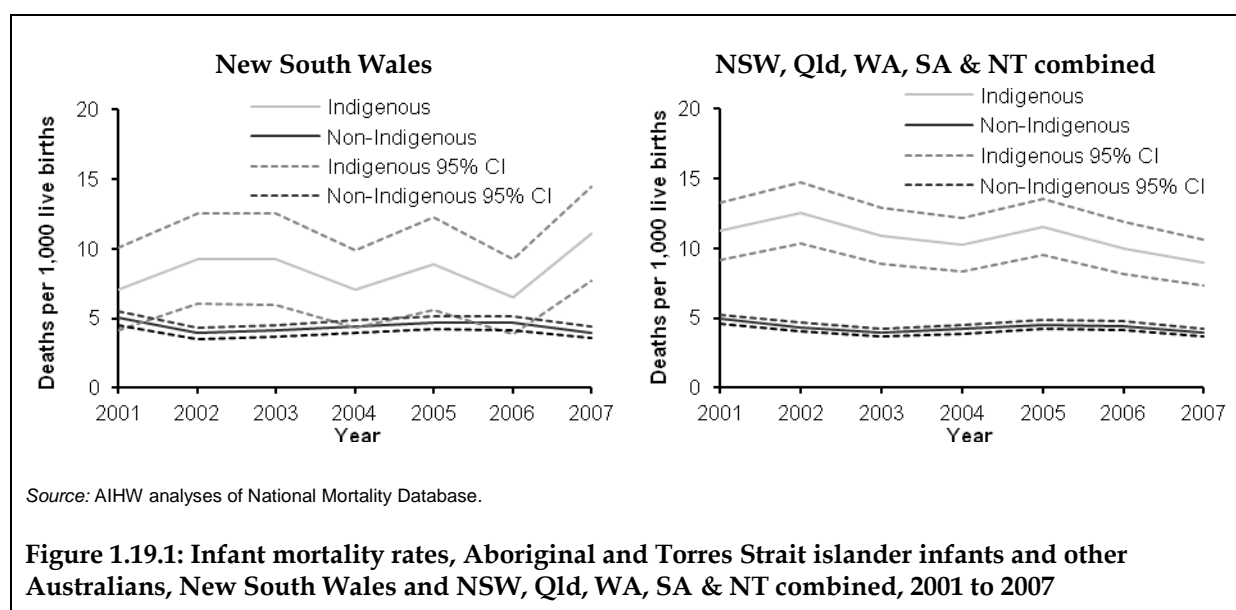
(h) Rate ratio Indigenous: non-Indigenous.

(i) Preliminary data from ABS.

Source: ABS and AIHW analysis of ABS Mortality Database.

Time series

- Over the period 1991 to 2007, there were no significant changes in recorded mortality rates for Indigenous and non-Indigenous infants in New South Wales (Figure 1.19.1).
- Over the same period, there were significant declines in recorded mortality rates for Indigenous infants in New South Wales, Queensland, Western Australia, South Australia and the Northern Territory combined. The fitted trend implies an average yearly decline in the rate of around 0.4 per 1,000 births for Indigenous infants (equivalent to a 21% reduction in the rate over the period). There were no significant changes in recorded mortality rates for non-Indigenous infants in the five jurisdictions combined (Figure 1.19.1).

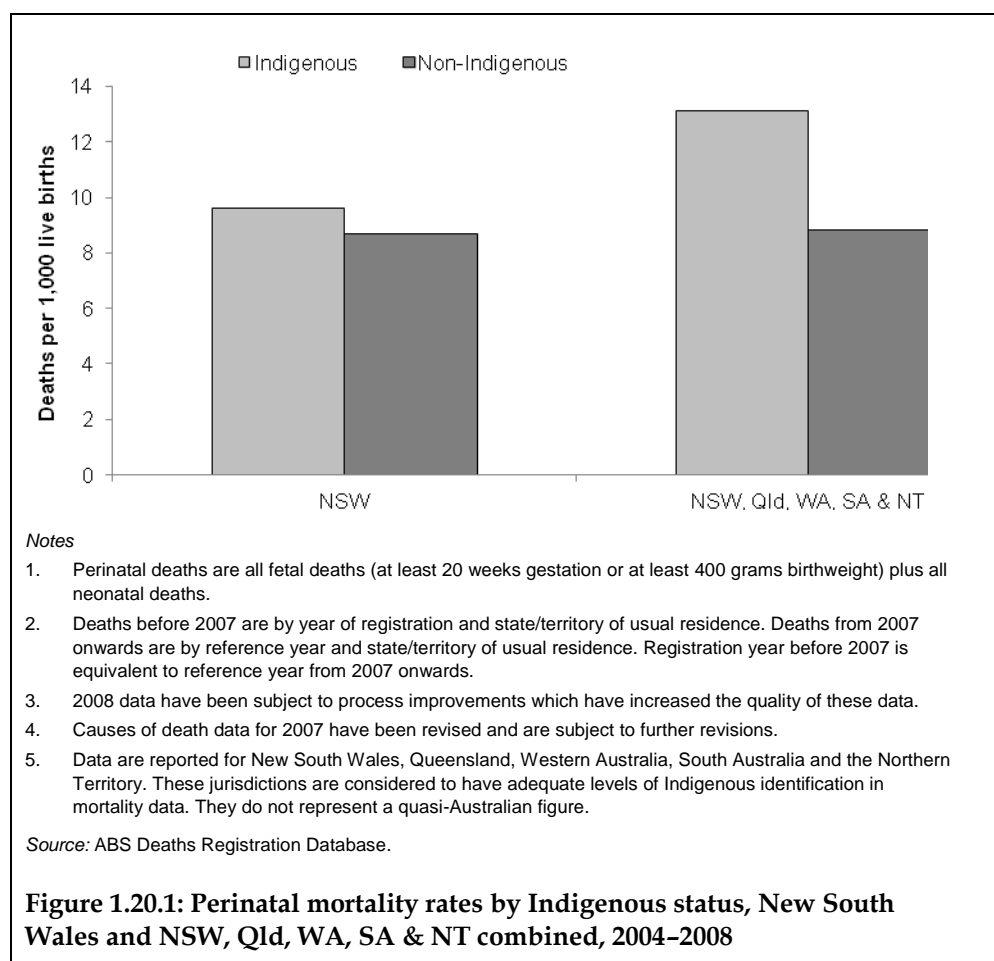


1.20 Perinatal mortality

The number of Aboriginal and Torres Strait Islander babies who die in the perinatal period, expressed as a rate (per 1,000 births).

Perinatal mortality by Indigenous status

- Over the period 2004–2008, the perinatal mortality rate for Indigenous babies in New South Wales was 9.6 per 1,000 births compared with 8.7 per 1,000 births for non-Indigenous babies.
- Over the same period, the perinatal mortality rate for Indigenous babies in New South Wales, Queensland, Western Australia, South Australia and the Northern Territory combined was 13.1 per 1,000 births and for other babies it was 8.8 per 1,000 births (Figure 1.20.1).



Time series

- In New South Wales, there were 199 perinatal deaths of Indigenous babies in 1999–2003 and 173 in 2004–2008.
- Between 1999–2003 and 2004–2008, there was a drop in the Indigenous perinatal mortality rate in New South Wales from 12.5 to 9.6 per 1,000 births. This rate remained relatively constant for other babies in New South Wales at 8.8 per 1,000 births.
- Over the same period, for New South Wales, Queensland, Western Australia, South Australia and Northern Territory combined, the Indigenous perinatal mortality rate dropped slightly from 16.2 per 1,000 births to 13.1 per 1,000 births.
- Between 1999–2003 and 2004–2008 there was a drop in the Indigenous to other Australians rate ratio of perinatal deaths in New South Wales and New South Wales, Queensland, Western Australia, South Australia and Northern Territory combined (Table 1.20.1).

Table 1.20.1: Foetal, neonatal and perinatal mortality rates^{(a)(b)(c)(d)} per 1,000 births, by Indigenous status, New South Wales and NSW, Qld, WA, SA and NT combined, 1999–2003 to 2004–2008^{(e)(f)(g)(h)(i)}

	1999–2003 ^{(e)(i)}					2004–2008 ^{(e)(f)(g)(h)(i)}				
	No.	No. per 1,000 ^(d)	LCL 95% ^(j)	UCL 95% ^(k)	Rate ratio ^(l)	No.	No. per 1,000 ^(d)	LCL 95% ^(j)	UCL 95% ^(k)	Rate ratio ^(l)
Fetal deaths^(a)										
NSW										
Indigenous	111	7.0	5.7	8.3	1.3*	89	4.9	3.9	5.9	0.9
Other ^(m)	2,241	5.4	5.2	5.6	..	2,362	5.5	5.3	5.7	..
NSW, Qld, WA, SA & NT⁽ⁿ⁾										
Indigenous	477	9.3	8.5	10.1	1.5*	448	7.5	6.8	8.2	1.3*
Other ^(m)	5,223	6.1	5.9	6.3	..	5,499	6.0	5.8	6.2	..
Neonatal deaths^(b)										
NSW										
Indigenous	88	5.6	4.4	6.8	1.6*	84	4.7	3.7	5.7	1.4*
Other ^(m)	1,441	3.5	3.3	3.7	..	1,401	3.3	3.1	3.5	..
NSW, Qld, WA, SA & NT⁽ⁿ⁾										
Indigenous	355	7.0	6.3	7.7	2.1*	329	5.6	5.0	6.2	1.9*
Other ^(m)	2,774	3.3	3.2	3.4	..	2,783	3.0	2.9	3.1	..
Perinatal deaths^(c)										
NSW										
Indigenous	199	12.5	10.8	14.2	1.4*	173	9.6	8.2	11.0	1.1
Other ^(m)	3,682	8.8	8.5	9.1	..	3,763	8.8	8.5	9.1	..
NSW, Qld, WA, SA & NT⁽ⁿ⁾										
Indigenous	832	16.2	15.1	17.3	1.7*	777	13.1	12.2	14.0	1.5*
Other ^(m)	7,997	9.4	9.2	9.6	..	8,282	9.0	8.8	9.2	..

* Represents results with statistically significant differences in the Indigenous/Other comparisons at the $p < 0.05$ level.

(a) Foetal deaths of at least 20 weeks gestation or with a birthweight of at least 400 grams.

(b) Neonatal death is death of a live-born baby within 28 days of birth.

(c) Perinatal deaths are all foetal deaths (at least 20 weeks gestation or at least 400 grams birth weight) plus all neonatal deaths.

(d) Foetal death rates and perinatal death rates are calculated per 1,000 all births for the calendar year. Neonatal death rates are calculated per 1,000 live births for the calendar year.

(e) Deaths before 2007 are by year of registration and state/territory of usual residence. Deaths from 2007 onwards are by reference year and state/territory of usual residence. Registration year before 2007 is equivalent to reference year from 2007 onwards.

(f) 2008 data have been subject to process improvements which have increased the quality of these data.

(g) Causes of death data for 2007 have been revised and are subject to further revisions.

(h) Causes of death data for 2008 are preliminary and subject to a revisions process.

(i) Data are presented in 5-year groupings due to volatility of the small numbers involved.

(j) LCL = lower confidence limit.

(k) UCL = upper confidence limit.

(l) Rate ratio Indigenous: Other.

(m) Other includes non-Indigenous and Indigenous status not stated.

(n) Data are reported for New South Wales, Queensland, Western Australia, South Australia and the Northern Territory. These jurisdictions are considered to have adequate levels of Indigenous identification in mortality data. They do not represent a quasi-Australian figure.

Source: ABS Deaths Registration Database.

1.21 Sudden infant death syndrome

The number of Aboriginal and Torres Strait Islander infants aged less than 12 months who die from sudden infant death syndrome (SIDS), expressed as a rate (per 1,000 live births) for that period

- Over the period 2004–2008, the mortality rate from SIDS for Indigenous infants in New South Wales was 1.2 per 1,000 live births compared with 0.3 per 1,000 live births for non-Indigenous infants in New South Wales. This was higher than the mortality rates for SIDS for Indigenous and non-Indigenous infants in New South Wales, Queensland, Western Australia, South Australia and the Northern Territory combined (0.7 and 0.2 per 1,000 live births).

Table 1.21.1: SIDS mortality rates per 1,000 live births, by Indigenous status, New South Wales and NSW, Qld, WA, SA & NT combined, 2004–2008^{(a)(b)(c)(d)(e)(f)(g)(h)(i)(j)}

	Indigenous		Non-Indigenous		Rate ratio ^(m)
	Deaths	Rate ^{(k)(l)}	Deaths	Rate ^{(k)(l)}	
NSW	22	1.2	130	0.3	4.0*
NSW, Qld, WA, SA & NT	39	0.7	206	0.2	2.9*

* Represents results with statistically significant differences in the Indigenous/non-Indigenous comparisons at the p<.05 level.

(a) SIDS - Sudden Infant Death Syndrome, ICD-10 code: R95. SIDS data in this table is for deaths under 1 year of age.

(b) Data are reported for New South Wales, Queensland, Western Australia, South Australia and the Northern Territory only. These 5 jurisdictions are considered to have adequate levels of Indigenous identification in mortality data. They do not represent a quasi-Australian figure.

(c) Data exclude 10 registered infant deaths where Indigenous status was not stated over the period 2004–2008 in NSW, Queensland, Western Australia, South Australia and the Northern Territory combined.

(d) Data are presented in 5-year groupings because of small numbers each year.

(e) Although most deaths of Indigenous Australians are registered, it is likely that some are not accurately identified as Indigenous. Therefore, these statistics are likely to underestimate the Indigenous all causes mortality rate.

(f) Deaths prior to 2007 are by year of registration and state/territory of usual residence. Deaths from 2007 onwards are by reference year and state/territory of usual residence. Registration year before 2007 is equivalent to reference year from 2007 onwards.

(g) Causes of death data for 2007 have been revised and are subject to further revisions. See Causes of Death, Australia, 2008 (cat. No. 3303.0) Technical Note 2: Revisions Process for further information.

(h) 2008 data have been subject to a process improvement which has increased the quality of these data. See Causes of Death, Australia, 2008 (cat. No. 3303.0) Technical Note 1: 2008 COD Collection - Process Improvement for further information.

(i) Causes of death data for 2008 are preliminary and subject to a revisions process. See Causes of Death, Australia, 2008 (cat. No. 3303.0) Technical Note 2: Revisions Process for further information.

(j) Data cells with small values have been randomly assigned to protect the confidentiality of individuals. As a result, some totals will not equal the sum of their components. It is important to note that cells with a zero value have not been affected by confidentialisation.

(k) Rates have been directly age-standardised using the 2001 Australian standard population.

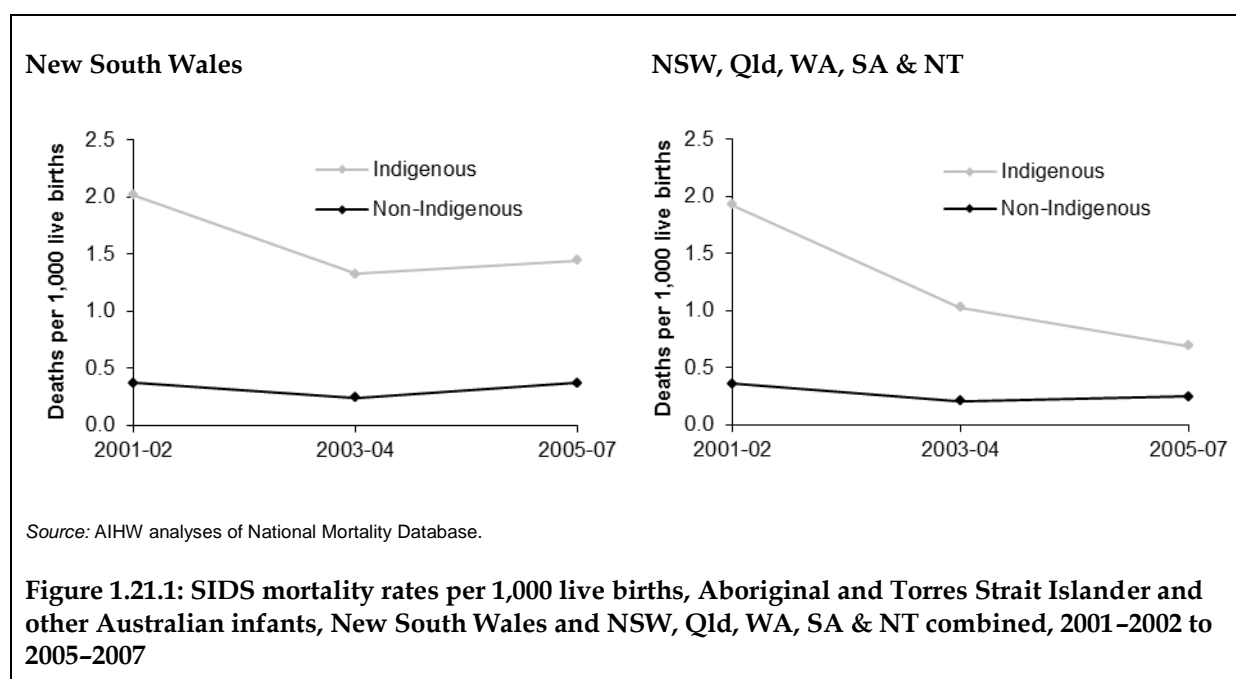
(l) No. per 1,000 live births.

(m) Rate ratio Indigenous: non-Indigenous.

Source: AIHW and ABS analysis of ABS Mortality Database.

Time series

- Over the period 2001–02 to 2005–07, the SIDS mortality rate in New South Wales declined from 2.0 to 1.4 deaths per 1,000 live births for Indigenous infants. However, the decline was not statistically significant. For non-Indigenous infants in New South Wales, the SIDS mortality rate remained relatively constant at 0.4 per 1,000 live births.
- Over the same period, there were significant declines in mortality rates from SIDS for Indigenous infants in Western Australia, South Australia and the Northern Territory combined, while there were no significant changes in the mortality rates from SIDS for non-Indigenous infants.



1.22 All-causes age-standardised death rate

The number of Aboriginal and Torres Strait Islander Australian deaths, expressed as a rate by age group, age-standardised rate and rate ratio

- For the period 2004–2008, the all-cause mortality rate in New South Wales for Indigenous Australians was twice that of non-Indigenous Australians. (Table 1.22.1).
- The age-standardised mortality rate for Indigenous Australians in New South Wales (947 per 100,000) was lower than that for Indigenous Australians in New South Wales Queensland, Western Australia, South Australia and the Northern Territory combined (1,184 per 100,000).
- Indigenous males and females in New South Wales had higher mortality rates than non-Indigenous males and females across all age groups (Figure 1.22.1). The greatest difference in rates occurred in the 25–34 and 35–44 year age groups, where Indigenous Australians died at around three times the rate of non-Indigenous Australians in both age groups. In the five jurisdictions combined, the greatest difference in rates occurred in the 35–44 year age group, followed by those aged 25–34 and 45–54 years.

Table 1.22.1: All causes mortality, by Indigenous status, New South Wales and NSW, Qld, WA, SA & NT combined, 2004–2008^{(a)(b)(c)(d)(e)}

State/territory	Number			Rate per 100,000 ^{(f)(g)}		Ratio ^(h)
	Indigenous	Non-Indigenous	Not stated	Indigenous	Non-Indigenous	
New South Wales	2,687	228,242	1,980	946.6	614.6	2.3
NSW, Qld, WA, SA & NT^(a)	10,840	467,252	5,030	1,184.2	609.3	1.9

(a) Data are reported for New South Wales, Queensland, Western Australia, South Australia and the Northern Territory only. These five jurisdictions are considered to have adequate levels of Indigenous identification in mortality data. They do not represent a quasi-Australian figure.

(b) Data are presented in 5-year groupings because of small numbers each year.

(c) Although most deaths of Indigenous Australians are registered, it is likely that some are not accurately identified as Indigenous. Therefore, these statistics are likely to underestimate the Indigenous all causes mortality rate.

(d) Implied coverage is the estimation of the proportion of Indigenous deaths accurately identified as Indigenous in the mortality data collections—estimated to be 55% nationally

(e) Deaths prior to 2007 are by year of registration and state/territory of usual residence. Deaths from 2007 onwards are by reference year and state/territory of usual residence. Registration year prior to 2007 is equivalent to reference year from 2007 onwards.

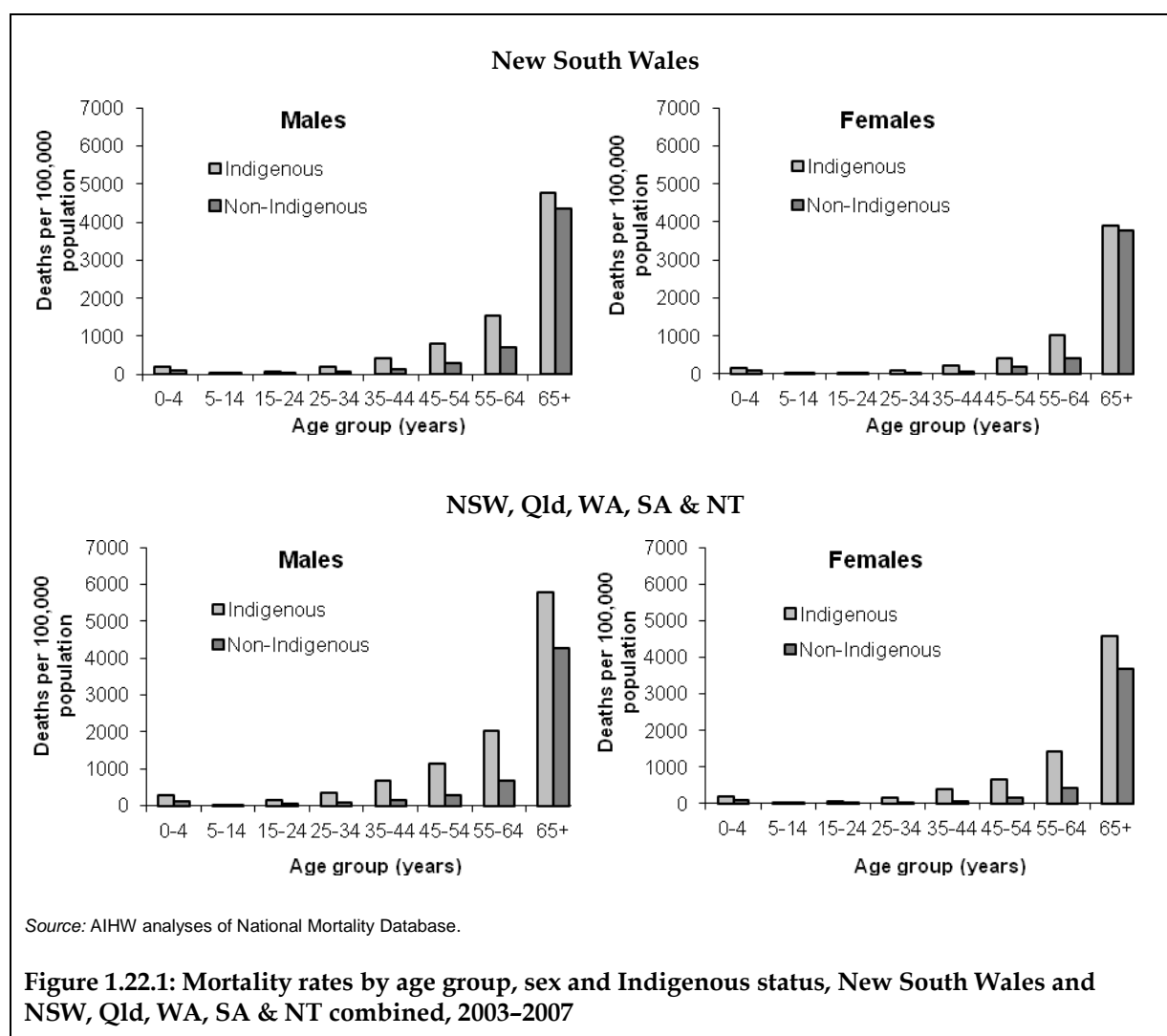
(f) Rates exclude 7,665 registered deaths where the Indigenous status is not stated.

(g) Age standardised death rates enable the comparison of death rates between populations with different age structures by relating them to a standard population. The current ABS standard population is all people in the Australian population at 30 June 2001. SDRs are expressed per 100,000 people. Age standardised rates in this table have been calculated using the direct method, age standardised by 5 year age group to 75+. These rates exclude 7,665 registered deaths where the Indigenous status is not stated.

(h) Rate ratio Indigenous: non-Indigenous.

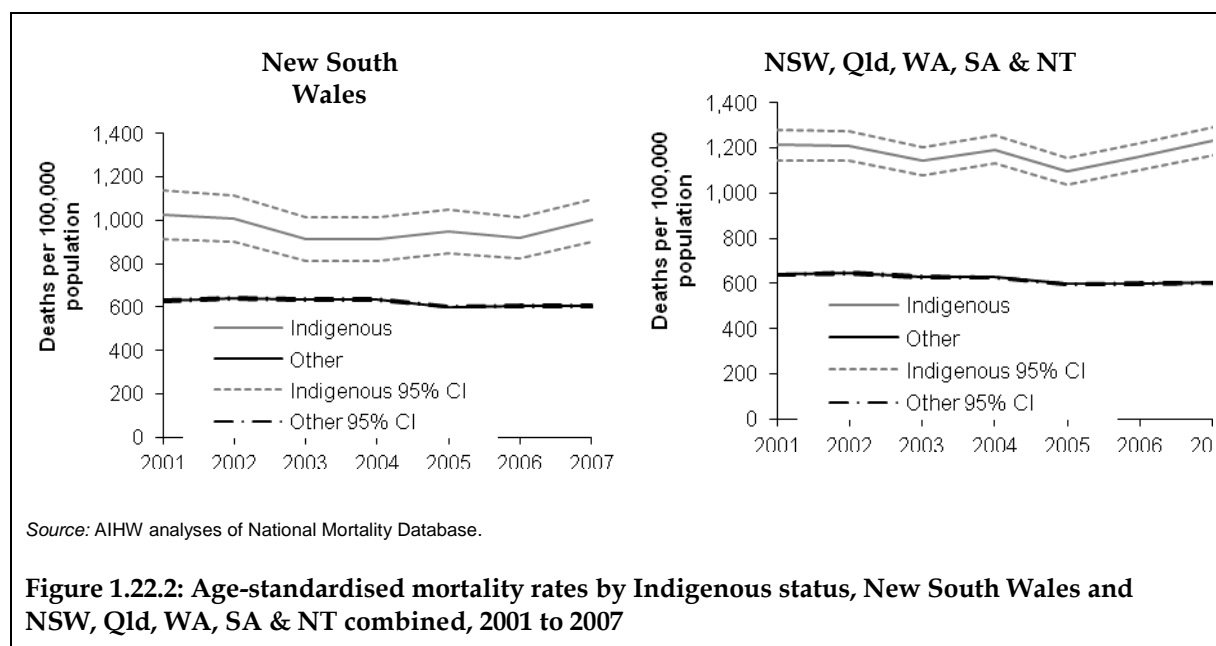
Note: 2007 and 2008 mortality data preliminary.

Source: Unpublished ABS analysis.



Time series

- Over the period 2001–2007, there were no significant changes in recorded mortality rates in New South Wales for Indigenous Australians. (Figure 1.22.2).
- On the other hand, there were significant declines in recorded mortality rates for other Australians in New South Wales between 2001 and 2007. The fitted trend implies an average yearly decline in the rate of around 7 per 100,000 population for other Australians (equivalent to a 6% reduction in the rate over this period).
- Over the same period, similar trends were observed for New South Wales, Queensland, Western Australia, South Australia and the Northern Territory combined. There were no significant changes in all-cause mortality rates for Indigenous Australians, while the rates declined significantly for other Australians.



1.23 Leading causes of mortality

Causes of death of Aboriginal and Torres Strait Islander Australians, expressed as a rate by age group, age-standardised rate and rate ratio

- Over the period 2003–2007, the most common cause of death among Indigenous Australians in New South Wales was circulatory diseases (31%), followed by cancer (22%). Indigenous Australians died from these causes of death at 1.6 and 1.2 times the rate of non-Indigenous Australians respectively (Table 1.23.1).
- External causes (injury and poisoning) were also a major cause of death among Indigenous Australians in New South Wales, responsible for 12% of Indigenous deaths.
- Over the period 2003–2007, Indigenous Australians in New South Wales died from diabetes at three times the rate, and digestive diseases at twice the rate, of non-Indigenous Australians.
- Over the same period, the most common cause of mortality for Indigenous Australians in New South Wales, Queensland, Western Australia, South Australia and the Northern Territory combined was also circulatory diseases (27%), followed by cancer (18%).

Excess deaths

- Deaths higher than the expected number are referred to as 'excess deaths'. Excess deaths are calculated by subtracting the number of expected Indigenous deaths based on the age, sex and cause-specific rates of non-Indigenous Australians, from the number of actual cause-specific deaths in the Indigenous population. This is usually expressed as a proportion of excess deaths from all causes.
- Diseases of the circulatory system accounted for the highest proportion of excess deaths among Indigenous Australians in New South Wales over the period 2003–2007 (37% of male excess deaths and 32% of female excess deaths). Other major causes of excess deaths were external causes (injury and poisoning), cancer, diseases of the respiratory system, diseases of the digestive system and endocrine, metabolic and nutritional diseases (including diabetes) (Table 1.23.2).

Table 1.23.1: Causes of mortality, by Indigenous status, New South Wales and NSW, Qld, WA, SA & NT combined, 2003–2007^{(a)(b)(c)}

Underlying cause of death	Number		Per cent		Rate per 100,000 ^(d)		Ratio ^(e)
	Indig.	Non-Indig.	Indig.	Non-Indig.	Indig.	Non-Indig.	
New South Wales							
Circulatory diseases	804	82,364	30.8	36.6	356.4	222.6	1.6*
External causes	304	11,748	11.6	5.2	51.9	34.1	1.5*
Cancer	562	65,921	21.5	29.3	214.8	181.9	1.2*
Endocrine, metabolic & nutritional disorders	132	7,059	5.1	3.1	52.2	19.3	2.7*
<i>Diabetes^(f)</i>	111	4,872	4.2	2.2	44.5	13.3	3.4*
Respiratory diseases	219	19,648	8.4	8.7	97.2	53.2	1.8*
Digestive diseases	156	7,443	6.0	3.3	46.5	20.4	2.3*
Conditions originating in perinatal period	62	952	2.4	0.4	4.3	3.0	1.4*
Nervous system diseases	67	7,751	2.6	3.4	25.4	21.2	1.2
Kidney diseases	40	4,019	1.5	1.8	18.0	10.8	1.7*
Infectious & parasitic diseases	55	3,772	2.1	1.7	18.3	10.4	1.8*
Other causes ^(g)	212	14,376	8.1	6.4	56.9	39.3	1.4*
All causes	2,613	225,053	100.0	100.0	941.9	616.3	1.5*
NSW, Qld, WA, SA & NT ^{(h)(i)}							
Circulatory diseases	2,865	164,345	27.4	35.9	383.7	217.7	1.8*
External causes	1,543	26,086	14.7	5.7	86.2	36.1	2.4*
Cancer	1,828	135,559	17.5	29.6	231.4	180.8	1.3*
Endocrine, metabolic & nutritional disorders	838	15,554	8.0	3.4	111.6	20.7	5.4*
<i>Diabetes^(f)</i>	720	10,826	6.9	2.4	97.7	14.4	6.8*
Respiratory diseases	863	39,644	8.2	8.6	119.3	52.7	2.3*
Digestive diseases	626	15,372	6.0	3.4	59.1	20.5	2.9*
Conditions originating in perinatal period	263	1,872	2.5	0.4	6.0	2.8	2.1*
Nervous system diseases	262	16,146	2.5	3.5	26.3	21.5	1.2*
Kidney diseases	245	7,898	2.3	1.7	33.9	10.5	3.2*
Infectious & parasitic diseases	222	6,543	2.1	1.4	23.2	8.7	2.7*
Other causes ^(g)	915	29,333	8.7	6.4	86.1	39.3	2.2*
All causes	10,470	458,352	100.0	100.0	1,166.8	611.3	1.9*

(continued)

Table 1.23.1 (continued): Causes of mortality, by Indigenous status, New South Wales and NSW, Qld, WA, SA & NT combined, 2003–2007^{(a)(b)(c)}

* Represents results with statistically significant differences in the Indigenous/non-Indigenous comparisons at the $P < .05$ level.

- (a) Deaths are by year of registration of death and state/territory of usual residence.
- (b) Data are presented in 5-year groupings because of small numbers each year.
- (c) Although most deaths of Indigenous Australians are registered, it is likely that some are not accurately identified as Indigenous. Therefore, these statistics are likely to underestimate the Indigenous all-causes mortality rate. It is also difficult to identify exactly the difference between the Indigenous and non-Indigenous mortality rates because of these data quality issues.
- (d) Directly age standardised using the Australian 2001 standard population.
- (e) Rate ratio Indigenous: non-Indigenous.
- (f) Data for diabetes are a subset of data presented for all endocrine, metabolic and nutritional disorders in this table.
- (g) Includes: diseases of the blood and blood-forming organs and certain disorders involving the immune system, mental and behavioural disorders, diseases of the eye and adnexa, diseases of the ear and mastoid process, diseases of the skin and subcutaneous tissue, diseases of the musculoskeletal system and connective tissue, diseases of the genitourinary system (excluding kidney diseases), pregnancy, childbirth and the puerperium, congenital malformations, deformations and chromosomal abnormalities, symptoms, signs and abnormal clinical findings not elsewhere classified.
- (h) Data are reported for New South Wales, Queensland, Western Australia, South Australia and the Northern Territory only. These four states and territories are considered to have adequate levels of Indigenous identification in mortality data. They do not represent a quasi-Australian figure.
- (i) Rates exclude 5,756 registered deaths where the Indigenous status is not stated.

Source: AIHW analyses of National Mortality Database.

Table 1.23.2: Main causes of excess Indigenous deaths, by sex, New South Wales and NSW, Qld, WA, SA & NT combined, 2003–2007^{(a)(b)}

Underlying cause of death	Males			Females		
	Observed	Excess	% excess	Observed	Excess	% excess
	No.	No.	%	No.	No.	%
New South Wales						
Circulatory diseases	464	264	36.9	340	157	31.7
External causes	224	106	14.8	80	34	7.0
Respiratory diseases	109	60	8.4	110	65	13.1
Cancer	305	71	10.0	257	56	11.3
Digestive diseases	83	56	7.8	73	53	10.7
Endocrine, metabolic & nutritional disorders	66	45	6.2	66	48	9.7
Kidney diseases	22	14	1.9	18	9	1.8
Infectious & parasitic diseases	32	17	2.3	23	13	2.7
Nervous system diseases	40	15	2.1	27	2	0.5
Conditions originating in perinatal period	32	7	1.0	30	11	2.2
Other causes ^(c)	112	60	8.4	100	46	9.4
All causes	1,489	715	100.0	1,124	495	100.0
NSW, Qld, WA, SA & NT^(d)						
Circulatory diseases	1,614	1,062	28.4	1,251	728	27.2
External causes	1,097	702	18.8	446	299	11.2
Respiratory diseases	481	344	9.2	382	253	9.5
Cancer	969	319	8.5	859	284	10.6
Digestive diseases	342	267	7.2	284	225	8.4
Endocrine, metabolic & nutritional disorders	400	337	9.0	438	380	14.2
Kidney diseases	116	94	2.5	129	104	3.9
Infectious & parasitic diseases	125	88	2.4	97	71	2.7
Nervous system diseases	168	99	2.6	94	20	0.8
Conditions originating in perinatal period	158	90	2.4	105	49	1.8
Other causes ^(c)	493	333	8.9	422	259	9.7
All causes	5,963	3,736	100.0	4,507	2,673	100.0

(a) Deaths are by year of registration of death and state/territory of usual residence.

(b) Data are presented in 5-year groupings because of small numbers each year.

(c) Includes: diseases of the blood and blood-forming organs and certain disorders involving the immune system, mental and behavioural disorders, diseases of the eye and adnexa, diseases of the ear and mastoid process, diseases of the skin and subcutaneous tissue, diseases of the musculoskeletal system and connective tissue, diseases of the genitourinary system (excluding kidney diseases), pregnancy, childbirth and the puerperium, congenital malformations, deformations and chromosomal abnormalities, symptoms, signs and abnormal clinical findings not elsewhere classified.

(d) Data are reported for New South Wales, Queensland, Western Australia, South Australia and the Northern Territory only. These jurisdictions are considered to have adequate levels of Indigenous identification in mortality data. They do not represent a quasi-Australian figure.

Note: Different causes of death may have levels of completeness of identification of Indigenous deaths that differ from the all-cause under-identification (coverage) estimates.

Source: AIHW analyses of National Mortality Database.

1.25 Avoidable and preventable deaths

The number of deaths of Aboriginal and Torres Strait Islander peoples aged 0–74 from avoidable and preventable conditions, expressed as a standardised rate and rate ratio

Avoidable and preventable mortality refers to deaths from certain conditions that are considered avoidable given timely and effective health care. This also includes deaths amenable to legal measures, such as traffic safety.

- Over the period 2003–2007, the most common types of avoidable conditions causing death among Aboriginal and Torres Strait Islander people in New South Wales were ischaemic heart disease (21%), followed by cancer (20%), in particular lung cancer (9%), chronic obstructive pulmonary disease (7%), alcohol-related disease (7%), diabetes (6%) and cerebrovascular disease (6%). Indigenous Australians died from cancer and chronic obstructive pulmonary disease at two and five times the rate of non-Indigenous Australians; from alcohol-related disease at five times the rate; and from diabetes and cerebrovascular disease at six and three times the rate of non-Indigenous Australians respectively (Table 1.25.1).
- Indigenous Australians in New South Wales died from rheumatic and other valvular heart disease at six times the rate, and from violence at five times the rate of non-Indigenous Australians. These rate ratios were lower than those observed in New South Wales, Queensland, Western Australia, South Australia and the Northern Territory combined.

Time series

- Over the period 2001–2007, in New South Wales, there were non-significant declines in the mortality rates from avoidable causes of death among Indigenous Australians aged 0–74. There was an average yearly decline in the rate of around 13 per 100,000 which is equivalent to an 11% reduction in the rate over the period. Over the same period, there was a significant decline in mortality rates for avoidable causes for non-Indigenous Australians in New South Wales (19%).
- Over the same period, there were significant declines in mortality rates from avoidable causes among Indigenous and non-Indigenous Australians aged 0–74 in New South Wales, Queensland, Western Australia, South Australia and the Northern Territory combined.
- There was no significant change in the rate ratio between Indigenous and non-Indigenous Australian mortality from avoidable causes in New South Wales over the period 2001–2007 (Figure 1.25.2).

Table 1.25.1: Avoidable mortality, by cause of death and Indigenous status, people aged 0–74, New South Wales and NSW, Qld, WA, SA & NT combined, 2003–2007^{(a)(b)(c)(d)}

	Number ^(e)		Per cent		Age-standardised rate per 100,000 ^(f)		
Cause of death	Indig.	Non-Indig.	Indig.	Non-Indig.	Indig.	Non-Indig.	Ratio ^(g)
New South Wales							
Ischaemic heart disease	309	10,323	20.7	19.9	91.4	31.5	2.9*
Cancer	302	19,360	20.2	37.4	93.7	58.8	1.6*
Lung cancer ^(h)	130	6,667	8.7	12.9	41.7	20.2	2.1*
Diabetes	89	1,541	6.0	3.0	28.5	4.7	6.1*
Suicide	72	2,833	4.8	5.5	11.4	9.0	1.3
Road traffic injuries	54	1,597	3.6	3.1	7.9	5.1	1.5*
Alcohol-related disease	97	1,366	6.5	2.6	22.2	4.2	5.3*
Selected invasive bacterial and protozoal infections	42	1,405	2.8	2.7	10.2	4.3	2.3*
Cerebrovascular disease	89	3,380	6.0	6.5	27.5	10.4	2.6*
Chronic obstructive pulmonary disease	105	2,537	7.0	4.9	37.2	7.7	4.8*
Nephritis and nephrosis	27	712	1.8	1.4	8.7	2.2	3.9*
Violence	30	290	2.0	0.6	4.6	0.9	4.9*
Birth defects	35	818	2.3	1.6	3.1	2.7	1.1
Complications of perinatal period	35	485	2.3	0.9	2.6	1.6	1.6*
Rheumatic and other valvular heart disease	9	134	0.6	0.3	2.6	0.4	6.4*
Other ⁽ⁱ⁾	197	5,050	13.2	9.7	43.8	15.8	2.8*
Total avoidable	1,492	51,831	100.0	100.0	395.4	159.4	2.5*

(continued)

Table 1.25.1 (continued): Avoidable mortality, by cause of death and Indigenous status, people aged 0–74, New South Wales and NSW, Qld, WA, SA & NT combined, 2003–2007^{(a)(b)(c)(d)}

Cause of death	Number ^(e)		Per cent		Age-standardised rate per 100,000 ^(f)		Ratio ^(g)
	Indig.	Non-Indig.	Indig.	Non-Indig.	Indig.	Non-Indig.	
NSW, Qld, WA, SA & NT ^(j)							
Ischaemic heart disease	1,253	21,319	19.8	19.5	123.7	30.9	4.0*
Cancer	1,006	41,029	15.9	37.6	107.6	58.8	1.8*
Lung cancer ^(h)	398	14,227	6.3	13.0	45.8	20.4	2.2*
Diabetes	585	3,403	9.2	3.1	65.1	4.9	13.2*
Suicide	469	6,896	7.4	6.3	22.0	10.3	2.1*
Road traffic injuries	397	4,341	6.3	4.0	20.2	6.5	3.1*
Alcohol-related disease	394	2,867	6.2	2.6	29.8	4.1	7.3*
Selected invasive bacterial and protozoal infections	259	2,677	4.1	2.5	20.6	3.9	5.2*
Cerebrovascular disease	321	6,754	5.1	6.2	34.2	9.9	3.5*
Chronic obstructive pulmonary disease	290	5,164	4.6	4.7	36.3	7.5	4.8*
Nephritis and nephrosis	206	1,347	3.2	1.2	21.2	2.0	10.7*
Violence	132	563	2.1	0.5	6.7	0.8	7.9*
Birth defects	143	1,705	2.3	1.6	4.8	2.7	1.8*
Complications of perinatal period	145	959	2.3	0.9	3.5	1.5	2.3*
Rheumatic and other valvular heart disease	100	281	1.6	0.3	7.4	0.4	17.9*
Other ⁽ⁱ⁾	643	9,913	10.1	9.1	47.8	14.6	3.3*
Total avoidable	6,343	109,218	100.0	100.0	550.9	159.0	3.5*

* Represents results with statistically significant differences in the Indigenous/non-Indigenous comparisons at the p<.05 level.

(a) Data are reported for Queensland, Western Australia, South Australia and the Northern Territory only. These four jurisdictions are considered to have adequate levels of Indigenous identification in mortality data. They do not represent a quasi-Australian figure.

(b) Data are presented in 5-year groupings because of small numbers each year.

(c) While most deaths of Indigenous Australians are registered, it is likely that some are not accurately identified as Indigenous. Therefore, these statistics are likely to underestimate the Indigenous all-causes mortality rate. It is also difficult to exactly identify the difference between the Indigenous and non-Indigenous mortality rates due to these data quality issues.

(d) Deaths are by year of occurrence except the latest year which is based on year of registration.

(e) It should be noted that different causes of death may have different levels of completeness of identification of Indigenous deaths that differ from the 'all cause' under-identification (coverage) estimates.

(f) Directly age standardised using the Australian 2001 standard population.

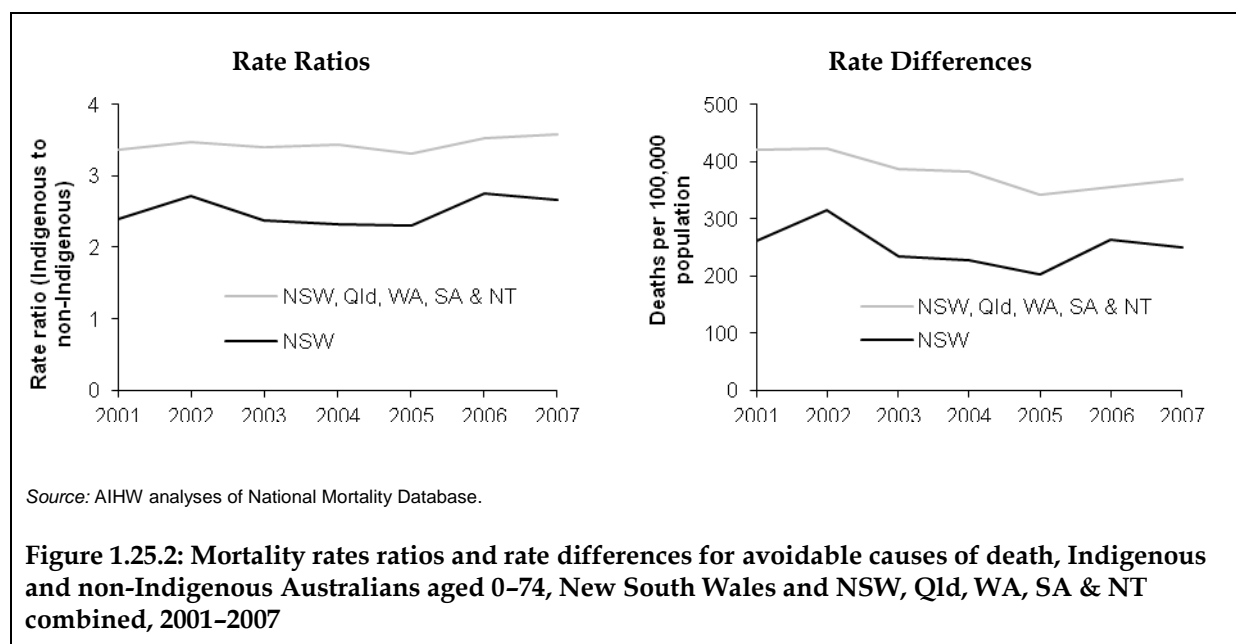
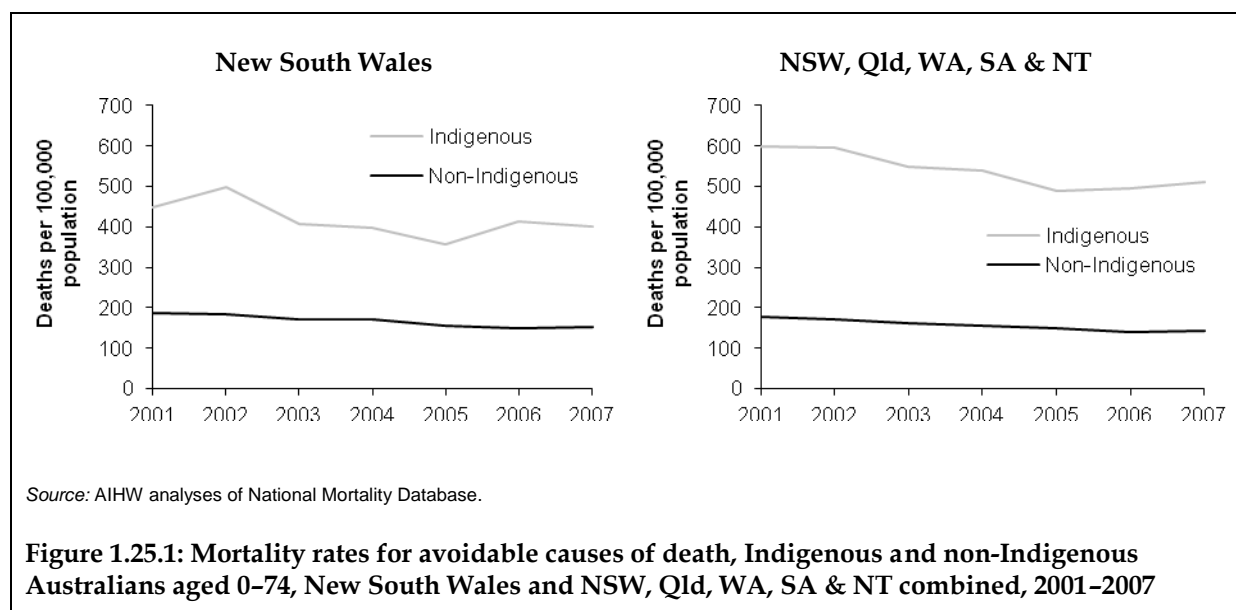
(g) Rate ratio Indigenous: non-Indigenous.

(h) Data for lung cancer are a subset of data for all cancers presented in this table.

(i) Other includes: tuberculosis, hepatitis, HIV/AIDS, viral pneumonia and influenza, thyroid disorders, illicit drug disorders, epilepsy, hypertensive heart disease, aortic aneurysm, obstructive uropathy and prostatic hyperplasia, deep vein thrombosis with pulmonary embolism, asthma, peptic ulcer disease, acute abdomen/appendicitis/intestinal obstruction/cholecystitis/lithiasis/pancreatitis/hernia, chronic liver disease, falls, fires/burns, accidental poisonings, drownings.

(j) Data are reported for Queensland, Western Australia, South Australia and the Northern Territory only. These four jurisdictions are considered to have adequate levels of Indigenous identification in mortality data. They do not represent a quasi-Australian figure.

Source: AIHW analysis of AIHW National Mortality Database.



Determinants of health (Tier 2)

2.01 Access to functional housing with utilities

Connection to water, sewerage and electricity services in Indigenous communities and functionality of Indigenous housing facilities required to support healthy living practices

Discrete Indigenous communities

- Of the five discrete Indigenous communities in New South Wales that were not connected to a town water supply and that sent their drinking water away for testing in the 12 months prior to the 2006 Community Housing and Infrastructure Needs Survey (CHINS), four provided samples that failed testing and one provided samples that did not fail. Of the 164 total Indigenous communities not connected to a town water supply that sent their drinking water for testing, 29% provided samples that failed testing (Table 2.01.1).
- In 2006 in New South Wales, of the six discrete Indigenous communities, one experienced a sewerage overflow or leakage that lasted longer than 48 hours. Nationally 22% of the 209 Indigenous communities experienced a sewerage overflow or leakage lasting longer than 48 hours (Figure 2.01.1).

Table 2.01.1: Testing of drinking water in discrete Indigenous communities, New South Wales and Australia, 2006^{(a)(b)(c)}

	New South Wales		Australia		
	Number of communities	Number of communities	%	Reported usual population	%
Did not fail testing ^(d)	1	100	61.0	29,104	58.2
Failed testing ^(d)	4	48	29.3	12,059	24.1
Test result not known	0	16	9.7	8,880	17.7
<i>Total communities water sent away for testing ^(e)</i>	<i>5</i>	<i>164</i>	<i>78.1</i>	<i>50,043</i>	<i>n.a.</i>
Not tested ^(e)	1	45	21.4	4,796	n.a.
Total communities^(b)	6	209	100.0	54,839	100.0

(a) In the 12 months prior to the survey.

(b) Excludes communities connected to town supply.

(c) All discrete Indigenous communities for which water testing data were collected.

(d) Testing means water was sent away for testing. Proportion calculated in relation to total communities not connected to a town supply where water was sent away for testing.

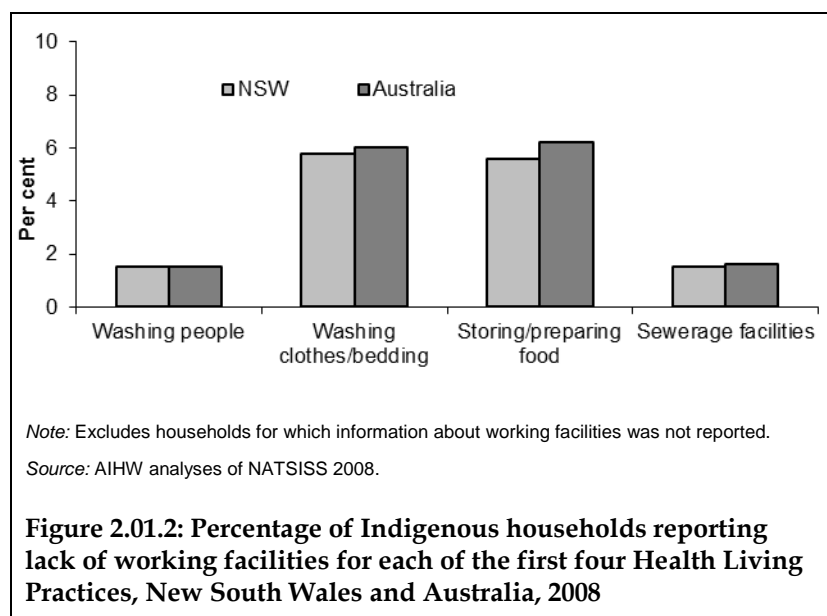
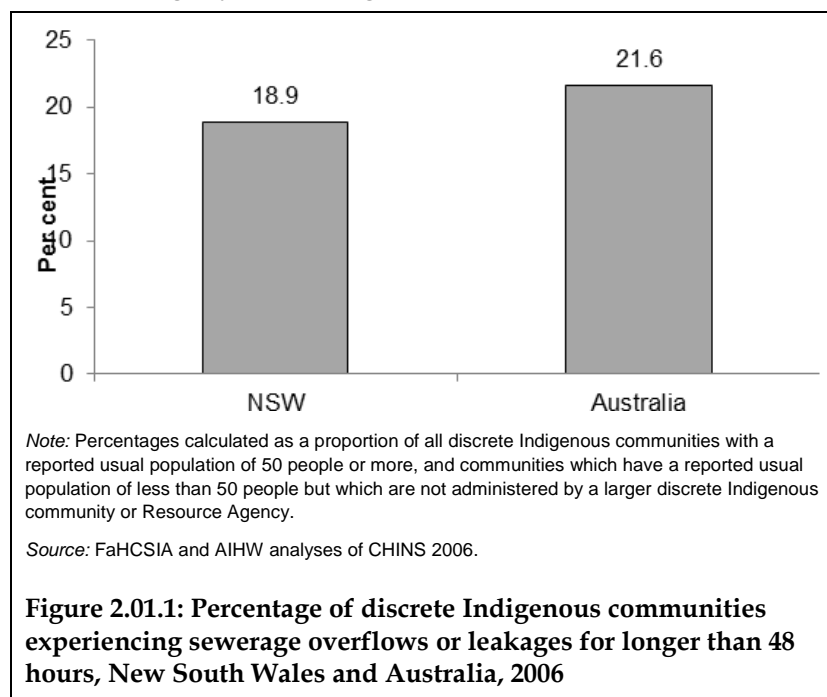
(e) Testing means water was sent away for testing. Proportion calculated in relation to total communities not connected to a town supply.

Source: ABS 2007; FaHCSIA and AIHW analyses of CHINS 2006.

Healthy living practices

- In 2008 in New South Wales, 1.5% of Indigenous households reported they did not have working facilities for washing people, 5.8% did not have facilities for washing clothes/bedding, 5.6% did not have facilities for storing/preparing food, and 1.5% did not have working sewerage systems. These proportions were similar to those reported for Australia (1.5% of Indigenous households reported that they did not have working facilities for washing people, 6% did not have facilities for washing clothes/bedding,

6.2% did not have facilities for storing/preparing food, and 1.6% did not have working sewerage systems) (Figure 2.01.2).



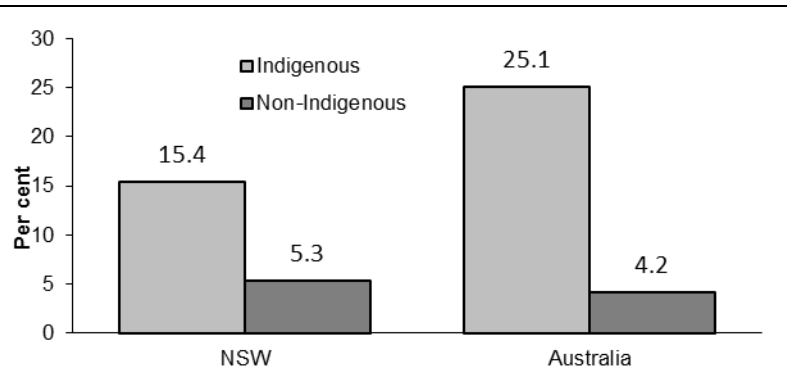
2.02 Overcrowding in housing

The proportion of Aboriginal and Torres Strait Islander people living in overcrowded households

Data presented for this indicator are based on the Canadian National Occupancy Standard of housing overcrowding. The Canadian National Occupancy Standard is most widely used in Australia as a measure of overcrowding. This standard specifies the number of bedrooms required in a dwelling based on the numbers, age, sex and relationships of household members. Households that require one more bedroom to meet the standard are considered to experience a moderate degree of overcrowding, whereas households requiring two or more additional bedrooms are said to experience a high degree of overcrowding.

The Canadian National Occupancy Standard states that:

- there should be no more than two persons per bedroom
 - a household of one unattached individual may reasonably occupy a bed-sit (that is, have no bedroom)
 - parents or couples may share a bedroom
 - children less than 5 years of age of different sexes may reasonably share a bedroom
 - children 5 years of age or over of the opposite sex should not share a bedroom
 - children less than 18 years of age and of the same sex may reasonably share a bedroom
 - single household members aged 18 or over should have a separate bedroom (AIHW 2005).
-
- In 2008, in New South Wales, approximately 15% of Indigenous Australians aged 14 years and over were living in overcrowded households (according to the Canadian National Occupancy Standard) compared with 5% of non-Indigenous Australians. The proportion of Indigenous Australians in New South Wales living in overcrowded households was lower than for Indigenous Australians in Australia (15% compared to 25%) (Figure 2.02.1).
 - In 2006, overcrowding varied by tenure type with 18% of Indigenous households in New South Wales/ ACT in housing co-operative, community or church group housing overcrowded according to the Canadian National Occupancy Standard. This compares with 11% of Indigenous households in state and territory authority housing, 11% of private and other renters and 7% of home owners or purchasers (Table 2.02.1).



(a) Based on Canadian National Occupancy Standard for Housing Appropriateness.

(b) People in households for which housing utilisation could be determined.

Source: NATSISS 2008, Survey of Income and Housing (SIH) 2007-08.

Figure 2.02.1: Proportion of people aged 15 and over living in overcrowded housing^{(a)(b)}, by Indigenous status, New South Wales and Australia, 2008

Table 2.02.1: Number and proportion of overcrowded households by Indigenous status, using the Canadian National Occupancy Standard, by tenure type, New South Wales/ACT and Australia, 2006

Tenure type	Indigenous		Non-Indigenous	
	NSW & ACT	Aust ^(a)	NSW & ACT	Aust ^(a)
No. of overcrowded Indigenous households				
Home owner/purchaser	1,323	3,687	38,645	94,314
Renter				
State or territory housing authority	1,353	4,970	5,378	12,692
Housing co-operative/community/church group	478	5,567	539	1,188
Private and other ^(b)	1,930	5,337	38,008	81,134
Not stated	68	233	431	1,091
<i>Total rented</i>	<i>3,829</i>	<i>16,107</i>	<i>44,356</i>	<i>96,105</i>
Other tenure types ^(c)	138	752	1,986	5,086
Total dwellings^(d)	5,339	20,734	86,058	198,151
Proportion of overcrowded households^(e) (%)				
Home owner/purchaser	6.6	6.9	2.5	2.0
Renter				
State or territory housing authority	11.4	15.9	5.3	4.9
Housing co-operative/community/church group	17.9	39.9	4.7	3.6
Private and other ^(b)	11.0	11.4	7.4	5.6
Not stated	14.9	19	7.1	6.3
<i>Total rented</i>	<i>11.8</i>	<i>17.3</i>	<i>7.0</i>	<i>5.5</i>
Other tenure types ^(c)	11.2	18.1	4.2	3.5
Total dwellings^(d)	9.8	13.6	3.8	3.0

(a) Includes other territories.

(b) Includes dwellings being rented from a real estate agent, parent/other relative or other person, dwellings being rented through a 'Residential park (includes caravan parks and marinas)', 'Employer-government (includes Defence Housing Authority)' and 'Employer-other employer' (private).

(c) Includes dwellings being purchased under a rent/buy scheme, occupied rent-free, occupied under a life tenure type and other tenure type n.f.d.

(d) Includes tenure type not stated.

(e) Proportions have been calculated on all occupied private dwellings excluding those where number of bedrooms was not stated.

Note: Households are considered overcrowded if one or more additional bedroom is required to satisfy the Canadian National Occupancy Standard.

Source: ABS and AIHW analyses of 2006 Census data.

2.03 Environmental tobacco smoke

The number and proportion of Aboriginal and Torres Strait Islander children aged 0–14 who live in households with regular smokers

Children living in households with smokers

- In 2007–08, around 62% of Indigenous children aged 0–14 in New South Wales lived in households with a daily smoker, compared with 32% of non-Indigenous children of the same age (Table 2.03.1).
- In the same period, around 65% of Indigenous children aged 0–14 in Australia lived in households with a daily smoker, compared with 32% of non-Indigenous children of the same.
- Approximately 23% of Indigenous children aged 0–14 in New South Wales were living in households with a daily smoker who smoked at home indoors compared with 8% of non-Indigenous children of the same age. These numbers were similar to the percentages across Australia (22% Indigenous and 7% non-Indigenous).

Table 2.03.1: Children aged 0–14 living in households with smokers, by Indigenous status of children, New South Wales and Australia, 2008 and 2007–08

			New South Wales	Australia
Proportion of children living with current daily smoker(s) ^(a)	Indigenous	%	61.5	65.1
	Non-Indigenous	%	31.9	32.2
	Rate ratio		1.9*	2.0*
Proportion of children with daily smoker who smokes at home indoors in household ^(a)	Indigenous	%	22.5	21.6
	Non-Indigenous	%	8.3	6.6
	Rate ratio		2.7*	3.3*
Total number of children aged 0–14^(b)	Indigenous	No.	57,941	193,249
	Non-Indigenous	No.	1,292,502	3,907,621

* Represents results with statistically significant differences in the Indigenous/non-Indigenous comparisons.

(a) Proportions exclude not stated responses.

(b) Includes households in which the smoking status of members was not stated.

Source: ABS and AIHW analysis of NATSISS 2008 and NHS 2007–08.

2.04 Years 3, 5 and 7 literacy and numeracy

The proportion of Year 3, 5 and 7 students achieving national benchmarks for literacy and numeracy

Reading

- In New South Wales in 2009, about 86% of Indigenous students achieved the Year 3 reading benchmark compared with 96% of non-Indigenous students; 78% achieved the Year 5 benchmark compared with 94% of non-Indigenous students; 81% achieved the Year 7 benchmark compared with 95% of non-Indigenous students; and 78% achieved the Year 9 benchmark compared with 94% of non-Indigenous students. These proportions were higher than for Indigenous students nationally.

Writing

- In New South Wales in 2009, about 91% of Indigenous students achieved the Year 3 benchmark compared with 98% of non-Indigenous students; 82% achieved the Year 5 benchmark compared with 96% of non-Indigenous students; 77% achieved the Year 7 benchmark compared with 94% of non-Indigenous students; and 67% achieved the Year 9 benchmark compared with 90% of non-Indigenous students. These proportions were higher than for Indigenous students nationally.

Spelling

- In New South Wales in 2009, about 83% of Indigenous students achieved the Year 3 benchmark compared with 95% of non-Indigenous students; 82% achieved the Year 5 benchmark compared with 95% of non-Indigenous students; 82% achieved the Year 7 benchmark compared with 95% of non-Indigenous students; and 74% achieved the Year 9 benchmark compared with 92% of non-Indigenous students. These proportions were higher than for Indigenous students nationally.

Grammar and punctuation

- In New South Wales in 2009, about 82% of Indigenous students achieved the Year 3 grammar and punctuation benchmark compared with 95% of non-Indigenous students; 75% achieved the Year 5 benchmark compared with 95% of non-Indigenous students; 72% achieved the Year 7 benchmark compared with 94% of non-Indigenous students; and 70% achieved the Year 9 benchmark compared with 92% of non-Indigenous students. These proportions were higher than for Indigenous students nationally.

Numeracy

- In New South Wales in 2009, about 84% of Indigenous students achieved the Year 3 benchmark compared with 96% of non-Indigenous students; 83% achieved the Year 5 benchmark compared with 96% of non-Indigenous students; 80% achieved the Year 7 benchmark compared with 96% of non-Indigenous students; and 81% achieved the Year 9 benchmark compared with 96% of non-Indigenous students. These proportions were higher than those for Indigenous students nationally.

Table 2.04.1: Proportion of years 3, 5, 7 and 9 students at or above the national minimum standard for reading, writing, spelling, grammar & punctuation, and numeracy, by Indigenous status, New South Wales and Australia, 2008–2009^(a)

	New South Wales									
	Indigenous					Non-Indigenous				
	Reading	Writing	Spelling	Grammar & punctuation	Numeracy	Reading	Writing	Spelling	Grammar & punctuation	Numeracy
Year 3										
2008	83.5	90.9	86.1	82.2	88.6	95.7	97.9	96.7	95.8	97.3
2009	85.8	90.8	82.8	81.6	84.1	96.0	97.5	95.4	95.4	96.0
Year 5										
2008	77.6	81.7	82.1	77.6	78.9	94.4	95.9	95.2	94.7	95.2
2009	77.9	81.5	81.7	75.0	82.5	94.3	95.6	95.2	94.5	96.1
Year 7										
2008	82.4	76.9	82.0	75.0	84.5	96.1	94.3	94.9	94.3	96.6
2009	81.2	77.2	81.9	72.2	80.4	95.4	94.4	95.2	93.5	95.8
Year 9										
2008	82.3	67.7	78.4	71.2	80.3	95.1	90.0	92.9	92.4	95.4
2009	78.2	67.1	74.4	69.5	80.9	94.3	89.9	92.3	91.8	96.1

(continued)

Table 2.04.1 (continued): Proportion of years 3, 5, 7 and 9 students at or above the national minimum standard for reading, writing, spelling, grammar & punctuation, and numeracy, by Indigenous status, New South Wales and Australia, 2008–2009^(a)

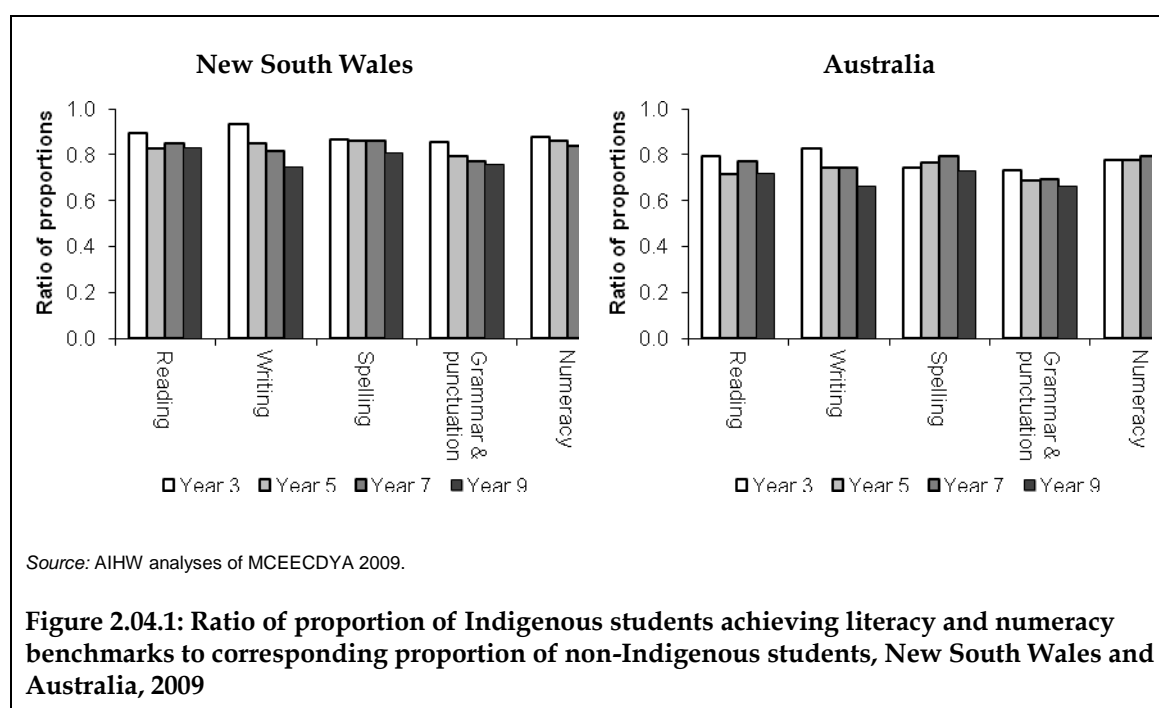
Australia										
	Indigenous					Non-Indigenous				
	Reading	Writing	Spelling	Grammar & punctuation	Numeracy	Reading	Writing	Spelling	Grammar & punctuation	Numeracy
Year 3										
2008	68.3	78.8	69.2	65.3	78.6	93.5	96.4	93.9	93.3	96.0
2009	75.1	79.9	69.6	68.7	74.0	94.8	96.6	93.5	93.8	95.2
Year 5										
2008	63.4	69.7	69.7	64.1	69.2	92.6	93.9	93.0	93.5	94.0
2009	66.7	70.1	71.5	64.3	74.2	93.1	94.2	93.6	93.6	95.3
Year 7										
2008	71.9	67.9	71.8	62.7	78.6	95.4	93.2	93.6	93.2	96.4
2009	73.2	69.9	74.3	64.9	75.8	95.0	93.7	93.8	93.5	95.8
Year 9										
2008	70.7	59.7	67.8	60.7	72.5	94.2	88.8	91.0	91.5	94.8
2009	67.0	59.0	66.1	60.8	75.0	93.5	89.2	90.9	91.8	96.0

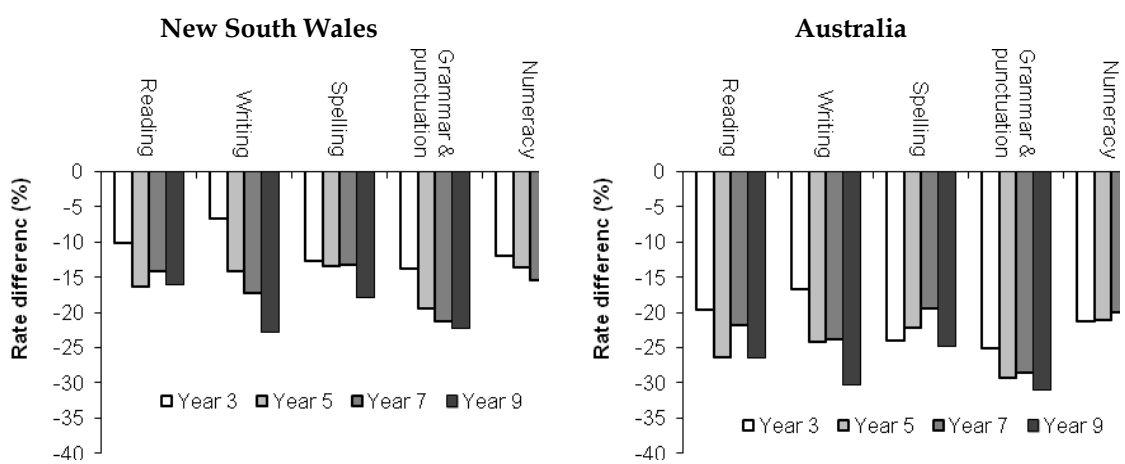
(a) Equating the 2008 NAPLAN results with the 2009 results is a complex procedure and involves some degree of statistical error. For this reason, there may be minor fluctuations in the average NAPLAN test results from year to year when, in reality, the level of student achievement has remained essentially the same. It is only when there is a meaningful change in the results from one year to the next, or when there is a consistent trend over several years, that statements about improvement or decline in levels of achievement can be made confidently. Some caution is required when interpreting changes in the performance across 2008 and 2009 (MCEECDYA 2009).

Source: Ministerial Council for Education, Early Childhood Development and Youth Affairs (MCEECDYA) 2008; MCEECDYA 2009.

Ratio and difference of proportions

- Compared to the proportion of non-Indigenous students achieving educational benchmarks, the relative reading, writing, spelling, grammar and punctuation, and numeracy achievements of Indigenous students in New South Wales were generally higher than those of Indigenous students across Australia.
- When compared with non-Indigenous students, achievement levels of Indigenous students were lowest for writing and grammar/punctuation in Year 9 for New South Wales (ratio of 0.75 and 0.76 respectively, and rate difference of -23% and -22% respectively). A similar pattern was also observed for Indigenous students in Australia (ratio of 0.66 for both writing and grammar/punctuation in Year 9, and difference of -30% and -31% for writing and grammar/punctuation in Year 9 respectively).





Source: AIHW analyses of MCEECDYA 2009.

Figure 2.04.2: Difference between proportion of Indigenous students achieving literacy and numeracy benchmarks to corresponding proportion of non-Indigenous students, New South Wales and Australia, 2009

2.05 Years 10 and 12 retention and attainment

Years 10 and 12 retention rates and Year 12 attainment rates for Aboriginal and Torres Strait Islander people

Apparent retention rates are the percentage of full-time students of a given cohort group who continue from the commencement of secondary schooling to a specified year level. The term 'apparent' is used as the retention rate does not account for students repeating a year of school or migrating in or out of the Australian school student population or between states/territories. All full-time students enrolled at a school, including 'VET in Schools' students are included in retention calculations.

Year 10 and 12 apparent retention rates

- Year 10 students as a proportion of the corresponding cohort from the first year of secondary schooling (Year 7/8);
- Year 12 students as a proportion of the corresponding cohort from the first year of secondary schooling (Year 7/8) or as a proportion of the corresponding cohort from Year 10.

Year 12 attainment rate

- The proportion of Year 11 students who went on to achieve a Year 12 certificate.

Apparent retention and attainment rates

- In 2009, in New South Wales, the apparent retention rate of full-time Indigenous students from Year 7/8 to Year 10 was 85% for males and 90% for females compared with 97% for non-Indigenous males and 98.5% for non-Indigenous females. Year 7/8 to Year 10 retention rates were lower for New South Wales than for total Australia.
- In the same year the apparent retention rate of full-time Indigenous students in New South Wales from Year 7/8 to Year 11 was 51% for males and 58% for females. This compared with 80% and 87% for non-Indigenous males and females respectively. Year 7/8 to Year 11 retention rates were lower for New South Wales than the national average.
- The apparent retention rate of full-time Indigenous students in New South Wales from Year 7/8 to Year 12 was much lower than for non-Indigenous students—33% for Indigenous males and 40% for Indigenous females compared with 68% for non-Indigenous males and 78% for non-Indigenous females. Year 7/8 to Year 12 apparent retention rates were lower for New South Wales than nationally.
- Similarly, the apparent retention rate of full-time Indigenous students in New South Wales from Year 10 to Year 12 was much lower for Indigenous students (40% for males and 48% for females compared with 70% and 79% for non-Indigenous males and females); and rates were lower for New South Wales than for Australia.
- In 2009, about 71% of Indigenous male Year 11 students and 72% of Indigenous female year 11 students went on to achieve a Year 12 certificate in New South Wales. This compared with 86% and 90% of non-Indigenous male and female Year 11 students. The proportion of Indigenous Year 11 students who went on to achieve a Year 12 certificate was higher in New South Wales than nationally.

Table 2.05.1: Apparent retention and attainment rates, by Indigenous status and sex, New South Wales and Australia, 2009^{(a)(b)(c)}

	New South Wales		Australia	
	Indigenous	Non-Indigenous	Indigenous	Non-Indigenous
	%	%	%	%
(b) Year 7/8 to Year 10^(d)				
Males	85.2	96.8	89.6	99.2
Females	90.0	98.5	92.3	101.1
Year 7/8 to Year 11^(d)				
Males	50.5	80.2	67.5	88.9
Females	58.2	86.8	71.6	94.8
Year 7/8 to Year 12^(d)				
Males	33.3	67.6	41.5	72.1
Females	40.4	77.8	49.5	82.7
Year 10 to Year 12^(e)				
Males	39.7	69.8	46.1	73.1
Females	48.1	79.4	54.3	82.5
Year 11 to Year 12^(f)				
Males	71.2	86.1	64.2	83.7
Females	72.0	90.2	69.6	88.5

(a) Although most students are recorded, it is likely that some are not accurately identified as Indigenous. Therefore, these statistics are likely to underestimate the number of Aboriginal and Torres Strait Islander students. In addition, the standard Indigenous status question has not yet been implemented in some jurisdictions.

(b) The following factors have not been taken into account in these statistics: students repeating a year of education, migration and other net changes to the school population, enrolment policies (including year starting high school which contributes to different age/grade structures between states and territories), inter-sector transfer and interstate movements of students.

(c) The inclusion or exclusion of part-time students can also have a significant effect on apparent retention rates, especially in South Australia, Tasmania and the Northern Territory, which have relatively large proportions of part-time students.

(d) Retention rate = Year 10, 11 or 12 students as a proportion of the corresponding cohort from the first year of secondary schooling (Year 7/8).

(e) Retention rate = Year 12 students as a proportion of the corresponding cohort from Year 10.

(f) Retention rate = Year 12 students as a proportion of the corresponding cohort from Year 11.

Source: ABS 2010; ABS and AIHW analysis of National Schools Statistics Collection (NSSC).

2.06 Educational participation and attainment of Aboriginal and Torres Strait Islander adults

Educational participation (people undertaking formal education or training) and educational attainment (people who have completed a particular level of school education or non-school qualification)

- In 2008 in New South Wales, a higher proportion of Indigenous Australians aged 15 and over was currently studying than non-Indigenous Australians (20% compared with 15%). Throughout Australia 19% of Indigenous Australians and 16% of non-Indigenous Australians aged 15 and over were studying (Table 2.06.1).
- A higher proportion of Indigenous people from New South Wales and Australia attended secondary school or a technical institution in 2008 than non-Indigenous people; however the proportion of Indigenous people who attended a university or other higher education was around half that of non-Indigenous Australians (Table 2.06.1).
- In New South Wales in 2008, non-Indigenous Australians aged 18 and over were nearly three times as likely as Indigenous Australians to have completed year 12 (53% compared to 18%). In contrast a higher proportion of Indigenous adults reported that the highest year of school completed was Year 9 or below than non-Indigenous adults (42% compared to 18%). The proportion of Indigenous Australians who completed Year 12 was lower in New South Wales than for Australia (18% compared to 23%) (Figure 2.06.1).
- In 2008 in New South Wales, 41% of Indigenous Australians had a non-school qualification compared with 63% of non-Indigenous Australians. The most commonly held qualification was a certificate course for Indigenous Australians and a bachelor degree or above for non-Indigenous Australians (Figure 2.06.1).

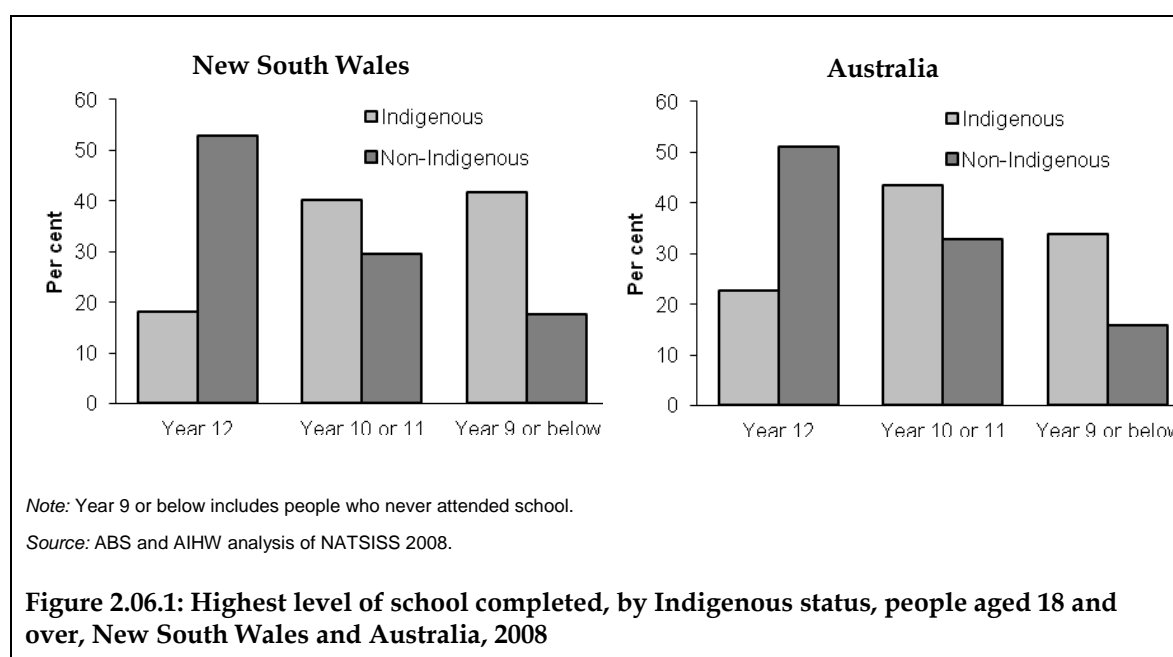


Table 2.06.1: Educational institution currently attended, by Indigenous status, people aged 15 and over, New South Wales and Australia, 2008

	Educational participation		Secondary school	TAFE/technical college/business college/industry skills centre	University/other higher education	Total currently studying ^(a)	Not studying	Total ^(a)	Total number
NSW	Indigenous	%	9.2*	6.6	2.2 ^{*(b)}	20.0*	80.0*	100.0	96,367
	Non-Indigenous	%	4.4*	4.7	4.8*	15.2*	84.8*	100.0	5,400,320
	Rate ratio ^(c)		2.1	1.4	0.5	1.3	0.9
Australia	Indigenous	%	8.4*	6.0*	2.7*	19.0*	81.0*	100.0	327,101
	Non-Indigenous	%	4.2*	4.6*	5.6*	15.6*	84.4*	100.0	16,374,202
	Rate ratio ^(c)		2.0	1.3	0.5	1.2	1.0

* Represents results with statistically significant differences in the Indigenous/non-Indigenous comparisons.

(a) Includes other educational institution, not further defined.

(b) Estimate has a relative standard error of between 25% and 50% and should be used with caution.

(c) Indigenous rate divided by non-Indigenous rate.

Source: ABS and AIHW analysis of NATSISS 2008.

Table 2.06.2: Whether has a non-school qualification, by Indigenous status, people aged 25–64, New South Wales and Australia, 2008

	Highest non-school qualification ^(a)		Bachelor degree or above ^(b)	Advanced diploma/ diploma	Certificate	Total with non-school qualification ^(c)	Does not have a non-school qualification	Total	Total number of people
NSW	Indigenous	%	5.9*	5.8*	26.3	40.9*	59.1*	100.0	60,442
	Non-Indigenous	%	27.0*	8.7*	25.2	63.4*	36.6*	100.0	3,627,960
	Rate ratio		0.2	0.7	1.0	0.6	1.6	1.0	..
Australia	Indigenous	%	6.5*	5.6*	24.7	40.2*	59.9*	100.0	207,342
	Non-Indigenous	%	24.9*	9.8*	24.9	61.4*	38.6*	100.0	10,997,331
	Rate ratio		0.3	0.6	1.0	0.7	1.6	1.0	..

* Represents results with statistically significant differences in the Indigenous/non-Indigenous comparisons.

(a) As classified to the ABS Classification of Qualifications.

(b) Includes bachelor degree, doctorate, masters, graduate diploma, and graduate certificate.

(c) Includes people with a non-school qualification undetermined.

Source: NATSISS 2008 and NHS 2007–08.

2.07 Employment status including Community Development Employment Projects (CDEP) participation

The employment status of Aboriginal and Torres Strait Islander peoples aged 15–64

The CDEP program helps Indigenous job seekers to gain the skills, training and capabilities needed to find sustainable employment and improves the economic and social well-being of communities.

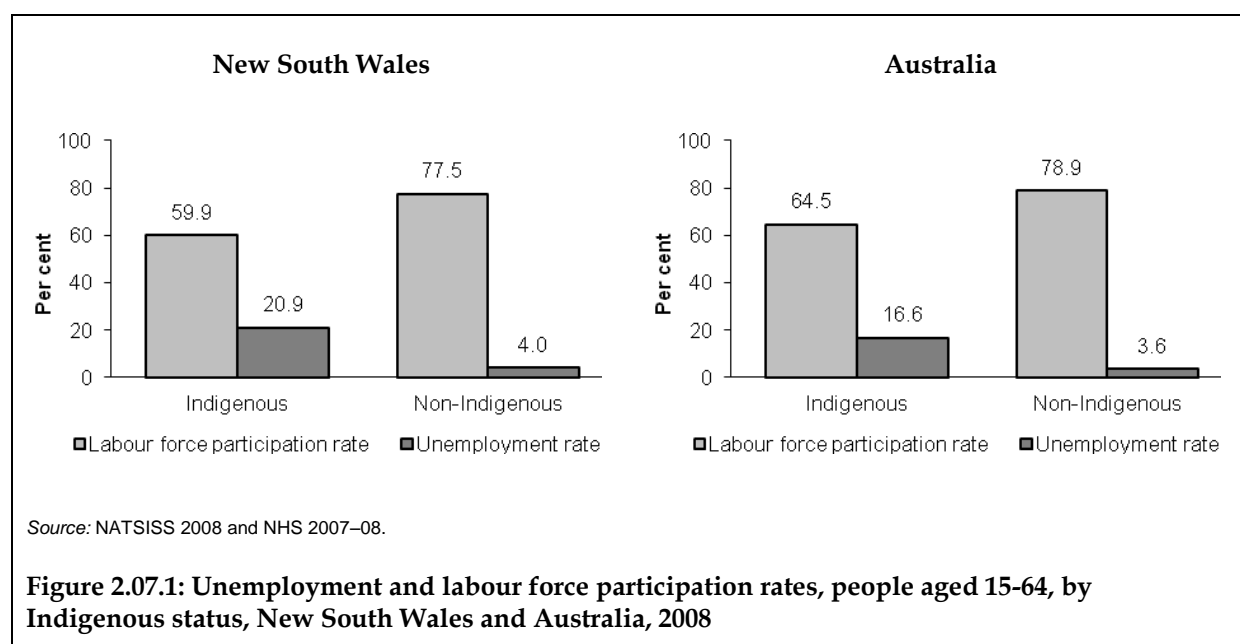
- In 2008 the labour force participation rate for the Indigenous population of New South Wales aged 15–64 was estimated to be 60%, with 21% of those in the labour force unemployed. In comparison the labour force participation rate for the non-Indigenous population was 78%, with 4% of non-Indigenous participants unemployed (Figure 2.07.1).
- In 2008 the labour force participation rate for the Indigenous population of Australia aged 15–64 was estimated to be 65%, with 17% of those in the labour force unemployed. In comparison the labour force participation rate for Australia was 79% for the non-Indigenous population, with 4% of participants unemployed.
- Of the Indigenous population of New South Wales aged 15–64 in 2008, around 47% were employed (2% in CDEP and 45% in non-CDEP) and 13% were unemployed. Of the non-Indigenous population 74% were employed and 3% were unemployed (Table 2.07.1).
- In Australia, around 54% of the Indigenous population aged 15–64 in 2008 were employed (6% in CDEP and 48% in non-CDEP) and 11% were unemployed. Of the non-Indigenous population, 76% were employed and 3% were unemployed.

Table 2.07.1: Labour force status of people aged 15–64, by Indigenous status, New South Wales and Australia, 2008

	New South Wales		Australia	
	Indig.	Non-Indig.	Indig.	Non-Indig.
	%	%	%	%
In the labour force				
Employed CDEP	*1.9	..	5.6	..
Employed non-CDEP	45.4	..	48.2	..
Total employed	47.3	74.4	53.8	76.0
Unemployed	12.5	3.1	10.7	2.9
Not in the labour force	40.1	22.5	35.5	21.1
Total	100.0	100.0	100.0	100.0

* Estimate has a relative standard error between 25% and 50% and should be used with caution.

Source: NATSISS 2008 and NHS 2007–08.

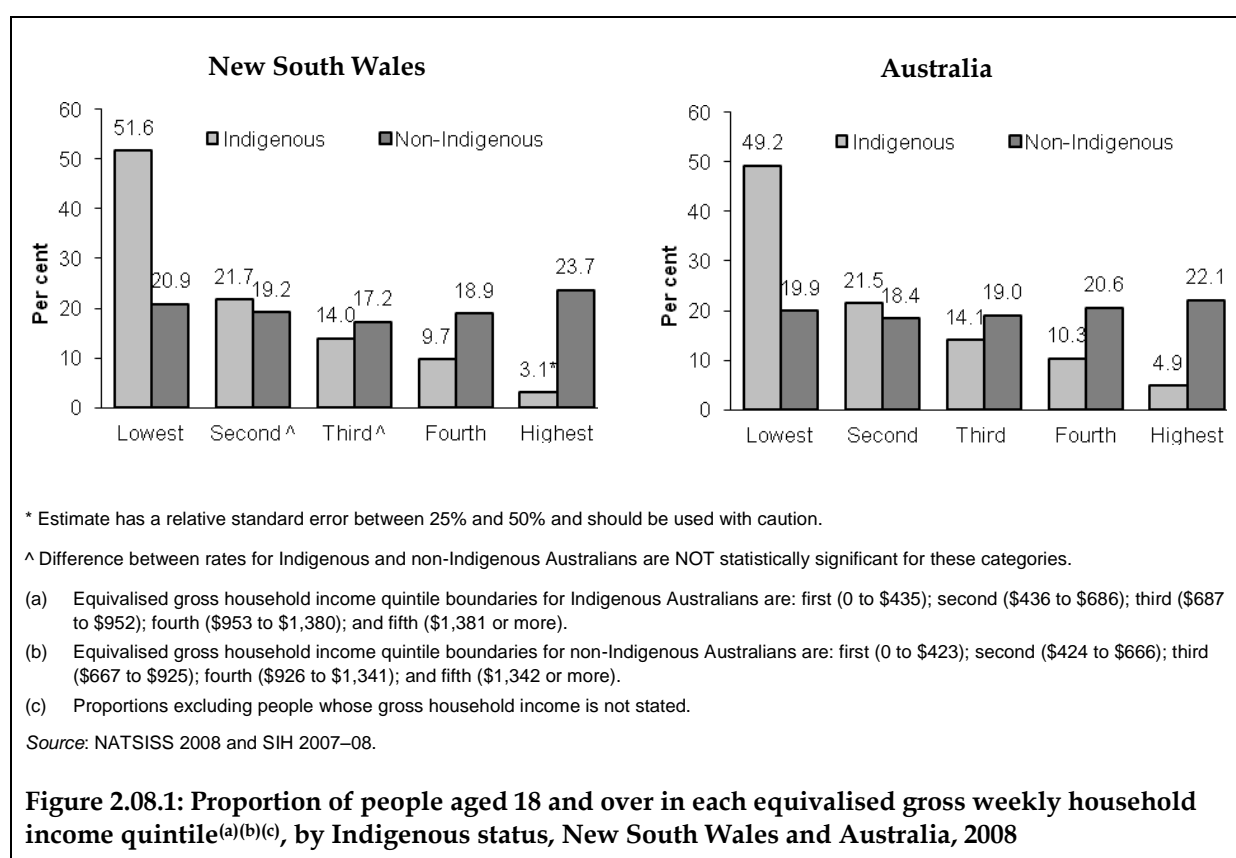


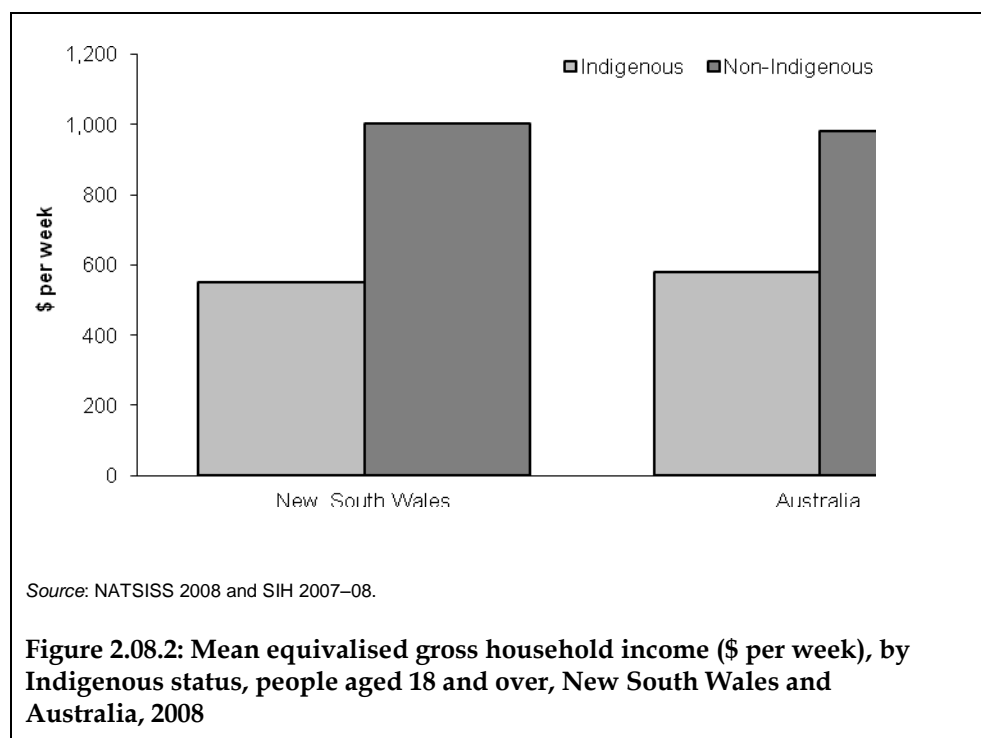
2.08 Income

Equivalised gross household and individual income of Aboriginal and Torres Strait Islander people

Equivalised income is the amount of income available per person after adjusting for household size.

- In 2008 in New South Wales, 52% of Indigenous Australians aged 18 and over were in the lowest quintile of equivalised gross weekly household income and 3% were in the highest quintile. The proportion of non-Indigenous Australians was similar across all five quintiles, with 21% in the lowest quintile and 24% in the highest (Figure 2.08.1).
- The same pattern was evident for Australia, with 50% of Indigenous Australians aged 18 and over in the lowest quintile of equivalised gross weekly household income and 5% in the highest quintile. Of non-Indigenous Australians in Australia, 20% were in the lowest quintile and 22% were in the highest.
- In 2008 in New South Wales, the mean equivalised gross weekly household income for Indigenous Australians 18 and over was \$550 per week compared with \$1,004 per week for non-Indigenous Australians. In the same period, the mean for Indigenous Australians in the same age group was \$580 compared with \$983 for non-Indigenous Australians (Figure 2.08.2).





2.09 Housing tenure type

The tenure status of a person's occupancy of a residence: owning without a mortgage; owning with a mortgage; renting public housing; renting community housing; and renting privately

- In 2008, about 34% of Indigenous Australians aged 18 and over in New South Wales owned or were purchasing their own home, 33% were private and other renters, and 32% were renters of some form of social housing (state or territory housing authority/housing cooperative or church group/Indigenous housing organisation or community housing). This compared with 63% of non-Indigenous Australians in the same age group who owned or were purchasing their home, 26% private and other renters, and 4% renters of some form of social housing (Table 2.09.1).
- A similar proportion of Indigenous households in New South Wales and Australia were home owners or purchasers (34% and 33%, respectively) and a similar proportion of Indigenous households in New South Wales and Australia were renters of Indigenous housing organisation or community housing (8% compared with 10%).

Table 2.09.1: Proportion of households and people^(a), by tenure type and Indigenous status, New South Wales and Australia, 2008

	New South Wales		Australia	
	Indigenous	Non-Indigenous	Indigenous	Non-Indigenous
People^(a)				
Home owners				
Owned without a mortgage	11.8	26.1	8.7	27.3
Being purchased	22.2	36.3	20.5	37.9
<i>Total home owners</i>	<i>34.0</i>	<i>62.5</i>	<i>29.2</i>	<i>65.2</i>
Renters				
Private and other renter ^(b)	32.8	26.4	29.3	25.3
State/territory housing authority	21.6	3.4	23.2	2.9
Housing co-operative or church group	0.4**^	0.4*^	0.6^	0.3^
Indigenous Housing Organisation/ Community housing	9.6		15.9	
<i>Total renters^(c)</i>	<i>64.5</i>	<i>30.1</i>	<i>69.2</i>	<i>28.5</i>
Other tenure types ^(d)	1.5*	7.4	1.6	6.3
Total^(e)	100.0	100.0	100.0	100.0
Total number^(e)	84,966	5,106,453	289,327	15,553,828
Households				
Home owners				
Owned without a mortgage	12.0	27.8	9.9	29.3
Being purchased	21.5	35.1	22.6	36.5
<i>Total home owners</i>	<i>33.5</i>	<i>62.8</i>	<i>32.5</i>	<i>65.8</i>
Renters				
Private and other renter ^(b)	35.0	26.6	33.4	25.0
State/territory housing authority	21.2	4.6	21.7	3.9
Housing co-operative or church group	0.6**^	0.6*^	0.6^	0.4^
Indigenous Housing Organisation/ Community housing	7.8		9.6	
<i>Total renters^(c)</i>	<i>64.6</i>	<i>31.8</i>	<i>65.5</i>	<i>29.4</i>
Other tenure types ^(d)	2.0*	5.4	2.0	4.8
Total^(e)	100.0	100.0	100.0	100.0
Total number^(e)	58,707	2,602,138	175,981	7,973,429

* Estimate has a relative standard error between 25% and 50% and should be used with caution.

** Estimate has a relative standard error greater than 50% and is generally unreliable for use.

^ Difference between rates for Indigenous and non-Indigenous Australians are NOT statistically significant for these categories.

(a) People aged 18 years and over.

(b) Includes real estate agents, unrelated people, relatives, owner/managers of caravan parks, employers and other landlords.

(c) Includes landlord type not stated.

(d) Includes people living under life tenure schemes, those living in rent-free schemes and other tenure types nfd.

(e) Excludes tenure type not stated.

Source: NATSISS 2008 and NHS 2007–08.

2.10 Index of disadvantage

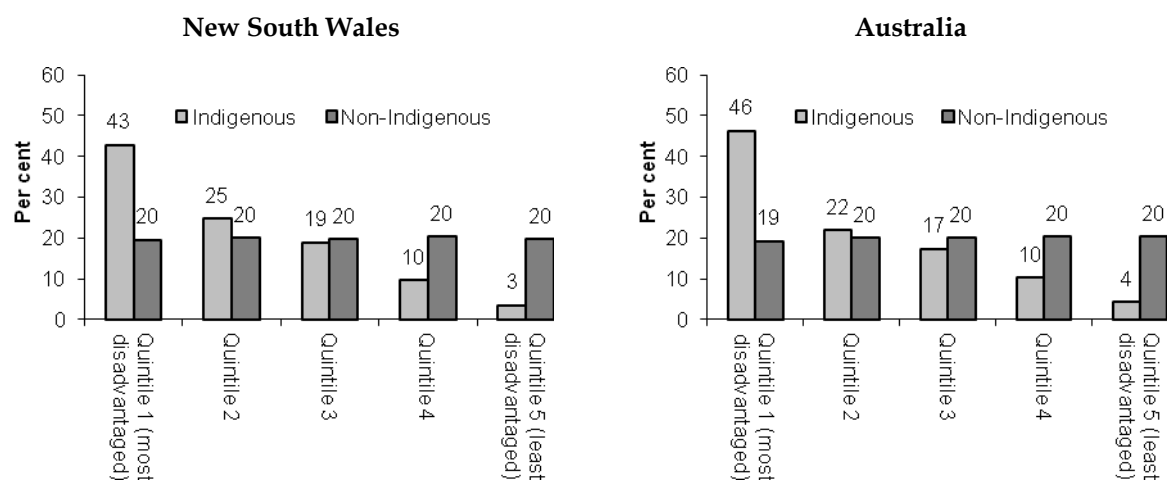
An analysis of the relative disadvantage within the Aboriginal and Torres Strait Islander population compared with the non-Indigenous population.

The ABS has developed an index to allow measurement of relative socioeconomic status at a small area level. This index is known as Socio-Economic Indexes for Areas (SEIFA). SEIFA summarise a range of socioeconomic variables associated with disadvantage. The index of advantage/disadvantage is a continuum of advantage to disadvantage and is available for both urban and rural areas. Low values indicate areas of disadvantage, and high values indicate areas of advantage. It takes into account variables such as the proportion of families with high incomes, people with a tertiary education, and employees in skilled occupations.

Note that this SEIFA index is assigned to areas, not to individuals. This means that not all members of the population in a relatively disadvantaged area are equally disadvantaged.

SEIFA analysis can be done based at the geographic (which mean the collection districts or CDs are split into the five quintiles based on the SEIFA of the CDs) or population level (which means the members of each population are split into quintiles and the SEIFA quintiles are then based on the populations which fit into each quintile). SEIFA analyses based on the geographic level are presented in this report.

- In 2006, in New South Wales, a greater proportion of the Indigenous population were in the most disadvantaged quintile of socioeconomic status than the non-Indigenous population (43% compared to 20%) (Figure 30). Only 3% of the Indigenous population were in the least disadvantaged quintile compared with 20% of the non-Indigenous population.
- Compared with the total Indigenous population in Australia, New South Wales had a lower proportion of Indigenous Australians in the most disadvantaged quintile of socioeconomic status (43% compared to 46%) and a lower proportion of Indigenous Australians in the least disadvantaged quintile (3% compared to 4%).



Note: The population of NSW was unable to be split into exact quintiles based on the SEIFA index of advantage/disadvantage; instead the best approximate quintiles were calculated.

Source: AIHW analyses of 2006 Census data.

Figure 2.10.1: Population distribution by SEIFA advantage/disadvantage quintiles, by Indigenous status, New South Wales and Australia, 2006

2.11 Dependency ratio

The **dependency ratio** is expressed as a percentage derived as follows:

Percentage of population aged under 15 years + percentage of population aged 65 years and over

Percentage of population aged 15–64 years

It is used as a proxy for the ratio between those who are not economically active (and therefore dependent) and those who are economically active.

The youth and aged dependency ratios can be calculated separately if required:

Youth dependency ratio	<u>Percentage of population aged under 15 years</u> Percentage of population aged 15–64 years
Aged dependency ratio	<u>Percentage of population aged 65 years and over</u> Percentage of population aged 15–64 years

- The Indigenous population has a younger age structure than the non-Indigenous population. In 2010 in New South Wales, 36% of Indigenous Australians were aged less than 15 compared with 18% of non-Indigenous people. People aged 65 and over comprised 5% of the Indigenous population and 15% of the non-Indigenous population.
- Nationally in 2010, 35% of the Indigenous population and 19% of the non-Indigenous population were aged less than 15. People 65 and over comprised 3% of the Indigenous population and 14% of the non-Indigenous population.
- In 2010 in New South Wales, the dependency ratio for Indigenous Australians was 0.65 compared to 0.49 for non-Indigenous Australians. The youth dependency ratio for Indigenous Australians in New South Wales was higher than for non-Indigenous Australians (0.59 compared to 0.27), whereas the aged dependency ratio was lower (0.06 for Indigenous Australians compared to 0.22 for non-Indigenous Australians). The same pattern was evident throughout Australia, although the ratios were slightly lower for Indigenous Australians (Table 2.11.1).

Table 2.11.1: Total, youth and aged dependency ratios, by Indigenous status, New South Wales and Australia, 2010

	New South Wales	Australia^(a)
Indigenous		
Dependency ratio	0.65	0.63
Youth dependency ratio	0.59	0.57
Aged dependency ratio	0.06	0.05
Non-Indigenous		
Dependency ratio	0.49	0.48
Youth dependency ratio	0.27	0.27
Aged dependency ratio	0.22	0.21

(a) Includes other territories.

Source: AIHW analyses of ABS population estimates based on 2006 Census.

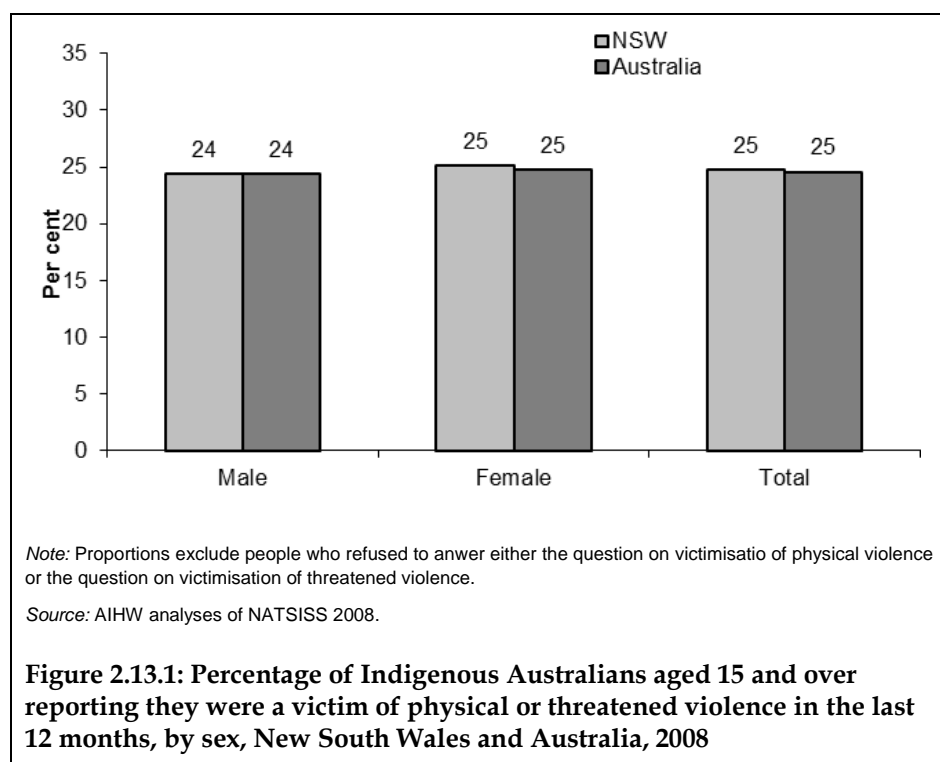
2.13 Community safety

Three parameters of community safety are considered for this measure:

1. *experience of personal injury or death as a result of violence*
2. *experience of threatened violence or a social setting in which violence is common*
3. *experience of a social setting where there is a lack of security and a perception of danger, for example, where crimes against property or disorderly behaviour are common.*

Victim of physical or threatened violence

- In 2008, a similar proportion of Indigenous males and females aged 15 and over reported being a victim of physical or threatened violence in the last 12 months in New South Wales (24% and 25%, respectively) (Figure 2.13.1).
- The proportion of Indigenous Australians aged 15 and over who reported being a victim of physical or threatened violence in the last 12 months was similar in New South Wales and Australia (both around 25%).
- Indigenous Australians aged 18 and over both in New South Wales and across Australia were around twice as likely to report being victims of physical or threatened violence in the last 12 months as non-Indigenous Australians (Table 2.13.1).



Stressors

- In 2008 in New South Wales, about 79% of Indigenous Australians aged 18 and over or their family members and close friends experienced at least one stressor in the last 12 months compared with 48% of non-Indigenous Australians. The most common stressors were death of a family member or close friend (37%) and alcohol or drug-related problems (23%).
- In New South Wales, a lower percentage (10%) of Indigenous Australians aged 18 and over felt themselves or their family members and close friends experienced overcrowding at home as a stressor than across Australia (13%).

Table 2.13.1: Issues of community safety, people aged 18 and over, by Indigenous status, New South Wales and Australia, 2008

	New South Wales		Australia	
	Indig.	Non-Indig.	Indig.	Non-Indig.
	%	%	%	%
Victim of physical or threatened violence in last 12 months ^(a)	22.0*	9.3*	20.5*	10.8*
Stressors experienced by individual, family members and/or close friends in last 12 months^(b)				
Mental illness	18.0*	8.3*	17.1*	8.8*
Death of family member or close friend	37.1*	19.5*	40.4*	19.4*
Alcohol or drug-related problems	23.4*	5.1*	24.2*	5.7*
Abuse or violent crime	7.4*	2.0*	7.6*	2.4*
Witness to violence	9*	1.6*	9.0*	2.2*
Trouble with the police	14.5*	1.9*	14.7*	2.6*
<i>One or more of the above stressors</i>	<i>57.4*</i>	<i>29.2*</i>	<i>59.1*</i>	<i>30.2*</i>
You, a family member or friend spent time in gaol	13.1	..	12.8	..
Overcrowding at home	9.8	..	12.7	..
Treated badly / discrimination	9.3	..	10.2	..
<i>Total experienced stressors^{(c)(d)}</i>	<i>79.3*</i>	<i>47.9*</i>	<i>79.0*</i>	<i>49.1*</i>
No stressors reported	20.7*	52.1*	21.0*	50.9*
Total	100.0	100.0	100.0	100.0

* Represents statistically significant differences in the Indigenous/non-Indigenous comparisons.

.. Data not collected for non-Indigenous Australians.

(a) For this variable only, Non Indigenous comparison has been sourced from General Social Survey 06 (GSS06).

(b) In the NATSISS 2008, Indigenous Australians were asked about 24 separate stressors, and in the 2007-08 NHS, non-Indigenous Australians were asked about 14 separate stressors.

(c) Sum of components may exceed total, as people may have reported more than one type of stressor.

(d) Includes all other types of stressors not listed here.

Note: Excludes stressors not stated.

Source: NATSISS 2008 and NHS 2007-08.

Neighbourhood community problems

- Of Indigenous Australians aged 15 and over in New South Wales, 77% reported neighbourhood/community problems present compared with 74% across Australia.
- Theft and dangerous/ noisy driving were most commonly reported as a neighbourhood/community problem both in New South Wales (49% for theft and 46% for dangerous/ noisy driving) and across Australia (43% for theft and 46% for dangerous/ noisy driving).

Table 2.13.2: Neighbourhood/community problems, Indigenous Australians aged 15 and over, New South Wales and Australia, 2008

	New South Wales	Australia
	%	%
Neighbourhood/community problem present		
Theft ^(a)	48.6	42.5
Problems involving youth	36.3	34.4
Prowlers/loiterers	21.3	19.1
Vandalism/graffiti/damage to property	40.9	35.3
Dangerous or noisy driving	46.3	46.1
Alcohol	42.3	41.3
Illegal drugs	40.9	36.4
Family violence	25.5	24.8
Assault	23.0	22.7
Sexual assault	13.7	11.7
Problems with your neighbours	16.9	15.4
Levels of neighbourhood conflict	13.6	14.1
Level of personal safety day or night	16.7	13.8
<i>Total with neighbourhood/community problems</i>	<i>76.8</i>	<i>74.2</i>
No neighbourhood/community problems reported	23.3	25.8
Total	100.0	100.0
Total number	96,158	327,101

(a) Excludes unknown responses.

Source: AIHW analysis of NATSISS 2008.

2.14 Contact with the criminal justice system

The prevalence of Aboriginal and Torres Strait Islander peoples in prison custody, other contact with the criminal justice system, including police custody and juvenile justice, and relationships with health and social factors

People in prison custody

- At June 30 2009, there were 2,374 Indigenous and 8,376 non-Indigenous Australians in prison custody in New South Wales. Nationally 7,386 Indigenous and 21,554 non-Indigenous Australians were in prison custody (Table 2.14.1).
- The age-standardised rate of imprisonment for Indigenous Australians in New South Wales was 2,153 per 100,000, which was 13 times the rate of non-Indigenous Australians (164 per 100,000).
- While the national age-standardised rate of imprisonment for Indigenous Australians was lower than for New South Wales (1,891 per 100,000), the rate ratio was higher, with Indigenous Australians around Australia imprisoned at 14 times the rate of their non-Indigenous counterparts.
- A higher proportion of Indigenous prisoners were males than females (90% males in New South Wales and 92% males in Australia). This trend was also present for total prisoners.
- For the period 2000–2009 in New South Wales, there was a significant increase in the crude imprisonment rate of Indigenous Australians, with an average yearly increase in the rate of around 88 prisoners per 100,000. The national crude imprisonment rate for Indigenous Australians also increased significantly, with an average yearly increase in the rate of around 73 per 100,000 (Figure 2.14.1).

Table 2.14.1: People in prison custody, by Indigenous status and sex, New South Wales and Australia, 30 June 2009

	Indigenous					
	Number			Crude rate ^(b)	Age- standardised rate ^(c)	
	Males	Females	People ^(a)			
NSW ^(d)	2,138	236	2,374	2,591.1	2,153.1	
Aust	6,783	603	7,386	2,309.8	1,890.7	
	Non-Indigenous					
	Number			Crude rate ^(b)	Age standardised rate ^(c)	Age standardised rate ratio ^(e)
	Males	Females	People ^(a)			
NSW ^(d)	7,789	587	8,376	156.3	163.9	13.1
Aust	20,063	1,493	21,554	130.9	135.6	13.9

(a) Includes sex not stated.

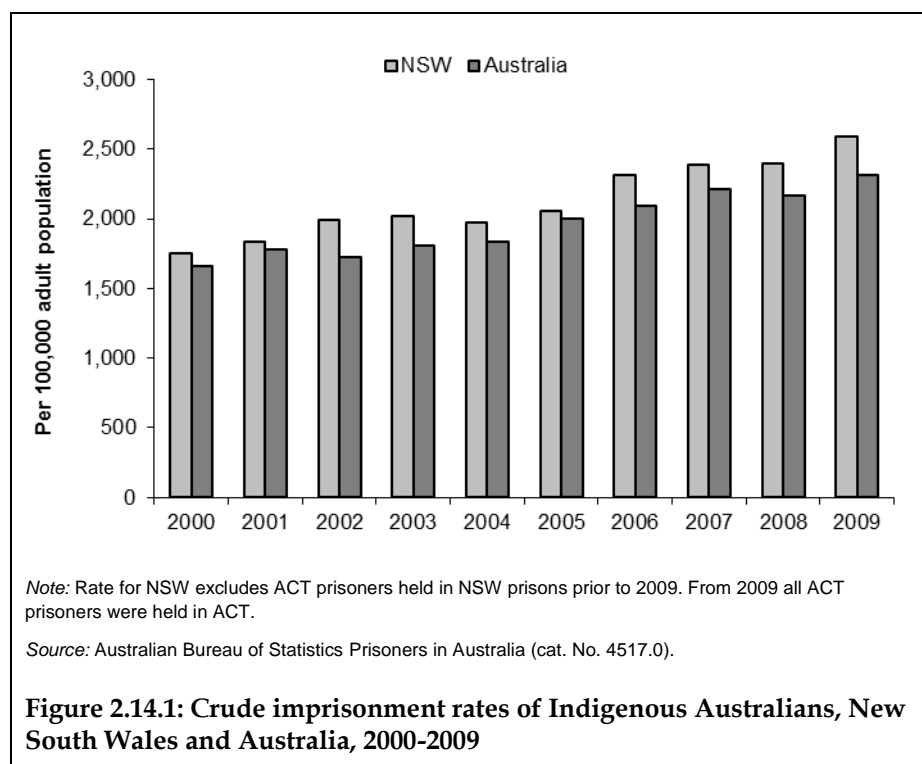
(b) Number per 100,000 adult population.

(c) Number per 100,000 adult population directly age standardised to 2001 Australian standard population.

(d) Numbers and rates for New South Wales exclude ACT prisoners held in New South Wales.

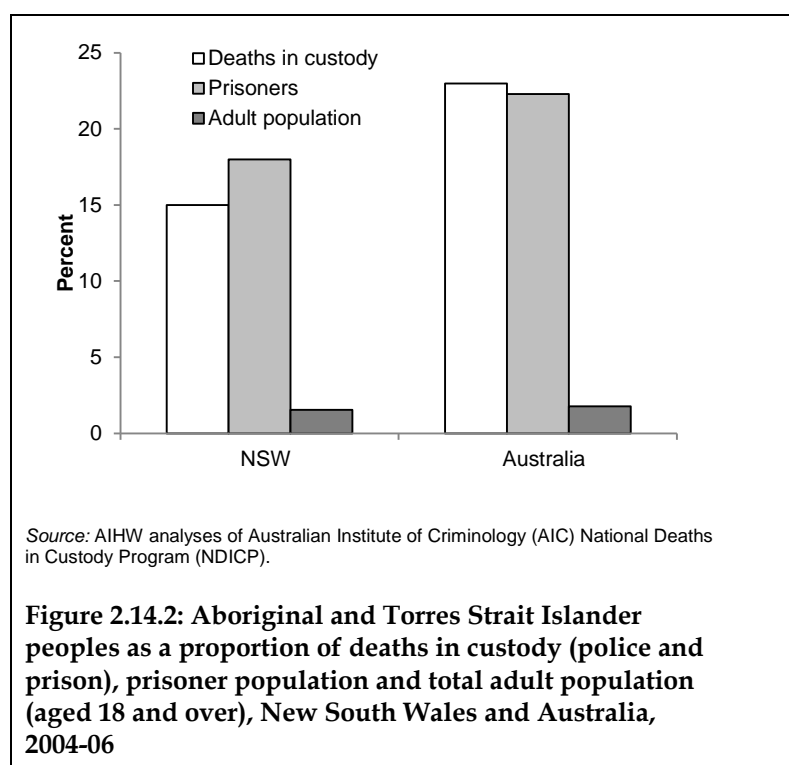
(e) The ratio of Indigenous to non-Indigenous imprisonment is calculated by dividing the Indigenous age-standardised rate by the non-Indigenous age-standardised rate.

Source: ABS 2009.



Deaths in prison custody

- In 2004-06 in New South Wales, Indigenous Australians represented around 15% of deaths in custody (police and prison), 18% of the prisoner population and 1.5% of the adult population. This compares with 23% of deaths in custody, 22% of prisoners and 1.7% of the adult population nationally.

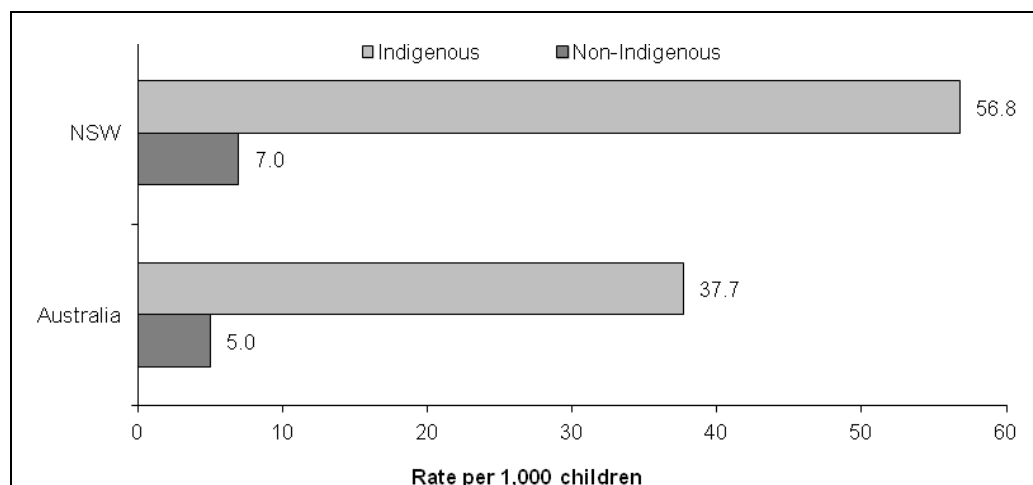


2.15 Child protection

Aboriginal and Torres Strait Islander children in substantiations, on care and protection orders and in out-of-home care

Substantiations refer to child protection notifications made to relevant authorities during the year ended 30 June 2009, which were investigated and the investigation finalised by 31 August 2009, and with a conclusion that there was reasonable cause to believe that the child had been, was being or was likely to be abused or neglected or otherwise harmed.

- In 2008–09 in New South Wales, Indigenous children aged 0–16 were more likely to be the subject of substantiations than other children aged 0–16 (57 per 1,000 compared to 7 per 1,000) (Figure 2.15.1).
- Substantiation rates for Indigenous and non-Indigenous children in New South Wales were higher than for Indigenous and non-Indigenous children in Australia.
- The proportion of Aboriginal and Torres Strait Islander children in New South Wales who were subjects of substantiations increased from 27 per 1,000 in 2004–05 to 57 per 1,000 in 2008–09 (Table 2.15.1).
- The proportion of other children in New South Wales who were subjects of substantiations was steady at around 7 per 1,000 from 2005–06 to 2008–09 (Table 2.15.1).
- At 30 June 2009, 84% of Aboriginal and Torres Strait Islander children in out-of-home care in New South Wales were placed with relative/kin, other Indigenous caregivers or Indigenous residential care (Table 2.15.2).



Source: AIHW 2010.

Figure 2.15.1: Children aged 0–16 who were the subjects of substantiations: rate per 1,000 children, by Indigenous status, New South Wales and Australia, 2008–09

Table 2.15.1: Number and rates of Aboriginal and Torres Strait Islander and other children aged 0–16 who were the subject of substantiated notifications, New South Wales and Australia, 1998–99 to 2008–09

Year	New South Wales ^(a)		Australia ^(b)	
	Indigenous	Other	Indigenous	Other
Number of children				
1998–99	864	5,815	n.a.	n.a.
1999–00	761	5,054	n.a.	n.a.
2000–01	875	5,655	n.a.	n.a.
2001–02	913	6,361	n.a.	n.a.
2002–03	1,910	9,524	n.a.	n.a.
2003–04 ^(c)	n.a.	n.a.	n.a.	n.a.
2004–05	1,642	7,556	n.a.	n.a.
2005–06	2,696	9,931	6,033	28,322
2006–07	3,276	10,414	7,076	26,784
2007–08	3,263	9,856	7,313	24,602
2008–09	3,749	10,208	8,135	24,343
Rate per 1,000 children				
1998–99	16.8	4.0	n.a.	n.a.
1999–00	14.6	3.5	n.a.	n.a.
2000–01	16.5	3.9	n.a.	n.a.
2001–02	15.3	4.3	n.a.	n.a.
2002–03	32.0	6.5	n.a.	n.a.
2003–04 ^(c)	n.a.	n.a.	n.a.	n.a.
2004–05	27.1	5.2	n.a.	n.a.
2005–06	44.2	6.9	29.4	6.5
2006–07	53.5	7.1	34.3	6.1
2007–08	53.0	6.8	35.3	5.5
2008–09	56.8	7.0 ^(d)	37.7	5.0 ^(d)

(a) New South Wales data for 2002–03 and previous years should not be compared with data from 2003–04 onwards. New South Wales implemented a modification to the data system to support legislation and practice

(b) Australia data were not available before 2005–06.

(c) New South Wales data for 2003–04 were not available because of the introduction of a new client information system.

(d) 2008–09 rates are for Non-Indigenous children and exclude those children of unknown Indigenous status.

Notes

1. Because of the small number involved, children aged 17 were not included in this table. The substantiation rate for 17 year olds is, compared with the rate for younger children, very low. Including 17 year olds.
2. Rates calculated using ABS Indigenous population estimates and projections (low series) based on the 2001 Census.
3. Improvements in the quality of the data on Indigenous status are one of the major issues to be considered when analysing trends for Aboriginal and Torres Strait Islander children. Increases in the rates of Aboriginal and Torres Strait Islander children in the child protection system over time may be due to improvements in the quality of the data.

Source: AIHW 1999; 2000; 2001; 2002; 2003; 2004; 2005; 2006; 2007; 2008; 2009; 2010.

Table 2.15.2: Aboriginal and Torres Strait Islander children in out-of-home care: Indigenous status and relationship of carer, New South Wales, at 30 June 2009

Relationship	New South Wales
	Per cent
Indigenous relative/kin	55.6
Other Indigenous caregiver	17.0
Other relative/kin	11.0
Indigenous residential care	0.5
Total placed with relative/kin, other Indigenous caregivers or Indigenous residential care	84.0
Other caregiver	14.9
Other residential care	1.1
Total not placed with relative/kin, other Indigenous caregivers or Indigenous residential care	16.0
Total	100.0

Notes

1. This table does not include Indigenous children who were living independently or whose living arrangements were unknown.
2. Percentages in tables may not add to 100 due to rounding.
3. Children in family group homes are reported as in residential care.

Source: AIHW 2010.

2.16 Transport

The use of transport, including walking, access to motor vehicles and perceived difficulty with transport among Aboriginal and Torres Strait Islander peoples

Motor vehicle access

- In 2006 in New South Wales, 72% of Indigenous households and 85% of other households reported having at least one vehicle. Nationally 72% of Indigenous households and 87% of other households reported having at least one registered vehicle.
- The ratio of people to vehicles was higher for Indigenous households in New South Wales, with 1.55 people per vehicle, compared with 1.29 people per vehicle for other households in New South Wales. Nationally the ratio was 1.59 for Indigenous Australians and 1.19 for other people.

Table 2.16.1: Households with at least one registered vehicle, by Indigenous status, New South Wales and Australia, 2006

	Ratio of people 17 years and over in occupied private dwellings to vehicle ^(a)			Proportion of households ^(b) with at least one vehicle		
	Indigenous ^(c)	Other ^(d)	Total	Indigenous ^(c)	Other ^(d)	Total
State/territory						
NSW ^(e)	1.55	1.29	1.29	71.8	84.8	84.5
Australia ^(f)	1.59	1.19	1.19	71.9	87.2	86.9

(a) Excludes motorbikes.

(b) Defined as all households (excluding visitor households), in an occupied private dwelling, being Australian usual residents.

(c) An Indigenous household is defined where a family within the household contains one or more people of Aboriginal or Torres Strait Islander origin or where a lone person is of Aboriginal or Torres Strait Islander origin.

(d) Includes households where Indigenous status was 'not stated'.

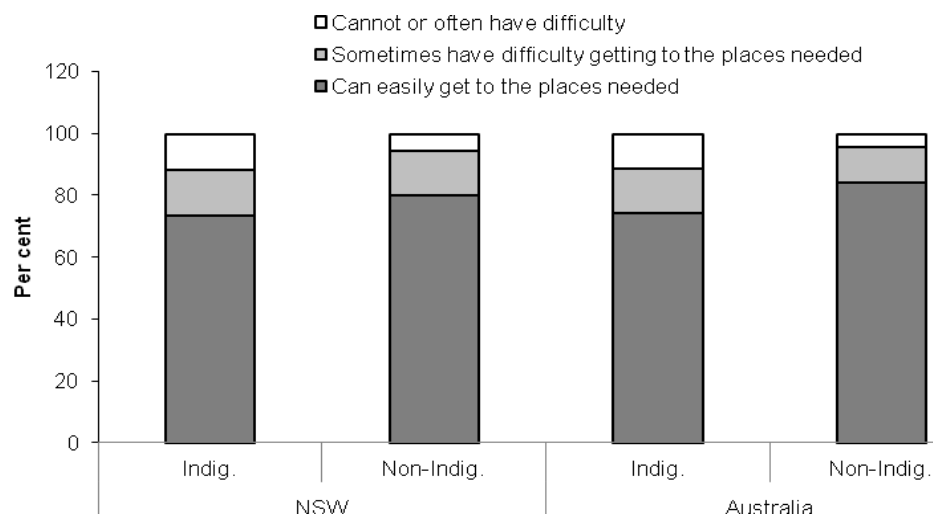
(e) Includes Territory of Jervis Bay.

(f) Includes Territories of Christmas Island and Cocos Islands.

Source: ABS and AIHW analysis of 2006 Census data.

Transport access, difficulty and use

- Indigenous Australians in New South Wales and Australia were more likely to report having difficulty getting to places when needed than non-Indigenous Australians. In 2008, 26% of Indigenous Australians living in New South Wales reported that they sometimes or often had difficulty or could not get to places when needed compared with 20% of non-Indigenous Australians. In Australia, 25% of Indigenous Australians reported that they sometimes or often had difficulty or could not get to places when needed compared with 16% of non-Indigenous Australians (Figure 2.16.1).



Source: ABS and AIHW analyses of NATSISS 2008 and General Social Survey (GSS) 2006.

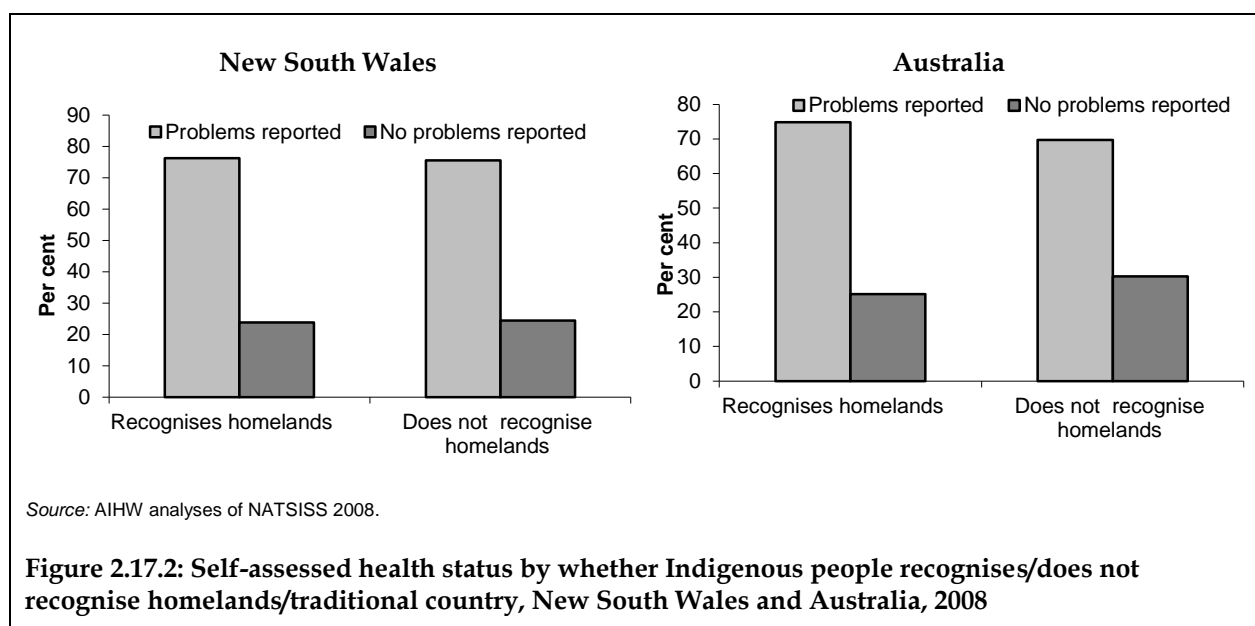
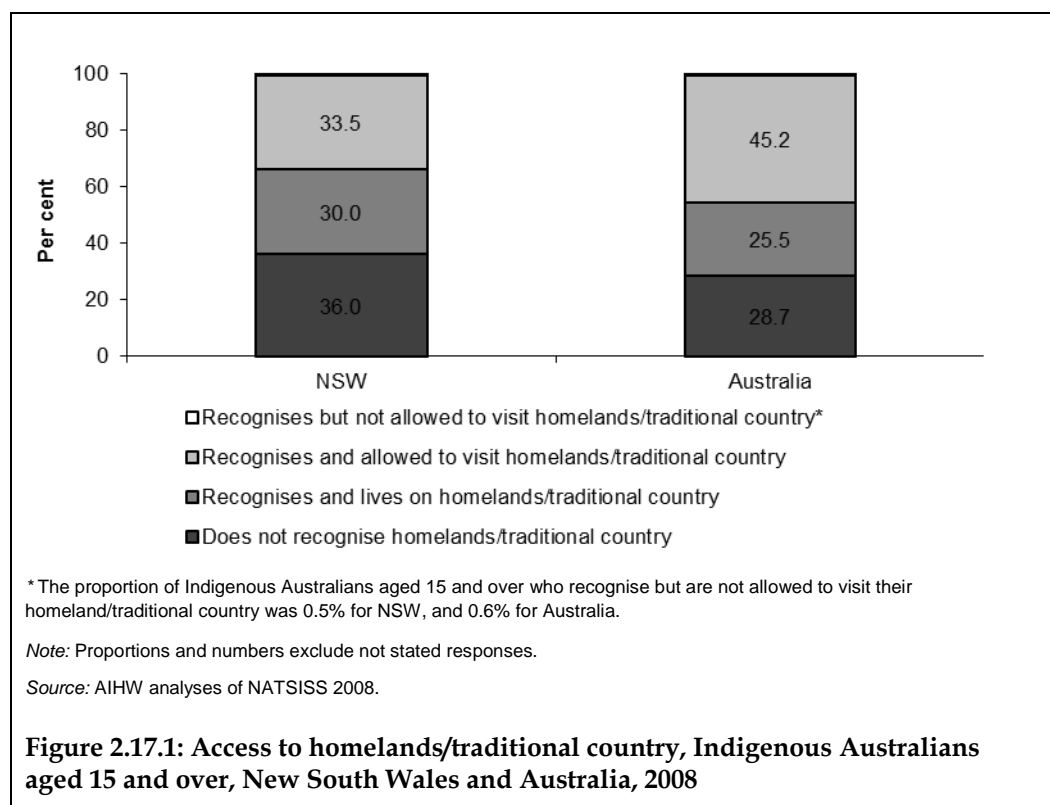
Figure 2.16.1: Difficulty with transport, by Indigenous status, New South Wales and Australia, people aged 18 and over, 2008

2.17 Indigenous people with access to their traditional lands

The proportion of Aboriginal and Torres Strait Islander peoples living on or visiting traditional areas of land with which they have ancestral and/or cultural links

Access to traditional lands

- In 2008, 34% of Indigenous Australians aged 15 and over in New South Wales recognised and were allowed to visit their homelands/traditional country. Throughout Australia 45% of Indigenous Australians recognised their homelands and were allowed to visit (Figure 2.17.1).
- About 30% of Indigenous Australians in New South Wales and 26% nationally lived on their homeland.
- About 36% of Indigenous Australians in New South Wales reported they did not recognise their homelands and 0.5% reported they were not allowed to visit their homelands. This compared to 29% and 0.6% nationally.
- In 2008 in New South Wales, Indigenous Australians who did not recognise their homelands/traditional country were more likely to report excellent/very good/good health (79%) than those who did recognise their homelands/traditional country (71%). The data for Australia showed similar patterns though the difference was smaller (81% for Indigenous people who did not recognise their homelands/traditional country compared with 77% for Indigenous people who recognised their homelands/traditional country) (Figure 2.17.2).
- Indigenous Australians in New South Wales who recognised their homelands/traditional country were likely to report presence of neighbourhood/community problems at a similar rate to Indigenous Australians who did not recognise their homelands/traditional country (both around 76%).



2.18 Tobacco use

The proportion of Indigenous Australians who are current regular smokers

Smoking status

Smoking prevalence data presented below are from the 2008 NATSISS, with non-Indigenous comparisons from the 2007-08 National Health Survey.

- In 2008, about 50% of Indigenous Australians aged 18 and over in New South Wales reported they were current daily smokers, 2% were current smokers who smoked weekly or less than weekly; 24% were ex-smokers and 25% reported that they had never smoked (Table 2.18.1).
- Indigenous Australians in New South Wales were nearly 3 times as likely to be current daily smokers as non-Indigenous Australians (Table 2.18.1).

Table 2.18.1 Smoking rates for people aged 18 and over, by Indigenous status^(a), 2008 and 2007-08, NSW

Smoker status (%)	Indigenous	Non-Indigenous	Rate ratio	Rate difference
Current smoker				
Daily ^(b)	49.8	18.6	2.7	31.2
Other ^(c)	*1.7	1.8	0.9	-0.1
Total smokers ^(b)	51.6	20.4	2.5	31.2
Ex-smoker ^(d)	23.9	28.5	0.8	-4.6
Never smoked ^(e)	24.5	51.1	0.5	-26.6
Total	100.0	100.0

* Estimate has a relative standard error between 25% and 50% and should be used with caution.

(a) Data for Indigenous persons are from the 2008 National Aboriginal and Torres Strait Islander Social Survey. Data for non-Indigenous persons are from the 2007-08 National Health Survey

(b) Difference between 2008 Indigenous rate and 2007-08 non-Indigenous rate is statistically significant for all jurisdictions

(c) Comprises people who smoked at least once a week, but not daily, and those who smoked less than weekly

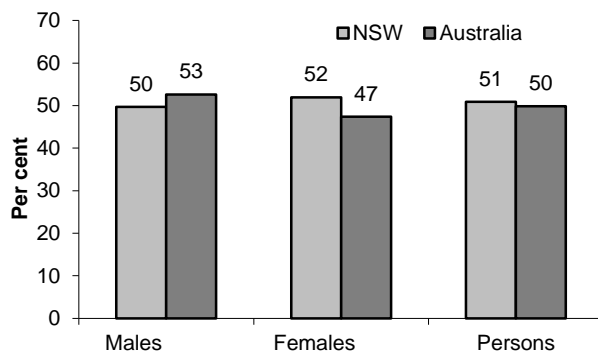
(d) Difference between 2008 Indigenous rate and 2007-08 non-Indigenous rate is statistically significant for all jurisdictions except the ACT.

(e) Difference between 2008 Indigenous rate and 2007-08 non-Indigenous rate is statistically significant for all jurisdictions except the NT.

Source: AIHW analyses of NATSISS 2008 and National Health Survey 2007-08.

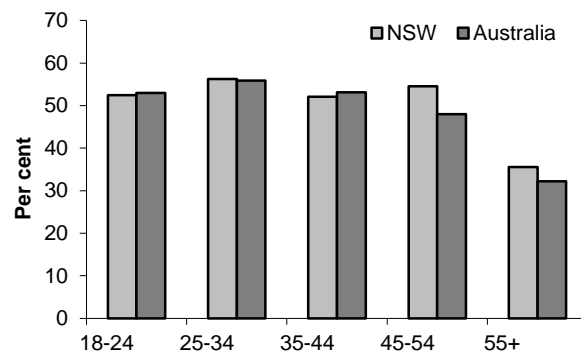
Smoking status by sex and age group

- In 2008 in New South Wales, about 50% of Indigenous men and 52% of Indigenous women aged 18 and over were current smokers. Across Australia 53% of Indigenous men and 47% of Indigenous women were current smokers (Figure 2.18.1).
- In New South Wales, Indigenous adults aged 25-34 and 45-54 were most likely to report being current smokers (56% and 55% respectively). The data for the total of Australia showed different features, where Indigenous adults aged 18-24, 25-34 and 35-44 were most likely to report being current smokers (53%, 56% and 53% respectively) (Figure 2.18.2).



Source: AIHW analyses of NATSISS 2008.

Figure 2.18.1: Per cent of Indigenous people aged 18 and over reporting they are current smokers, by sex, New South Wales and Australia, 2008



Source: AIHW analyses of NATSISS 2008.

Figure 2.18.2: Per cent of Indigenous people aged 18 and over reporting they are current smokers, by age, New South Wales and Australia, 2008

2.19 Tobacco smoking during pregnancy

The proportion of Indigenous mothers who smoked during pregnancy

- In New South Wales in 2007, Aboriginal and Torres Strait Islander mothers smoked during pregnancy at four times the rate of non-Indigenous mothers. This was slightly higher than the national ratio of 3.4 (Table 2.19.1).
- In New South Wales in 2007, 48% of Indigenous mothers smoked during pregnancy compared to 12% of non-Indigenous mothers. Nationally (excluding Victoria) 51% of Indigenous mothers compared to 15% of non-Indigenous mothers smoked during pregnancy (Table 2.19.1).

Table 2.19.1: Tobacco smoking status of mothers during pregnancy, by Indigenous status, New South Wales and NSW, Qld, WA, SA, Tas, ACT & NT combined, 2007(a)(b)

Smoking status	New South Wales		NSW, Qld, WA, SA, Tas, ACT & NT combined	
	Indigenous	Non-Indigenous	Indigenous	Non-Indigenous
	Number			
Smoked	1,446	10,586	5,273	30,821
Did not smoke	1,432	80,529	4,682	176,004
Not stated	9	391	234	1,044
Total	2,887	91,506	10,189	207,869
	Proportion ^(c)			
Smoked	48.4	12.0	50.5	14.8
Did not smoke	51.2	87.5	47.4	84.7
Total^(d)	100.0	100.0	100.0	100.0
	Ratio ^(e)			
Smoked	4.0	..	3.4	..
Did not smoke	0.6	..	0.6	..

(a) Excludes births where the mother's Indigenous status was not stated.

(b) State-level data are based on place where birth occurred, not place of usual residence. Cross-border issues need to be considered here, for example, a high proportion of births in ACT hospitals are for mothers resident in NSW.

(c) Proportions are directly age-standardised using the Australian female population aged 15–44 who gave birth in 2007.

(d) Includes mothers for whom smoking status was not stated

(e) Rate ratio is the rate for Indigenous mothers divided by the rate for non-Indigenous mothers.

Notes

1. Data not available for Victoria.

2. Because of differences in definitions and methods used for data collection, care must be taken when comparing across jurisdictions. Mother's tobacco smoking status during pregnancy is self-reported.

Source: AIHW analyses of NPSU National Perinatal Data Collection.

2.20 Risky and high-risk alcohol consumption

The proportion of Aboriginal and Torres Strait Islander people who consume alcohol at risky or high-risk levels

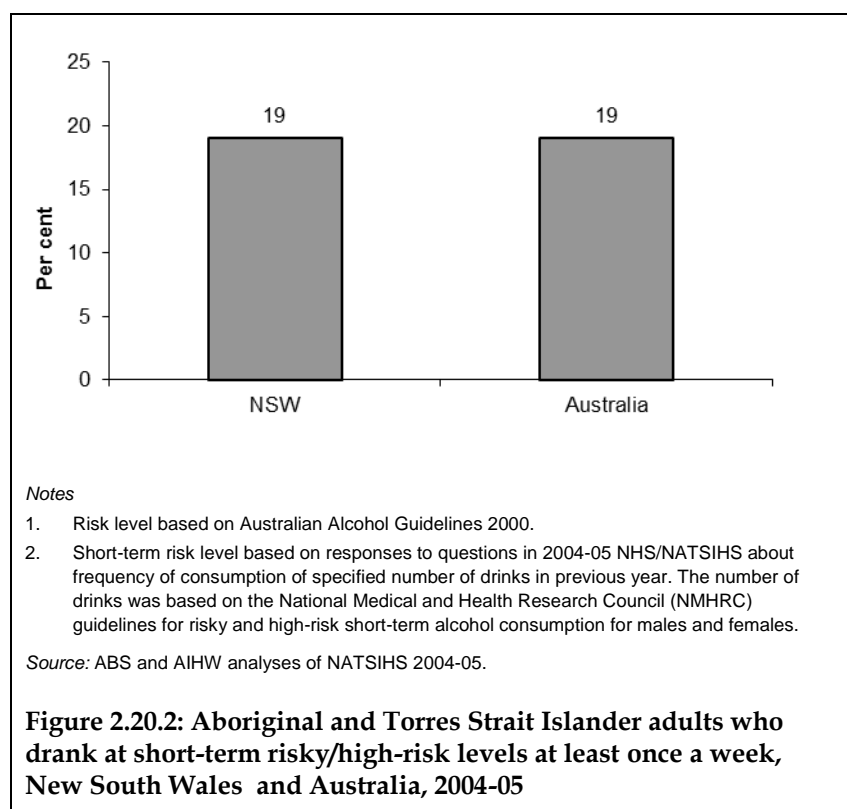
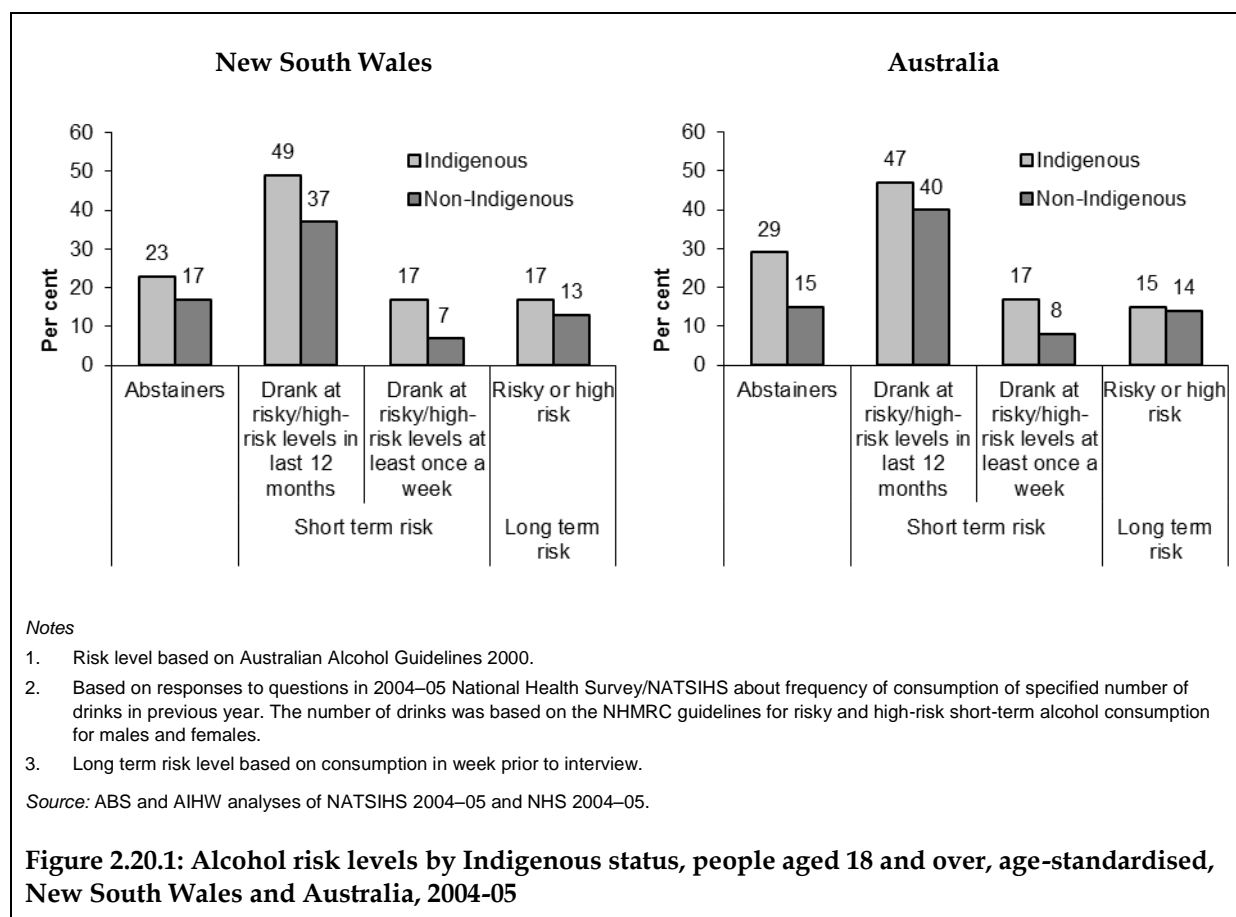
The consumption of alcohol at risky and high-risk levels is defined as alcohol consumption which exceeds the National Health and Medical Research Council (NHMRC) guidelines for low-risk drinking in the short or long term. These guidelines are outlined below:

Risky/high-risk drinking

- Short-term risky drinking is consumption of more than six but less than 11 standard drinks on any one day for males, and more than four but less than seven standard drinks for females.
- Short-term high-risk drinking is consumption of 11 or more standard drinks on any one day for males, and more than seven standard drinks for females.
- Long-term risky drinking is average consumption of more than four but less than six standard drinks per day (amounting to 29 but less than 42 per week) for males, and more than two but less than five standard drinks per day (amounting to 15 but less than 28 per week) for females.
- Long-term high-risk drinking is average consumption of more than six standard drinks per day (amounting to 43 or more per week) for males, and more than four standard drinks per day (amounting to 29 or more per week) for females.

Self-reported alcohol consumption and risk levels

- In 2004–05 in New South Wales, Indigenous adults were more likely than non-Indigenous adults to report having abstained from alcohol consumption in the last 12 months (23% compared to 17%) (Figure 2.20.1).
- In New South Wales, approximately 49% of Indigenous adults drank at short-term risky/high-risk levels in the last 12 months, and 17% reported drinking at short-term risky/high-risk levels at least once a week. This is compared with 37% of non-Indigenous adults who reported drinking at risky/high-risk levels in the last 12 months and 7% who reported drinking at this level at least once a week.
- About 17% of Indigenous adults in New South Wales drank at long-term risky/high risk levels in the last 12 months compared with 13% of non-Indigenous adults.
- A similar proportion of Indigenous Australians drank at short-term risky/high-risk levels at least once a week in New South Wales and Australia (Figure 2.20.2).



2.21 Drug and other substance use including inhalants

The use of drugs and other substances, including substances inhaled for psychoactive effects, among Aboriginal and Torres Strait Islander people

Substance use by sex

- In 2008 in New South Wales, a higher proportion of Indigenous men aged 18 and over reported illicit substance use in the last 12 months (32%) than Indigenous women (20%) of the same age. Across Australia, Indigenous men (30%) were also more likely to report substance use in the last 12 months than Indigenous women (18%).
- In New South Wales, about 59% of Indigenous men and 41% of Indigenous women aged 18 and over reported they had ever used substances. These proportions were higher than those reported for Indigenous men and women in Australia (54% and 38% respectively).
- Marijuana, hashish and cannabis resin were the most commonly reported substances used by Indigenous adults. In 2008, 19% of Indigenous adults in New South Wales used marijuana, hashish or cannabis resin, similar to the rate reported for Australia (18%).

Table 2.21.1: Substance use, Indigenous Australians aged 18 and over, by sex, New South Wales and Australia, 2008

	New South Wales			Australia		
	Males	Females	People	Males	Females	People
	%	%	%	%	%	%
Used substances in last 12 months						
Marijuana, hashish or cannabis resin	25.9	12.1	18.6	24.3	11.6	17.6
Amphetamines or speed	8.5	4.2	6.2	6.1	2.8	4.3
Ecstasy or designer drugs	5.0	2.0	3.4	4.8	2.1	3.4
LSD or synthetic hallucinogens	1.4	0.4	0.9	1.5	0.5	0.9
Pain killers or analgesics for non-medical purposes	4.2	4.5	4.4	5.3	4.5	4.8
Naturally occurring hallucinogens	1.3	–	0.6	1.1	0.2	0.6
Cocaine	0.8	0.6	0.7	1.2	0.5	0.8
Other analgesics	0.2	0.2	0.2	0.6	0.2	0.4
Volatile solvents	–	0.2	0.1	0.6	0.2	0.4
Tranquillisers or sleeping pills for non-medical purposes	1.3	1.7	1.5	1.8	1.2	1.5
Kava	2.0	1.3	1.7	1.8	0.7	1.2
Total used substance in last 12 months	31.5	19.9	25.4	29.8	17.6	23.3
Used substance but not in last 12 months	27.3	20.4	23.6	24.4	19.8	22.0
Total used substance^(a)	58.7	40.5	49.1	54.3	37.5	45.3
Never used substance	41.3	59.2	50.7	45.4	61.7	54.1
Not stated ^(b)	–	0.4	0.2	0.3	0.8	0.6
Total^(c)	100.0	100.0	100.0	100.0	100.0	100.0

(a) Includes 'whether used in last 12 months' not known.

(b) This category comprises people who accepted the substance use form but did not state if they had ever used substances.

(c) Excludes 'form not answered'.

Source: AIHW analyses of NATSISS 2008.

2.22 Level of physical activity

The proportion of the Aboriginal and Torres Strait Islander adult population classified as having sedentary, low, moderate or high physical activity levels

Physical activity by Indigenous status

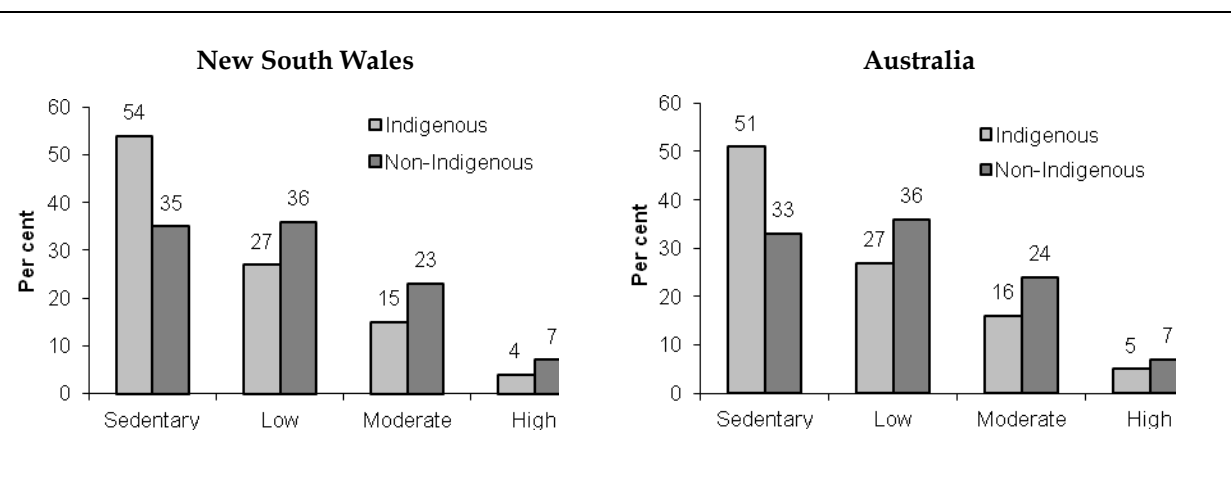
- In 2004-05 in non-remote areas of New South Wales a higher proportion of Indigenous than non-Indigenous Australians in New South Wales reported their exercise level as sedentary. After adjusting for differences in age structure, about 54% of Indigenous Australians aged 15 and over in non-remote areas reported their exercise level as sedentary in the two weeks before the survey, 27% as low, 15% as moderate, and 4% as high. This compared with 35% of non-Indigenous Australians who reported their exercise level as sedentary, 36% as low, 23% as moderate, and 7% as high (Figure 2.22.1). The same pattern was evident for Australia.

Physical activity by age and sex

- Indigenous Australians were more likely to report a sedentary level of physical activity than non-Indigenous Australians across all age groups (Figure 2.22.2).
- Indigenous and non-Indigenous Australians were generally more likely to report their level of physical activity was sedentary with increasing age. In New South Wales, 34% of Indigenous males and 52% of Indigenous females aged 15–24 reported a sedentary level of physical activity compared with 52% and 67% of Indigenous males and females aged 55 and over.
- Across all the age groups with the exception of those aged 45–54, a higher proportion of Indigenous females than Indigenous males in New South Wales reported that their level of exercise was sedentary.

Physical activity by selected health characteristics

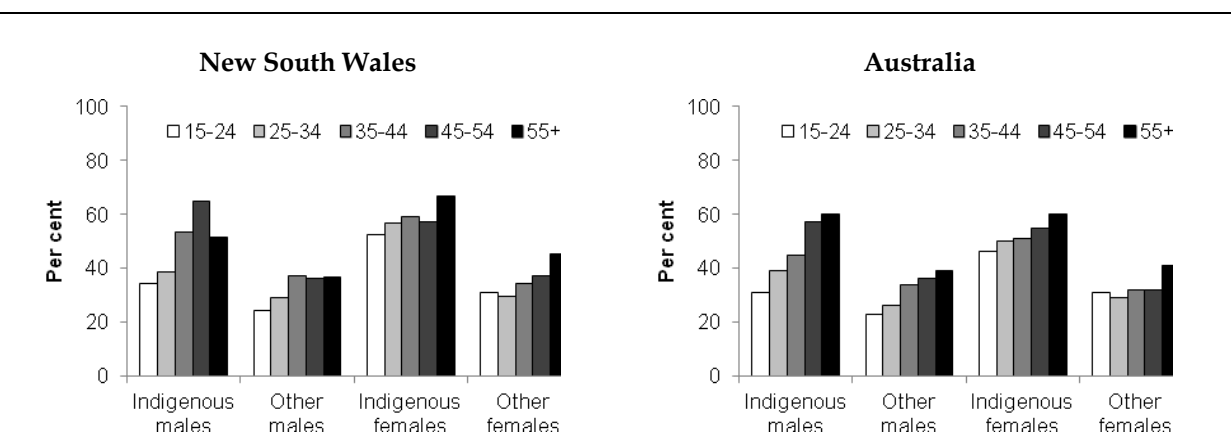
- About 73% of Indigenous people in non-remote areas of New South Wales with a sedentary level of physical activity reported excellent/very good/good health status compared with 94% of Indigenous people with high physical activity. A similar pattern was evident in Australia.



Note: Proportions are directly age standardised.

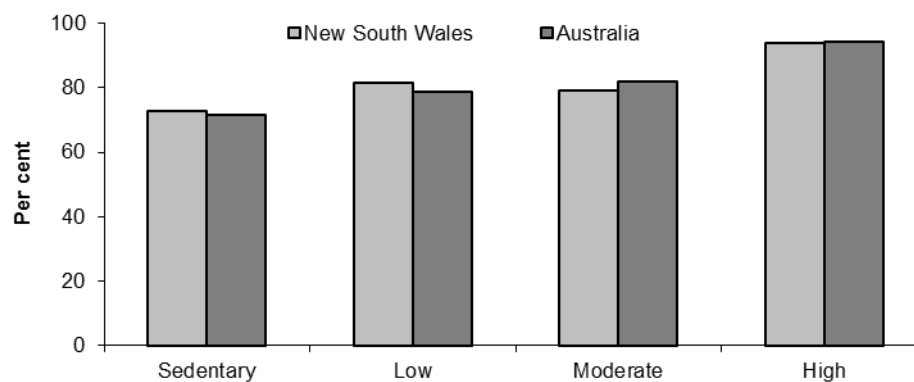
Source: ABS and AIHW analyses of NATSIHS 2004–05 and NHS 2004–05.

Figure 2.22.1: People aged 15 and over, level of physical activity, non-remote areas, by Indigenous status, New South Wales and Australia, 2004-05



Source: AIHW analyses of NATSIHS 2004-05 and NHS 2004-05.

Figure 2.22.2: People aged 15 and over reporting a sedentary level of physical activity by Indigenous status, sex and age group, non-remote areas, New South Wales and Australia, 2004-05



Source: AIHW analyses of NATSIHS 2004-05 and NHS 2004-05.

Figure 2.22.3: Indigenous Australians aged 15 and over reporting excellent, very good or good health status, by level of physical activity, non-remote areas, New South Wales and Australia, 2004-05

2.23 Dietary behaviour

The dietary behaviour of Aboriginal and Torres Strait Islander people including fruit and vegetable consumption, type of milk consumed and salt intake

Dietary habits

- In 2004–05, 99% of Indigenous and non-Indigenous Australians aged 12 and over in New South Wales reported eating vegetables daily, compared with 95% of Indigenous and 99% of non-Indigenous Australians in the same age group nationally.
- In 2004–05, 88% of Indigenous Australians aged 12 and over in New South Wales reported eating fruit daily, slightly higher than the level in Australia (86%). Compared with Indigenous Australians, a larger proportion of non-Indigenous Australians reported having fruit daily in New South Wales and across Australia (93% for both).
- In both New South Wales and Australia, 96% of Indigenous Australians aged 12 and over reported drinking milk. The most common type of milk consumed was whole milk (78% in New South Wales and 79% across Australia). Non-Indigenous Australians were slightly less likely to drink milk (95% in both New South Wales and across Australia). The most common type of milk consumed by non-Indigenous Australians was also whole milk, though consumed by a much smaller proportion of the population (47% in New South Wales and 45% across Australia).
- The proportion of Indigenous Australians reporting usually adding salt after cooking was slightly lower in New South Wales (43%) than in Australia (46%).

Fruit and vegetable intake

The National Health and Medical Research Council guidelines recommend the minimum of five serves of vegetables per day and two serves of fruit per day for adults aged 19 and over. The guidelines also recommend the minimum daily intake of vegetables and fruit for children and adolescents according to age. For those aged 4–7, the recommended daily intake is two serves of vegetables and one serve of fruit; for those aged 8–11, the recommended daily intake is three serves of vegetables and one of fruit; for those aged 12–18, the recommended daily intake is four serves of vegetables and three of fruit.

- In 2004–05, among Indigenous Australians aged 12 and over living in non-remote areas of New South Wales, 13% reported having the recommended daily intake of vegetables and 36% the recommended daily intake of fruit. The same proportion of non-Indigenous Australians in these areas reported having the recommended daily intake of vegetables (13%) and a higher proportion reported having the recommended daily intake of fruit (51%) (Figure 2.23.1).

- Over the same period and across non-remote areas of Australia, a slightly higher proportion of non-Indigenous Australians reported having the recommended daily intake of vegetables, and a much higher proportion reported having the recommended daily intake of fruit when compared with Indigenous Australians (Figure 2.23.1).
- In 2008, of Indigenous children aged 4 to 14 living in non-remote areas of New South Wales, 43% reported having the recommended daily intake of vegetables and 74% the recommended daily intake of fruit. These percentages were similar to those reported for non-remote areas of Australia (43% and 74%, respectively) (Figure 2.23.2).

Table 2.23.1: Selected dietary habits, by Indigenous status, people aged 12 and over, New South Wales and Australia, 2004-05

Dietary behaviours	New South Wales		Australia	
	Indig.	Non-Indig.	Indig.	Non-Indig.
	%	%	%	%
Vegetable intake				
Eats vegetables daily	99	99	95	99
Does not eat vegetables daily	1	1	5	1
<i>Total^(a)</i>	100	100	100	100
Fruit intake				
Eats fruit daily	88	93	86	93
Does not eat fruit daily	12	7	14	7
<i>Total^(a)</i>	100	100	100	100
Usual type of milk consumed				
Whole	78	47	79	45
Low/reduced fat	11	27	11	31
Skim	6	14	5	13
<i>Total drinks milk^(b)</i>	96	95	96	95
Does not drink milk	4	5	4	5
<i>Total^(c)</i>	100	100	100	100
Salt added after cooking				
Never/rarely	34	..	30	..
Sometimes	23	..	25	..
Usually	43	..	46	..
<i>Total^(d)</i>	100	..	100	..

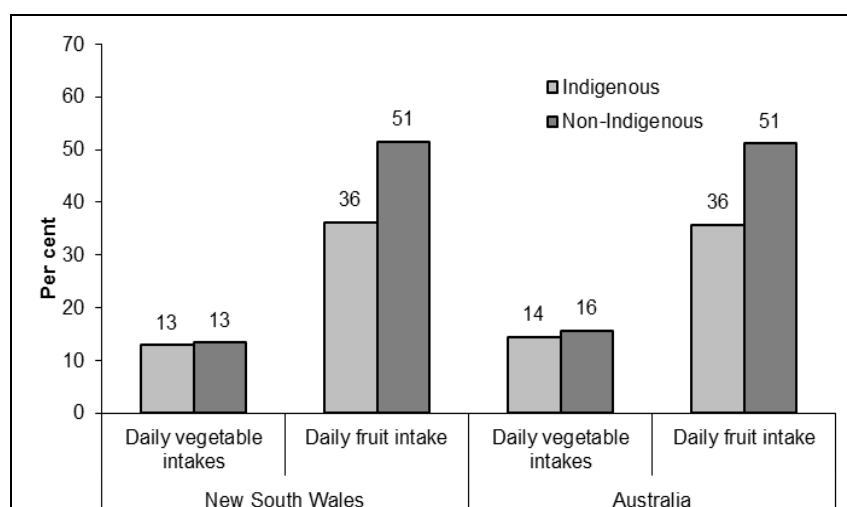
(a) Includes 'whether eats fruit/vegetables' not known.

(b) Includes 'soy milk' and other types of milk.

(c) Includes 'usual type of milk' not known.

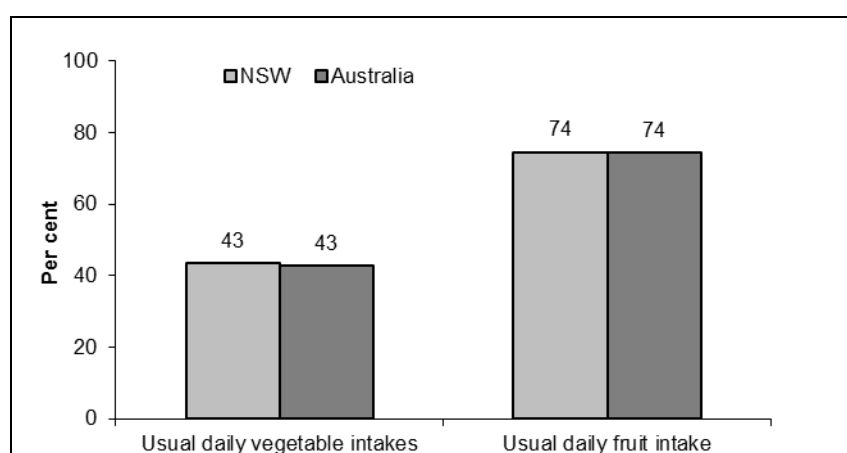
(d) Includes 'frequency salt is added after cooking' not known.

Source: ABS and AIHW analyses of NATSIHS 2004-05 and NHS2004-05.



Source: AIHW analyses of NATSIHS 2004–05 and NHS 2004–05.

Figure 2.23.1: Percentage of Australians aged 12 and over reporting having their commended usual daily intake of vegetables and fruit, by Indigenous status, *Non-remote* areas, New South Wales and Australia, 2004-05



Source: AIHW analyses of NATSISS 2008.

Figure 2.23.2: Percentage of Indigenous Australian children aged 4–14 reporting having the recommended usual daily intake of vegetables and fruit, *Non-remote* areas, New South Wales and Australia, 2008

2.24 Breastfeeding practices

The breastfeeding status of Aboriginal and Torres Strait Islander infants, breastfeeding duration, breastfeeding and other sources of food and reasons why mothers stopped breastfeeding

Breastfeeding status

- In 2008 in New South Wales and the Australian Capital Territory, about 69% of Indigenous infants aged 0–3 had ever been breastfed compared with 77% of Indigenous infants of the same age in Australia; about 13% of Indigenous infants aged 0–3 in New South Wales and the Australian Capital Territory were currently being breastfed compared with 21% of Indigenous infants of the same age in Australia; and the median age at which Indigenous children stopped being completely breastfed was 13 weeks in New South Wales and the ACT, compared with 17 weeks in Australia.

Table 2.24.1: Breastfeeding status, Indigenous infants aged 0–3 years, New South Wales/Australian Capital Territory and Australia, 2008

Breastfeeding measure	NSW/ACT	Australia
	Proportion (%)	
Child breastfed		
Currently breastfeeding	12.7	20.7
Not currently breastfeeding		
Age child stopped being completely breastfed		
Less than 6 months	38.6	33.7
Between 6 and 12 months	11.9*	10.4
12 months or older	4.5*	11.6
Total ^(a)	55.8	56.6
Ever breastfed ^(b)	68.5	77.3
Never breastfed	31.5	22.7
Total^(c)	100.0	100.0
Total People	16,133	52,648
Median age at which child stopped being completely breastfed (weeks) ^(d)	13	17
Mean age at which child stopped being completely breastfed (weeks)	18	27

* Estimate has a relative standard error between 25% and 50% and should be used with caution.

(a) Includes age at which child stopped breastfeeding not stated.

(b) Includes not known if child currently breastfed.

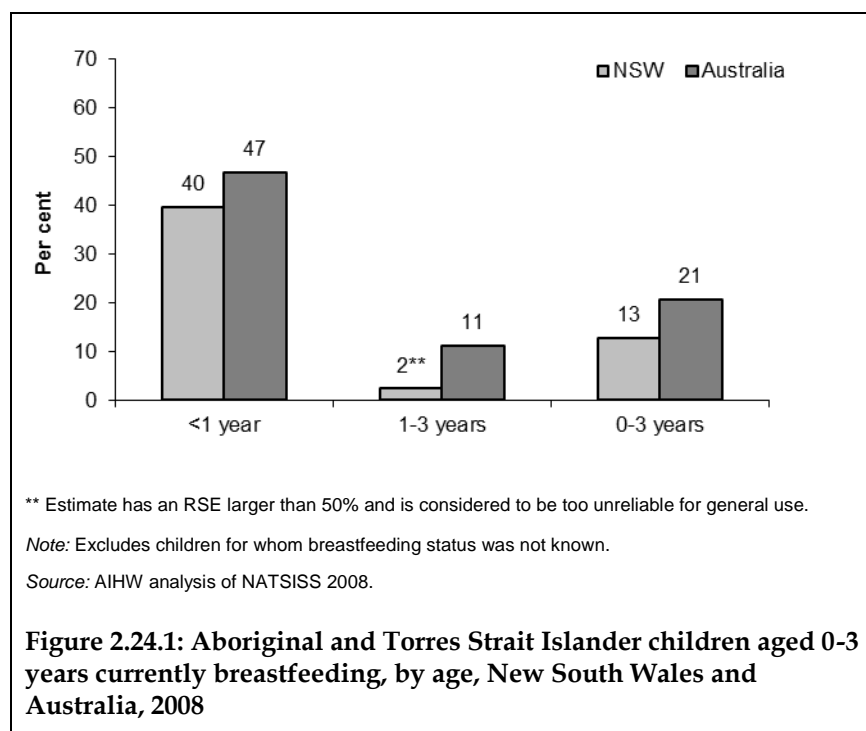
(c) Excludes children for whom breastfeeding status was not known.

(d) Median provides a more reliable measure of breastfeeding duration.

Source: NATSISS 2008.

Breastfeeding status by age

- In 2008, 40% of Indigenous infants under 1 year old in New South Wales were currently breastfed, lower than the rate reported across Australia (47%).



Age at which first given solid food

- In 2008, among Indigenous infants aged 0–3 years in New South Wales, 45% were first regularly given solid food when they were between 3 and 6 months old, and 29% were first regularly given solid food when they were between 6 and 9 months old. These proportions were similar among Indigenous infants of the same age across Australia (43% and 30%, respectively).
- A smaller proportion of Indigenous infants aged 0–3 years in New South Wales were regularly given solid food compared with Indigenous infants of the same age across Australia (74% and 91%, respectively).

Table 2.24.2: Age at which first regularly given solid food, Indigenous infants aged 0–3 years, New South Wales and Australia, 2008

	New South Wales	Australia
Less than 3 months	3.1*	4.7
3 to <6 months	45.2	43.1
6 to <9 months	28.6	30.1
9 months or more	4.4*	8.1
Age not known	7.3*	4.9
<i>Total given solid food^(a)</i>	73.9	90.9
Solid food not given	11.3*	9.1
Total^(b)	100.0	100.0

* Estimate has an RSE between 25% and 50%, and should be used with caution.

(a) Children who have been given solid food regularly.

(b) Excludes whether given solid food 'unknown'.

Source: AIHW analysis of NATSISS 2008.

2.25 Unsafe sexual practices

Proportion of Aboriginal and Torres Strait Islander peoples engaging in unsafe sexual practices

Teenage pregnancies

Teenage pregnancy is one proxy indicator of unsafe sexual practices. It does not measure all cases, just those involving pregnancies in the under 20 age group. It should be noted that not all unsafe sexual practices result in teenage pregnancy and not all teenage pregnancies would be unplanned. So this proxy measure overestimates unplanned pregnancies and underestimates all cases of unsafe sexual practices.

- In 2005–07, there were 1,647 women in New South Wales who gave birth aged less than 20 who identified as Aboriginal or Torres Strait Islander. This represented 20% of all Indigenous mothers at a rate of 40 per 1,000 women aged 12 to 20. In comparison, only 3% of all non-Indigenous mothers were aged less than 20 at a rate of 9 per 1,000 women (Table 2.25.1).
- The rate of Indigenous women aged less than 20 who gave birth was lower in New South Wales than the national rate (40 compared with 47 per 1,000 women).

Table 2.25.1: Women aged less than 20 who gave birth, by Indigenous status, New South Wales and Australia^{(a)(b)}, 2005–07

	Number		Per cent		Rate per 1,000 women aged 12 to <20 ^(c)		
	Indigenous	Non-Indigenous	Indigenous	Non-Indigenous	Indigenous	Non-Indigenous	Ratio
NSW	1,647	8,860	19.9	3.3	40.3	8.6	4.7
Aust^(d)	6,396	29,243	20.7	3.6	46.9	9.2	5.1

(a) Based on state/territory of usual residence.

(b) Excludes missing, non-Australian resident and not stated Australia residents.

(c) Based on Australian female population aged 15–44. Rates will be calculated when ERP data available.

(d) Includes missing, non-Australian resident, not stated and not stated Australia residents.

Note: Excludes not stated Indigenous status.

Source: AIHW analyses of NPSU National Perinatal Data Collection.

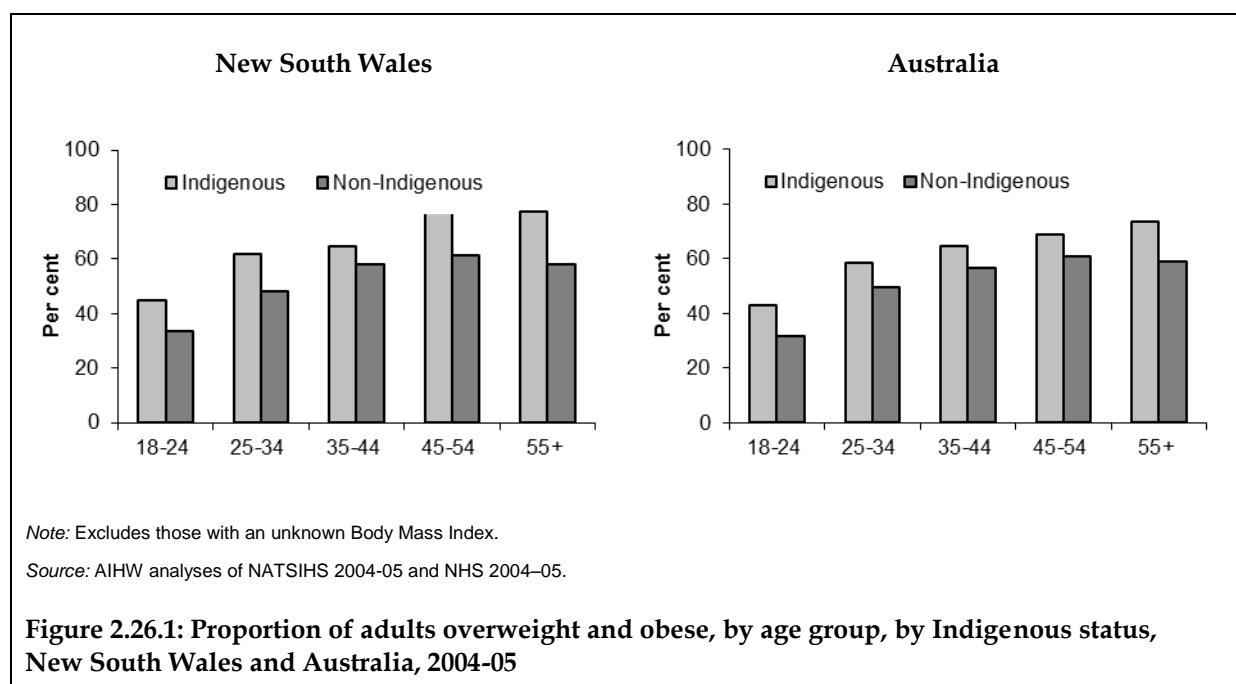
2.26 Prevalence of overweight and obesity

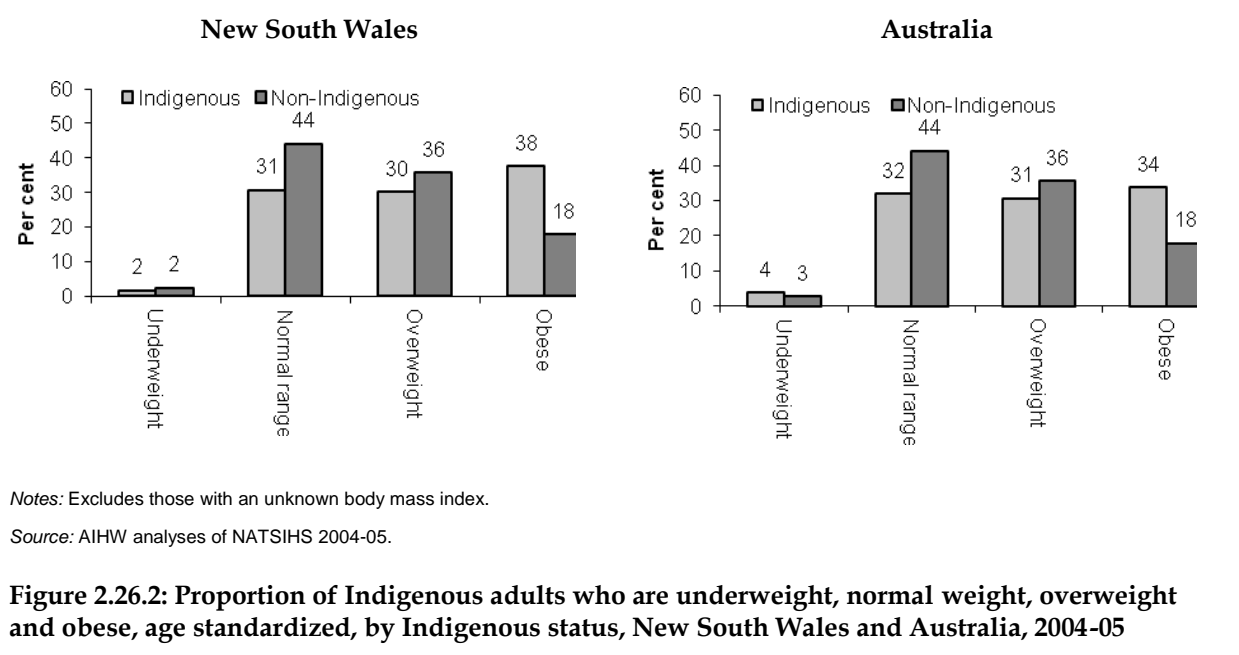
The prevalence of overweight and obesity among Aboriginal and Torres Strait Islander adults and children

Body Mass Index (BMI), which is calculated by dividing weight in kilograms by height in metres squared, is used to assess overweight and obesity levels. The normal range of BMI is between 18.5 and 25. A person is underweight if his/her BMI is less than 18.5, or overweight if the BMI is equal to or over 25. A person is obese if the BMI is equal to or over 30.

Prevalence of overweight and obesity

- In 2004-05, a higher proportion of Indigenous adults were overweight or obese than non-Indigenous adults across all age groups (Figure 2.26.1).
- In New South Wales, Indigenous and non-Indigenous adults aged 45-54 were most likely to be overweight or obese (around 78% for Indigenous and 61% for non-Indigenous).
- After adjusting for differences in age structure, about 2% of Indigenous adults in New South Wales whose Body Mass Index was known were underweight, 31% were of acceptable weight, 30% were overweight and 38% were obese. This compared with 2%, 44%, 36% and 18% for non-Indigenous adults in New South Wales in these BMI categories respectively (Figure 2.26.2).
- A similar proportion of Indigenous adults in New South Wales and Australia were overweight and a higher proportion of Indigenous adults in New South Wales than Australia were obese.



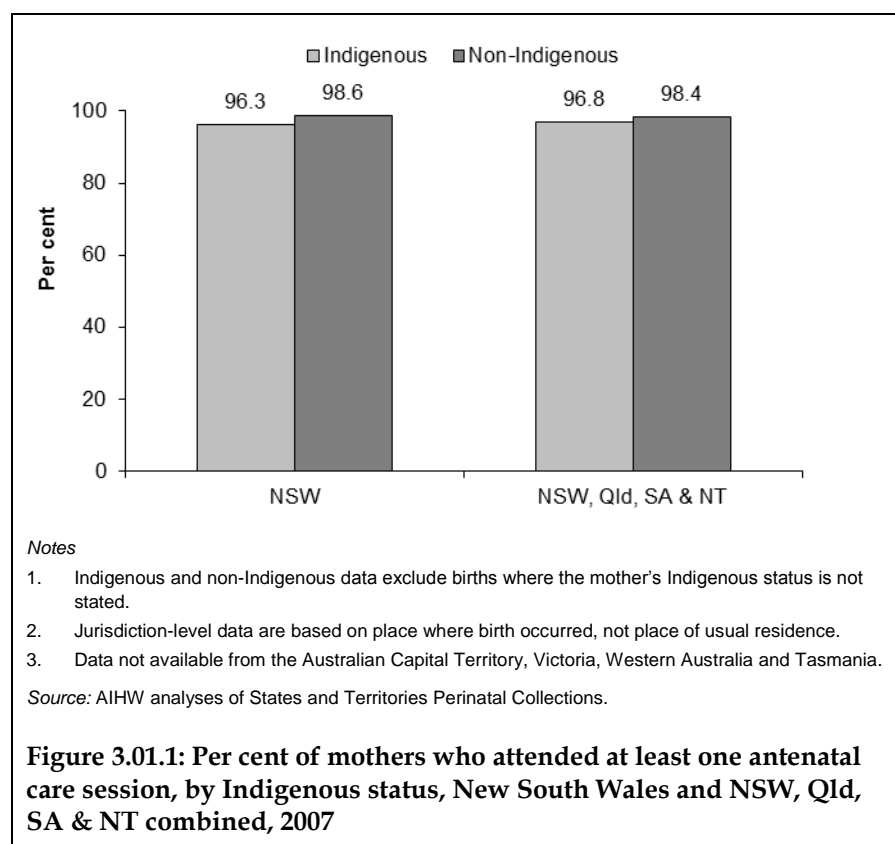


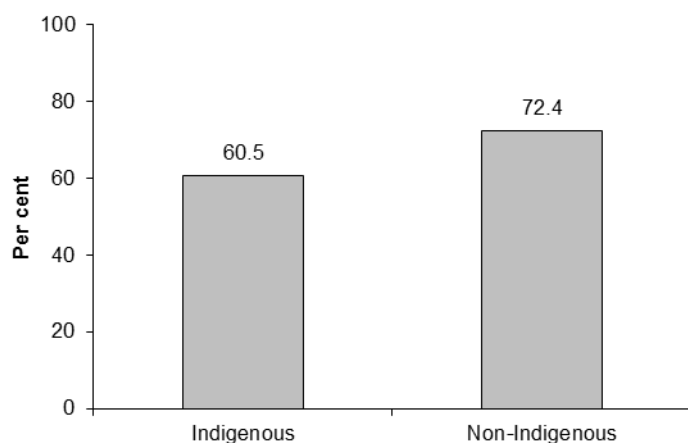
Health system performance (Tier 3)

3.01 Antenatal care

Number, rate and percentage of Indigenous women who utilised antenatal care provided by skilled birth attendants for reasons related to pregnancy at least once during pregnancy among all women who gave birth whether resulting in a live or still birth, if the birthweight is at least 400 grams or the gestational age is 20 weeks or more

- In 2007 in New South Wales 96.3% of Indigenous mothers and 98.6% of non-Indigenous mothers attended at least one antenatal care session during pregnancy. These proportions were similar to those reported for New South Wales, Queensland, South Australia and the Northern Territory combined (Figure 3.01.1).
- In New South Wales, the proportion of Indigenous mothers attending their first antenatal care session in the first trimester of pregnancy was lower than for non-Indigenous mothers (61% compared to 72%) (Figure 3.01.2).
- Between 1998 and 2007 in New South Wales, the rate of Indigenous mothers who attended at least one antenatal care session during pregnancy increased 3.1%, while the rate for non-Indigenous mothers declined but not significantly (Figure 3.01.3).
- Over the same period in New South Wales, Queensland and South Australia combined, the rates of Indigenous mothers and of non-Indigenous mothers who attended at least one such session increased 3.1% and 1.6% respectively.





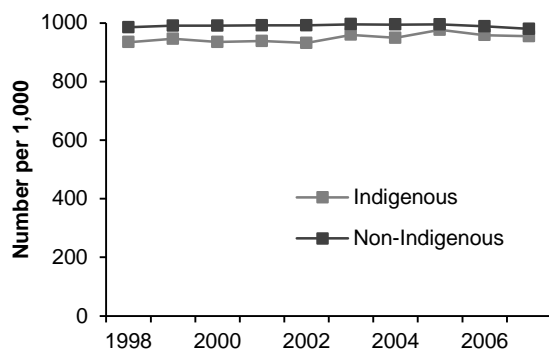
Notes

1. Indigenous and non-Indigenous data exclude births where the mother's Indigenous status is not stated.
2. Jurisdiction-level data are based on place where birth occurred, not place of usual residence.
3. Data not available from the Australian Capital Territory, Victoria, Western Australia and Tasmania. Data on timing of first antenatal care session attended not collected in Queensland or South Australia.

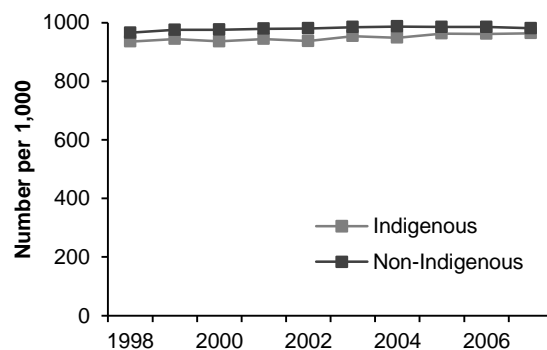
Source: AIHW analyses of States and Territories Perinatal Collections.

Figure 3.01.2: Per cent of mothers whose first antenatal care session occurred in the first trimester (<13 weeks), by Indigenous status, New South Wales, 2007

New South Wales



NSW, Qld & SA



Notes

1. Indigenous and non-Indigenous data exclude births where the mother's Indigenous status is not stated.
2. Jurisdiction-level data are based on place where birth occurred, not place of usual residence. Data not available from the Australian Capital Territory, Victoria, Western Australia and Tasmania. Time series data for the Northern Territory is not included due to a system error in 1998, 1999 and 2002 which resulted in no antenatal care data reported for these years.
3. Rate per 1,000 women who gave birth in the period, whether resulting in a live or still birth, if the birthweight is at least 400grams or the gestational age is 20 weeks or more.

Source: AIHW analyses of States and Territories Perinatal Collections.

Figure 3.01.3: Rate of mothers who attended at least one antenatal care session, by Indigenous status, New South Wales and NSW, Qld & SA combined, 1998-2007

3.02 Immunisation

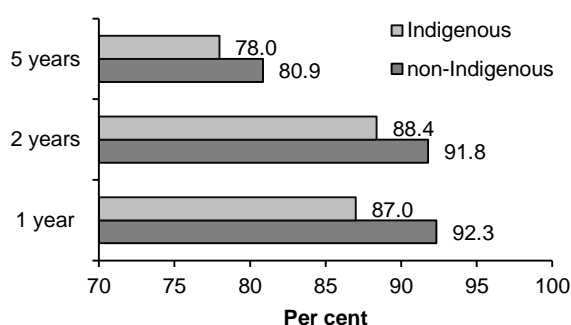
Vaccination coverage rates among Indigenous Australian children and adults

Childhood immunisation

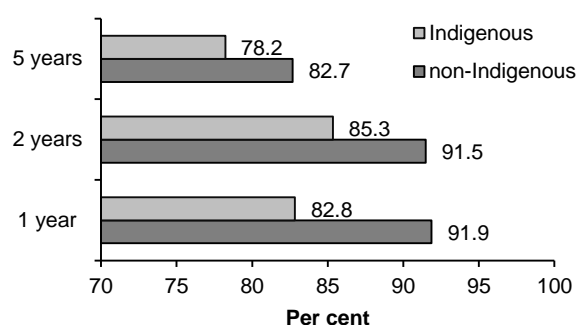
The vaccination schedule for children in 2010 can be found in the Aboriginal and Torres Strait Islander Health Performance Framework report (AIHW 2011).

- At 31 December 2009, the proportion of Aboriginal and Torres Strait Islander children in New South Wales who were fully immunised was lower than that of other children at 1 year old (87% compared with 92%), 2 years old (88% compared with 92%) and 5 years old (78% compared with 81%). The same pattern was evident for New South Wales, Victoria, Western Australia, South Australia and the Northern Territory combined (Figure 3.02.1).
- Between 2001 and 2009 in New South Wales, there was no significant increase or decrease in the proportion of Aboriginal and Torres Strait Islander children who were fully vaccinated at 1 and 2 years of age, while the proportion varied between 82% and 88% at 1 year of age and between 85% and 94% at 2 years of age. From 2008 to 2009, the proportion of Indigenous children aged 5 who were fully vaccinated increased 12% in New South Wales (Figure 3.02.2).
- In New South Wales, Victoria, Western Australia, South Australia and the Northern Territory combined, the proportion of Indigenous children aged 1 who were fully vaccinated was similar from 2001 to 2009, while the proportion of Indigenous children aged 2 varied with an 11% difference between the minimum and the maximum in this period. The proportion of Indigenous children aged 5 increased from 2008 to 2009.

New South Wales

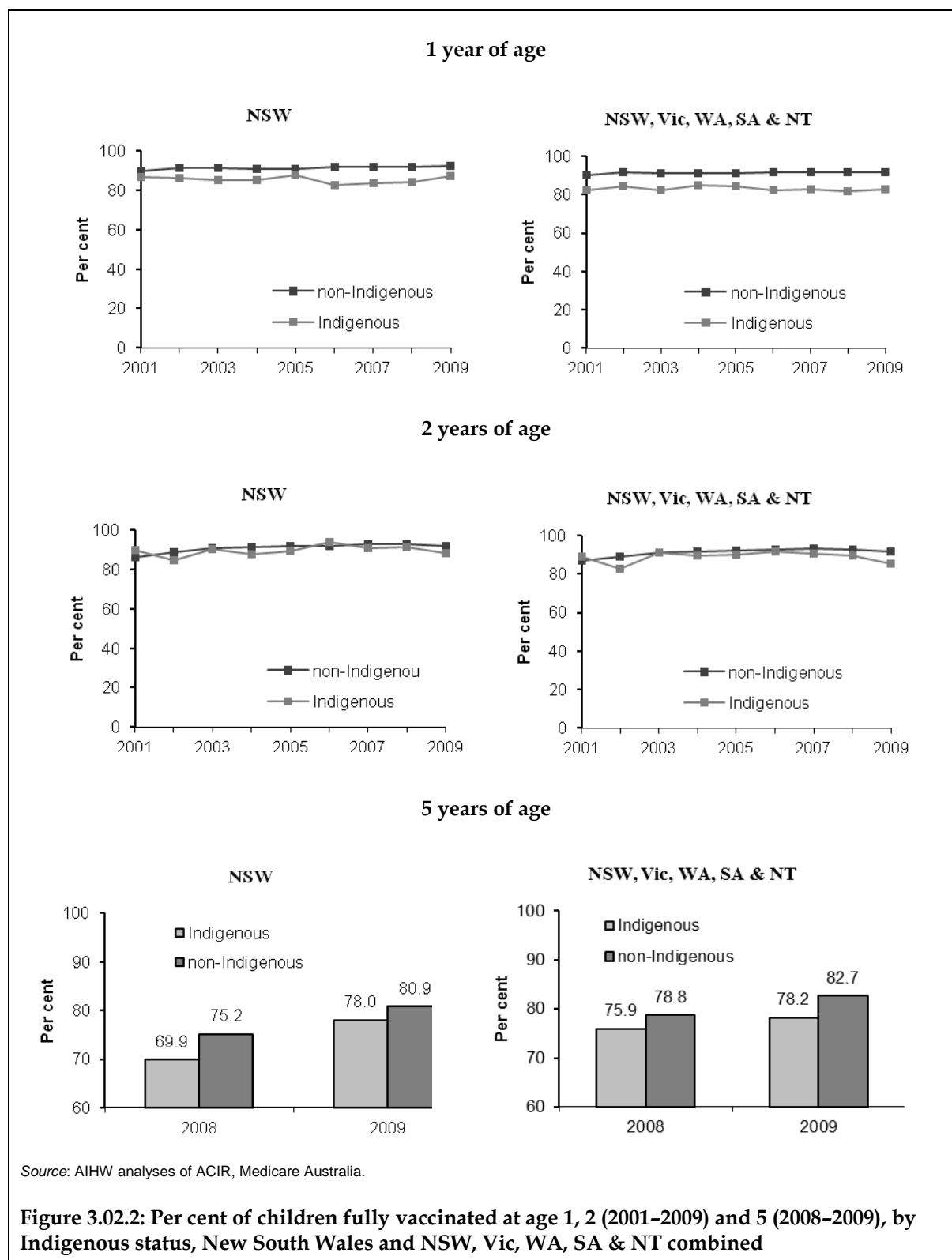


NSW, Vic, WA, SA & NT



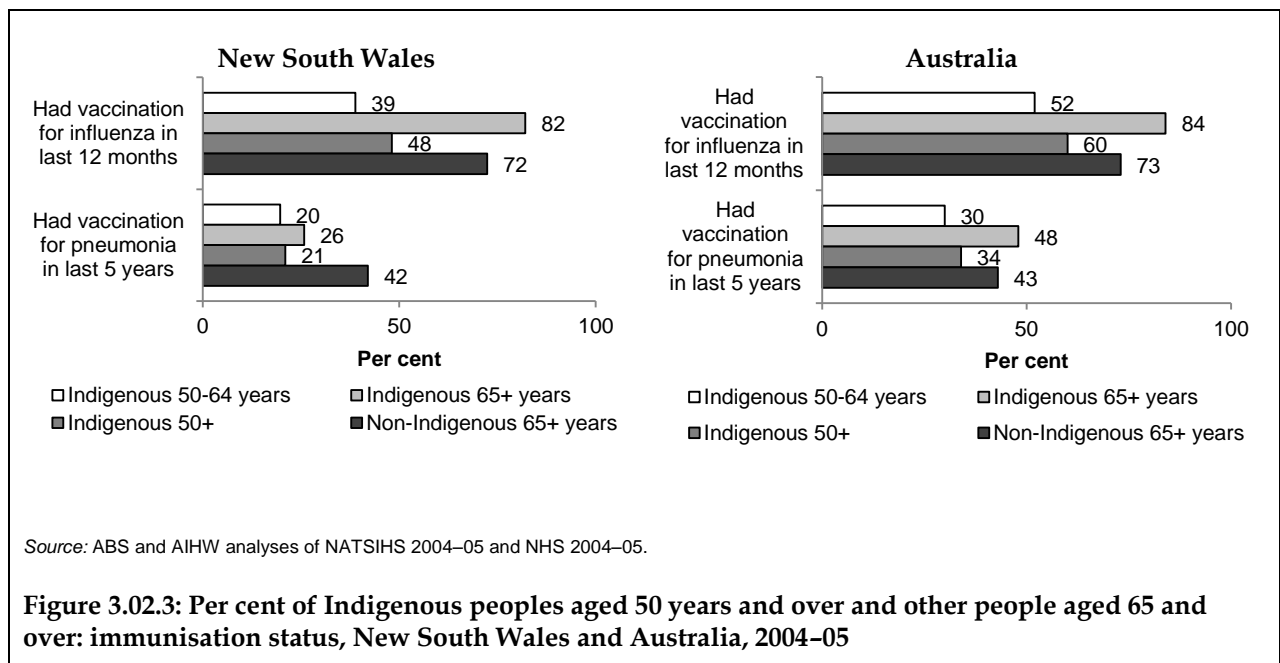
Source: AIHW analyses of Australian Childhood Immunisation Register (ACIR), Medicare Australia.

Figure 3.02.1: Per cent of Aboriginal and Torres Strait Islander children fully vaccinated at age 1, 2 and 5, New South Wales and NSW, Vic, WA, SA & NT combined, 2009



Adult immunisation

- In 2004–05, about 48% of Indigenous people aged 50 and over in New South Wales had been vaccinated against influenza in the last 12 months and 21% had been vaccinated against pneumonia in the last 5 years. These proportions were lower than those reported for Australia (60% and 34% respectively) (Figure 3.02.3).
- In New South Wales, a higher proportion (82%) of Indigenous people aged 65 and over had been vaccinated against influenza in the last 12 months than non-Indigenous people of the same age group (72%). This trend was also observed nationally (84% for Indigenous people and 73% for non-Indigenous people).
- In New South Wales, a lower proportion (26%) of Indigenous people aged 65 and over had been vaccinated against pneumonia in the last 5 years than their non-Indigenous counterparts (42%). This was different from the trend observed nationally (48% for Indigenous people and 43% for non-Indigenous people).

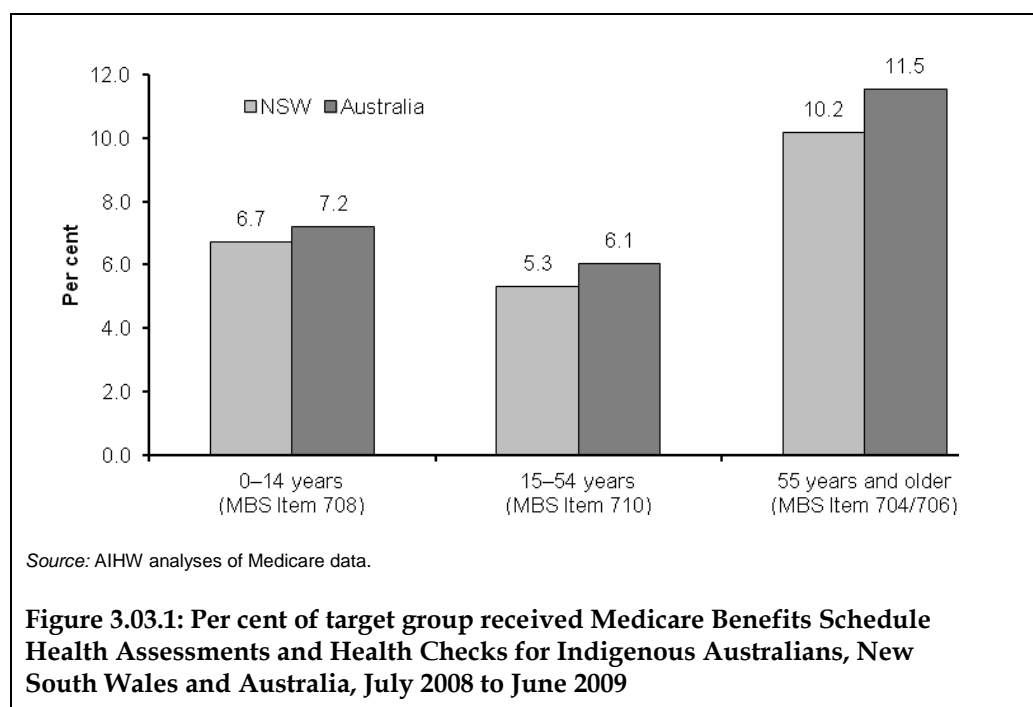


3.03 Early detection and early treatment of disease

The early detection and early treatment of disease among the Indigenous population measured by the health assessment and disease screening of Aboriginal and Torres Strait Islander peoples

Medicare Benefits Schedule health assessments/checks

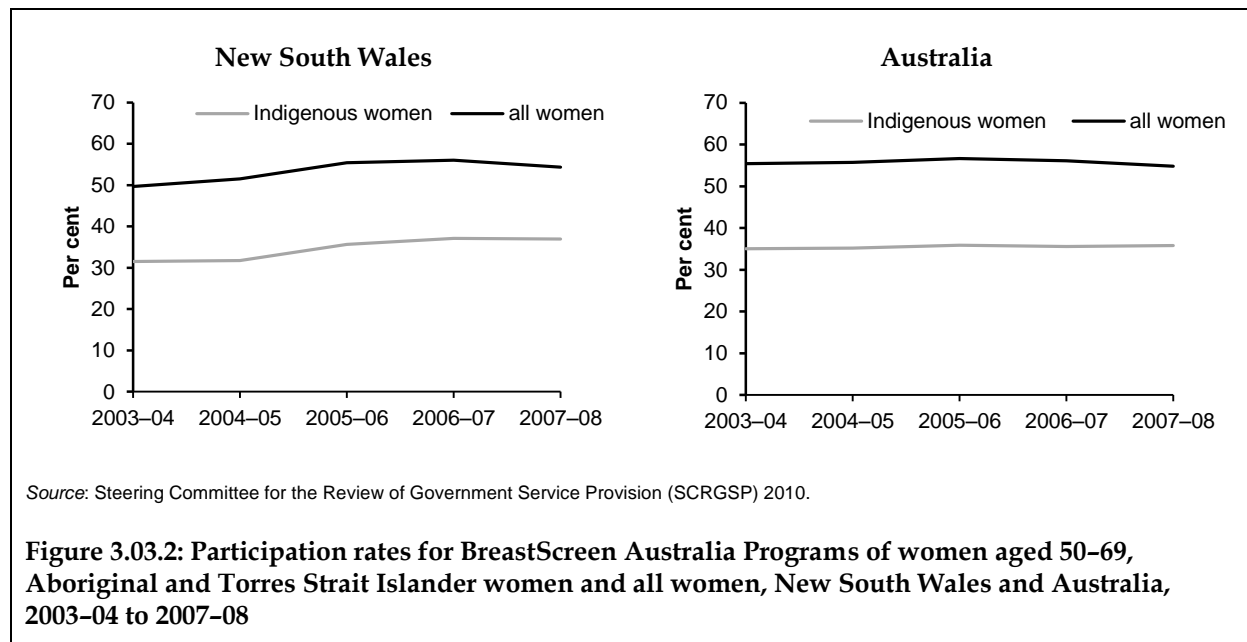
- In New South Wales during the period July 2008 to June 2009:
 - 6.7% of Indigenous children aged 0–14 had an annual child health check
 - 5.3% of Indigenous people aged 15–54 had a two-yearly health check
 - 10% of Indigenous people aged 55 and older had an annual health assessment
 - 24% of total people aged 75 and over had an annual health assessment.
- The proportions of Indigenous people who underwent a health check or health assessment at ages 0–14, 15–54 and 55 and over between July 2008 and June 2009 were slightly lower in New South Wales than those in Australia (Figure 3.03.1).



Breastscreening

- In 2007–08 in New South Wales, the proportion of Indigenous women aged 50–69 participating in the BreastScreen Australia program was markedly lower than the rate for all NSW women in that age group (37% compared with 54%). Nationally, 36% of Indigenous women and 55% of all women aged 50–69 participated in the program.
- From 2003–04 to 2007–08 in New South Wales, the proportion of Indigenous women who participated in the program increased from 32% to 37%, and the proportion of all women increased from 50% in 2003–04 to 56% in 2006–07 then decreased slightly to 54% in 2007–08 (Figure 3.03.2).

- Over the same period in Australia, the proportion of Indigenous women aged 50–69 participating in the program increased 2.3%, while for all women the proportion did not change significantly.

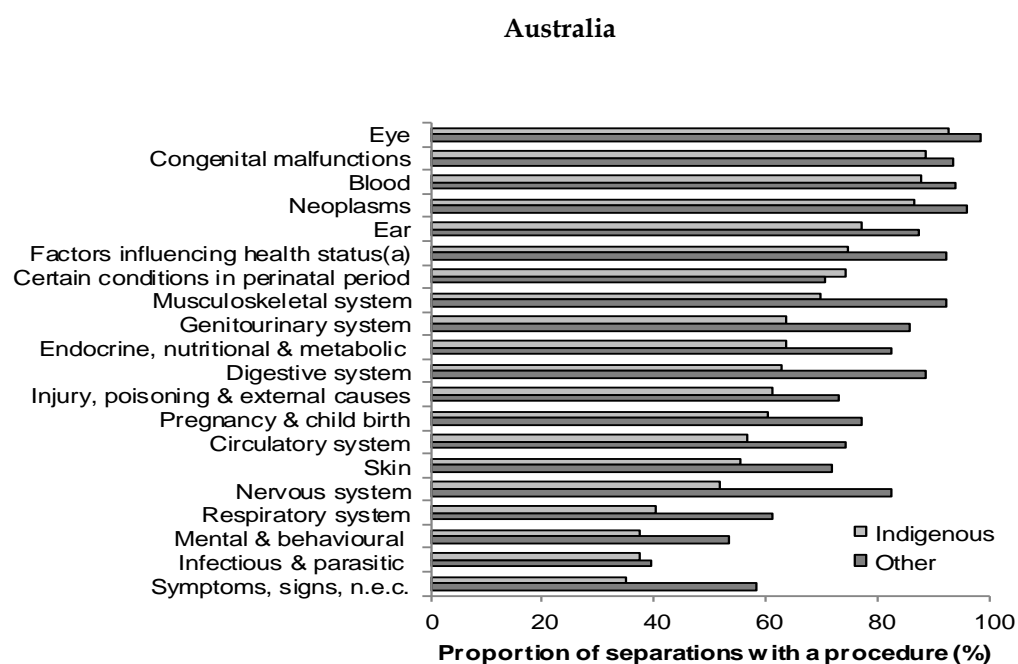
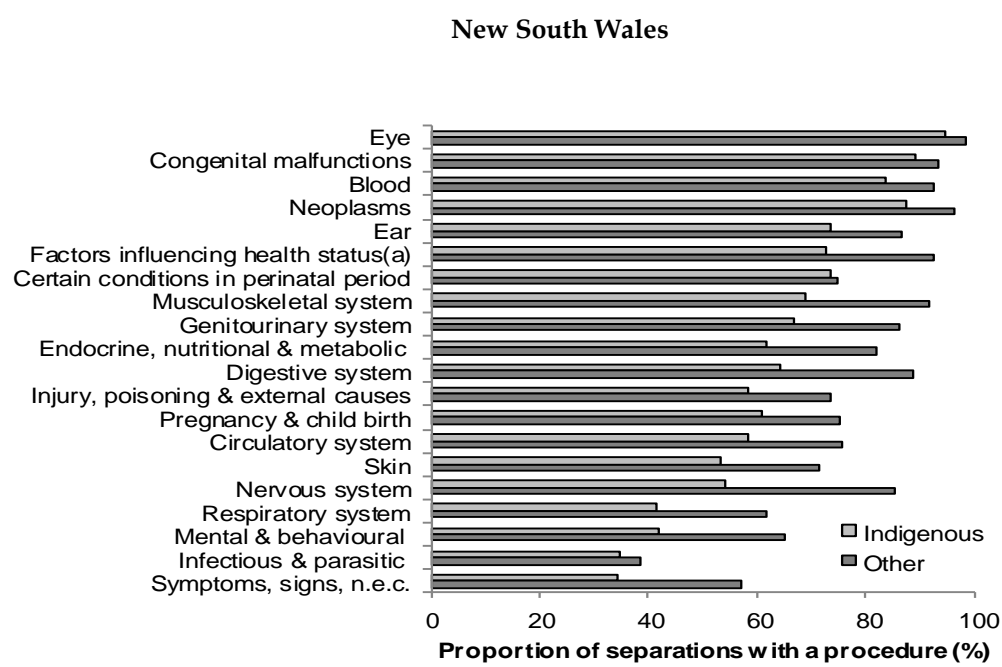


3.05 Differential access to key hospital procedures

The key hospital procedure differentials between Aboriginal and Torres Strait Islander peoples and other Australians as measured through standardised rates, ratios and rate differences in hospital separations with the same principal diagnosis

Studies have shown that while Aboriginal and Torres Strait Islander people are more likely to be hospitalised than other people they are less likely to receive a medical or surgical procedure while in hospital (ABS & AIHW 2008).

- Between July 2006 and June 2008 in New South Wales, overall a procedure was reported for about 58% of hospitalisations of Indigenous Australians compared with 81% of hospitalisations of other Australians. Nationally, these proportions were 59% for Indigenous and 81% for other Australians.
- In New South Wales, the proportion of hospital separations with a procedure reported by principal diagnosis was lower for Indigenous patients than for other patients for all of the diagnosis chapters. For diseases of the nervous system, a procedure accompanied 54% of separations for Indigenous patients compared with 85% of separations for other patients, while for certain conditions in the perinatal period, a procedure was reported for 74% for Indigenous patients and 75% for other patients (Figure 3.05.1).
- In Australia, the proportion of hospital separations with a procedure reported by principal diagnosis was lower for Indigenous patients than for other patients for most of the diagnosis chapters with the exception of certain conditions in the perinatal period.



Source: AIHW analyses of NHMD.

Figure 3.05.1: Per cent (age-standardised) of hospital episodes with a procedure reported, selected principal diagnoses, by Indigenous status, New South Wales and Australia, July 2006 to June 2008

3.06 Ambulatory care sensitive hospital admissions

The number of hospital admissions for ambulatory care sensitive conditions for Aboriginal and Torres Strait Islander people expressed as a rate by age group, age-standardised rate and ratio

Ambulatory care sensitive conditions can be broken down into three categories:

1. vaccine-preventable conditions, including influenza, pneumonia, tetanus, measles, mumps, rubella, diphtheria, pertussis and polio
2. potentially preventable acute conditions, including dehydration, gastroenteritis, kidney infection, perforated ulcer, cellulitis, pelvic inflammatory disease, ear, nose and throat infections, and dental conditions
3. potentially preventable chronic conditions, including diabetes, asthma, angina, hypertension, congestive heart failure and chronic obstructive pulmonary disease.

Hospitalisations by age

- In the 2-year period July 2006 to June 2008, Indigenous people in New South Wales were hospitalised for ambulatory care sensitive conditions at about three times the rate of other people in New South Wales (105 compared with 38 per 1,000). This was lower than the rate ratio of 5 for New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined.
- In the 2-year period July 2006 to June 2008, Indigenous people in New South Wales had higher hospitalisation rates than other people for ambulatory care sensitive conditions across all age groups. Differences in hospitalisation rates between Indigenous and other people were particularly marked in the 45–54 and 55–64 age groups, where Indigenous people were hospitalised at around five times the rate of other people. (Figure 3.06.1).
- In the same period in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, the hospitalisation rate for ambulatory care sensitive conditions among Indigenous people was also higher than the rate among other people across all age groups. For the 35–44, 45–54 and 55–64 age groups, the rate ratios between Indigenous people and other people were from 9 to 12.
- Hospitalisation rates for ambulatory care sensitive conditions for Indigenous people were lower in New South Wales than in the six jurisdictions combined across all age groups.

Hospitalisations by diagnosis

- In the 2-year period July 2006 to June 2008, diabetes complications were the most common ambulatory sensitive condition among Indigenous Australians in New South Wales (64 per 1,000 population), followed by chronic obstructive pulmonary disease (COPD) (11 per 1,000) and convulsions and epilepsy (6 per 1,000). Indigenous Australians were hospitalised at more than three and a half (3.6) times the rate of other Australians for diabetes complications and convulsions and epilepsy, and were hospitalised for COPD at 4.4 times the rate of other Australians. These three diagnoses were also the most common types of ambulatory care sensitive conditions for which Indigenous Australians in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined were hospitalised during this period (Table 3.06.1).
- In New South Wales, Indigenous Australians were hospitalised for potentially preventable chronic conditions at more than three (3.3) times the rate, and for potentially preventable acute and vaccine preventable conditions at about twice (1.8 and 2.3 times) the rate, of other Australians (Figure 3.06.2).
- Hospitalisation rates for Indigenous Australians for potentially preventable chronic conditions, vaccine preventable conditions and potentially preventable acute conditions were lower in New South Wales than in the six jurisdictions combined.

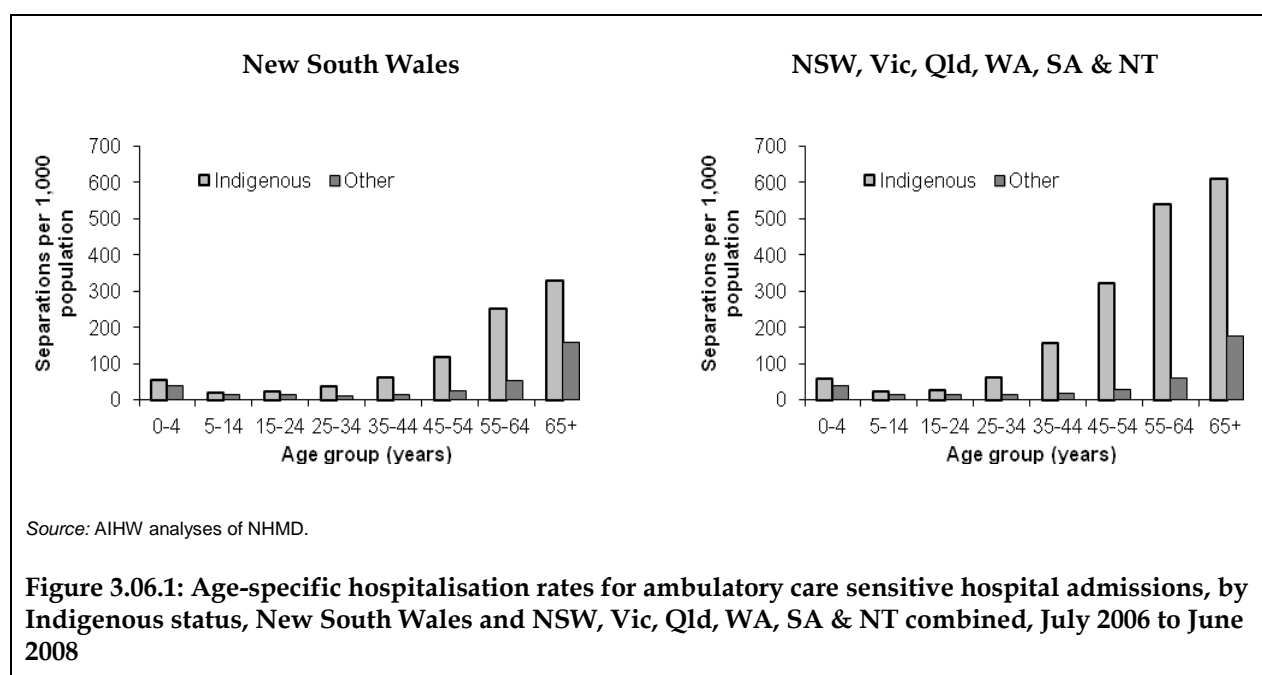


Table 3.06.1: Top 10 ambulatory care sensitive hospital admissions, by Indigenous status, New South Wales and NSW, Vic, Qld, WA, SA and NT combined, July 2006 to June 2008 ^{(a)(b)(c)(d)}

	Number		Rate per 1,000 ^(e)		Ratio ^(g)
	Indigenous	Other ^(f)	Indigenous	Other ^(f)	
New South Wales					
Diabetes complications	9,729	263,527	64.3	17.6	3.6*
Convulsions and epilepsy	1,608	21,334	5.7	1.6	3.6*
Chronic obstructive pulmonary disease	1,368	37,602	10.9	2.5	4.4*
Ear, nose and throat infections	1,234	20,997	2.9	1.6	1.8*
Dental problems	1,040	30,650	2.6	2.3	1.1*
Cellulitis	853	21,968	3.2	1.5	2.1*
Asthma	1,244	24,490	3.7	1.9	2.0*
Pyelonephritis	798	30,994	3.9	2.1	1.8*
Angina	701	21,607	4.4	1.4	3.0*
Congestive cardiac failure	517	28,930	4.5	1.9	2.4*
<i>Subtotal</i>	<i>19,092</i>	<i>502,099</i>	<i>106.2</i>	<i>34.6</i>	<i>3.1*</i>
Total^(h)	19,802	553,455	105.3	38.4	2.7*
NSW, Vic, Qld, WA, SA & NT					
Diabetes complications	82,788	863,248	165.2	20.3	8.1*
Convulsions and epilepsy	6,034	57,173	7.0	1.5	4.8*
Chronic obstructive pulmonary disease	4,928	108,919	11.8	2.5	4.6*
Ear, nose and throat infections	4,171	62,769	3.1	1.6	1.9*
Dental problems	4,115	105,302	3.1	2.7	1.1*
Cellulitis	3,911	63,349	4.6	1.5	3.0*
Asthma	3,850	67,979	3.7	1.8	2.1*
Pyelonephritis	3,793	90,787	6.1	2.2	2.8*
Angina	2,534	73,118	5.2	1.7	3.0*
Congestive cardiac failure	2,480	84,418	5.9	2.0	3.0*
<i>Subtotal</i>	<i>118,604</i>	<i>1,577,062</i>	<i>215.7</i>	<i>37.9</i>	<i>5.7*</i>
Total^(h)	120,308	1,749,006	212.3	42.2	5.0*

* Represents results with statistically significant differences in the Indigenous/other comparisons at the $p < 0.05$ level.

(a) Data are from public and most private hospitals. Data exclude private hospitals in the Northern Territory.

(b) Categories are based on the ICD-10-AM (National Centre for Classification in Health 2006).

(c) Financial year reporting.

(d) Data are reported by state/territory of usual residence of the patient hospitalised and are for New South Wales, Victoria, Queensland, Western Australia, South Australia, and the Northern Territory only. These six jurisdictions are considered to have adequate levels of Indigenous identification, although the level of accuracy varies by jurisdiction and hospital. Hospitalisation data for these six jurisdictions should not be assumed to represent the hospitalisation experience in the other jurisdictions.

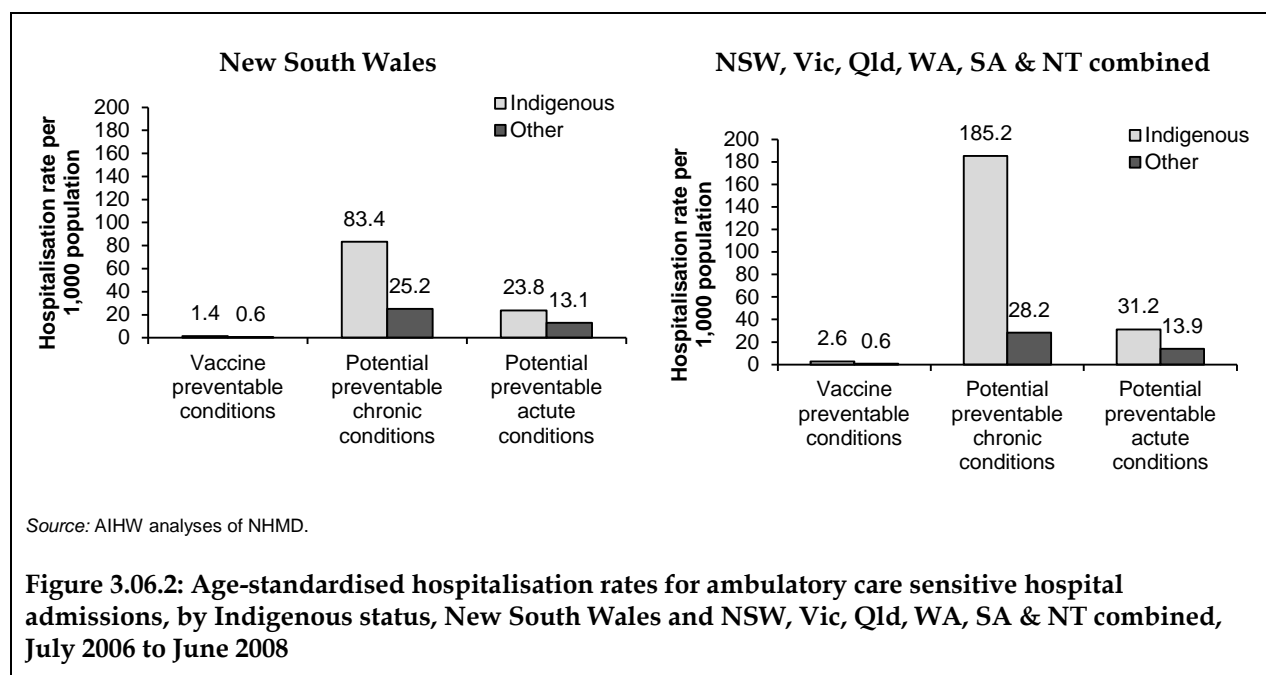
(e) Directly age standardised using the Australian 2001 standard population.

(f) Other includes hospitalisations of non-Indigenous people and those for whom Indigenous status was 'not stated'.

(g) Ratio - Indigenous: Other.

(h) All ambulatory care sensitive hospital admissions. Note that the sum of the number of hospitalisations for each condition exceeds the total as more than one ambulatory care sensitive condition can be diagnosed for each hospital separation.

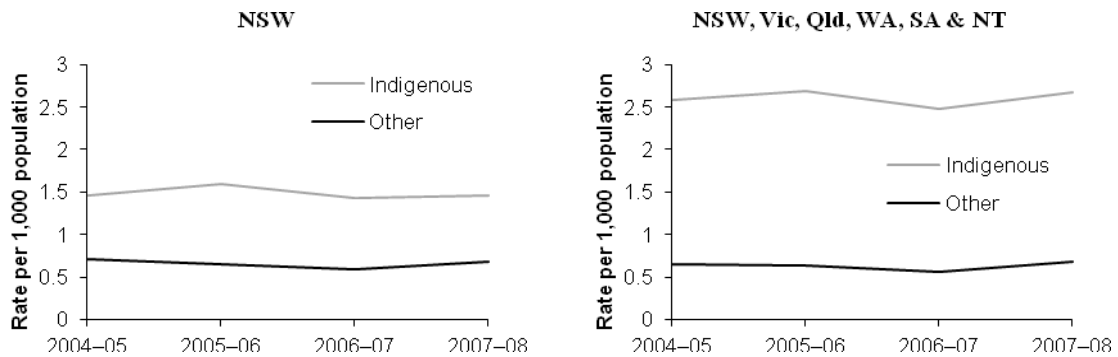
Source: Analyses of AIHW NHMD.



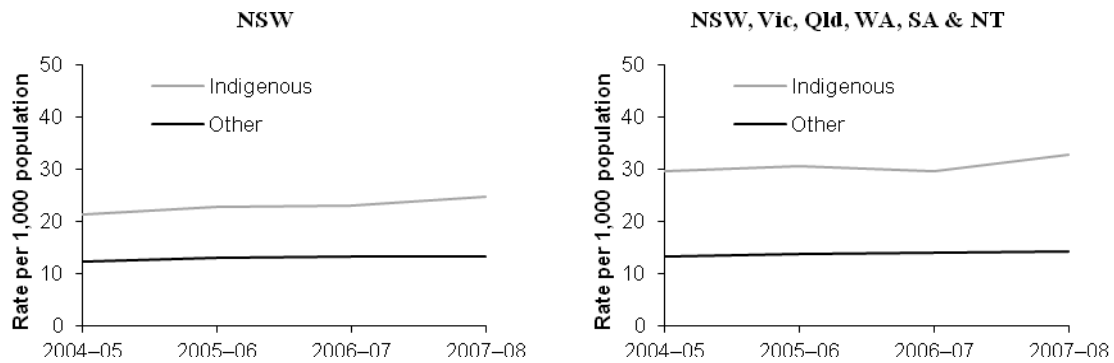
Hospitalisation trends

- Over the period 2004–05 to 2007–08 in New South Wales, the hospitalisation rates for vaccine preventable conditions showed no significant changes for either Indigenous or other people. The hospitalisation rates for potentially preventable acute conditions increased 16% from 21 to 25 per 1,000 population for Indigenous people, and 8% from 12.3 to 13.3 per 1,000 population for other people. The hospitalisation rates for potentially preventable chronic conditions increased 25% from 70 to 88 per 1,000 population for Indigenous people, and for other people the rate increased by 19% from 21 to 26 per 1,000 population. (Figure 3.06.3)
- Over the same period in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, there were no significant differences in hospitalisation rates for vaccine preventable conditions among Indigenous people, while among other people the rates varied from 0.6 to 0.7 per 1,000 with a difference of 22% between the minimum and the maximum. For potentially preventable acute conditions, the hospitalisation rates varied from 30 to 33 per 1,000 with 10% difference between the minimum and the maximum for Indigenous people, while it increased by 8% from 13 to 14 per 1,000 for other people. For potentially preventable chronic conditions, the hospitalisation rates increased for both Indigenous people and other people (by 30% for Indigenous people, by 18% for other people).

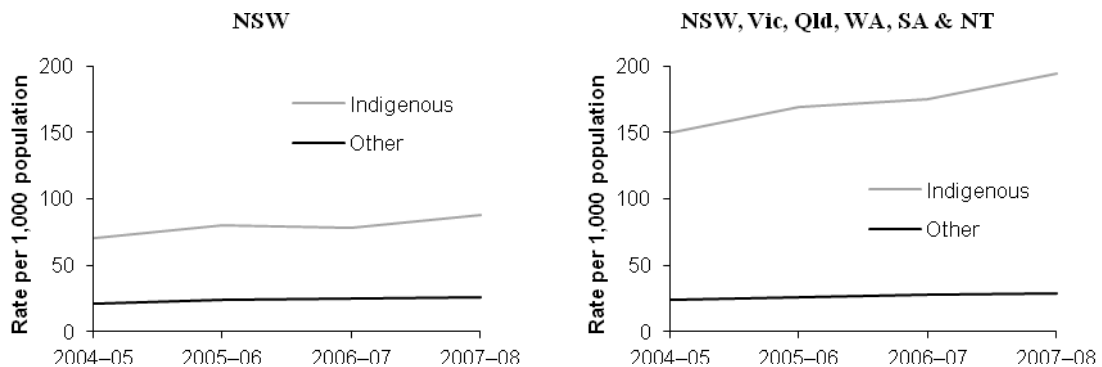
Vaccine-preventable conditions



Acute conditions



Chronic conditions



Source: AIHW analyses of NHMD.

Figure 3.06.3: Age-standardised hospitalisation rates for ambulatory care sensitive hospital admissions, by Indigenous status, New southWales and NSW, Vic, Qld, WA, SA & NT combined, 2004-05 to 2007-08

3.07 Health promotion

Interventions provided by clinicians and health promotion initiatives funded by governments and provided by a range of health professionals in the wider community for the Aboriginal and Torres Strait Islander population

Indigenous communities

The Community Housing and Infrastructure Needs Survey (CHINS) collects data from all Aboriginal and Torres Strait Islander housing organisations and discrete Aboriginal and Torres Strait Islander communities in Australia. The latest CHINS was enumerated from 1 March to 30 June 2006. In the 2006 CHINS, a community questionnaire collected detailed infrastructure information from all discrete Indigenous communities with a reported usual population of 50 people or more, as well as for communities that had a reported usual population of fewer than 50 people but which were not administered by a larger discrete Indigenous community or resource agency (375 communities). The 812 other communities had reported usual populations of fewer than 50 people and were asked a subset of questions from the community questionnaire form (the short community questionnaire ABS 2007).

For the 2006 Community Housing and Infrastructure Needs Survey, data on health promotion programs were collected only from communities that completed the long community questionnaire. The health promotion questions in the CHINS do not collect information on the extent or quality of these activities, only that they have occurred. Therefore, these data are limited in their contribution to our understanding of the health promotion activities occurring in these discrete Indigenous communities.

- In 2006, half of discrete Indigenous communities in New South Wales reported that one or more health promotion program had been conducted in the community, with women's health programs reported by 47% and immunisation programs by 43% of communities. One-third of discrete Indigenous communities in New South Wales reported that well babies programs, men's health programs, sexual health programs, substance misuse programs and nutrition programs had been run (Table 3.07.1, Figure 3.07.1).
- A lower proportion of health programs were conducted in discrete Indigenous communities in New South Wales than in Australia (50% compared with 67%).

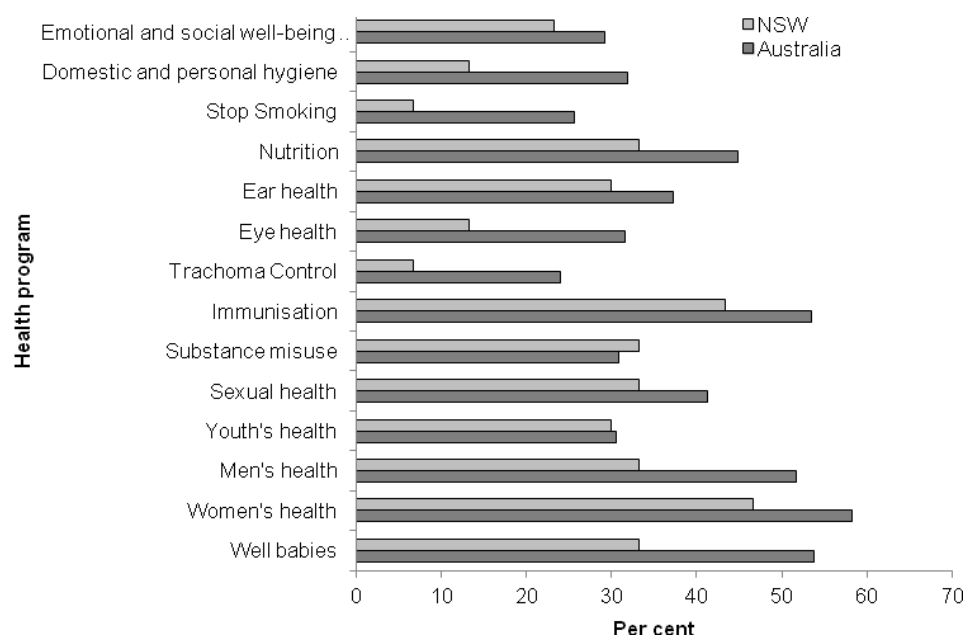
**Table 3.07.1: Discrete Indigenous communities^(a) located 10 kilometres or more from a hospital:
Selected health promotion programs conducted in community, New South Wales and Australia,
2006**

Health promotion program	NSW		Australia	
	No.	%	No.	%
Well babies	10	33.3	155	53.8
Women's health	14	46.7	168	58.3
Men's health	10	33.3	149	51.7
Youth's health	9	30.0	88	30.6
Sexual health	10	33.3	119	41.3
Substance misuse	10	33.3	89	30.9
Immunisation	13	43.3	154	53.5
Trachoma control	2	6.7	69	24.0
Eye health	4	13.3	91	31.6
Ear health	9	30.0	107	37.2
Nutrition	10	33.3	129	44.8
Stop Smoking	2	6.7	74	25.7
Domestic and personal hygiene	4	13.3	92	31.9
Emotional and social wellbeing or mental health	7	23.3	84	29.2
<i>Sub-total with at least one health promotion program</i>	<i>15</i>	<i>50.0</i>	<i>194</i>	<i>67.4</i>
<i>Sub-total with no health promotion programs</i>	<i>15</i>	<i>50.0</i>	<i>93</i>	<i>32.3</i>
Not stated	—	—	1	0.3
Total^(b)	30	100.0	288	100.0

(a) With a population of 50 or more, or a reported usual population of less than 50 but not linked to a parent community or resource agency.

(b) Excludes communities where distance to nearest hospital was not stated.

Source: AIHW analyses of ABS CHINS 2006.



Source: AIHW analyses of ABS CHINS 2006.

Figure 3.07.1: Discrete Indigenous communities^(a) located 10 kilometres or more from a hospital: Selected health promotion programs conducted in community, New South Wales and Australia, 2006

3.08 Discharge against medical advice

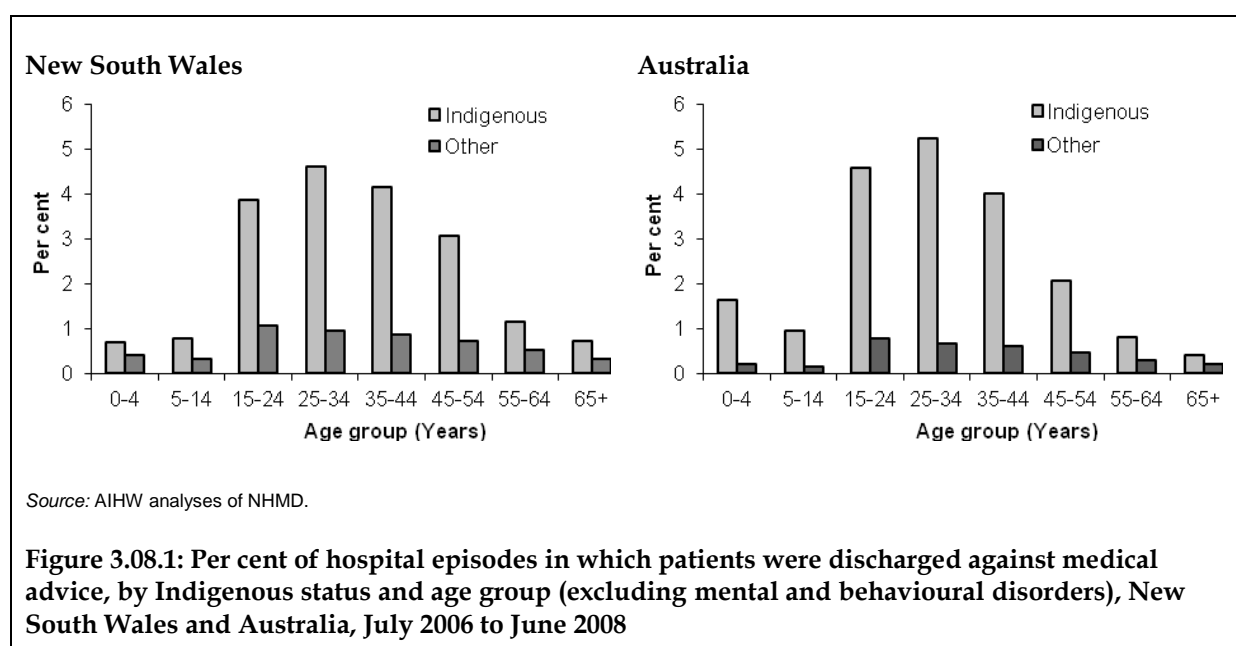
The rate at which Aboriginal and Torres Strait Islander peoples leave hospital against medical advice or are discharged at their own risk

Data for this measure come from the AIHW's National Hospital Morbidity Database. Hospitalisations for mental and behavioural disorders are excluded.

- Overall, for the 2-year period July 2006 to June 2008, 2.5% of hospitalisations of Indigenous Australians in New South Wales involved discharge against medical advice. This proportion was the same as for Indigenous Australians nationally.
- After adjusting for differences in age structure, Indigenous people were around four (3.9) times as likely as other people to discharge against medical advice in New South Wales. Nationally, the rate ratio was about six (5.9).

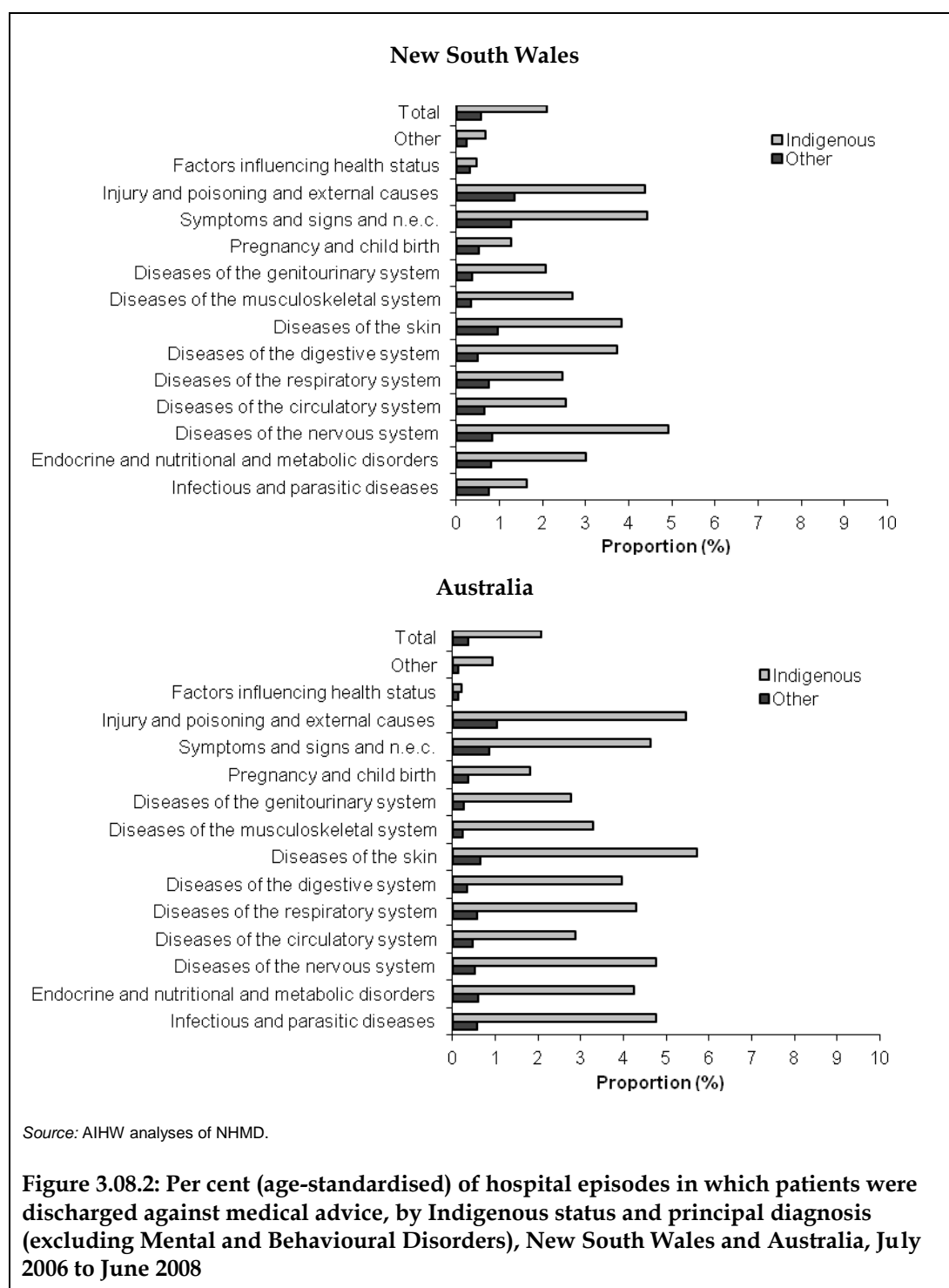
Hospitalisations by age

- For the 2-year period July 2006 to June 2008, Indigenous people in New South Wales were much more likely to discharge from hospital against medical advice than other people across all age groups. This same pattern was evident for Australia (Figure 3.08.1).
- In New South Wales, Indigenous people aged 25–34 were most likely to discharge from hospital against medical advice (4.6%). Indigenous people in this age group discharged against medical advice at almost five (4.9) times the rate of other people. In Australia, Indigenous people in this age group were also most likely to discharge against medical advice (5.2%, rate ratio of 7.8).



Hospitalisations by diagnosis

- For the 2-year period July 2006 to June 2008 in New South Wales, the most common principal diagnosis of hospitalisations for which Indigenous people discharged against medical advice was diseases of the nervous system, followed by symptoms and signs and abnormal findings (4.4%), and injury and poisoning (4.4%) (Figure 3.08.2).
- In New South Wales, the greatest disparities between proportions of hospitalisations involving discharge against medical advice for Indigenous and other Australians were for hospitalisations with a principal diagnosis of musculoskeletal conditions (ratio of 7.9) and digestive system diseases (ratio of 7.6).
- The proportion of hospitalisations resulting in discharge against medical advice for Indigenous people was lower in New South Wales than in Australia for most principal diagnosis categories, while the proportions in total are similar.

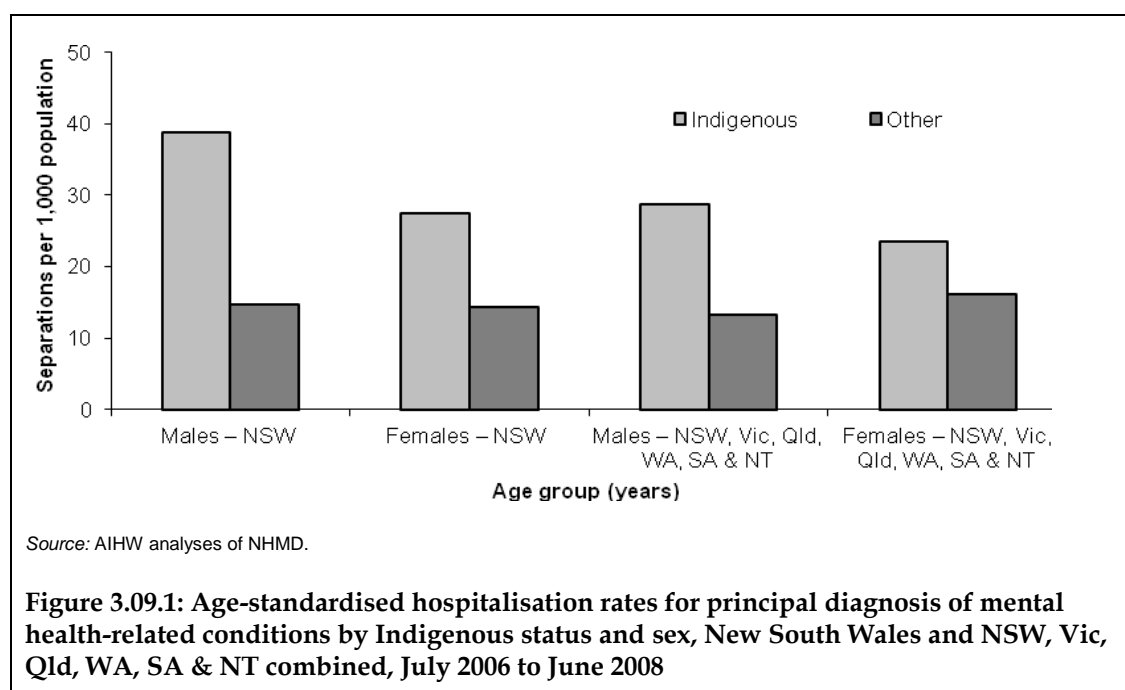


3.09 Access to mental health services

Access to mental health care services such as hospitals, community mental health care, doctors and Aboriginal and Torres Strait Islander Primary Health Care Services by Aboriginal and Torres Strait Islander peoples

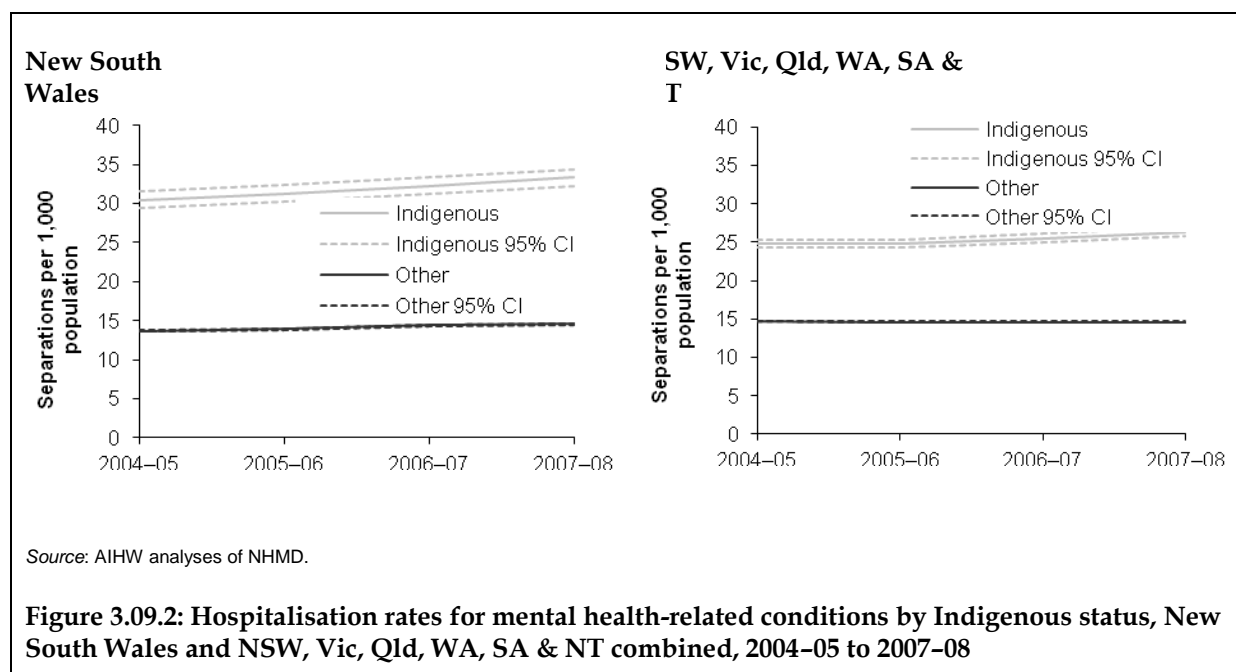
Hospitalisations

- In the 2-year period July 2006 to June 2008 in New South Wales, there were 8,696 hospitalisations of Indigenous people with a principal diagnosis of mental health-related conditions.
- Indigenous males and females were hospitalised for mental health-related conditions at a higher rate than other males and females: Indigenous males at around two and a half (2.6) times the rate of other males, and Indigenous females at about twice (1.9 times) the rate of other females (Figure 3.09.1).
- In New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined Indigenous males were hospitalised for mental health-related conditions at over twice (2.2 times) the rate of other males, whilst the rate for Indigenous females was one and a half times the rate of other females.
- Indigenous males and females in New South Wales were hospitalised for mental health-related conditions at a higher rate (39 and 27 per 1,000) than Indigenous males and females in the six jurisdictions combined (29 and 24 per 1,000).



Hospitalisation trends

- In New South Wales there were significant increases in hospitalisation rates for mental health-related conditions among Indigenous and other people during the period 2004–05 to 2007–08. The average yearly increase in the rate was 1.0 hospitalisation per 1,000 population for Indigenous people and 0.3 per 1,000 for other people.
- In New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined there was a significant increase in hospitalisation rates for mental health-related conditions among Indigenous people over the same period. There was no significant change in the hospitalisation rate of other people.
- There were significant increases in the hospitalisation rate ratios for mental health-related conditions between Indigenous and other Australians in New South Wales and in the six jurisdictions combined.



Community mental health care services

- In 2007–08 in New South Wales, there were 170,247 client contacts with community mental health services by people who identified as Aboriginal or Torres Strait Islander (8.2% of total service contacts in New South Wales). Indigenous people were 4.3 times as likely as other people to be clients of a community mental health service (1,231 per 1,000 compared to 284 per 1,000 population respectively) (Table 3.09.1).
- Nationally, Indigenous people were two and a half times as likely as other people to have contact with community mental health care services (737 compared to 294 per 1,000).

Table 3.09.1: Community mental health care service contacts per 1,000 population, by Indigenous status, New South Wales and Australia, 2007–08

	NSW	Australia
	Number	
Indigenous	170,247	362,429
Non-Indigenous	1,602,002	5,577,420
Not stated	300,191	434,418
Total	2,072,440	6,374,267
	Number per 1,000 population ^(a)	
Indigenous	1,231	737
Other Australians ^(b)	284	294
Ratio ^(c)	4.3	2.5
Total	303	304

(a) Rates were directly age-standardised using the Australian 2001 standard population.

(b) Other includes service contacts for non-Indigenous clients and those for whom Indigenous status was not stated.

(c) Rate ratio: Indigenous: other.

Note: Shading indicates that the Indigenous identification in the National Community Mental Health Care Database (NCMHCD) in these jurisdictions is in need of improvement. This is based on information provided by state and territory health authorities on the quality of their data in the NCMHCD. Data from these states and territories should be interpreted with caution due to likely under-identification of Indigenous Australians.

Source: AIHW National Community Mental Health Care Database (NCMHCD).

Residential mental health care services

- In 2007–08 in New South Wales, there were 27 client contacts with residential mental health services by people who identified as Aboriginal or Torres Strait Islander (8.9% of total service contacts in New South Wales). Indigenous people were around five (4.8) times as likely as non-Indigenous people to be clients of a residential mental health care service (1.9 per 1,000 compared with 0.4 per 1,000 respectively) (Table 3.09.2).
- In Australia Indigenous people were 1.3 times as likely as non-Indigenous people to be clients of a residential mental health care service (1.9 per 1,000 compared with 1.5 per 1,000 respectively).

Table 3.09.2: Residential mental health care service contacts per 1,000 population, by Indigenous status, New South Wales and Australia, 2007–08

	NSW	Australia
	Number	
Indigenous	27	87
Non-Indigenous	278	2,962
Not stated	0	173
Total	305	3,222
	Number per 1,000 population ^(a)	
Indigenous	1.9	1.9
Other Australians ^(b)	0.4	1.5
Ratio ^(c)	4.8	1.3
Total	0.4	1.5

(a) Rates were directly age-standardised using the Australian 2001 standard population.

(b) Other includes service contacts for non-Indigenous clients and those for whom Indigenous status was not stated.

(c) Rate ratio: Indigenous: other.

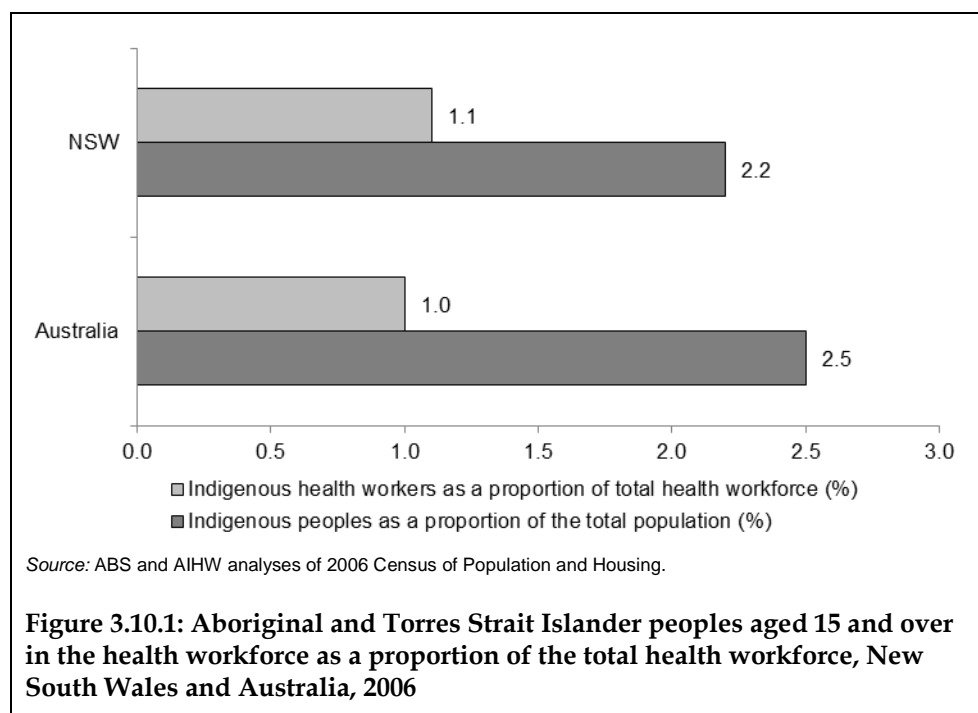
Note: Shading indicates that the Indigenous identification in the National Community Mental Health Care Database (NCMHCD) in these jurisdictions is in need of improvement. This is based on information provided by state and territory health authorities on the quality of their data in the NCMHCD. Data from these states and territories should be interpreted with caution due to likely under-identification of Indigenous Australians.

Source: AIHW National Residential Mental Health Care Database (NRMHCD).

3.10 Aboriginal and Torres Strait Islander Australians in the health workforce

Number and proportion of Aboriginal and Torres Strait Islander Australians in the health workforce

- In 2006, there were 1,743 people aged 15 and over in New South Wales who identified as Aboriginal or Torres Strait Islander who were employed in the health workforce.
- In 2006 in New South Wales, Aboriginal and Torres Strait Islander people aged 15 and over accounted for 1.1% of the total health workforce, which was less than the proportion of the New South Wales population that is Indigenous (2.2%).
- A similar pattern was observed nationally where Aboriginal and Torres Strait Islander people accounted for 1.0% of the total health workforce and represented 2.5% of the total population.



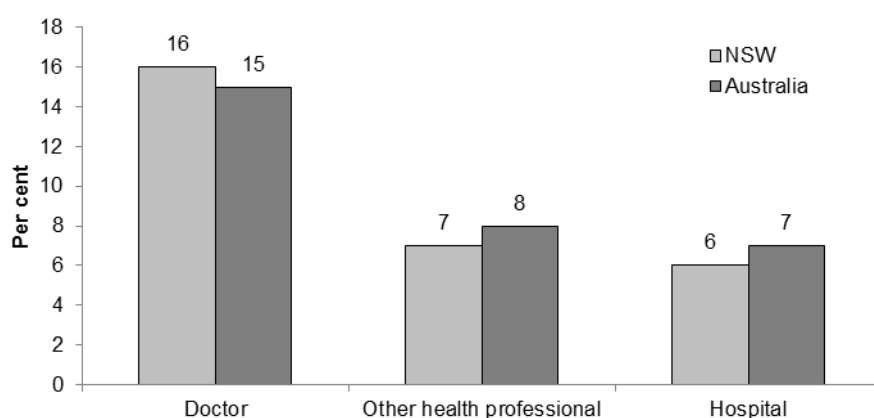
3.11 Competent governance

Measures of competent governance in mainstream and Indigenous-specific health services, including management of service delivery, compliance and accountability of services, and cultural responsiveness of service delivery for Indigenous clients

Experiences of not visiting a health professional when required

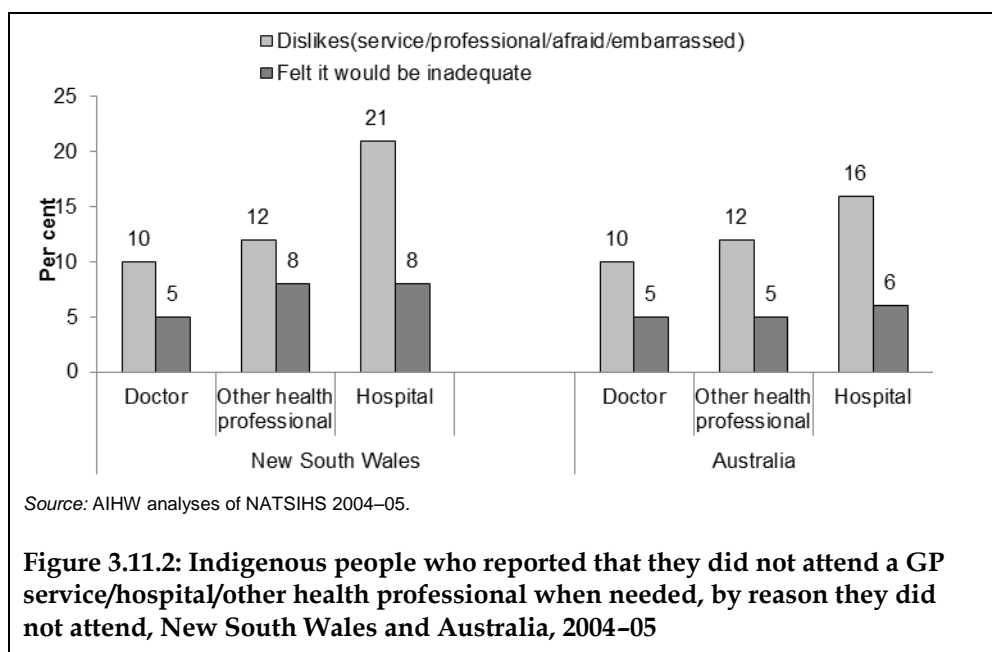
The 2004–05 National Aboriginal and Torres Strait Islander Health Survey collected data on the reasons why Indigenous Australians did not visit a doctor, hospital or other health professional in the last 12 months when they needed to.

- In 2004–05 in New South Wales, 16% of Indigenous Australians reported that they needed to, but didn't, visit a doctor in the last 12 months. Over the same period, 7% of Indigenous Australians reported that they did not visit other health professionals when they needed to and 6% reported that they did not visit a hospital when they needed to. These proportions are similar to those for Indigenous Australians nationally. (Figure 3.11.1).
- Of Indigenous Australians in New South Wales who needed to visit a doctor but didn't, about 10% reported that they did not go due to dislike of the service/professional, felt embarrassed or were afraid, and 5% that they did not go because they felt the service would be inadequate (Figure 3.11.2). Among those who needed to visit other health professionals but didn't, these proportions were 12% and 8% respectively; and among those who needed to visit a hospital but didn't, the proportions were 21% and 8% respectively.



Source: AIHW analyses of NATSIHS 2004–05.

Figure 3.11.1: Proportion of Indigenous people who reported that they did not attend a GP service/hospital/other health professional when needed, New South Wales and Australia, 2004–05



Aboriginal and Torres Strait Islander representation on health/hospital boards

In New South Wales, Health Service boards have the overall responsibility for the strategic direction and operational efficiency of the organisation, the protection of its assets and the quality of its services. The boards guide and direct, establish policies, chart the course of their respective organisations and act as advocates for their organisations in the local communities.

The boards are subject to the direction and control of the relevant government minister except in relation to the context of a report or recommendation.

In 2002–03, 17 of the 80 Health Service boards in New South Wales had at least one Aboriginal and Torres Strait Islander member. In 2003–04, this fell to 6 out of 62. There were fewer boards/committees in 2003–04 due to the dissolution of 18 Area Health Service boards in August 2004.

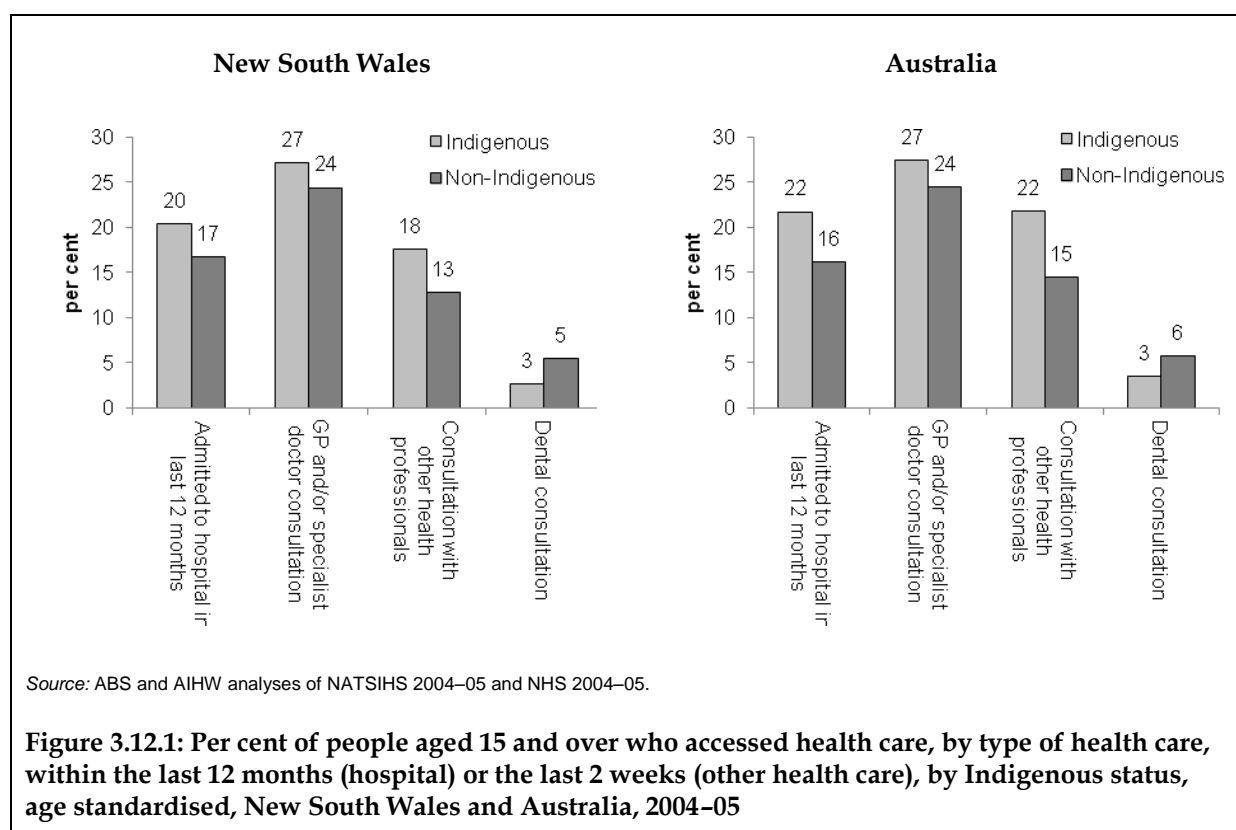
The *Health Services Act 1997* and the *Ambulance Service Act 1990* do not make provision for the makeup of membership on Health Service boards, so Aboriginal and Torres Strait Islander membership is not mandated. However, it should be noted that the constitution of the soon to be appointed Area Health Service councils, which will replace the 18 dissolved Area Health Service boards, states that ‘at least one member must be a person who has expertise, knowledge or experience in relation to Aboriginal health’.

3.12 Access to services by types of service compared to need

Access to services by types of service compared to need (for example, primary care, hospital, dental and allied health and post-acute care and palliative care)

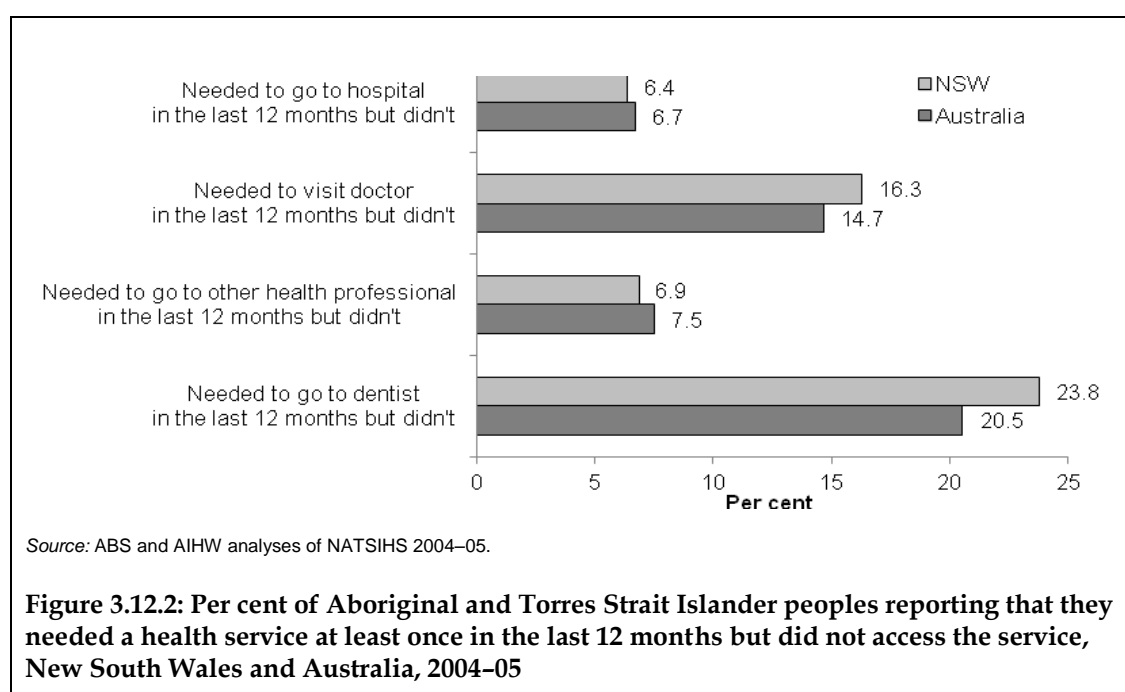
Self-reported access to health care

- After adjusting for differences in age structure, a higher proportion of Indigenous Australians aged 15 and over in New South Wales were admitted to hospital in the previous 12 months (20%) than non-Indigenous Australians of the same age (17%) (Figure 3.12.1).
- In the two weeks prior to the NATSIHS, a higher proportion of Indigenous Australians aged 15 and over in New South Wales consulted a GP and/or specialist doctor (27%), and consulted other health professionals (18%) than non-Indigenous Australians (24% and 13% respectively).
- In the previous two weeks, a lower proportion of Indigenous Australians aged 15 and over (3%) consulted a dentist than non-Indigenous Australians (5%).
- The above trends were also observed in the proportions of Indigenous and non-Indigenous people accessing these types of health services across Australia.



Whether needed to access health care and reasons why didn't

- In 2004–05, about 24% of Indigenous Australians in New South Wales reported they needed to go to a dentist in the previous 12 months but didn't, 16% needed to go to a doctor but didn't, 7% needed to go to another health professional but didn't and 6% needed to go to hospital but didn't (Figure 3.12.2).
- Indigenous people in New South Wales were more likely to report that they needed to access a dentist and didn't compared with Indigenous people nationally (24% compared with 21%). A similar proportion of Indigenous people in New South Wales and nationally reported that they needed to go to a doctor, hospital or other health professional but didn't in the previous 12 months.



- The most common reasons for Indigenous people in New South Wales and across Australia not going to a dentist when needed were cost (32% and 29% respectively), waiting time being too long or not available at the time required (both around 22%) and feeling afraid, embarrassed or a dislike of the service (18% and 21% respectively) (Table 3.12.1).
- The most common reason for Indigenous people in New South Wales not going to a doctor when needed was being too busy (28%), followed by deciding not to seek care (24%), waiting time too long (16%) and cost (12%). In comparison, the most common reason for Indigenous people across Australia not going to a doctor when needed was deciding not to seek care (26%), followed by being too busy (24%), transport/distance difficulties (14%) and waiting time too long or not available at the time required (14%).
- The most common reasons for Indigenous people in New South Wales and across Australia not going to another health professional when needed were cost (32% and 28% respectively) and being too busy (22% and 25% respectively).

- The most common reasons for Indigenous people in New South Wales not visiting a hospital when needed were that they decided not to seek care for their health problem (23%) and felt embarrassed or a dislike of the service (21%).

Table 3.12.1: Whether needed to go to a doctor, hospital, dentist or other health professional, by reasons didn't go, Aboriginal and Torres Strait Islander peoples, New South Wales and Australia, 2004–05

	Doctor		Hospital		Dentist		Other health professional	
	NSW	Aust.	NSW	Aust.	NSW	Aust.	NSW	Aust.
	%	%	%	%	%	%	%	%
Needed to go to service in the last 12 months but didn't	16	15	6	7	24	21	7	8
Reasons didn't visit								
Cost	12	12	4	4	32	29	32	28
Transport/distance	8	14	8	19	7	11	3	8
Waiting time too long or not available at time required	16	14	19	16	22	22	4	9
Not available in area	3	4	3	3	4	8	3	7
Too busy (including work, personal or family responsibilities)	28	24	13	16	12	14	22	25
Dislikes (service/professional/afraid/embarrassed)	10	10	21	16	18	21	12	12
Felt it would be inadequate	5	5	8	6	4	2	8	5
Decided not to seek care	24	26	23	25	15	13	19	17
Other	16	11	19	14	11	8	13	12

Source: ABS and AIHW analyses of NATSIHS 2004–05.

Hospitalisations

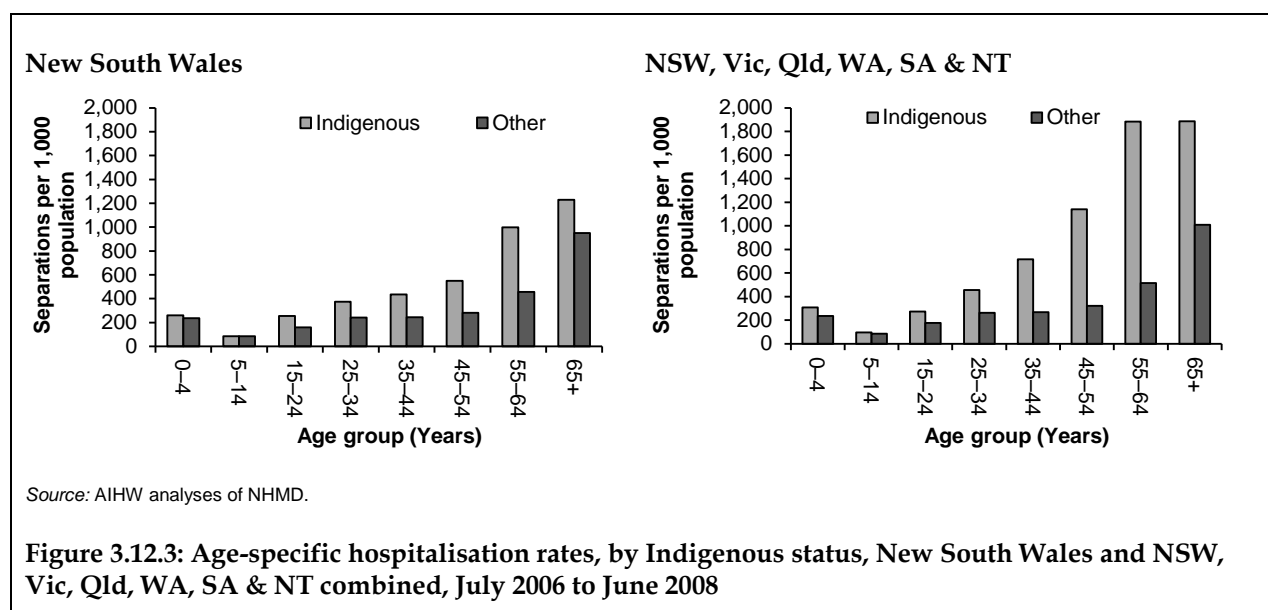
Hospitalisations by age

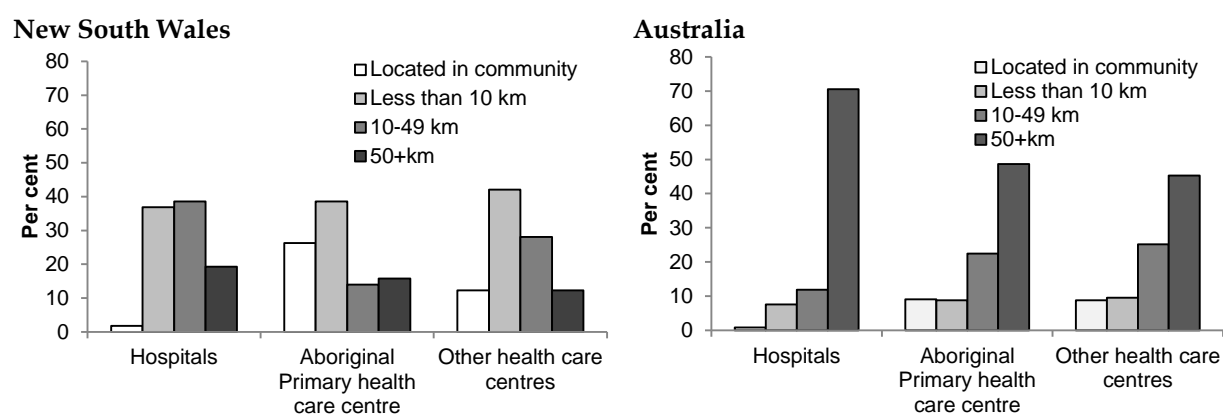
- In the 2-year period July 2006 to June 2008 in New South Wales, Indigenous people had higher hospitalisation rates than other people across most age groups, with the exception of the 5–14 age group in which the hospitalisations rates were similar for Indigenous people and other people. Differences in hospitalisation rates between Indigenous and other people were particularly marked in the 45–54 and 55–64 age groups, where Indigenous people were hospitalised at around twice (1.9 and 2.2 times respectively) the rate of other people.
- Hospitalisation rates were highest among those aged 65 and over for both Indigenous (1,229 per 1,000) and other people (950 per 1,000).
- Hospitalisation rates for Indigenous people were lower in New South Wales than in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined across all age groups.

Access to services—discrete Indigenous communities

The 2006 Community Housing and Infrastructure Needs Survey collected information on access to hospitals, Aboriginal Primary Health Care centres and other (state-funded) health care centres.

- In 2006 in New South Wales, about 2% of discrete Indigenous communities had a hospital in the community, and 37% had a hospital less than 10 kilometres away. Around 26% of communities had an Aboriginal Primary Health Care Centre in the community and 39% had an Aboriginal Primary Health Care Centre within 10 km. About 12% of communities had other health care centres in the community and 42% had other health care centres within 10 km.
- A different pattern was observed nationally, where only 1% of discrete Indigenous communities had a hospital in the community and 7% had a hospital within 10 km; 9% of communities had an Aboriginal Primary Health Care Centre within the community and 9% had a primary health care centre within 10 km; and 9% of communities had other health care centres within the community and 10% had other health care centres less than 10 km away.





Source: ABS cat no. 4710.0.

Figure 3.12.4: Proportion of discrete Indigenous communities with access to health services, by distance to health services, New South Wales and Australia, 2006

3.14 Access to after-hours primary care

Access to after hours primary health care by Aboriginal and Torres Strait Islander people

After-hours primary medical care relates to 'medical care provided at any time outside 8am to 6pm on weekdays (that are not public holidays) and 8am to 1pm on a Saturday'.

Emergency department episodes

There are many reasons that people may present at after-hours emergency departments including difficulties in accessing primary care during school and work hours.

- In 2006–07 to 2007–08 in New South Wales, there were 1,843,741 episodes of care provided after hours in emergency departments, 56,940 (3.1%) of which were for patients identified as Aboriginal or Torres Strait Islander. Almost half of all presentations to emergency departments by Indigenous and non-Indigenous patients were for after-hours care (49% and 48%) (Table 3.14.1).
- In New South Wales emergency departments provided after hours care in triage categories 4 (semi-urgent) and 5 (non-urgent) for 1,089,535 episodes, 36,937 (3.4%) of which were for patients identified as Aboriginal and Torres Strait Islander. Similar proportions of Indigenous (48%) and non-Indigenous Australians (47%) presented for after-hours care at emergency departments for semi-urgent and non-urgent triage categories. Around 65% of Indigenous presentations to emergency departments after hours in New South Wales were for semi-urgent or non-urgent triage categories.

Table 3.14.1: Presentations to emergency departments after hours by Indigenous status of the patient, New South Wales and Australia, 2006–07 to 2007–08

	Semi-urgent & non-urgent		Total presentations	
	NSW	Australia	NSW	Australia
After hours presentations				
Indigenous	36,937	139,703	56,940	225,183
Non-Indigenous	981,615	2,711,173	1,666,352	4,703,231
Not stated	70,983	119,030	120,449	214,801
Total	1,089,535	2,969,907	1,843,741	5,143,215
Total emergency department presentations				
	Number			
Indigenous	76,888	302,457	115,763	467,115
Non-Indigenous	2,094,426	5,889,981	3,477,501	9,915,822
Not stated	146,388	246,337	242,975	432,767
Total	2,317,702	6,438,775	3,836,239	10,815,704
Proportion of after-hours presentations out of all presentations to ED				
Indigenous	48.0	46.2	49.2	48.2
Non-Indigenous	46.9	46.0	47.9	47.4
Not stated	48.5	48.3	49.6	49.6
Total	47.0	46.1	48.1	47.6

Notes

1. After hours is defined by the MBS definition (excluding consideration of public holidays): on Sunday, before 8am or after 1pm on a Saturday, or at any time other than 8am to 8pm on a weekday.
2. Caution should be used in the interpretation of these data because the identification of Indigenous patients is not considered to be complete and completeness varies among the jurisdictions.
3. The quality of Indigenous identification is considered acceptable for the purpose of analysis only for New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory (public hospitals only).
4. The Non-admitted Patient Emergency Department Care data is required to be reported for hospitals categorised as peer group A or B in the previous year's Australian hospital statistics. In addition, data are provided for some smaller hospitals by some states and territories.
5. The coverage of the National Non-admitted Patient Emergency Department Care Database is estimated at about 78% of records for 2006–07 and for 2007–08. Therefore this data will only cover a sub-set of after-hours emergency episodes of care.

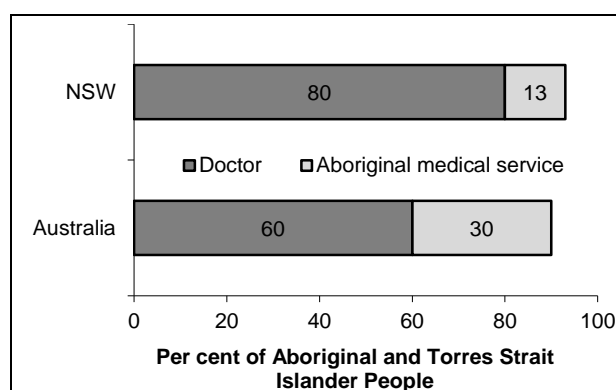
Source: AIHW analyses of National Non-admitted Patient Emergency Department Care Database (NAPEDCD).

3.15 Regular GP or health service

Number and proportion of individuals who have a regular general practitioner (GP) or health service

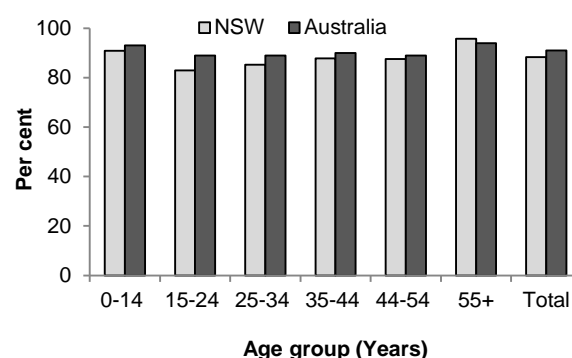
Whether visited same doctor/health service

- In 2004–05 in New South Wales, 80% of Indigenous people reported that they usually went to a doctor if they had a problem with their health, and 13% reported that they went to an Aboriginal medical service (Figure 3.15.1).
- Throughout Australia, 60% of Indigenous Australians went to a doctor if they had a problem with their health, and 30% went to an Aboriginal medical service.
- In New South Wales, Indigenous people aged 55 and over were most likely to report that they usually went to the same doctor or health service (96%), followed by Indigenous Australians aged 0–14 (91%) (Figure 3.15.2).
- Overall, a slightly lower proportion of Indigenous Australians in New South Wales (88%) reported they usually went to the same doctor or medical service than Indigenous Australians nationally (91%).



Source: ABS and AIHW analyses of NATSIHS 2004–05.

Figure 3.15.1: Where usually go if problem with health, Aboriginal and Torres Strait Islander peoples, New South Wales and Australia, 2004–05



Source: ABS and AIHW analyses of NATSIHS 2004–05.

Figure 3.15.2: Whether usually goes to the same GP/medical service, by age group, Aboriginal and Torres Strait Islander peoples, New South Wales and Australia, 2004–05

3.16 Care planning for clients with chronic diseases

The use of care planning for the management of chronic disease among the Aboriginal and Torres Strait Islander population

Asthma plans

- In 2004-05, about 18% of Indigenous Australians in New South Wales in non-remote areas reported having asthma as a long-term condition compared with 9% of non-Indigenous Australians. This was similar to the national prevalence of asthma reported by Indigenous and non-Indigenous Australians (18% and 10% respectively) (Table 3.16.1).
- Of people with asthma in New South Wales in non-remote areas, 31% of Indigenous people had a written asthma plan compared with 24% of non-Indigenous people. These proportions were higher than those reported for Indigenous and non-Indigenous people nationally (25% and 22% respectively).
- The proportion of Indigenous people in New South Wales with asthma who had a written asthma plan was highest among those aged 0-4 and 55 and over (around 44%) (Figure 3.16.1).

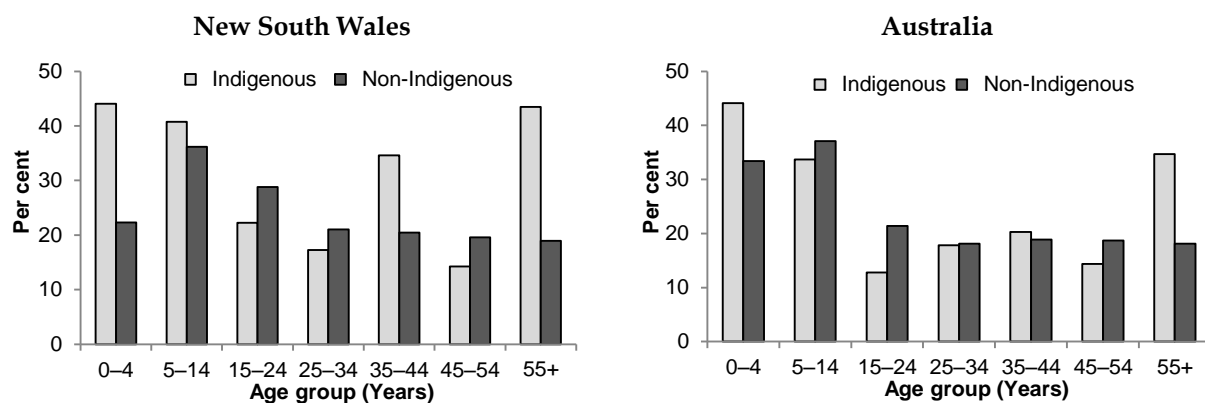
Table 3.16.1: Whether person(s) in non-remote areas have a written asthma action plan by Indigenous status, non-remote areas, New South Wales and Australia, 2004-05

Jurisdiction	Does have a written asthma action plan	Does not have a written asthma action plan	Never heard of a written asthma action plan	Total ^(a)	Total with asthma	Total people with asthma
	%	%	%	%	%	No.
New South Wales						
Indigenous	31.0	61.6	7.0	100.0	18.0	22,331
Non-Indigenous	23.5	73.3	2.5	100.0	9.2	595,171
Rate ratio	1.3	0.8	2.8	..	2.0	..
Australia						
Indigenous	24.7	66.9	6.9	100.0	17.7	59,777
Non-Indigenous	22.4	71.9	5.2	100.0	10.2	1,939,245
Rate ratio	1.1	0.9	1.3	..	1.7	..

(a) Includes 'not known if has a written asthma action plan', which represents 1.5% of Indigenous Australians and 0.5% of non-Indigenous Australians with asthma in non-remote areas.

Note: Data have been directly age standardised using the 2001 Australian Standard population.

Source: AIHW analyses of NATSIHS 2004-05 and NHS 2004-05.



Source: AIHW analyses of NATSIHS 2004–05 and NHS 2004–05.

Figure 3.16.1: Proportion of people with asthma in non-remote areas who have a written asthma action plan, by Indigenous status and age group, non-remote areas, New South Wales and Australia, 2004– 05

3.17 Accreditation

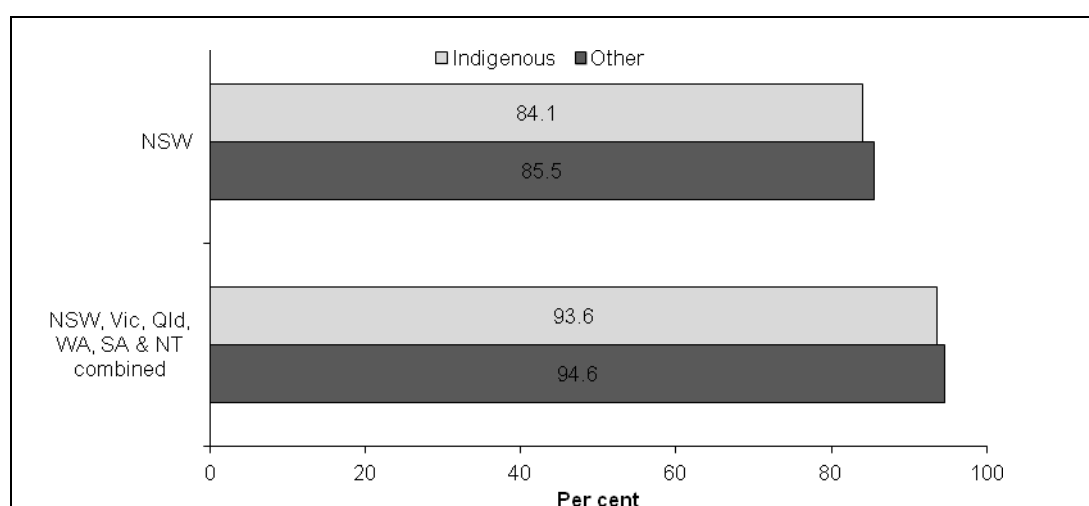
The proportion of:

Aboriginal and Torres Strait Islander separations and patient days in accredited public hospital as a percentage of all Aboriginal and Torres Strait Islander separations and patient days in public hospitals

Accredited general medical practice service establishments by proportion of Indigenous populations in Divisions of General Practice

Hospital accreditation

- Between July 2006 and June 2008 in New South Wales, 84% of hospital admitted episodes for Indigenous people occurred in accredited hospitals compared with 86% for other Australians (Figure 3.17.1).
- In New South Wales, Victoria, Queensland, Western Australia, South Australia and Northern Territory combined, 94% of hospital admitted episodes for Indigenous people occurred in accredited hospitals compared with 95% for other people.



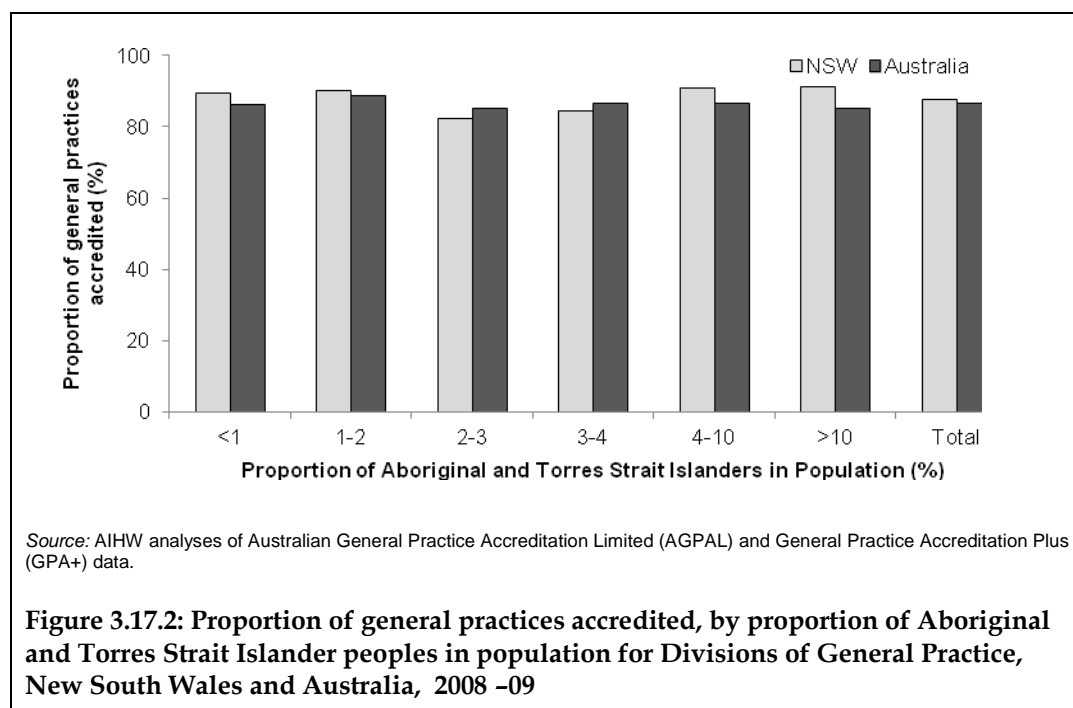
Source: AIHW analyses of National Public Hospitals Establishment Database.

Figure 3.17.1: Per cent of hospital-admitted patient episodes in accredited hospitals, by Indigenous status, New South Wales and NSW, Vic, Qld, WA, SA & NT combined, July 2006 to June 2008

General practice accreditation

- In 2008–09 in New South Wales, 1,531 general practice divisions were accredited and 218 divisions were registered but not yet accredited. The proportion of accredited divisions among all the registered divisions was 88%, compared with 87% in Australia.
- In New South Wales, the proportion of accredited general practice divisions ranged from 82% in areas where 2–3% of the population was Indigenous to 91% in areas where 4–10% or greater than 10% of the population was Indigenous (Figure 3.17.2).

- In Australia, the proportion of accredited general practice divisions ranged from 85% in areas where 2–3% of the population was Indigenous to 89% in areas where 1–2% of the population was Indigenous.



3.18 Aboriginal and Torres Strait Islander peoples training for health-related disciplines

The proportion of Aboriginal and Torres Strait Islander Australians in tertiary education for health-related disciplines

Higher education sector

- In 2008 in New South Wales:
 - there were 323 enrolments in health-related courses by Indigenous undergraduate students. This made up 1.7% of total undergraduate enrolments
 - there were 47 completions in health-related courses by Indigenous undergraduate students. This made up 1.2% of total undergraduate completions in health-related courses (Table 3.18.1).
- In Australia, enrolments in health-related courses by Indigenous undergraduate students made up 1.6% of total undergraduate enrolments in health-related courses. Completions in health-related courses by Indigenous undergraduate students made up 1.0% of total undergraduate completions in such courses.
- In New South Wales, the most common health-related courses in which Indigenous students were enrolled or had completed in 2008 were nursing (131 enrolled and 18 completed) and public health (88 enrolled and 18 completed). Nationally, nursing and public health were also the most common health-related courses in which Indigenous students were enrolled or had completed.
- In New South Wales and Australia, public health had the highest Indigenous representation of all health-related university courses (11.1% of enrolled and 13.5% of completed in New South Wales; 6.6% of enrolled and 6.2% of completed in Australia).

Table 3.18.1: Number of undergraduate students enrolled and completed health-related courses in the tertiary education sector, by qualification type, New South Wales and Australia, 2008

	Enrolled			Completed		
	Aboriginal & Torres Strait Islander	Total	Per cent Aboriginal & Torres Strait Islander (%)	Aboriginal & Torres Strait Islander	Total	Per cent Aboriginal & Torres Strait Islander (%)
New South Wales						
Medical studies	56	3,093	1.8	n.p.	480	n.p.
Nursing	131 ^(b)	8,348 ^(b)	1.6	18 ^(b)	1,878 ^(b)	1.0
Pharmacy	n.p.	1,358	n.p.	n.p.	296	n.p.
Dental studies	n.p.	598	n.p.	n.p.	129	n.p.
Optical science	n.p.	209	n.p.	0	53	0.0
Public health	88	793	11.1	18	133	13.5
Radiography	n.p.	1,152	n.p.	0	253	0.0
Rehabilitation therapies	31	3,755	0.8	n.p.	803	n.p.
Total^(a)	323	19,306	1.7	47	4,025	1.2
Australia						
Medical studies	128	12,165	1.1	13	2,024	0.6
Nursing	582	32,807	1.8	71	7,453	1.0
Pharmacy	n.p.	4,643	n.p.	n.p.	964	n.p.
Dental studies	20	2,330	0.9	n.p.	503	n.p.
Optical science	n.p.	547	n.p.	0	133	0.0
Public health	298	4,486	6.6	47	754	6.2
Radiography	n.p.	1,883	n.p.	n.p.	435	n.p.
Rehabilitation Therapies	73	12,273	0.6	12	2,365	0.5
Total^(a)	1,120	70,953	1.6	152	14,601	1.0

(a) The data takes into account the coding of combined courses to two fields of education. As a consequence, counting both fields of education for combined courses means that the totals may be less than the sum of all fields of education.

(b) There were 16 enrolments and 4 completions for Indigenous students in nursing at national level that were not assigned a state/territory but were classified as 'multi-state'.

Source: AIHW analyses of Department of Education, Employment and Workplace Relations (DEEWR) Higher Education Statistics Collection.

Vocational education and training (VET) sector

- In 2008 in New South Wales, 1,045 Indigenous students were enrolled in health-related courses in the VET sector and 180 Indigenous students completed a health-related course in the sector. This made up 5.1% and 4.0% of total VET enrolments and completions in health-related courses respectively (Table 3.18.2).
- In New South Wales, Indigenous VET students were most commonly enrolled in other health courses (57% of the total enrolled) and public health (26% of the total enrolled); and the most commonly completed health-related course was other health (41% of the total completed).
- In 2008 in Australia, 6,143 Indigenous students were enrolled in health-related courses in the VET sector, and 395 Indigenous students completed a health-related course in the

sector. This made up 6.4% and 3.8% of total VET enrolments and completions in health-related courses respectively.

- In New South Wales the VET health-related course with the highest Indigenous representation for enrolments was other health (7.7%), while the course with the highest Indigenous representation for completions was public health (8.1%). In Australia, public health had the highest Indigenous representation for both enrolments and completions (10.8% for enrolments and 7.0% for completions).

Table 3.18.2: Vocational education and training (VET) sector students enrolled and completed health-related courses, New South Wales and Australia, 2008

	Enrolled			Completed		
	Aboriginal & Torres Strait Islander	Total	Per cent Aboriginal & Torres Strait Islander (%)	Aboriginal & Torres Strait Islander	Total	Per cent Aboriginal & Torres Strait Islander (%)
New South Wales						
Medical studies	n.p.	72	n.p.	0	0	..
Nursing	116	3,478	3.3	41	1,311	3.1
Pharmacy	0	11	0.0	0	n.p.	0.0
Dental studies	35	1,215	2.9	5	486	1.0
Optical science	n.p.	451	n.p.	0	87	0.0
Public health	269	6,200	4.3	58	716	8.1
Rehabilitation therapies	n.p.	193	n.p.	0	90	0.0
Complementary therapies	20	943	2.1	n.p.	295	n.p.
Other health	598	7,779	7.7	73	1,553	4.7
Total	1,045	20,342	5.1	180	4,539	4.0
Australia						
Medical studies	n.p.	507	n.p.	0	n.p.	0.0
Nursing	421	19,503	2.2	98	3,090	3.2
Pharmacy	0	68	0.0	0	n.p.	0.0
Dental studies	70	3,886	1.8	11	1,307	0.8
Optical science	n.p.	969	n.p.	0	109	0.0
Public health	4,094	38,045	10.8	182	2,592	7.0
Rehabilitation therapies	11	661	1.7	n.p.	159	n.p.
Complementary therapies	59	3,221	1.8	n.p.	866	n.p.
Other health	1,483	29,734	5.0	94	2,268	4.1
Total	6,143	96,594	6.4	395	10,426	3.8

Source: AIHW analyses of National Centre for Vocational Education Research (NCVER), National VET Provider Collection 2008.

3.19 Expenditure on Aboriginal and Torres Strait Islander health compared with need

Expenditure on health for Aboriginal and Torres Strait Islander people

This measure is presented on both a total population basis and per capita basis and disaggregated to reflect expenditure on acute health care, primary health care and population health, as a reflection of met need.

- In 2006–07 in New South Wales, the state government was estimated to have spent, on average, \$3,107 per Indigenous person compared with \$1,741 per non-Indigenous person. This represents an Indigenous/ non-Indigenous expenditure ratio of 1.8:1 (Table 3.19.1).
- Throughout Australia, state and territory governments were estimated to have spent, on average, \$3,846 per Indigenous person compared with \$1,651 per non-Indigenous person, equating to an Indigenous/ non-Indigenous expenditure ratio of 2.3:1.
- The New South Wales Government spent more per person for Aboriginal and Torres Strait Islander peoples than for non-Indigenous people for most types of health goods and services with an exception of research.
- The highest expenditure per person for Indigenous and non-Indigenous people in New South Wales was for public hospital services (\$2,043 and \$1,409), followed by admitted patient services (\$1,490 and \$1,054). A similar pattern was observed nationally.

Table 3.19.1: Estimated state/territory health expenditure per person for Indigenous and non-Indigenous people, by program, New South Wales and Australia, 2006–07 (\$)

Health good or service type	Expenditure per person (\$)			
	New South Wales		Australia	
	Indigenous	Non-Indigenous	Indigenous	Non-Indigenous
Public hospital services				
Admitted patient services ^(a)	1,490	1,054	2,102	1,000
Non-admitted patients	554	355	627	282
<i>Subtotal</i>	<i>2,043</i>	<i>1,409</i>	<i>2,728</i>	<i>1,282</i>
Patient transport	113	74	194	76
Community health	767	174	665	174
Public health	79	48	155	55
Dental	93	19	59	26
Research	12	13	16	16
Health administration n.e.c.	0	0
Total	3,107	1,741	3,846	1,651
Indigenous: Non-Indigenous ratio	1.8	..	2.3	..

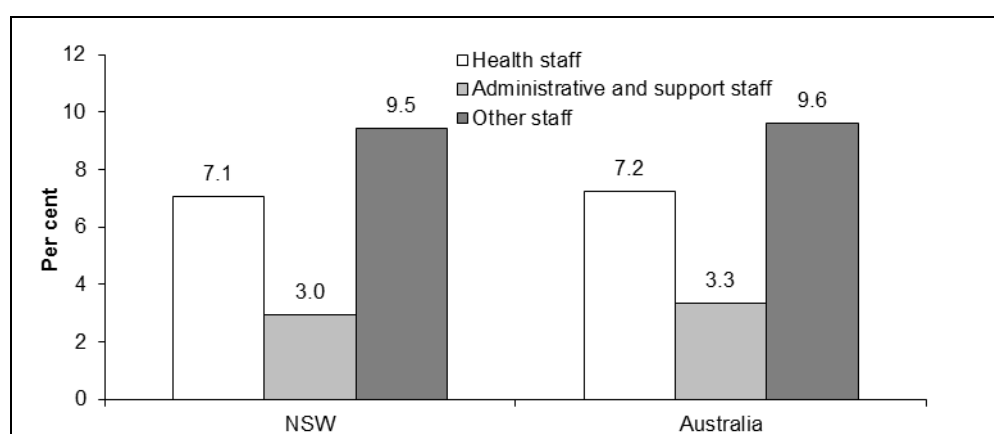
(a) Admitted patient expenditure adjusted for Aboriginal and Torres Strait Islander people under-identification.

Source: AIHW 2009.

3.20 Recruitment and retention of clinical and management staff (including GPs)

The recruitment and retention of qualified clinical and management staff to provide effective health care to meet Aboriginal and Torres Strait Islander health care needs

- At 30 June 2008 in New South Wales, 38 (7.1%) full-time equivalent (FTE) health staff positions, 8.3 (3%) administrative and support positions and 1 (9.5%) other staff position funded by the Australian Government were vacant.
- For Australia, 7.2% of the FTE Australian Government-funded health staff positions, 3.3% of administrative and support positions and 9.6% of other staff were vacant at 30 June 2008.



Source: AIHW analyses of OSR data 2010.

Figure 3.20.1: Vacancies as a percentage of total positions (FTE) in Indigenous health care services, New South Wales and Australia, at 30 June 2008

Appendix 1 Data sources and quality

The Australian Childhood Immunisation Register

The ACIR is a national register that records details of vaccinations given to children under 7 years of age who live in Australia. Immunisation coverage is produced at the national, state or territory and local level on a quarterly basis using the data recorded on the ACIR.

Coverage estimates for Aboriginal and Torres Strait Islander children include only those who identify as such and are registered on the ACIR. Children identified as Indigenous on the ACIR may not be representative of all Aboriginal and Torres Strait Islander children, and thus coverage estimates should be interpreted with caution.

Children for whom Indigenous status was not stated are included with the 'non-Indigenous' under the 'other' category.

Vaccination coverage is a measure of the proportion of people in a target population who have received the recommended course of vaccinations at a particular age.

Data quality issues relating to reporting of Indigenous Australians

Indigenous status question

Indigenous identification is collected via a 'yes/no' flag on immunisation encounter forms, and through Medicare offices when any changes are made to personal details. Medicare uses the standard definition of Indigenous status; however, these details are converted to a 'yes' or 'no' when reports on vaccination coverage are produced from the ACIR. The immunisation encounter form method of Indigenous identification is voluntary and relies on the immunisation provider seeking the information. Improving Indigenous identification on the ACIR database is an issue being investigated by the Australian Government.

Under-identification

General limitations of data available from the ACIR must be considered when it is used to estimate vaccination coverage. ACIR coverage estimates could overestimate or underestimate coverage, depending on whether those children not identified as Indigenous Australian have higher or lower than average vaccination coverage. A recent study (Rank and Menzies 2007) found that the reporting of Indigenous status on the ACIR has improved from 42% of the estimated national cohort of Indigenous children aged 12 to 14 months in 2002 to 95% in 2005. The ACIR holds records only for children up to 7 years of age.

At the time of writing its report *Vaccine preventable diseases and vaccination coverage in Aboriginal and Torres Strait Islander people, Australia 1999 to 2002* the National Centre for Immunisation Research and Surveillance of Vaccine Preventable Diseases stated that 'Indigenous status is currently either not routinely reported or not transferred to the ACIR from the Australian Capital Territory, Queensland and Tasmania, so these jurisdictions were not included in this report' (Menzies et al. 2004).

Vaccination coverage data from the ACIR and the NATSIHS are not directly comparable because of the differences in the cohort used, population coverage, data collection method, method of calculating 'fully immunised' and vaccines included.

Selected other data quality issues

Registrations

The ACIR was established in 1996. The data used are from an administrative data collection, for which there is an incentive payment for notification, and further incentives for parents to have their children's vaccination status up to date. The register is linked to the Medicare enrolment register and about 99% of children are registered with Medicare by 12 months of age. Immunisations are notified to Medicare Australia by providers including general practitioners, councils, Aboriginal medical services and the state and territory health authorities.

Data have been reported using the ACIR definition of fully immunised children; that is, children who have received all age-appropriate immunisations for diphtheria, tetanus, pertussis, hepatitis B, poliomyelitis, haemophilus influenza type B, measles, mumps and Rubella. The Varicella vaccine was added to the National Immunisation Program Schedule (NIPS) for children born from 1 May 2004; the pneumococcal vaccine was added for children born from 1 January 2005; and the Rotavirus vaccine for children born from 1 May 2007. Consequently, data for these vaccinations are not available for the cohort of children being reported for this indicator in this iteration of the report.

Although there are now more vaccines than reported on the NIPS for children, these are not in scope for children aged 5 at the time of reporting.

A minimum 3-month lag period is allowed for late notification of immunisations to the register. Data have been presented for children born between 1 January 2004 and 31 March 2004.

The ACIR automatically includes all children aged under 7 who are enrolled in Medicare as its denominator to calculate vaccine coverage rate (ABS and AIHW 2006). It is estimated that about 99% of children are registered with Medicare by 12 months of age. However, it is not currently possible to determine accurately whether this is true of the Indigenous Australian child population, nor whether Indigenous Australian children are less likely to be enrolled in Medicare. Children not registered with Medicare are added to the ACIR when details of an eligible immunisation are supplied by a recognised immunisation provider (DoHA 2006).

Australia and New Zealand Dialysis and Transplant Registry (ANZDATA)

The data reported here on Indigenous people with end-stage renal disease (ESRD) have been supplied by ANZDATA. The interpretation and reporting of these data are the responsibility of the authors and in no way should be seen as an official policy or interpretation of the registry.

In Australia, people who develop ESRD and undertake dialysis or kidney transplantation are registered with ANZDATA. The registry is the most comprehensive and reliable source of information on people treated for ESRD. It compiles data on incidence and prevalence, renal complications, co-morbidities and patient deaths. The current registry began in 1977 and is coordinated by the Queen Elizabeth Hospital in Adelaide. All relevant hospitals and related satellite units in Australia and New Zealand participate.

Data quality issues relating to reporting of Indigenous Australians

Indigenous status question

Patients in the registry are identified according to 'racial origin'. Aboriginal people and Torres Strait Islanders are identified separately, but separate results are not always published for Torres Strait Islanders because of small numbers of patients.

Under-identification

The completeness of identification of Indigenous people in the registry is not known. However the nature of the illness means that treatment centres have prolonged contact with patients and, therefore, have a considerable opportunity to collect accurate information (Disney et al. 1997).

Indigenous identification is based on self-identification and discussion with the treating nurse or physician. There is often significant concern about the quality of Indigenous identification in morbidity, mortality and demographic data sets. However, racial identification in the ANZDATA Registry is reported to be good. A survey form is completed for all patients at the commencement of haemodialysis; this survey has a question about 'racial origin' and includes a prompt regarding Indigenous status. ESRD patients have regular contact with renal services from the time of diagnosis, through intensive maintenance therapy until death. There is heightened awareness of renal disease in Indigenous Australians and multiple opportunities exist to reconfirm data accuracy (Cass et al. 2001).

Selected other data quality issues

Data sets provided for analysis in this report are de-identified. Data is collected from all dialysis and transplant units in Australia and New Zealand at 31 December. This encompasses virtually all patient events that have occurred in the previous 12 months as well as a snapshot of all dialysis and transplants patients on that date.

Community Housing and Infrastructure Needs Survey

The Community Housing and Infrastructure Needs Survey (CHINS) collects data from all Aboriginal and Torres Strait Islander housing organisations and discrete Aboriginal and Torres Strait Islander communities in Australia. The latest CHINS was enumerated from 1 March to 30 June 2006. The data were collected through personal interviews with key community and Indigenous Housing Organisation (IHO) representatives knowledgeable about housing and infrastructure issues. The Australian Bureau of Statistics (ABS) conducted the 2006 CHINS on behalf of, and with full funding from, the Department of Families, Housing, Community Services and Indigenous Affairs (FaHCSIA). Information collected includes:

- details of current housing stock, dwelling management practices and selected income and expenditure arrangements of Indigenous organisations that provide housing to Aboriginal and Torres Strait Islander people
- details of housing and related infrastructure, such as water, electricity, sewerage, drainage, rubbish collection and disposal, as well as other facilities such as transport, communication, education, sport and health services, available in discrete Aboriginal and Torres Strait Islander communities.

The 2006 information was collected from 496 Indigenous housing organisations which managed a total of 21,854 permanent dwellings. The majority of those dwellings were in the Northern Territory (6,448), Queensland (6,230), New South Wales (4,176) and Western Australia (3,462). Information was also collected on 1,187 discrete Indigenous communities with a combined population of 92,960. Most of these communities were in 'very remote' regions of Australia, with 73% (865) having a population fewer than 50 people (ABS 2007a).

In the 2006 CHINS, a community questionnaire collected detailed infrastructure information from all discrete Indigenous communities with a reported usual population of 50 people or more as well as for communities which had a reported usual population of fewer than 50 people but which were not administered by a larger discrete Indigenous community or resource agency. There were 375 communities of this type. The 812 other communities had reported usual populations of fewer than 50 people and were asked a subset of questions from the community questionnaire form: the short community questionnaire (ABS 2007a).

Results from this survey were published in August 2007. FaHCSIA and the ABS jointly hold the CHINS data.

Selected other data quality issues

The estimates are not subject to sampling error because the CHINS was designed as a complete enumeration of discrete Indigenous communities. However, data could not be obtained from a small number of communities. In addition, the community population was often estimated by community representatives without reference to records. Therefore, the data is subject to non-sampling error.

Non-sampling errors which may affect the CHINS result include errors in reporting on the part of both respondents and interviewers due to a lack of knowledge of the data required, inability to provide accurate information or mistakes in recording responses to interview questions and errors arising during data processing.

In addition to the survey instrument and methodology testing conducted prior to the previous CHINS in 1999 and 2001, national, state and territory, and regional aggregate data from the 2006 CHINS have been compared with those collected in 2001. Various checks were conducted on related data items for consistency for the 2006 CHINS.

Further information on the CHINS can be found in the publication *Housing and infrastructure in Aboriginal and Torres Strait Islander communities* (ABS 2007a).

National Community Mental Health Care Database

Information on the use of community mental health services by Indigenous people is available from the AIHW National Community Mental Health Care Database (NCMHCD). The NCMHCD is a collation of data on specialised mental health services provided to non-admitted patients, in both government-operated community and hospital-based ambulatory care services, for example community mental health services, outpatient clinics and day clinics. Information collected in the database is a nationally agreed set of common data elements collected by service providers based on the National Minimum Data Set for Community Mental Health Care.

In 2006–2007, 4.9% of service contacts of community mental health care services were for Aboriginal and/or Torres Strait Islander people.

The quality of Indigenous identification in this database varies by jurisdiction. In 2006–07, Queensland, Western Australia, Tasmania, the Northern Territory and the Australian Capital Territory reported that the quality of their data was suitable for analysis.

As with hospitalisation data, service contacts for which the Indigenous status of the client was not reported have been included with hospitalisations for non-Indigenous people under the ‘other’ category.

Data quality issues relating to reporting of Indigenous Australians

Indigenous status question

All states and territories use the standard ABS question of Indigenous status.

However, there may be some quality issues regarding the coding of more specific details (that is, ‘Aboriginal’, ‘Torres Strait Islander’, ‘Both Aboriginal and Torres Strait Islander’). Queensland, Western Australia, Tasmania, the Northern Territory and the Australian Capital Territory reported that the quality of their data was suitable for analysis. South Australia indicated that there has been limited analysis of the quality of Indigenous status data. Therefore, the quality of the data is uncertain at this stage.

Under-identification

The quality of the Indigenous identification in this database varies by jurisdiction and should be interpreted with caution.

The number of service contacts per 1,000 population for Aboriginal and Torres Strait Islander people varies among the states and territories.

The ‘other Australians’ category includes contacts where Indigenous status was missing or not reported (around 7% of all contacts).

All state and territory health authorities provided information on the quality of the data for the NCMHCD 2006–2007. The Northern Territory estimates that there could be a deficit of between 25 and 35% of service contact records. Coverage for most other jurisdictions is estimated to be between 95 and 100% (AIHW METeOR).

The numerator includes people who receive a service in one jurisdiction but normally reside in another. There will be some mismatch between numerator and denominator in areas with cross-border flows.

Dental Health Survey Data—Child Dental Health Survey

The AIHW Dental Statistics Research Unit is responsible for a number of data collections in the areas of oral health, access to dental care and dental health services.

Data on children's dental health come from the Child Dental Health Survey, a national survey which monitors the dental health of children enrolled in school dental services operated by health departments in all states and territories. The latest report describes and discusses the survey and presents analyses for the combined years 2003–04. The data covers more than a quarter of a million children from all states and territories except New South Wales.

The Indigenous status of both child and mother are considered to be two items important to a health monitoring survey. Both items were obtained from information on the patient's treatment card or medical history. However, due to the increasingly limited recording of this information by the state and territory school dental services, they were not included in the 2003–04 report.

The oral health of Aboriginal and Torres Strait Islander children report states that data from a total of 341,195 children were included in the analyses: 11,017 (3.2%) Indigenous children and 330,178 (96.8%) non-Indigenous children. The highest proportion of Aboriginal and Torres Strait Islander children was observed in the 3 year old category (6.8%).

Selected other data quality issues

Dental health survey data

The assessment of Decayed, Missing and Filled Teeth (DMFT) is based on the World Health Organization protocol. The accuracy of DMFT will depend on the quality of the assessment and the accuracy of recording.

Child Dental Health Survey

The Child Dental Health Survey monitors the dental health of children enrolled in school dental services operated by health departments or authorities in each state and territory. Therefore, this survey will miss those children not attending these programs. There are some variations among state and territory programs with respect to priority age groups and the nature of the services provided, such as dental examinations, preventive services and restorative treatment. Caution is required in interpreting statistics for those over the age of 12, as many programs include only primary school children. Different sampling procedures are used across the states and territories (Armfield et al. 2003). The sample has not been specifically designed to measure Indigenous children and therefore caution is needed in interpreting the results. Data on Indigenous status are collected from the patient's treatment card or medical history. Problems have been identified in the accurate recording of Indigenous status in this data (Armfield et al. 2003).

Counts of children from NSW, SA and NT have been merged for the purpose of this analysis.

DEEWR Higher Education Statistics Collection

The Australian Government Department of Education, Employment and Workplace Relations (DEEWR) is the responsible agency for the Higher Education Statistics Collection, which includes information from higher education institutions such as universities and colleges of advanced education. This data collection contains statistics relating to students enrolled in higher education courses between 1 January and 31 December of each year in each Australian higher education provider.

Although universities design and produce their own enrolment forms, DEEWR has provided institutions with suggested wording for questions relating to Indigenous status (ABS 2003).

Higher education data could not be provided by remoteness area because DEEWR does not collect information on where a student comes from. Postcode of home location is often used as a substitute, but it is a poor measure because many students report the campus postcode as their postcode of home location. Use of this variable results in participation rates incorrectly biased towards major cities at the expense of regional and remote areas because most campuses are in major cities.

Selected other data quality issues

The Higher Education Schools Statistics Collection only includes information from higher education institutions in Australia as determined under the Higher Education Funding Act 1988. This includes:

- institutions that receive block operating grant funding for teaching and research activities
- other public higher education institutions that receive some level of operating grant funding
- the Australian Film, Television and Radio School, the National Institute of Dramatic Art and the Australian Defence Force Academy.

Private institutions are not required to report statistical data to DEEWR and are therefore outside the scope of the collection (ABS 2003). The collection of data from private higher education institutions is being trialled (ABS 2004).

Institutions receive detailed written documentation about what information is required to be furnished in the form of an electronic help file. Universities design and produce their own statistical information (enrolment) forms. These are designed to be used by institutions to collect the required information from students. DEEWR has provided institutions with suggested wording for questions relating to Indigenous status, language spoken at home and disability (ABS 2003).

Approximately 3% of students in this data collection have a 'not stated' Indigenous status. At the moment these are recorded as non-Indigenous, although plans are under way to record the 'not stated' responses separately.

Medicare Database

Medicare enrolment application forms are lodged by people at Medicare offices in each state and territory or by mail. Information from these forms is entered directly into the Medicare database, which is held by the Department of Health and Aging (DoHA).

In November 2002, the ABS standard question on Indigenous identification was included on this form. The question is asked in relation to the cardholder and any other family member named on the card. Responding to the question is voluntary and there is an explanation of the reasons for the question and the use of the data included on the form. This is referred to as the Voluntary Indigenous Identifier.

Because the Voluntary Indigenous Identifier was introduced only recently, the coverage of Aboriginal and Torres Strait Islander Australians in this database is not complete. A total of 210,351 people had identified as Aboriginal and/or Torres Strait Islander in this database at January 2009: around 41% of the estimated Aboriginal and Torres Strait Islander population (AIHW 2010a). There has been a rapid expansion in the number of enrollees who identified as Aboriginal and/or Torres Strait Islander, from 47,200 people in August 2004.

To date, the database has not been analysed to estimate the numbers of people who have identified themselves as non-Indigenous, or those who have either not responded to the question or have not been presented with an opportunity to respond to the question

Data quality issues relating to reporting of Indigenous Australians

Indigenous status question

In November 2002, the ABS standard question on Indigenous identification was included on Medicare enrolment forms. The question is asked in relation to the cardholder and any other family member named on the card. Responding to the question is voluntary and there is an explanation of the reasons for the question and the use of the data included on the form. This is referred to as the Voluntary Indigenous Identifier.

Under-identification

Because the Voluntary Indigenous Identifier was only introduced recently, the coverage of Aboriginal and Torres Strait Islander Australians in this database is not complete. There were 210,351 people who had identified as Aboriginal and/or Torres Strait Islander in this database at January 2009; around 41% of the estimated Aboriginal and Torres Strait Islander population (AIHW 2010a). There has been a rapid expansion in the number of enrollees who identified as Aboriginal and/or Torres Strait Islander, from 47,200 people in August 2004.

Readers should note the following caveats to the Medicare voluntary Indigenous Identifier (VII) adjustment methodology:

- Estimates generated by the adjustment methodology for a given period will vary according to the point in time at which they are calculated, as the adjustment factors will be updated regularly to account for the ongoing change in the population coverage of the VII sample.

- There are inherent uncertainties in the current ABS Indigenous population estimates, and they are therefore described by the ABS as 'experimental estimates and projections'. The ABS Indigenous population estimates after 2006-07 are experimental projections, based on a number of assumptions about future levels of fertility, mortality and migration. The projections are not predictions or forecasts, but are illustrations of the growth and change in population that would occur if these assumptions were to prevail over the projection period. There can be no certainty that any particular outcome will be realised, or that future outcomes will necessarily fall within the projected ranges.
- The propensity to identify as Aboriginal and/or Torres Strait Islander varies according to the motivations of the individual and the perceived uses of the data in question. For example, it is possible that there are some Aboriginal and Torres Strait Islander people who are registered with the VII but who do not identify as Indigenous for the purposes of the Census, or vice versa.
- In some areas, particularly remote and very remote areas, there is a portion of the Indigenous population that does not ever use the Medicare system. It is therefore possible that the adjustment methodology could overestimate Medicare use by the Indigenous population.
- As the VII sample is generated voluntarily, it is not truly random and cannot be perfectly representative of the Indigenous population until full coverage is achieved. There could be biases in the data that are not addressed by the adjustment methodology.

Selected other data quality issues

The MBS items included in this measure have been introduced over the last few years with the child health check item commencing in May 2006. The take-up of new MBS items is influenced by the speed at which practitioners and the population become aware of the new items and how to use them. Also take-up can be influenced by administrative processes and the time taken to change computer systems to incorporate these new items. Analysis of monthly statistics on Items 704 and 706 suggest that it took several years for these statistics to stabilise into a fairly regular pattern. Item 710 was introduced in May 2004 and monthly statistics have become relatively stable within 12 months.

National Non-admitted Patient Emergency Department Care Database

The National Non-admitted Patient Emergency Department Care Database (NAPEDCD) is a national collection of de-identified data on emergency department episodes held at the AIHW. The database includes episode-level data on non-admitted patients treated in the emergency departments of public hospitals. These hospitals are classified in the public hospital peer groups of principal referral and specialist women's and children's hospitals and large hospitals.

The NAPEDCD includes data on the type and length of emergency department visit, triage category, waiting times, patient demographics, arrival mode and departure status.

In 2006–07 to 2007–08, there were 10,815,704 episodes of care provided by emergency departments, 467,115 (4%) of which were for patients identified as Aboriginal or Torres Strait Islanders.

Data quality issues relating to reporting of Indigenous Australians

Indigenous status question

This data set includes the standard Indigenous status question.

Under-identification

The quality of the data provided for Indigenous status in 2007–08 for emergency department presentations varied by jurisdiction. Most states and territories advised that the Indigenous status data collected in an emergency department setting could be less accurate than the data collected for admitted patients; the data should therefore be used with caution (AIHW 2008a).

Selected other data quality issues

The non-admitted patient emergency department care data are required to be reported for hospitals categorised as peer group A or B in the previous year's Australian hospital statistics. In addition, data are provided for some smaller hospitals by some states and territories.

The coverage of the National Non-admitted Patient Emergency Department Care Database is estimated at about 78% of records for 2006–07 and for 2007–08. Therefore these data will cover only a subset of emergency episodes of care.

The identification of Indigenous patients is not considered complete and varies among jurisdictions. This coverage estimate is likely to overestimate the level of coverage for Indigenous occasions of service because proportionally more Indigenous Australians live in rural and remote areas. Therefore these data may not be indicative of the level of use of emergency department services by Indigenous people nationally (AIHW 2008a).

It is recommended that these data be reported only as numbers, and not rates, because the denominator would include Indigenous Australians not covered in this collection.

National Schools Statistics Collections (NSSC) 2009

The ABS National Schools Statistics Collection (NSSC) is a collaborative arrangement between state, territory and government education departments and the ABS. The NSSC is an annual collection of data on schools, students and staff in primary and secondary schools throughout Australia. Student data are collected through a school census in August each year and selected results are published annually by the ABS in *Schools Australia*. The data for this census is collected from state education authorities (government schools) and the Department of Education Science and Training (DEST) (non-government schools), according to agreed standard definitions, instructions and tabulations developed by the ABS. The full-time plus part-time School Participation Rates (SPR) were added to this publication for the first time in 2009.

Care should be taken when comparing attainment outcomes for Indigenous students because of the small number of Indigenous students represented.

Apparent retention rates

Apparent retention rates are the percentage of full-time students of a given cohort group who continue from the start of secondary schooling to a specified year level. The term 'apparent' is used because the retention rate does not account for students repeating a year of school or migrating in or out of the Australian school student population or between states/territories. All full-time students enrolled at a school, including VET (vocational education and training) in Schools students, but excluding people completing Year 12 through a vocational education facility, are included in retention calculations.

Year 10 apparent retention rates: Year 10 students as a proportion of the corresponding cohort from the first year of secondary schooling (Year 7/8).

Year 12 apparent retention rates: Year 12 students as a proportion of the corresponding cohort from the first year of secondary schooling (Year 7/8) or as a proportion of the corresponding cohort from Year 10.

Year 12 attainment rate: the proportion of Year 11 students who achieved a Year 12 certificate.

Data quality issues relating to reporting of Indigenous Australians

Indigenous status question

Although the Ministerial Council on Education, Employment, Training and Youth Affairs agreed to use the standard Indigenous status question in the schools sector, this has not yet been implemented in some jurisdictions.

Under-identification

Parents or guardians are asked to identify their child as Aboriginal, Torres Strait Islander, both or neither when enrolling for the first time. Provision of Indigenous status is not generally mandatory and if this section of the enrolment form is left blank, 'not stated' is recorded on the enrolment database. The incompleteness of Indigenous identification means the number of students recorded as Indigenous is an underestimation of the Aboriginal and Torres Strait Islander student population.

Selected other data quality issues

Changes affecting this release

In 2009, changes to the processing of Northern Territory enrolment data will affect comparisons with previous years of all numbers drawing on student data for the Northern Territory. In addition, while Tasmanian Education underwent a significant restructure of post-year 10 education in 2009, processes were undertaken, by the Tasmanian Department of Education, to ensure that data provided fully complied with collection definitions.

Retention data

There is no Australia-wide standard method of allocating students and classes to a certain year of school education (grade) and a number of schools do not maintain a formal grade structure. Students at these schools have been allocated to equivalent grades where possible, but otherwise appear against the ungraded category in either the primary or secondary level of school education.

Care should be exercised in the interpretation of apparent retention rates, because the method of calculation does not take into account a range of factors. At the Australia level, these include students repeating a year of education, migration and other net changes to the school population. At lower levels of disaggregation, additional factors affecting the data, such as enrolment policies (which contribute to different age/grade structures between states and territories), inter-sector transfers and interstate movements of students, have not been taken into account. These and other factors affecting the interpretation of apparent retention rates are being looked at, where possible, in the ABS's review of apparent retention rates.

Particularly in small jurisdictions, relatively small changes in student numbers can create apparently large movements in retention rates. In addition, the rates in the smaller jurisdictions may also be noticeably affected by changes in such factors as the proportion of ungraded and/or mature aged students from year to year. The inclusion or exclusion of part-time students can also have a significant effect on apparent retention rates, especially in South Australia, Tasmania and the Northern Territory which have relatively large proportions of part-time students (ABS 2010a).

Attainment data

The following points should be considered when interpreting attainment statistics:

- Full-time and part-time students were included in this analysis
- Because of the small number of Indigenous students represented, care should be taken when comparing attainment outcomes for Indigenous students.

National Centre for Vocational Education Research

The National Centre for Vocational Education Research is Australia's main provider of vocational education and training (VET) research and statistics. VET is a national system designed to give workers the skills for particular occupations and industries. The VET sector includes providers that receive public VET funding, such as technical and further education organisations, higher education institutions, other government providers (for example, agricultural colleges), community education providers, government-funded private registered training organisations, schools funded through government allocations for VET, and all other Commonwealth and state recurrent and specific-purpose funded VET, regardless of the location of the training organisation.

Selected other data quality issues

This collection gathers information from providers (in receipt of public VET funding) about activity of the VET system in Australia. The collection encompasses all delivery funded wholly or in part from public funds.

Non-identification rates for Indigenous students in these data are high. Care also needs to be taken when comparing data across jurisdictions for load pass rates, as average module durations vary across jurisdictions (SCRGSP 2005b).

National Notifiable Diseases Surveillance System

A set of 65 diseases and conditions are notifiable nationally to the National Notifiable Diseases Surveillance System (NNDSS), which is managed by the Australian Government Department of Health and Ageing.

Identification of Indigenous notifications in all states and territories is incomplete, with the level of completeness varying across diseases as well as jurisdictions. The NNDSS provided the AIHW with data on Indigenous status completeness by disease and jurisdiction. Using a cut-off of 50% completeness of Indigenous status Western Australia, South Australia, Tasmania and the Northern Territory were assessed to have adequate identification for chlamydia, syphilis, gonorrhoea and hepatitis C. Queensland and Victoria had insufficient Indigenous identification for chlamydia, but adequate identification for syphilis, gonorrhoea and hepatitis C; New South Wales had adequate identification only for hepatitis C and the Australian Capital Territory did not have adequate identification for any of the sexual transmitted infections (STIs). Only Queensland and the Northern Territory had adequate identification for donovanosis.

Current period data (2006–2008) for this indicator was extracted by the NNDSS in April 2010.

Although data on hepatitis C is included in this indicator, sexual transmission is not considered the main route of transmission; hepatitis C primarily occurs among those with a history of injecting drug use. Data for hepatitis C included in this indicator are for newly acquired notifications only (excluding Queensland, as hepatitis C data are reported in a separate category).

All categories of syphilis (including infectious, latent and unknown duration) have been included in the analysis in this indicator.

Detailed accounts of the methods of data collection and methods used by the National Notifiable Disease Surveillance System in the Department of Health and Ageing can be found here < <http://www.health.gov.au/internet/main/publishing.nsf/Content/cda-surveil-nndss-nndssintro.htm> >.

Data quality issues relating to reporting of Indigenous Australians

Under-identification

The incompleteness of Indigenous identification means the numbers of notifications recorded as Indigenous are likely to be underestimations of Aboriginal and Torres Strait Islander notifications rates. In 2007-08, Indigenous status was not reported in 54% cases of chlamydia, 25% cases of syphilis, 29% of cases of gonorrhoea and 13% of cases of hepatitis C (newly acquired).

The completeness of Indigenous identification in notifiable disease registries varies between the states and territories. Information on the occurrence of sexually transmitted infections is included in this indicator if information on Indigenous status was reported for at least 50% of diagnoses in a state or territory health jurisdiction for the period 2007-08.

Selected other data quality issues

Notifications

Notification statistics do not necessarily capture the mode of transmission, NNDSS data on the diseases discussed in this indicator are known to include infections acquired through non-sexual modes of transmission. For example, although data on hepatitis C is included in this indicator, sexual transmission is not considered the main route of transmission as hepatitis C primarily occurs among those with a history of injecting drug use.

Notification statistics do not measure the incidence or prevalence of these infections in the community. Under-reporting of these infections can occur at a number of stages:

- a person infected may not have symptoms
- a person may not seek medical care
- no testing performed
- a false negative result may occur
- there may be a positive test result but for some reason a notification may not occur
- the case may not be reported to the NNDSS (for more information see Figure 1 in NNDSS 2008).

The level of under-reporting can vary by disease, jurisdiction and by time. The method of surveillance can vary between jurisdictions with different requirements for notification by medical practitioners, laboratories and hospitals. These can also change over time.

Notification statistics do not necessarily capture the mode of transmission, NNDSS data on the diseases discussed in this indicator are known to include infections acquired through non-sexual modes of transmission. For example, although data on hepatitis C is included in this indicator, sexual transmission is not considered the main route of transmission as hepatitis C primarily occurs among those with a history of injecting drug use.

National Perinatal Data Collection

This data collection is conducted by the Australian Institute of Health and Welfare (AIHW) National Perinatal Epidemiology and Statistics Unit (NPESU).

Data on birthweight is collected as part of the Perinatal National Minimum Data Set. Each state and territory has a perinatal collection based on birth notifications completed by midwives and other staff, using information obtained from mothers and from hospital and other records. Some of these data are provided in electronic format annually to the AIHW National Perinatal Epidemiology and Statistics Unit. Perinatal notification forms are completed in Australia for all births of 20 weeks or more gestation, or a birthweight of 400 grams or more.

All jurisdictions collect the Indigenous status of the mother of the baby. However, this data element does not provide the Indigenous status of the baby. Therefore, Indigenous births will be underestimated as babies born to Indigenous fathers and non-Indigenous mothers are not included in the data collection. Over the period 2005–2007 there were approximately 11,100 ABS registered births to Indigenous fathers only, which represented 31% of registered Indigenous births (ABS 2008a, 2007c, 2006a).

Data for earlier years are not available for Tasmania, as the 'not stated' category for Indigenous status could not be distinguished from the 'non-Indigenous' until 2005.

Data on mothers for whom Indigenous status was 'not stated' have been excluded from analysis. In 2007, there were 282 births with a 'not stated' Indigenous status (0.1%) in the NPDC.

The World Health Organization (WHO) defines low birthweight as less than 2,500 grams.

Data quality issues relating to reporting of Indigenous Australians

Indigenous status question

A standard data item for Indigenous status is specified in the perinatal National Minimum Data Set. However, not all states and territories use this standard wording for the Indigenous status question on their forms. This affects the quality and comparability of the data collected (ABS & AIHW 2003).

Under-identification

All states and territories have a data item to record Indigenous status on their perinatal forms, although there are some differences among the jurisdictions. This separately identifies mothers as those of Aboriginal and Torres Strait Islander origin, and non-Indigenous mothers. No information is collected about the father's or baby's Indigenous status.

Since 2005, all jurisdictions collect information on Indigenous status of the mothers in accordance with the NMDS. All jurisdictions are working towards improving the ascertainment of Indigenous status in their perinatal collection. In 2007, the NPESU, in collaboration with the AIHW's Aboriginal and Torres Strait Islander Health and Welfare Unit, issued a report on Indigenous mothers and their babies in each state and territory. This report was based on a survey sent to the midwifery managers across Australia to determine how many hospitals in each jurisdiction obtained Indigenous status information of mothers giving birth from admission records and how many collected this information

independently. The assessment also involved analysis of the variability in the number and proportion of mothers recorded as Indigenous in the perinatal data collection over time and across jurisdictions for the period 1991–2004. The outcomes of this

assessment showed that Indigenous status data from New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory are suitable for trends analysis. Perinatal data from Tasmania, although improving, were deemed to be of insufficient quality. This project included an assessment of Indigenous status data quality. (AIHW: Leeds et al. 2007)

All jurisdictions are working towards improving the quality of the Indigenous status data. Data on Indigenous status are not reported for Tasmania before 2005 because the 'not stated' category for Indigenous status was included with the non-Indigenous category. The 'not stated' category for birthweight was found to be small nationally in the evaluation of the perinatal National Minimum Data Set (Laws & Sullivan 2009). Therefore, the exclusion of 'not stated' for birthweight will not have a significant impact on these data.

Selected other data quality issues

Births

Birth notification forms are completed for all births of 20 weeks or more gestation, or a birthweight of 400 grams or more. The perinatal National Minimum Data Set includes all births in Australia in hospitals, birth centres and the community.

The state or territory of birth is provided for all births. Tabulated data in this report are based on births in each state and territory in 2007 meeting the criteria for inclusion in the NPDC. Each state and territory has its own form and/or electronic system for collecting perinatal data. Unless otherwise stated, the data in this report relate to the state or territory of occurrence of births in 2007 rather than to the state or territory of usual residence of the mother. The Australian Capital Territory data contain a relatively high proportion of New South Wales residents who gave birth in the Australian Capital Territory. A small number of Aboriginal and Torres Strait Islander mothers give birth in the Australian Capital Territory, and the proportion fluctuates from year to year, making this jurisdiction less comparable to other jurisdictions. In 2007, 24.1% of Aboriginal or Torres Strait Islander women who gave birth in the Australian Capital Territory were not Australian Capital Territory residents. When interpreting the data it is important to note that these births to non-residents may include a disproportionate number of high-risk and multi-fetal pregnancies associated with poorer perinatal outcomes. Therefore, percentages or rates such as those for preterm birth and perinatal deaths may be inflated for births that occur in the Australian Capital Territory. Because of this and the small numbers involved, care should be taken in interpreting data from the Australian Capital Territory (Laws et al. 2007).

The perinatal NMDS does not include neonatal or perinatal death data items of information on cause of death. However, this information is collected as part of the NPDC. The data are incomplete. In some jurisdictions, neonatal deaths for babies transferred to another hospital or readmitted to hospital and those dying at home may not be included. Neonatal deaths for the Northern Territory are considered to be incomplete for 2007 as data do not include deaths occurring outside of the Northern Territory. Due to the small number of deaths, interpretation can be limited as to whether differences in mortality rates are due to statistical fluctuations or differential ascertainment.

National Report on Schooling in Australia (ANR)

Data for this measure come from the National report on schooling in Australia 2008, published by the Ministerial Council for Education, Early Childhood Development and Youth Affairs (MCEECDYA 2008).

The benchmarks articulate nationally agreed minimum acceptable standards in literacy and numeracy for the year levels given above, and are part of a national literacy and numeracy plan agreed to by state, territory and Australian Government ministers for education. The benchmarks do not attempt to describe the whole of literacy and numeracy learning, nor the full range of what students are taught. They also do not try to describe the full range of student achievement. Instead, they represent important and essential elements of literacy and numeracy at a minimum acceptable level (Curriculum Corporation 2000). A description of the national benchmarks for reading, writing and numeracy for Years 3, 5 and 7 can be found at the following addresses:

<<http://cms.curriculum.edu.au/litbench/intro.asp>>

<<http://cms.curriculum.edu.au/numbench/index.htm>>

The 2008 report includes a section for Indigenous education. This section reports on outcomes including literacy and numeracy achievement data against the national minimum standard, for Indigenous and non-Indigenous students by state and territory and for Indigenous students, disaggregated nationally by the four MCEETYA geographic locations (metropolitan, provincial, remote and very remote).

Data quality issues relating to reporting of Indigenous Australians

Indigenous status question

Note that the question and method used to identify Indigenous students varied between jurisdictions.

For example, in New South Wales, Indigenous students were those who answered 'yes' to the question 'Are you an Aboriginal or Torres Strait Islander person?' In Queensland, Indigenous students were those who answered 'yes' to either or both of the questions 'Are you an Aboriginal person? Or are you a Torres Strait Islander person?' In South Australia and the Australian Capital Territory, Indigenous students were identified through enrolment information provided to schools by parents/guardians. In the Northern Territory and Tasmania, Indigenous students were identified by schools at the time of enrolment or by self-identification. In Victoria, students were identified as Indigenous on enrolment forms at the commencement of school and also those who answered 'yes' to the question 'Is this student Aboriginal or Torres Strait Islander?' on the front page of the student's test booklet. In Western Australia, Indigenous students were identified through enrolment data on School Information Systems.

Selected other data quality issues

Reading, writing and numeracy data

- Points to be considered when interpreting the National report on schooling in Australia data (MCEECDYA 2008) are discussed below:
- Comparisons involving Remote and Very Remote students must be made with caution as the small numbers of students tested means that measurement uncertainty is relatively high.
- When comparing results across states and territories, it is important to note that there are many structural differences between the educational systems that influence the estimated proportions of students who are achieving the benchmarks. Relevant issues include major differences between jurisdictions in starting age, grade structures, and other arrangements that result in variations in the time students would have spent in relevant schooling before testing.
- There are differences between states and territories in relation to factors known to influence measured literacy and numeracy achievement. For example, achievement in literacy and numeracy is strongly correlated with the socioeconomic circumstances of students. As well, students who do not usually speak English, or who have just begun to speak English, would be expected to be at some disadvantage during assessment of aspects of English literacy. There are variations in the proportions of such students between states and territories, and also in the policies regarding their inclusion in the testing programs.
- Comparable national benchmarks are prepared using a nationally agreed procedure that was designed to equate state and territory tests. It is important to recognise that there are inevitable limits in the extent to which the measuring instruments can be assured to be perfectly comparable across time and jurisdictions. For example, it is not feasible for testing programs to fully assess the complete range of valued literacy and numeracy outcomes. As such, each state and territory's testing program includes a sample of valued outcomes, and this sampling can lead to variations in the outcomes, both over time and across states and territories.

Note that absent or withdrawn students are not included in the benchmark calculations.

Exempted students, however, are reported as falling below the benchmark and are included in the benchmark calculation. The report provides information on the proportions of students exempted from testing as footnotes to the relevant tables.

- The publication of confidence intervals with the benchmark results reflects the uncertainty associated with the measurement of student achievement and provides a way of making inferences about the achievement of students. The confidence intervals are calculated at 95% and account for three components of uncertainty: error associated with the location of the benchmark cut-score, sampling error (where applicable) and measurement error. Error associated with the location of the benchmark cut-score is the largest component.
- An additional component of error known as 'equating error' also potentially results. These sources of error are not currently reflected in the published confidence intervals.

National Aboriginal and Torres Strait Islander Health Survey

The 2004–05 National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) collected information from 10,439 Indigenous Australians of all ages. This sample was considerably larger than the supplementary Indigenous samples in the 1995 and 2001 national health surveys. The survey was conducted in remote and non-remote areas of Australia and collected a range of information from Indigenous Australians. This included information on health-related actions, health risk factors, health status, socioeconomic circumstances and women's health. The survey provides comparisons over time in the health of Indigenous Australians. It is planned to repeat the NATSIHS at 6-yearly intervals, with the next NATSIHS to be conducted in 2011–12. Selected non-Indigenous comparisons are available through the 2004–05 National Health Survey (NHS).

Selected other data quality issues

The NATSIHS uses the standard Indigenous status question. The NATSIHS sample was specifically designed to select a representative sample of Aboriginal and Torres Strait Islander Australians. It has therefore overcome the problem inherent in most national surveys with small and unrepresentative Indigenous samples. As with other surveys, the NATSIHS is subject to sampling and non-sampling errors. Calculations of standard errors and significance testing help to identify the accuracy of the estimates and differences.

Information recorded in this survey is essentially 'as reported' by respondents. The ABS makes every effort to collect accurate information from respondents, particularly through careful questionnaire design, pre-testing of questionnaires, use of trained interviewers and assistance from Indigenous facilitators. Nevertheless, some responses may be affected by imperfect recall or individual interpretation of survey questions.

Non-Indigenous comparisons are available through the National Health Survey (NHS). The NHS was conducted in major cities, inner and outer regional areas and remote and very remote areas, but very remote areas were excluded from the sample. Time series comparisons are available through the 1995 and 2001 NHS.

In remote and very remote communities there were some modifications to the NATSIHS content to accommodate language and cultural appropriateness in traditional communities and help respondents understand the concepts. Some questions were excluded and some reworded. Also, paper forms were used in communities in remote areas and computer-assisted interview (CAI) instruments were used in non-remote areas. The CAI process included built-in editing checks and sequencing.

Further information on NATSIHS data quality issues can be found in the NATSIHS 2004–05 publication (ABS 2006b).

National Aboriginal and Torres Strait Islander Social Survey

The Australian Bureau of Statistics (ABS) conducted the 2002 National Aboriginal and Torres Strait Islander Social Survey (NATSISS) between August 2002 and April 2003. The 2008 NATSISS was conducted between August 2008 and April 2009. The survey provides information about the Aboriginal and Torres Strait Islander populations of Australia for a wide range of areas of social concern including health, education, culture and labour force participation. The 2008 NATSISS included for the first time children aged under 15. The NATSISS will be conducted every six years, with the next survey planned for 2014.

The 2008 NATSISS collected information by personal interview from 13,300 Indigenous Australians across all states and territories of Australia, including those living in remote areas. The sample covered people aged 15 and over who are usual residents in selected private dwellings. It collected information on a wide range of subjects including family and culture, health, education, employment, income, financial stress, housing, and law and justice.

Selected other data quality issues

The NATSISS is conducted in all states and territories and includes remote and non-remote areas. The 2008 sample was 13,300 people in 6900 households, with a response rate of 82% of households. Up to three randomly selected Indigenous people were chosen from selected households to participate in the survey. Trained ABS interviewers conducted the survey using face-to-face interviews. In non-remote areas interviewers used a notebook computer to record responses, while in remote areas a paper questionnaire was used. Interviewers obtained the consent of a parent or guardian before interviewing those aged 15 to 17. Indigenous people usually resident in non-private dwellings such as hotels, motels, hostels, hospitals, short-stay caravan parks, prisons and other correctional facilities were excluded. The NATSISS uses the standard Indigenous status question. The NATSISS sample was specifically designed to select a representative sample of Aboriginal and Torres Strait Islander Australians.

Information recorded in this survey is 'as reported' by respondents, and therefore may differ from information available from other sources or collected using different methodologies.

Data on health-related indicators have been age-standardised to the 2001 total Australian population to account for differences in the age structures of the states and territories and the Indigenous and non-Indigenous population.

Time series comparisons for the 2008 survey are available through the 1994 National Aboriginal and Torres Strait Islander Survey and the 2002 NATSISS. However not all data elements align across the three (1994, 2002 and 2008) NATSISS surveys, hence care is required when reviewing results across the three surveys. There are no strictly comparable non-Indigenous results available for the 2008 NATSISS because the latest General Social Survey (which has been used in the past to compare with Indigenous results from the NATSISS) was run in 2006, with the next being run in 2010. Data from other ABS surveys run in 2008 may, however, be used to obtain rough non-Indigenous comparisons for some data items. Where possible, the ABS has provided recommendations for non-Indigenous data comparisons; these have been adopted in this report.

The 2008 NATSISS has a relatively large level of under-coverage when compared with other ABS surveys. There was also an increase in under-coverage compared with previous ABS Indigenous surveys. For example, the estimated under-coverage in the 2004-05 National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) was 42%. The overall under-coverage rate for the 2008 NATSISS is approximately 53% of the in-scope population at the national level. This rate varies across the states and territories (ABS 2010b). Further information on NATSISS data quality issues can be found in the 2008 NATSISS User's guide (ABS 2010b).

State and territory perinatal collections

Data for this measure come from the state- and territory-based perinatal collections ('midwives collections').

Each state and territory has a perinatal collection based on birth notification forms completed by midwives, and other staff, using information obtained from mothers and other hospital records. All jurisdictions record some aspects of most antenatal care, but the data collected vary by jurisdiction.

The Northern Territory, Queensland and South Australia collect data on the number of antenatal visits during pregnancy and the type of health-care professional consulted. New South Wales and the Northern Territory record the duration of pregnancy at the first antenatal session. Data on the use of antenatal care services were not available for the Australian Capital Territory, Victoria, Western Australia or Tasmania.

The World Health Organization (WHO) defines low birthweight as less than 2,500 grams.

Selected other data quality issues

All jurisdictions record self-reported information on some aspects of antenatal health status. The inventory of antenatal medical conditions reported on varies from jurisdiction to jurisdiction and they are not comparable.

Jurisdiction-level data are based on the state in which the birth has occurred, not the place of usual residence.

The current situation with regard to information on antenatal care visits is as follows:

Victoria, Tasmania and Western Australia and the Australian Capital Territory do not collect such information in their perinatal collections.

Data on the use of antenatal services by mothers was not collected in New South Wales. In 2007 NSW collected data for a new variable 'was antenatal care received', which should provide a more accurate picture of the use of antenatal sessions.

Queensland and South Australia did not collect data on the duration of pregnancy at the first antenatal visit, while New South Wales and the Northern Territory do record the duration of pregnancy at the first antenatal visit.

The Northern Territory, Queensland and South Australia collect data on the number of antenatal care visits during pregnancy and the type of health-care professional consulted. However, the categories for the latter are not comparable.

The Northern Territory has experienced IT problems which make reporting difficult (personal communication), and data suffers from under-recording in Aboriginal communities.

All jurisdictions are working towards improving the quality of the Indigenous status data.

National Mortality Database

The National Mortality Database is a national collection of de-identified unit record level data. It comprises most of the information recorded on death registration forms and medical (cause of death) certificates, including Indigenous status. The database is maintained by the Australian Institute of Health and Welfare (AIHW). Information on the characteristics and causes of death of the deceased is provided by the Registrars of Births, Deaths and Marriages and coded nationally by the Australian Bureau of Statistics (ABS). Information on the cause of death is supplied by the medical practitioner certifying the death, or by a coroner. The data are updated each calendar year and are presented by state or territory of usual residence rather than state or territory where death occurs.

It is considered likely that most deaths of Aboriginal and Torres Strait Islander people are registered. However, a proportion of these deceased are not reported as Aboriginal or Torres Strait Islander by the family, health worker or funeral director during the death registration process. That is, while data are provided to the ABS for the Indigenous status question for 99% of all deaths, there are concerns regarding the accuracy of the data. The Indigenous status question is not always directly asked of relatives and friends of the deceased by the funeral director. Detailed breakdowns of Aboriginal and Torres Strait Islander deaths are therefore only provided for five jurisdictions – New South Wales, Queensland, South Australia, Western Australia and the Northern Territory (AIHW 2010b).

Deaths for which the Indigenous status of the deceased was not reported have been excluded from the analysis.

Additional revised 2007 and preliminary 2008 mortality data for this indicator was supplied by the ABS from the ABS Cause of Death database. For further information see Causes of death, Australia, 2008 (ABS 2010c).

Data have been combined for the 5-year period 2004–2008 because of the small number of deaths from some conditions each year. Data have been analysed using the year of registration of death for all years. Note that the 2006 edition of this report used year of occurrence of death for all years of analysis except for the latest year of available data for which year of registration of death was used. Data published in this report may therefore differ slightly from those published in the previous edition for comparable years of data.

Data quality issues relating to reporting of Indigenous Australians

Indigenous status question

All jurisdictions comply with the standard wording for the Indigenous status question and categories for their death registration forms. However, although data are provided to the ABS for the Indigenous status question for 99% of all deaths, there are concerns regarding the accuracy of the data. The Indigenous status question is not always directly asked. Detailed breakdowns of Indigenous deaths are therefore provided for only five jurisdictions – New South Wales, Queensland, South Australia, Western Australia and the Northern Territory.

Indigenous status information from the two sources is kept in the database, although this may not be consistent for an individual.

In 2004, a new range of codes was introduced as part of the effort to standardise and improve indigenous identification in data collection nationally.

Indigenous Mortality Quality Study

The ABS conducted a number of quality studies based on the 2006 Census of Population and Housing and other data sets as part of the Census Data Enhancement (CDE) project (ABS 2008b). The CDE Indigenous Mortality Quality Study linked Census records with death registration records and examined differences in the reporting of Indigenous status across the two data sets.

There were 106,945 registered death records available to be linked in the study. Of these, 1,800 (1.7%) were identified as Indigenous on the death registration. Of the total registered deaths, 98,898 (92%) were linked to a Census record. However, a much lower linkage rate was achieved for Indigenous deaths, with more than one quarter of all Indigenous death registrations (26% or 473) unable to be linked to a Census record. As a result, Indigenous death records were over-represented in the unlinked death registrations.

As well as being over-represented in unlinked death registrations, unlinked Indigenous death records had different characteristics from linked Indigenous death registrations. Indigenous death records with older ages at death and from non-remote regions were more likely to be linked.

Under-identification

Almost all deaths in Australia are registered. However, the Indigenous status of the deceased is not always recorded or recorded correctly. The incompleteness of Indigenous identification means the number of deaths registered as Indigenous is an under-estimate of deaths occurring in the Aboriginal and Torres Strait Islander population (ABS 2009). As a result, the observed differences between Indigenous and non-Indigenous mortality are under-estimates of the true differences.

Longer-term mortality trend data are limited to three jurisdictions (Western Australia, South Australia and the Northern Territory) with 10 years of adequate identification of Indigenous deaths in their recording systems (ABS & AIHW 2005). The quality of the time series data is also influenced by the late inclusion of a 'not stated' category for Indigenous status in 1998. Before this time, the 'not stated' responses were probably included with the non-Indigenous.

The ABS calculated the implied coverage (identification) of Indigenous deaths for the period 2002–2006 using population estimates: New South Wales 45%, Victoria 32%, Queensland 51%, South Australia 62%, Western Australia 72% and Northern Territory 90%. Tasmania and the Australian Capital Territory were not calculated because of small numbers. For Australia the figure was 55% (ABS 2007c).

Note that different causes may have levels of under-identification that differ from the all-cause coverage estimates. Note also that the quality of the cause of death data depends on every step of the process of recording and registering deaths (including the documentation available at each step of the process) from certification to coding of cause of death.

There are also current concerns about data quality for causes of death, especially relating to external causes of death of all Australians (not just Indigenous) (ABS 2006c).

Problems associated with identification result in an underestimation of deaths and hospital separations for Indigenous people.

Selected other data quality issues

The mortality rate for Indigenous Australians can be influenced by identification of Indigenous deaths, late registration of deaths, and changes to death forms and/or processing systems. Because of the small size of the Indigenous population, these factors can significantly affect trends over time and between jurisdictions. At present, there is considerable variation across the states and territories in the completeness of mortality and hospital data for Indigenous people.

ABS Deaths Registration Database

The ABS Deaths Registration Database contains details of all deaths registered in Australia. This includes information on fetal (stillbirths) and neonatal deaths (deaths occurring in live births up to 28 days of age), by age of the baby, sex, state or territory of birth, Indigenous status and cause of death (ICD-10).

The National Perinatal Data Collection also contains data on fetal and neonatal deaths, by sex, state or territory of birth and the Indigenous status of the mother. However, it does not collect information on cause of death for all jurisdictions. Work is under way for this collection to include data on obstetric antecedent factors that initiated the sequence of events leading to death. This is based on the Perinatal Society of Australia and New Zealand Perinatal Death Classification for all jurisdictions.

Data from the ABS Deaths Registration Database have been used in this measure, as cause of death can be ascertained and neonatal deaths are more comprehensively captured in this database.

Data are presented by state or territory of usual residence rather than state or territory of death. Although identification of Indigenous deaths is incomplete in all state and territory registration systems, four jurisdictions (Queensland since 1998, Western Australia, South Australia and the Northern Territory) have been assessed by the ABS and the AIHW as having adequate identification. These four jurisdictions represent about 60% of the Indigenous population of Australia.

Several years of data have been combined because of the small number of deaths from some conditions each year. The latest year for which mortality data are available is 2008.

The perinatal mortality rate is defined by the ABS as the number of fetal deaths (babies of at least 400 grams birthweight or a gestational age of at least 20 weeks) and neonatal deaths (death of a live birth which occurs during the first 28 days of life), and is expressed as number of deaths per 1,000 live births during a given period. This definition of perinatal mortality is used in this report.

Data quality issues relating to reporting of Indigenous Australians

Indigenous status question

All jurisdictions comply with the standard wording for the Indigenous status question and categories for their death registration forms. However, New South Wales, Victoria, South Australia, the Northern Territory and the Australian Capital Territory have slightly different wording from the national standard for the instruction on those with both Aboriginal and Torres Strait Islander origin (ABS & AIHW 2005). Although the wording is only slightly different, it would be ideal to have all jurisdictions asking the question in exactly the same way. The National Perinatal Data Collection has more significant problems with compliance with the standard wording.

Under-identification

Almost all deaths in Australia are registered. However, the Indigenous status of the deceased is not always recorded or recorded correctly. The incompleteness of Indigenous identification means the number of deaths registered as Indigenous is an underestimate of deaths occurring in the Aboriginal and Torres Strait Islander population (ABS 1997). As a

result, the observed differences between Indigenous and non-Indigenous mortality are underestimates of the true differences.

Although the identification of Indigenous deaths is incomplete in all state and territory registration systems, four jurisdictions (Queensland, Western Australia, South Australia and the Northern Territory) have been assessed by the ABS and the AIHW as having adequate identification. Longer-term mortality trend data are limited to three jurisdictions (Western Australia, South Australia and the Northern Territory) with more than 10 years of adequate identification of Indigenous deaths in their recording systems. The quality of the time series data is also influenced by the late inclusion of a 'not stated' category for Indigenous status in 1998. Before this time, the 'not stated' responses were probably included with the non-Indigenous. The ABS calculated the implied coverage (identification) of Indigenous deaths for the period 2002–2006 using population estimates: New South Wales 45%, Victoria 32%, Queensland 51%, South Australia 62%, Western Australia 72%, the Northern Territory 90%. Tasmania and the Australian Capital Territory were not calculated because of small numbers. The figure for Australia was 55% (ABS 2007b).

Note that different causes may have levels of under-identification that differ from the all-cause coverage estimates. Note also that the quality of the cause of death data depends on every step of the process of recording and registering deaths (including the documentation available at each step of the process) from certification to coding of cause of death.

There are also concerns about data quality for causes of death especially relating to external causes of death of all Australians (not just Indigenous) (ABS 2006a).

Indigenous mortality rate for NSW is lower than the non-Indigenous mortality rate due to quality issues with Indigenous data for this state (ABS 2010c).

Selected other data quality issues

The mortality rate for Indigenous Australians can be influenced by late registration of deaths, identification of Indigenous deaths and changes to death forms and/or processing systems. Because of the small size of the Indigenous population, these factors can significantly affect trends over time and between jurisdictions.

Numerator and denominator

The perinatal mortality rate also relies on birth registration data. However, as with deaths, some Indigenous births are not correctly identified as Indigenous. The estimated identification of births as Indigenous in 2002–06 was 95%. Identification for the states and territories ranged from 83% for the Australian Capital Territory to 107% for the Northern Territory (ABS 2007c). Given that the identification is higher in births than deaths, it is likely that Indigenous perinatal mortality rates are underestimated.

The numerator and denominator are not based on the same collection or the same method of collection. Births are registered by the parents whereas death registration forms are completed by doctors and funeral directors. Therefore there would be inconsistency of Indigenous identification between the numerator and denominator.

Cause of death coding

Causes of death are based on the 10th revision of the International Classification of Diseases (ICD-10). Mortality coding using ICD-10 was introduced in Australia on 1 January 1997.

International data

International data are available for New Zealand, the United States and Canada using the WHO definition of perinatal mortality. However, the WHO definition differs markedly from the Australian definition of the perinatal period (see above) which was developed to be relevant for the Australian context. Therefore, Australian data include babies of at least 400 grams (at least 20 weeks if birthweight is unavailable) whereas the WHO definition starts at 500 grams (22 weeks if birthweight is unavailable). In addition, the WHO defines perinatal deaths as less than 7 days whereas Australia includes deaths up to 28 days (Laws & Sullivan 2004). It would be possible to analyse Australian data on the WHO definitional basis, but it is not recommended for this performance measure.

AIHW National Public Hospitals Establishment Database

The AIHW National Public Hospitals Establishment Database holds establishment-level data for public hospitals within the jurisdiction of the state and territory health authorities. Private hospitals and public hospitals not administered by the state or territory authorities are not included. Information is provided annually to the AIHW by state and territory health departments.

Data are presented for the six jurisdictions that have been assessed by the AIHW as having adequate identification of Indigenous hospitalisations in 2006–08. They are New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory (AIHW 2010c). These six jurisdictions represent about 96% of the Indigenous population of Australia. Data are presented by state or territory of usual residence of the patient.

Hospitalisations for which the Indigenous status of the patient was not reported have been included with hospitalisations data for non-Indigenous people under the 'other' category. This is to enable consistency across jurisdictions because public hospitals in some states and territories do not have a category for the reporting of 'not stated' or inadequately recorded/reported Indigenous status.

Hospitalisation data are presented for the 2-year period July 2006 to June 2008. An aggregate of two years of data has been used, because the number of hospitalisations for some conditions is likely to be small for a single year.

Data quality issues relating to reporting of Indigenous Australians

Indigenous status question

Some jurisdictions have slightly different approaches to the collection and storage of the standard Indigenous status question and categories in their hospital collections (AIHW 2005).

Under-identification

The incompleteness of Indigenous identification means the number of hospital separations underestimates the hospitalisations involving Aboriginal and Torres Strait Islander people. For several years, Queensland, South Australia, Western Australia and the Northern Territory reported that Indigenous status in their hospital separations data was of acceptable quality (AIHW 2007).

The AIHW, however, has recently completed an assessment of the level of Indigenous under-identification in hospital data in all states and territories. Results from this assessment indicate that New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory have adequate Indigenous identification (20% or less overall under-identification of Indigenous patients) in their hospital separations data (AIHW 2010c). It has therefore been recommended that reporting of Indigenous hospital separations data be limited to aggregated information from these jurisdictions. The proportion of the Indigenous population covered by these six jurisdictions is 96%. The following caveats have also been recommended to accompany analysis on data of these jurisdictions (AIHW 2010c):

- limitations imposed by jurisdictional differences in data quality
- the data not necessarily being representative of the jurisdictions excluded

- the possible contribution of changes in ascertainment of Indigenous status to changes in hospitalisation rates for Indigenous people.

From the AIHW study it was possible to produce correction factors for the level of Indigenous under-identification in hospital data for each jurisdiction and at the national level.

Selected other data quality issues

Separations

The number and pattern of hospitalisations in jurisdictions can be affected year to year by different admission practices and levels and patterns of service delivery.

Census of Population and Housing

The Australian Bureau of Statistics (ABS) Census of Population and Housing is conducted by the ABS at five-yearly intervals, and is designed to include all Australian households. The Census uses the ABS standard Indigenous status question for each household member.

Although the Census data are adjusted for undercount at the person level to arrive at the estimated resident population, no such adjustment is made at the household level. This affects the accuracy of the person counts at the household level to provide adjusted household estimates.

The 1996 and 2001 Census used the Australian Standard Classification of Occupations, but this was replaced by the Australian and New Zealand Standard Classification of Occupations for the 2006 Census.

Selected other data quality issues

The Census uses the *National health data dictionary* standard Indigenous status question and it is asked for each household member. Measures that are drawn from Census data are subject to broad data concerns relating to the unexplainable growth in the Aboriginal and Torres Strait Islander population since the 1991 Census, and the limitations of self-identification. Other Census data issues relate to the accuracy of the Census count itself; for example, whether people are counted more than once, or are under-counted (ABS 1996).

For the 2002 NATSISS, it was estimated that there were 165,700 Indigenous households compared with 144,700 enumerated in the 2001 Census. Although the Census data are adjusted for under-counting at the person level to arrive at the estimated resident population, no such adjustment is made at the household level. This affects the accuracy of the person counts at the household level to provide adjusted household estimates.

National Child Protection Australia

Data for this measure come from three national child protection data collections:

- child protection notifications, investigations and substantiations
- children on care and protection orders
- children in out-of-home care.

These data are collected each year by the AIHW from the relevant departments in each state and territory. Most of the data presented here cover the 2008–09 financial year and have been published in the AIHW report *Child protection Australia 2008–09* (AIHW 2010d). Some data on trends in child protection are also included.

Each state and territory has its own legislation, policies and practices in relation to child protection, which accounts for some of the differences between jurisdictions in the data provided. Australian totals have not been provided for those data that are not comparable across the states and territories.

The practices used to identify and record the Indigenous status of children vary across states and territories, with some jurisdictions recording large numbers of unknowns. No state or territory can validate the data on Aboriginal and Torres Strait Islander children by other means and the quality of the data is therefore unknown.

In this collection, children are counted as Indigenous if they are identified as such in the state and territory collections. Children whose Indigenous status is recorded as ‘unknown’ are excluded, where possible, from calculations of rates and proportions. The counts for Aboriginal and Torres Strait Islander children are therefore likely to be an underestimate of the actual number of Aboriginal and Torres Strait Islander children in the child protection system.

Note that Tasmania and the Australian Capital Territory have very small numbers, and statistics from these jurisdictions are susceptible to random fluctuations.

Reported rates for Aboriginal and Torres Strait Islander children in the child protection system for 2008–09 cannot be compared directly with those from previous years in earlier AIHW *Child protection Australia* publications. In previous years, rates were calculated using ABS Indigenous population data from the 1996 and 2001 Census; the latter projections are based on the data from the 2006 Census. For time series analyses presented in this measure, rates have been reported as they were in the corresponding referenced publications.

Selected other data quality issues

Reported rates for Aboriginal and Torres Strait Islander children in the child protection system for 2008–09 cannot be compared directly with previous years data published in AIHW *Child protection in Australia* reports. In previous years, rates were calculated using ABS Indigenous population denominators from the 1996 and 2001 Census, while the 2008–09 projections are based on the 2006 Census population data. For time series analyses presented in this measure, rates were taken from the published reports and they have not been re-calculated using recent Indigenous population estimates based on the 2006 Census.

State and territory comparisons

As each state and territory has a different legal regime and different human services policies for child protection, the states and territories cannot be compared with each other, and national totals should not be used. Tasmania and the Australian Capital Territory have very small numbers, and statistics from these jurisdictions are susceptible to random fluctuations.

Child protection is an area in which legislation and human services practice changes. Often notification rates vary owing to public awareness of child abuse, and practices in relation to the intensity of follow-up of notifications which are affected by a number of factors. For these reasons time series comparisons may not be statistically valid.

In addition, one-off global changes may occur in the legal and procedural regime of a particular jurisdiction, which may make comparisons between time series data from before and after such change invalid.

Child abuse

Child protection policies and practices are continually under development. As such, they affect the number of children in the child protection system in different ways. Therefore, trends in child protection numbers should be interpreted carefully.

The definition of what constitutes child abuse and neglect has changed and broadened over time (AIFS: Bromfield & Holzer 2008). Naturally, any broadening of the definition of child abuse and neglect is likely to increase notifications and substantiations. The focus of child protection in many jurisdictions has shifted away from the identification and investigation of narrowly defined incidents of child abuse and neglect. Instead, the focus has moved towards a broader assessment of whether a child or young person has suffered harm.

Care and protection orders

For the 2008–09 financial year Indigenous children are counted only once, even if they were admitted to or discharged from more than one order or were on more than one order at 30 June 2009. A child on more than one order at 30 June, 2009 is counted as being on the order that implies the highest level of intervention by the department (with guardianship or custody orders being the most interventionist, and interim and temporary orders the least) (AIHW 2010d).

Substantiations

Since 1997 the number of substantiated notifications of child abuse across Australia has increased significantly. Therefore, interpretation of the figures for Indigenous children should be in the light of the increasing number of all children subject to these substantiated notifications.

The practices used to identify and record the Indigenous status of children vary across states and territories, with some jurisdictions recording large numbers of unknowns. No state or territory can validate the data on Aboriginal and Torres Strait Islander children by other means and the quality of the data is therefore unknown. In this collection, children are counted as Indigenous if they are identified as such in the state and territory collections. For information regarding the 2008–09 financial year children whose Indigenous status is recorded as ‘unknown’ are excluded, where possible, from calculations of rates and proportions. The counts for Aboriginal and Torres Strait Islander children are therefore likely to be an underestimate of the actual number of Aboriginal and Torres Strait Islander children in the child protection system.

During 1998–99 a new method for counting Indigenous status was implemented in New South Wales, which improved the accuracy of this information. The apparent increase in the rate of Indigenous clients was a reflection of the improved recording of Indigenous status

rather than an increase in the number of Indigenous clients. Western Australia also introduced new practices to improve the identification of Indigenous clients in 2001-02.

National Hospital Morbidity Database

The National Hospital Morbidity Database is a compilation of episode-level records from admitted patient morbidity data collection systems in Australian hospitals in each state and territory. Information on the characteristics, diagnoses and care of admitted patients in public and private hospitals is provided annually to the AIHW by state and territory health departments.

Data are presented for the six jurisdictions that have been assessed by the AIHW as having adequate identification of Indigenous hospitalisations in 2006–08. They are New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory. These six jurisdictions represent about 96% of the Indigenous population of Australia. Data are presented by state or territory of usual residence of the patient.

In the period 2007–08, there were 276,000 hospital separations (episodes of care for admitted patients) for Aboriginal and Torres Strait Islander patients, around 3.5% of all separations. The proportion of separations of Aboriginal and Torres Strait Islander people was higher in public hospitals (5.4% or 256,425 separations) than in private hospitals (0.6% or 20,015 separations). Of all Aboriginal and Torres Strait Islander separations, nearly 93% occurred in public hospitals (AIHW 2009).

Hospitalisations for which the Indigenous status of the patient was not reported have been included with hospitalisations data for non-Indigenous people under the 'other' category. This is to enable consistency across jurisdictions, because public hospitals in some states and territories do not have a category for the reporting of 'not stated' or inadequately recorded/reported Indigenous status.

Hospitalisation data are presented for the 2-year period from July 2006 to June 2008. An aggregate of two years of data has been used, because the number of hospitalisations for some conditions is likely to be small for a single year.

The principal diagnosis is the diagnosis established to be the problem that was chiefly responsible for the patient's episode of care in hospital. The additional diagnosis is a condition or complaint either coexisting with the principal diagnosis or arising during the episode of care. The term 'hospitalisation' has been used to refer to a separation, which is the episode of admitted patient care. This can include a total hospital stay (from admission to discharge, transfer or death) or a portion of a hospital stay beginning or ending in a change in the type of care (for example, from acute to rehabilitation). 'Separation' also means the process by which an admitted patient completes an episode of care by being discharged, dying, transferring to another hospital or changing type of care.

Data quality issues relating to reporting of Indigenous Australians

Indigenous status question

Some jurisdictions have slightly different approaches to the collection and storage of the standard Indigenous status question and categories in their hospital collections (AIHW 2005).

'Not stated' responses to the Indigenous status question were around 1% in public hospitals and 4% in private hospitals in 2007–08. This is a reduction from 1998–99 when 2% of

responses in public hospitals and 8% of responses in private hospitals had a 'not stated' Indigenous status (AIHW 2009).

Under-identification

The incompleteness of Indigenous identification means the number of hospital separations recorded as Indigenous is an under-estimate of hospitalisations involving Aboriginal and Torres Strait Islander people. A recent assessment of the level of Indigenous under-identification in hospital data in all states and territories implemented by the AIHW, suggests that 89% of Indigenous patients were correctly identified in Australian public hospital admission records in 2007–08 (AIHW 2010b). In other words, 11% of Indigenous patients were not identified, and the 'true' number of hospital admissions for Indigenous people was about 12% higher than reported. This assessment also indicates that all hospitals in New South Wales, Victoria, Queensland, Western Australia and South Australia and public hospitals in the Northern Territory have adequate Indigenous identification (80% or higher overall levels of Indigenous identification in public hospitals only) in their separations data.

For Tasmania and the Australian Capital Territory, the levels of Indigenous identification in hospital admission record in 2007–08 were not considered acceptable for analysis purposes. It has therefore been recommended that reporting of Indigenous hospital separations data before 2009–10 to be limited to information from New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory, individually or in aggregate. The proportion of the Indigenous population covered by these six jurisdictions is 96%. The following caveats have also been recommended for analysis of hospitalisation data from selected jurisdictions (AIHW 2010b):

- Interpretation of results should take into account the relative quality of the data from the jurisdictions included.
- Interpretation of time series analysis should take into account the possible contribution of changes over time in ascertainment of Indigenous status to changes in hospitalisation rates for Indigenous people.
- Hospitalisation data for these six jurisdictions are not necessarily representative of other jurisdictions.

From the AIHW study, it was possible to produce correction factors for the level of Indigenous under-identification in hospital data for each jurisdiction and at the national level.

Under-identification by remoteness areas

There were acceptable levels of Indigenous identification for all remoteness areas, ranging from 80% in *Major cities* to 97% in *Remote* and *Very remote* areas. The quality of data supports analyses by remoteness areas, in aggregate, across states and territories. However, the sample size was insufficient to allow assessment of the quality of Indigenous identification by remoteness area within jurisdictions.

Selected other data quality issues

Separations

The number and pattern of hospitalisations can be affected by differing admission practices among the jurisdictions and from year to year, and differing levels and patterns of service delivery.

In all states and territories, the proportion of Aboriginal and Torres Strait Islander separations in public hospitals increased over the 11-year period 1996–97 to 2007–08, from 3.7% to 5.4%. In private hospitals, it stayed around 0.2% to 0.3% until 2003–04, when there was a modest increase to 0.5%

National Police Custody Survey

The latest National Police Custody Survey conducted in 2007 collected information on the number of people who passed through police custody (as opposed to custody in the prison system) in all jurisdictions. Survey findings are reported on: how many people go into and out of police cells over the course of one month; why people are placed in police custody; the types of offences associated with police custody; the length of time that people are in police custody; the proportions of incidents in which Indigenous people are involved; rates of Indigenous and non-Indigenous custody per population, and whether these patterns change over time.

The Indigenous status of the victim or perpetrator or both is based on police identification.

There are some inconsistencies in the method of data collection between jurisdictions and thus care should be taken in comparing data between states and territories.

Selected other data quality issues

The Indigenous status of the victim or perpetrator or both is based on police identification, and therefore will underestimate the level of custody involving Indigenous people. There are also some inconsistencies in the method of data collection between the jurisdictions (electronic versus manual) and there is no guarantee that the reporting is complete. However, the comparisons between the prison custody figures and the police custody figures are useful to have and should be reported.

OATSIH Services Reporting data collection

In 2008–09, the Australian Institute of Health and Welfare (AIHW) collected the data from the Aboriginal and Torres Strait Islander primary health care, substance use, and Bringing Them Home and Link Up counselling services funded by the Australian Government through the Office for Aboriginal and Torres Strait Islander Health (OATSIH).

OATSIH-funded services include both Indigenous community-controlled health organisations and non-community-controlled health organisations. Note that the OATSIH Services Reporting (OSR) includes only Aboriginal and Torres Strait Islander health organisations that receive at least some Australian Government funding to facilitate access to primary health care.

This collection, referred to as the OSR data collection, replaces the Service Activity Reporting (SAR), Drug and Alcohol Services Reporting (DASR), and Bringing Them Home and Link Up counselling data collections previously made by the OATSIH.

The counting rules used in OSR data analyses treat each auspice service as a single service and this yields a larger numerator and denominator when calculating rates, whereas in earlier collections (SAR and DSAR) only the higher-level service was counted. For example, a higher-level service could have five auspice services under it and in OSR these will be counted as five individual services, whereas in SAR and DSAR it was counted as a single service. While this change only marginally affects the aggregate rates, caution should be exercised when comparing rates with earlier data collection periods.

The OSR data collection included 211 Australian Government-funded Aboriginal and Torres Strait Islander primary health-care services. Service-level data on health care and health-related activities were collected by survey questionnaire for the 2008–09 financial year reporting period and provided data on episodes of care, service population, clients and staffing. Response rates to the OSR questionnaire by Aboriginal and Torres Strait Islander primary health-care services in 2008–09 were around 97%.

Of the 86 Bringing Them Home and Link Up counselling services, 81 (94%) responded to the OSR questionnaire, as well as five auspiced services. Many services providing Bringing Them Home and Link Up counselling are part of existing primary health-care or substance use disorder-specific services.

Forty-five (90%) out of 50 substance use disorder-specific services as well as three auspiced services responded to the OSR questionnaire.

Selected other data quality issues

The data were collected using the OSR questionnaire, (surveying all auspiced services) which combined previously separate questionnaires for primary health, substance use, and Bringing Them Home and Link Up counselling services.

OATSIH sent a paper copy of the 2008–09 OSR questionnaire to each participating service and asked the service to complete the relevant sections. The participating services sent their completed OSR questionnaires directly to the AIHW.

The AIHW examined all completed questionnaires received to identify any missing data and data quality issues. Where needed, AIHW staff contacted the relevant services to follow up and obtain additional or corrected data. After manually entering the data on the data repository system, staff conducted further data quality checks.

The AIHW identified three major problems with the data quality: missing data, inappropriate data provided for the question, and divergence of data from two or more questions. The majority of 2008–09 OSR questionnaires received had one or more of these data quality issues.

Further information can be found in the data quality statement in the *Aboriginal and Torres Strait Islander Health Services report, 2008–09* (AIHW 2010e).

Socioeconomic Indexes for Areas (SEIFA)

The ABS has developed four indexes to allow measurement of relative socioeconomic status at a small area level. These indexes summarise a range of socioeconomic variables associated with disadvantage. Each index summarises a different aspect of the socioeconomic conditions of people living in an area. They each summarise a different set of social and economic information. The indexes take into account a range of factors in determining socioeconomic conditions.

Index of Advantage/Disadvantage

This index is a continuum of advantage to disadvantage and is available for both urban and rural areas. Low values indicate areas of disadvantage, and high values indicate areas of advantage. It takes into account variables such as the proportion of families with high incomes, people with a tertiary education, and employment in skilled occupations (ABS 2003).

Selected other data quality issues

A range of data items can be included in an index on socioeconomic disadvantage and the Census does not collect all of the variables identified as being related to socioeconomic status. Some of the variables may be context-specific (for example, a low mortgage in Sydney may be high in another city) and some are associated with age (for example, income), yet the methodology does not allow for age standardisation. This is particularly relevant in the context of this performance measure where we are comparing two populations that have different age structures.

Analysis of SEIFA results at small area levels has found that within any area there will be individuals and subpopulations with very different characteristics from the overall population of the area. When judgments are made about the individual or subpopulation based on the characteristics of the area, there is considerable potential for error (Baker & Adhikari 2007). This issue is particularly relevant for Indigenous people, because they make up a small proportion of the population in most areas of Australia.

Kennedy and Firman (2004) found that the traditional approach to analysing SEIFA at an area level masks the socioeconomic status of Indigenous Australians, who make up a small proportion of most areas. They found that stratifying SEIFA scores by Indigenous and non-Indigenous households in each area shows that Indigenous populations suffer a high level of social and economic disadvantage regardless of whether they live in high or low socioeconomic areas.

Survey of Income and Housing (SIH)

The Survey of Income and Housing (SIH) is conducted by the ABS every two years, with the first survey beginning in 1994–95. The survey was developed to provide broad aggregates for households in Australia. The current survey was conducted from August 2007 to June 2008 and 9,345 households participated through a personal interview at their usual place of residence. The dwellings were selected through a stratified, multistage cluster design and the survey was conducted over 12 months to be representative of a yearly pattern. Participants were asked for information regarding their household, including characteristics, costs, assets and liabilities and individual personal characteristics for residents aged over 15.

Selected other data quality issues

Survey data are subject to sampling and non-sampling errors. Non-sampling errors can occur in surveys owing to questionnaire design problems, respondent difficulty recalling information/lack of appropriate records, and errors made in the recording and processing of the data. Every effort was made to minimise non-sample errors in this survey. However, the survey had a sample loss and non-response of 1,781 dwellings, and 16% of the selected sample and 2,026 households having at least one imputed value in income or child care expenses.

A further limitation of the survey's scope was that households in very remote areas were not covered by the survey. The survey does state that due to the small population in these areas it is likely this will have minimal impact.

Australian General Practice Accreditation Limited (AGPAL) and the General Practice Accreditation Plus (GPA+)

Selected data quality issues

AGPAL

AGPAL provides information on the total numbers of accredited practices and practices registered for accreditation. These data are published by the Division of General Practice, but not statistical local area (SLA).

GPA+

Data on practices accredited by GPA+ have not been routinely reported, but may in the future become available.

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