Australian Government
Australian Institute of
Health and Welfare

*Authoritative information and statistics
to promote better health and wellbeing*

Aboriginal and Torres Strait Islander Health Performance Framework 2010 report

South Australia

Australian Institute of Health and Welfare
Canberra
Cat. no. IHW 62

The Australian Institute of Health and Welfare is a major national agency which provides reliable, regular and relevant information and statistics on Australia's health and welfare. The Institute's mission is *authoritative information and statistics to promote better health and wellbeing*.

© Australian Institute of Health and Welfare 2011

This product, excluding the AIHW logo, Commonwealth Coat of Arms and any material owned by a third party or protected by a trademark, has been released under a Creative Commons BY 3.0 (CC-BY 3.0) licence. Excluded material owned by third parties may include, for example, design and layout, images obtained under licence from third parties and signatures. We have made all reasonable efforts to identify and label material owned by third parties.

You may distribute, remix and build upon this work. However, you must attribute the AIHW as the copyright holder of the work in compliance with our attribution policy available at <www.aihw.gov.au/copyright/>. The full terms and conditions of this licence are available at <http://creativecommons.org/licenses/by/3.0/au/>.

Enquiries relating to copyright should be addressed to the Head of the Communications, Media and Marketing Unit, Australian Institute of Health and Welfare, GPO Box 570, Canberra ACT 2601.

A complete list of the Institute's publications is available from the Institute's website <www.aihw.gov.au>.

ISBN 978-1-74249-237-7

Suggested citation

Australian Institute of Health and Welfare 2011. Aboriginal and Torres Strait Islander Health Performance Framework 2010 report: South Australia. Cat. no. IHW 62. Canberra: AIHW.

Australian Institute of Health and Welfare
Board Chair
Dr Andrew Refshauge

Director
David Kalisch

Any enquiries about or comments on this publication should be directed to:
Communications, Media and Marketing Unit
Australian Institute of Health and Welfare
GPO Box 570
Canberra ACT 2601
Tel: (02) 6244 1032
Email: info@aihw.gov.au

Published by the Australian Institute of Health and Welfare

Please note that there is the potential for minor revisions of data in this report. Please check the online version at <www.aihw.gov.au> for any amendments.

Contents

Acknowledgments .... **vii**

Abbreviations .... **viii**

Key findings .... **ix**

Health status and health outcomes ix

Determinants of health ix

Health system performance x

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

Introduction **1**

Demographic information 3

Structure of this report 5

Data sources and methodology 6

Data limitations 6

Population data 7

Health status and outcomes (Tier 1) **9**

1.01 Low birthweight infants 10

1.02 Top reasons for hospitalisation 13

1.03 Hospitalisation for injury and poisoning 17

1.04 Hospitalisation for pneumonia 23

1.05 Circulatory disease 26

1.07 High blood pressure 33

1.08 Diabetes 35

1.09 End-stage Renal Disease 38

1.10 Decayed, missing, filled teeth 41

1.11 Hepatitis C and sexually transmissible infections 42

1.12 Children's hearing loss 47

1.13 Disability 50

1.14 Community functioning 51

1.15Perceived health status 64

1.16 Social and emotional wellbeing 66

1.18 Median age at death 69

1.19 Infant mortality 71

1.20 Perinatal mortality 74
1.21 Sudden infant death syndrome 78
1.22 All-causes age-standardised death rate 80
1.23 Leading causes of mortality 83
1.25 Avoidable and preventable deaths 87
Determinants of health (Tier 2) 92
2.01 Access to functional housing with utilities 93
2.02 Overcrowding in housing 95
2.03 Environmental tobacco smoke 98
2.04 Years 3, 5 and 7 literacy and numeracy 99
2.05 Years 10 and 12 retention and attainment 105
2.06 Educational participation and attainment of Aboriginal and Torres Strait Islander adults 107
2.07 Employment status including Community Development Employment Projects (CDEP) participation 110
2.08 Income 112
2.09 Housing tenure type 114
2.10 Index of disadvantage 116
2.11 Dependency ratio 118
2.13 Community safety 120
2.14 Contact with the criminal justice system 123
2.15 Child protection 125
2.16Transport 128
2.17 Indigenous people with access to their traditional lands 130
2.18 Tobacco use 132
2.19 Tobacco smoking during pregnancy 134
2.20Risky and high-risk alcohol consumption 135
2.21 Drug and other substance use including inhalants 137
2.22 Level of physical activity 139
2.23 Dietary behaviour 140
2.24 Breastfeeding practices 142
2.25 Unsafe sexual practices 145
2.26 Prevalence of overweight and obesity 147
Health system performance (Tier 3) 149
3.01 Antenatal care 150

3.02 Immunisation 152
3.03 Early detection and early treatment of disease 155
3.05 Differential access to key hospital procedures 157
3.06 Ambulatory care sensitive hospital admissions 159
3.07 Health promotion 164
3.08 Discharge against medical advice 167
3.09 Access to mental health services 170
3.10 Aboriginal and Torres Strait Islander Australians in the health workforce 174
3.11 Competent governance 175
3.12 Access to services by types of service compared to need 177
3.14 Access to after-hours primary care 182
3.15 Extent to which individuals have a regular GP or health service 184
3.16 Care planning for clients with chronic diseases 186
3.17 Accreditation 188
3.18 Aboriginal and Torres Strait Islander peoples training for health related disciplines 190
3.19 Expenditure on Aboriginal and Torres Strait Islander health compared to need 193
3.20 Recruitment and retention of clinical and management staff (including GPs 195
Appendix: Data sources and quality 196
The Australian Childhood Immunisation Register 196
Australia and New Zealand Dialysis and Transplant Registry (ANZDATA) 198
Community Housing and Infrastructure Needs Survey 199
National Community Mental Health Care Database 201
DEEWR Higher Education Statistics Collection 202
National Non-admitted Patient Emergency Department Care Database 203
National Schools Statistics Collections (NSSC) 2009 204
National Centre for Vocational Education Research 206
National Notifiable Diseases Surveillance System 207
National Perinatal Data Collection 209
National Aboriginal and Torres Strait Islander Health Survey 211
National Aboriginal and Torres Strait Islander Social Survey 212
State/Territory Perinatal Collections 214
National Mortality Database 215
ABS Deaths Registration Database 218
Census of Population and Housing 221

National Child Protection Australia......222
National Hospital Morbidity Database......224
Survey of Income and Housing (SIH)......227
Australian General Practice Accreditation Limited (AGPAL) and the General Practice Accreditation Plus (GPA+)......228
References......229
List of tables......232
List of figures......235
Related publications......241

Acknowledgments

The main authors of this report are Jessica Zhang, Qinghe Yin, Malcolm McDonald, Jan Watson and Alison Van Der Zwan. Special contributions made by Indrani Pieris-Caldwell, Andy Ransom, John Shelton Agar and Carmel Hill are gratefully acknowledged. Thanks are also extended to Fadwa Al-Yaman who provided ongoing comments on the project.

The following organisations are acknowledged for providing data for various sections of the report: Australian Bureau of Statistics; Department of Health and Ageing; Office of Aboriginal and Torres Strait Islander Health; Australian Institute of Criminology; Department of Education, Employment and Workplace Relations; Australian Curriculum, Assessment and Reporting Authority; National Centre for Vocational Education and Research; Department of Families, Housing, Community Services and Indigenous Affairs; Centre for Disease Control (Top End Rheumatic Heart Disease Program and Central Australian Rheumatic Heart Disease Program); Australian and New Zealand Dialysis and Transplant Registry; Primary Health Care Research and Information Service, Australian General Practice Accreditation Limited; Medicare Australia; GPA Accreditation Plus; Rural Health Workforce Australia; Office of the Registrar of Indigenous Corporations; and Queensland Health.

Thanks are extended to a number of units within the Australian Institute of Health and Welfare (AIHW) including: Children Youth and Families, Child and Youth Welfare, Mental Health Services, Cardiovascular, Diabetes and Kidney, Cancer and Screening, Population Health, Expenditure and Economics, Homeless Data Collection, Labour Force, Indigenous Community and Health Service Reporting, and Hospital Data, and AIHW’s collaborating units including Dental Statistics and Research Unit, National Injury Surveillance Unit, National Perinatal Epidemiology and Statistics Unit and the Australian General Practice Statistics and Classification Centre.

This work received financial support from the Commonwealth Department of Health and Ageing Office for Aboriginal and Torres Strait Islander Health. We would like to thank Kirrily Harrison and Ruth Nicholls for their comments, support and assistance throughout the production of the report.

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

A summary of the key findings under each tier are outlined below as well as in a table format in page xi for ease of reference.

Health status and health outcomes

Areas of improvement

While the health status of Indigenous people in South Australia is worse than their non-Indigenous counterparts against most indicators, small but significant health gains have been made in a number of areas:

- Although the proportion of babies born to Indigenous mothers in South Australia is over 2 times as likely to be of low birthweight as those of non-Indigenous mothers, there has been a 17% decline in the rate of low birthweight babies born to Indigenous mothers over the period 2000–2008.
- Notification rates of syphilis among Indigenous people have decreased significantly by 87% between 1994–1996 to 2006–2008.
- Significant closing of the gap between Indigenous and non-Indigenous mortality was seen for:
  - infant mortality which declined by 54% between 1991 and 2007 (20 to 12 per 1,000 births respectively) and perinatal mortality which also declined from 16.7 per 1,000 births in 1999-2003 to 9.7 in 2004-2008
  - all-cause mortality which declined by 20% over the period 1991–2007.

Areas needing further work

Despite making progress in some areas, Indigenous Australians in South Australia are lagging behind in a large number of areas where further improvements need to be made to close the gap in health disadvantage:

- Indigenous hospitalisation rate for all major health conditions is just over three times the rate of other Australians in South Australia in 2006–2008:
  - there has been a significant increase (17% increase) in the rate of Indigenous hospitalisations for all-causes between 2001-02 and 2007-08, and
  - over the same period there has been a significant increase in Indigenous hospitalisation rates for injury and poisoning (22% increase).

Determinants of health

Areas of improvement

Some improvements have been made in key health determinants in recent years in South Australia:

- A higher proportion of Indigenous adults than non-Indigenous adults were studying in 2008 in South Australia (20% and 14% respectively)
- In 2004–05, 95% of Indigenous Australians aged 12 years and over in South Australia reported that they ate vegetables daily, 87% ate fruit daily and 95% drank milk.

Areas needing further work

Despite significant improvements as mentioned above, further improvements need to be made in a number of areas to close the gap in health disadvantage:

- Indigenous children aged 0–16 years were more likely than other children to be the subject of child protection substantiation (51 per 1,000 compared to 4 per 1,000)
- in 2007, Indigenous mothers were over 3 times as likely as non-Indigenous mothers to smoke during pregnancyIn 2007–08, 66% of Indigenous children aged 0–14 years lived in households with a daily smoker, compared with 30% of non-Indigenous children
- Indigenous people in South Australia were 16 times as likely as their non-Indigenous counterparts to be imprisoned in 2009
- the mean equalised gross weekly household income for Indigenous adults was $552 per week in 2008, compared with $891 for non-Indigenous adults.

Health system performance

Areas of improvement

There have been improvements in health system performance in recent years including:

- over 90% of Indigenous mothers attended at least one antenatal care session during pregnancy in 2007, an increase of 30% since 1998
- in 2004-05, a higher proportion (85%) of Indigenous people aged 65 years and over had been vaccinated against influenza than non-Indigenous people of the same age (78%). Similarly, there was a higher proportion of Indigenous than non-Indigenous people vaccinated against pneumonia (58% and 45% respectively)
- the proportion of Indigenous children who were fully immunised at 5 years of age showed a marked increase between 2004 and 2009 from 67% to 72%.

Areas needing further work

Further improvements are needed for some areas including:

- the proportion of Indigenous children who were fully immunised at age 1 decreased by 12% between 2004 and 2009
- Indigenous people in South Australia were hospitalised for potentially preventable conditions at four times the rate of other people (169 and 43 per 1,000 people respectively during 2006-08):
  - the rate of hospitalisations of Indigenous people for preventable acute conditions increased by 36% between 2001-02 and 2007-08, and
  - over the same period, the rate of preventable chronic disease hospitalisation rate among Indigenous people increased by 81%.

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

Health status and health outcomes		Determinants of health		Health system performance	
Improving	**Needs improvement**	**Improving**	**Needs improvement**	**Improving**	**Needs improvement**
Low birthweight The low birthweight rate for Indigenous babies decreased by 17% while there was no significant change for non-Indigenous. Gap has narrowed. (2000 to 2008) **Syphilis** The notification rate decreased by 87% for Indigenous people, but significantly increased for other people. Gap has narrowed: (1994–96 to 2005–06) **Infant mortality** The infant mortality rate decreased by 54% for Indigenous infants, and by 30% for other infants. Gap has narrowed. (1991 to 2007) **Perinatal mortality** The perinatal mortality rate declined from 16.7 to 9.7 per 1,000 for Indigenous babies and from 9.8 to 7.5 for other babies. Gap has narrowed (1999–2003 to 2004–2008) **SIDS mortality** The SIDS mortality rate declined significantly for both Indigenous babies and other babies. Gap has narrowed (1991–1993 to 2005–2007) **All-cause mortality** The all-cause mortality rate declined significantly by 20% for Indigenous people, by 25% for other people. Gap has narrowed. (1991 to 2007)	**Hospitalisation** The hospitalisation rate increased by 17% for Indigenous people, but had no significant change for others people. Gap has widened (2001–02 to 2007–08) **Injury and poisoning** The hospitalisation rate increased by 22% for Indigenous people and by 11% for other people. Gap has widened. (2001–02 to 2007–08) **Pneumonia** The hospitalisation rate had no significant change for Indigenous people, but declined by 18% for others people. Gap has widened. (2001–02 to 2007–08) **Circulatory disease** The hospitalisation rate had no significant change for Indigenous people, but declined by 9% for other people. (2001–02 to 2007–08) **Chlamydia** The notification rate increased significantly for both Indigenous people and other people. The rate difference increased by 167%. Gap has widened. (1994–96 to 2006–08) **Avoidable causes mortality** The rate had no significant changes for Indigenous people, declined by 11% for other people. Gap has widened. (1997–2007)	**Adult education** In 2008, 20% of Indigenous Australians aged 15 years and over were currently studying. This is higher than for non-Indigenous Australians (14%). **Dietary habits** In 2004–05, 95% of Indigenous Australians reported as eating vegetables daily, 87% eating fruit daily, and 95% drinking milk.	**Environmental tobacco smoke** In 2007–08, 66% Indigenous children aged 0–14 years lived in households with a daily smoker. Only 30% of non-Indigenous children aged 0–14 years lived in households with a daily smoker **Index of disadvantage** In 2006, in South Australia, 48% of the Indigenous population were in the most disadvantaged socioeconomic quintile compared with 19% of non-Indigenous people **Imprisonment** The crude imprisonment rate of Indigenous Australians increased by 56%. (2000 to 2009) **Child protection** The proportion of Indigenous children who were subjects of substantiations increased from 32 per 1,000 to 51 per 1,000. (2004–05 to 2008–09) **Tobacco smoking during pregnancy** In 2007, Indigenous mothers were 3.2 times as likely as non-Indigenous mothers to report smoking during pregnancy. **Income** Indigenous Australians aged 18 years had a mean income of $552 per week compared to $891 per week for non-Indigenous Australians (2008)	**Antenatal care** In 2007, 91% of Indigenous mothers attended at least one antenatal care session during pregnancy. This proportion increased by 30% from 1998 to 2007. Gap has narrowed. **Adult immunisation** In 2004–05, a higher proportion of Indigenous people aged 65 year and over vaccinations against influenza and pneumonia than non-Indigenous people of the same age. **Breastscreening** The proportion of women aged 50–69 years participating in the BreastScreen Australia program had not changed significantly for Indigenous, decreased by 10% for all women. Gap has narrowed. (2003–04 to 2007–08) **Hospitalisation accreditation** In 2006–08, 99% of hospital admitted episodes for Indigenous and for other people occurred in accredited hospitals **General practice accreditation** In 2008–09, 92% general practice divisions were accredited. This proportion was higher than the national rate (87%). **Health expenditure** In 2006–07, the state government was estimated to have spent, on average, $5,177 per Indigenous person compared with $1,811 per non-Indigenous person.	**Childhood immunisation** The proportion of children who were fully immunised at age 1 decreased by 12% for Indigenous, no significant changes for non-Indigenous. Gap has widened. (2001 to 2009) **Potentially preventable acute conditions** Hospitalisation rate increased by 36% for Indigenous people, by 24% for others people. Gap has widened. (2001–02 to 2007–08) **Preventable chronic conditions** Hospitalisation rate increased by 81% for Indigenous people, by 75% for others people. Gap has widened. (2001–02 to 2007–08)

Introduction

This report provides information on a range of indicators on health status, determinants of health and health system performance in relation to Aboriginal and Torres Strait Islander people in South Australia. 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 against the Aboriginal and Torres Strait Islander Health Performance Framework (HPF). Analysis presented in this report includes both jurisdiction-specific measures and their comparison with national measures.

The HPF comprises three tiers:

Tier 1—Health status and health outcomes. This tier covers measures of prevalence of health conditions (for example circulatory disease, diabetes), human function (for example disability), life expectancy, wellbeing and deaths. This tier aims to provide an overall indication of current health status and recent trends in the health status of Aboriginal and Torres Strait Islander peoples on a range of health issues, including child and maternal health, chronic diseases, injury, communicable diseases, social and emotional wellbeing and overall health status.

Tier 2—Determinants of health. This tier consists of measures of the determinants of health, or factors outside the health system that impact on the health of Aboriginal and Torres Strait Islander people. The domains covered in this tier include socioeconomic status (for example income and education), environmental factors (for example overcrowding), community capacity (for example child protection), health behaviours (for example risky alcohol consumption and dietary behaviours) and person-related factors (for example prevalence of overweight and obesity). Such factors have been shown to have a strong association with both disease and ill-health.

Tier 3—Health systems performance. This tier includes measures such as 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. The measures in this tier deal with a range of programs and service types including child and maternal health, early detection and chronic disease management, continuous care, assess to secondary/tertiary care, the health workforce and expenditure.

The tiers and domains of the HPF and selected measures are shown in Figure 1. There are currently 71 indicators that can be reported at national level but not all these indicators can be reported for South Australia due to issues related to data availability and 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
Demography
2.11 Dependency ratio
2.12 Single-parent families by age group*
Safety and Crime
2.13 Community safety
2.14 Contact with the criminal justice system
2.15 Child protection
Other
2.16 Transport
2.17 Indigenous people with access to their traditional lands

Health behaviours
Tobacco, alcohol and other drug use
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
Physical activity
2.22 Level of physical activity
Nutrition
2.23 Dietary behaviours
2.24 Breastfeeding practices
Other health behaviours
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 South Australia 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 30,403 Aboriginal and Torres Strait Islander people in South Australia, accounting for 5.4% of the Indigenous population in Australia. Indigenous people represent 1.9% of the South Australia population, similar to the proportion they represent in the total Australian population (2.6%).

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

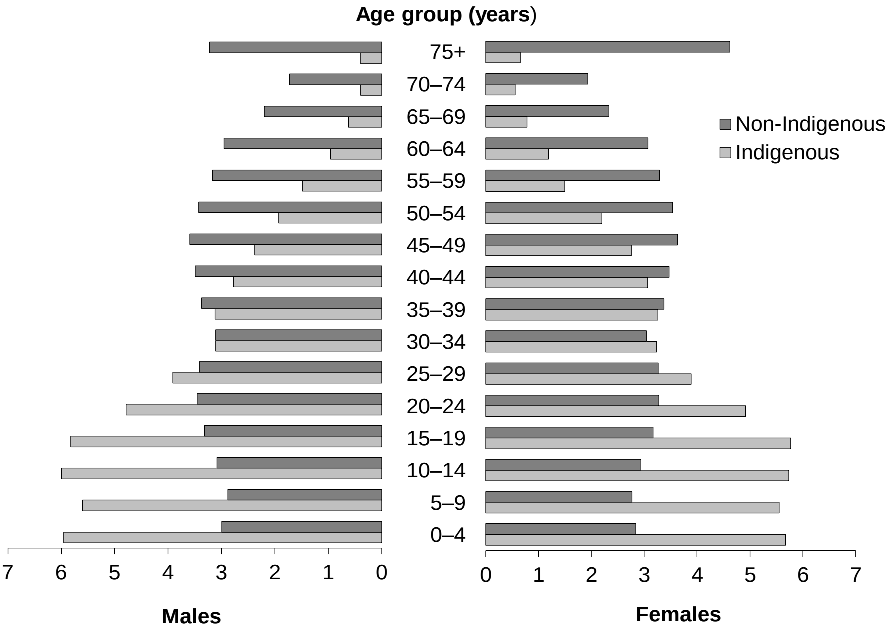
	Indigenous		**Non-Indigenous**		**Total**			
	No.	**%**	**No.**	**%**	**No.**	**%**	**% Indig.**	**% Non-Indig.**
South Australia	30,403	5.4	1,602,836	7.5	1,633,239	7.4	1.9	98.1
Australia(a)	**563,101**	**100.0**	**21,427,910**	**100.0**	**21,991,011**	**100.0**	**2.6**	**97.4**

(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.

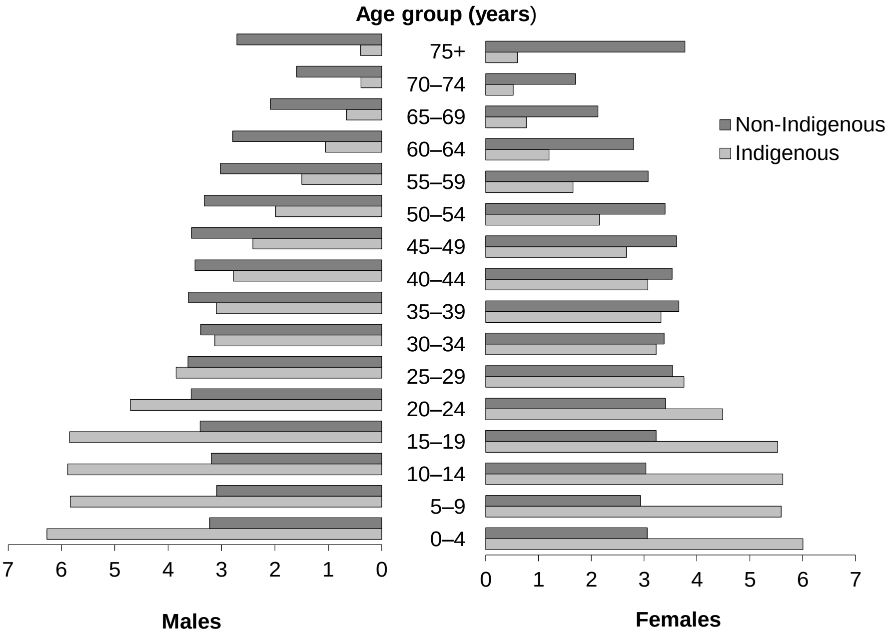
Aboriginal and Torres Strait Islander people have an age structure that is significantly younger than that of other Australians. For example, in South Australia, Aboriginal and Torres Strait Islander people aged less than 15 years constitute 34.5% of the Indigenous population, whereas this age group represents about 17.8% of the total population. Conversely, those aged 65 years and over comprise only 3.4% of the Indigenous population, compared with 15.8% of the total South Australia population (Figure 2).

South Australia



Per cent of total populations

Australia



Per cent of total populations

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

Figure 2: Population profile, by Indigenous status, age and sex, South Australia and Australia, 2010

In South Australia, nearly half of Aboriginal and Torres Strait Islander people live in *Major cities* (48.9%), and around one-third of them live in *Inner regional* (9.2%) and *Outer regional* areas (23.3%). Nearly one-fifth (18.7%) 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* and *Very remote* areas (15%).

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

	Indigenous		Non-Indigenous		Total		Per cent Indig.	Per cent Non-Indig.
	No.	Per cent	No.	Per cent	No.	Per cent		
South Australia								
Major cities	13,714	48.9	1,125,484	73.1	1,139,198	72.7	1.2	98.8
Inner regional	2,568	9.2	186,193	12.1	188,761	12	1.4	98.6
Outer regional	6,534	23.3	174,263	11.3	180,797	11.5	3.6	96.4
Remote	1,200	4.3	44,039	2.9	45,239	2.9	2.7	97.3
Very remote	4,039	14.4	9,854	0.6	13,893	0.9	29.1	70.9
South Australia	**28,055**	**100**	**1,539,833**	**100**	**1,567,888**	**100**	**1.8**	**98.2**
Australia								
Major cities	165,804	32.1	13,996,454	69.4	14,162,258	68.4	1.2	98.8
Inner regional	110,643	21.4	3,974,764	19.7	4,085,407	19.7	2.7	97.3
Outer 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	52
Australia	**517,043**	**100**	**20,180,837**	**100**	**20,697,880**	**100**	**2.5**	**97.5**

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

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 status, 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.

Data sources and methodology

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

Health-related administrative data sets used in the report include 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 that were 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 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 the Indigenous population fares 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 presented throughout this report 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 an asterisk * to indicate that rates for the Indigenous and non-Indigenous populations are statistically different from each other at the $p < 0.05$ level.

Data limitations

There are a number of limitations of available data presented in this report that 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 peoples. 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 for these data collections. 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 over 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 with a varying level of completeness across diseases and jurisdictions. South Australia was assessed to have adequate identification for chlamydia, syphilis, gonorrhoea and hepatitis C.

The incompleteness of Indigenous identification means the number of hospital separations, deaths and disease notifications recorded as Indigenous are an underestimate 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 a number of data limitations such as bias in responses. Under-identification can be an issue for some surveys. 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 Post Enumeration Survey (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 affected mortality time series which gave vastly different results to 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 to those based on the 2001 ERP, often resulting in a significant closing of the gap between Indigenous and non-Indigenous Australians in measures such as mortality. 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 to 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 less 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.

Health status and outcomes (Tier 1)

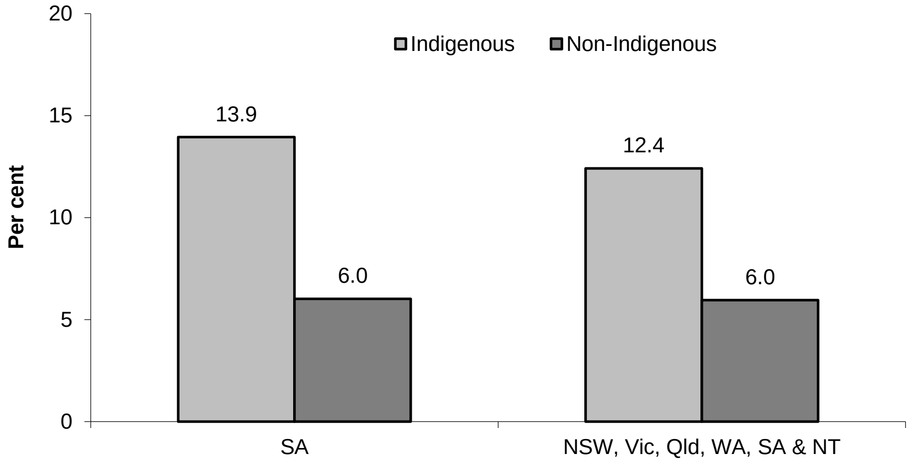
1.01 Low birthweight infants

The incidence of low birthweight among liveborn 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 2006–2008 in South Australia, live-born babies born to Indigenous mothers were more than twice as likely to be of low birthweight (that is less than 2,500 grams) than live-born babies born to non-Indigenous mothers (13.9% compared to 6.0%).
- The proportion of low-birthweight babies born to Indigenous mothers in South Australia was higher than in Australia (13.9% compared to 12.4%), however the proportion of low-birthweight babies born to non-Indigenous mothers was the same in South Australia and Australia.



Note: 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 to mothers usually resident in New South Wales.

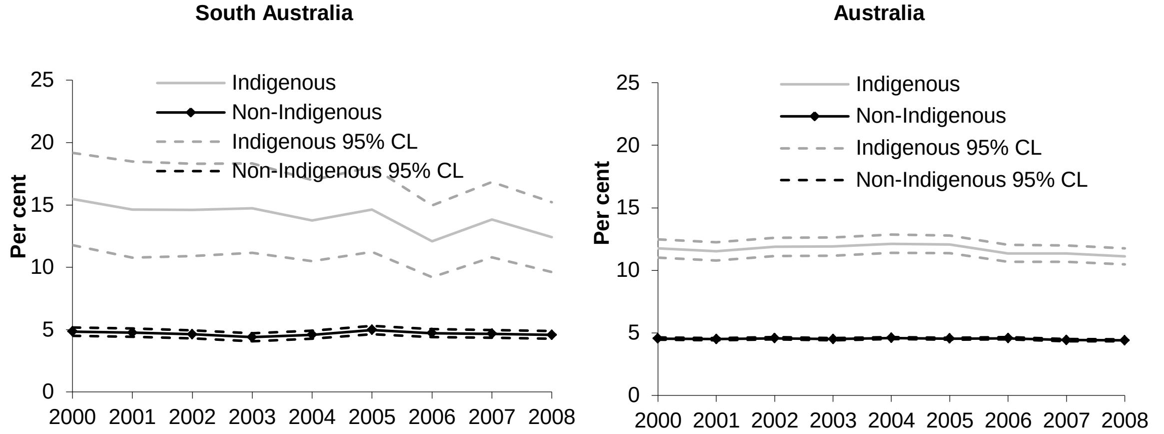
Source: AIHW analysis of the National Perinatal Epidemiology and Statistics Unit (NPESU) National Perinatal Data Collection (unpublished).

Figure 1.01.1: Low birthweight rate (proportion) by Indigenous status of mother, South Australia and Australia, 2006–08

Low birthweight trends

- Over the period 2000 to 2008 in South Australia, the proportion of low birthweight babies born to Indigenous mothers decreased significantly by an average yearly decrease of 0.33%, equivalent to a 17% decline for the period. There was no significant change in the proportion of low birthweight babies born to non-Indigenous mothers over this period.

- In South Australia, the rate ratio and rate difference between low birthweight babies born to Indigenous and non-Indigenous mothers decreased significantly over the same period (average yearly decrease of 0.06 in the rate ratio, and 0.32% 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 and Figure 1.01.2).



(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.

Note: SA 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 analyses of NPSU National Perinatal Data Collection (unpublished).

Figure 1.01.2: Low birthweight babies per 100 singleton live-born babies, by Indigenous status of mother, South Australia and NSW, Vic, Qld, WA, SA & NT combined, 2000–2008[(a)]

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

	2000	2001	2002	2003	2004	2005	2006	2007	2008	Annual change(b)
					South Australia					
Rate per 100 live births (%)										
Indigenous	15.5	14.6	14.6	14.7	13.7	14.6	12.1	13.8	12.4	-0.33*
Non-Indigenous	4.9	4.8	4.6	4.4	4.6	5.0	4.7	4.7	4.6	-0.01
Rate ratio	3.2	3.1	3.2	3.4	3.0	2.9	2.6	3.0	2.7	-0.06*
Rate difference	10.6	9.9	10.0	10.3	9.1	9.7	7.4	9.2	7.8	-0.32*
					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 $p < 0.05$ 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: SA 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).

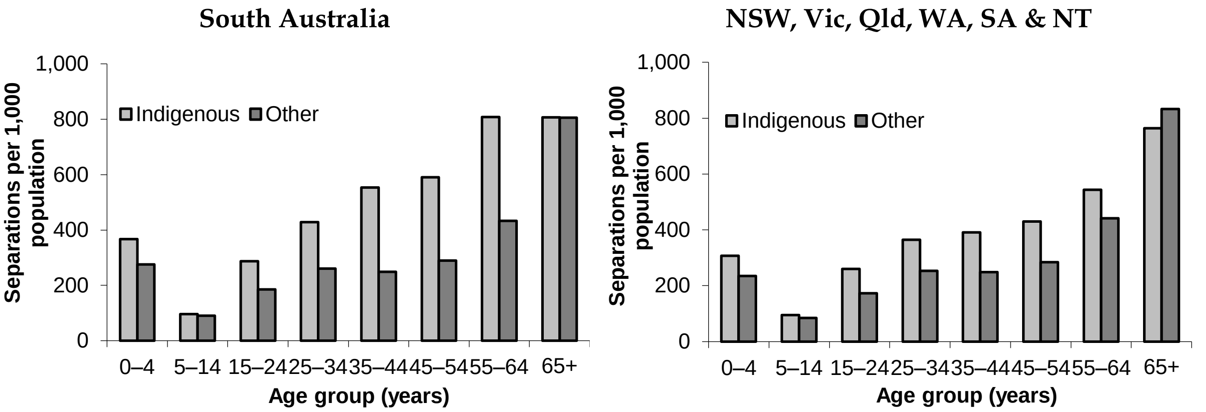
Source: AIHW analysis of NPESU National Perinatal Data Collection (unpublished).

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 South Australia there were 1,222,299 hospitalisations, 3.3% of which were Indigenous Australians.
- Overall, Indigenous Australians were hospitalised at 3.1 times the rate of other people in South Australia. 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 South Australia were hospitalised at 1.6 times the rate of other people. In the six jurisdictions combined the rate ratio was 1.3.
- For the 2-year period July 2006 to June 2008 in South Australia, 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 65 years and over. A similar pattern was evident in New South Wales, Victoria, Queensland, Western Australia, South Australia, and the Northern Territory combined.
- The greatest difference in hospitalisation rates between Indigenous and other people in South Australia was for those in the 35–44 and 45–54 year age groups. Indigenous Australians were hospitalised at more than twice the rate of other people in this age group.
- For both South Australia, and the six jurisdictions combined, hospitalisation rates were highest in the 65 years and over and lowest among those aged 5–14 years for all people.
- Hospitalisations of Indigenous Australians in South Australia were higher than those for Indigenous Australians in the six jurisdictions combined for all age groups.

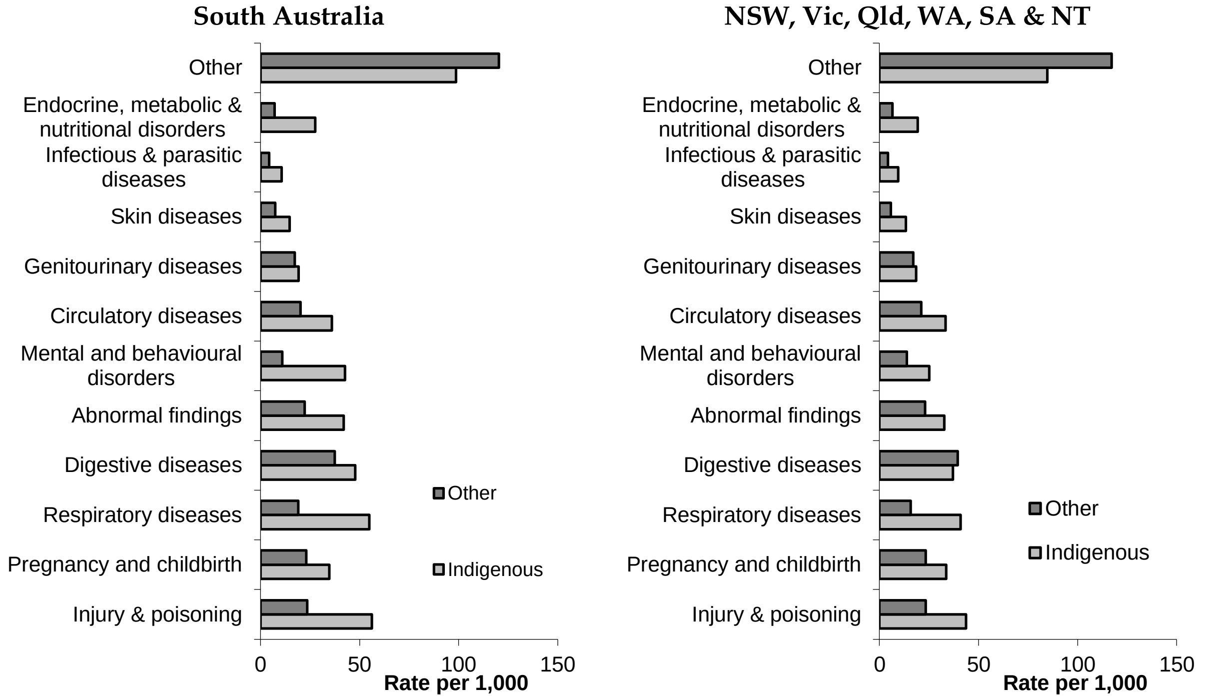


Source: AIHW analyses of National Hospital Morbidity Database (NHMD).

Figure 1.02.1: Age specific hospitalisation rates (excluding dialysis), by Indigenous status, South Australia and NSW, Vic, Qld, WA, SA & NT combined, July 2006 to June 2008

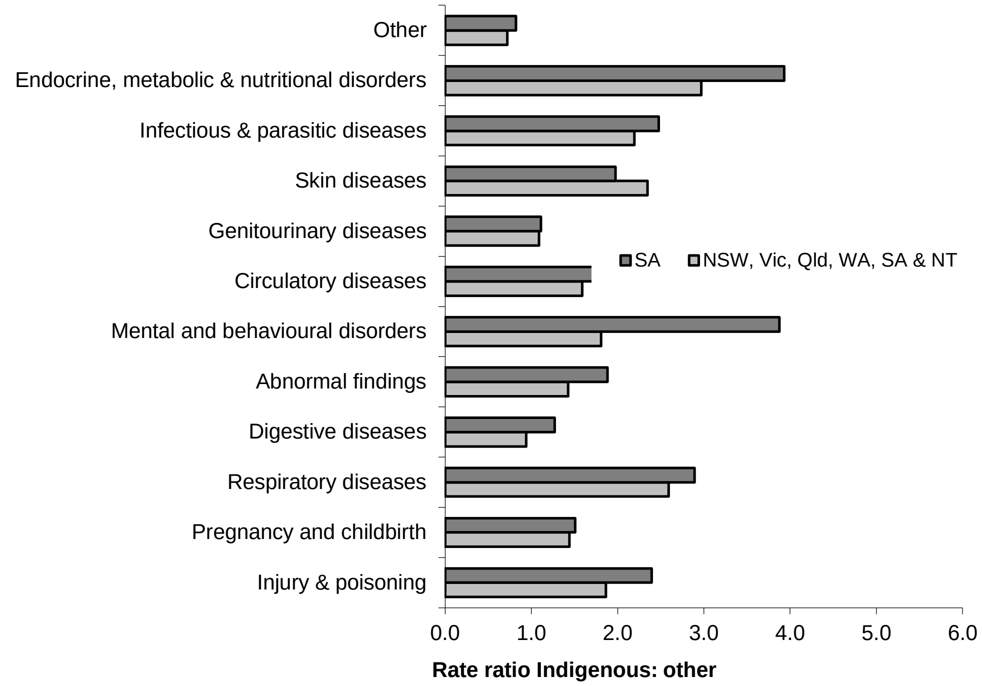
Hospitalisations by principal diagnosis

- The most common principal diagnosis of hospitalisation among Indigenous Australians in South Australia was injury and poisoning followed by respiratory diseases. These two diagnoses were also the most common causes of hospitalisation in New South Wales, Victoria, Queensland, Western Australia, South Australia, and the Northern Territory combined.
- The greatest differences in hospitalisation rates between Indigenous and other people in South Australia were for mental and behavioural disorders and endocrine, metabolic and nutritional disorders, with Indigenous Australians hospitalised at almost four times the rate of other people for these conditions.
- Hospitalisation rates for Indigenous Australians in South Australia were higher than for Indigenous Australians in the six jurisdictions combined for all principal diagnoses (Figure 1.02.2).
- Rate ratios between Indigenous and other Australian hospitalisation rates were higher in South Australia than in the six jurisdictions combined for most principal diagnoses (Figure 1.02.3).



Source: AIHW analyses of NHMD.

Figure 1.02.2: Hospitalisation rates by principal diagnosis and Indigenous status, South Australia and NSW, Vic, Qld, WA, SA & NT combined, July 2006 to June 2008

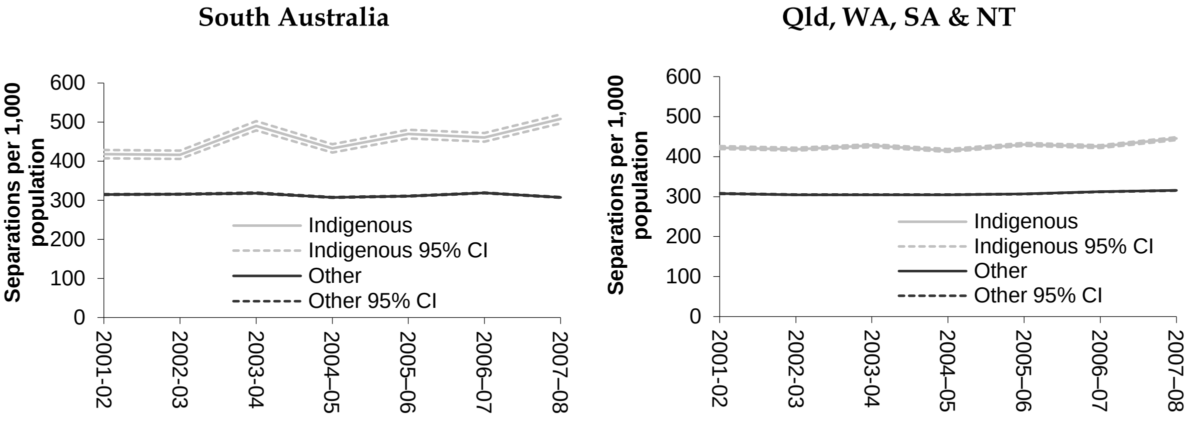


Source: AIHW analyses of NHMD.

Figure 1.02.3: Hospitalisation rate ratios by principal diagnosis, South Australia and NSW, Vic, Qld, WA, SA & NT combined, July 2006 to June 2008

Hospitalisation trends

- There was a significant increase of 17% in hospitalisation rates for Indigenous Australians in South Australia over the period 2001–02 to 2007–08. The fitted trend implies an average yearly increase in hospitalisation rates of 12.1 per 1,000.
- There was no significant change in hospitalisation rates for other people in South Australia over the same period.
- Significant increases were also seen in the hospitalisation rate ratio and rate difference between Indigenous and other people in South Australia. The fitted trend implies an average yearly increase of 0.04 in the rate ratio and 13.0 per 1,000 in the rate difference.
- In Queensland, Western Australia, South Australia and the Northern Territory combined, there were significant increases in hospitalisation rates among Indigenous and other people over the seven year period 2001–02 to 2007–08 (an average yearly increase of 3.1 per 1,000 for Indigenous Australians and 1.4 per 1,000 for other people).



Source: AIHW analyses of NHMD.

Figure 1.02.4: Trends in hospitalisation rates (excluding dialysis) by Indigenous status, South Australia and Qld, WA, SA & NT combined, 2001–02 to 2007–08

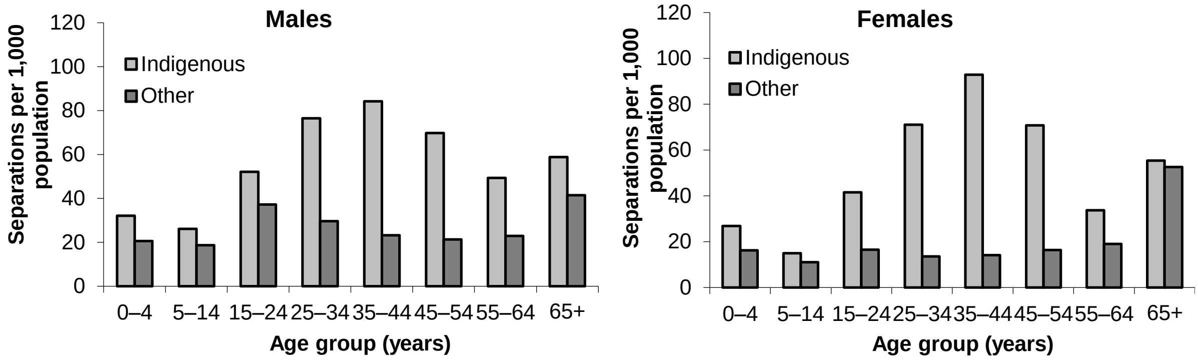
1.03 Hospitalisation for injury and poisoning

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

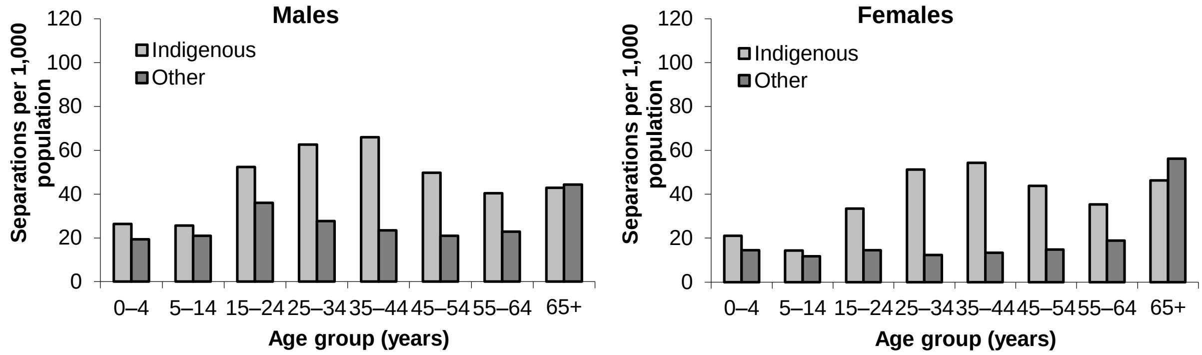
Hospitalisations by age and sex

- For the 2-year period July 2006 to June 2008, in South Australia, Indigenous males and females had higher hospitalisation rates for injury and poisoning than other males and females across all age groups. In New South Wales, Victoria, Queensland, Western Australia, South Australia, and the Northern Territory combined, 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 years and over.
- The greatest difference in hospitalisation rates occurred in the 35–44 year age group for both males and females. Indigenous males were hospitalised at 3.6 times the rate of other males in this age group and Indigenous females were hospitalised at 6.5 times the rate of other females in this age group.
- For Indigenous males and females in South Australia, hospitalisation rates were highest among those aged 35–44 years, while for other Australian, rates were highest among those aged 65 years and over.
- Hospitalisation rates for injury and poisoning were higher for Indigenous Australians in South Australia than for Indigenous Australians in the six jurisdictions combined for most age groups.

South Australia



NSW, Vic, Qld, WA, SA & NT



Source: AIHW analyses of NHMD.

Figure 1.03.1: Age specific hospitalisation rates for principal diagnosis of injury and poisoning by sex- Aboriginal and Torres Strait Islander peoples and other Australians, South Australia and NSW, Vic, Qld, WA, SA & NT, July 2006 to June 2008

Hospitalisations by external cause of injury and poisoning

- In the 2-year period July 2006 to June 2008, in South Australia, assault was the most common cause of hospitalisation for Indigenous males and females with a principal diagnosis of injury and poisoning (25% and 39% respectively), followed by accidental falls (18% for males and 14% for females). This pattern was also evident in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined.
- The greatest difference in hospitalisation rates for external causes of injury and poisoning between Indigenous and other people in South Australia was for assault. Indigenous males and females were hospitalised for assault at 9 and 56 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 people in South Australia were more than three times as likely as other people to be hospitalised for exposure to electric current/smoke/fire/animals/nature.

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

	Males				Females				Total			
External cause	**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)**
							South Australia					
Assault	361	24.6	13.8	8.5*	536	39.0	19.7	56.3*	897	31.5	16.8	16.9*
Accidental falls	263	17.9	12.0	2.1*	194	14.1	9.2	1.4*	457	16.1	10.6	1.7*
Exposure to inanimate mechanical forces	192	13.1	6.7	1.8*	91	6.6	2.9	2.4*	283	10.0	4.7	1.9*
Transport accidents	168	11.4	6.3	1.7*	70	5.1	2.1	1.4*	238	8.4	4.1	1.5*
Medical/ surgical complications	112	7.6	6.2	1.3*	135	9.8	7.4	1.7*	247	8.7	6.9	1.5*
Other accidental exposures(h)	102	6.9	3.9	1.0	58	4.2	2.1	1.1	160	5.6	3.0	1.0
Exposure to animate mechanical forces	45	3.1	1.4	1.4*	24	1.7	0.9	2.3*	69	2.4	1.1	1.7*
Intentional self-harm	92	6.3	3.7	3.4*	140	10.2	4.8	2.8*	232	8.2	4.3	3.0*
Exposure to electric current/smoke/ fire/animals/ nature(i)	80	5.4	3.4	3.4*	53	3.9	1.8	3.4*	133	4.7	2.5	3.3*
Accidental poisoning by and exposure to noxious substances	30	2.0	0.9	1.3	46	3.3	1.7	2.4*	76	2.7	1.4	1.9*
Other external causes(j)	23	1.6	0.8	5.5*	29	2.1	1.0	7.9*	52	1.8	0.9	6.7*
Total (all categories)(k)	**1,468**	**100.0**	**59.1**	**2.2***	**1,376**	**100.0**	**53.7**	**2.3***	**2,844**	**100.0**	**56.2**	**2.4***

(continued)

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

	Males				Females				People			
External cause	**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, South Australia 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 principle 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)

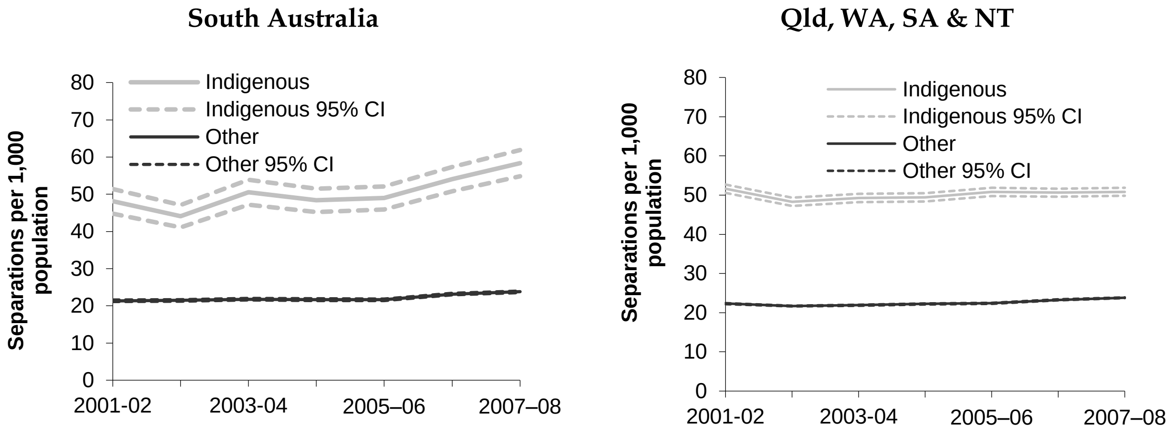
(j) Includes event of undetermined intent (Y10-Y34), legal intervention and operation of war (Y35-Y36), sequelae of external causes of morbidity and mortality (Y85-Y89), supplementary factors classified elsewhere (Y9-Y98).

(k) Includes injuries where no external cause was reported.

Source: AIHW analyses of NHMD.

Hospitalisation trends

- Over the 7-year period 2001–2002 to 2007–08 in South Australia, there were significant increases in hospitalisation rates for injury and poisoning among both Indigenous and other people. The rate increased annually by 1.8 per 1,000 Indigenous Australians and 0.4 per 1,000 other people. This is equivalent to an increase of 22% for Indigenous people, and 11% for other people over the period.
- Over the same period there was no significant change in the hospitalisation rates among Indigenous Australians in Queensland, Western Australia, South Australia and the Northern Territory combined, however there was a significant average yearly increase of 0.3 per 1,000 for other people.



Source: AIHW analyses of NHMD.

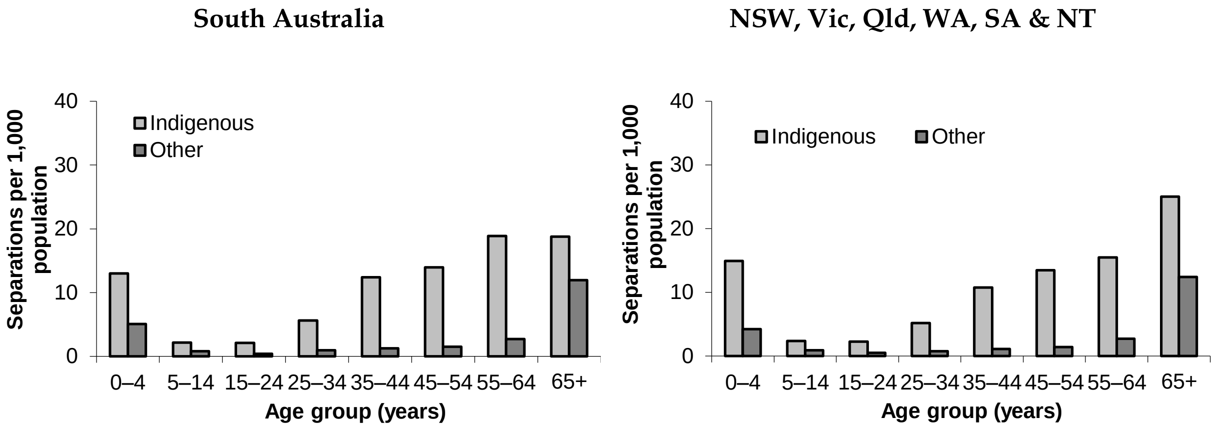
Figure 1.03.2: Hospitalisation rates for injury and poisoning, Aboriginal and Torres Strait Islander peoples and other Australians, South Australia and Qld, WA, SA & NT combined, 2001–02 to 2007–08

1.04 Hospitalisation for pneumonia

The number of hospitalisations 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 South Australia, 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 people in South Australia occurred in the 35–44 year age group where Indigenous Australians were hospitalised at almost 10 times the rate of other people.
- For Indigenous Australians in South Australia hospitalisation rates for pneumonia were highest among those aged 55 years and over, and lowest among those aged 15–24 years. For other people in South Australia hospitalisation rates for pneumonia were highest among those aged 65 and over, and lowest among those aged 15–24 years.
- Hospitalisation rates for pneumonia were similar for Indigenous Australians in South Australia and in the six jurisdictions combined for most age groups.



Source: AIHW analyses of NHMD.

Figure 1.04.1: Age specific hospitalisation rates for pneumonia, by Indigenous status, South Australia and NSW, Vic, Qld, WA, SA & NT combined, July 2006 to June 2008

Hospitalisations by sex

- Indigenous males and females in South Australia were hospitalised for pneumonia at around four (3.6 and 4.2) times the rate of other males and females in South Australia. This was similar to the ratios observed for New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined.
- Hospitalisation rates for pneumonia for Indigenous Australians were higher for males than females in South Australia (51% and 49% respectively) and the six jurisdictions combined.

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

	South Australia			NSW, Vic, Qld, WA, SA & NT[(d)]		
	Number	Rate per 1,000[(e)]	Ratio[(f)]	Number	Rate per 1,000[(e)]	Ratio[(f)]
Males	220	11.2	3.6*	3,987	11.5	3.6*
Females	213	9.9	4.0*	3,754	10.1	4.2*
People	433	10.4	3.8*	7,741	10.7	3.9*

*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 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.

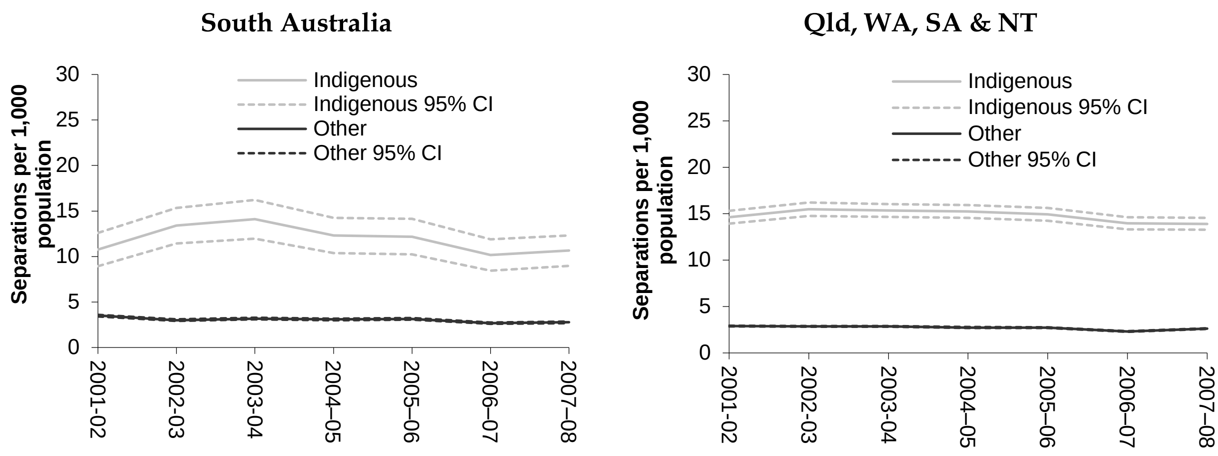
(e) Directly age-standardised using the Australian 2001 standard population.

(f) Rate ratio Indigenous: Other.

Source: AIHW analyses of NHMD.

Hospitalisation trends

- Over the 7-year period from 2001–02 to 2007–08 in South Australia, there were no significant changes in hospitalisation rates for pneumonia among Indigenous Australians, while there was a significant yearly decrease of 0.1 per 1,000 population, equivalent to an 18% decrease for the period, among other Australians.
- There were no significant changes in the hospitalisation rate ratios and rate differences between Indigenous and other people in South Australia for pneumonia.
- Over the same period there was a significant decline in the hospitalisation rate for pneumonia among Indigenous and other people in Queensland, Western Australia, South Australia and the Northern Territory combined.


South Australia

Qld, WA, SA & NT

Source: AIHW analyses of NHMD.

Figure 1.04.2: Hospitalisation rates for pneumonia, Aboriginal and Torres Strait Islander peoples and other Australians, South Australia and Qld, WA, SA & NT combined, 2001–02 to 2007–08

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 South Australia, 9% of Indigenous males and 15% of Indigenous females reported heart or circulatory conditions as a long-term condition. This compared to 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 South Australia Indigenous females were more likely to report heart and circulatory conditions than non-Indigenous females (28% and 19% respectively), while proportions for Indigenous and non-Indigenous males were similar (16% and 17% respectively).
- Prevalence of heart and circulatory conditions was highest among Indigenous Australians aged 55 years and over (around 61% in South Australia and 54% in Australia). The greatest difference in rates between Indigenous and non-Indigenous Australians was among those aged 0–4 years and 35–44 years.

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

	Indigenous			Non-Indigenous		
	Males	**Females**	**People**	**Males**	**Females**	**People**
			South Australia			
			Number			
0–4	18	83	101	906	456	1,361
5–14	26	39	65	3,151	216	3,368
15–24	81	42	123	3,120	3,959	7,079
25–34	121	323	443	6,467	11,458	17,925
35–44	269	356	625	9,285	18,127	27,412
45–54	286	405	691	20,285	27,145	47,430
55+	308	836	1,145	86,682	101,175	187,857
Total	**1,109**	**2,084**	**3,193**	**129,897**	**162,536**	**292,433**
			Proportion			
0–4	1.1	5.0	3.1	2.1	1.1	1.6
5–14	0.8	1.2	1.0	3.2	0.2	1.8
15–24	3.1	1.6	2.4	3.1	4.0	3.6
25–34	6.4	15.6	11.2	6.7	12.1	9.4
35–44	16.8	20.3	18.6	8.5	16.3	12.4
45–54	27.0	33.9	30.7	19.4	25.3	22.4
55+	37.1	79.0	60.6	47.9	50.2	49.1
Total	**8.5**	**15.4**	**12.0**	**17.7**	**21.8**	**19.7**
Total age-standardised[(a)]	**16.0**	**28.1**	**22.7**	**16.5**	**19.4**	**18.7**

(continued)

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

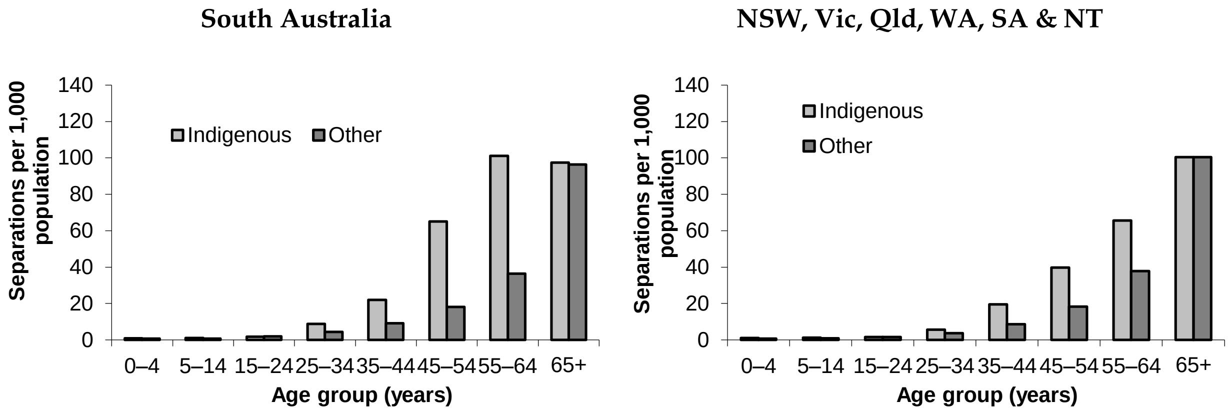
	Indigenous			Non-Indigenous		
	Males	**Females**	**People**	**Males**	**Females**	**People**
			Australia			
			Number			
0–4	471	962	1,433	7,511	5,024	12,535
5–14	725	558	1,283	23,915	12,920	36,835
15–24	1,037	1,963	3,000	35,797	45,996	81,793
25–34	2,518	5,101	7,618	77,067	141,316	218,384
35–44	4,978	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 age

- For the 2-year period July 2006 to June 2008 in South Australia, Indigenous Australians had higher hospitalisation rates for circulatory disease than other people across all age groups except among those aged 15–24 years. In South Australia, the greatest difference in hospitalisation rates occurred in the 45–54 year age group where Indigenous Australians were hospitalised at almost four times the rate of other people in this age group.
- In New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, Indigenous Australians had higher hospitalisation rates for circulatory disease than other people across all age groups.
- Hospitalisation rates for circulatory diseases increased with age for both Indigenous and other people in South Australia and the six jurisdictions combined, being highest among those aged 65 years and over except in South Australia where rates were highest in Indigenous Australians aged 55–64 years.



Source: AIHW analyses of NHMD.

Figure 1.05.1: Age specific hospitalisation rates for circulatory diseases, by Indigenous status, South Australia and NSW, Vic, Qld, WA, SA & NT combined, July 2006 to June 2008

Hospitalisations by principal diagnosis

- For the 2-year period July 2006 to June 2008, in both South Australia 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 for hospitalisation among Aboriginal and Torres Strait Islander peoples (43% and 44% respectively).
- Indigenous males and females in South Australia were hospitalised for circulatory disease at 1.6 and 2.0 times the rate of other males and females in South Australia.
- Hospitalisation rates for circulatory diseases were slightly higher for Indigenous Australians in South Australia than for Indigenous Australians in the six jurisdictions combined (36 per 1,000 compared to 33 per 1,000).
- Aboriginal and Torres Strait Islander people in South Australia were hospitalised for rheumatic heart disease at 4.5 times the rate of other Australians. This compares to nearly seven times the rate of other people in the six jurisdictions 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, South Australia and NSW, Vic, Qld, WA, SA and NT combined, July 2006 to June 2008[(a)(b)(c)(d)]

	Males				Females				People			
Principal diagnosis	**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)]**
						South Australia						
Ischaemic heart disease	238	44.2	17.9	2.0*	213	41.1	12.4	3.2*	451	42.7	14.7	2.3*
Acute myocardial infarction	80	14.9	6.0	2.0*	65	12.5	4.1	3.5*	145	13.7	4.9	2.4*
Other heart disease	180	33.5	14.0	1.7*	149	28.8	10.5	1.9*	329	31.2	12.1	1.8*
Cerebrovascular disease	24	4.5	2.7	1.4	52	10.0	3.6	2.5*	76	7.2	3.1	1.9*
Stroke	18	3.3	2.1	1.4	48	9.3	3.3	2.8*	66	6.3	2.8	2.0*
Rheumatic heart disease	15	2.8	0.6	7.6*	5	1.0	0.2	1.9	20	1.9	0.4	4.5*
Hypertension disease	9	1.7	0.6	2.6*	39	7.5	2.2	5.9*	48	4.5	1.5	4.6*
Other circulatory diseases[(h)]	72	13.4	4.3	0.8	60	11.6	3.9	0.8	132	12.5	4.1	0.8*
Total	**538**	**100.0**	**40.1**	**1.6***	**518**	**100.0**	**32.7**	**2.0***	**1,056**	**100.0**	**36.0**	**1.8***

(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, South Australia and NSW, Vic, Qld, WA, SA and NT combined, July 2006 to June 2008(a)(b)(c)(d)

	Males				Females				People			
Principal diagnosis	**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***

*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). 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.

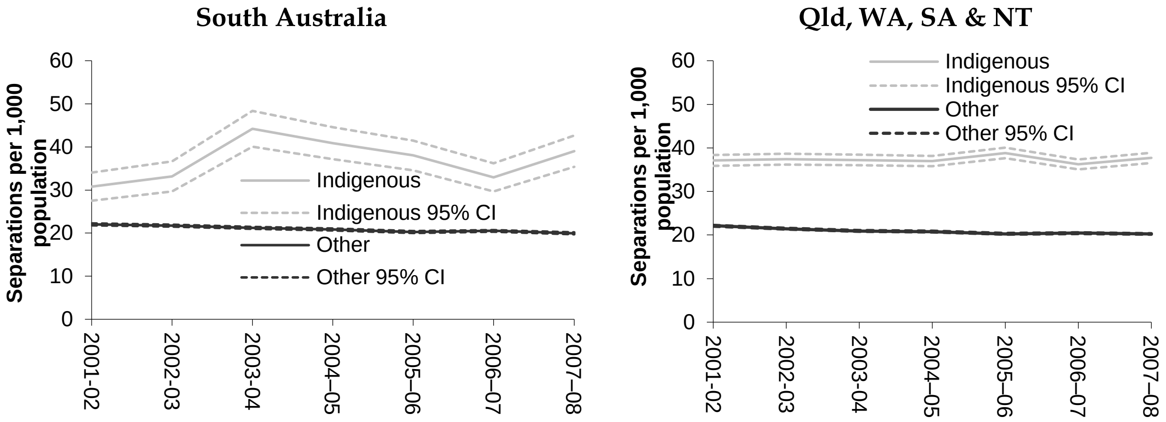
(g) Rate ratio Indigenous: Other.

(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: AIHW analyses of NHMD.

Hospitalisation trends

- In South Australia there was no significant change in the hospitalisation rate for circulatory disease among Indigenous Australians for the period 2001–02 to 2007–08. There was however a significant decrease in the hospitalisation rate for other people over this period (average yearly decline of 0.3 hospitalisations per 1,000 population or a 9% decline over the period).
- The hospitalisation rate ratios and rate differences between Indigenous and other people in South Australia did not change significantly over the period 2001–02 to 2007–08. There was an average yearly increase of 0.1 in the rate ratio, and 1 per 1,000 in the rate difference.
- In Queensland, Western Australia, South Australia and the Northern Territory combined there was no significant change in the hospitalisation rate for circulatory diseases among Indigenous Australians during the period 2001–02 to 2007–08; however, there was a significant decline in the hospitalisation rate among other people. Rate ratios and rate differences both showed increases over this period; however, only the rate ratio showed a statistically significant increase.


South Australia

Qld, WA, SA & NT

Source: AIHW analyses of NHMD.

Figure 1.05.2: Hospitalisation rates for circulatory diseases, Aboriginal and Torres Strait Islander peoples and other Australians, South Australia and Qld, WA, SA & NT combined, 2001–02 to 2007–08

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 South Australia, after adjusting for differences in age structure between the Indigenous and non-Indigenous populations, approximately 12% of Indigenous males and 23% of Indigenous females reported high blood pressure or hypertension compared to 10% of non-Indigenous males and 11% of non-Indigenous females.
- In both South Australia and Australia, and for both Indigenous and non-Indigenous people, high blood pressure or hypertension was most prevalent among those aged 55 years and over. In South Australia, 31% of Indigenous males and 67% of Indigenous females reported high blood pressure/hypertension in this age group compared to 33% and 37% of non-Indigenous males and females respectively.
- In 2004–05, the crude prevalence rate of high blood pressure or hypertension among Indigenous males in South Australia (6%) was slightly lower than that for Australia (7%), while the prevalence rate among Indigenous females (11%) in South Australia was higher than that for Australia (8%).
- For both South Australia and Australia, prevalence of high blood pressure or hypertension was higher among Indigenous females than among Indigenous males.

Hospitalisations by age

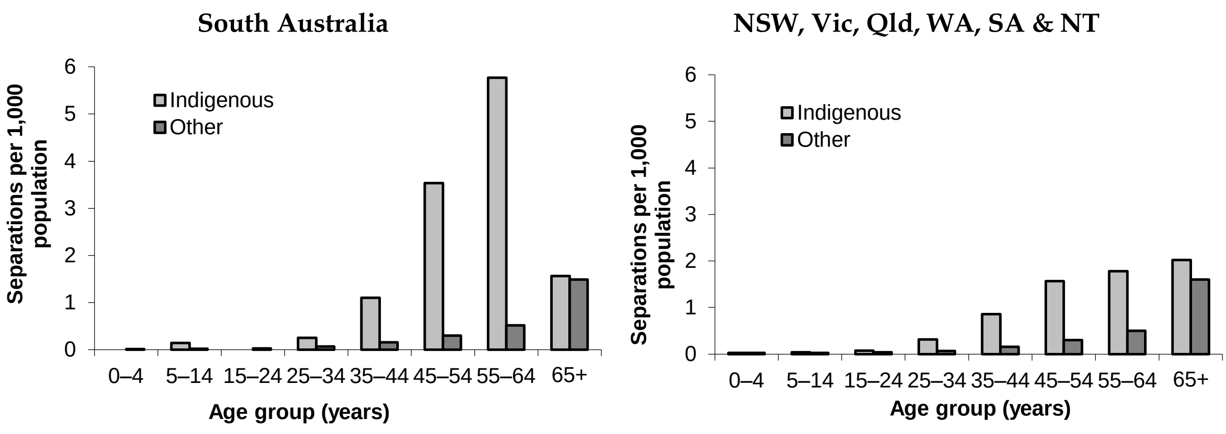
- For the 2-year period July 2006 to June 2008 in South Australia, Indigenous Australians had higher hospitalisation rates for hypertensive disease than other people across all age groups except the 0–4 and 15–24 year age groups.
- Indigenous Australians in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined had higher hospitalisation rates than other people across all age groups.
- In South Australia the greatest difference in hospitalisation rates for hypertensive disease between Indigenous and other Australians occurred in the 45–54 and 55–64 year age groups when Indigenous Australians were hospitalised at around 12 and 11 times the rate of other people in these age groups respectively.
- Hospitalisation rates for hypertensive disease increased with age, being highest among those aged 65 years and over for Indigenous and other people in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined.
- Hospitalisation rates for hypertensive disease were higher for Indigenous Australians in South Australia than for Indigenous Australians in the six jurisdictions combined for those aged 5–14 years and 35–64 years.

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

	Male		Female	
Age group	**Indigenous (%)**	**Non-Indigenous (%)**	**Indigenous (%)**	**Non-Indigenous (%)**
		South Australia		
25–34	4	3	3	1
35–44	15	4	13	5
45–54	20	15	31	11
55+	31	33	67	37
Total	**6**	**11**	**11**	**13**
Total age-standardised[(a)]	**12**	**10**	**23**	**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.



Source: AIHW analyses of NHMD.

Figure 1.07.1: Age specific hospitalisation rates for principal diagnosis of hypertensive disease, by Indigenous status, South Australia 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 South Australia, after adjusting for differences in age structure between the Indigenous and non-Indigenous populations, approximately 16% of Indigenous people reported diabetes or high sugar levels compared to 4% of non-Indigenous people. In Australia, 13% of Indigenous people and 4% of non-Indigenous people reported diabetes or high sugar levels.
- In both South Australia and Australia, and for both Indigenous Australians and non-Indigenous Australians, prevalence of diabetes increased with age. For Indigenous Australians in South Australia, prevalence of diabetes increased from 4% among those aged 25–34 years to 46% among those aged 55 years and over. Correspondingly, for non-Indigenous Australians in South Australia, prevalence of diabetes increased from 1% among those aged 25–34 years to 12% among those aged 55 years and over.

Table1.08.1: People reporting diabetes/high sugar levels, by Indigenous status and age group, South Australia and Australia, 2004–05

	South Australia		Australia	
Age group	**Indigenous (%)**	**Non-Indigenous (%)**	**Indigenous (%)**	**Non-Indigenous (%)**
25–34	3.6	1.4	4.4	0.8
35–44	12.1	1.7	10.1	2.3
45–54	20.5	4.6	21.0	4.1
55+	46.1	12.1	33.4	11.8
Total age-standardised[(a)]	**15.6**	**3.8**	**12.6**	**3.7**

(a) Total is directly age-standardised proportion.

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

- In 2004–05, the crude prevalence rates of diabetes/high blood sugar among Indigenous people in South Australia (6% for males and 9% for females) were slightly higher than the crude prevalence rates for Indigenous people in Australia (6% for males and 7% for females).
- For both South Australia and Australia, prevalence of diabetes/high blood sugar was higher among Indigenous females than among Indigenous males.

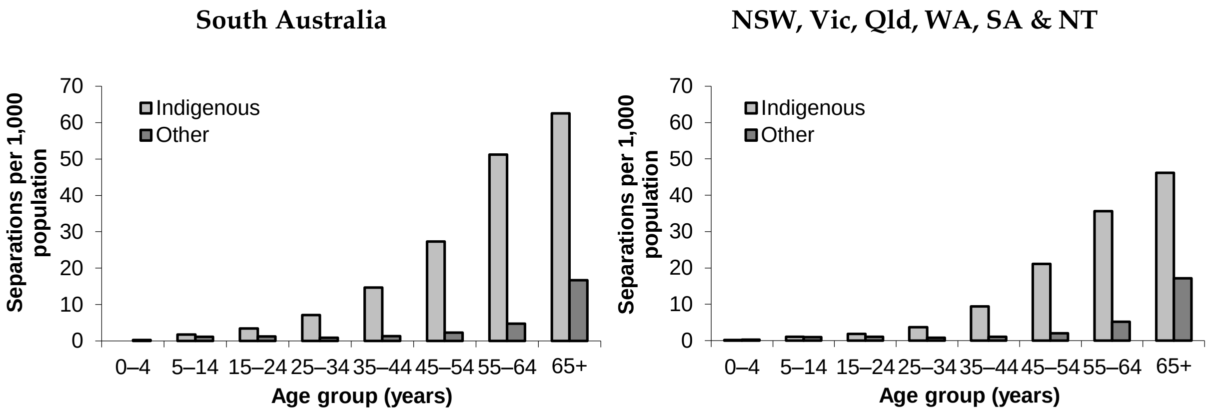
Table 1.08.2: Aboriginal and Torres Strait Islander peoples reporting diabetes/high sugar levels, by sex, South Australia and Australia, 2004–05

	Male	Female	Total
	%	%	%
South Australia	5.6	9.4	7.6
Australia	**5.5**	**7.1**	**6.3**

Source: AIHW analyses of NATSIHS 2004–05.

Hospitalisations by age

- For the 2-year period July 2006 to June 2008 in South Australia, Indigenous Australians had much higher hospitalisation rates for diabetes than other people in all age groups from 15–24 years onwards. The greatest differences in rates occurred in the 45–54 year age groups where Indigenous Australians in South Australia were hospitalised at around 12 times the rate of other people in this age group.
- Similarly, 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 years onwards. The greatest difference in rates occurred in the 45–54 year 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 South Australia was higher than that in the six jurisdictions combined for all age groups from age 5–14 years onwards.

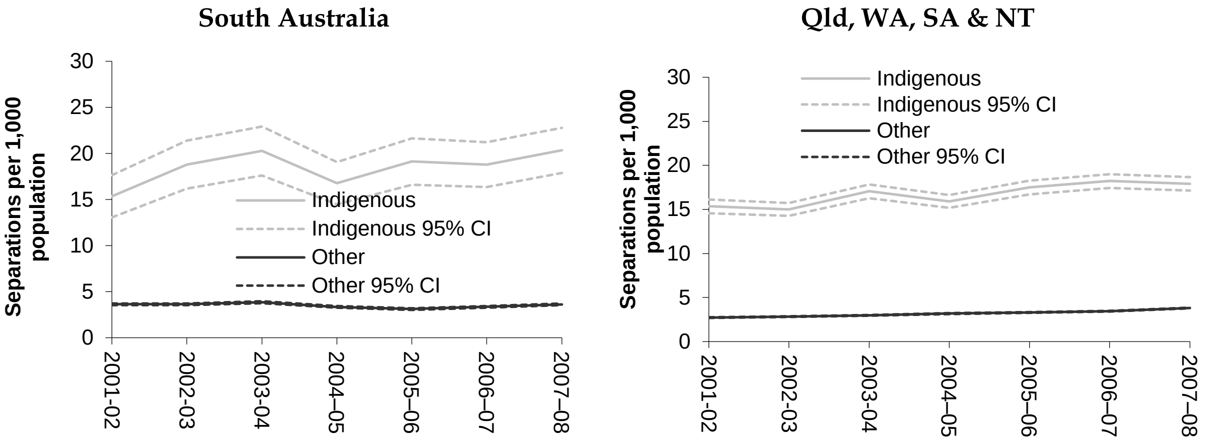


Source: AIHW analyses of NHMD.

Figure 1.08.1: Age specific hospitalisation rates for diabetes, by Indigenous status, South Australia and NSW, Vic, Qld, WA, SA & NT combined, July 2006 to June 2008

Hospitalisation trends

- Over the period 2001–02 to 2007–08 in South Australia, there were no significant changes in hospitalisation rates for diabetes among Indigenous Australians or other people.
- There were significant increases in the hospitalisation rate ratio for diabetes between Indigenous and other Australians in South Australia over the period 2001–02 to 2007–08 (average yearly increase of 0.2 per year).
- Over the same period hospitalisation rates for diabetes increased significantly among Indigenous and other people in Queensland, Western Australia, South Australia and the Northern Territory combined (average yearly increase in the rate for Indigenous Australians of 0.5 hospitalisations per 1,000 population, and 0.2 per 1,000 for other people).
- There was significant change in the rate difference between Indigenous and other people in Queensland, Western Australia, South Australia and the Northern Territory during the period 2001–01 to 2007–08 (average yearly increase 0.3 hospitalisations per 1,000).



Source: AIHW analyses of NHMD.

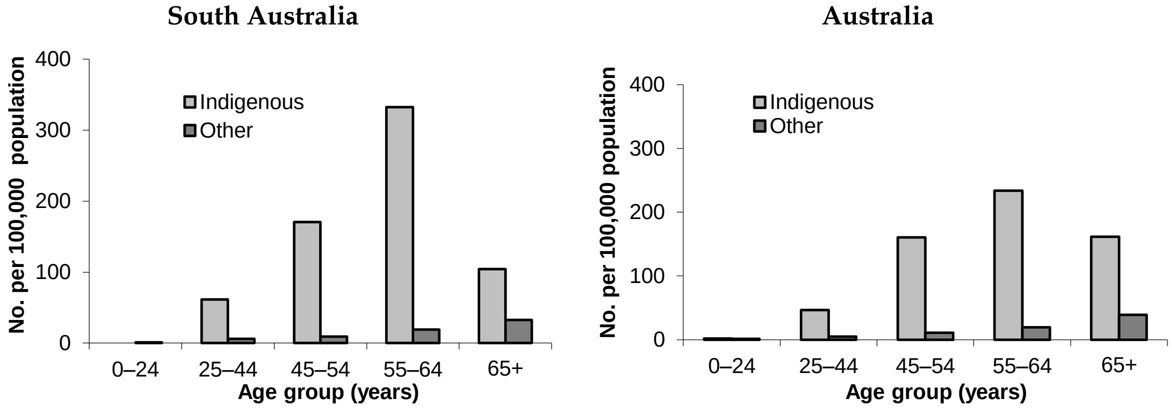
Figure 1.08.2: Hospitalisation rates for diabetes, Aboriginal and Torres Strait Islander peoples and other Australians, South Australia and Qld, WA, SA & NT combined, 2001–02 to 2007–08

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 and 2008 in South Australia, the incidence rate of ESRD for Indigenous Australians was higher than for non-Indigenous Australians across all age groups. The greatest difference in incidence rates between Indigenous and non-Indigenous Australians occurred in the 45–54 and 55–64 year age group, where Indigenous Australians were 18 times more likely to be registered for ESRD treatment than non-Indigenous Australians.
- The incidence rates for ESRD were lower among Indigenous Australians in Australia than among Indigenous Australians in South Australia except for the 65 years and over age group where rates were higher in South Australia. In Australia the greatest difference in incidence rates between Indigenous and non-Indigenous Australians was in the 45–54 years age group, where Indigenous Australians were 15 times as likely to be registered for ESRD treatment as non-Indigenous Australians (Figure 1.09.1).

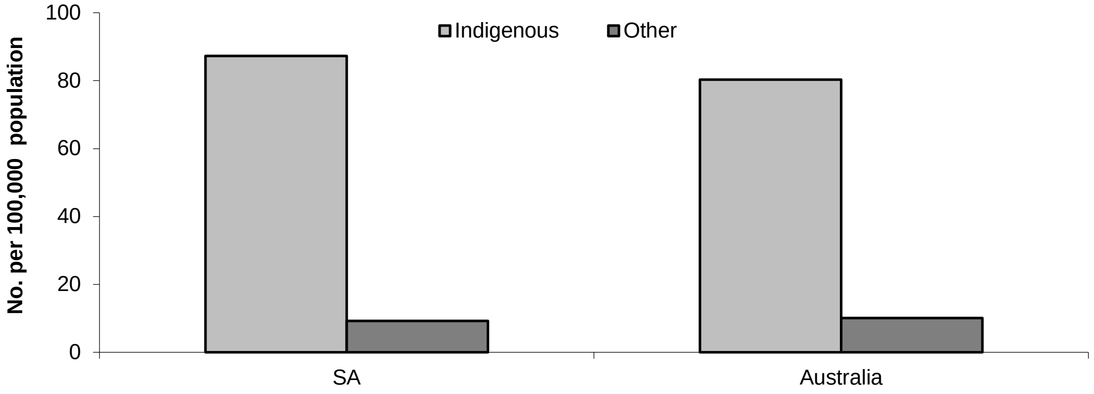


Source: AIHW analyses of Australian and New Zealand Dialysis and Transplant Registry.

Figure 1.09.1: Age specific incidence rates of treated end-stage renal disease by Indigenous status and age group, South Australia and Australia, 2006–2008

Incidence by Indigenous status

- For the period 2006–08, Indigenous Australians in South Australia were nine times more likely to be registered with ESRD than non-Indigenous Australians. This was lower than the rate ratio for Australia which was ten.
- The incidence rate of ESRD was higher for Indigenous Australians in South Australia than for Indigenous Australians in Australia (around 87 per 100,000 compared to 80 per 100,000). Incidence rates for non-Indigenous Australians in South Australia and Australia were similar (9 and 10 per 100,000 respectively).

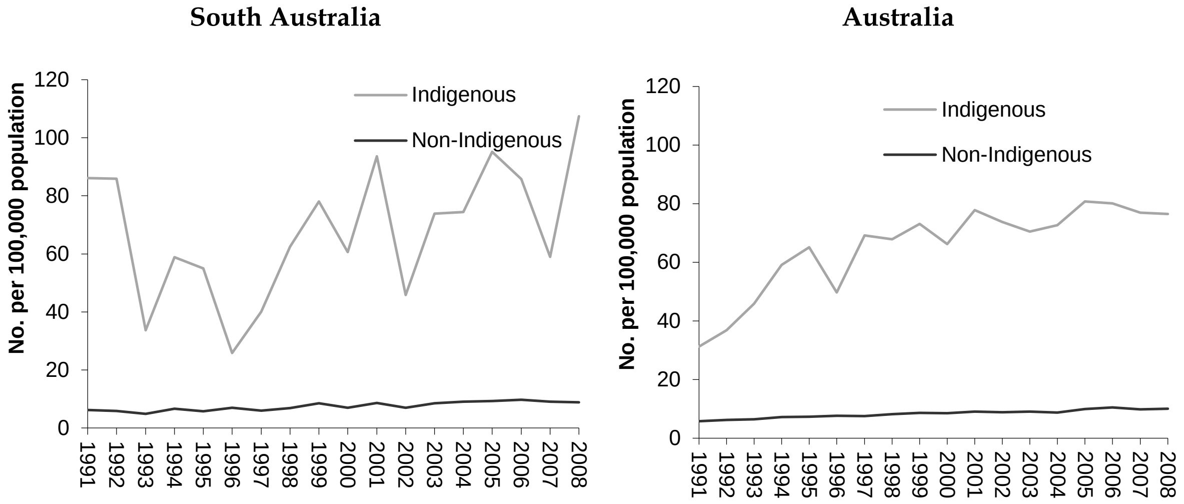


Source: AIHW analyses of Australian and New Zealand Dialysis and Transplant Registry.

Figure 1.09.2: Age-standardised incidence rates of treated end-stage renal disease by Indigenous status, South Australia and Australia, 2006–2008

Time trends

- Over the period 1991–2008 there was no significant change in the incidence rates of ESRD among Indigenous Australians in South Australia. There was however significant increases in incidence rates among non-Indigenous Australians in South Australia over the same period (average of 0.2 cases per 100,000 per year).
- Among Indigenous and non-Indigenous Australians in Australia there were 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, South Australia 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

Children's oral health

- In 2003 in South Australia, the mean number of decayed, missing or filled teeth for Indigenous children aged 4–6 years, 8–10 years, and 12–14 years was higher than for non-Indigenous children.
- Indigenous children aged 4–6 years in South Australia had higher decayed, missing, or filled teeth (DMFT) scores than Indigenous children in New South Wales but lower DMFT scores than Indigenous children in the Northern Territory. Indigenous children aged 8–19 years and 12–14 years in South Australia had higher DMFT scores than Indigenous children in New South Wales 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

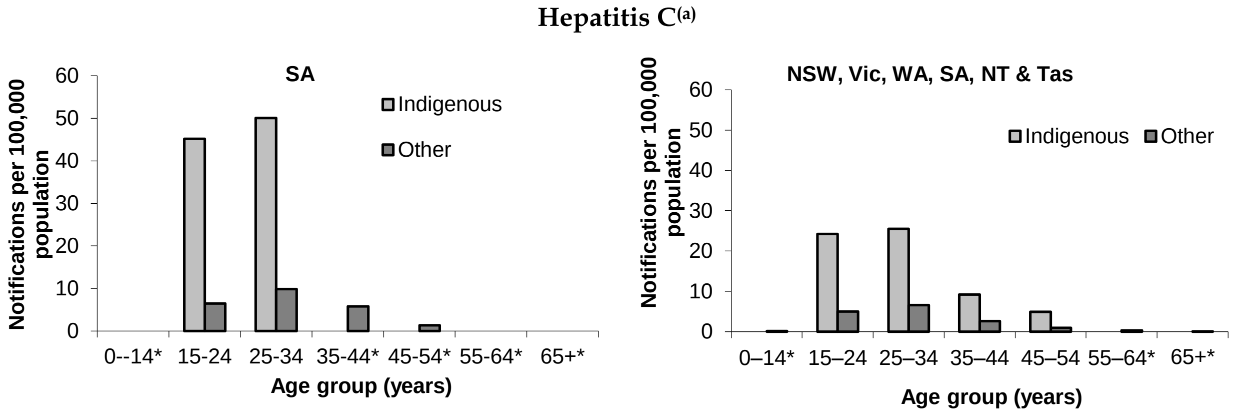
Source: AIHW Dental Statistics Research Unit.

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 age

- For the 3-year period 2006–2008 in South Australia, notification rates for chlamydia, gonorrhoea, syphilis, and hepatitis C were generally higher among Indigenous Australians than among other people.
- For Indigenous Australians in South Australia, notification rates for chlamydia, syphilis and gonorrhoea were highest among those aged 15–24 years and notification rates for hepatitis C were highest among those aged 25–34 years.
- The greatest difference in rates between Indigenous and other people in South Australia occurred in the 65 years and over age group for chlamydia, the 15–24 year age group for syphilis, the 0–14 year age group for gonorrhoea and the 45–54 year age group for Hepatitis C.
- Notification rates for chlamydia for Indigenous Australians in South Australia were lower than for Indigenous Australians in Western Australia, South Australia, Northern Territory and Tasmania combined for most age groups. Likewise, notification rates for syphilis for Indigenous Australians in South Australia were lower than for Indigenous Australians in Victoria, Queensland, Western Australia, South Australia, Northern Territory and Tasmania combined for most age groups. Notification rates for Hepatitis C for Indigenous Australians in South Australia were higher than for Indigenous Australians in Western Australia, South Australia and the Northern Territory combined for the 15–24 and 25–34 age groups.



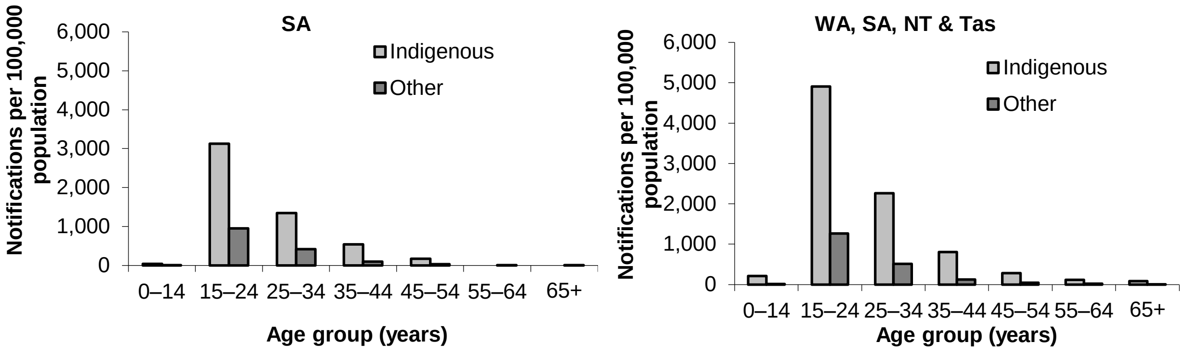
* Data excluded due to small numbers.

(a) Data for Hepatitis C refer to New South Wales, Victoria, Western Australia, South Australia, Northern Territory and Tasmania only.

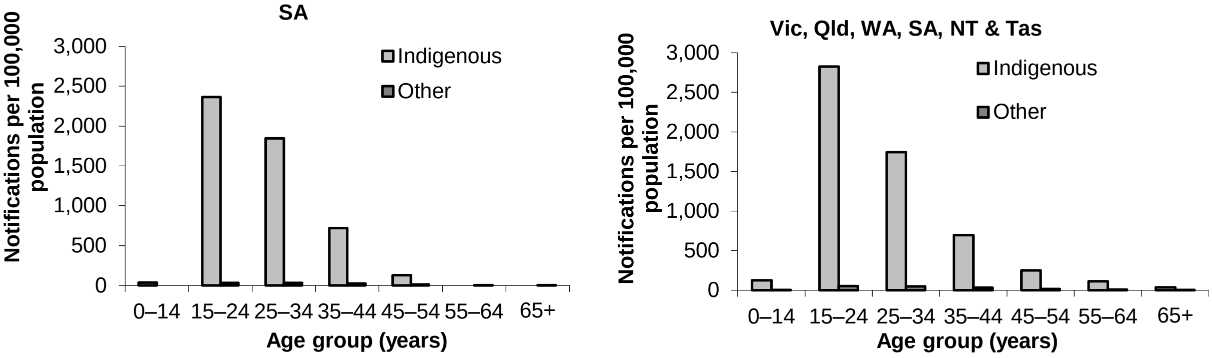
Source: AIHW analyses of National Notifiable Disease Surveillance System (NNDSS).

Figure 1.11.1: Age specific notification rates per 100,000 for hepatitis C, by Indigenous status, SA and NSW, Vic, Qld, WA, SA, NT & Tas combined, 2006–2008

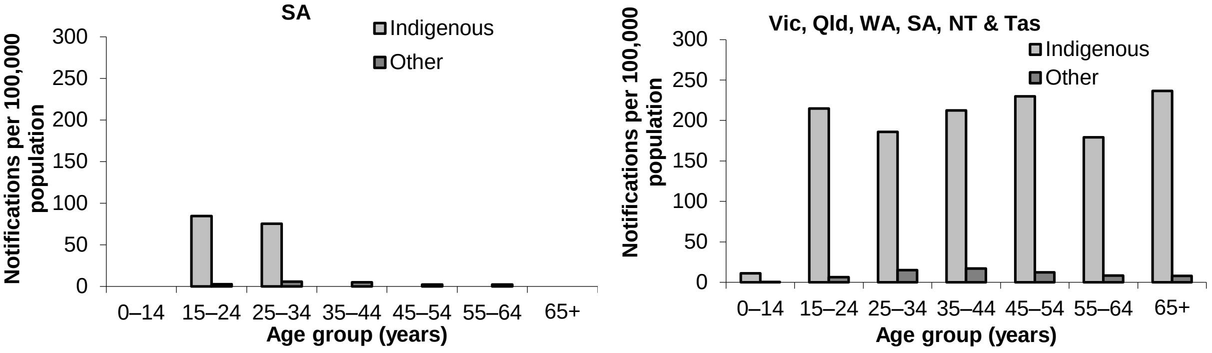
Chlamydia[(a)]



Gonorrhoea[(b)]



Syphilis[(b)]



* Data excluded due to small numbers.

(a) Data for Chlamydia refer to Western Australia, South Australia, Northern Territory and Tasmania only.

(b) Data for Gonorrhoea and Syphilis refer to Victoria, Queensland, Western Australia, South Australia, Northern Territory and Tasmania only.

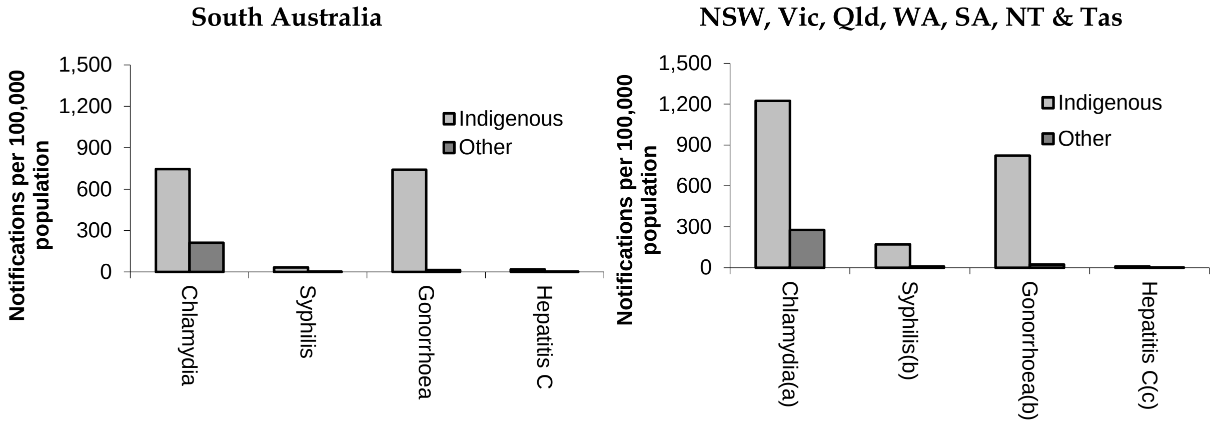
Source: AIHW analyses of National Notifiable Disease Surveillance System (NNDSS).

Figure 1.11.2: Age specific notification rates per 100,000 for chlamydia, gonorrhoea, and syphilis, by Indigenous status, SA and NSW, Vic, Qld, WA, SA, NT & Tas combined, 2006–2008

Notifications by Indigenous status

- For the period 2006–08, notification rates for chlamydia, syphilis, gonorrhoea and hepatitis C were higher for Aboriginal and Torres Strait Islander people than other people in South Australia.

- Chlamydia notification rates among Indigenous Australians in South Australia were 3.5 times higher than rates for other people, syphilis notification rates were 13.5 times, gonorrhoea notification rates were 47 times, and notification rates for hepatitis C 5 times the rates among other people.
- For the period 2006–2008, syphilis and gonorrhoea were also more common among Aboriginal and Torres Strait Islander people than other people in Victoria, Queensland Western Australia, South Australia, the Northern Territory and Tasmania combined. A similar pattern was seen for chlamydia notification rates among Indigenous Australians living in Western Australia, South Australia, the Northern Territory and Tasmania combined.
- Notification rates for chlamydia, syphilis, and gonorrhoea for Indigenous Australians were lower in the South Australia than in Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined. Notification rates for Hepatitis C was higher in South Australia than in Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined.



(a) Data are for Western Australia, South Australia, Northern Territory and Tasmania.

(b) Data are for Tasmania, Northern Territory, Queensland, South Australia, Victoria and Western Australia.

(c) Data are for New South Wales, Victoria, Western Australia, South Australia, Tasmania and Northern Territory.

Source: AIHW analyses of NNDSS.

Figure 1.11.3: Age-standardised notification rates per 100,000 for chlamydia, syphilis, gonorrhoea and Hepatitis C, by Indigenous status, South Australia and NSW, Vic, Qld, WA, SA, NT & Tas combined, 2006–2008

Notification trends

Chlamydia

- Over the period 1994–96 to 2006–08 in South Australia, there were significant increases in notification rates for Indigenous and other people for chlamydia (average yearly increase of around 28 notifications per 100,000 for Indigenous Australians, and 14 per 100,000 for other people). The rate difference increased by 167%.
- Over the period 1994–96 to 2006–08 in Western Australia, South Australia and the Northern Territory combined, there were significant increases in the notification rates for

Indigenous and other people for chlamydia (average yearly increase of around 73 per 100,000 for Indigenous Australians, and 18 per 100,000 for other people).

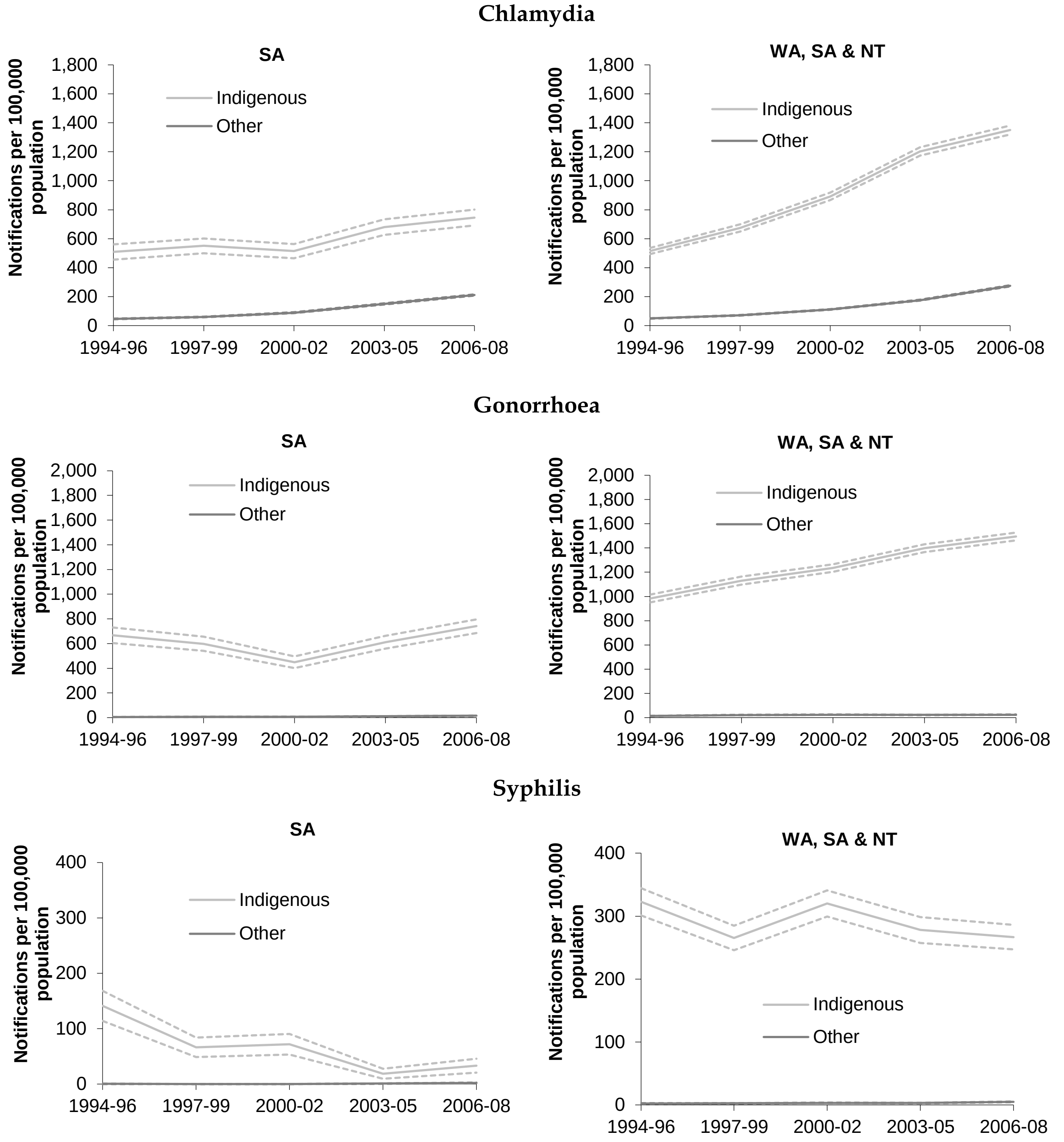
- Over the same period, the rate ratio between notification rates for Indigenous and other people in South Australia for chlamydia decreased significantly, by an average of 0.6 per year.

Gonorrhoea

- Over the period 1994–96 to 2006–08, there were no significant changes in the notification rates for gonorrhoea among Indigenous Australians in South Australia. However, over the same period, there were significant increases in notification rates for gonorrhoea for other people (average yearly increase 0f 0.9 per 100,000).
- In Western Australia, South Australia and the Northern Territory combined over the period 1994–96 to 2006–08, there were significant increases in the notification rates for Indigenous and other people for gonorrhoea.
- There was a significant decrease in the rate ratio in the notification rates for gonorrhoea between Indigenous and other Australians with a yearly decline of 8.3 notifications per 100,000.

Syphilis

- There were significant declines in notification rates for syphilis among Indigenous Australians in South Australia over the period 1994–96 to 2005–06 (average yearly decrease of around nine notifications per 100,000 or an 87% decline over the period). Over the same period there was a significant increase in notification rates for syphilis among other people in South Australia (average yearly increase of 0.2 notifications per 100,000).
- In Western Australia, South Australia and the Northern Territory combined, there was no significant change in syphilis notification rates for Indigenous Australians but significant increases in syphilis notification rates for other people over the period 1994–96 to 2006–08.
- Over the same period there were no significant changes in the rate ratio for notification rate between Indigenous and other people in South Australia. However there were significant declines in the rate difference between notification rates of Indigenous and other people in South Australia (average yearly decrease of 8.9 notifications per 100,000).



Source: AIHW analyses of NNDSS.

Figure 1.11.4: Age-standardised notification rates per 100,000 for chlamydia, gonorrhoea and syphilis, by Indigenous status, South Australia and WA, SA & NT combined, 1994–96 to 2006–08

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, approximately 7% of Indigenous children aged 0–14 years in South Australia were found to have ear or hearing problems compared with 4% of non-Indigenous children of the same age.
- The prevalence of ear/hearing problems among Indigenous children in South Australia was slightly lower than among Indigenous children in Australia (7% compared to 10%), while the prevalence among non-Indigenous children was slightly higher in South Australia than Australia (4% compared to 3%).
- Disease of the ear and mastoid were more prevalent among Indigenous children aged 5–14 years than among Indigenous children aged 0–4 years (8% compared to 3% in South Australia).
- Complete/partial deafness or hearing loss was more prevalent among Indigenous children than among non-Indigenous children in South Australia (approximately 4% of compared to 1% for children aged 0–14 years). The proportion of children aged 0–14 years with otitis media was similar for Indigenous and non-Indigenous children in South Australia (2.6% and 2.4%).

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

	0–4 years		5–14 years		Total 0–14 years	
	Indigenous	Non-Indigenous	Indigenous	Non-Indigenous	Indigenous	Non-Indigenous
	%	%	%	%	%	%
			South Australia			
Complete/ partial deafness or hearing loss	0.5	0.0	5.1	1.6	3.6	1.1
Otitis media	1.5	2.5	3.2	2.4	2.6	2.4
Other diseases of the ear and mastoid	0.8	0.0	1.2	0.6	1.1	0.4
Total	**2.9**	**2.5**	**8.3**	**4.2**	**6.5**	**3.6**
			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 South Australia in 2004–05, prevalence of diseases of the ear and mastoid process among Indigenous males aged 0–14 years (4%) was notably lower than among Indigenous females of the same age (9%). For Australia, prevalence of diseases of the ear and mastoid process was similar for Indigenous males and females aged 0–14 years.

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

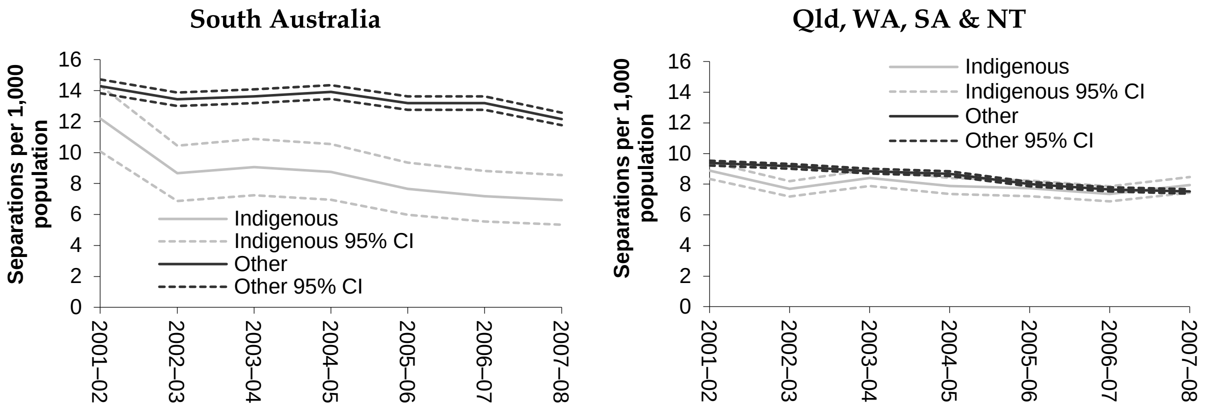
	Males	Females
	%	%
South Australia	4	9
Australia	10	9

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

Hospitalisations

Hospitalisation trends

- In South Australia, hospitalisation rates for diseases of the ear and mastoid process among Indigenous children aged 0–14 years were generally below those of other children during the period 2001–02 to 2007–08. For Indigenous children, there was a significant decline in the hospitalisation rates, with average yearly decline of 0.7 per 1,000 population. There was a significant decline in the rates for other children as well, at an average yearly decline of 0.3 per 1,000 population.
- There were significant declines in the rate ratio between hospitalisations rates for diseases of the ear and mastoid process for Indigenous and other children aged 0–14 years in South Australia during the period 2001–02 to 2007–08. It declined at an average yearly rate of 0.04.
- In 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 years showed no significant change during the period 2001–02 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).



Source: AIHW analyses of NHMD.

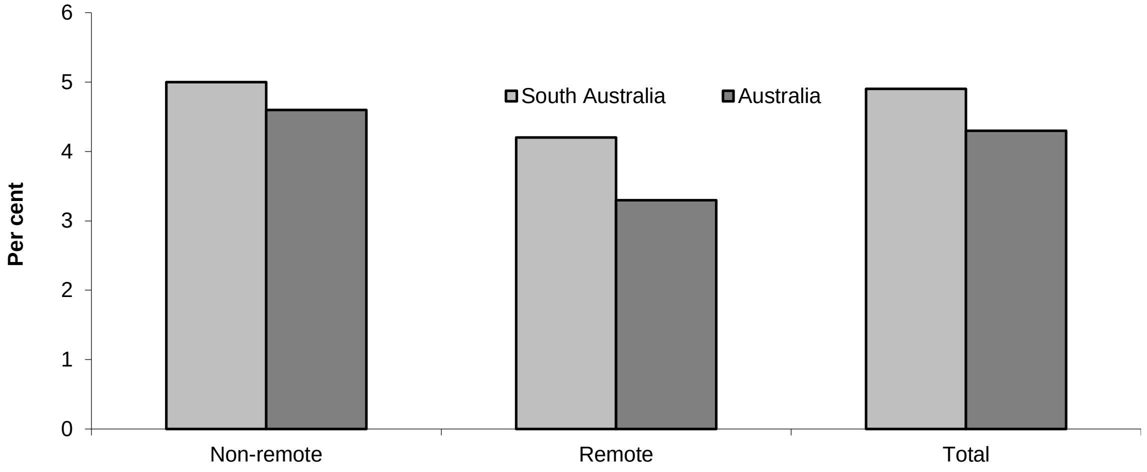
Figure 1.12.1: Hospitalisation rates for Indigenous and other children aged 0–14 years from diseases of the ear and mastoid, South Australia and Qld, WA, SA & NT combined, 2001–02 to 2007–08

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 South Australia and 4% in Australia.
- Indigenous Australians living in *Non-remote* areas were more likely to report a core activity need for assistance than Indigenous Australians living in *Remote* areas (5% compared to 4% in South Australia).



Source: ABS & AIHW 2008.

Figure 1.13.1: Proportion of people with a core activity need for assistance, Indigenous Australians, South Australia and Australia, 2006

1.14 Community functioning

Analyses of factors associated with community functioning for Indigenous Australians

Community and individual aspects contributing to community functioning

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 South Australia, over three-quarters (77%) of Indigenous Australians reported no stressors related to discrimination or racism and 52% could visit their homelands.
- Over one-third (34%) of Indigenous Australians reported involvement with an Aboriginal and Torres Strait Islander organisation and 90% had support in a time of crisis.

Connectedness to family land and history

- Approximately 71% of Indigenous Australians in South Australia reported recognition of their homeland.
- Around 85% of Indigenous Australians aged 15 years and over reported they were not removed from their natural family and 42% reported that their relatives were not removed from their natural family.

Health, chronic disease and substance use

- Around 48% of Indigenous Australians aged 15 years and over in South Australia reported excellent or very good health.
- Around 84% of Indigenous Australians had not drunk alcohol at risky/high-risk levels in the last 12 months and 63% had not used illicit substances in the last 12 months.

Culture

- The majority (69%) of Indigenous Australians in South Australia participated in at least one cultural event in the last 12 months and 31% reported they spoke an Aboriginal or Torres Strait Islander language.

Identity

- Around 63% of Indigenous Australians in South Australia reported identifying with a tribal group or clan.

Continuing employment

- In 2002, approximately 13% of Indigenous Australians in South Australia were employed in Community Development Employment Projects (CDEP) and a further 35% were employed (not in CDEP).

Education

- Around 16% of Indigenous Australians aged 15 years and over in South Australia completed Year 12 and 41% of Indigenous Australians aged 25–64 years had a non-school qualification.

Infrastructure and community

- Around 60% of Indigenous Australians in South Australia were living in a dwelling that had no major structural problems and three-quarters (76%) were living in a dwelling that was not overcrowded.
- Approximately 72% of Indigenous Australians reported having a working telephone, 60% had used a computer in the last 12 months and 44% had used the Internet in the last 12 months.
- Over half (57%) of Indigenous Australians aged 15 years and over reported having access to a motor vehicle.

Coping within the internal world and external world

- Around 25% of Indigenous Australians in South Australia reported no community problems and 22% reported experiencing no stressors in the last 12 months.
- Almost three-quarters (70%) 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 (75%).

Structure and routine

- Approximately 71% of Indigenous Australians in South Australia reported living in only one dwelling in the last 12 months.
- Around 48%of Indigenous Australians reported they did not have a cash flow problem.

Income

- Around one quarter (23%) of Indigenous Australians aged 15 years and over in South Australia were in the third quintile or above of equivalised household income.
- Approximately 39% of Indigenous Australians reported that government support was not the main source of income during the last 2 years and 37% could raise $2,000 within a week.

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

	SA	Aust
Themes and community infrastructure	%	%
Power to control choices and options		
No stressors reported for discrimination/racism	77.4	82.3
Can visit homelands	52.0	46.2
Has support in a time of crisis	90.4	90.4
Involvement with Aboriginal/Torres Strait Islander organisation	33.6	26.1
Work allows for cultural responsibilities - can meet responsibilities	22.2	22.3
Used strategies to meet living expenses	54.5	48.5
Connectedness to family land and history		
Access to traditional lands		
Recognition of homelands	70.6	69.6
Lives in homelands	16.4	21.9
Removal		
Respondent not removed from natural family	85.0	87.2
Relatives not removed from natural family	41.8	44.4
Health, chronic disease and substance use		
Self-assessed health status excellent or very good	48.2	44.1
Has no disability or long term health condition	61.4	63.5
Not a regular smoker(a)	56.0	50.7
Has not drunk alcohol in last 12 months at risky/high-risk levels(b)	83.5	84.1
Has not used substances illicitly in last 12 months(c)	62.6	70.7
Culture		
Protection and maintenance of culture:		
Main language spoken at home is Aboriginal language/ Torres Strait Islander Language	**12	12.0
Speaks an Aboriginal/Torres Strait Islander language	31.4	21.1
Participating in cultural events		
Attended Aboriginal and Torres Strait Islander cultural event in last 12 months		
Attended funeral	45.0	46.6
Attended ceremony	15.8	23.5
Attended sports carnival	31.5	29.8
Attended festival/carnival involving arts, crafts, music or dance	35.8	35.7
Sub-total attended in last 12 months	69.3	68.1
Identity		
Identification with tribal group or language group/clan	63.3	54.1
Continuing employment		
Employed in CDEP	12.9	12.1
Employed not in CDEP	34.7	34.1

(continued)

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

	SA	Aust
Themes and community infrastructure	%	%
Education		
Year 12 highest year of school completed[(d)]	16	18
Subtotal people 15 years and over not at school	100	100
Has a non school qualification[(e)]	41	32
Subtotal people aged 25–64 years	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	42.7	40.6
Infrastructure of community		
Housing		
Living in a dwelling that has no major structural problems	59.9	60.4
Living in a dwelling that is not overcrowded (Canadian Occupancy standard)	76.0	74.0
Working household facilities for:		
washing people	99.1	98.6
washing clothes and bedding	98.8	98.1
Storing/preparing foods	93.4	92.3
Sewerage facilities	99.3	98.1
Communication services		
Has working telephone	72.2	71.3
Used computer in last 12 months	60.0	55.5
Used Internet in last 12 months	43.5	41.0
Transport		
Access to motor vehicles	56.9	54.6
Can easily get to places needed	67.4	70.1
Main reasons for not using public transport:		
Prefer to use own transport	25.2	29.2
No service available	28.9	29.1
No service available/convenient time	*2	4.3
Cost considerations	**	1.2
Other[(f)]	5.2	6.9
Coping within the internal world and external world/ role models		
Community problems		
No community problems reported	24.5	25.3
Community problems reported, but less than three types	27.9	28.8
No problems reported for theft	55.3	57.0
No problems reported for alcohol	67.9	66.5
No problems reported for illicit drugs	67.0	67.7

(continued)

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

	South Australia	Australia
Themes and community infrastructure	%	%
No problems reported for family violence	78.8	78.8
No problems reported for assault	78.9	80.1
No problems reported for sexual assault	94.9	91.9
Sub total no. of people who reported a community problem	74.5	73.6
Stressors		
No stressors reported in last 12 months	21.5	17.7
Less than three types of stressors reported in the last 12 months[(g)]	54	56
No stressors reported for death of a family member or close friend	54.2	54.3
No stressors reported for serious illness of disability	68.7	69.2
No stressors reported for not able to get a job	76.9	73.0
No stressors reported for witness to violence	83.9	84.3
No stressors reported for member of family sent to jail/currently in jail	81.2	80.5
Subtotal no. of people who reported a stressor	78.5	82.3
Crime and Justice		
Not a victim of physical or threatened violence in the last 12 months	70.4	75.7
Did not need legal services in the last 12 months	74.6	77.1
Did not use legal services in the last 12 months	76.6	80.2
Not arrested by police in the last 5 years	80.5	83.6
Not incarcerated in the last 5 years	91.8	92.9
Structure and routine		
Has no difficulties communicating with service providers in English[(h)]	80.1	86.9
In the last 12 months has lived in only one dwelling	70.9	69.1
No days without money for basic living expenses in the last 12 months[(i)]	47.3	56.3
No days without money for basic living expenses in the last 2 weeks[(i)]	60.1	68.2
Did not have a cash flow problem[(i)]	48.0	45.9
Income		
Equivalised gross household income		
3rd quintile or above	22.9	24.6
Main current source of personal income		
CDEP	11.1	10.3
Other wages/salaries	30.9	29.0
Government pensions and allowances	50.3	50.2
Total in labour force	59.8	60.0
Other sources[(j)]	1*	3.1
Government support was not the main source of income during the last 2 years	39.0	40.0

(continued)

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

	South Australia	Australia
Themes and community infrastructure	%	%
Household financial stress and cash flow problems		
Has a bank account	93.6	94.2
Could raise $2000 within a week	37.0	40.6
Total people aged 15 years and over	**15,757**	**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 stated.
(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 22% of permanent dwellings managed by Indigenous Housing Organisations in South Australia needed major repair.
- In 2006, 97% of the discrete Indigenous communities in South Australia reported having an organised water supply, 97% reported having an organised sewerage supply and 97% reported having an organised electricity supply.

Health and medical services

- Around 41% of discrete Indigenous communities in South Australia were located less than 100 kilometres from the nearest hospital and 35% were located less than 100 kilometres from the nearest Aboriginal primary health-care centre.
- In 2006, around 23% of discrete Indigenous communities reported having access to medical emergency air services.

Educational services

- Around 18% of discrete Indigenous communities in South Australia reported having a primary school located in the community. Only 8% of Indigenous communities in South

Australia reported having a secondary school up to Year 12 located in the community, however 37% reported having a secondary school located less than 50km away.

Communication services

- Around 63% of discrete Indigenous communities in South Australia (representing 89% of the population) reported having access to a public telephone and 43% reported having access to the Internet.

Transport

- In 2006, 99% of discrete Indigenous communities in South Australia reported road as the main mode of transport to the nearest town with major services.

Community services

- Around 26% of discrete Indigenous communities in South Australia reported having visitor accommodation facilities; 2% reported disability accommodation, and 12% aged care accommodation facilities.
- Around 31% of discrete Indigenous communities reported having an arts/cultural centre and 17% reported having a child care centre.
- Around 41% of discrete Indigenous communities in South Australia reported having sports grounds in the community.

Community priority needs plan

- In 2006, around 26% of discrete Indigenous communities in South Australia reported having a community priority needs plan and 57% were developing a community priority needs plan.
- Of those communities with a community priority needs plan, 91% identified more housing, 73% identified sports facilities and 36% identified education, upgrading sewerage and transport as main planning priorities.

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

Community infrastructure	South Australia Dwellings	South Australia Reported usual population	Australia Dwellings	Australia Reported usual population
Housing	%	%	%	%
Condition of permanent dwellings managed by Indigenous Housing Organisations				
needing minor or no repairs	71.9	n.a.	69.5	n.a.
needing major repairs	22.4	n.a.	23.4	n.a.
needing replacement	5.8	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	67.9	46.1	65.3	64.5
Population living in temporary dwellings	n.a.	5.7	n.a.	4.4
No-one in community requiring permanent dwelling	72.4	47.6	68.2	68.5
Population requiring permanent housing	n.a.	5.6	n.a.	4.2
Access to clean water				
Organised water supply[(b)]	97.4	99.7	96.4	99.2
No organised water supply	2.6	n.p.	3.6	0.8
Drinking water failed testing in last 12 months[(c)]	30.8	19.6	29.3	24.1
Drinking water not sent away for testing[(d)]	48.0	20.1	21.5	8.7
Experienced 5 or more water interruptions over last 12 months[(d)]	14.3	18.5	18.9	25.7
Experienced interruptions to water supply greater than 24 hours[(d)]	35.7	37.4	21.9	18.9
Access to sewerage				
Organised sewerage supply[(e)]	97.4	99.8	83.8	97.1
No organised system	2.6	n.p.	16.2	2.9
Experienced overflows or leakage[(d)]	33.3	39.6	39.3	36.5
Over a 12 month period 10 or more overflows[(d)]	9.5	12.1	8.6	6.5
Overflows or leakages longer than 48 hours [(d)]	26.2	28.3	22.4	17.4
Not all dwellings connected	13.2	4.4	18.8	4.5
Access to electricity				
Organised electricity supply	97.4	97.3	97.0	99.7
no organised supply	2.6	2.7	3.0	0.3
20 or more interruptions in the last 12 months[(d)]	4.8	3.8	11.2	16.1
At least one interruption greater than 24 hours in last 12 months[(d)]	35.7	32.3	26.2	29.0
Not all dwellings connected[(d)]	9.5	8.6	3.3	1.9

(continued)

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

	South Australia		Australia	
Community infrastructure	**Communities**	**Reported usual population**	**Communities**	**Reported usual population**
	%	%	%	%
Access to rubbish disposal				
Community has organised rubbish collection[(d)]	95.2	97.0	92.1	96.9
Community does not have organised rubbish disposal[(d)]	4.8	3.0	7.9	3.1
Health and medical services				
Aboriginal primary health care centre				
Located within community	9.0	20.8	10.2	47.0
Located less than 100km	34.6	23.1	50.3	24.0
Located 100km or more	56.4	56.1	39.6	28.9
Total stated	**100.0**	**100.0**	**100.0**	**100.0**
Hospital				
Located within community	0.0	0.0	0.9	15.3
Located less than 100km	41.0	39.3	29.0	28.3
Located 100km or more	59.0	60.7	70.0	56.4
Total stated	**100.0**	**100.0**	**100.0**	**100.0**
Other (state-funded) community health centre				
Located within community	14.1	44.9	9.9	42.9
Located less than 100km	78.2	43.2	54.8	29.2
Located 100km or more	7.7	11.8	35.4	28.0
Total stated	**100.0**	**100.0**	**100.0**	**100.0**
Emergency services[(f)]				
Access to medical emergency air services	22.9	61.1	32.3	75.2
No access to medical emergency air services	77.1	38.9	67.7	24.8
Whether health professionals visiting or working in the community[(f)]				
Male Indigenous health worker daily, weekly, fortnightly	50.0	75.9	42.4	64.2
Male Indigenous health worker monthly or longer	5.9	6.3	9.0	6.0
No male Indigenous health worker	44.1	17.8	48.6	29.8
Female Indigenous health worker daily, weekly, fortnightly	52.9	78.2	55.2	79.7
Female Indigenous health worker monthly or longer	11.8	6.4	7.3	3.7
No female Indigenous health worker	35.3	15.4	37.5	16.5
Doctor daily, weekly, fortnightly	14.7	19.1	41.0	60.9
Doctor monthly or longer	38.2	59.1	25.7	25.9

(continued)

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

	South Australia		Australia	
Community infrastructure	**Communities**	**Reported usual population**	**Communities**	**Reported usual population**
	%	%	%	%
No doctor	47.1	21.8	33.3	13.1
Registered nurse daily, weekly, fortnightly	44.1	70.9	63.9	86.5
Registered nurse monthly or longer	5.9	4.3	9.4	4.5
No registered nurse	50.0	24.8	26.7	9.0
Educational services				
Primary				
Located within community	17.9	57.3	22.6	72.8
Located less than 50km	74.4	39.8	49.2	22.5
Located 50km or more	7.7	2.9	28.2	4.7
Total stated	**100.0**	**100.0**	**100.0**	**100.0**
Secondary school up to Year 10				
Located within community	2.8	18.7	4.7	30.8
Located less than 50km	41.7	51.6	39.4	34.7
Located 50km or more	55.6	29.7	55.9	34.5
Total stated	**100.0**	**100.0**	**100.0**	**100.0**
Secondary school up to Year 12				
Located within community	7.7	28.1	3.7	23.0
Located less than 50km	37.2	32.7	27.3	28.1
Located 50km or more	55.1	39.2	69.0	48.9
Total stated	**100.0**	**100.0**	**100.0**	**100.0**
Access to educational services other than school				
Pre-primary	28.6	61.8	34.4	56.1
Homework centre	2.4	4.7	7.9	10.1
TAFE courses	38.1	63.8	19.1	37.4
Other adult education	7.1	19.8	13.7	21.4
Other educational services	2.4	2.8	4.9	7.0
No other educational services	57.1	29.0	54.1	28.5
Communication services				
Public access to community telecommunication facilities				
Public telephones	62.8	88.5	58.1	84.0
Satellite dish	42.9	57.8	49.2	67.8
Radio	95.2	96.1	92.1	96.2
Television	97.6	98.5	95.4	98.6

(continued)

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

	South Australia		Australia	
Community ifrastructure	**Communities**	**Reported usual population**	**Communities**	**Reported usual population**
	%	%	%	%
Internet	42.9	60.2	37.2	57.8
Community has no access to a public telephone	37.2	11.5	41.9	16.0
Community has no access to Internet	57.1	39.8	62.8	42.2
Transport				
Access to community not located in town				
Main mode of transport				
Road	98.7	99.9	88.0	78.0
Air	0.0	0.0	9.4	18.9
Sea	1.3	n.p.	2.7	3.1
Usual method of transport[(d)]				
Private	97.6	95.1	85.8	78.7
Public	2.4	4.9	8.6	17.7
Community-owned vehicle	0.0	0.0	4.3	2.2
Other	0.0	0.0	1.3	1.4
Whether transport services available to/from community[(d)]				
Public	7.3	20.9	17.8	32.6
Community	17.1	26.6	23.8	25.1
Road access[(d)]				
Road access not cut	65.9	52.5	42.6	29.7
Road access cut 5 or more times	7.3	6.6	13.9	16.8
Inaccessible by road	0.0	0.0	11.5	23.1
Airstrip[(d)]				
airstrip located in community	31.7	53.7	48.5	69.1
airstrip open all year round	76.9	84.3	74.1	75.9
airstrip not open all year round	23.1	15.7	25.9	24.1
Community services[(d)]				
Accommodation facilities				
Visitor	26.2	41.1	32.5	56.8
Camping	9.5	9.3	14.2	13.0
Single men's	2.4	8.9	13.1	19.7
Single women's	0.0	0.0	6.8	13.0
Hostel	0.0	0.0	2.2	2.6
Contract workers	9.5	15.4	23.2	53.8

(continued)

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

	South Australia		Australia	
Community infrastructure	**Communities**	**Reported usual population**	**Communities**	**Reported usual population**
	%	%	%	%
Disability	2.4	8.9	6.3	13.7
Aged	11.9	21.0	12.0	34.4
Women’s refuge	0.0	0.0	8.7	34.9
Other	2.4	7.1	1.1	3.2
No accommodation facilities	69.0	53.0	48.6	20.4
Public facilities				
Hall/meeting area	42.9	61.4	56.8	75.8
Administration building	52.4	67.6	61.2	85.5
Store	31.0	53.6	47.8	80.0
Library	0.0	0.0	12.0	37.6
Arts/cultural centre	31.0	51.7	31.1	56.5
Women’s centre	23.8	25.4	30.9	55.6
Child care centre	16.7	28.1	29.5	58.3
Youth centre	26.2	46.7	19.4	43.9
Canteen	4.8	5.1	12.8	34.9
Broadcasting facilities	16.7	31.5	30.9	63.2
Other	2.4	7.1	10.7	16.5
No public facilities	40.5	24.3	24.3	6.7
Recreation facilities				
Sports grounds	40.5	67.3	46.2	78.9
Outdoor basketball/netball courts	35.7	60.3	48.4	72.4
Indoor or covered sporting facilities	2.4	3.7	12.6	39.2
Swimming pools	7.1	9.2	7.4	23.4
Other buildings used for sport	14.3	23.5	15.6	36.8
Other community sporting facilities	11.9	24.7	6.0	10.2
No sporting facilities	47.6	25.3	38.5	12.1
Community priority needs plan[(d)]				
Communities with a community priority needs plan	26.2	41.4	51.6	58.9
Of those with plan needs identified include:				
More housing	90.9	90.8	89.9	93.9
Upgrade water supply	9.1	3.1	45.5	46.8
Upgrade electricity supply	18.2	21.2	37.6	32.2
Upgrade sewerage	36.4	15.7	43.4	46.2

(continued)

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

	South Australia		Australia	
Community infrastructure	**Communities**	**Reported usual population**	**Communities**	**Reported usual population**
	%	%	%	%
Rubbish collection/disposal	54.5	64.0	45.0	40.1
Transport	36.4	35.4	40.7	40.3
Communication facilities	27.3	15.9	27.0	33.0
Education facilities	36.4	19.1	31.2	37.3
Sports facilities	72.7	68.8	55.6	62.9
Health care facilities	27.3	12.9	41.8	47.3
Animal control	27.3	30.6	38.6	50.8
Broadcasting capabilities	36.4	16.3	27.0	35.4
Other	18.2	15.3	25.4	26.9
Communities developing a community priority needs plan	57.1	51.2	35.2	34.3
No community priority needs plan being developed	16.7	7.4	13.1	6.9
Total no. of communities	**91**	**4,607**	**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 who 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

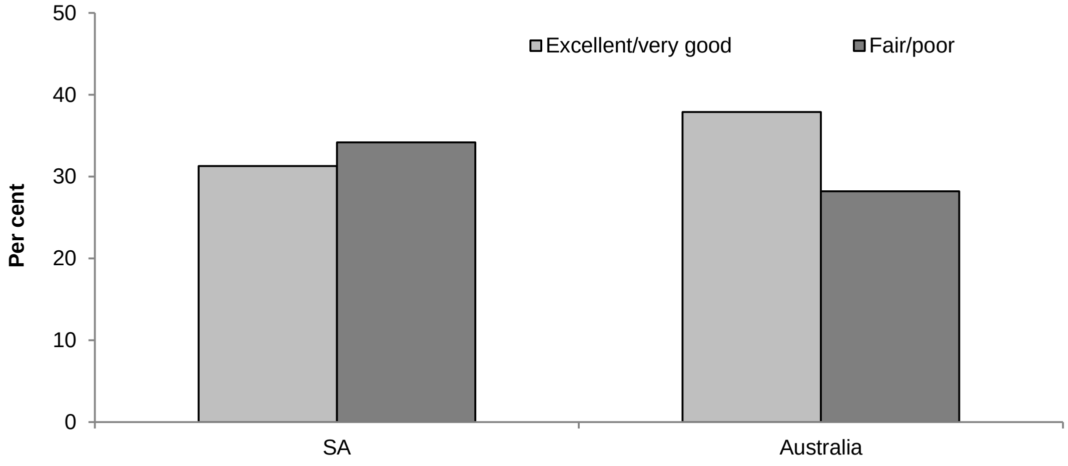
- The proportion of Indigenous Australians aged 15 years and over in South Australia reporting excellent or very good health (31%) was less than that reported for Australia (38%). In South Australia, 34% of Indigenous Australians reported fair or poor health, compared to 28% for the total of Australia.

Self-assessed health status by age

- In both South Australia and Australia, Indigenous Australians were less likely to report excellent or very good health than non-Indigenous Australians across all age groups.
- In South Australia, the proportion of Indigenous Australians reporting excellent or very good health decreased with age being highest among those aged 15–24 years (51%) and lowest among those aged 55 years and over (14%).

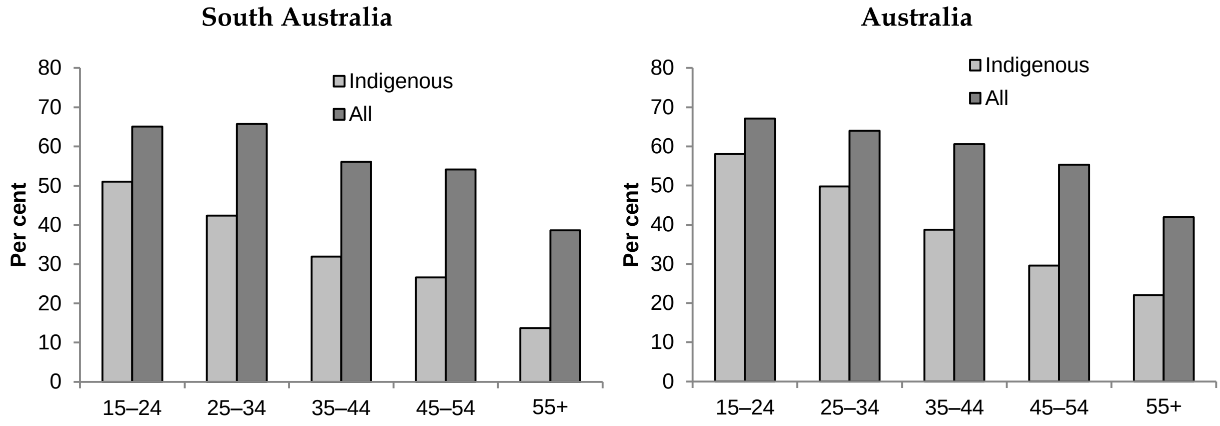
Self-assessed health status by Indigenous status (age-standardised)

- In 2007–08, after adjusting for differences in age structure between the Indigenous and non-Indigenous populations, in both South Australia and Australia, Indigenous Australians were around twice as likely as non-Indigenous Australians to report their health as fair or poor. In South Australia, Indigenous Australians were more likely to report their health as good and less likely to report it as very good or excellent compared to non-Indigenous Australians.



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

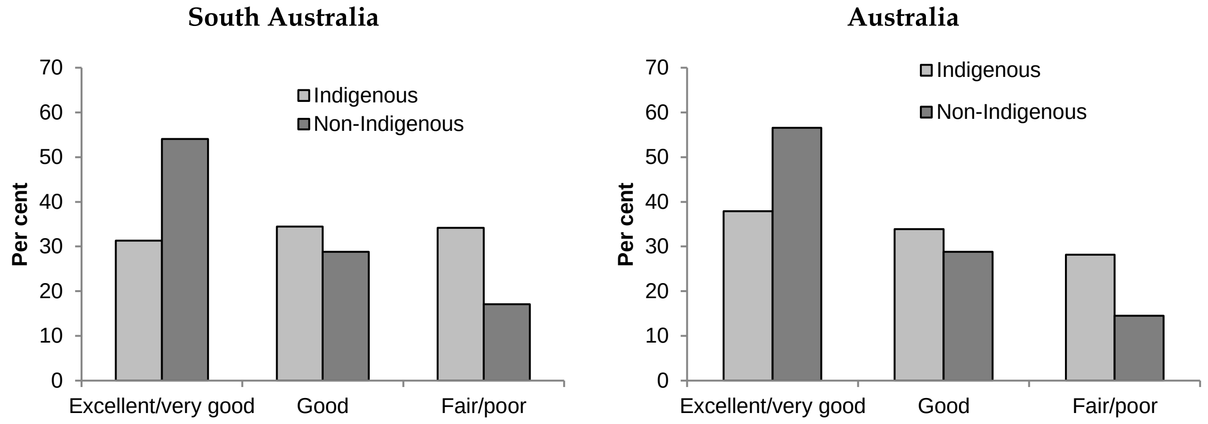
Figure 1.15.1: Self-assessed health status, Indigenous Australians aged 15 years and over, South Australia and Australia, 2007–08



Note: Data for non-Indigenous Australians in South Australia are not presented due to the small sample size of non-Indigenous Australians in South Australia in the NATSIHS.

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

Figure 1.15.2: Self-assessed health status as 'Very Good' or Excellent' , by age group, Indigenous Australians and all Australians, South Australia and Australia, 2007–08



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

Figure 1.15.3: Self-assessed health status (age adjusted), people aged 15 years and over, by Indigenous status, South Australia and Australia, 2007–08

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

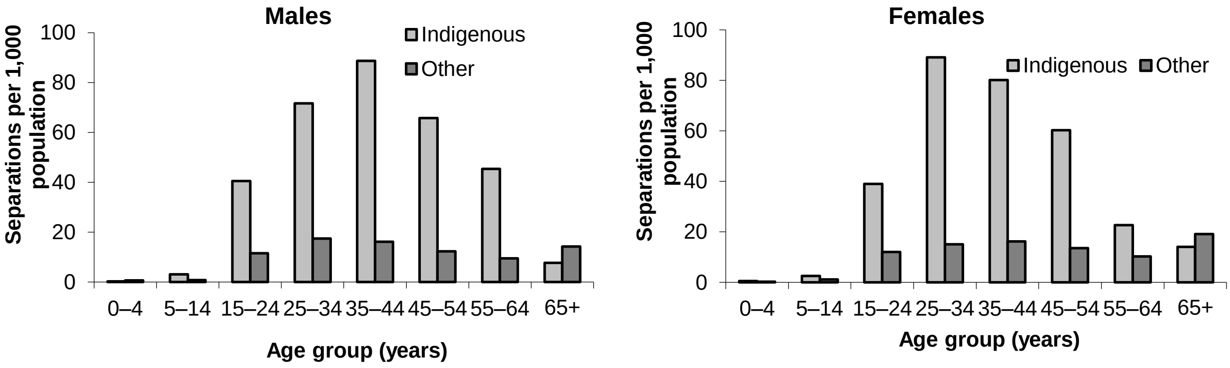
Hospitalisations by age and sex

- For the 2-year period July 2006 to June 2008 in South Australia, 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 65+ year age groups for males and females, and the 0–4 year age group for males.
- For Indigenous males in South Australia the hospitalisation rate for mental health-related conditions was highest among those aged 35–44 years. For Indigenous females in South Australia the hospitalisation for mental health-related conditions was highest among those aged 25–34 years. A similar pattern was evident for Indigenous males and females in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, however hospitalisation rates for Indigenous males and females were lower in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined for most age groups.
- The greatest difference in hospitalisation rates for mental health-related conditions between Indigenous males and other males in South Australia occurred in the 35–44 year age group where Indigenous males were above 5.5 times as likely to be hospitalised as other males. Between Indigenous and other females in South Australia, the greatest difference occurred in the 25–34 year age group where Indigenous females were around six times as likely to be hospitalised for mental health-related conditions as other females.

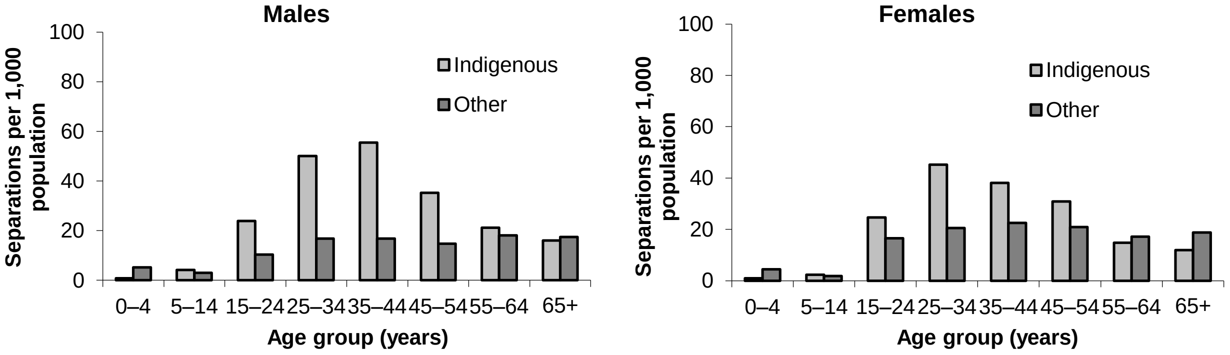
Hospitalisations by Indigenous status

- For the 2-year period July 2006 to June 2008 in South Australia, Indigenous males and females were about four (3.9 and 3.7 respectively) times as likely to be hospitalised for mental-health related conditions as other males and females.
- 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.

South Australia

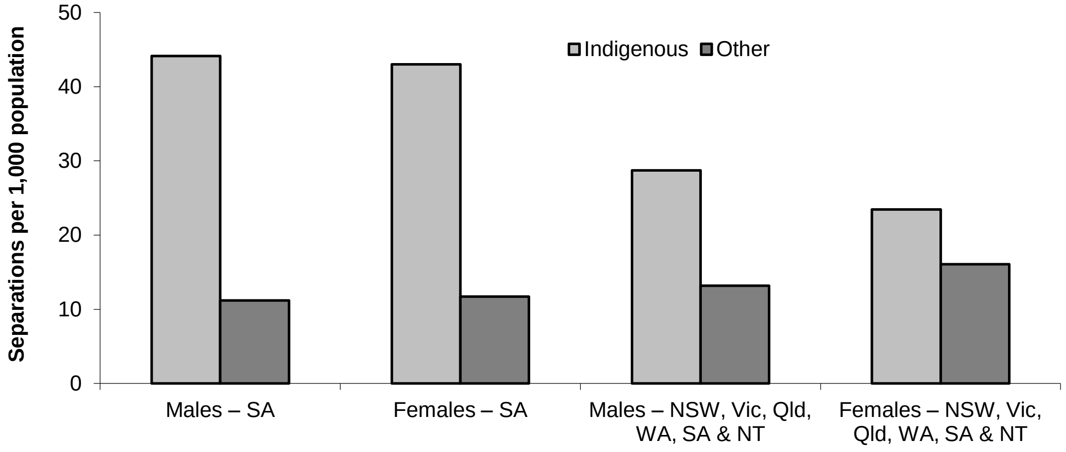


NSW, Vic, Qld, WA, SA & NT



Source: AIHW analyses of NHMD.

Figure 1.16.1: Age specific hospitalisation rates for mental health-related conditions, by Indigenous status, South Australia and NSW, Vic, Qld, WA, SA & NT combined, July 2006 to June 2008

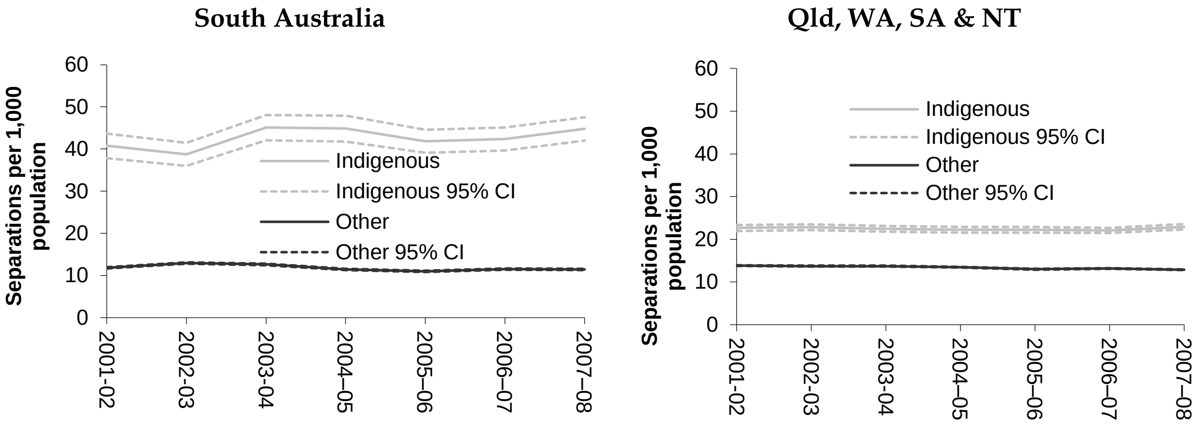


Source: AIHW analyses of NHMD.

Figure 1.16.2: Age-standardised hospitalisation rates for mental health-related conditions, by Indigenous status and sex, South Australia and NSW, Vic, Qld, WA, SA & NT combined, July 2006 to June 2008

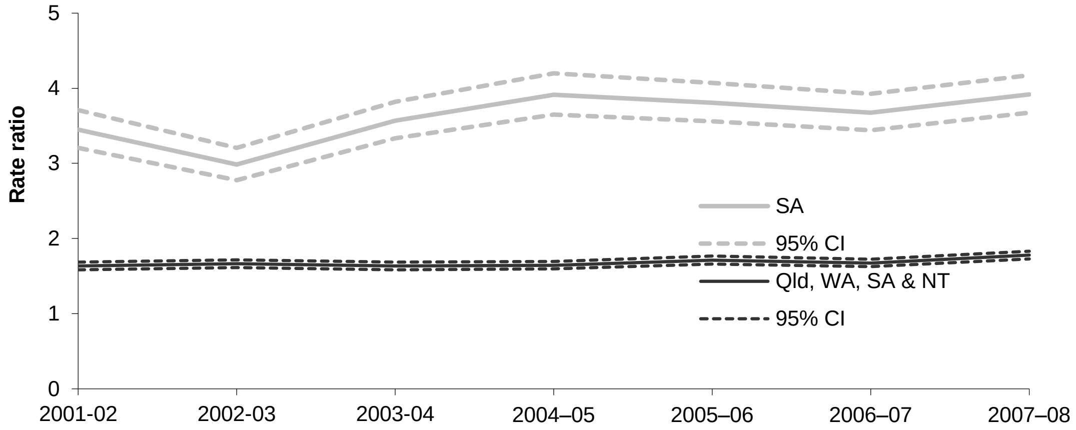
Hospitalisation trends

- In South Australia there were no significant changes in hospitalisation rates for mental health-related conditions among Indigenous and other people during the period 2001–02 to 2007–08.
- In Queensland, Western Australia, South Australia and the Northern Territory combined there was no significant change in hospitalisation rates for mental health-related conditions among Indigenous Australians over the same period. The hospitalisation rate of other people decreased significantly, with an average yearly decline in the rate of 0.2 per 1,000.
- There was a significant increase in the hospitalisation rate ratios between Indigenous and other Australia for mental-health related conditions in South Australia and the four jurisdictions combined during the period 2001–02 to 2007–08 (Figure 1.16.4).



Source: AIHW analyses of NHMD.

Figure 1.16.3: Hospitalisation rates from mental health-related conditions by Indigenous status, South Australia and Qld, WA, SA & NT combined, 2001–02 to 2007–08



Source: AIHW analyses of NHMD.

Figure 1.16.4: Hospitalisation rate ratios between Indigenous and other Australians from mental health-related conditions, South Australia and Qld, WA, SA & NT combined, 2001–02 to 2007–08

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 South Australia, the median age at death for Indigenous males was 48 years and for Indigenous females was 55 years. This compared to 78 years for non-Indigenous males and 84 years for non-Indigenous females in South Australia (Table 1.18.1).
- The median age at death for Indigenous males and females in South Australia was lower than for Indigenous males and females in New South Wales, Queensland, Western Australia, South Australia and the Northern Territory combined (Table 1.18.1).

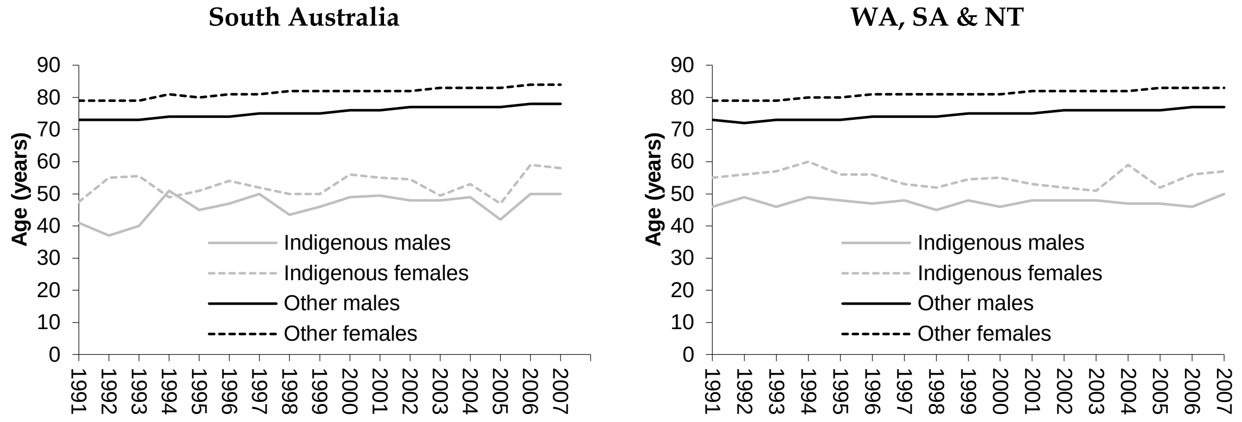
Table 1.18.1: Median age at death by Indigenous status and sex, South Australia and NSW, Qld, WA, SA & NT combined, 2004–2008

	Indigenous		Non-Indigenous	
	Male	Female	Male	Female
South Australia	48	55	78	84
NSW, Qld, WA, SA & NT	**52**	**59**	**77**	**83**

Source: AIHW analyses of National Mortality Database.

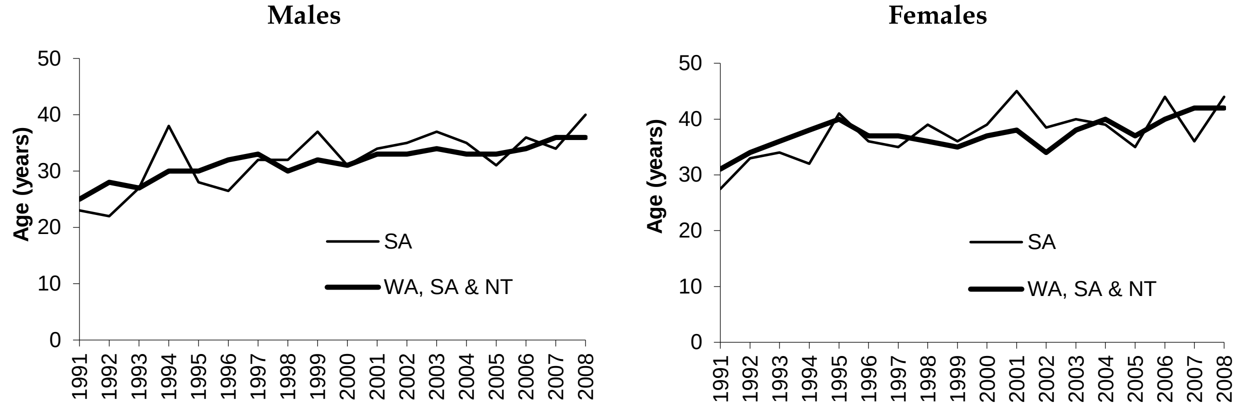
Time series

- Over the period 1991–2007, there was a significant increase in the median age at death among Indigenous males in South Australia. However, there was no significant change in the median age at death among Indigenous females (Figure 1.18.1). Over the same period, there were significant increases in the median age at death for other females and other males in both South Australia, and South Australia, Western Australia and the Northern Territory combined.
- When analysing age at death by quartiles over the period 1991–2008, there has been a significant increase in the age at death in the **first quartile** among Indigenous females in South Australia. No significant change was evident for Indigenous males (Figure 1.18.2).



Source: AIHW analysis of National Mortality Database.

Figure 1.18.1: Median age at death, by Indigenous status and sex, South Australia and WA, SA & NT combined, 1991 to 2007



Source: ABS and AIHW analysis of ABS Mortality Database.

Figure 1.18.2: First quartile of age at death, Indigenous males and females, South Australia and WA, SA & NT combined, 1991 to 2008

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 1996–1998, there were 15 deaths of Aboriginal and Torres Strait Islander infants in South Australia. The infant mortality rate for Indigenous infants was around 8 per 1,000 live births compared to around 4 per 1,000 live births for non-Indigenous infants (Table 16).
- For the period 1999–2001, there were 15 deaths of Indigenous infants in South Australia. The infant mortality rate for Indigenous infants was twice that for non-Indigenous infants over this period (8 compared to 4 per 1,000 live births).
- For the period 2002–2004, there were 18 deaths of Aboriginal and Torres Strait Islander infants in South Australia. The infant mortality rate for this period was 2.6 times that for non-Indigenous infants (9 compared to 4 per 1,000 live births).
- For the period 2005–2006, there were 10 deaths of Aboriginal and Torres Strait Islander infants in South Australia. The infant mortality rate for this period was 7 per 1,000 live births for Indigenous infants compared to around 4 per 1,000 live births for non-Indigenous infants.
- For the period 2007–2008, there were 13 deaths of Aboriginal and Torres Strait Islander infants in South Australia. The infant mortality rate for this period was 7 per 1,000 live births for Indigenous infants compared to around 3 per 1,000 live births for non-Indigenous infants.
- The infant mortality rate for Indigenous infants was lower in South Australia than in Queensland, Western Australia, South Australia and the Northern Territory combined during the periods 1999–2001, 2002–2004 and 2005–2006. During the period 2007–2008, the rate in South Australia was lower than in New South Wales, Queensland, Western Australia, South Australia and the Northern Territory combined (Table 1.19.1).

Time series

- Over the period 1991–2007, there were significant declines in recorded mortality rates for Indigenous infants and other infants in South Australia. The fitted trend implies an average yearly decline in the rate of around 0.7 per 1,000 births for Indigenous infants (equivalent to a 54% reduction in the rate over the period) and 0.1 per 1,000 births for other infants (equivalent to a 30% reduction in the rate over the period) (Figure 1.19.1).
- Over the same period, there were also significant declines in the infant mortality rates for Indigenous and other Australians in Western Australia, South Australia and the Northern Territory combined.

Table 1.19.1: Infant mortality rates per 1,000 live births, by Indigenous status, South Australia and NSW, Qld, WA, SA & NT combined, 1996–1998, 1999–2001, 2002–2004 and 2005–2006, 2007–2008(a)(b)(c)(d)(e)(f)(g)

	Indigenous				Non-Indigenous				
	Deaths	Rate per 1,000(h)	LCL 95%(i)	UCL 95%(j)	Deaths	Rate per 1,000(h)	LCL 95%(i)	UCL 95%(j)	Rate ratio(k)
1996–98(b)									
SA	15	8.3	4.1	12.5	239	4.4	3.9	5.0	1.9*
1999–2001									
SA	15	8.0	3.9	12.0	219	4.3	3.7	4.8	1.9*
Qld, WA, SA & NT(a)	**296**	**14.2**	**12.6**	**15.8**	**1,228**	**4.7**	**4.5**	**5.0**	**3.0***
2002–04									
SA	18	9.4	5.1	13.8	184	3.7	3.1	4.2	2.6*
Qld, WA, SA & NT(a)	**270**	**12.5**	**11.0**	**14.0**	**1,088**	**4.2**	**3.9**	**4.4**	**3.0***
2005–06									
SA	10	6.9	2.6	11.2	133	3.8	3.2	4.5	1.8
Qld, WA, SA & NT(a)	**185**	**12.1**	**10.4**	**13.8**	**803**	**4.3**	**4.0**	**4.6**	**2.8***
2007–08(l)									
SA	13	7.3	3.3	11.3	130	3.5	2.9	4.1	2.1*
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 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 these periods. They do not represent a quasi-Australian figure.

(b) A subtotal for Queensland, Western Australia, South Australia and the Northern Territory has not been provided for the period 1996–1998 as Indigenous mortality data for Queensland are only reliable from 1998 onwards.

(c) Data are presented in 3 and 2-year groupings due to small numbers each year.

(d) Data exclude 90 registered infant deaths where Indigenous status was not stated over the period 1996–2006 in Queensland, Western Australia, South Australia and the Northern Territory combined.

(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 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'.

(f) Because of changes in the level of accuracy of Indigenous identification in the births and deaths data over time, caution should be used in interpreting changes in Indigenous infant mortality rates. It is also difficult to exactly identify the difference between the Indigenous and non-Indigenous infant mortality rates because of these data quality issues.

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

(h) Number per 1,000 live births.

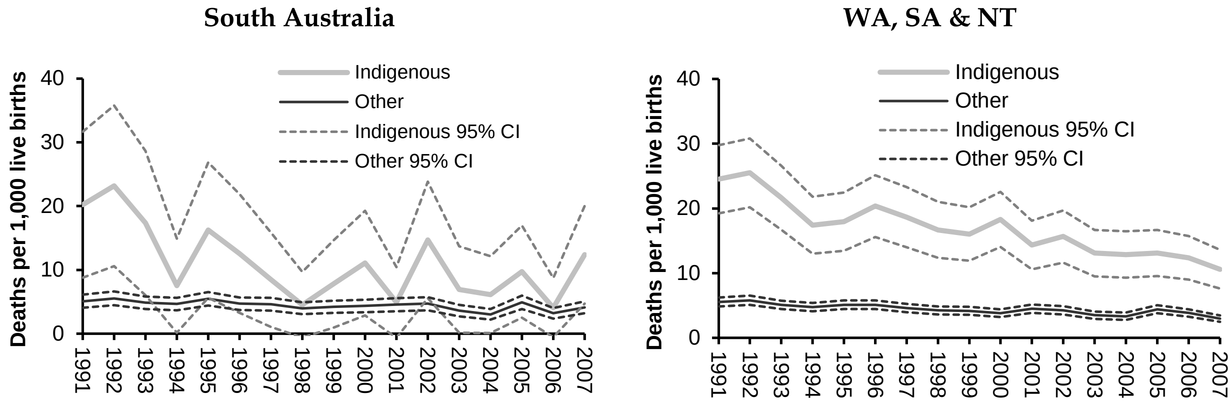
(i) LCL = lower confidence limit.

(j) UCL = upper confidence limit.

(k) Rate ratio Indigenous: non-Indigenous.

(l) Preliminary data from ABS.

Source: AIHW and ABS analysis of ABS Mortality Database.


South Australia

WA, SA & NT

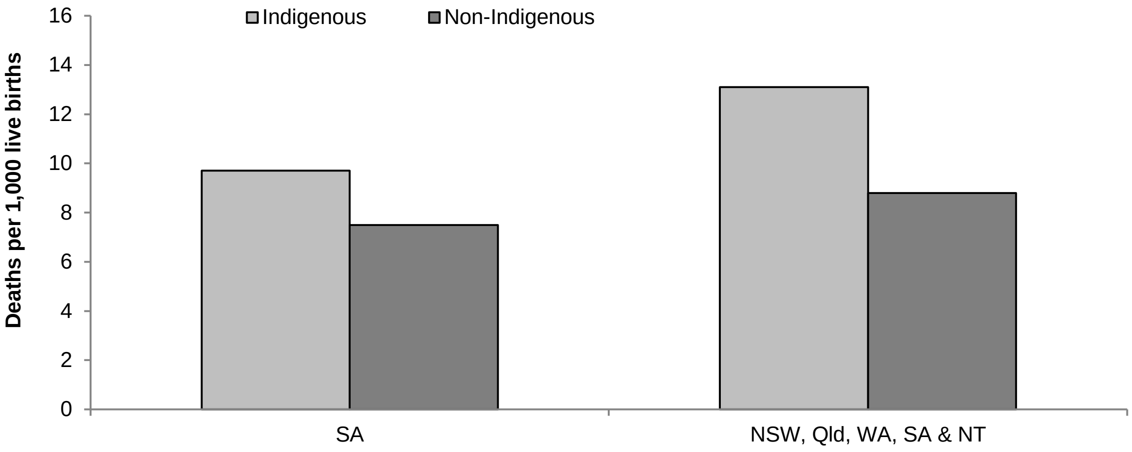
Source: AIHW analyses of National Mortality Database.

Figure 1.19.1: Infant mortality rates, Aboriginal and Torres Strait islander infants and other Australians, South Australia and WA, SA & NT combined, 1991 to 2007

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).

- Over the period 2004–2008, the perinatal mortality rate for Indigenous babies in South Australia was 9.7 per 1,000 births compared to 7.5 per 1,000 births for other 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).



Notes

1. Perinatal deaths are all fetal deaths (at least 20 weeks gestation or at least 400 grams birthweight) plus all neonatal deaths.
2. 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.
3. 2008 data have been subject to process improvements which have increased the quality of these data.
4. Causes of death data for 2007 have been revised and are subject to further revisions.
5. 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.

Figure 1.20.1: Perinatal mortality rates by Indigenous status, South Australia and NSW, Qld, WA, SA & NT combined, 2004–2008

Time series

- In South Australia, there were 53 perinatal deaths of Indigenous babies in 1999–2003 and 38 perinatal deaths of Indigenous babies in 2004–2008.
- Between 1999–2003 and 2004–2008, there was a drop in the Indigenous perinatal mortality rate in South Australia from 16.7 to 9.7 per 1,000 births. This rate also decreased for other babies in South Australia from 9.8 per 1,000 births in 1999–2003 to 7.5 per 1,000 births in 2004–2008.

- 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 9.4 per 1,000 births to 9.0 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 South Australia 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, South Australia 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)]				
	Number	Number per 1,000[(d)]	LCL 95%[(j)]	UCL 95%[(k)]	Rate ratio[(l)]	Number	Number per 1,000[(d)]	LCL 95%[(j)]	UCL 95%[(k)]	Rate ratio[(l)]
Foetal deaths[(a)]										
South Australia										
Indigenous	36	11.3	7.6	15.0	1.6*	23	5.9	3.5	8.3	1.1
Other[(m)]	596	7.0	6.4	7.6	. .	465	5.2	4.7	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)]										
South Australia										
Indigenous	17	5.4	2.8	8.0	1.9*	15	3.9	1.9	5.9	1.7*
Other[(m)]	241	2.8	2.4	3.2	. .	205	2.3	2.0	2.6	. .
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)]										
South Australia										
Indigenous	53	16.7	12.2	21.2	1.7*	38	9.7	6.6	12.8	1.3
Other[(m)]	837	9.8	9.1	10.5	. .	670	7.5	6.9	8.1	. .
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	. .

(continued)

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

* 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 birthweight) 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 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) 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, no mortalities due to SIDS were recorded among Indigenous infants in South Australia, and only a small number of mortalities due to SIDS were recorded for non-Indigenous infants. This was lower 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).

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

	Indigenous		Non-Indigenous		
	Deaths	**Rate(k)(l)**	**Deaths**	**Rate(k)(l)**	**Rate ratio(m)**
South Australia	0	0.0	n.p.	n.p.	. .
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 $p < 0.05$ 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 prior to 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.

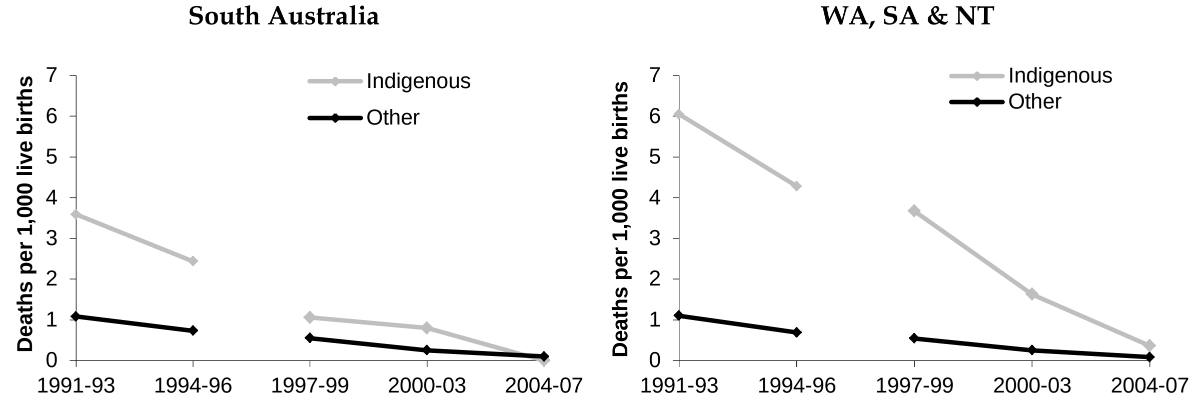
(m) Rate ratio Indigenous: non-Indigenous.

Source: AIHW and ABS analysis of ABS Mortality Database.

Time series

- Over the period 1991–1993 to 2005–2007, the SIDS mortality rate in South Australia decreased significantly from 3.6 to 0 deaths per 1,000 live births for Indigenous infants. For non-Indigenous infants in South Australia, the SIDS mortality rate also decreased significantly from 1.1 to 0.1 per 1,000 live births.

- Over the same period, there were significant declines in mortality rates from SIDS for both Indigenous and other infants in Western Australia, South Australia and the Northern Territory combined.



Note: Figures shows a break in series between 1994–96 and 1997–99 due to a change in disease classification coding from ICD9 to ICD10 between 1996 and 1997. Rates prior to 1997 should therefore not be strictly compared to rates from 1997 onwards.

Source: AIHW analyses of National Mortality Database.

Figure 1.21.1: SIDS mortality rates per 1,000 live births, Aboriginal and Torres Strait Islander and other Australian infants, South Australia and WA, SA & NT combined, 1991–1993 to 2005–2007

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 South Australia for Indigenous Australians was almost twice that for non-Indigenous Australians (Table 1.22.1).
- The age-standardised mortality rate for Indigenous Australians in South Australia (1,023 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).
- For the period 2003–2007, in South Australia, Indigenous males and females had higher mortality rates than non-Indigenous males and females across all age groups except those aged 65 years and over where rates were similar (Figure 1.22.1).
- The greatest difference in rates between Indigenous and non-Indigenous Australians occurred in the 35–44 year age group where Indigenous Australians died at around 5.5 times the rate of non-Indigenous Australians in this age group. A similar pattern was observed for New South Wales, Queensland, Western Australia, South Australia and the Northern Territory combined.

Table 1.22.1: All-causes mortality, by Indigenous status, South Australia and NSW, Qld, WA, SA & NT combined, 2004–2008[(a)(b)(c)(d)(e)]

	Number			Rate per 100,000[(f)(g)]		
State/territory	**Indigenous**	**Non-Indigenous**	**Not stated**	**Indigenous**	**Non-Indigenous**	**Ratio[(h)]**
South Australia	676	59,166	653	1,023	615.2	1.7
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.

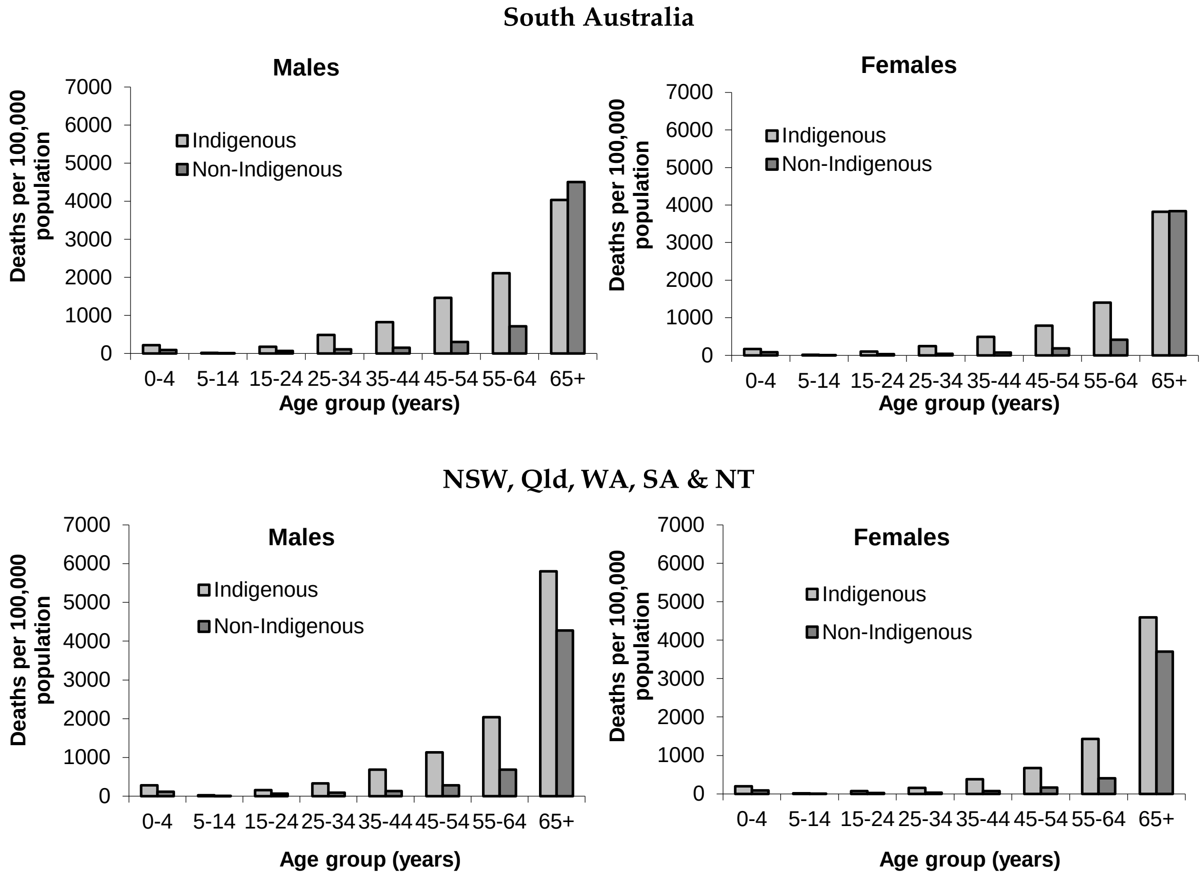
(f) Rates exclude 7,665 registered deaths where the Indigenous status is not stated.

(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.

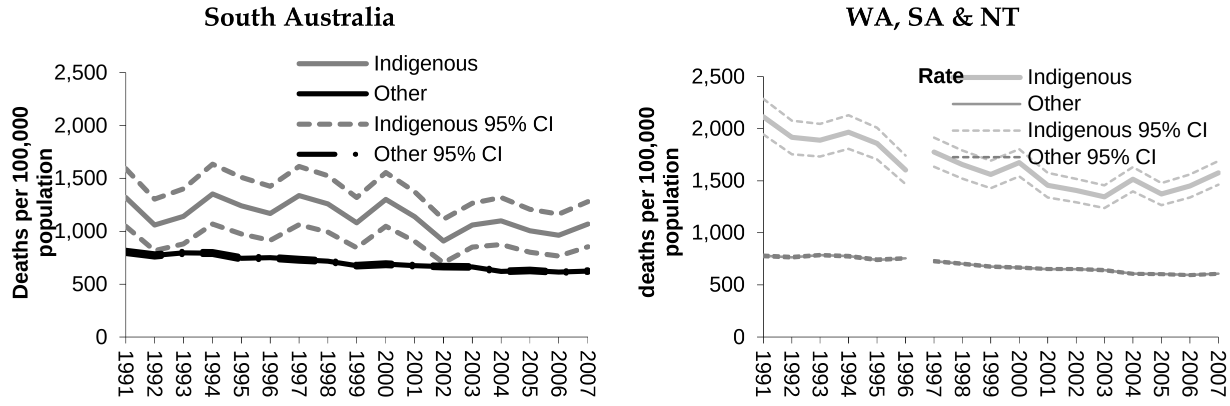


Source: AIHW analyses of National Mortality Database.

Figure 1.22.1: Mortality rates by age group, sex and Indigenous status, South Australia and NSW, Qld, WA, SA & NT combined, 2003–2007

Time series

- Over the period 1991–2007, there were significant declines in recorded mortality rates in South Australia for Indigenous Australians. The fitted trend implies an average yearly decline in the rate of around 16 per 100,000 (equivalent to a 20% reduction in the rate over this period) (Figure 1.22.2).
- There were also significant declines in recorded mortality rates for other Australians in South Australia between 1991 and 2007. The fitted trend implies an average yearly decline in the rate of around 13 per 100,000 for other Australians (equivalent to a 25% reduction in the rate over this period).
- There were significant declines in all-cause mortality rates for Indigenous and other Australians in Western Australia, South Australia and the Northern Territory combined between 1991 and 2007.



South Australia

WA, SA & NT

Source: AIHW analyses of National Mortality Database.

Figure 1.22.2: Age-standardised mortality rates by Indigenous status, South Australia and WA, SA & NT combined, 1991 to 2007

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 South Australia was circulatory diseases (30%), followed by external causes (injury and poisoning) (18%) and cancer (15%). Indigenous Australians died from circulatory disease at around 1.5 the rate, and from external causes at three times the rate, of non-Indigenous Australians. Indigenous and non-Indigenous Australians died from cancer at similar rates in South Australia (Table 1.23.1).
- Over the period 2003–2007, Indigenous Australians in South Australia died from diabetes at 5.5 times the rate of non-Indigenous Australians.
- The leading causes of mortality for Indigenous Australians in South Australia were similar to those for Indigenous Australians in Queensland, Western Australia, South Australia and the Northern Territory combined.

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 death from all-causes.
- Diseases of the circulatory system accounted for the highest proportion of excess deaths among Indigenous Australians in South Australia over the period 2003–2007 (35% of male deaths and 29% of female deaths). Other major causes of excess deaths were external causes (injury and poisoning), diseases of the respiratory system, endocrine, metabolic & nutritional diseases, digestive diseases, and cancer (Table 1.23.2).

Table 1.23.1: Causes of mortality, by Indigenous status, South Australia and NSW, Qld, WA, SA & NT combined, 2003–2007[(a)(b)(c)]

Underlying cause of death	Number		Per cent		Rate per 100,000[(d)]		
	Indig.	Non-Indig.	Indig.	Non-Indig.	Indig.	Non-Indig.	Ratio[(e)]
				South Australia			
Circulatory diseases	204	21,183	30.4	36.2	359.8	218.3	1.6*
External causes	118	3,027	17.6	5.2	103.1	37.1	2.8*
Cancer	101	17,013	15.0	29.0	180.1	183.4	1.0
Endocrine, metabolic and nutritional disorders	53	2,217	7.9	3.8	93.5	23.3	4.0*
Diabetes[(f)]	*48*	*1,556*	*7.1*	*2.7*	*88.6*	*16.2*	*5.5**
Respiratory diseases	56	5,480	8.3	9.4	104.3	56.5	1.8*
Digestive diseases	33	1,992	4.9	3.4	48.6	21.1	2.3*
Conditions originating in perinatal period	14	141	2.1	0.2	5.5	2.1	2.5*
Nervous system diseases	23	1,978	3.4	3.4	29.4	21.0	1.4
Kidney diseases	17	1,178	2.5	2.0	31.3	12.0	2.6*
Infectious and parasitic diseases	11	745	1.6	1.3	13.6	8.0	1.7
Other causes[(g)]	42	3,638	6.3	6.2	67.4	38.1	1.8*
All-causes	**672**	**58,592**	**100.0**	**100.0**	**1,036.6**	**620.9**	**1.7***
				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 and nutritional disorders	838	15,554	8.0	3.4	111.6	20.7	5.4*
Diabetes[(f)]	*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 and 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, South Australia 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 $p < 0.05$ 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 exactly identify 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 & behavioural disorders, diseases of the eye and adnexa, diseases of the ear and mastoid process, diseases of the skin & subcutaneous tissue, diseases of the musculoskeletal system and connective tissue, diseases of the genitourinary system (excluding kidney diseases), pregnancy, childbirth & 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, South Australia and NSW, Qld, WA, SA & NT combined, 2003–2007(a)(b)

	Males			Females		
Underlying cause of death	**Observed**	**Excess**	**% excess**	**Observed**	**Excess**	**% excess**
	No.	**No.**	**%**	**No.**	**No.**	**%**
			South Australia			
Circulatory diseases	118	39	34.6	86	36	29.0
External causes	85	26	25.6	33	10	13.6
Respiratory diseases	27	10	7.5	29	9	11.4
Cancer	51	43	3.5	50	38	6.7
Digestive diseases	19	5	6.1	14	4	5.7
Endocrine, metabolic & nutritional disorders	23	5	8.0	30	4	14.9
Kidney diseases	10	2	3.5	7	2	3.0
Infectious & parasitic diseases	6	2	1.6	5	1	2.1
Nervous system diseases	12	5	3.2	11	5	3.4
Conditions originating in perinatal period	7	3	1.8	7	3	2.6
Other causes(c)	19	8	4.7	23	10	7.6
All-causes	**377**	**148**	**100.0**	**295**	**124**	**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 & behavioural disorders, diseases of the eye and adnexa, diseases of the ear and mastoid process, diseases of the skin & subcutaneous tissue, diseases of the musculoskeletal system and connective tissue, diseases of the genitourinary system (excluding kidney diseases), pregnancy, childbirth & 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 years 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.

- The most common types of avoidable conditions causing death among Aboriginal and Torres Strait Islander people in South Australia were ischaemic heart disease (25%), followed by cancer (12%), in particular lung cancer, suicide (10%) and diabetes (10%). Indigenous Australians died from cancer at 1.5 times the rate of non-Indigenous Australians; from diabetes at 14 times the rate; and from ischaemic heart disease at five and three times the rate of non-Indigenous Australians respectively (Table 1.25.1).
- Indigenous Australians in South Australia died from nephritis and nephrosis at 12 times the rate of, and from rheumatic and other valvular heart disease at nine times the rate of non-Indigenous Australians.

Table 1.25.1: Avoidable mortality, by cause of death and Indigenous status, people aged 0–74 years, South Australia and NSW, Qld, WA, SA & NT combined, 2003–2007[a][b][c][d]

	Number[d]		Per cent		Age-standardised rate per 100,000[e]		
Cause of death	**Indig.**	**Non-Indig.**	**Indig.**	**Non-Indig.**	**Indig.**	**Non-Indig.**	**Ratio[f]**
				South Australia			
Ischaemic heart disease	110	2,562	24.6	19.9	169.8	31.9	5.3
Cancer	52	4,726	11.6	36.7	89.3	58.7	1.5
Lung cancer[h]	*21*	*1,590*	*4.7*	*12.3*	*38.1*	*19.6*	*1.9*
Diabetes	43	434	9.6	3.4	74.6	5.4	13.7
Suicide	46	865	10.3	6.7	33.7	12.0	2.8
Road traffic injuries	30	598	6.7	4.6	22.2	8.4	2.6
Alcohol-related disease	22	307	4.9	2.4	30.0	3.9	7.8
Selected invasive bacterial and protozoal infections	22	309	4.9	2.4	19.8	3.9	5.0
Cerebrovascular disease	21	805	4.7	6.2	35.2	10.1	3.5
Chronic obstructive pulmonary disease	10	546	2.2	4.2	23.0	6.8	3.4
Nephritis and nephrosis	16	174	3.6	1.3	26.3	2.2	12.1
Violence	4	66	0.9	0.5	4.3	0.9	4.6
Birth defects	5	168	1.1	1.3	3.2	2.5	1.3
Complications of perinatal period	7	77	1.6	0.6	2.9	1.2	2.3
Rheumatic and other valvular heart disease	5	36	1.1	0.3	4.3	0.5	9.4
Other[i]	54	1,217	12.1	9.4	60.8	16.0	3.8
Total avoidable	**447**	**12,890**	**100.0**	**100.0**	**599.4**	**164.6**	**3.6**

(continued)

Table 1.25.1 (continued): Avoidable mortality, by cause of death and Indigenous status, people aged 0–74 years, South Australia 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)]**
				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 $p < 0.05$ 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.

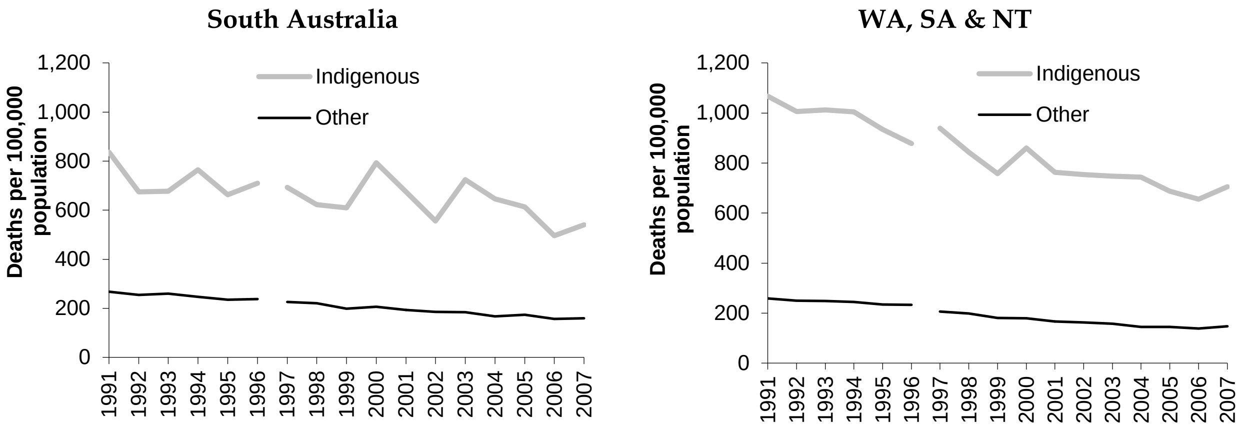
(i) Other includes: tuberculosis, hepatitis, HIV/AIDS, viral pneumonia and influenza, thyroid disorders, illicit drug disorders, epilepsy, hypertensive heart disease, aortic aneurysm, obstructive uropathy & prostatic hyperplasia, deep vein thrombosis with pulmonary embolism, asthma, peptic ulcer disease, 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.

Time series

- Over the period 1991–1996 in South Australia, there were no significant changes in mortality rates from avoidable causes of death among Indigenous Australians aged 0–74 years. Over the same period, there were significant declines in mortality rates for avoidable causes for other Australians in South Australia (11%).
- Over the period 1997–2007, in South Australia, there were no significant changes in the mortality rates from avoidable causes among Indigenous Australians aged 0–74 years. Over the same period, there were significant declines in mortality rates for avoidable causes for other Australians in South Australia (16%).
- Over both periods of study there were significant declines in mortality rates from avoidable causes among Indigenous and other Australians aged 0–74 years in Western Australia, South Australia and the Northern Territory combined.
- There were no significant changes in the rate ratio between Indigenous and other Australian mortality from avoidable causes in South Australia over both periods of study (Figure 1.25.2).

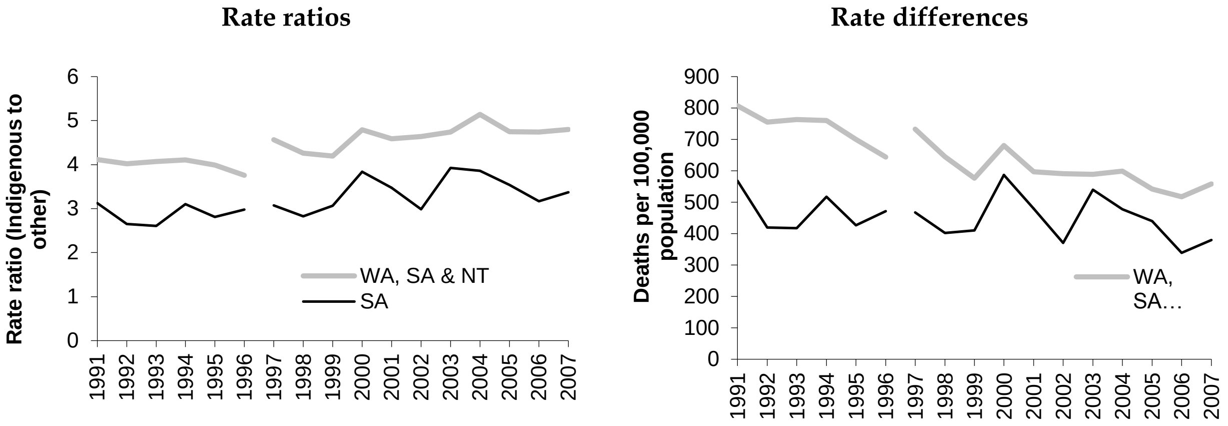


South Australia

WA, SA & NT

Source: AIHW analyses of National Mortality Database.

Figure 1.25.1: Mortality rates for avoidable causes of death, Indigenous and other Australians aged 0–74 years, South Australia and WA, SA & NT combined, 1991–96 and 1997–2007



Source: AIHW analyses of National Mortality Database.

Figure 1.25.2: Mortality rate ratios and rate differences for avoidable causes of death, Indigenous and other Australians aged 0–74 years, South Australia and WA, SA & NT combined, 1991–96 and 1997–2007

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 13 discrete Indigenous communities in South Australia 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 CHINS, 31% (4) provided samples that failed testing and 69% provided samples that did not fail testing. Of the 164 discrete Indigenous communities in Australia that were not connected to town water supply and that sent their drinking water away for testing, 29% provided samples that failed testing (Table 2.01.1).
- In 2006 in South Australia, 27% of discrete Indigenous communities experienced a sewerage overflow or leakage that lasted longer than 48 hours. Nationally 22% of discrete Indigenous communities experienced a sewerage overflow or leakage lasting longer than 48 hours in 2006 (Figure 2.01.1).

Healthy living practices

- In 2008 in South Australia, 3.7% of Indigenous households reported that they did not have working facilities for washing people, 8.7% did not have facilities for washing clothes/bedding, 8.4% did not have facilities for storing/preparing food, and 3.8% did not have working sewerage systems.
- In 2008 in 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.

Table 2.01.1: Testing of drinking water in discrete Indigenous communities, South Australia and Australia, 2006[(a)(b)(c)]

	South Australia		Australia			
	Number of communities	%	Number of communities	%	Reported usual pop'n.	%
Did not fail testing[(d)]	9	69.2	100	61.0	29,104	58.2
Failed testing[(d)]	4	30.8	48	29.3	12,059	24.1
Test result not known	0	0.0	16	9.7	8,880	17.7
Total communities water sent away for testing[(e)]	***13***	***54.2***	***164***	***78.1***	***50,043***	***n.a.***
Not tested[(e)]	11	45.8	45	21.4	4,796	n.a.
Total communities	**24**	**100.0**	**209**	**100.0**	**54,839**	**100.0**

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

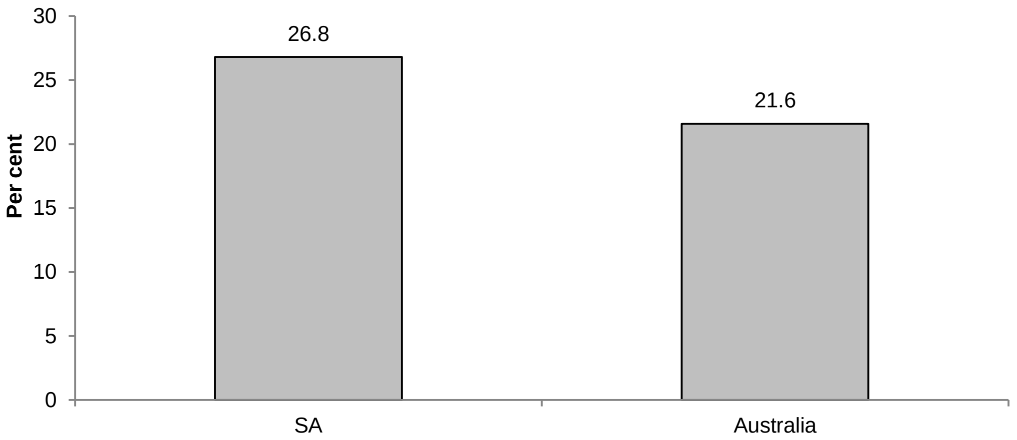
(b) Excludes communities connected to town supply.

(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.

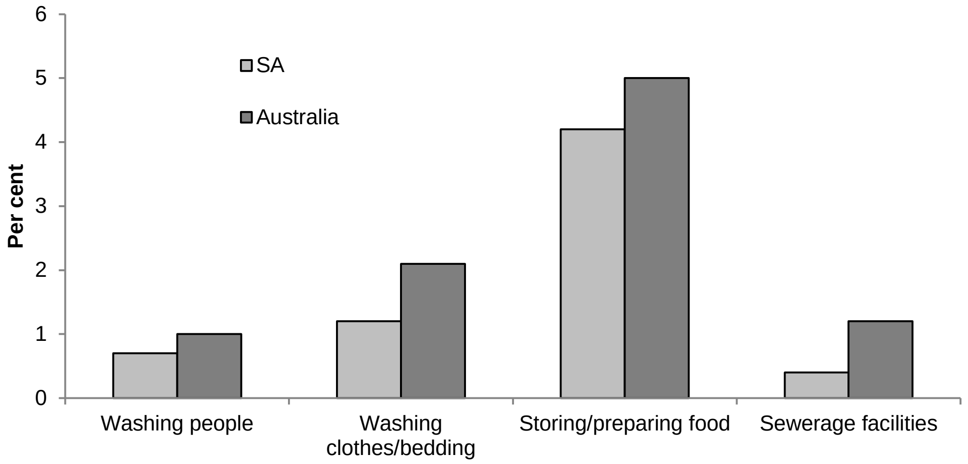
Source: ABS 2007; FaHCSIA and AIHW analyses of CHINS 2006.



Note: Percentages 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.

Source: FaHCSIA and AIHW analyses of CHINS 2006.

Figure 2.01.1: Percentage of discrete Indigenous communities experiencing sewerage overflows or leakages for longer than 48 hours, South Australia and Australia, 2006



Note: Excludes households for which information about working facilities was not reported.

Source: AIHW analyses of NATSISS 2008.

Figure 2.01.2: Percentage of Indigenous households reporting lack of working facilities for each of the first four Health Living Practices, South Australia and Australia, 2008

2.02 Overcrowding in housing

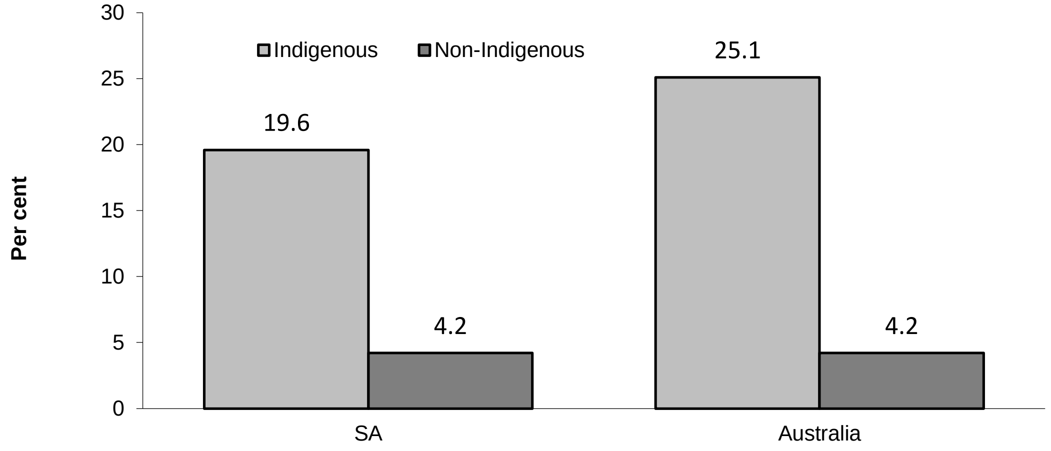
The proportion of Aboriginal and Torres Strait Islander people living in overcrowded households

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 years or over should have a separate bedroom (AIHW 2005).

- In 2008, in South Australia, approximately 20% of Indigenous Australians aged 15 years and over were living in overcrowded households (according to the Canadian National Occupancy Standard) compared to 4% of non-Indigenous Australians. The proportion of Indigenous Australians in South Australia living in overcrowded households was slightly lower than for Indigenous Australians in Australia (20% compared to 25%) (Figure 2.02.1).
- In 2006 in South Australia, overcrowding varied by tenure type with 37% of Indigenous households in housing co-operative, community or church group housing overcrowded according to the Canadian National Occupancy Standard. This compared to 15% of Indigenous households in state or territory housing authority housing, 9% of private and other renters and 6% 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 years and over living in overcrowded housing(a)(b), by Indigenous status, South Australia 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, South Australia and Australia, 2006

	Indigenous		Non-Indigenous	
Tenure type	**South Australia**	**Australia[(a)]**	**South Australia**	**Australia[(a)]**
No. of overcrowded Indigenous households				
Home owner/purchaser	194	3,687	6,066	94,314
Renter				
State or territory housing authority	390	4,970	941	12,692
Housing co-operative/community/church group	223	5,567	153	1,188
Private and other[(b)]	198	5,337	3,826	81,134
Not stated	12	233	80	1,091
Total rented	*823*	*16,107*	*5,000*	*96,105*
Other tenure types[(c)]	31	752	289	5,086
Total dwellings[(d)]	**1,064**	**20,734**	**11,515**	**198,151**
Proportion of overcrowded households[(e)] (%)				
Home owner/purchaser	6.1	6.9	1.6	2.0
Renter				
State or territory housing authority	14.5	15.9	2.6	4.9
Housing co-operative/community/church group	36.9	39.9	2.8	3.6
Private and other[(b)]	9.1	11.4	4.1	5.6
Not stated	14.5	19.0	4.9	6.3
Total rented	*14.9*	*17.3*	*3.7*	*5.5*
Other tenure types[(c)]	14.6	18.1	2.1	3.5
Total dwellings[(d)]	**11.8**	**13.6**	**2.1**	**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 bedrooms are 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 years who live in households with regular smokers

Children living in households with smokers

- In 2007–08, around 66% Indigenous children aged 0–14 years in South Australia lived in households with a daily smoker. In comparison, only 30% of non-Indigenous children aged 0–14 years in South Australia lived in households with a daily smoker (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 aged living in households with a daily smoker.
- Approximately 15% of Indigenous children aged 0–14 years South Australia were living in households with a daily smoker who smoked at home indoors compared to 4% of non-Indigenous children of the same age. These numbers were lower than those reported for Indigenous and non-Indigenous children of the same age across Australia (22% and 7%, respectively).

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

			South Australia	Australia
Proportion of children living with current daily smoker(s)[(a)]	Indigenous	%	65.9	65.1
	Non-Indigenous	%	29.9	32.2
	Rate ratio		2.2*	2.0*
Proportion of children with daily smoker who smokes at home indoors in household[(a)]	Indigenous	%	15.3	21.6
	Non-Indigenous	%	3.7	6.6
	Rate ratio		4.1*	3.3*
Total number of children aged 0–14 years[(b)]	**Indigenous**	**No.**	**10,281**	**193,249**
	Non-Indigenous	**No.**	**277,107**	**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 achievement

Reading

- In South Australia in 2009, approximately 78% of Indigenous students achieved the Year 3 reading benchmark compared to 94% of non-Indigenous students; 68% of Indigenous students achieved the Year 5 reading benchmark compared to 92% of non-Indigenous students; 72% of Indigenous students achieved the Year 7 reading benchmark compared to 94% of non-Indigenous students; and 68% of Indigenous students achieved the Year 9 reading benchmark compared to 93% of non-Indigenous students. These proportions were similar to those reported for Indigenous students nationally.

Writing

- In South Australia in 2009, approximately 82% of Indigenous students achieved the Year 3 writing benchmark compared to 97% of non-Indigenous students; 73% of Indigenous students achieved the Year 5 writing benchmark compared to 94% of non-Indigenous students; 73% of Indigenous students achieved the Year 7 writing benchmark compared to 94% of non-Indigenous students; and 56% of Indigenous students achieved the Year 9 writing benchmark compared to 89% of non-Indigenous students. The proportions for Years 3, 5, and 7 were slightly higher, and the proportion for Year 9 was slightly lower, than those reported for Indigenous students nationally.

Spelling

- In South Australia in 2009, approximately 67% of Indigenous students achieved the Year 3 spelling benchmark compared to 91% of non-Indigenous students; 70% of Indigenous students achieved the Year 5 spelling benchmark compared to 92% of non-Indigenous students; 73% of Indigenous students achieved the Year 7 spelling benchmark compared to 93% of non-Indigenous students; and 64% of Indigenous students achieved the Year 9 spelling benchmark compared to 90% of non-Indigenous students. These proportions were slightly lower than for Indigenous students nationally.

Grammar and punctuation

- In South Australia in 2009, approximately 70% of Indigenous students achieved the Year 3 grammar and punctuation benchmark compared to 93% of non-Indigenous students; 65% of Indigenous students achieved the Year 5 grammar and punctuation benchmark compared to 92% of non-Indigenous students; 65% of Indigenous students achieved the Year 7 grammar and punctuation benchmark compared to 93% of non-Indigenous students; and 60% of Indigenous students achieved the Year 9 grammar and punctuation benchmark compared to 92% of non-Indigenous students. These proportions were similar to those reported for Indigenous students nationally.

Numeracy

- In South Australia in 2009, approximately 72% of Indigenous students achieved the Year 3 numeracy benchmark compared to 94% of non-Indigenous students; 74% of Indigenous students achieved the Year 5 numeracy benchmark compared to 94% of non-Indigenous students; 74% of Indigenous students achieved the Year 7 numeracy benchmark compared to 95% of non-Indigenous students; and 76% of Indigenous students achieved the Year 9 numeracy benchmark compared to 95% of non-Indigenous students. These proportions were similar to those reported for Indigenous students nationally.

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

	South Australia									
	Indigenous					Non-Indigenous				
	Reading	Writing	Spelling	Grammar & punctuation	Numeracy	Reading	Writing	Spelling	Grammar & punctuation	Numeracy
Year 3										
2008	71.5	82.5	71.8	69.7	79.2	92.5	95.7	92.2	92.0	94.6
2009	77.6	81.7	67.2	70.0	71.5	94.2	96.5	91.4	93.0	93.5
Year 5										
2008	60.6	69.0	66.2	62.9	68.5	91.3	92.8	91.3	92.5	91.7
2009	67.7	73.4	69.5	64.9	73.5	91.9	93.9	92.1	92.3	94.1
Year 7										
2008	69.6	67.5	71.7	59.9	75.9	94.4	93.4	93.2	92.5	95.4
2009	71.5	73.0	73.4	65.2	73.6	94.4	93.9	93.1	93.2	95.0
Year 9										
2008	62.5	57.4	63.0	53.5	68.7	93.5	88.9	89.7	90.6	93.7
2009	67.6	56.4	64.1	60.4	76.0	93.0	89.0	90.0	91.7	95.4

(continued)

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

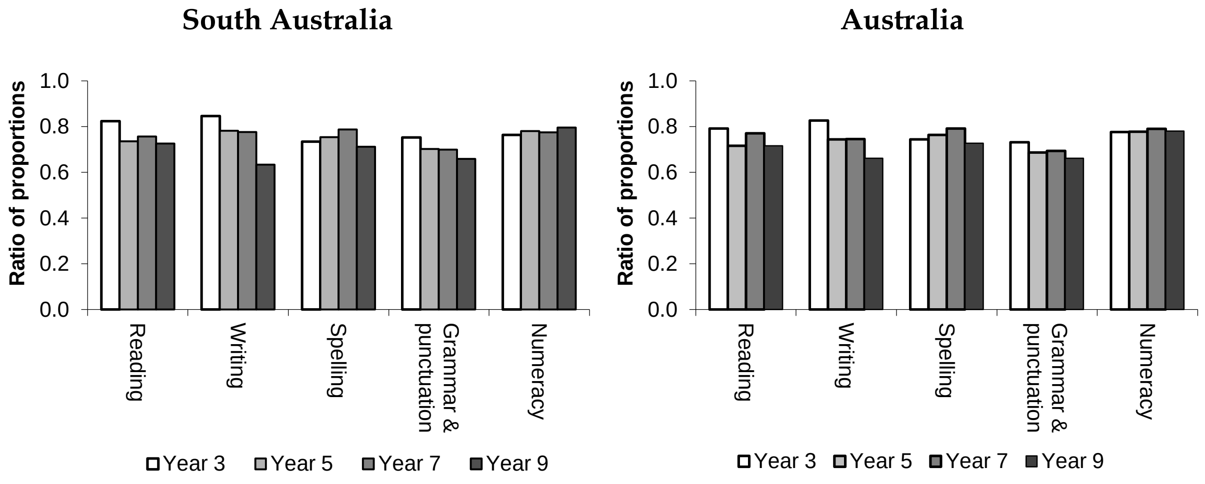
	Australia									
	Indigenous					Non-Indigenous				
	Reading	Writing	Spelling	Grammar & punctuation	Numeracy	Reading	Writing	Spelling	Grammar & punctuation	Numeracy
Year 3										
2008	68.3	78.8	69.2	65.3	78.6	93.5	96.4	93.9	93.3	96.0
2009	75.1	79.9	69.6	68.7	74.0	94.8	96.6	93.5	93.8	95.2
Year 5										
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.

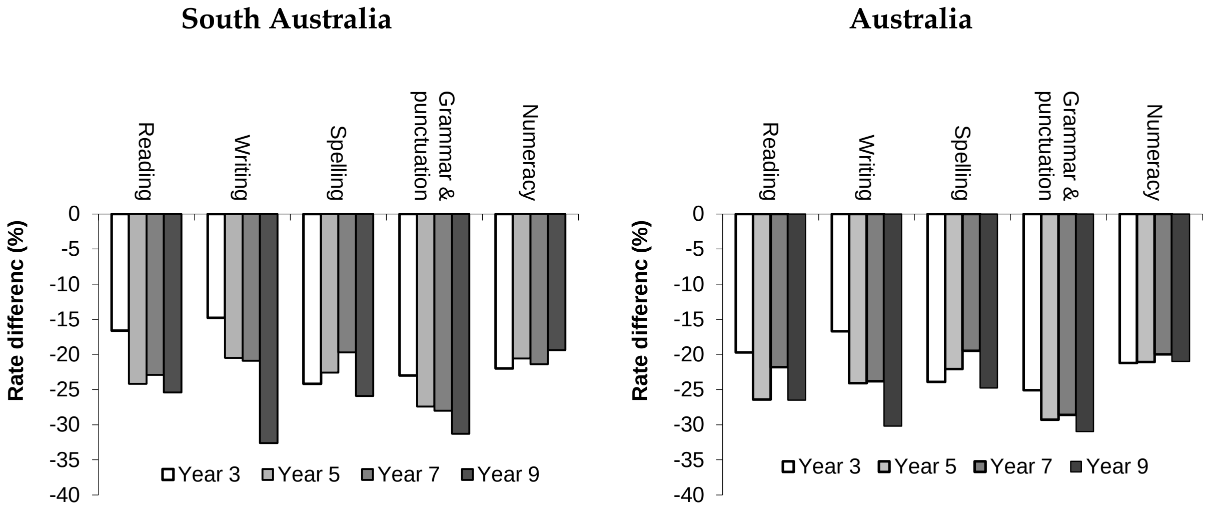
Ratio and difference of proportions

- 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 South Australia were generally similar to 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 South Australia (ratio of 0.63 and 0.66 respectively, and rate difference of -33% and -31% respectively). 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 2.04.1: Ratio of proportion of Indigenous students achieving literacy and numeracy benchmarks to corresponding proportion of non-Indigenous students, South Australia and Australia, 2009



Source: AIHW analyses of MCEECDYA 2009.

Figure 2.04.2: Difference between proportion of Indigenous students achieving literacy and numeracy benchmarks and corresponding proportion of non-Indigenous students, South Australia 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 rates and attainment rates

- In 2009, in South Australia, the apparent retention rate of full-time Indigenous students from Year 7/8 to Year 10 was 101% for males and 95% for females compared to 103% for both non-Indigenous males and non-Indigenous females. Year 7/8 to Year 10 retention rates were higher in South Australia than total Australia.
- In the same year the apparent retention rate of full-time Indigenous students in South Australia from Year 7/8 to Year 11 was 74% for males and 87% for females. This compared to 101% and 105% for non-Indigenous males and females respectively. Year 7/8 to Year 11 retention rates were higher for Indigenous males in South Australian than the national average.
- The apparent retention rate of full-time Indigenous students in South Australia from Year 7/8 to Year 12 was much lower than for non-Indigenous students—53% for Indigenous males and 59% for Indigenous females compared to 73% for non-Indigenous males and 86% for non-Indigenous females. Year 7/8 to Year 12 apparent retention rates for Indigenous students in South Australia were higher than the national averages.
- Similarly, the apparent retention rate of full-time Indigenous students in South Australia from Year 10 to Year 12 was much lower for Indigenous (60% for males and 68% for females compared to 72% and 84% for non-Indigenous males and females).
- In 2009, approximately 69% of Indigenous male Year 11 students and 79% of Indigenous female Year 11 students went on to achieve a Year 12 certificate in South Australia. This compared to 77% and 86% of non-Indigenous male and female Year 11 students. The

proportion of Indigenous Year 11 students that went on to achieve a Year 12 certificate was higher in South Australia than nationally.

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

	South Australia		Australia	
	Indigenous	Non-Indigenous	Indigenous	Non-Indigenous
	%	%	%	%
Year 7/8 to Year 10(d)				
Males	101.0	102.8	89.6	99.2
Females	94.9	103.2	92.3	101.1
Year 7/8 to Year 11(d)				
Males	73.9	101.1	67.5	88.9
Females	86.5	104.5	71.6	94.8
Year 7/8 to Year 12(d)				
Males	53.3	72.5	41.5	72.1
Females	58.8	86.4	49.5	82.7
Year 10 to Year 12(e)				
Males	60.1	71.9	46.1	73.1
Females	**68.1**	**84.2**	**54.3**	**82.5**
Year 11 to Year 12(f)				
Males	69.0	76.7	64.2	83.7
Females	78.5	85.5	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.

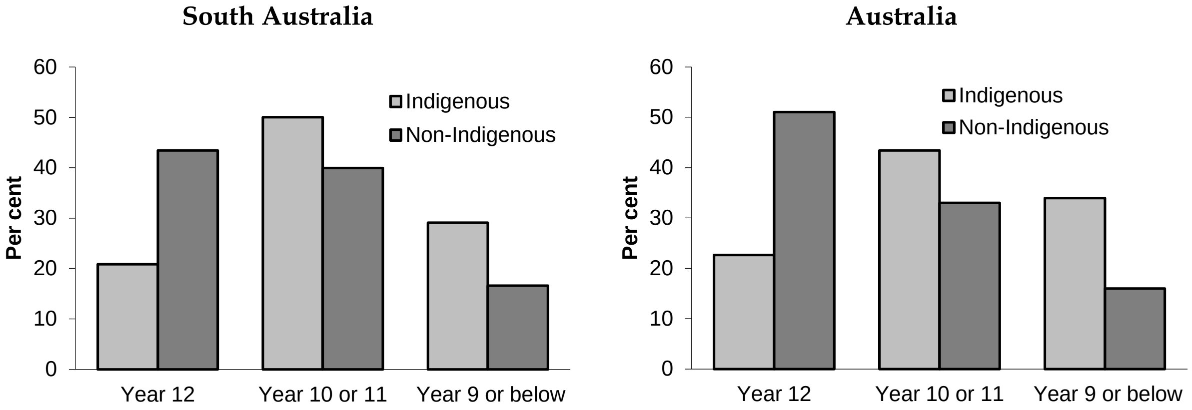
(f) Retention rate = Year 12 students as a proportion of the corresponding cohort from Year 11.

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 South Australia, a higher proportion of Indigenous Australians aged 15 years and over was currently studying than non-Indigenous Australians (20% compared to 14%). Throughout Australia 19% of Indigenous Australians and 16% of non-Indigenous Australians aged 15 years and over were currently studying (Table 2.06.1).
- A higher proportion of Indigenous people from South Australia and Australia attended secondary school or a technical institution in 2006 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 South Australia in 2008, non-Indigenous Australians aged 18 years and over were more likely than Indigenous Australians to have completed Year 12 (43% compared to 21%). 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 (29% compared to 17%). The proportion of Indigenous Australians who completed Year 12 was slightly lower in South Australia than for Australia (21% compared to 23%) (Figure 2.06.1).
- In 2008 in South Australia, 44% of Indigenous Australians aged 25–64 years had a non-school qualification compared to 55% of non-Indigenous Australians. The most commonly held qualification was for a certificate course for both Indigenous and non-Indigenous Australians (Table 2.06.2).



Note: Year 9 or below includes people who never attended school.

Source: ABS and AIHW analysis of NATSISS 2008.

Figure 2.06.1: Highest level of school completed, by Indigenous status, people aged 18 years and over, South Australia and Australia, 2008

Table 2.06.1: Educational institution currently attended, by Indigenous status, people aged 15 years and over, South Australia 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
South Australia	Indigenous	%	8.6*	6.9*	2.5*	19.5*	80.5*	100.0	17,948
	Non-Indigenous	%	4.1*	4.4*	4.7*	14.1*	85.9*	100.0	1,254,826
	Rate ratio(b)		2.1	1.6	0.5	1.4	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(b)		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) 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 years, South Australia 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
South Australia	Indigenous	%	5.0*	7.0*	28.5	43.8*	56.2*	100.0	11,104
	Non-Indigenous	%	19.2*	10.5*	24.1	54.8*	45.2*	100.0	825,159
	Rate ratio		0.3	0.7	1.2	0.8	1.2	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.

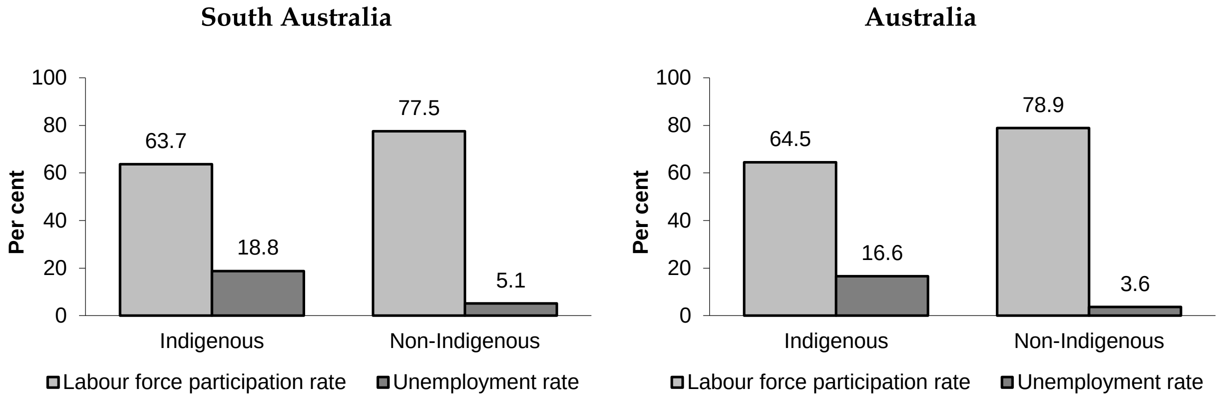
Source: NATSISS 2008 and NHS 2007–08.

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

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

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 wellbeing of communities.

- In 2008 the labour force participation rate for the Indigenous population of South Australia aged 15–64 years was estimated to be 64%, with 19% of those in the labour force unemployed and looking for full or part-time work. In comparison the labour force participation rate for the non-Indigenous population was 78%, with 5% of participants unemployed (Figure 2.07.1).
- In 2008 the labour force participation rate for the Indigenous population of Australia aged 15–64 years 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 South Australia aged between 15–64 years in 2008, around 52% were employed (5% in CDEP and 47% in non-CDEP) and 12% were unemployed. Of the non-Indigenous population 74% were employed and 4% were unemployed (Table 2.07.1).
- In Australia, around 54% of the Indigenous population aged between 15–64 years 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.



Source: NATSISS 2008 and NHS 2007–08.

Figure 2.07.1: Unemployment and Labour Force Participation Rates, people aged 15-64 years, by Indigenous status, South Australia and Australia, 2008

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

	South Australia		Australia	
	Indig.	**Non-Indig.**	**Indig.**	**Non-Indig.**
	%	%	%	%
In the labour force				
Employed CDEP	5.2	. .	5.6	. .
Employed non-CDEP	46.5	. .	48.2	. .
Total employed	*51.7*	*73.5*	*53.8*	*76.0*
Unemployed	12.0	4.0	10.7	2.9
Not in the labour force	36.3	22.5	35.5	21.1
Total	**100.0**	**100.0**	**100.0**	**100.0**

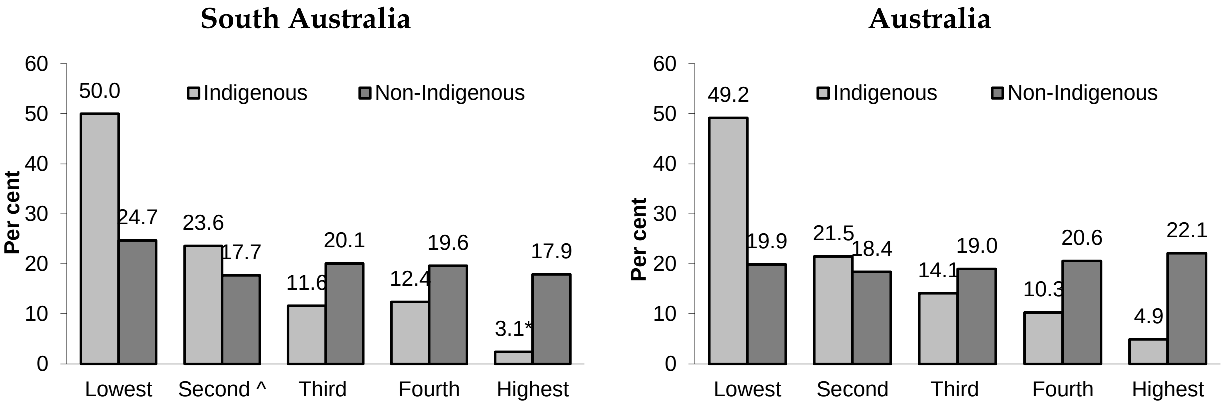
Source: NATSISS 2008 and NHS 2007–08.

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 South Australia, 50% of Indigenous Australians aged 18 years and over were in the lowest quintile of equivalised gross weekly household income and 2% were in the highest quintile. The proportion of non-Indigenous Australians was less different across all five quintiles of equivalised gross weekly household income, with 25% in the lowest quintile and 18% in the highest quintile (Figure 2.08.1).
- This same pattern was evident for Australia, with 50% of Indigenous Australians aged 18 years 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 quintile.
- In 2008 in South Australia, the mean equivalised gross weekly household income for Indigenous Australians aged 18 years and over was $552 per week compared to $891 per week for non-Indigenous Australians. In the same period, the mean equivalised gross weekly household income for Indigenous Australians aged 18 years and over was $580 compared to $983 for non-Indigenous Australians (Figure 2.08.2).



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

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

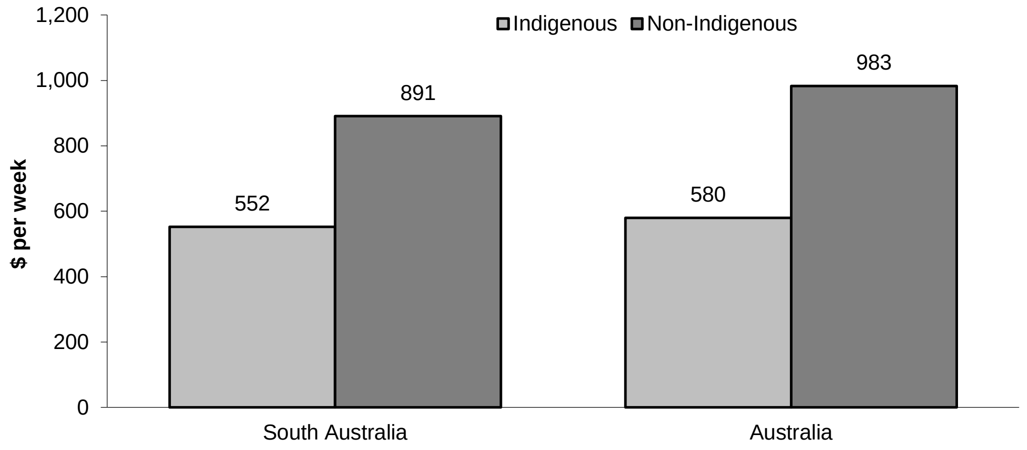
(a) Equivalised gross household income quintile boundaries for Indigenous Australians are: first (0 to $435); second ($436 to $686); third ($687 to $952); fourth ($953 to $1,380); and fifth ($1,381 or more).

(b) Equivalised gross household income quintile boundaries for non-Indigenous Australians are: first (0 to $423); second ($424 to $666); third ($667 to $925); fourth ($926 to $1,341); and fifth ($1,342 or more).

(c) Proportions excluding people whose gross household income is not stated.

Source: NATSISS 2008 and SIH 2007–08.

Figure 2.08.1: Proportion of people aged 18 years and over in each equivalised gross weekly household income quintile(a)(b)(c), by Indigenous status, South Australia and Australia, 2008



Source: NATSISS 2008 and SIH 2007–08.

Figure 2.08.2: Mean equivalised gross household income ($ per week), by Indigenous status, people aged 18 years and over, South Australia and Australia, 2008

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, approximately 31% of Indigenous Australians aged 18 years and over in South Australia owned or were purchasing their own home, 19% were private and other renters, and 49% 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 to 68% of non-Indigenous Australians aged 18 years and over who owned or were purchasing their home, 21% private and other renters, and 6% renters of some form of social housing (Table 2.09.1).
- A slightly higher proportion of Indigenous households in South Australia were home owners or purchasers than Indigenous households across Australia (35% compared to 33%) and a slightly lower proportion of Indigenous households in South Australia were renters of Indigenous housing organisation or community housing than Indigenous households across Australia (7% compared to 10%).

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

	South Australia		Australia	
	Indigenous	**Non-Indigenous**	**Indigenous**	**Non-Indigenous**
		People(a)		
Home owners				
Owned without a mortgage	8.1	30.9	8.7	27.3
Being purchased	22.9	36.8	20.5	37.9
Total home owners	*30.9*	*67.7*	*29.2*	*65.2*
Renters				
Private and other renter(b)	18.8^	20.9^	29.3	25.3
State/territory housing authority	36.8	5.6	23.2	2.9
Housing co-operative or church group	n.p.	0.4*	0.6^	0.3^
Indigenous Housing Organisation/ Community housing	12.2	. .	15.9	. .
Total renters(c)	*68.0*	*26.8*	*69.2*	*28.5*
Other tenure types(d)	n.p.	5.4	1.6	6.3
Total(e)	**100.0**	**100.0**	**100.0**	**100.0**
Total number(e)	**16,014**	**1,194,166**	**289,327**	**15,553,828**
		Households		
Home owners				
Owned without a mortgage	8.7	32.0	9.9	29.3
Being purchased	26.5	36.3	22.6	36.5
Total home owners	*35.2*	*68.3*	*32.5*	*65.8*
Renters				
Private and other renter(b)	22.5^	19.6^	33.4	25.0
State/territory housing authority	34.2	7.3	21.7	3.9
Housing co-operative or church group	n.p.	0.5	0.6^	0.4^
Indigenous Housing Organisation/ Community housing	7.0	. .	9.6	. .
Total renters(c)	*63.8*	*27.4*	*65.5*	*29.4*
Other tenure types(d)	n.p.	4.4	2.0	4.8
Total(e)	**100.0**	**100.0**	**100.0**	**100.0**
Total number(e)	**10,505**	**640,186**	**175,981**	**7,973,429**

^ 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 n.f.d.

(e) Excludes tenure type not stated.

Source: NATSISS 2008 and NHS 2007–08.

2.10 Index of disadvantage

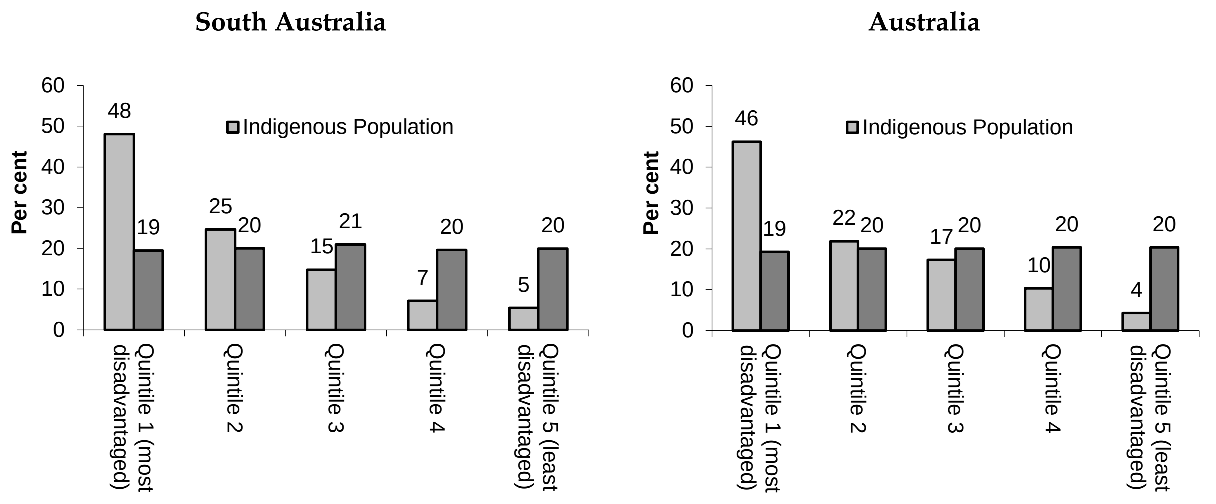
An analysis of the relative disadvantage within the Aboriginal and Torres Strait Islander population compared to the non-Indigenous population.

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 South Australia, a greater proportion of the Indigenous population were in the most disadvantaged quintile of socioeconomic status than the non-Indigenous population (48% compared to 19%) (Figure 2.10.1). Only 5% of the Indigenous population were in the least disadvantaged quintile compared to 20% of the non-Indigenous population.
- Compared to the total Indigenous population in Australia, South Australia had a higher proportion of Indigenous Australians in the most disadvantaged quintile of socioeconomic status (48% compared to 46%) and a higher proportion of Indigenous Australians in the least disadvantaged quintile (5% compared to 4%).



Note: The population of South Australia 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, South Australia and Australia, 2006

2.11 Dependency ratio

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

$$\frac{\text{Percentage of population aged under 15 years + percentage of population aged 65 years and over}}{\text{Percentage of population aged 15–64 years}}$$

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

$$\frac{\text{Percentage of population aged under 15 years}}{\text{Percentage of population aged 15–64years}}$$

Aged dependency ratio

$$\frac{\text{Percentage of population aged 65 years and over}}{\text{Percentage of population aged 15–64 years}}$$

- The Indigenous population has a younger age structure than the non-Indigenous population. In 2010 in South Australia, 35% of Indigenous Australians were aged less than 15 years compared with 18% of non-Indigenous people. People aged 65 years and over comprised 3% of the Indigenous population and 16% of the non-Indigenous population. This was similar to the proportions for Australia.
- In 2010 in South Australia, the dependency ratio for Indigenous Australians was 0.61 compared to 0.50 for non-Indigenous Australians. The youth dependency ratio for Indigenous Australians in South Australia was higher than for non-Indigenous Australians (0.56 compared to 0.26), whereas the aged dependency ratio was lower (0.06 for Indigenous Australians compared to 0.24 for non-Indigenous Australians) (Table 2.11.1).
- This same pattern was evident throughout Australia where the dependency ratio was 0.63 for Indigenous Australians compared to 0.48 for non-Indigenous Australians, the youth dependency ratio was 0.57 for Indigenous Australians compared to 0.27 for non-Indigenous Australians, and the aged dependency ratio was 0.05 for Indigenous Australians compared to 0.21 for non-Indigenous Australians.

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

	South Australia		Australia[(a)]	
	Indigenous	**Non-Indigenous**	**Indigenous**	**Non-Indigenous**
Dependency ratio	0.61	0.50	0.63	0.48
Youth dependency ratio	0.56	0.26	0.57	0.27
Aged dependency ratio	0.06	0.24	0.05	0.21

(a) Includes other territories.

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

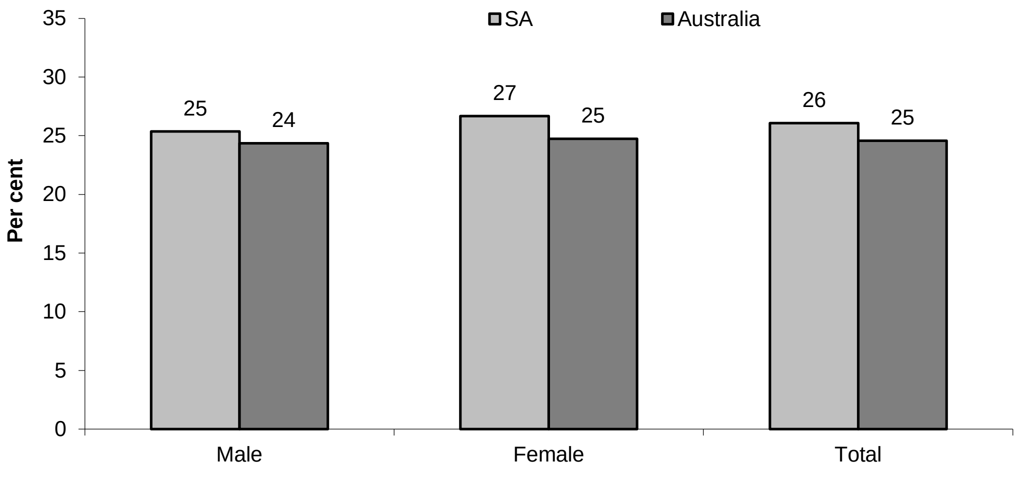
2.13 Community safety

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 slightly lower proportion of Indigenous males than Indigenous females aged 15 years and over reported being a victim of physical or threatened violence in the last 12 months in South Australia (25% and 27%, respectively) (Figure 2.13.1).
- The proportion of Indigenous Australians aged 15 years and over that reported being a victim of physical or threatened violence in the last 12 months was similar in South Australia and across Australia (26% and 25%, respectively).
- In both South Australia and across Australia, Indigenous Australians aged 18 years and over 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).



Note: Proportions exclude people who refused to answer either the question on victimisation of physical violence or the question on victimisation of threatened violence.

Source: AIHW analyses of NATSISS 2008.

Figure 2.13.1: Percentage of Indigenous Australians aged 15 years and over reporting they were a victim of physical or threatened violence in last 12 months, by sex, South Australia and Australia, 2008

Stressors

- In 2008 in South Australia, approximately 81% of Indigenous Australians aged 18 years and over or their family members and close friends, experienced at least one stressor in the last 12 months compared to 50% of non-Indigenous Australians. For Indigenous Australians aged 18 years and over, or their family members and close friends, the most common stressors experienced were death of a family member or close friend (42%) and alcohol or drug-related problems (25%).
- In South Australia and across Australia, a similar proportion of Indigenous Australians aged 18 years and over felt themselves or their family members and close friends experienced overcrowding at home as a stressor (12% and 13%, respectively).

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

	South Australia		Australia	
	Indigenous	**Non-Indigenous**	**Indigenous**	**Non-Indigenous**
	%	%	%	%
Victim of physical or threatened violence in last 12 months[(a)]	20.6*	11.7*	20.5*	10.8*
Stressors experienced by individual, family members and/or close friends in last 12 months[(b)]				
Mental illness	23.2*	9.5*	17.1*	8.8*
Death of family member or close friend	41.9*	18.6*	40.4*	19.4*
Alcohol or drug-related problems	24.8*	5.2*	24.2*	5.7*
Abuse or violent crime	7.9*	2.5*	7.6*	2.4*
Witness to violence	8.9*	2.8*	9.0*	2.2*
Trouble with the police	16.0*	3.0*	14.7*	2.6*
One or more of the above stressors	*64.4**	*30.5**	*59.1**	*30.2**
You, a family member or friend spent time in gaol	12.9	. .	12.8	. .
Overcrowding at home	11.8	. .	12.7	. .
Treated badly / discrimination	13.0	. .	10.2	. .
Total experienced stressors[(c)(d)]	***80.8****	***50.2****	***79.0****	***49.1****
No stressors reported	19.2*	49.8*	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 2008 NATSISS, 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 years and over in South Australia, 76% reported neighbourhood/community problems present compared to 74% across Australia.
- Dangerous/noisy driving and theft were most commonly reported as a neighbourhood/community problem in both South Australia (50% for dangerous/noisy driving and 44% for theft) and Australia (46% for dangerous/noisy driving and 43% for theft).

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

	South Australia	Australia
	%	%
Neighbourhood/community problem present		
Theft[(a)]	44.3	42.5
Problems involving youth	31.2	34.4
Prowlers/loiterers	16.5	19.1
Vandalism/graffiti/damage to property	37.3	35.3
Dangerous or noisy driving	49.9	46.1
Alcohol	38.7	41.3
Illegal drugs	33.8	36.4
Family violence	23.5	24.8
Assault	21.8	22.7
Sexual assault	9.0	11.7
Problems with your neighbours	17.7	15.4
Levels of neighbourhood conflict	13.2	14.1
Level of personal safety day or night	14.8	13.8
Total with neighbourhood/community problems	*75.8*	*74.2*
No neighbourhood/community problems reported	24.2	25.8
Total	**100.0**	**100.0**
Total number	**17,938**	**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

- As at 30 June 2009 there were 449 Indigenous and 1,511 non-Indigenous Australians in prison custody in South Australia. Nationally there were 7,386 Indigenous and 21,554 non-Indigenous Australians in prison custody (Table 2.14.1).
- The age-standardised rate of imprisonment for Indigenous Australians in South Australia was 2,072 per 100,000, which was almost 16 times the rate of non-Indigenous Australians (133 per 100,000).
- The age-standardised rate of imprisonment for Indigenous Australians in South Australia was higher than the national imprisonment rate for Indigenous Australians, while the age-standardised rate for non-Indigenous Australians in South Australia was lower than the national imprisonment rate for non-Indigenous Australians.
- A higher proportion of Indigenous prisoners were males than females (94% males in South Australia and 92% males in Australia). This trend was also present for total prisoners.
- Over the period 2000–2009 in South Australia, the crude imprisonment rate of Indigenous Australians increased significantly by an average of 105 per 100,000 population per year. This is equivalent to a 56% increase over the period. The National crude imprisonment rate for Indigenous Australians also increased significantly by around 73 per 100,000 per year (Figure 2.14.1).

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

	Indigenous					
	Number					
	Males	**Females**	**People[a]**	**Crude rate[b]**	**Age- standardised rate[c]**	
SA	420	29	449	2,596.6	2,072.4	
Australia	**6,783**	**603**	**7,386**	**2,309.8**	**1,890.7**	
	Non-Indigenous					
	Number					
	Males	**Females**	**People[a]**	**Crude rate[b]**	**Age-standardised rate[c]**	**Age-standardised rate ratio[d]**
SA	1,419	92	1,511	121.2	133.4	15.5
Australia	**20,063**	**1,493**	**21,554**	**130.9**	**135.6**	**13.9**

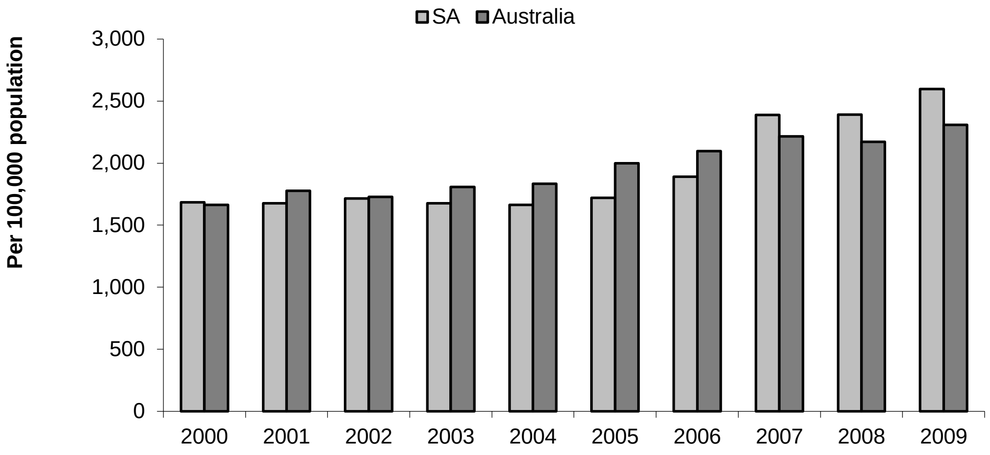
(a) Includes sex not stated.

(b) Number per 100,000 adult population.

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

(d) 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.

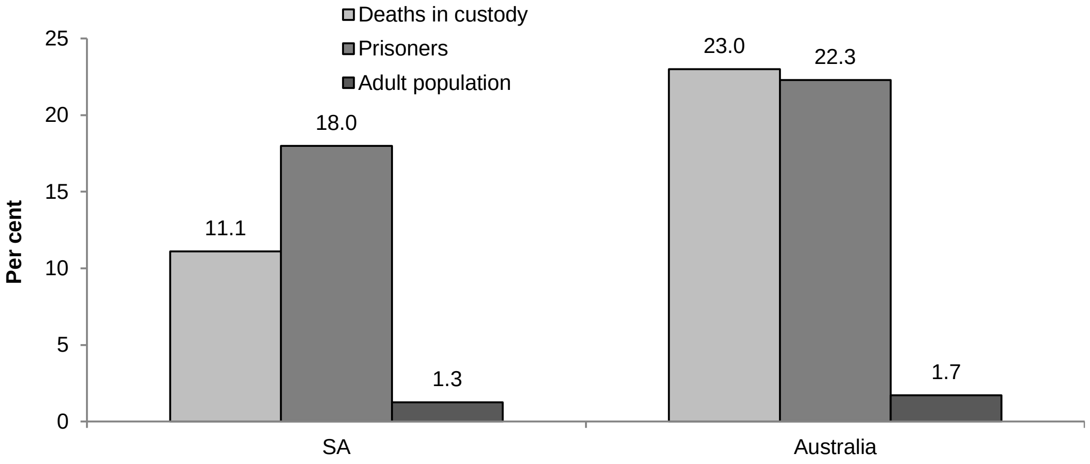


Source: Australian Bureau of Statistics. Prisoners in Australia (cat. No. 4517.0).

Figure 2.14.1: Crude imprisonment rates of Indigenous Australians, South Australia and Australia, 2000–2009

Deaths in prison custody

- In 2004-06 in South Australia, Indigenous Australians represented around 11% of deaths in custody (police and prison), 18% of the prisoner population and 1.3% of the adult population. This compares to 23% of deaths in custody, 22% of prisoners and 1.7% of the adult population nationally.



Source: AIHW analyses of Australian Institute of Criminology (AIC) National Deaths in Custody Program (NDICP).

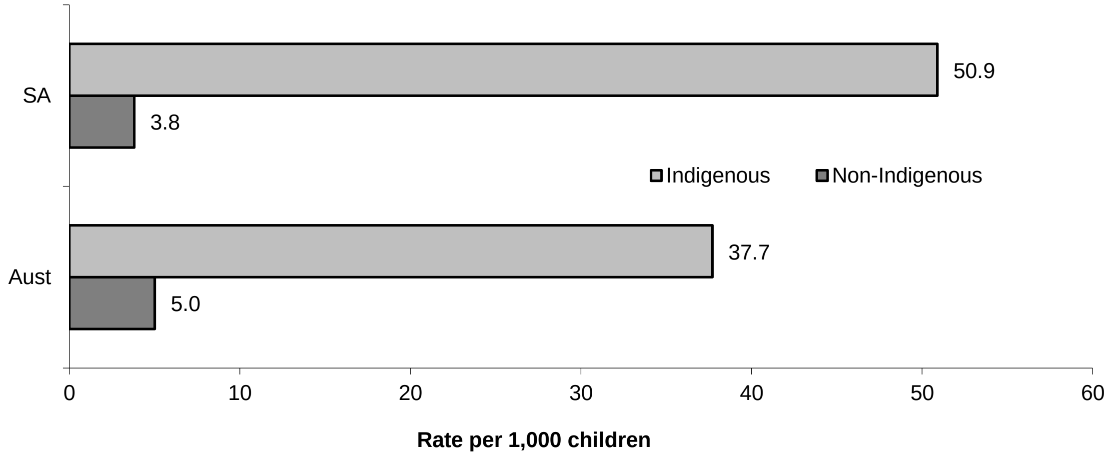
Figure 2.14.2: Aboriginal and Torres Strait Islander peoples as a proportion of deaths in custody (police and prison), prisoner population and total adult population (18 years and over), South Australia and Australia, 2004–06

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 was finalised by 31 August 2009, and it was concluded 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 South Australia, Indigenous children aged 0–16 years were more likely to be the subject of substantiations than other children aged 0–16 years (51 per 1,000 compared to 4 per 1,000) (Figure 2.15.1).
- The substantiation rate for Indigenous children was higher in South Australia than across Australia. However, the substantiation rate for non-Indigenous children was lower in South Australia than across Australia.
- The proportion of Aboriginal and Torres Strait Islander children in South Australia who were subjects of substantiations increased from 32 per 1,000 in 2005–06 to 51 per 1,000 in 2008–09 (Table 2.15.1).
- The proportion of other children in South Australia who were subjects of substantiations was relatively steady in recent years (Table 2.15.1).
- As at 30 June 2009, 76% of Aboriginal and Torres Strait Islander children in out-of-home care in South Australia 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 years who were the subjects of substantiations: rate per 1,000 children, by Indigenous status, South Australia and Australia, 2008–09

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

	South Australia		Australia[(a)]	
Year	**Indigenous**	**Other**	**Indigenous**	**Other**
		Number of children		
1998–99	269	1,489	n.a.	n.a.
1999–00	337	1,354	n.a.	n.a.
2000–01	317	1,334	n.a.	n.a.
2001–02	346	1,407	n.a.	n.a.
2002–03	351	1,545	n.a.	n.a.
2003–04	441	1,499	n.a.	n.a.
2004–05	481	1,317	n.a.	n.a.
2005–06	360	1,101	6,033	28,322
2006–07	439	1,314	7,076	26,784
2007–08	547	1,272	7,313	24,602
2008–09	598	1303	8,135	24,343
		Rate per 1,000 children		
1998–99	26.8	4.6	n.a.	n.a.
1999–00	33.0	4.2	n.a.	n.a.
2000–01	30.7	4.2	n.a.	n.a.
2001–02	31.6	4.4	n.a.	n.a.
2002–03	32.2	4.8	n.a.	n.a.
2003–04	39.9	4.7	n.a.	n.a.
2004–05	43.2	4.2	n.a.	n.a.
2005–06	32.3	3.5	29.4	6.5
2006–07	39.0	4.1	34.3	6.1
2007–08	48.4	4.0	35.3	5.5
2008–09	50.9	3.8[(b)]	37.7	5.0[(b)]

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

(b) 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 years 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, South Australia, 30 June 2009

Relationship	**South Australia**[(a)]
	Per cent
Indigenous relative/kin	39.5
Other Indigenous caregiver	21.7
Other relative/kin	11.8
Indigenous residential care	3.5
Total placed with relative/kin, other Indigenous caregivers or Indigenous residential care	*76.4*
Other caregiver	16.8
Other residential care	6.8
Total not placed with relative/kin, other Indigenous caregivers or Indigenous residential care	*23.6*
Total	**100.0**

(a) South Australia can only provide the number of children in out-of-home care where the Department is making a financial contribution to the care of a child.

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 South Australia, 72% of Indigenous households and 87% of other households reported having at least one registered vehicle. These proportions were the same as those reported nationally.
- The ratio of people to vehicles was higher for Indigenous households, with 1.55 people per vehicle in South Australia, compared to 1.15 people per vehicle for other households. 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, South Australia 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**
SA	1.55	1.15	1.15	71.5	87.4	87.2
Australia[(e)]	**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.

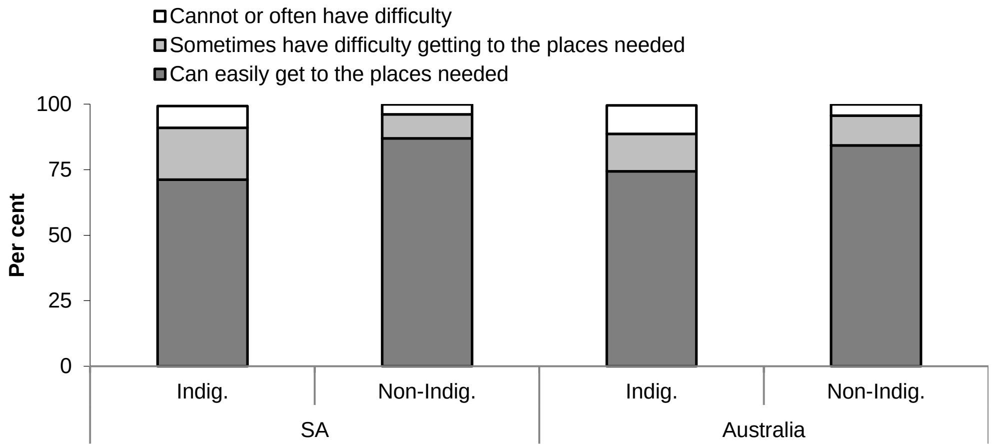
(d) Includes households where Indigenous status was 'not stated'.

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

Source: ABS and AIHW analysis of 2006 Census data.

Transport access, difficulty and use

- Indigenous Australians in South Australia and Australia were more likely to report having difficulty getting to the places they needed to than non-Indigenous Australians. In 2008, 28% of Indigenous Australians living in South Australia reported that they sometimes or often have difficulty, or cannot get to places needed compared to 13% of non-Indigenous Australians. The same pattern was observed on the proportions reported in Australia (25% for Indigenous and 16% for non-Indigenous) (Figure 2.16.1).



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

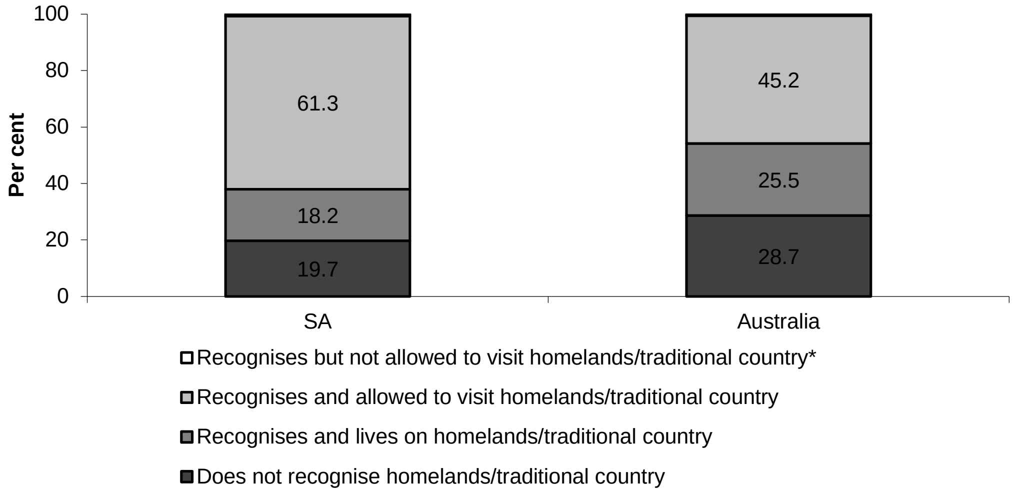
Figure 2.16.1: Difficulty with transport, by Indigenous status, South Australia and Australia, people aged 18 years and over, 2008

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, 61% of Indigenous Australians aged 15 years and over in South Australia 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).
- Approximately 18% of Indigenous Australians in South Australia and 26% of Indigenous Australians in Australia lived on their homeland.
- Approximately 20% of Indigenous Australians in South Australia reported they did not recognise their homelands and 0.7% reported they were not allowed to visit their homelands. This compared to 29% and 0.6% for Indigenous Australians in Australia.
- In 2008 in South Australia, Indigenous Australians who did not recognise their homelands/traditional country were slightly more likely to report excellent/very good/good health (75%) than those who did recognise their homelands/traditional country (73%). The data for Australia showed similar patterns though the difference was more apparent (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 South Australia who recognised their homelands/traditional country were more likely to report presence of neighbourhood/community problems than Indigenous Australians who did not recognise their homelands/traditional country (76% and 72%, respectively).

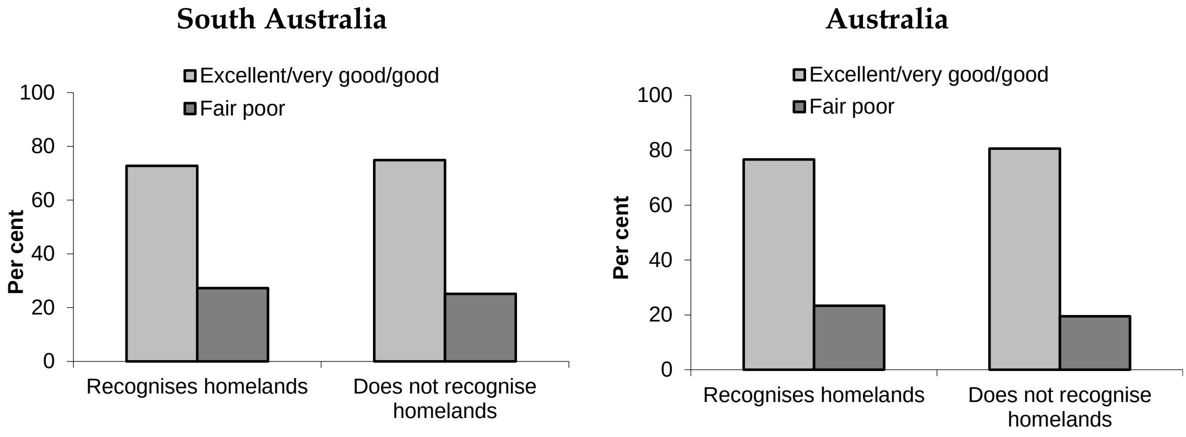


* The proportion of Indigenous Australians aged 15 years and over who recognise but are not allowed to visit their homeland/traditional country was 0.7% for SA and 0.6% Australia.

Note: Proportions and numbers exclude not stated responses.

Source: AIHW analyses of NATSISS 2008.

Figure 2.17.1: Access to homelands/traditional country, Indigenous Australians aged 15 years and over, South Australia and Australia, 2008



Source: AIHW analyses of NATSISS 2008.

Figure 2.17.2: Self-assessed health status by whether Indigenous people recognises/does not recognise homelands/traditional country, South Australia and Australia, 2008

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, approximately 49% of Indigenous Australians aged 18 years and over in South Australia reported they were current daily smokers, 2% were current smokers who smoked weekly or less than weekly; 20% were ex-smokers and 25% reported that they had never smoked (Table 2.18.1).
- Indigenous Australians in in South Australia 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 persons aged 18 years and over, by Indigenous status[(a)], 2008 and 2007–08, SA

Smoker status (%)	Indigenous	Non-Indigenous	Rate ratio	Rate difference
Current smoker				
Daily(b)	48.9	19.2	2.5	29.7
Other(c)	*2.2	1.7	1.3	0.5
Total smokers(b)	*51.1*	*20.9*	*2.4*	*30.2*
Ex-smoker(d)	19.5	30.0	0.7	-10.5
Never smoked(e)	29.4	49.1	0.6	-19.7
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 persons who smoked at least once a week, but not daily, and those who smoked less than weekly.

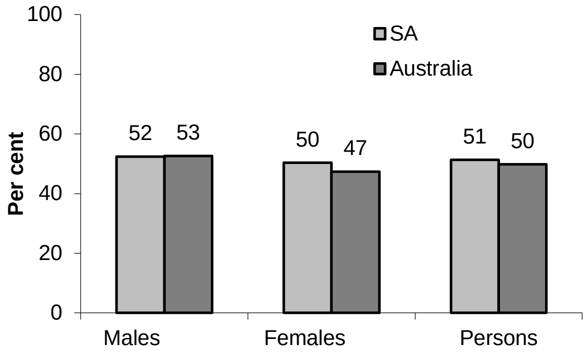
(d) Difference between 2008 Indigenous rate and 2007-08 non-Indigenous rate is statistically significant for all jurisdictions except the ACT.

(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.

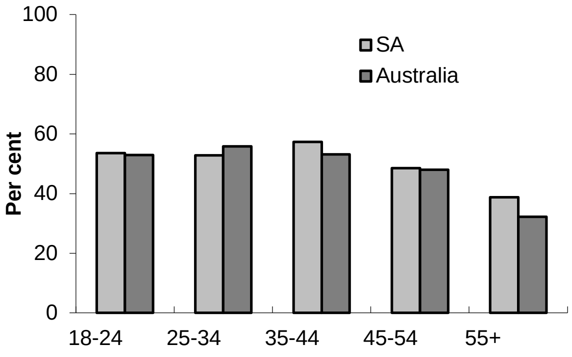
Smoking status by sex and age group

- In 2008 in South Australia, approximately 52% of Indigenous males and 50% of Indigenous females aged 18 years and over were current smokers. Across Australia 53% of Indigenous males and 47% of Indigenous females were current smokers (Figure 2.18.1).
- In South Australia, Indigenous adults aged 35–44 and 18–24 years were most likely to report being current smokers (57% and 54%, respectively). The data for the total of Australia showed different features with those aged 25–34 most likely to report being current smokers (56%), followed by those aged 18–24 and 35–44 years (both 53%) (Figure 2.18.2).



Source: AIHW analyses NATSISS 2008.

Figure 2.18.1: Per cent of Indigenous people aged 18 years and over reporting they are a current smoker, by sex, South Australia and Australia, 2008



Source: AIHW analyses of NATSISS 2008.

Figure 2.18.2: Per cent of Indigenous people aged 18 years and over reporting they are a current smoker, by age, South Australia and Australia, 2008

2.19 Tobacco smoking during pregnancy

The proportion of Indigenous mothers who smoked during pregnancy

- In South Australia in 2007, Aboriginal and Torres Strait Islander mothers were 3.2 times as likely as non-Indigenous mothers to report smoking during pregnancy (Table 2.19.1).
- In South Australia in 2007, 62% of Indigenous mothers and 19% of non-Indigenous mothers smoked during pregnancy. Nationally 51% of Indigenous mothers and 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, South Australia and NSW, Qld, WA, SA, Tas, ACT and NT combined, 2007[(a)(b)]

Smoking status	South Australia(c)		NSW, Qld, WA, SA, Tas, ACT & NT combined	
	Indigenous	Non-Indigenous	Indigenous	Non-Indigenous
	Number			
Smoked	369	3,669	5,273	30,821
Did not smoke	198	14,957	4,682	176,004
Not stated	11	263	234	1,044
Total	**578**	**18,889**	**10,189**	**207,869**
	Proportion(d)			
Smoked	62.1	19.3	50.5	14.8
Did not smoke	35.9	79.3	47.4	84.7
Total(e)	**100.0**	**100.0**	**100.0**	**100.0**
	Ratio(f)			
Smoked	3.2	. .	3.4	. .
Did not smoke	0.5	. .	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) For South Australia, 'smoked' includes women who quit before the first antenatal visit.

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

(e) Includes mothers whom smoking status was not stated.

(f) Rate ratio is equal to 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

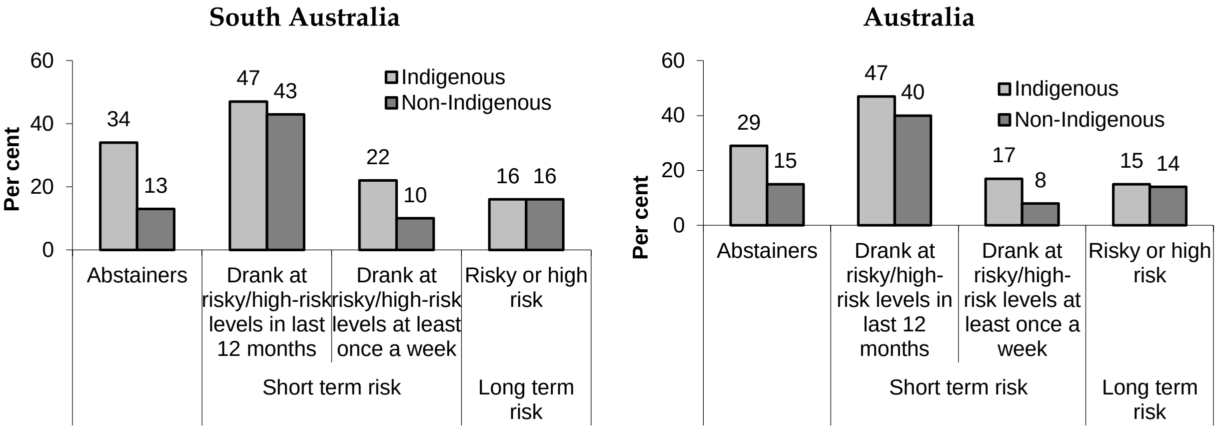
The consumption of alcohol at risky and high-risk levels was defined as alcohol consumption which exceeds the National Health and Medical Research Council (NHMRC) guidelines for low-risk drinking in the short or long term. These guidelines are outlined below:

Risky/high-risk drinking

- Short-term risky drinking is consumption in excess of six but less than 11 standard drinks on any 1 day for males, and in excess of four but less than seven standard drinks for females.
- Short-term high-risk drinking is consumption of 11 or more standard drinks on any 1 day for males, and in excess of seven standard drinks for females.
- Long-term risky drinking is average consumption in excess of four but less than six standard drinks per day (amounting to 29 but less than 42 per week) for males, and in excess of 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 in excess of six standard drinks per day (amounting to 43 or more per week) for males, and in excess of 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 South Australia, Indigenous adults were more likely than non-Indigenous adults to report having abstained from alcohol consumption in the previous 12 months (34% compared to 13%) (Figure 2.20.1).
- In South Australia approximately 47% of Indigenous adults drank at short-term risky/high-risk levels in the previous 12 months, and 22% reported drinking at short-term risky/high-risk levels at least once a week. This compared to 43% of non-Indigenous adults who reported drinking at short-term risky/high-risk levels in the previous 12 months and 10% who reported drinking at this level at least once a week.
- Approximately 16% of Indigenous and non-Indigenous adults in South Australia drank at long-term risky/high-risk levels in the previous 12 months.
- The proportion of Indigenous Australians who drank at short-term risky/high-risk levels at least once per week was 19% for South Australia and Australia (Figure 2.20.2).

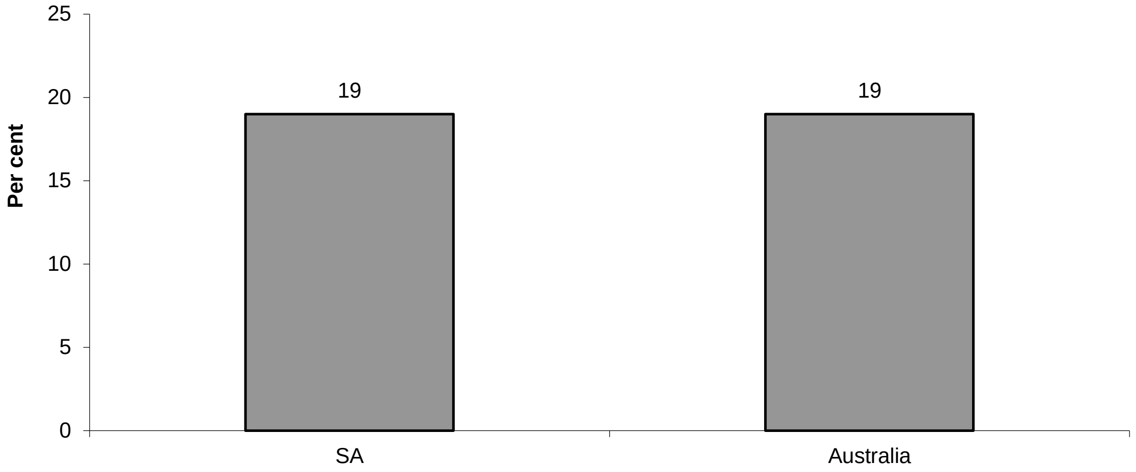


Notes

1. Risk level based on Australian Alcohol Guidelines 2000.
2. Based on responses to questions in 2004–05 National Health Survey/NATSIHS about frequency of consumption of specified number of drinks in previous year. The number of drinks was based on the NHMRC guidelines for risky and high-risk short-term alcohol consumption for males and females.
3. Long term risk level based on consumption in week prior to interview.

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

Figure 2.20.1: Alcohol risk levels by Indigenous status, people aged 18 years and over, age-standardised, South Australia and Australia, 2004–05



Notes

1. Risk level based on Australian Alcohol Guidelines 2000.
2. Short-term risk level based on responses to questions in 2004-05 NHS/NATSIHS about frequency of consumption of specified number of drinks in previous year. The number of drinks was based on the National Medical and Health Research Council (NMHRC) guidelines for risky and high-risk short-term alcohol consumption for males and females.

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

Figure 2.20.2: Aboriginal and Torres Strait Islander adults who drank at short term risky/high-risk levels at least once a week, South Australia and Australia, 2004-05

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 South Australia, a higher proportion of Indigenous males aged 18 years and over reported substance use in the last 12 months (33%) than Indigenous females (24%) of the same age. Across Australia, Indigenous males (30%) were also more likely to report substance use in the last 12 months than Indigenous females (18%).
- In South Australia, approximately 62% of Indigenous males and 46% of Indigenous females aged 18 years and over reported that they had ever used substances. These proportions were similar to those reported for Indigenous males and females in Australia (54% and 38% respectively).
- Marijuana, hashish and cannabis resin were the most commonly reported type of substance used by Indigenous adults. In 2008, 21% of Indigenous adults in South Australia used marijuana, hashish or cannabis resin, slightly higher than the rate reported for Australia (18%) (Table 2.21.1).

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

	South Australia			Australia		
	Males	Females	People	Males	Females	People
	%	%	%	%	%	%
Used substances in last 12 months						
Marijuana, hashish or cannabis resin	28.2	15.4	21.1	24.3	11.6	17.6
Amphetamines or speed	7.3	3.8	5.3	6.1	2.8	4.3
Ecstasy or designer drugs	5.9	1.1	3.2	4.8	2.1	3.4
LSD or synthetic hallucinogens	2.0	0.7	1.3	1.5	0.5	0.9
Pain killers or analgesics for non-medical purposes	3.7	6.7	5.4	5.3	4.5	4.8
Naturally occurring hallucinogens	1.0	0.1	0.5	1.1	0.2	0.6
Cocaine	1.4	0.1	0.7	1.2	0.5	0.8
Other analgesics	1.3	–	0.6	0.6	0.2	0.4
Volatile solvents	1.2	–	0.5	0.6	0.2	0.4
Tranquillisers or sleeping pills for non-medical purposes	3.9	1.7	2.7	1.8	1.2	1.5
Kava	0.6	0.9	0.7	1.8	0.7	1.2
Total used substance in last 12 months	**32.7**	**23.6**	**27.6**	**29.8**	**17.6**	**23.3**
Used substance but not in last 12 months	29.4	22.8	25.7	24.4	19.8	22.0
Total used substance[(a)]	**62.1**	**46.3**	**53.3**	**54.3**	**37.5**	**45.3**
Never used substance	37.9	53.5	46.6	45.4	61.7	54.1
Not stated[(b)]	–	0.1	0.1	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'.

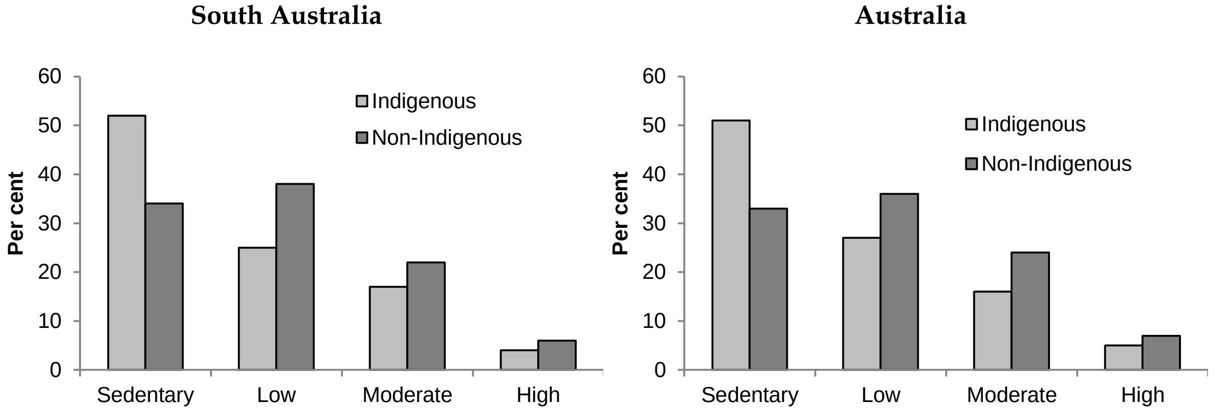
Source: AIHW analyses of NATSISS 2008.

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

- In 2004–05 in *Non-remote* areas of South Australia, approximately 48%of Indigenous Australians aged 15 years and over reported sedentary levels of physical activity, 25% reported low levels of physical activity, 18% reported moderate levels and 6% reported high levels of physical activity.
- A higher proportion of Indigenous than non-Indigenous Australians in South Australia reported their exercise level as sedentary in 2004–05. After adjusting for differences in age structure between the Indigenous and non-Indigenous populations, approximately 52% of Indigenous Australians aged 15 years and over in *Non-remote* areas reported their exercise level as sedentary in the 2 weeks prior to survey, 25% as low, 17% as moderate, and 4% as high. This compared to 34% of non-Indigenous Australians who reported their exercise level as sedentary, 38% as low, 22% as moderate, and 6% as high.
- This same pattern was evident for Australia, with 51% of Indigenous Australians reporting their exercise level as sedentary, 27% as low, 16% as moderate, and 5% as high. Of the non-Indigenous population, 33% reported their exercise level as sedentary, 36% as low, 24% as moderate, and 7% as high.



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 years and over, level of physical activity, *Non-remote* areas, by Indigenous status, South Australia 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, a similar proportion of Indigenous Australians aged 12 years reported eating vegetables daily (around 95%) and eating fruit daily (around 87%) in South Australia and across Australia.
- In 2004–05 in both South Australia and Australia, the same proportion of non-Indigenous Australians aged 12 years and over reported eating vegetables daily (99%) and eating fruit daily (93%).
- In both South Australia and Australia, 95% of Indigenous and 96% of non-Indigenous Australians aged 12 years and over reported drinking milk. The most common type of milk usually consumed was whole milk.
- The proportion of Indigenous Australians reporting usually adding salt after cooking was lower in South Australia (41%) than in Australia (46%) (Table 2.23.1).

Table 2.23.1: Selected dietary habits, by sex and Indigenous status, people aged 12 years and over, South Australia and Australia, 2004–05

Dietary behaviours	**South Australia**		**Australia**	
	Indig.	**Non-Indig.**	**Indig.**	**Non-Indig.**
	%	**%**	**%**	**%**
Vegetable intake				
Eats vegetables daily	95	99	95	99
Does not eat vegetables daily	5	1	5	1
Total[(a)]	*100*	*100*	*100*	*100*
Fruit intake				
Eats fruit daily	87	93	86	93
Does not eat fruit daily	13	7	14	7
Total[(a)]	*100*	*100*	*100*	*100*
Usual type of milk consumed				
Whole	75	39	79	45
Low/reduced fat	12	29	11	31
Skim	7	23	5	13
Total drinks milk[(b)]	*96*	*95*	*96*	*95*
Does not drink milk	4	5	4	5
Total[(c)]	*100*	*100*	*100*	*100*
Salt added after cooking				
Never/rarely	38	. .	30	. .
Sometimes	21	. .	25	. .
Usually	41	. .	46	. .
Total[(d)]	*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 NHS 2004–05.

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 South Australia, approximately 70% of Indigenous infants aged 0–3 years had ever been breastfed compared to 77% of Indigenous infants of the same age in Australia; approximately 16% of Indigenous infants aged 0–3 years in South Australia were currently being breastfed compared to 21% of Indigenous infants of the same age in Australia; and the median age at which Indigenous children stopped being completely breastfed was 9 weeks in South Australia, much younger than the median age reported for Australia (17 weeks) (Table 2.24.1).

Table 2.24.1: Breastfeeding status, Indigenous infants aged 0–3 years, South Australia and Australia, 2008

Breastfeeding measure	South Australia	Australia
	Proportion (%)	
Child breastfed		
Currently breastfeeding	16.0*	20.7
Not currently breastfeeding		
Age child stopped being completely breastfed		
Less than 6 months	37.4	33.7
Between 6 and 12 months	9.9*	10.4
12 months or older	6.6*	11.6
Total(a)	54.2	56.6
Ever breastfed(b)	70.1	77.3
Never breastfed	29.9	22.7
Total(c)	**100.0**	**100.0**
Total people	**2,759**	**52,648**
Median age at which child stopped being completely breastfed (weeks)(d)	9	17
Mean age at which child stopped being completely breastfed (weeks)	19	27

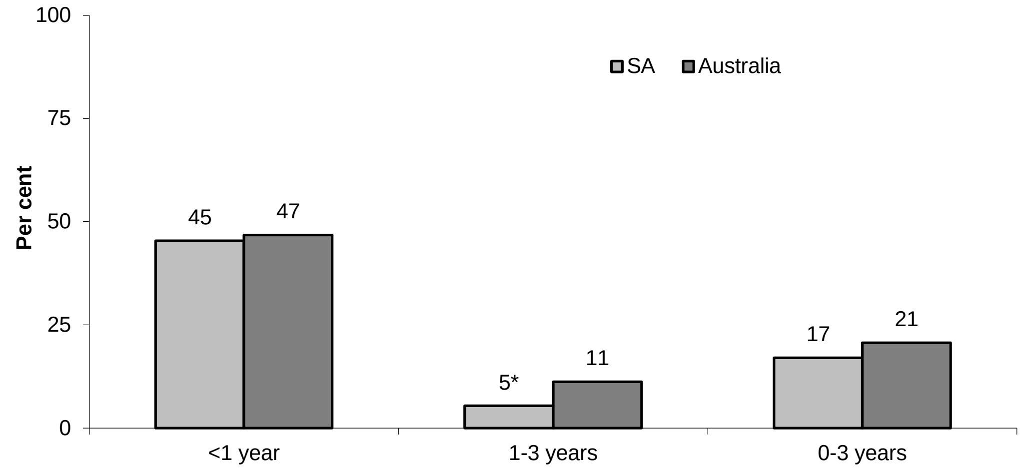
* Estimate has a relative standard error between 25% and 50% and should be used with caution.

(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, 45% Indigenous infants under 1 year old in South Australia were currently breastfed, higher than the rate reported across Australia (47%).



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

Note: Excludes children for whom breastfeeding status was not known.

Source: AIHW analysis of NATSISS 2008.

Figure 2.24.1: Aboriginal and Torres Strait Islander children aged 0-3 years currently breastfeeding, by age, South Australia and Australia, 2008

Age at which first given solid food

- In 2008, among Indigenous infants aged 0–3 years in South Australia, 55% were first regularly given solid food when they were between 3 and 6 months old, and 25% were first regularly given solid food when they were between 6 and 9 months old. Across Australia, 43% of the infants were first regularly given solid food when they were between 3 and 6 months old, and 30% were first regularly given solid food when they were between 6 and 9 months old.
- A smaller proportion of Indigenous infants aged 0–3 years in South Australia were regularly given solid food compared to Indigenous infants of the same age across Australia (80% and 91%, respectively) (Table 2.24.2).

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

	South Australia	Australia
Less than 3 months	2.8*	4.7
3 to <6 months	55.3	43.1
6 to <9 months	24.6	30.1
9 months or more	6.7*	8.1
Age not known	3.2**	4.9
Total given solid food(a)	79.9	90.9
Solid food not given	7.4*	9.1
Total(b)	**100.0**	**100.0**

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

** Estimate has an RSE greater than 50%, and is considered too unreliable for general purpose.

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

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

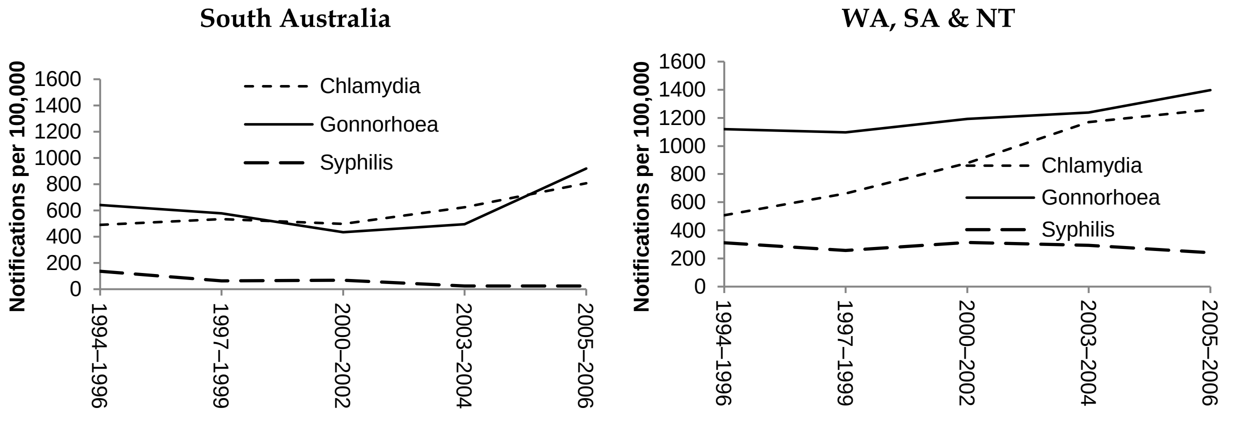
Source: AIHW analysis of NATSISS 2008.

2.25 Unsafe sexual practices

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

Sexually transmitted infection (STI) notifications

- In 2005–06 in South Australia, there were 556 notifications for chlamydia, 631 notifications for gonorrhoea and 15 notifications for syphilis among Indigenous Australians.
- During the period 1994–96 to 2005–06 in South Australia, there was a significant increase in the notification rate for Indigenous Australians for chlamydia and a significant decrease in the notification rate for syphilis. Notification rates increased by an average yearly amount of 26 per 100,000 for chlamydia, and declined by 10 per 100,000 for syphilis (Figure 2.25.1).
- No significant changes were seen in the notification rates for gonorrhoea or hepatitis C among Indigenous Australians in South Australia.
- During the period 1994–96 to 2005–06 in Western Australia, South Australia and the Northern Territory combined, there were significant increases in the notification rates for Indigenous Australians for chlamydia and gonorrhoea.



Source: AIHW analyses of NNDSS.

Figure 2.25.1: Notification rates per 100,000 for chlamydia, syphilis and gonorrhoea, by Indigenous status, South Australia and WA, SA & NT combined, 1994–96 to 2005–06

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 year 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 355 women in South Australia who gave birth aged less than 20 years who identified as Aboriginal or Torres Strait Islander. This represented 21% of all Indigenous mothers at a rate of 46 per 1,000 women aged 12 to 20 years. In comparison, only 4% of all non-Indigenous mothers were aged less than 20 years at a rate of 10 per 1,000 women.
- The rate of Indigenous women aged less than 20 years who gave birth in South Australia was similar to the national rate (46 compared to 47 per 1,000 women).

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

	Number		Per cent		Rate per 1,000 women aged 12 to <20 years(c)		
	Indigenous	Non-Indigenous	Indigenous	Non-Indigenous	Indigenous	Non-Indigenous	Ratio
South Australia	355	2,377	21.0	4.4	45.8	10.1	4.5
Australia(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 years. 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.

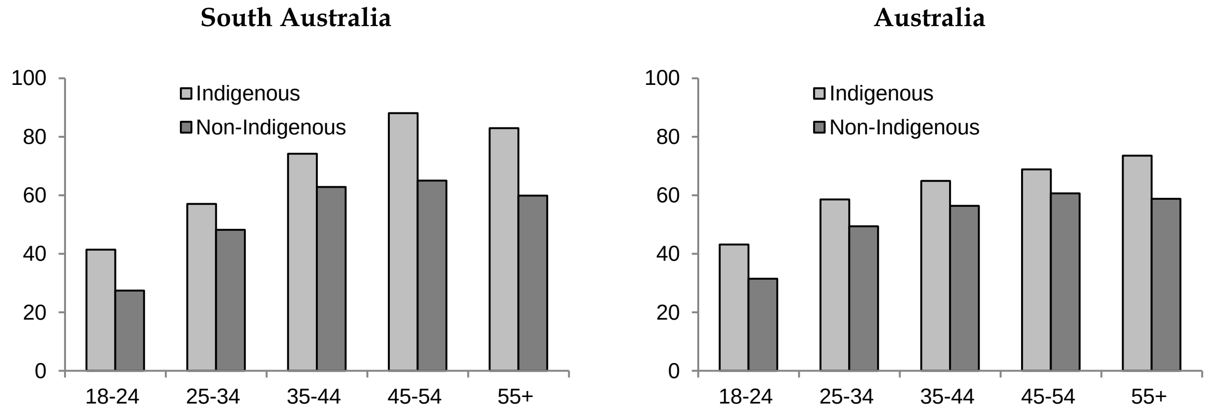
2.26 Prevalence of overweight and obesity

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 in assessing overweight and obesity. 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

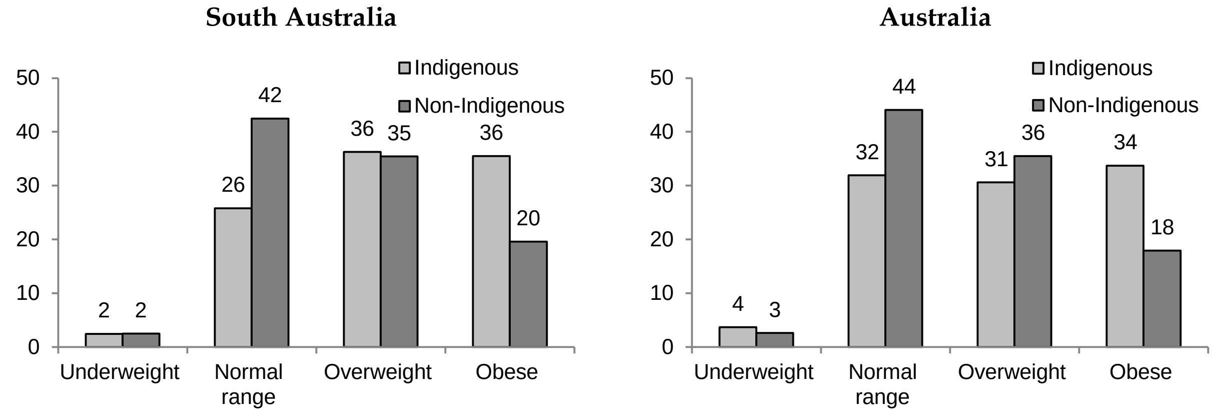
- In 2004–05, a higher proportion of Indigenous adults were overweight or obese than non-Indigenous adults across all age groups (Figure 2.26.1).
- In South Australia, Indigenous adults aged 45–54 years were most likely to be overweight or obese (88%), followed by those aged 55 years and over (83%). Non-Indigenous adults were also most likely to be overweight/obese in the 45–54 years age group (65%).
- After adjusting for differences in age structure, approximately 2% of Indigenous adults in South Australia whose Body Mass Index was known were underweight, 26% were of acceptable weight, 36% were overweight and 36% were obese. This compared to 2%, 42%, 35% and 20% for non-Indigenous adults in South Australia in these BMI categories respectively (Figure 2.26.2).
- A higher proportion of Indigenous adults in South Australia than Australia were overweight and obese.



Note: Excludes those with an unknown Body Mass Index.

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

Figure 2.26.1: Proportion of adults overweight and obese, by age group, by Indigenous status, South Australia and Australia, 2004–05



Note: Excludes those with an unknown Body Mass Index.

Source: AIHW analyses of NATSIHS 2004–05.

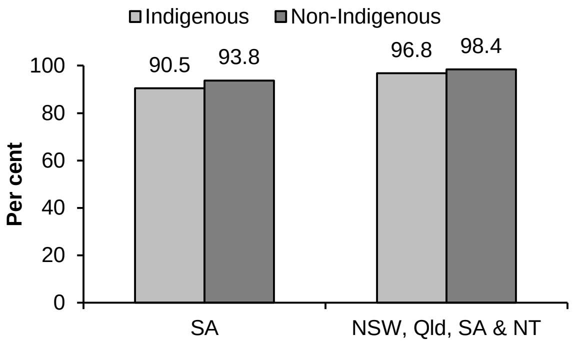
Figure 2.26.2: Proportion of Indigenous adults who are underweight, normal weight, overweight and obese, age-standardised, by Indigenous status, South Australia and Australia, 2004–05

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 South Australia, 91% of Indigenous mothers and 94% of non-Indigenous mothers attended at least one antenatal care session during pregnancy. These proportions were lower than those reported for New South Wales, Queensland, South Australia and the Northern Territory combined (97% and 98%) (Figure 3.01.1).
- Indigenous mothers in South Australia were less likely to have attended five or more antenatal care sessions during pregnancy than non-Indigenous mothers (70% compared to 92%). This same pattern was evident in Queensland, South Australia and the Northern Territory combined with 75% of Indigenous mothers and 93% of non-Indigenous mothers attending five or more antenatal care sessions during pregnancy (Figure 3.01.2).
- From 1998 to 2007 in South Australia, the rate of both Indigenous and non-Indigenous mothers who attended at least one antenatal care session during pregnancy increased steadily (from 695 per 1,000 to 905 per 1,000 for Indigenous, equivalent to a 30% increase; from 801 per 1,000 to 938 per 1,000 for non-Indigenous, equivalent to a 17% increase) (Figure 3.01.3).

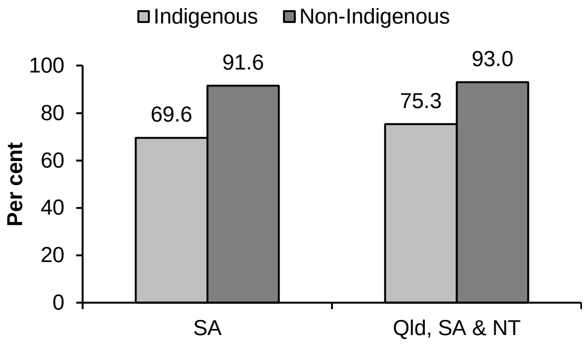


Notes

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.

Source: AIHW analyses of States and Territories Perinatal Collections.

Figure 3.01.1: Per cent of mothers who attended at least one antenatal care session, by Indigenous status, South Australia and NSW, Qld, SA & NT combined, 2007

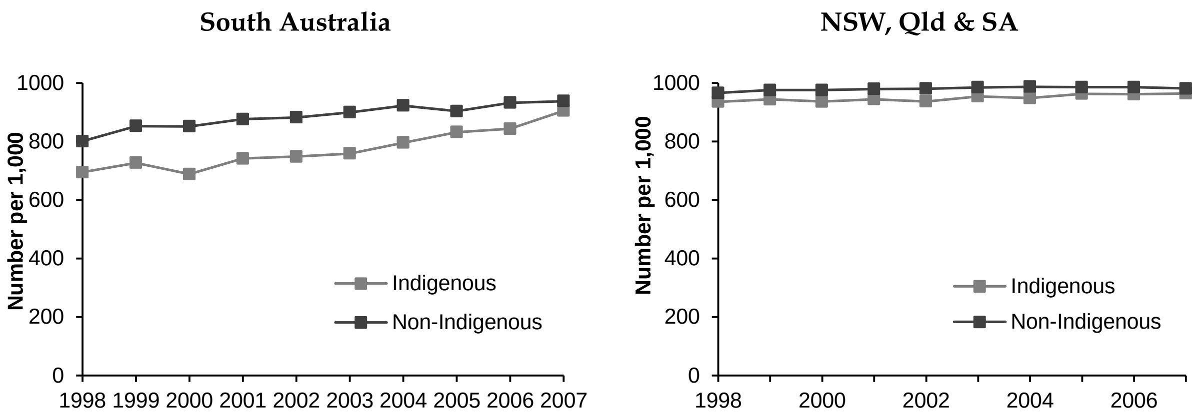


Notes

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 number of antenatal care sessions attended not collected in NSW.

Source: AIHW analyses of States and Territories Perinatal Collections.

Figure 3.01.2: Per cent of mothers who attended five or more antenatal care sessions, by Indigenous status, South Australia and Qld, SA & NT combined, 2007



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 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, South Australia and NSW, Qld & SA combined, 1998–2007

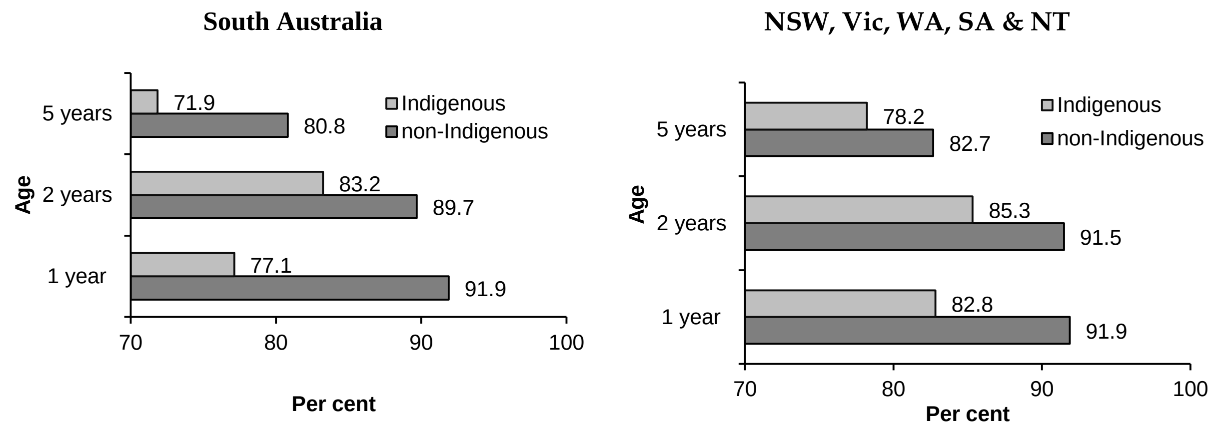
3.02 Immunisation

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).

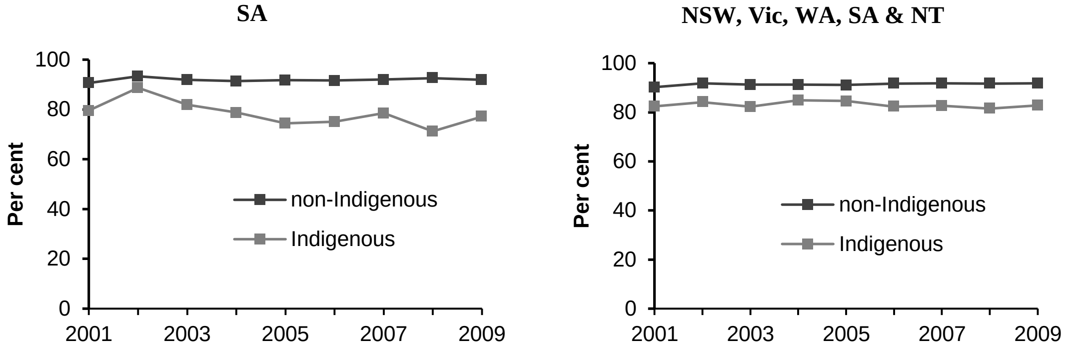
- As at 31 December 2009, the proportion of Aboriginal and Torres Strait Islander children in South Australia who were fully immunised was lower than other children at 1 year of age (77% compared to 92%), 2 years of age (83% compared to 89%), and 5 years of age (72% compared to 81%). This same pattern was evident for the New South Wales, Victoria, Western Australia, South Australia and the Northern Territory combined although the proportion of Indigenous children who were fully vaccinated was higher than South Australia across the three age groups (83% compared to 92% for 1 year, 85% and 92% at 2 years, and 78% and 83% at 5 years) (Figure 3.02.1).
- Between 2001 and 2009 in South Australia, the proportion of Aboriginal and Torres Strait Islander children who were fully vaccinated at 1 year of age decreased significantly by 12%, whilst there were no significant changes for children at 2 years of age. The proportion of non-Indigenous children who were fully vaccinated at 1 year and 2 years of age was steady in the period 2001 to 2009 (Figure 3.02.1).
- The proportion of both Indigenous and non-Indigenous children who were fully vaccinated at 5 years of age increased markedly from 2008 to 2009 (67% to 72% for Indigenous, 76% to 81% for non-Indigenous) (Figure 3.02.3).



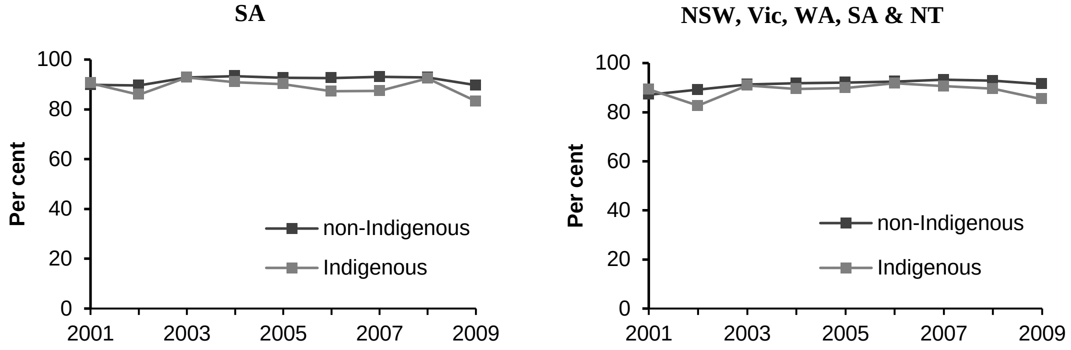
Source: AIHW analyses of Australian Childhood Immunisation Register (ACIR), Medicare Australia.

Figure 3.02.1: Per cent of Aboriginal and Torres Strait Islander children fully vaccinated at age 1 year, 2 years and 6 years, South Australia and NSW, Vic, WA, SA & NT combined, 2009

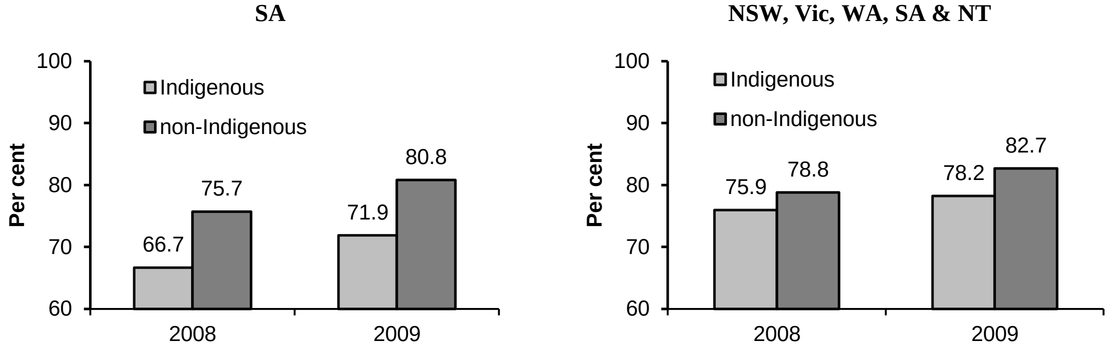
1 year of age



2 years of age



5 years of age

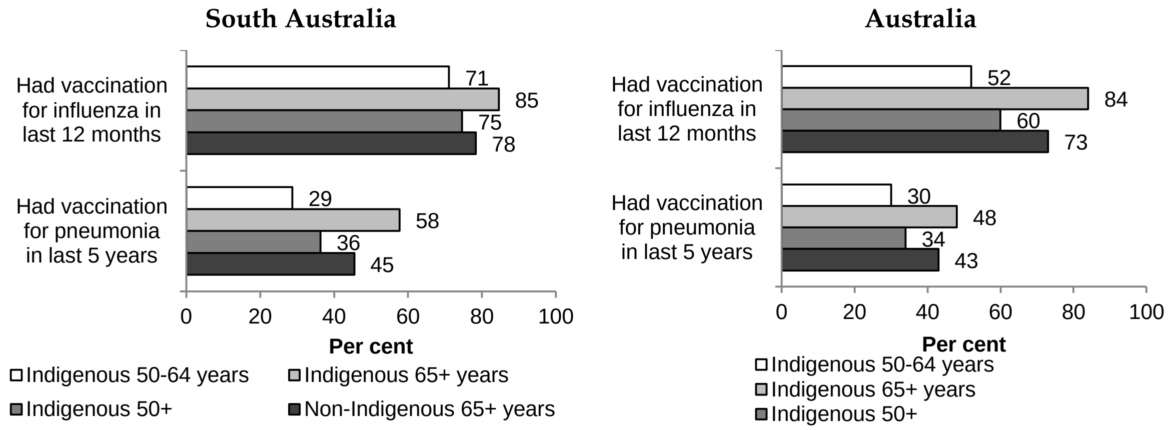


Source: AIHW analyses of ACIR, Medicare Australia.

Figure 3.02.2: Per cent of children fully vaccinated at age 1 year, 2 years (2001–2009) and 5 years (2008–2009), by Indigenous status, South Australia and NSW, Vic, WA, SA & NT combined

Adult immunisation

- In 2004–05, approximately 75% of Indigenous people aged 50 years and over in South Australia had been vaccinated against influenza in the last 12 months. This was higher than the proportion reported for Australia (60%). Approximately 36% of Indigenous people aged 50 years and over had been vaccinated against pneumonia in the last 5 years, which is slightly higher than the proportion reported for Australia (34%) (Figure 3.02.3).
- A higher proportion (85%) of Indigenous people aged 65 years and over in South Australia than non-Indigenous people of the same age group (78%) had been vaccinated against influenza in the last 12 months.
- This trend was also observed for Australia overall (84% for Indigenous people and 73% respectively for non-Indigenous people).
- In South Australia, a higher proportion (58%) of Indigenous people aged 65 years and over had been vaccinated against pneumonia in the last 5 years than non-Indigenous people of the same age group (45%). This trend was also observed for Australia (48% for Indigenous people and 43% for non-Indigenous people).



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

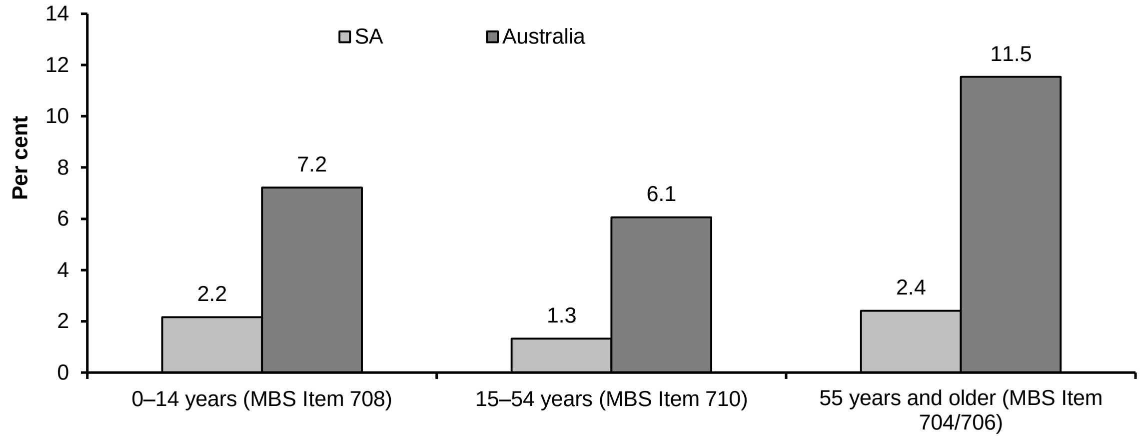
Figure 3.02.3: Per cent of Indigenous Islander peoples aged 50 years and over and other peoples aged 65 years and over: immunization status, South Australia and Australia, 2004–05

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 South Australia during the period July 2008 to June 2009:
  - 2.2% of Indigenous children aged 0–14 years had an annual child health check
  - 1.3% of Indigenous people aged 15–54 years had a 2 yearly health check
  - 2.4% of Indigenous people aged 55 years and older had an annual health assessment
  - 2.3% of total people aged 75 years and over had an annual health assessment.
- The proportion of Indigenous people in South Australia undertaking health checks at age 0–14, 15–54 and 55 years and over between July 2006 and June 2007 was over 2.5 times of the proportion for Australia (Figure 3.03.1).

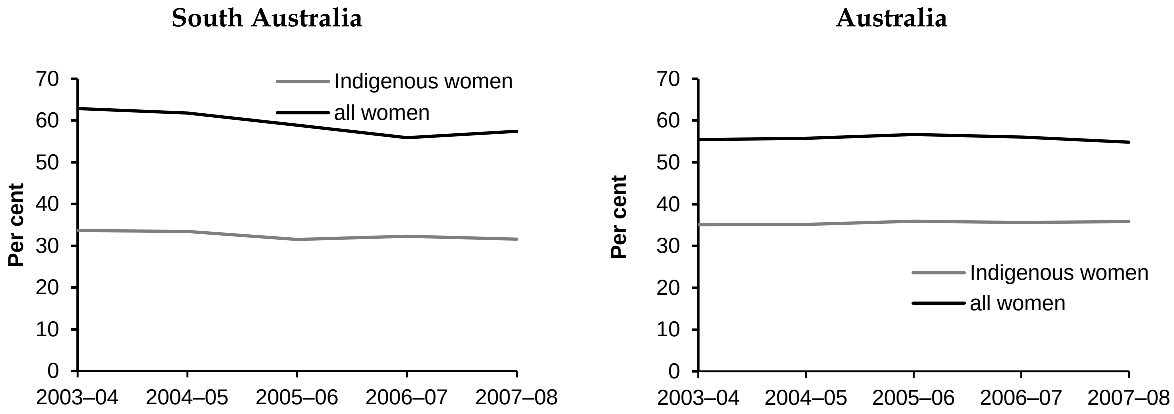


Source: AIHW analyses of Medicare data.

Figure 3.03.1: Per cent of target group received Medicare Benefits Schedule Health Assessments and Health Checks for Indigenous Australians, South Australia and Australia, July 2008 to June 2009

Breastscreening

- In 2007–08 in South Australia, the proportion of Indigenous women aged 50–69 years participating in the BreastScreen Australia program was markedly lower than the rate for all women in that age group (32% compared to 57%). A similar pattern was recorded in Australia (36% compared to 55%).
- From 2003–04 to 2007–08 in South Australia, the proportion of Indigenous women who participated in the BreastScreen Australia program remained steady, whilst the proportion of all women decreased 10%. In Australia, the proportion of either Indigenous women or all women who participated in the BreastScreen Australia program was steady in this period (Figure3.03.2).



Source: Steering Committee for the Review of Government Service Provision (SCRGSP) 2010.

Figure 3.03.2: Participation rates for BreastScreen Australia Programs of women aged 50–69 years, Aboriginal and Torres Strait Islander women and all women, South Australia and Australia, 2003–04 to 2007–08

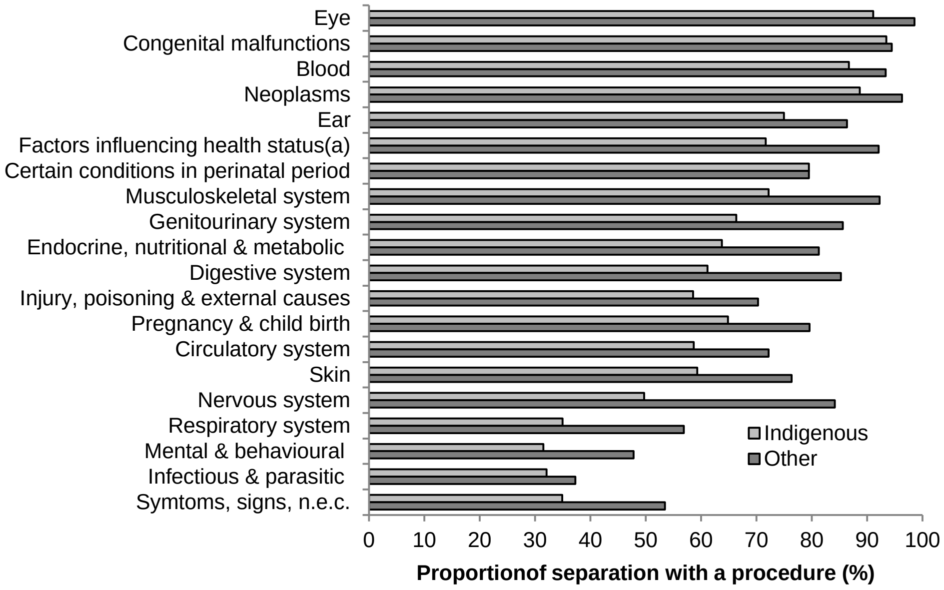
3.05 Differential access to key hospital procedures

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

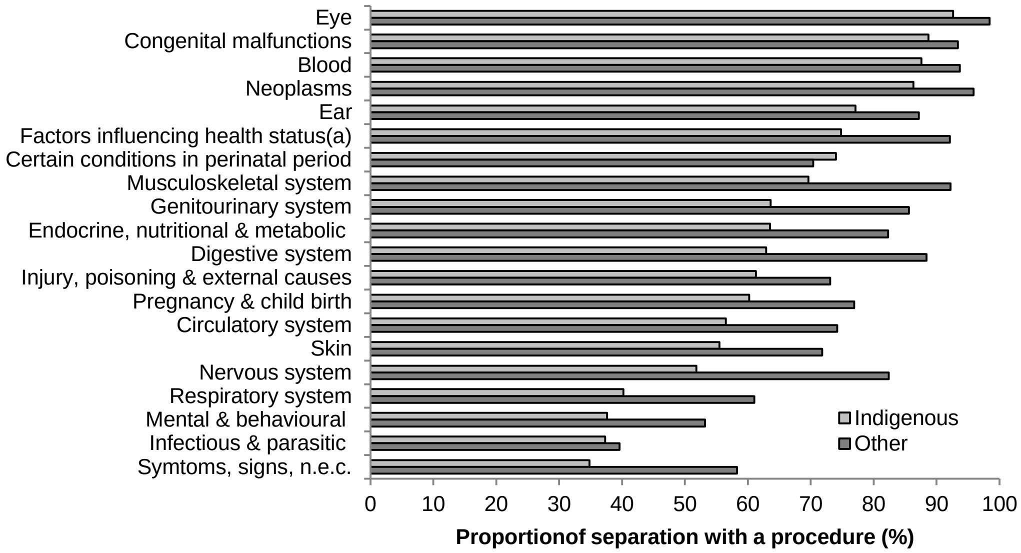
Studies have shown that while Aboriginal and Torres Strait Islander people are more likely to be hospitalised than other people they are less likely to receive a medical or surgical procedure while in hospital (ABS & AIHW 2008).

- Between July 2006 and June 2008 in South Australia, overall approximately 57% of hospitalisations of Indigenous Australians had a procedure reported compared to 80% of hospitalisations of other Australians. Nationally, these proportions were 59% and 81% respectively.
- In South Australia, the proportion of separations with a procedure reported by principal diagnosis was lower for Indigenous patients than for other patients for most of the diagnosis chapters while the proportions with congenital malfunctions and certain conditions in perinatal period for Indigenous patients and other patients were similar. For diseases of the nervous system, 50% of separations for Indigenous patients had a procedure reported, compared with 84% of separations for other patients (Figure 3.05.1).
- A similar pattern to South Australia in regards to differential access to hospital procedures for Indigenous Australians was evident for Australia.

South Australia



Australia



(a) Excludes care involving dialysis.

Source: AIHW analyses of NHMD.

Figure 3.05.1: Per cent of hospital episodes with a procedure reported, selected principal diagnoses, by Indigenous status, South Australia 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.

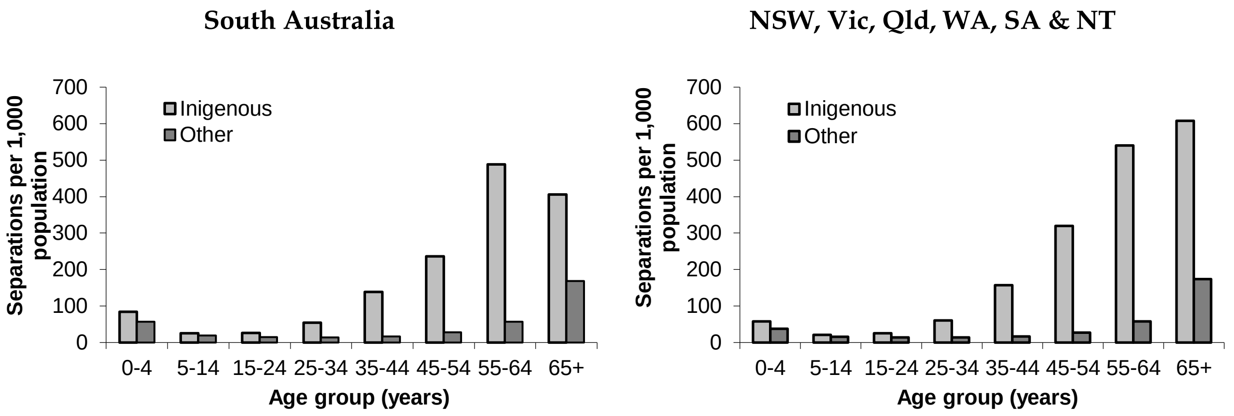
Hospitalisations by age

- In the 2-year period July 2006 to June 2008, Indigenous people in South Australia were hospitalised for ambulatory care sensitive conditions at nearly four times the rate of other people in South Australia (169 compared to 43 per 1,000). The rate ratio was higher for New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined (212 compared to 42 per 1,000).
- Indigenous people in South Australia 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 35–44, 45–54 and 55–64 year age groups, where Indigenous people were hospitalised for ambulatory care sensitive conditions at over eight times the rate of other people.
- The hospitalisation rate of ambulatory care sensitive conditions for Indigenous people in South Australia was higher for children less than 15 years, similar for the 15–24 age group and lower for over 25 years of age comparing to the rate for Indigenous people in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined (Figure 3.06.1).

Hospitalisations by diagnosis

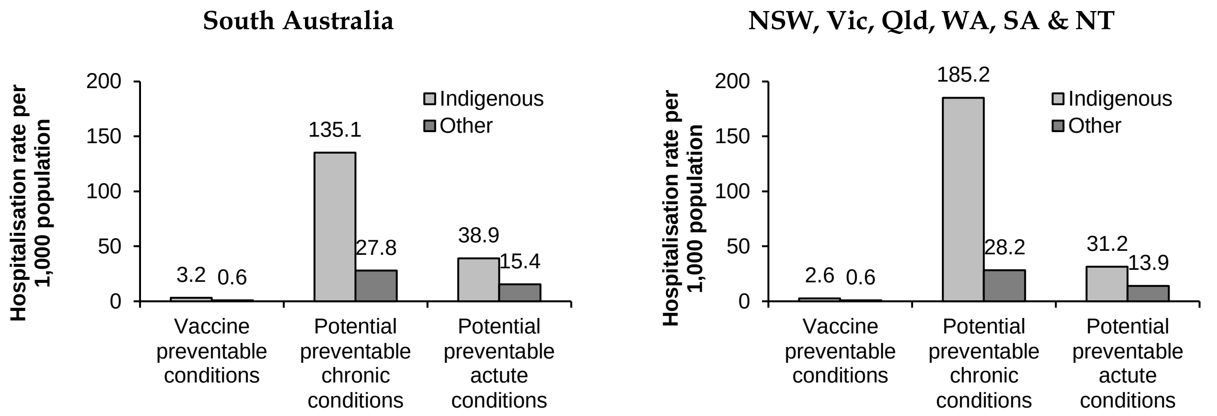
- In the 2-year period July 2006 to June 2008, diabetes complications were the most common type of ambulatory sensitive condition among Indigenous Australians in South Australia (112 per 1,000); followed by chronic obstructive pulmonary disease (COPD) (16 per 1,000) and convulsions and epilepsy (10 per 1,000). Indigenous Australians were hospitalised at nearly six (5.8) times the rate of other Australians for diabetes complications, at over five (5.4) times for COPD, and at nearly seven (6.6) times for convulsions and epilepsy. 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 for during this period (Table 3.06.1).

- In South Australia, Indigenous Australians were hospitalised for potentially preventable chronic conditions and for vaccine-preventable conditions at around five (4.9 and 5.3) times the rate, and for potentially preventable acute conditions at two and a half times the rate, of other Australians (Figure 3.06.2).
- Hospitalisation rates for Indigenous Australians for potentially preventable chronic conditions were lower in South Australia than in the six jurisdictions combined, whilst for vaccine-preventable conditions and for potentially preventable acute conditions the rates were higher in South Australia than the six jurisdictions combined.



Source: AIHW analyses of NHMD.

Figure 3.06.1: Age-specific hospitalisation rates for ambulatory care sensitive hospital admissions, by Indigenous status and sex, South Australia and NSW, Vic, Qld, WA, SA & NT combined, July 2006 to June 2008



Source: AIHW analyses of NHMD.

Figure 3.06.2: Age-standardised hospitalisation rates for ambulatory care sensitive hospital admissions, by Indigenous status, South Australia and NSW, Vic, Qld, WA, SA & NT combined, July 2006 to June 2008

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

	Number		Rate per 1,000(e)		
	Indigenous	Other(f)	Indigenous	Other(f)	Ratio(g)
			South Australia		
Diabetes complications	3,211	72,474	111.7	19.2	5.8*
Convulsions and epilepsy	447	4,534	9.7	1.5	6.6*
Chronic obstructive pulmonary disease	405	10,898	15.5	2.8	5.4*
Ear, nose and throat infections	300	6,976	4.0	2.5	1.6*
Dental problems	305	9,454	4.5	3.1	1.5*
Cellulitis	212	4,942	4.8	1.4	3.3*
Asthma	360	7,236	6.4	2.5	2.5*
Pyelonephritis	228	7,162	5.7	2.0	2.8*
Angina	152	5,780	4.8	1.5	3.1*
Congestive cardiac failure	158	7,646	5.9	1.9	3.1*
Subtotal	*5,778*	*137,102*	*173.0*	*38.5*	*4.5**
Total(h)	**5,914**	**151,460**	**169.4**	**43.1**	**3.9***
			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*
Subtotal	*118,604*	*1,577,062*	*215.7*	*37.9*	*5.7**
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.

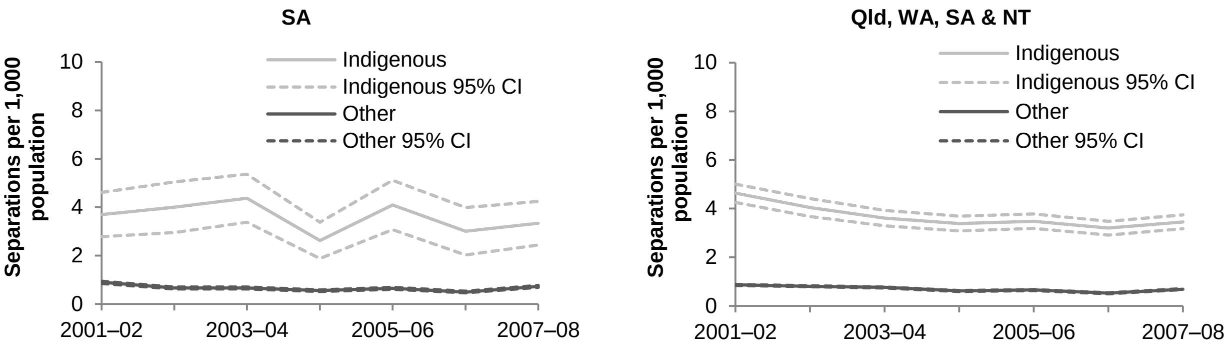
Source: Analyses of AIHW NHMD.

Hospitalisation trends

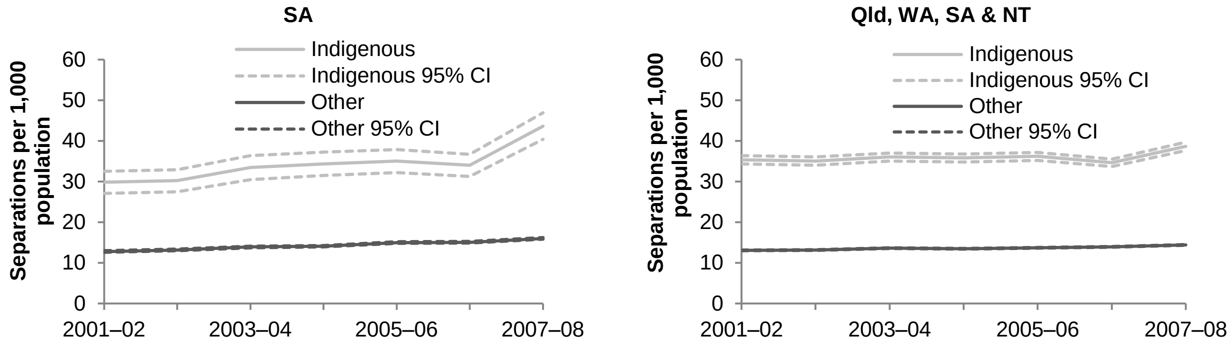
- Over the period 2001–02 to 2007–08 in South Australia for Indigenous Australians:
  - there were no significant changes in the hospitalisation rate for vaccine-preventable conditions
  - there were significant increases in the hospitalisation rate for potentially preventable acute conditions. The average yearly increase was 1.8 per 1,000 population, equivalent to a 36% increase over this period
  - there were significant increases in the hospitalisation rate for potentially preventable chronic conditions. The average yearly increase was 10.6 per 1,000 population, equivalent to a 81% increase over this period.

  Over the same period in South Australia for other people:
  - there were no significant changes in the hospitalisation rate for vaccine-preventable conditions
  - there were significant increases in the hospitalisation rate for potentially preventable acute conditions. The average yearly increase was 0.5 per 1,000 population, equivalent to a 24% increase over this period
  - there were significant increases in the hospitalisation rate for potentially preventable chronic conditions. The average yearly increase was 2.2 per 1,000 population, equivalent to a 75% increase over this period.
- Over this period in Queensland, Western Australia, South Australia and the Northern Territory combined:
  - there were significant declines in hospitalisation rates for vaccine-preventable conditions among both Indigenous Australians and other people
  - there were no significant changes in the hospitalisation rate for potentially preventable acute conditions among Indigenous Australians. However, the rate for other people increased significantly
  - there were significant increases in hospitalisation rates for potentially preventable chronic conditions among both Indigenous Australians and other people.

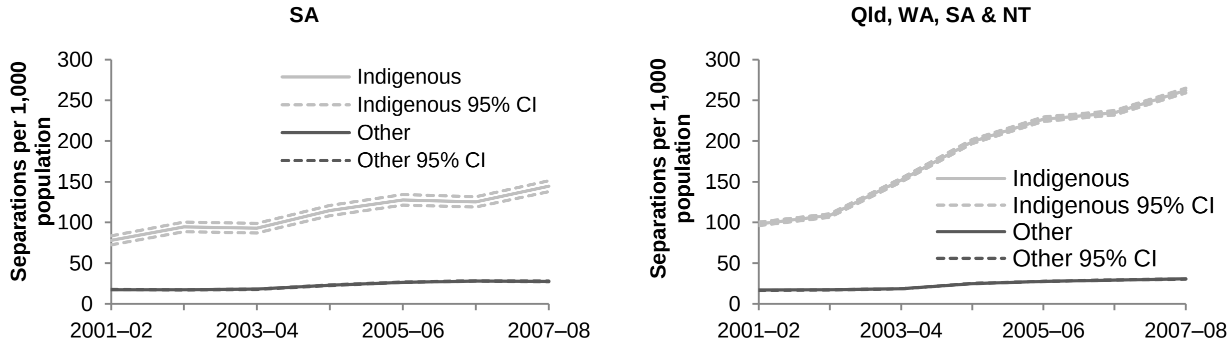
Vaccine-preventable conditions



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, South Australia and Qld, WA, SA & NT combined, 2001–02 to 2007–08

3.07 Health promotion

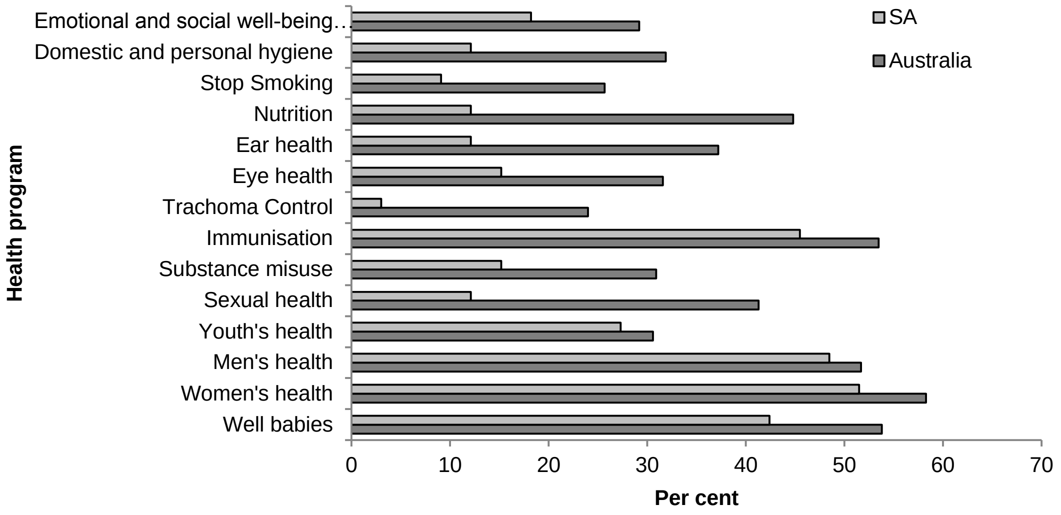
Interventions provided by clinicians and health promotion initiatives funded by governments and provided by a range of health professionals in the wider community for the Aboriginal and Torres Strait Islander population

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 persons or more, as well as for communities that had a reported usual population of fewer than 50 persons 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 persons 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 (CHINS), data on health promotion programs were only collected from communities who 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, just over half (55%) of discrete Indigenous communities in South Australia reported that one or more health promotion programs had been conducted in the community, with women’s health programs reported by 52%, men’s health programs reported by 49%, immunisation programs by 46% and well babies programs reported by 42% of communities (Table 3.07.1, Figure 3.07.1).
- South Australia had a lower proportion of health programs conducted in discrete Indigenous communities than Australia (55% compared to 67%).



Source: AIHW analyses of ABS CHINS 2006.

Figure 3.07.1: Discrete Indigenous Communities located 10 kilometres or more from a hospital: Selected health promotion programs conducted in community, South Australia and Australia, 2006

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

Health promotion program	**SA**		**Australia**	
	No.	**%**	**No.**	**%**
Well babies	14	42.4	155	53.8
Women's health	17	51.5	168	58.3
Men's health	16	48.5	149	51.7
Youth's health	9	27.3	88	30.6
Sexual health	4	12.1	119	41.3
Substance misuse	5	15.2	89	30.9
Immunisation	15	45.5	154	53.5
Trachoma control	1	3.0	69	24.0
Eye health	5	15.2	91	31.6
Ear health	4	12.1	107	37.2
Nutrition	4	12.1	129	44.8
Stop smoking	3	9.1	74	25.7
Domestic and personal hygiene	4	12.1	92	31.9
Emotional and social wellbeing or mental health	6	18.2	84	29.2
Sub-total with at least one health promotion program	*18*	*54.5*	*194*	*67.4*
Sub-total with no health promotion programs	*15*	*45.5*	*93*	*32.3*
Not stated	—	—	1	0.3
Total[(b)]	**33**	**100.0**	**288**	**100.0**

(a) With a population of 50 or more, or a reported usual population of less than 50 but which were 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.

3.08 Discharge against medical advice

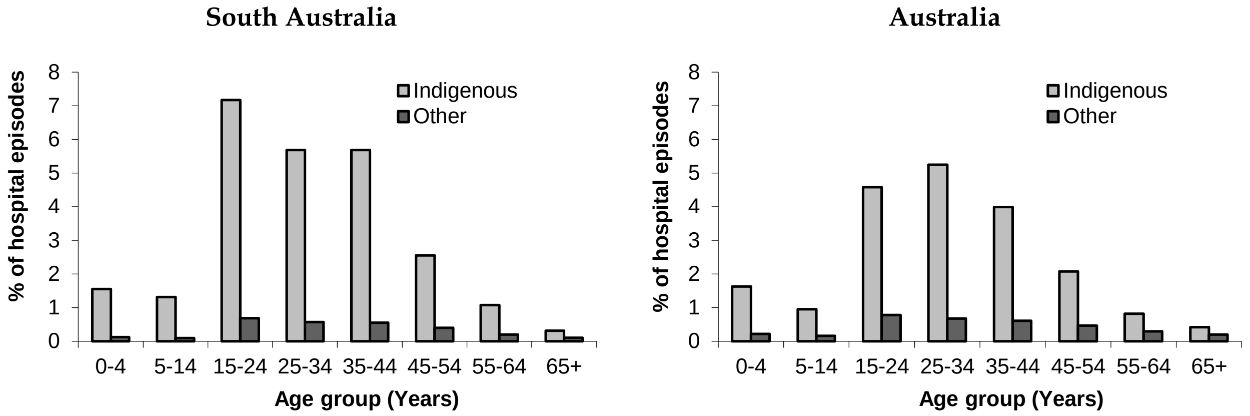
The rate at which Aboriginal and Torres Strait Islander peoples leave hospital against medical advice or are discharged at their own risk

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, approximately 3.2% of hospitalisations of Indigenous Australians in South Australia involved discharge against medical advice. This proportion was lower than that for Indigenous Australians in Australia (2.5%).
- After adjusting for differences in age structure, Indigenous people were over nine times as likely as other people to discharge against medical advice in South Australia. 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 South Australia were much more likely to discharge from hospital against medical advice than other people across all age groups. This same pattern was evident in Australia.
- In South Australia, Indigenous people aged 25–44 years were most likely to discharge from hospital against medical advice (5.7%). Indigenous people in this age group discharged from hospital against medical advice at around ten (9.9 for 25–34 and 10.3 for 35–44) times the rate of other people.
- In Australia, Indigenous people aged 25–34 years were most likely to discharge from hospital against medical advice (5.2%). In this age group, Indigenous people were 7.8 times as likely as other people to discharge from hospital against medical advice (Figure 3.08.1).

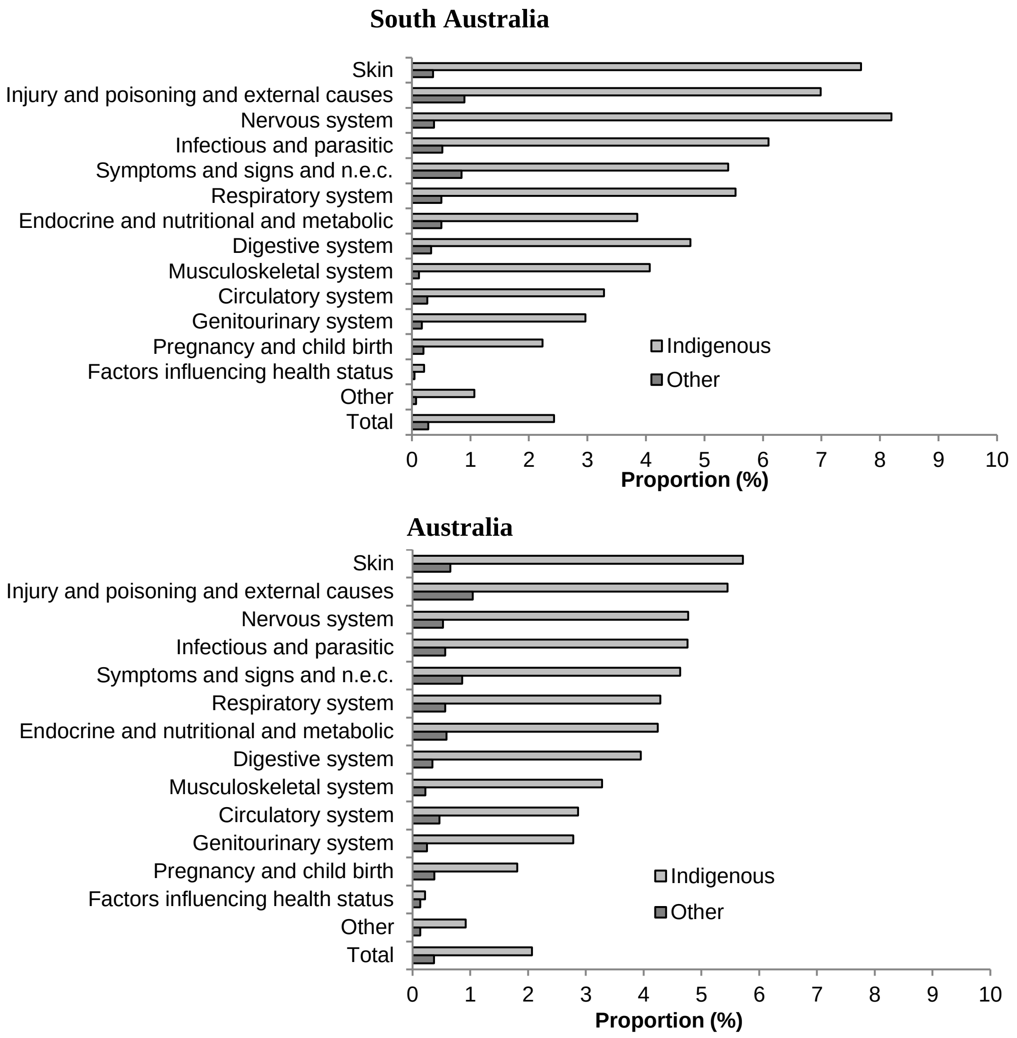


Source: AIHW analyses of NHMD.

Figure 3.08.1: Per cent of hospital episodes in which patients were discharged against medical advice, by Indigenous status and age group (excluding mental and behavioural disorders), South Australia and Australia, July 2006 to June 2008

Hospitalisations by diagnosis

- The most common principal diagnoses of hospitalisations for which Indigenous people in South Australia discharged against medical advice were diseases of the nervous system (8.2%) followed by diseases of the skin (7.7%). Indigenous people discharged from hospital against medical advice at over 20 times the rate of other people for these diagnoses respectively (Figure 3.08.2).
- In South Australia, the greatest disparity between proportions of hospitalisations involving discharge against medical advice for Indigenous and other Australians was for hospitalisations with a principal diagnosis of musculoskeletal conditions (ratio of 33).
- Hospitalisation rates for Indigenous people who discharged from hospital against medical advice were higher in South Australia than in Australia for most principal diagnosis categories.



Source: AIHW analyses of NHMD.

Figure 3.08.2: Per cent (age-standardised) of hospital episodes in which patients were discharged against medical advice, by Indigenous status and principal diagnosis (excluding mental and behavioural disorders), South Australia and Australia, July 2006 to June 2008

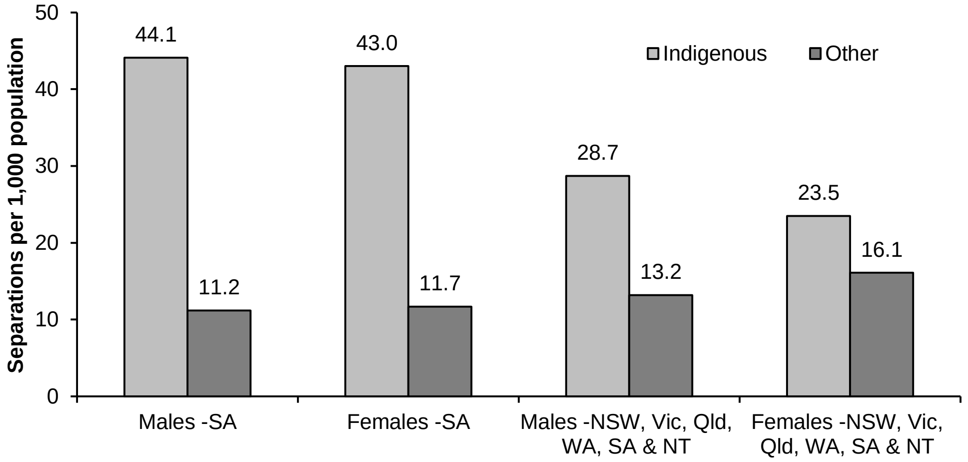
3.09 Access to mental health services

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

Hospitalisations by Indigenous status

- In the 2-year period July 2006 to June 2008, there were 2,195 hospitalisations of Indigenous people with a principal diagnosis of mental health-related conditions in South Australia.
- In the 2-year period July 2006 to June 2008 in South Australia, Indigenous males and females were hospitalised for mental health-related conditions at around four (3.9 and 3.7) times the rate of other males and females.
- 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 the rate of other males, while the rate for Indigenous females was one and a half times the rate of other females.
- Indigenous males and females in South Australia were hospitalised for mental health-related disorders at higher rates (44 and 43 per 1,000) than Indigenous males and females in the six jurisdictions combined (29 and 24 per 1,000).

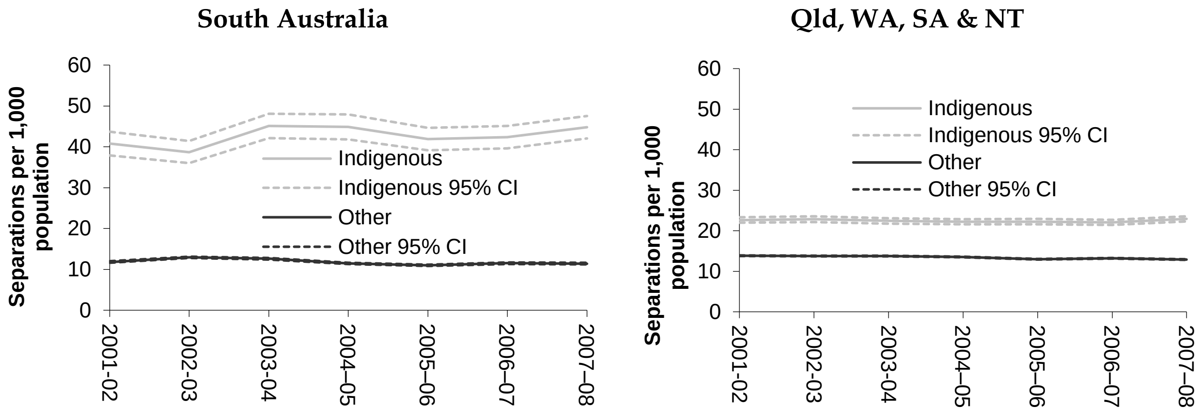


Source: AIHW analyses of NHMD.

Figure 3.09.1: Age-standardised hospitalisation rates for principal diagnosis of mental health-related conditions by Indigenous status and sex, South Australia and NSW, Vic, Qld, WA, SA & NT combined, July 2006 to June 2008

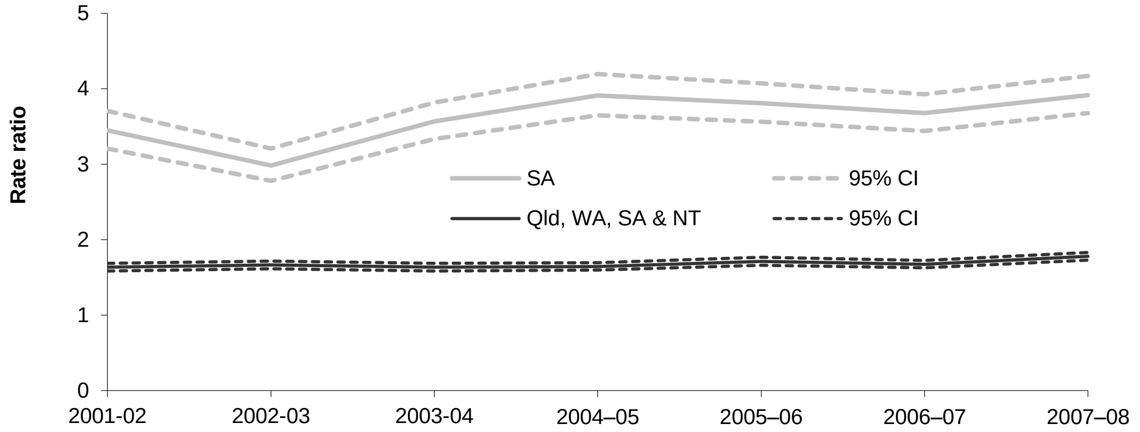
Hospitalisation trends

- In South Australia there were no significant changes in hospitalisation rates for mental health-related conditions among Indigenous and other people during the period 2001–02 to 2007–08.
- In Queensland, Western Australia, South Australia and the Northern Territory combined there was no significant change in hospitalisation rates for mental health-related conditions among Indigenous people over the same period. The hospitalisation rate of other people decreased significantly, with an average yearly decline in the rate of 0.2 per 1,000.
- There was a significant increase in the hospitalisation rate ratios between Indigenous and other Australia for mental-health related conditions in South Australia and the four jurisdictions combined during the period 2001–02 to 2007–08 (Figure 3.09.3).



Source: AIHW analyses of NHMD.

Figure 3.09.2: Hospitalisation rates from mental health-related conditions by Indigenous status, South Australia and Qld, WA, SA & NT combined, 2001–02 to 2007–08



Source: AIHW analyses of NHMD.

Figure 3.09.3: Hospitalisation rate ratios between Indigenous and other Australians from mental health-related conditions, South Australia and Qld, WA, SA & NT combined, 2001–02 to 2007–08

Community mental health care services

- In 2007–08, there were 20,681 contacts with community mental health care services in South Australia by people who identified as Aboriginal or Torres Strait Islander (4% of total service contacts in South Australia).
- In 2007–08, Indigenous people in South Australia were two and a half times as likely as non-Indigenous people to be clients of a community mental health service (729 per 1,000 compared to 287 per 1,000).
- In Australia, Indigenous people were also two and a half times as likely as non-Indigenous people to be clients of a community mental health (737 per 1,000 to 294 per 1,000) (Table 3.09.1).

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

	SA	Australia
	Number	
Indigenous	20,681	362,429
Non-Indigenous	388,682	5,577,420
Not stated	47,579	434,418
Total	**456,942**	**6,374,267**
	Rate per 1,000 population[(a)]	
Indigenous	729	737
Other Australians[(b)]	287	294
Ratio[(c)]	2.5	2.5
Total	**295**	**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, there were 6 contacts with residential mental health care services in South Australia by people who identified as Aboriginal or Torres Strait Islander (3% of total service contacts in South Australia).
- In 2007–08 in South Australia, Indigenous people were twice as likely as non-Indigenous people to be clients of a residential mental health care service (2.6 per 1,000 compared to 1.3 per 1,000 respectively).
- Throughout 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 to 1.5 per 1,000 respectively) (Table 3.09.2).

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

	SA	Australia
	Number	
Indigenous	6	87
Non-Indigenous	179	2,962
Not stated	7	173
Total	**192**	**3,222**
	Rate per 1,000 population[(a)]	
Indigenous	2.6	1.9
Other Australians[(b)]	1.3	1.5
Ratio[(c)]	2.0	1.3
Total	**1.3**	**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.

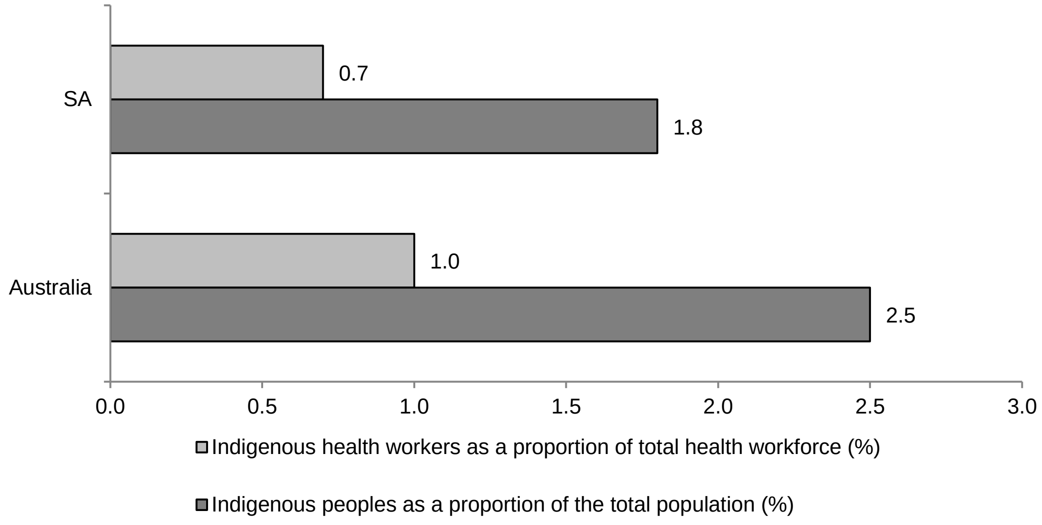
Note: Shading indicates that the Indigenous identification in the National Community Mental Health Care Database (NCMHCD) in these jurisdictions is in need of improvement. This is based on information provided by state and territory health authorities on the quality of their data in the NCMHCD. Data 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 302 people aged 15 years and over in South Australia who identified as Aboriginal or Torres Strait Islander who were employed in the health workforce.
- In 2006 in South Australia, Aboriginal and Torres Strait Islander people aged 15 years and over accounted for 0.7% of the total health workforce which was lower than the proportion of the South Australian population that is Indigenous (1.8%).
- For Australia as a whole, Aboriginal and Torres Strait Islander people accounted for 1.0% of the total health workforce, which is lower than the proportion of the population that is Indigenous (2.5%).



Source: ABS and AIHW analyses of 2006 Census of Population and Housing.

Figure 3.10.1: Aboriginal and Torres Strait Islander peoples aged 15 years and over in health workforce as a proportion of total health workforce, South Australia and Australia, 2006

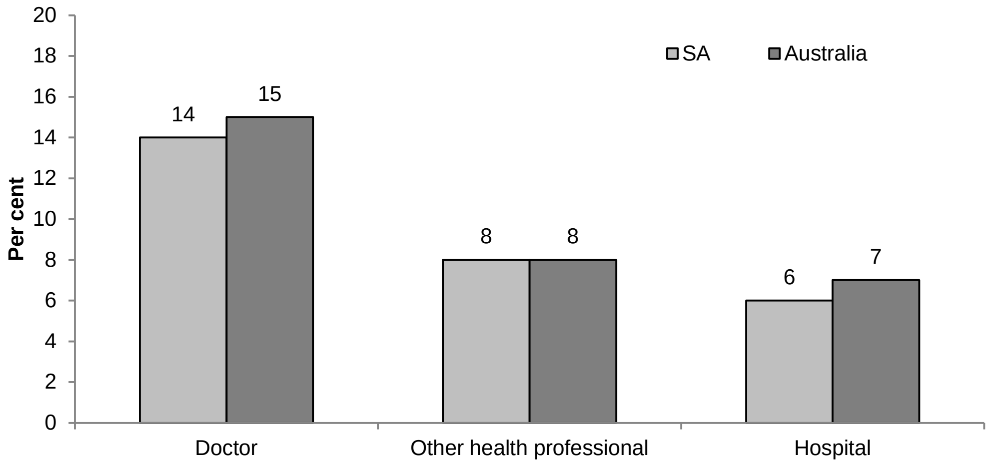
3.11 Competent governance

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

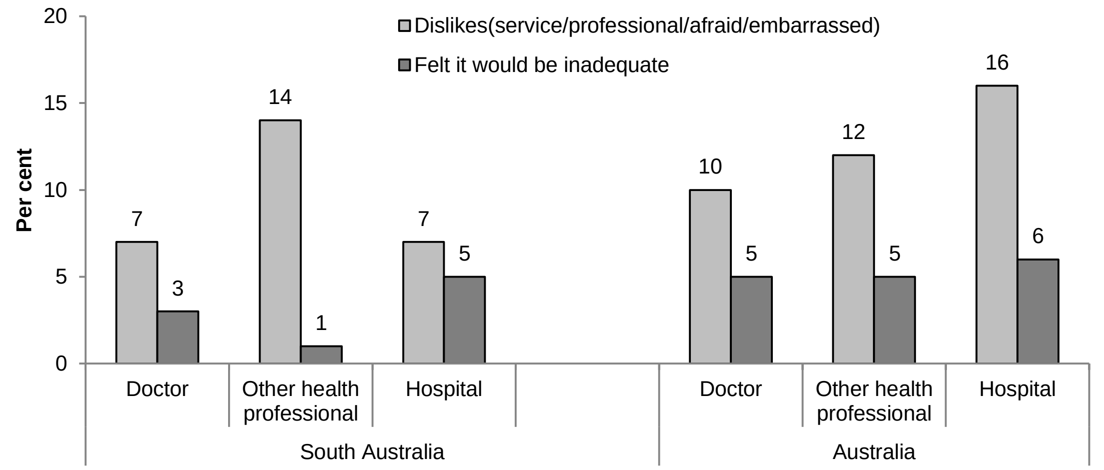
The 2004–05 National Aboriginal and Torres Strait Islander Health Survey collected data on the reasons why Indigenous Australians did not visit a doctor or other health professional in the last 12 months when they needed to.

- In 2004–05 in South Australia, 14% of Indigenous Australians reported that they needed to visit a doctor but didn't in the last 12 months. Over the same period, 8% of Indigenous Australians reported that they did not visit other health professionals when needed and 6% reported that they did not visit a hospital when needed. These proportions are similar to those for Indigenous Australians in Australia (Figure 3.11.1).
- Of those Indigenous Australians in South Australia who needed to visit a doctor but didn't, approximately 7% reported that they did not go due to dislikes of the service/professional, felt embarrassed or afraid; and 3% reported that they did not go because they felt the service would be inadequate (Figure 88). Among Indigenous Australians who needed to visit other health professionals but didn't, these proportions were 14% and 1% respectively; and among Indigenous Australians who needed to visit a hospital but didn't, these proportions were 7% and 5% 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, South Australia and Australia, 2004–05



Source: AIHW analyses of NATSIHS 2004–05.

Figure 3.11.2: Indigenous people who reported that they did not attend a GP service/hospital/ other health professional when needed, by reason they did not attend, South Australia and Australia, 2004–05

Aboriginal and Torres Strait Islander representation on health/hospital boards

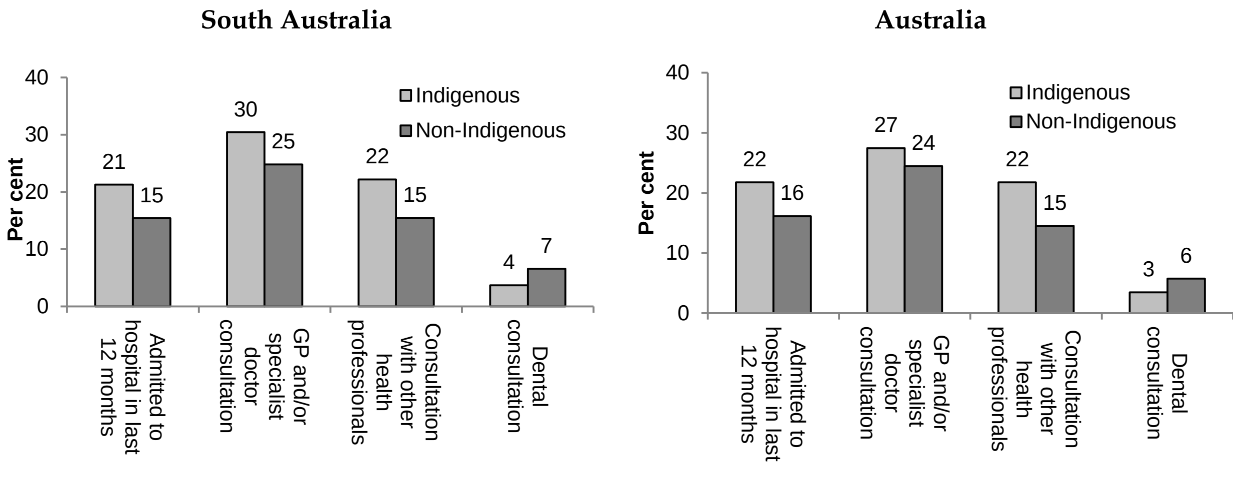
There were 73 incorporated hospitals and health centres under the South Australian Health Commission at 30 June 2003. Information is available on 38 boards that have provision within the hospital's constitution for a ministerial nomination. In the 2002–03 and 2003–04 financial years, 13 health/hospital boards in the Hills Mallee Southern, Eyre, Northern and Far Western, Riverland and Mid-North regions of South Australia reported Aboriginal and Torres Strait Islander membership.

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 (21%) of Indigenous Australians aged 15 years and over in South Australia reported that they were admitted to hospital in last 12 months than non-Indigenous Australians in South Australia of the same age (15%).
- In the 2 weeks prior to the NATSIHS, a higher proportion of Indigenous Australians aged 15 years and over in South Australia reported that they consulted a GP and/or specialist doctor (30%), and consulted other health professionals (22%) than non-Indigenous Australians (25% and 15% respectively).
- In the last 2 weeks, a lower proportion of Indigenous Australians aged 15 years and over (4%) reported that they consulted a dentist than non-Indigenous Australians (7%).
- The above trends were also observed in the proportions of Indigenous and non-Indigenous people accessing the types of health services across Australia.

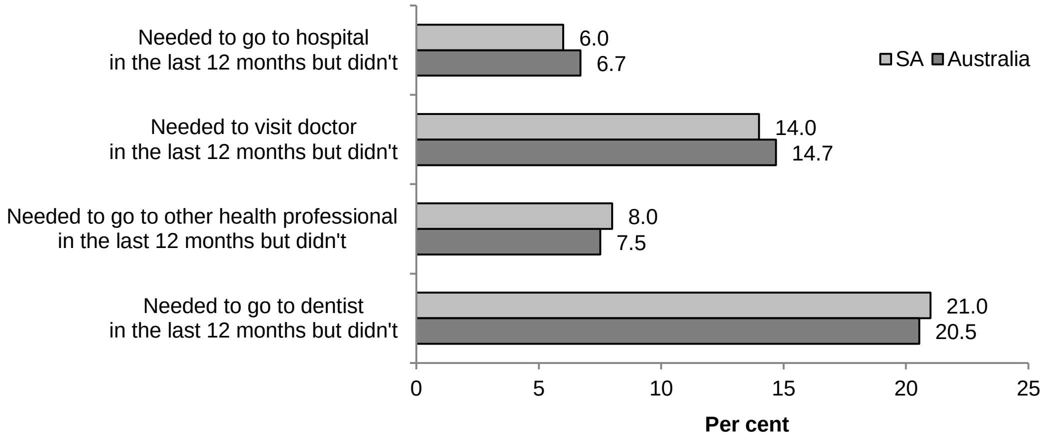


Source: ABS and AIHW analyses of NATSIHS 2004–05 and NHS 2004–05.

Figure 3.12.1: Per cent of people aged 15 years and over who accessed health care, by type of health care, within the last 12 months (hospital) or the last 2 weeks (other health care), by Indigenous status, age-standardised, South Australia and Australia, 2004–05

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

- In 2004–05, approximately 21% of Indigenous Australians in South Australia reported that they needed to go to a dentist in the last 12 months but didn't, 14% needed to go to a doctor but didn't, 8% needed to go to another health professional but didn't and 6% needed to go to hospital but didn't. These proportions were similar to those reported for Australia.



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

Figure 3.12.2: Per cent of Aboriginal and Torres Strait Islander peoples reporting that they needed a health service at least once in the last 12 monts but did not access the service, South Australia and Australia, 2004-05

- The most common reason why Indigenous people in South Australia and across Australia did not go to a dentist when needed was cost (33% and 29% respectively). In South Australia, the second most common reason was feeling afraid, embarrassed or a dislike of the service (19%), followed by too busy (15%). In Australia, the second most common reason was waiting time being too long or not available at the time required (22%), followed by feeling afraid, embarrassed or a dislike of the service (21%).
- The most common reason why Indigenous people in South Australia did not go to a doctor when needed was too busy (23%), followed by deciding not to seek care (21%). These were also the two most common reasons why Indigenous people in Australia did not go to a doctor when needed.
- The most common reasons why Indigenous people in South Australia and across Australia did not go to another health professional when needed were cost (26% and 28% respectively) and too busy (26% and 25% respectively).
- The most common reasons why Indigenous people in South Australia did not visit a hospital when needed were decided not to seek care for their health problem (30%), and too busy (14%).

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, South Australia and Australia, 2004–05

	Doctor		Hospital		Dentist		Other health professional	
	South Australia	Aust.	South Australia	Aust.	South Australia	Aust.	South Australia	Aust.
	%	%	%	%	%	%	%	%
Needed to go to service in the last 12 months but didn't	14	15	6	7	21	21	8	8
Reasons didn't visit								
Cost	20	12	8	4	33	29	26	28
Transport/Distance	13	14	9	19	13	11	4	8
Waiting time too long or not available at time required	7	14	12	16	9	22	6	9
Not available in area	1	4	0	3	5	8	0	7
Too busy (including work, personal or family responsibilities)	23	24	14	16	15	14	26	25
Dislikes (service/professional/afraid /embarrassed)	7	10	7	16	19	21	14	12
Felt it would be inadequate	3	5	5	6	2	2	1	5
Decided not to seek care	21	26	30	25	14	13	19	17
Other	17	11	21	14	9	9	25	12

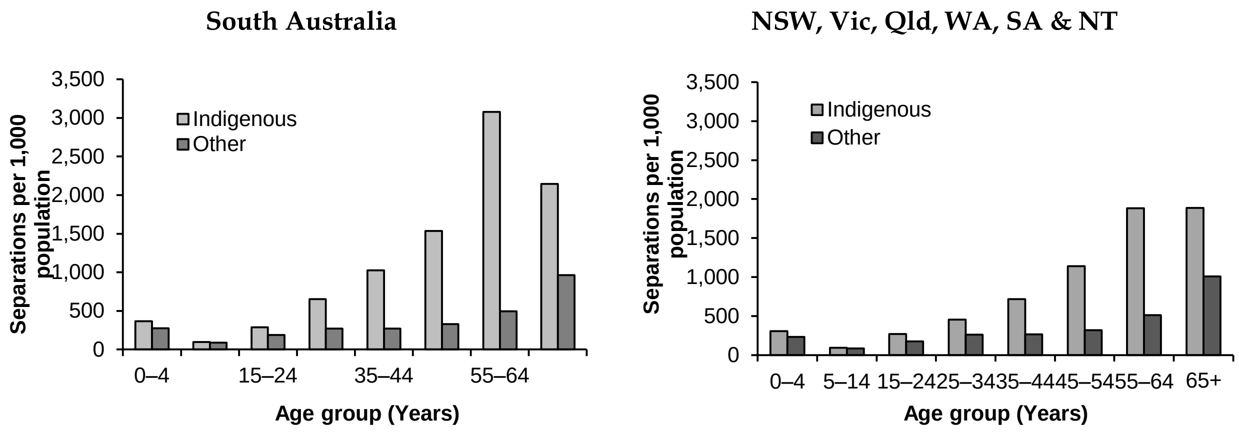
Source: ABS and AIHW analyses of NATSIHS 2004–05.

Hospitalisations

Hospitalisations by age

- In the 2-year period July 2006 to June 2008, Indigenous people in South Australia had higher hospitalisation rates than other people across all age groups.
- In South Australia, hospitalisation rates were highest among those aged 55–64 years for Indigenous people (3,077 per 1,000) and among those aged 65 years and over for other people (963 per 1,000).
- Hospitalisation rates for Indigenous people were higher in South Australia than in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined across all age groups.
- In South Australia, the greatest difference in hospitalisation rates occurred in the 55–64 year age group where Indigenous people were hospitalised at over six (6.2) times of the rate of other people in the same age group. In the 45–54 years age group, Indigenous people hospitalised at 4.6 times of the rate of other people.
- In New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, Indigenous people in the 45–54 and 55–64 year age groups

were hospitalised at around three and a half (3.5 and 3.7) times of the rate for other people.



South Australia

NSW, Vic, Qld, WA, SA & NT

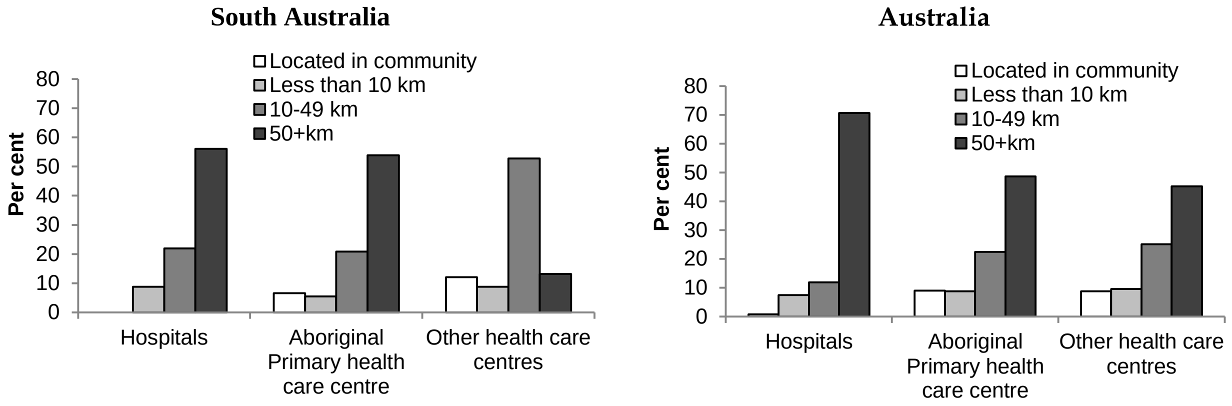
Source: AIHW analyses of NHMD.

Figure 3.12.3: Age-specific hospitalisation rates, by Indigenous status, South Australia and NSW, Vic, Qld, WA, SA & NT combined, July 2006 to June 2008

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 South Australia, the majority of discrete Indigenous communities were located 50km or more from the nearest hospital, Aboriginal Primary Health Care Centre and other health care centres. No communities had a hospital located with communities and 9% had a hospital located within 10km. Around 7% of communities had an Aboriginal Primary Health Care Centre located in the community and 6% had an Aboriginal Primary Health Care Centre located within 10km. Approximately 12% of communities had other health care centres located in the community and 9% had other health care centres located within 10km.
- This was similar to the pattern observed for all Indigenous communities in Australia, where 1% of discrete Indigenous communities had a hospital located in the community and 7% had a hospital located within 10km; 9% of communities had an Aboriginal Primary Health Care Centre located within the community and 9% had an Aboriginal Primary Health Care Centre located within 10km; and 9% of communities had other health care centres located within the community and 10% had other health care centres located less than 10km away.


South Australia

Australia

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, South Australia 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 accessing primary care during school and work hours.

- In 2006–07 to 2007–08, there were 377,812 episodes of care provided after-hours in emergency departments in South Australia, 8,381 (2.2%) of which were for patients who identified as Aboriginal or Torres Strait Islander. Just under half (48%) of all presentations to emergency departments by Indigenous patients were for after-hours care while 44% of all presentations to emergency departments by non-Indigenous patients were for after-hours care (Table 3.14.1).
- In 2004–05 to 2005–06, there were 161,167 episodes of after-hours care provided by emergency departments for triage categories 4 (semi-urgent) and 5 (non-urgent) in South Australia, 2,984 (2%) of which were for patients who identified as Aboriginal and Torres Strait Islander. Around 48% of episodes to emergency departments for triage categories semi-urgent and non-urgent were after-hours for Indigenous Australians compared to 45% for non-Indigenous Australians.
- Around 50% of Indigenous presentations to emergency departments after-hours in South Australia 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, South Australia and Australia, 2006–07 to 2007–08

	Semi-urgent & non-urgent		Total presentations	
	SA	**Australia**	**SA**	**Australia**
After-hours presentations				
Indigenous	3,982	139,703	7,926	225,183
Non-Indigenous	149,485	2,711,173	297,343	4,703,231
Not stated	15,835	119,030	31,882	214,801
Total	**169,302**	**2,969,907**	**337,151**	**5,143,215**
Total emergency department presentations	**Number**			
Indigenous	8,381	302,457	15,959	467,115
Non-Indigenous	337,018	5,889,981	641,573	9,915,822
Not stated	32,413	246,337	62,312	432,767
Total	**377,812**	**6,438,775**	**719,844**	**10,815,704**
	Proportion of after-hours presentations out of all presentations to ED			
Indigenous	47.5	46.2	49.7	48.2
Non-Indigenous	44.4	46.0	46.3	47.4
Not stated	48.9	48.3	51.2	49.6
Total	**44.8**	**46.1**	**46.8**	**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 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.
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 Extent to which individuals have a regular GP or health service

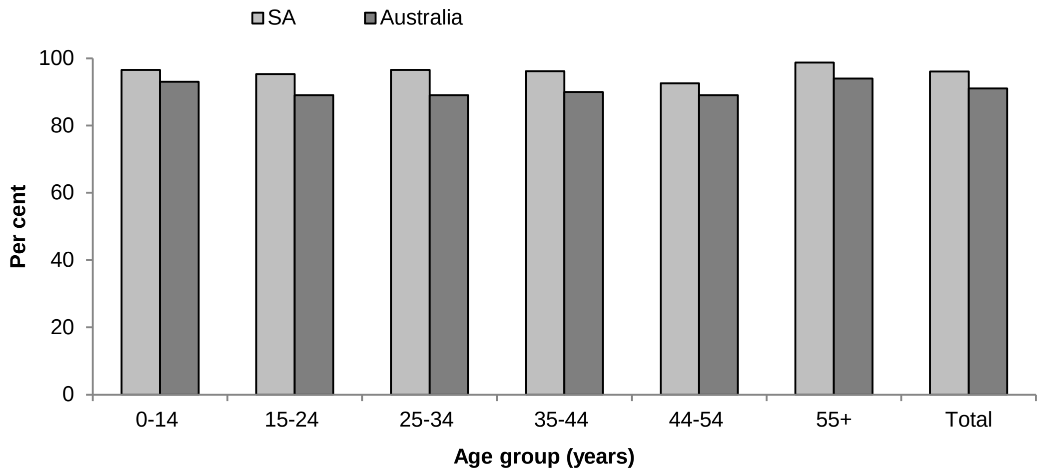
Number and proportion of individuals who have a regular general practitioner (GP) or health service

Whether visited same doctor/health service

- In 2004–05 in South Australia, 68% of Indigenous people reported that they usually went to a doctor if they had a problem with their health, and 26% reported they went to an Aboriginal medical service if they had a problem with their health (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 both South Australia and Australia, Indigenous Australians aged 55 years and over were most likely to report that they usually went to the same doctor or health service (99% and 94% respectively) (Figure 3.15.2).
- A higher proportion of Indigenous Australians in South Australia (96%) reported they usually went to the same doctor or medical service than Indigenous people in Australia (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, South Australia 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, South Australia 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, approximately 3% of Indigenous and non-Indigenous Australians in South Australia in *Non-remote* areas reported having asthma as a long-term condition. This was much lower than 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 *Non-remote* areas, 22% of Indigenous and non-Indigenous people in South Australia had a written asthma plan. This was similar to the proportions reported for Indigenous and non-Indigenous Australians with asthma in Australia (25% and 22% respectively).
- The proportion of Indigenous people in South Australia with asthma who had a written asthma plan was highest among those aged 5–14 years and 55 years and over (44% and 40% respectively) (Figure 3.16.1).

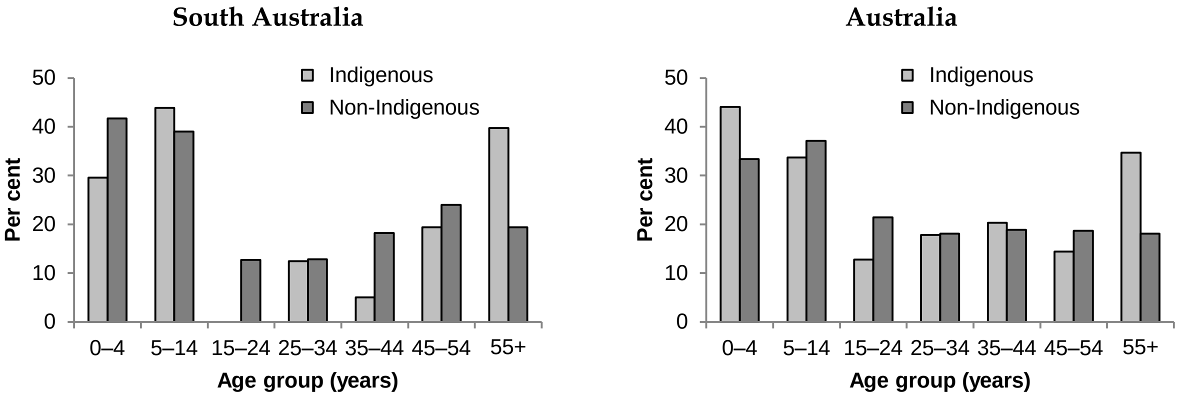
Table 3.16.1: Whether person(s) in *Non-remote* areas have a written asthma action plan by Indigenous status, *Non-remote* areas, South Australia and Australia, 2004–05

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.
South Australia						
Indigenous	22.1	70.4	3.0	100.0	2.9	3,517
Non-Indigenous	22.2	73.1	4.6	100.0	2.5	164,221
Rate ratio	1.0	1.0	0.7	. .	1.1	. .
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, South Australia and Australia, 2004–05

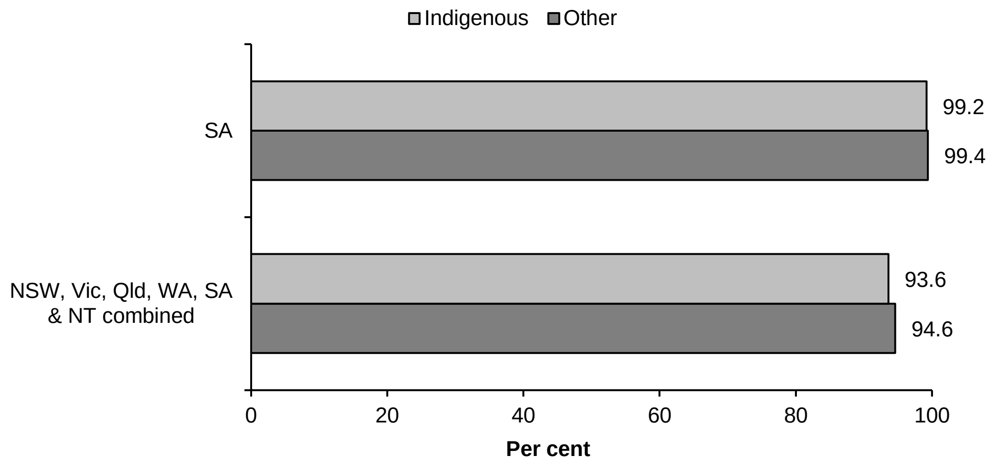
3.17 Accreditation

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 South Australia, almost all hospital admitted episodes for Indigenous (99.2%) and other people (99.4) occurred in accredited hospitals.
- In New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, 94% of hospital admitted episodes for Indigenous people occurred in accredited hospitals compared to 95% of episodes for other people.

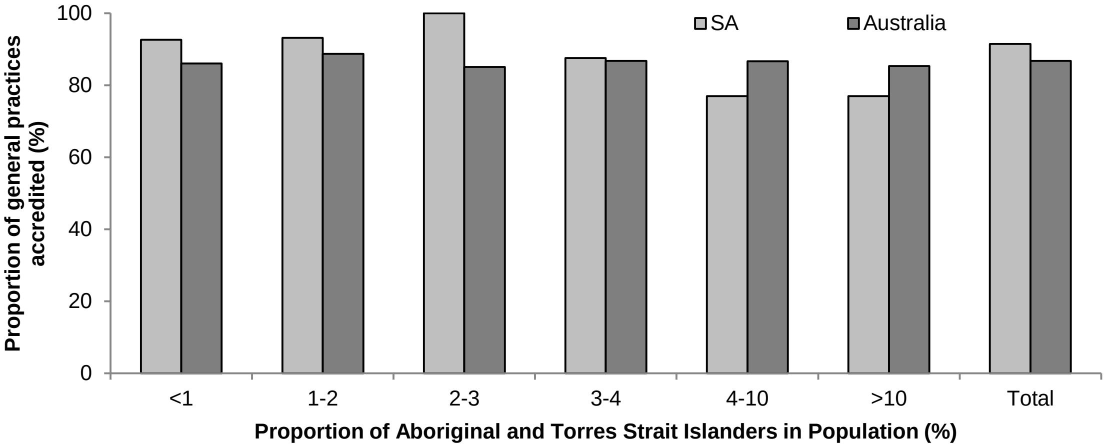


Source: AIHW analyses of National Public Hospitals Establishement Database.

Figure 3.17.1: Per cent of hospital admitted patent episodes in accredided hospitals, by Indigenous status, South Australia and NSW, Vic, Qld, WA, SA & NT combined, July 2006 to June 2008

General practice accreditation

- In 2008–09 in South Australia, 364 general practice divisions were accredited and 34 divisions were registered but not yet accredited. The proportion of accredited divisions among all the registered divisions was 92%, compared to 87% in Australia.
- In South Australia, the proportion of accredited general practice divisions ranged from 77% in areas where 4–10% or more than 10% of the population was Indigenous to 100% in areas where 2–3% 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.



Source: AIHW analyses of Australian General Practice Accreditation Limited (AGPAL) and General Practice Accreditation Plus (GPA+) data.

Figure 3.17.2: Proportion of General Practices accredited, by proportion of Aboriginal and Torres Strait Islander peoples in population for Divisions of General Practice, South Australia and Australia, 2008–09

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 South Australia:
  - there were 72 enrolments in health-related courses by Indigenous undergraduate students. This made up 1.1% of total undergraduate enrolments in health-related courses
  - there were 10 completions of health-related courses by Indigenous undergraduate students. This made up 0.7% of total undergraduate completions in health-related courses (Table 1.18.1).
- 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 health-related courses.
- In South Australia, the most common type of health-related course in which Indigenous students were enrolled was nursing (46 enrolments). Nationally, nursing was also the most common type of health-related course in which Indigenous students were enrolled.

Table 3.18.1: Number of undergraduate students enrolled and completed health-related courses in the Tertiary Education sector, by qualification type, South Australia 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 (%)
			South Australia			
Medical studies	11	1,055	1.0	0	170	0.0
Nursing	46	3,139	1.5	n.p.	814	n.p.
Pharmacy	n.p.	361	n.p.	n.p.	72	n.p.
Dental studies	n.p.	385	n.p.	0	68	0.0
Optical science	0	0	. .	0	0	. .
Public health	n.p.	444	n.p.	0	53	0.0
Radiography	n.p.	218	n.p.	0	60	0.0
Rehabilitation therapies	n.p.	957	n.p.	n.p.	185	n.p.
Total[(a)]	**72**	**6,559**	**1.1**	**10**	**1,422**	**0.7**
			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.

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 South Australia, there were 251 Indigenous students enrolled in health-related courses in the VET sector and 9 Indigenous students who completed a health-related course in the VET sector. This made up 4% and 2.6% of total VET enrolments and completions in health-related courses in South Australia respectively (Table 3.18.2).
- In South Australia, the most common type of health-related course in which Indigenous VET students were enrolled in 2008 was public health (199 enrolled).
- In 2008 in Australia, there were 6,143 Indigenous students enrolled in health-related courses in the VET sector, and 395 Indigenous students who completed a health-related course in the VET sector. This made up 6.4% and 3.8% of total VET enrolments and completions in health-related courses respectively.

Table 3.18.2: Vocational education and training (VET) sector students enrolled and completed health-related courses, South Australia 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 (%)
			South Australia			
Medical studies	0	0	. .	0	0	. .
Nursing	35	1,170	3.0	n.p.	218	n.p.
Pharmacy	0	0	. .	0	0	. .
Dental studies	n.p.	364	n.p.	0	13	0.0
Optical science	0	14	0.0	0	6	0.0
Public health	199	4,383	4.5	n.p.	71	n.p.
Rehabilitation therapies	0	0	. .	0	0	. .
Complementary therapies	n.p.	130	n.p.	0	11	0.0
Other health	11	203	5.4	0	27	0.0
Total	**251**	**6,264**	**4.0**	**9**	**346**	**2.6**
			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 to 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 South Australia, the state government was estimated to have spent, on average, $5,177 per Indigenous person compared with $1,811 per non-Indigenous person. This represents an Indigenous/non-Indigenous expenditure ratio of 2.9:1 (Table 3.19.1).
- Overall throughout Australia, state/territory governments were estimated to have spent, on average, $3,846 per Indigenous people compared to $1,651 per non-Indigenous person, equating to an Indigenous/non-Indigenous expenditure ratio of 2.3:1.
- The South Australian government spent more per person for Aboriginal and Torres Strait Islander peoples than for non-Indigenous people for all types of health goods and services.
- The highest expenditure per person for Indigenous and non-Indigenous people in South Australia was for public hospital services ($3,886 and $1,325) followed by admitted patient services ($2,654 and $933).

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

	Expenditure per person ($)			
	NSW		Australia	
Health good or service type	Indigenous	Non-Indigenous	Indigenous	Non-Indigenous
Hospitals				
Admitted patient services[(a)]	2,654	933	2,102	1,000
Non-admitted patients	1,232	392	627	282
Public hospital services	3,886	1,325	2,728	1,282
Patient transport	226	75	194	76
Community health	724	162	665	174
Public health	90	66	155	55
Dental	79	34	59	26
Research	33	13	16	16
Health administration n.e.c.	139	118	. .	. .
Total	**5,177**	**1,811**	**3,846**	**1,651**
Indigenous: Non-Indigenous ratio	**2.9**	. .	**2.3**	. .

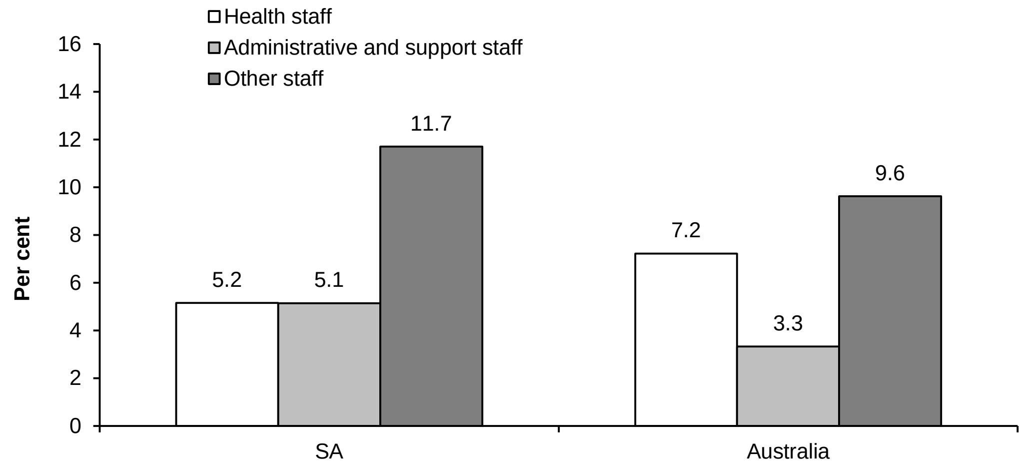
(a) Admitted patient expenditure adjusted for Aboriginal and Torres Strait Islander peoples under-identification.

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

- As at 30 June 2008 in South Australia, 17.4 (5.2%) of full-time equivalent (FTE) health staff positions, 8 (5.1%) of administrative and support staff positions and 2 (11.7%) of other staff 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 staff positions and 9.6% of other staff positions were vacant as at 30 June 2008.



Source: AIHW analyses of OSR data 2010.

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

Appendix: 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/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 currently being investigated by the Australian Government.

Under-identification

General limitations of data available from the ACIR must be considered when used to estimate vaccination coverage. ACIR coverage estimates could overestimate or under-estimates 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 child's vaccination status up to date. The Register is linked to the Medicare enrolment register and approximately 99% of children are registered with Medicare by 12 months of age. Immunisations are notified to Medicare Australia by a range of 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 NIPS for children born from 1 May 2004; the pneumococcal vaccine was added to the NIPS for children born from 1 January 2005; and the Rotavirus vaccine was added to the NIPS 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 National Immunisation Program Schedule for children, these are not in scope for those children aged 5 years 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 years who are enrolled in Medicare as its denominator to calculate vaccine coverage rate (ABS and AIHW 2006). It is estimated that approximately 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 31st 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. In addition to the survey instrument and methodology testing conducted prior to the 2006 CHINS, aggregate data from the 2006 CHINS have been compared with that collected in 2001 CHINS. The survey collected information on all Aboriginal and Torres Strait Islander communities throughout Australia. The Australian Bureau of Statistics (ABS) conducted the 2006 CHINS on behalf of, and with full funding from, the Department of Families, Community Services and Indigenous Affairs (FaCSIA). Information collected includes:

(a) 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

(b) 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 on 496 Indigenous housing organisations which managed a total of 21,854 permanent dwellings. 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.

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 less 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 less 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

Community Housing and Infrastructure Needs Survey (CHINS)

The 2006 CHINS collected information on a variety of topics from discrete Aboriginal and Torres Strait Islander communities throughout Australia and on Indigenous organisations that provide rental housing to Indigenous people. In 2006, CHINS information was collected on 496 Indigenous organisations, which managed a total of 21,854 permanent dwellings. The majority of those dwellings were located in the Northern Territory (6,448), Queensland (6,230), New South Wales (4,176) and Western Australia (3,462) (ABS 2007a).

The CHINS survey covers only discrete Indigenous communities. In 2006, the CHINS collected information from 1,187 discrete indigenous communities. This included approximately 92,960 Aboriginal and Torres Strait Islanders or 18% of the total Indigenous population. CHINS data is collected every 5 years. The data are collected from key personnel in Indigenous communities and housing organisations that are knowledgeable about housing and infrastructure 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 non-sampling error.

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.

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.

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. Using this variable results in participation rates incorrectly biased towards M*ajor cities* at the expense of *Regional and remote* areas because most campuses are in *Major cities*.

Selected other data quality issues

DEEWR Higher Education Schools Statistics Collection

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.

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.

This data set includes the standard Indigenous status question.

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

National Minimum Data Set—non-admitted patient emergency department care

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 only cover 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 only be reported as numbers, and not rates, because the denominator would include Indigenous Australians not covered in this collection.

National Schools Statistics Collections (NSSC) 2009

Data for this measure come from the ABS National Schools Statistics Collection (NSSC). The 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, staff in primary and secondary schools throughout Australia. Student data are collected through a school census in August of 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 went on to achieve 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 still not 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 under-estimates of the Aboriginal and Torres Strait Islander student population.

Selected other data quality issues

National Schools Statistics Collection

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) sector 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

National Centre for Vocational Education Research data

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 only had adequate identification for hepatitis C and the Australian Capital Territory did not have adequate identification for any of the 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 (NNDSS) within 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 under-estimates 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

National Notifiable Diseases Surveillance System

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

Data for this measure come from the Australian Institute of Health and Welfare (AIHW) National Perinatal Epidemiology and Statistics Unit National Perinatal Data Collection (NPDC).

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 under-estimated 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, 2007b, 2006a).

Earlier years data are not available for Tasmania, as the ‘not stated’ category for Indigenous status was unable to 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 form, 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, released a report on Indigenous mothers and their babies in each state and territory. This report was based on a survey which was sent to the midwifery managers across Australia to determine how many hospitals in each jurisdiction obtain Indigenous status information of mothers giving birth from admission records and how many collect 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

Perinatal data

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/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. There are a small number of Aboriginal and Torres Strait Islander mothers who 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 small number of deaths, interpretation can be limited as to whether differences in mortality rates are due to statistical fluctuations or differential ascertainment.

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

National Aboriginal and Torres Strait Islander Health Survey

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 overcomes 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 in order 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 edit 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 6 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 years 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

National Aboriginal and Torres Strait Islander Social Survey

The NATSISS is conducted in all states and territories and includes R*emote* 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 years. 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, 2001 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 to other ABS surveys. There was also an increase in under-coverage compared to 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/Territory Perinatal Collections

Data for this measure come from the state/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 attended 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

Antenatal care data

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 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/territory of usual residence rather than state/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 2010a).

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 were 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 to 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%, Northern Territory 90%, Tasmania and the Australian Capital Territory were not calculated because of small numbers, Australia 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

Mortality data

Deaths

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 foetal (stillbirths) and neonatal deaths (deaths occurring in live births up to 28 days of age), by age of the baby, sex, state/territory of birth, Indigenous status and cause of death (ICD-10).

The National Perinatal Data Collection also contains data on foetal and neonatal deaths, by sex, state/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/territory of usual residence rather than state/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 approximately 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 currently available is 2008.

The perinatal mortality rate is defined by the ABS as the number of foetal 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 all 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 under-estimates 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 under-estimates 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 over 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, Australia 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 current 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 issue with Indigenous data for this state (ABS 2010c)

Selected other data quality issues

ABS Deaths Registration Database

Deaths

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. Unfortunately, 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 under-estimated.

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 into 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 at 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.

Census of Population and Housing

The Australian Bureau of Statistics (ABS) Census of Population and Housing is conducted by the ABS at 5-yearly intervals, with 2006 being the most recent, 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 done 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

Census of Population and Housing

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 undercounted (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 undercounts at the person level to arrive at the estimated resident population, no such adjustment is done 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 2010c). 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 under-estimates 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

Child protection data

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 2006 Census.

State/territory comparisons

As each state or territory has a different legal regime and different human services policies around 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 impact on 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. If a child is on more than one order at 30 June, 2009, then they are 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 2010c).

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 under-estimates 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—New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory. These six jurisdictions represent approximately 96% of the Indigenous population of Australia. Data are presented by state/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) compared with 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 2 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

Hospital separations data

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%.

Survey of Income and Housing (SIH)

The Survey of Income and Housing (SIH) is conducted by the ABS every 2 years, with the first survey beginning in 1994–95. The survey was developed in order to provide broad aggregates for households within Australia. The current survey was conducted during the period of August 2007 and 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 information regarding their household, including characteristics, costs, assets and liabilities and individual personal characteristics for residents over 15 years.

Selected other data quality issues

Survey of Income and Housing (SIH)

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's had a sample loss and non-response of 1,781 dwellings, 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 is 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 other data quality issues

AGPAL

AGPAL provides information on the total numbers of accredited practices and practices registered for accreditation. These data are published by Division of General Practice, but not SLA.

GPA+

Data on practices accredited by GPA+ have not been routinely reported, but may in the future become available.

References

ABS (Australian Bureau of Statistics) 1996. Occasional paper: Population issues, Indigenous Australians. ABS cat.no. 4708.0. Canberra: ABS.

ABS 1997. Occasional paper: Mortality of Aboriginal and Torres Strait Islander Australians. ABS cat. no. 3315.0. Canberra: ABS.

ABS 2003. Directory of Education and Training AVETMISS Vocational Education and Training (VET) Provider Collection. ABS cat. no. 1136.0. Canberra: ABS.

ABS 2004. Measuring learning in Australia: plan to improve the quality, coverage and use of education and training statistics. ABS cat. no. 4231. Canberra: ABS.

ABS 2006a. Births Australia 2005. ABS cat. no. 3301.0. Canberra: ABS.

ABS 2006b. National Aboriginal and Torres Strait Islander Health Survey 2004–05. ABS cat. no. 4715.0. Canberra: ABS.

ABS 2006c. Causes of death 2004. ABS cat. no. 3303.0. Canberra: ABS.

ABS 2007a. Housing and infrastructure in Aboriginal and Torres Strait Islander communities, Australia 2006. ABS Cat. no. 4710.0. Canberra: ABS.

ABS 2007b. Births Australia 2006. ABS cat. no. 3301.0. Canberra: ABS

ABS 2007c. Deaths Australia 2006. ABS Cat. no. 3302.0. Canberra: ABS.

ABS 2008a. Births Australia 2007. ABS cat. no. 3301.0. Canberra: ABS.

ABS 2008b. Information Paper : Census Data Enhancement – Indigenous Mortality Quality Study. Cat. No. 472 3.0. Canberra: ABS.

ABS 2009. Experimental estimates and projections, Aboriginal and Torres Strait Islander Australians, 1991 to 2021. Cat. no. 3238.0. Canberra: ABS.

ABS 2010a. Schools Australia 2009. ABS cat. no. 4221.0. Canberra: ABS.

ABS 2010b. National Aboriginal and Torres Strait Islander Social Survey: Users' Guide. ABS Cat. no. 4720.0. Canberra: ABS.

ABS 2010c. Causes of Death, Australia, 2008 .Cat. no. 3303.0. Canberra: ABS.

ABS 2010d: Perinatal deaths Australia 2008. ABS Cat.no. 3304.4

ABS 2010e. The health and welfare of Australia's Aboriginal and Torres Strait Islander peoples, October 2010. ABS cat. n. 4704.0. Canberra: ABS.

ABS & AIHW (Australian Institute of Health and Welfare) 2003. The health and welfare of Australia's Aboriginal and Torres Strait Islander peoples 2003. ABS Cat. no. 4704.0, AIHW Cat. no. IHW 11. Canberra: ABS.

ABS & AIHW 2005. The health and welfare of Australia's Aboriginal and Torres Strait Islander peoples 2005. ABS Cat. no. 4704.0, AIHW cat. no. IHW 14. Canberra: ABS & AIHW.

ABS & AIHW 2006. The health and welfare of Australia's Aboriginal and Torres Strait Islander peoples 2005. ABS cat. no. 4704.0, AIHW cat. no. AIHW 14. Canberra: ABS and AIHW.

AIFS (Australian Institute of Family Studies): Bromfield and Holzer 2008. NCPASS comparability of child protection data: Project report. Melbourne: AIFS.

AIHW 2005. Improving the quality of Indigenous identification in hospital statistics. Health services series no. 25. Cat. no. HSE 101. Canberra: AIHW.

AIHW 2007. Australian hospital statistics 2005–06. Health services series no. 30. Cat. no. HSE 50. Canberra: AIHW.

AIHW 2008. Australian hospital statistics 2006–07, Health services series no. 30. Cat. no. HSE 50. Canberra: AIHW.

AIHW 2009. Australian hospital statistics 2007–08. Health services series no. 33. Cat. no. HSE 71. Canberra: AIHW.

AIHW 2010a. Australia's health 2010. Australia's health series no. 12. Cat. no. AUS 122. Canberra: AIHW.

AIHW 2010b. Indigenous identification in hospital separations data – quality report. Health services series no. 35. Cat. no. HSE 85. Canberra: AIHW.

AIHW 2010c. Child protection Australia 2008–09. Child welfare series no. 47. Cat. no. CWS 35. Canberra: AIHW.

AIHW: Leeds K, Gourley M, Laws P, Zhang J, Al-Yaman F & Sullivan EA 2007. Indigenous mothers and their babies, Australia 2001–2004. Cat. no. PER 38. Perinatal statistics series no. 19. Canberra: AIHW.

Cass A, Cunningham J, Wang Z & Hoy W 2001. Regional variation in the incidence of end-stage renal disease in Indigenous Australians. Medical Journal of Australia 175:24–7.

Disney APS, Collins J & Russ GR 1997. ANZDATA Registry report 1997. Adelaide: Australia and New Zealand Dialysis and Transplant Registry.

DoHA (Australian Government Department of Health and Ageing) 2006. Surveillance systems reported in CDI. Communicable Diseases Intelligence 30:156–60.

Kennedy B & Firman D 2004. Indigenous SEIFA—revealing the ecological fallacy. Paper presented at the 12th Biennial Conference of the Australian Population Association, Canberra, September 2004

Laws PJ, Abeywardana S, Walker J & Sullivan EA 2007. Australia's mothers and babies 2005. Perinatal statistics series no. 20. Cat. no. PER 40. Sydney: AIHW National Perinatal Statistics Unit.

Laws PJ & Sullivan EA 2004. Australia's mothers and babies 2002. Perinatal statistics series no. 15. Cat. no. PER 28. Sydney: AIHW National Perinatal Epidemiology and Statistics Unit.

Laws PJ & Sullivan EA 2009. Australia's mothers and babies 2007. Perinatal statistics series no. 23. Cat. no. PER 48. Sydney: AIHW National Perinatal Statistics Unit.

Menzies R, McIntyre P and Beard F (National Centre for Immunisation Research and Surveillance of Vaccine-Preventable Diseases) 2004. Vaccine-preventable diseases and vaccination coverage in Aboriginal and Torres Strait Islander people, Australia, 1999 to 2002. Communicable Diseases Intelligence 28: Suppl. 1.

Rank C and Menzies R 2007. How reliable are Australian childhood immunisation register coverage estimates for Indigenous children? An assessment of data quality and coverage. Communicable Diseases Intelligence 31: 283–287.

SCRGSP (Steering Committee for the Review of Government Service Provision) 2005. Report on government services 2005. Vol. 2. Canberra: Productivity Commission.

List of tables

Table 1: Estimated resident population by Indigenous status, South Australia and Australia, 2010 3

Table 2: Estimated resident population by remoteness area and Indigenous status, South Australia and Australia, 2006 5

Table 1.01.1: Low birthweight rate (proportion), ratio and difference between singleton live-born babies of Indigenous and other mothers, South Australia and NSW, Vic, Qld, WA, SA & NT combined, 2000–2008 12

Table 1.03.1: Hospitalisations for external causes of injury and poisoning for Aboriginal and Torres Strait Islander people by sex, South Australia and NSW, Vic, Qld, WA, SA and NT combined, July 2006 to June 2008 19

Table 1.04.1: Hospitalisations for pneumonia for Aboriginal and Torres Strait Islander peoples, by sex, South Australia and NSW, Vic, Qld, WA, SA & NT combined, July 2006 to June 2008 24

Table 1.05.1: Number and proportion of people reporting heart and circulatory conditions, by age, sex and Indigenous status, South Australia and Australia, 2004–05 27

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, South Australia and NSW, Vic, Qld, WA, SA and NT combined, July 2006 to June 2008 30

Table 1.07.1: People reporting high blood pressure/hypertension, by Indigenous status, age group and sex, South Australia and Australia, 2004–05 34

Table1.08.1: People reporting diabetes/high sugar levels, by Indigenous status and age group, South Australia and Australia, 2004–05 35

Table 1.08.2: Aboriginal and Torres Strait Islander peoples reporting diabetes/high sugar levels, by sex, South Australia and Australia, 2004–05 35

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) 41

Table 1.12.1: Diseases of the ear and mastoid reported for children aged 0–14 years, by Indigenous status, South Australia and Australia, 2004–05 47

Table 1.12.2: Diseases of the ear and mastoid reported for Aboriginal and Torres Strait Islander children aged 0–14 years, by sex, South Australia and Australia, 2004–05 48

Table 1.14.1: Variables contributing to community functioning, Indigenous Australians aged 15 years and over, South Australia and Australia 2002 53

Table 1.14.2: Proportion of discrete Indigenous communities by characteristics contributing to community functioning, South Australia and Australia, 2006 58

Table 1.18.1: Median age at death by Indigenous status and sex, South Australia and NSW, Qld, WA, SA & NT combined, 2004–2008 69

Table 1.19.1: Infant mortality rates per 1,000 live births, by Indigenous status, South Australia and NSW, Qld, WA, SA & NT combined, 1996–1998, 1999–2001, 2002–2004 and 2005–2006, 2007–2008 72

Table 1.20.1: Foetal, neonatal and perinatal mortality rates per 1,000 births, by Indigenous status, South Australia and NSW, Qld, WA, SA and NT combined, 1999–2003 to 2004–2008 76

Table 1.21.1: SIDS mortality rates per 1,000 live births, by Indigenous status, South Australia and NSW, Qld, WA, SA & NT combined, 2004–2008 78

Table 1.22.1: All-causes mortality, by Indigenous status, South Australia and NSW, Qld, WA, SA & NT combined, 2004–2008 80

Table 1.23.1: Causes of mortality, by Indigenous status, South Australia and NSW, Qld, WA, SA & NT combined, 2003–2007 84

Table 1.23.2: Main causes of excess Indigenous deaths, by sex, South Australia and NSW, Qld, WA, SA & NT combined, 2003–2007 86

Table 1.25.1: Avoidable mortality, by cause of death and Indigenous status, people aged 0–74 years, South Australia and NSW, Qld, WA, SA & NT combined, 2003–2007 88

Table 2.01.1: Testing of drinking water in discrete Indigenous communities, South Australia and Australia, 2006 93

Table 2.02.1: Number and proportion of overcrowded households by Indigenous status, using the Canadian National Occupancy Standard, by tenure type, South Australia and Australia, 2006 97

Table 2.03.1: Children aged 0–14 years living in households with smokers, by Indigenous status of children, South Australia and Australia, 2008 and 2007–08 98

Table 2.04.1: Proportion of Year 3, 5, 7 and 9 students at or above the national minimum standard for reading, writing, spelling, grammar & punctuation, and numeracy, by Indigenous status, South Australia and Australia, 2008–2009 101

Table 2.05.1: Apparent retention and attainment rates, by Indigenous status and sex, South Australia and Australia, 2009 106

Table 2.06.1: Educational institution currently attended, by Indigenous status, people aged 15 years and over, South Australia and Australia, 2008 109

Table 2.06.2: Whether has a non-school qualification, by Indigenous status, people aged 25–64 years, South Australia and Australia, 2008 109

Table 2.07.1: Labour force status of people aged 15–64 years, by Indigenous status, South Australia and Australia, 2008 111

Table 2.09.1: Proportion of households and people, by tenure type and Indigenous status, South Australia and Australia, 2008 115

Table 2.11.1: Total, youth and aged dependency ratios, by Indigenous status, South Australia and Australia, 2010 119

Table 2.13.1: Issues of community safety, people aged 18 years and over, by Indigenous status, South Australia and Australia, 2008 121

Table 2.13.2: Neighbourhood/community problems, Indigenous Australians aged 15 years and over, South Australia and Australia, 2008 122

Table 2.14.1: People in prison custody, by Indigenous status and sex, South Australia and Australia, 30 June 2009 123

Table 2.15.1: Number and rates of Aboriginal and Torres Strait Islander and other children aged 0–16 years who were the subject of substantiated notifications, South Australia and Australia, 1998–99 to 2008–09 126

Table 2.15.2: Aboriginal and Torres Strait Islander children in out-of-home care: Indigenous status and relationship of carer, South Australia, 30 June 2009 127

Table 2.16.1: Households with at least one registered vehicle, by Indigenous status, South Australia and Australia, 2006 128

Table 2.18.1 Smoking rates for persons aged 18 years and over, by Indigenous status, 2008 and 2007–08, SA 132

Table 2.19.1: Tobacco smoking status of mothers during pregnancy, by Indigenous status, South Australia and NSW, Qld, WA, SA, Tas, ACT and NT combined, 2007 134

Table 2.21.1: Substance use, Indigenous Australians aged 18 years and over, by sex, South Australia and Australia, 2008 138

Table 2.23.1: Selected dietary habits, by sex and Indigenous status, people aged 12 years and over, South Australia and Australia, 2004–05 141

Table 2.24.1: Breastfeeding status, Indigenous infants aged 0–3 years, South Australia and Australia, 2008 142

Table 2.24.2: Age at which first regularly given solid food, Indigenous infants aged 0–3 years, South Australia and Australia, 2008 144

Table 2.25.1: Women aged less than 20 years who gave birth, by Indigenous status, South Australia and Australia, 2005–07 146

Table 3.06.1: Top 10 ambulatory care sensitive hospital admissions, by Indigenous status, South Australia and NSW, Vic, Qld, WA, SA and NT combined, July 2006 to June 2008 161

Table 3.07.1: Discrete Indigenous communities(a) located 10 kilometres or more from a hospital: Selected health promotion programs conducted in community, South Australia and Australia, 2006 166

Table 3.09.1: Community mental health care service contacts per 1,000 population, by Indigenous status, South Australia and Australia, 2007–08 172

Table 3.09.2: Residential mental health care service contacts per 1,000 population, by Indigenous status, South Australia and Australia, 2007–08 173

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, South Australia and Australia, 2004–05 179

Table 3.14.1: Presentations to emergency departments after-hours by Indigenous status of the patient, South Australia and Australia, 2006–07 to 2007–08 183

Table 3.16.1: Whether person(s) in *Non-remote* areas have a written asthma action plan by Indigenous status, *Non-remote* areas, South Australia and Australia, 2004–05 186

Table 3.18.1: Number of undergraduate students enrolled and completed health-related courses in the Tertiary Education sector, by qualification type, South Australia and Australia, 2008 191

Table 3.18.2: Vocational education and training (VET) sector students enrolled and completed health-related courses, South Australia and Australia, 2008 192

Table 3.19.1: Estimated state/territory health expenditure per person for Indigenous and non-Indigenous people, by program, South Australia and Australia, 2006–07 ($) 194

List of figures

Figure 1: Aboriginal and Torres Strait Islander Health Performance Framework measures 2

Figure 2: Population profile, by Indigenous status, age and sex, South Australia and Australia, 2010 4

Figure 1.01.1: Low birthweight rate (proportion) by Indigenous status of mother, South Australia and Australia, 2005–07 10

Figure 1.01.2: Low birthweight babies per 100 singleton live-born babies, by Indigenous status of mother, South Australia and NSW, Vic, Qld, WA, SA & NT combined, 2000–2008 11

Figure 1.02.1: Age specific hospitalisation rates (excluding dialysis), by Indigenous status, South Australia and NSW, Vic, Qld, WA, SA & NT combined, July 2006 to June 2008 13

Figure 1.02.2: Hospitalisation rates by principal diagnosis and Indigenous status, South Australia and NSW, Vic, Qld, WA, SA & NT combined, July 2006 to June 2008 14

Figure 1.02.3: Hospitalisation rate ratios by principal diagnosis, South Australia and NSW, Vic, Qld, WA, SA & NT combined, July 2006 to June 2008 15

Figure 1.02.4: Trends in hospitalisation rates (excluding dialysis) by Indigenous status, South Australia and Qld, WA, SA & NT combined, 2001–02 to 2007–08 16

Figure 1.03.1: Age specific hospitalisation rates for principal diagnosis of injury and poisoning by sex- Aboriginal and Torres Strait Islander peoples and other Australians, South Australia and NSW, Vic, Qld, WA, SA & NT, July 2006 to June 2008 18

Figure 1.03.2: Hospitalisation rates for injury and poisoning, Aboriginal and Torres Strait Islander peoples and other Australians, South Australia and Qld, WA, SA & NT combined, 2001–02 to 2007–08 22

Figure 1.04.1: Age specific hospitalisation rates for pneumonia, by Indigenous status, South Australia and NSW, Vic, Qld, WA, SA & NT combined, July 2006 to June 2008 23

Figure 1.04.2: Hospitalisation rates for pneumonia, Aboriginal and Torres Strait Islander peoples and other Australians, South Australia and Qld, WA, SA & NT combined, 2001–02 to 2007–08 25

Figure 1.05.1: Age specific hospitalisation rates for circulatory diseases, by Indigenous status, South Australia and NSW, Vic, Qld, WA, SA & NT combined, July 2006 to June 2008 29

Figure 1.05.2: Hospitalisation rates for circulatory diseases, Aboriginal and Torres Strait Islander peoples and other Australians, South Australia and Qld, WA, SA & NT combined, 2001–02 to 2007–08 32

Figure 1.07.1: Age specific hospitalisation rates for principal diagnosis of hypertensive disease, by Indigenous status, South Australia and NSW, Vic, Qld, WA, SA & NT combined, July 2006 to June 2008 34

Figure 1.08.1: Age specific hospitalisation rates for diabetes, by Indigenous status, South Australia and NSW, Vic, Qld, WA, SA & NT combined, July 2006 to June 2008 36

Figure 1.08.2: Hospitalisation rates for diabetes, Aboriginal and Torres Strait Islander peoples and other Australians, South Australia and Qld, WA, SA & NT combined, 2001–02 to 2007–08 37

Figure 1.09.1: Age specific incidence rates of treated end-stage renal disease by Indigenous status and age group, South Australia and Australia, 2006–2008 38

Figure 1.09.2: Age-standardised incidence rates of treated end-stage renal disease by Indigenous status, South Australia and Australia, 2006–2008..39

Figure 1.09.3: Age-standardised incidence rates of treated end-stage renal disease by Indigenous status, South Australia and Australia, 1991–2008..40

Figure 1.11.1: Age specific notification rates per 100,000 for hepatitis C, by Indigenous status, SA and NSW, Vic, Qld, WA, SA, NT & Tas combined, 2006–2008 42

Figure 1.11.2: Age specific notification rates per 100,000 for chlamydia, gonorrhoea, and syphilis, by Indigenous status, SA and NSW, Vic, Qld, WA, SA, NT & Tas combined, 2006–2008 43

Figure 1.11.3: Age-standardised notification rates per 100,000 for chlamydia, syphilis, gonorrhoea and Hepatitis C, by Indigenous status, South Australia and NSW, Vic, Qld, WA, SA, NT & Tas combined, 2006–2008 44

Figure 1.11.4: Age-standardised notification rates per 100,000 for chlamydia, gonorrhoea and syphilis, by Indigenous status, South Australia and WA, SA & NT combined, 1994–96 to 2006–08 46

Figure 1.12.1: Hospitalisation rates for Indigenous and other children aged 0–14 years from diseases of the ear and mastoid, South Australia and Qld, WA, SA & NT combined, 2001–02 to 2007–08...49

Figure 1.13.1: Proportion of people with a core activity need for assistance, Indigenous Australians, South Australia and Australia, 2006 50

Figure 1.15.1: Self-assessed health status, Indigenous Australians aged 15 years and over, South Australia and Australia, 2007–08...64

Figure 1.15.2: Self-assessed health status as ‘Very Good’ or Excellent’ , by age group, Indigenous Australians and all Australians, South Australia and Australia, 2007–08 65

Figure 1.15.3: Self-assessed health status (age adjusted), people aged 15 years and over, by Indigenous status, South Australia and Australia, 2007–08..65

Figure 1.16.1: Age specific hospitalisation rates for mental health-related conditions, by Indigenous status, South Australia and NSW, Vic, Qld, WA, SA & NT combined, July 2006 to June 2008...67

Figure 1.16.2: Age-standardised hospitalisation rates for mental health-related conditions, by Indigenous status and sex, South Australia and NSW, Vic, Qld, WA, SA & NT combined, July 2006 to June 2008...67

Figure 1.16.3: Hospitalisation rates from mental health-related conditions by Indigenous status, South Australia and Qld, WA, SA & NT combined, 2001–02 to 2007–08 68

Figure 1.16.4: Hospitalisation rate ratios between Indigenous and other Australians from mental health-related conditions, South Australia and Qld, WA, SA & NT combined, 2001–02 to 2007–08...68

Figure 1.18.1: Median age at death, by Indigenous status and sex, South Australia and WA, SA & NT combined, 1991 to 2007...70

Figure 1.18.2: First quartile of age at death, Indigenous males and females, South Australia and WA, SA & NT combined, 1991 to 2008..70

Figure 1.19.1: Infant mortality rates, Aboriginal and Torres Strait islander infants and other Australians, South Australia and WA, SA & NT combined, 1991 to 2007......................73

Figure 1.20.1: Perinatal mortality rates by Indigenous status, South Australia and NSW, Qld, WA, SA & NT combined, 2004–2008..74

Figure 1.21.1: SIDS mortality rates per 1,000 live births, Aboriginal and Torres Strait Islander and other Australian infants, South Australia and WA, SA & NT combined, 1991–1993 to 2005–2007..79

Figure 1.22.1: Mortality rates by age group, sex and Indigenous status, South Australia and NSW, Qld, WA, SA & NT combined, 2003–2007...81

Figure 1.22.2: Age-standardised mortality rates by Indigenous status, South Australia and WA, SA & NT combined, 1991 to 2007...82

Figure 1.25.1: Mortality rates for avoidable causes of death, Indigenous and other Australians aged 0–74 years, South Australia and WA, SA & NT combined, 1991–96 and 1997–2007 90

Figure 1.25.2: Mortality rate ratios and rate differences for avoidable causes of death, Indigenous and other Australians aged 0–74 years, South Australia and WA, SA & NT combined, 1991–96 and 1997–2007..91

Figure 2.01.1: Percentage of discrete Indigenous communities experiencing sewerage overflows or leakages for longer than 48 hours, South Australia and Australia, 2006 94

Figure 2.01.2: Percentage of Indigenous households reporting lack of working facilities for each of the first four Health Living Practices, South Australia and Australia, 2008 94

Figure 2.02.1: Proportion of people aged 15 years and over living in overcrowded housing, by Indigenous status, South Australia and Australia, 2008...96

Figure 2.04.1: Ratio of proportion of Indigenous students achieving literacy and numeracy benchmarks to corresponding proportion of non-Indigenous students, South Australia and Australia, 2009...103

Figure 2.04.2: Difference between proportion of Indigenous students achieving literacy and numeracy benchmarks and corresponding proportion of non-Indigenous students, South Australia and Australia, 2009...104

Figure 2.06.1: Highest level of school completed, by Indigenous status, people aged 18 years and over, South Australia and Australia, 2008 107

Figure 2.07.1: Unemployment and Labour Force Participation Rates, people aged 15-64 years, by Indigenous status, South Australia and Australia, 2008 111

Figure 2.08.1: Proportion of people aged 18 years and over in each equivalised gross weekly household income quintile, by Indigenous status, South Australia and Australia, 2008...113

Figure 2.08.2: Mean equivalised gross household income ($ per week), by Indigenous status, people aged 18 years and over, South Australia and Australia, 2008 113

Figure 2.10.1: Population distribution by SEIFA advantage/disadvantage quintiles, by Indigenous status, South Australia and Australia, 2006...117

Figure 2.13.1: Percentage of Indigenous Australians aged 15 years and over reporting they were a victim of physical or threatened violence in last 12 months, by sex, South Australia and Australia, 2008 120

Figure 2.14.1: Crude imprisonment rates of Indigenous Australians, South Australia and Australia, 2000–2009 124

Figure 2.14.2: Aboriginal and Torres Strait Islander peoples as a proportion of deaths in custody (police and prison), prisoner population and total adult population (18 years and over), South Australia and Australia, 2004–06 124

Figure 2.15.1: Children aged 0–16 years who were the subjects of substantiations: rate per 1,000 children, by Indigenous status, South Australia and Australia, 2008–09....125

Figure 2.16.1: Difficulty with transport, by Indigenous status, South Australia and Australia, people aged 18 years and over, 2008 129

Figure 2.17.1: Access to homelands/traditional country, Indigenous Australians aged 15 years and over, South Australia and Australia, 2008 131

Figure 2.17.2: Self-assessed health status by whether Indigenous people recognises/does not recognise homelands/traditional country, South Australia and Australia, 2008 131

Figure 2.18.1: Per cent of Indigenous people aged 18 years and over reporting they are a current smoker, by sex, South Australia and Australia, 2008 133

Figure 2.18.2: Per cent of Indigenous people aged 18 years and over reporting they are a current smoker, by age, South Australia and Australia, 2008....133

Figure 2.20.1: Alcohol risk levels by Indigenous status, people aged 18 years and over, age-standardised, South Australia and Australia, 2004–05....136

Figure 2.20.2: Aboriginal and Torres Strait Islander adults who drank at short term risky/high-risk levels at least once a week, South Australia and Australia, 2004-05....136

Figure 2.22.1: People aged 15 years and over, level of physical activity, *Non-remote* areas, by Indigenous status, South Australia and Australia, 2004–05....139

Figure 2.24.1: Aboriginal and Torres Strait Islander children aged 0-3 years currently breastfeeding, by age, South Australia and Australia, 2008 143

Figure 2.25.1: Notification rates per 100,000 for chlamydia, syphilis and gonorrhoea, by Indigenous status, South Australia and WA, SA & NT combined, 1994–96 to 2005–06 145

Figure 2.26.1: Proportion of adults overweight and obese, by age group, by Indigenous status, South Australia and Australia, 2004–05....147

Figure 2.26.2: Proportion of Indigenous adults who are underweight, normal weight, overweight and obese, age-standardised, by Indigenous status, South Australia and Australia, 2004–05 148

Figure 3.01.1: Per cent of mothers who attended at least one antenatal care session, by Indigenous status, South Australia and NSW, Qld, SA & NT combined, 2007 150

Figure 3.01.2: Per cent of mothers who attended five or more antenatal care sessions, by Indigenous status, South Australia and Qld, SA & NT combined, 2007....150

Figure 3.01.3: Rate of mothers who attended at least one antenatal care session, by Indigenous status, South Australia and NSW, Qld & SA combined, 1998–2007 151

Figure 3.02.1: Per cent of Aboriginal and Torres Strait Islander children fully vaccinated at age 1 year, 2 years and 6 years, South Australia and NSW, Vic, WA, SA & NT combined, 2009....152

Figure 3.02.2: Per cent of children fully vaccinated at age 1 year, 2 years (2001–2009) and 5 years (2008–2009), by Indigenous status, South Australia and NSW, Vic, WA, SA & NT combined 153

Figure 3.02.3: Per cent of Indigenous Islander peoples aged 50 years and over and other peoples aged 65 years and over: immunization status, South Australia and Australia, 2004–05 154

Figure 3.03.1: Per cent of target group received Medicare Benefits Schedule Health Assessments and Health Checks for Indigenous Australians, South Australia and Australia, July 2008 to June 2009 155

Figure 3.03.2: Participation rates for BreastScreen Australia Programs of women aged 50–69 years, Aboriginal and Torres Strait Islander women and all women, South Australia and Australia, 2003–04 to 2007–08 156

Figure 3.05.1: Per cent of hospital episodes with a procedure reported, selected principal diagnoses, by Indigenous status, South Australia and Australia, July 2006 to June 2008 158

Figure 3.06.1: Age-specific hospitalisation rates for ambulatory care sensitive hospital admissions, by Indigenous status and sex, South Australia and NSW, Vic, Qld, WA, SA & NT combined, July 2006 to June 2008 160

Figure 3.06.2: Age-standardised hospitalisation rates for ambulatory care sensitive hospital admissions, by Indigenous status, South Australia and NSW, Vic, Qld, WA, SA & NT combined, July 2006 to June 2008 160

Figure 3.06.3: Age-standardised hospitalisation rates for ambulatory care sensitive hospital admissions, by Indigenous status, South Australia and Qld, WA, SA & NT combined, 2001–02 to 2007–08 163

Figure 3.07.1: Discrete Indigenous Communities located 10 kilometres or more from a hospital: Selected health promotion programs conducted in community, South Australia and Australia, 2006 165

Figure 3.08.1: Per cent of hospital episodes in which patients were discharged against medical advice, by Indigenous status and age group (excluding mental and behavioural disorders), South Australia and Australia, July 2006 to June 2008 168

Figure 3.08.2: Per cent (age-standardised) of hospital episodes in which patients were discharged against medical advice, by Indigenous status and principal diagnosis (excluding mental and behavioural disorders), South Australia and Australia, July 2006 to June 2008 169

Figure 3.09.1: Age-standardised hospitalisation rates for principal diagnosis of mental health-related conditions by Indigenous status and sex, South Australia and NSW, Vic, Qld, WA, SA & NT combined, July 2006 to June 2008 170

Figure 3.09.2: Hospitalisation rates from mental health-related conditions by Indigenous status, South Australia and Qld, WA, SA & NT combined, 2001–02 to 2007–08 171

Figure 3.09.3: Hospitalisation rate ratios between Indigenous and other Australians from mental health-related conditions, South Australia and Qld, WA, SA & NT combined, 2001–02 to 2007–08 171

Figure 3.10.1: Aboriginal and Torres Strait Islander peoples aged 15 years and over in health workforce as a proportion of total health workforce, South Australia and Australia, 2006 174

Figure 3.11.1: Proportion of Indigenous people who reported that they did not attend a GP service/hospital/other health professional when needed, South Australia and Australia, 2004–05 175

Figure 3.11.2: Indigenous people who reported that they did not attend a GP service/hospital/other health professional when needed, by reason they did not attend, South Australia and Australia, 2004–05 176

Figure 3.12.1: Per cent of people aged 15 years and over who accessed health care, by type of health care, within the last 12 months (hospital) or the last 2 weeks (other health care), by Indigenous status, age-standardised, South Australia and Australia, 2004–05 177

Figure 3.12.2: Per cent of Aboriginal and Torres Strait Islander peoples reporting that they needed a health service at least once in the last 12 monts but did not access the service, South Australia and Australia, 2004-05 178

Figure 3.12.3: Age-specific hospitalisation rates, by Indigenous status, South Australia and NSW, Vic, Qld, WA, SA & NT combined, July 2006 to June 2008 180

Figure 3.12.4: Proportion of discrete Indigenous communities with access to health services, by distance to health services, South Australia and Australia, 2006 181

Figure 3.15.1: Where usually go if problem with health, Aboriginal and Torres Strait Islander peoples, South Australia and Australia, 2004–05 184

Figure 3.15.2: Whether usually goes to the same GP/medical service, by age group, Aboriginal and Torres Strait Islander peoples, South Australia and Australia, 2004–05 185

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, South Australia and Australia, 2004–05 187

Figure 3.17.1: Per cent of hospital admitted patent episodes in accredided hospitals, by Indigenous status, South Australia and NSW, Vic, Qld, WA, SA & NT combined, July 2006 to June 2008 188

Figure 3.17.2: Proportion of General Practices accredited, by proportion of Aboriginal and Torres Strait Islander peoples in population for Divisions of General Practice, South Australia and Australia, 2008–09 189

Figure 3.20.1: Vacancies as a percentage of total positions (FTE) in Aboriginal health care services, South Australia and Australia, as at 30 June 2008 195

Related publications

- AIHW 2011. Educational outcomes of children under guardianship or custody orders: a pilot study, stage 2. Child welfare series no. 49. Cat. no. CWS 37. Canberra: AIHW.
- AIHW 2011. Child protection Australia 2009–10. Child welfare series no. 51. Cat. no. CWS 39. Canberra: AIHW.
- AIHW 2010. Health and wellbeing of young Australians: indicator framework and key national indicators. Bulletin no. 77. Cat. no. AUS 123. Canberra: AIHW.