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The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples

2008

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PREFACE

This sixth edition of *The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples* draws on a wide range of data sources. In particular, the timing of this edition has been designed to allow inclusion of information from the 2006 Census of Population and Housing, conducted by the Australian Bureau of Statistics. The Report also draws on the most recent information from a number of administrative data collections held by the Australian Institute of Heath and Welfare.

The report provides a comprehensive overview of the health and welfare of Australia's Indigenous population, presenting the latest information on population demographics, housing circumstances, disability and carers, health status, and the provision, access and use of health and community services. Some of the links between education and health and between selected risk factors and health are also explored.

Aboriginal and Torres Strait Islander peoples are culturally and linguistically diverse. Their proximity to services, and the physical and social environments in which they live, impact on their wellbeing and capacity to prevent and manage serious illness. Use of ABS Indigenous-specific surveys, such as the 2004–05 National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) and 2002 National Aboriginal and Torres Strait Islander Social Survey (NATSISS) make it possible to explore some of the relationships between the socioeconomic circumstances of Indigenous Australians and their health and wellbeing.

While much of the data in this report are presented at the national level, some are presented for the states and territories, and/or by remoteness. In addition, the report presents information about various sub-populations of interest, such as Torres Strait Islander people, Indigenous people with disability and carers for people with disability.

Trend analyses show that there have been improvements in the areas of educational attainment, labour force participation, unemployment, home ownership and income for Indigenous Australians in recent years. However, while the relative disadvantage experienced by Aboriginal and Torres Strait Islander people has lessened in some areas, this report demonstrates that the health status of the Indigenous population is still poor in comparison to the rest of the Australian population.

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Special thanks go to the principal reviewer of the report, Ian Anderson, for his valuable comments on the draft report. The AIHW and the ABS would like to acknowledge the contribution of the following reviewers: Bob Boughton, Carol Bower, John Condon, Joan Cunningham, Ian Ring, Will Sanders, Ian Spicer and John Taylor. We would also like to thank the Office for Aboriginal and Torres Strait Islander Health within the Australian Government Department of Health and Ageing for providing valuable comments on the report.

Artwork

The cover artwork is *Alice Downs Country* (2004) by Gordon Barney, painted with ochres and natural pigments on canvas, courtesy of Warmun Art Centre.

EXECUTIVE SUMMARY

KEY FINDINGS

This report presents the latest data on the health and welfare of Australia's Aboriginal and Torres Strait Islander peoples, as well as information about their socioeconomic circumstances. Wherever possible, data are provided on changes in the circumstances of Indigenous people over time, as well as on the differences between Indigenous and non-Indigenous Australians. While most information is presented at the national level, some data are also presented for states and territories, and by remoteness.

DEMOGRAPHIC CONTEXT

- At 30 June 2006, the estimated resident Indigenous population was 517,200, representing 2.5% of the total Australian population.
- Most Indigenous people live in capital cities and regional areas—an estimated 32% of Indigenous people were living in major cities, 43% in regional areas and 25% in remote areas.
- The Indigenous population has a younger age profile, with a median age of 21 years, compared with 36 years for the non-Indigenous population.

EDUCATION

- Retention rates for Indigenous students to Year 10 and beyond increased between 1998 and 2007, and the differences between Indigenous and non-Indigenous retention rates decreased.
- Between 2001 and 2006, Year 12 completion rates for Indigenous people aged 15 years and over increased from 20% to 23%.
- Compared with Indigenous adults who had left school in Year 9 or below, those who had completed Year 12 were, in 2004–05:
    - more likely to report excellent or very good self-assessed health
    - less likely to report high or very high levels of psychological distress
    - less likely to smoke regularly.

LABOUR FORCE STATUS AND INCOME

- Between 2001 and 2006, the unemployment rate for Indigenous people aged 15–64 years decreased from 20% to 16%, while the labour force participation rate increased from 52% to 54%. However, the unemployment rate for Indigenous people in 2006 was three times the rate for non-Indigenous people (16% compared with 5%).
- The median equivalised household income for Indigenous people was $362 per week, equal to 56% of the median equivalised household income for non-Indigenous people ($642).

HOUSING AND HOMELESSNESS

- The rate of home ownership for Indigenous households increased from 31% in 2001 to 34% in 2006. However, the proportion of Indigenous households who owned or were purchasing their own homes in 2006 was half the rate of other Australian households (34% compared with 69%).

HOUSING AND HOMELESSNESS *continued*

- One in every two Indigenous households were receiving some form of government housing assistance, such as living in public or community housing, or receiving rent assistance.
- One in seven Indigenous households (14%) were overcrowded in 2006 and around one-quarter of the Indigenous population (27% or 102,300 people) were living in overcrowded conditions.
- Indigenous people were over-represented in the national Supported Accommodation Assistance Program (SAAP) for the homeless and those at risk of homelessness, comprising 17% of all SAAP clients.
- Nearly three-quarters of Indigenous clients using SAAP services were women.

HEALTH STATUS

- In 2004–05, Indigenous adults were twice as likely as non-Indigenous adults to report their health as fair/poor (29% compared with 15%).
- Long-term health conditions responsible for much of the ill-health experienced by Indigenous people include circulatory diseases (including heart disease), diabetes, respiratory diseases, musculoskeletal conditions, kidney disease and eye and ear problems.
- Indigenous adults were twice as likely as non-Indigenous adults to report high/very high levels of psychological distress.
- In 2005–06, Indigenous people were hospitalised at 14 times the rate of non-Indigenous people for care involving dialysis, and at three times the rate for endocrine, nutritional and metabolic diseases (which includes diabetes).
- Indigenous Australians were hospitalised for potentially preventable conditions at five times the rate of non-Indigenous Australians.

Health risk factors

- In 2004–05, half of Indigenous adults were regular smokers—twice the rate of non-Indigenous adults.
- One in six Indigenous adults (16%) had consumed alcohol at long-term risky/high risk levels in the past week. This was similar to the rate for non-Indigenous adults.
- More than half (57%) of Indigenous people aged 15 years and over were overweight or obese. Indigenous women were around one-and-a-half times as likely as non-Indigenous women to be overweight/obese, while the rates for Indigenous and non-Indigenous men were similar.

Mortality

- Life expectancy for Indigenous Australians was 59 years for males and 65 years for females, compared with 77 years for all males and 82 years for all females, a difference of around 17 years.
- In the period 2001–2005, the mortality rates for Indigenous males and females in Queensland, Western Australia, South Australia and the Northern Territory combined, were almost three times those for non-Indigenous males and females.
- The five leading causes of death for Indigenous people were: diseases of the circulatory system; injury; cancers; endocrine, metabolic and nutritional disorders (including diabetes); and respiratory diseases.
- There were significant declines in the all-cause mortality rates for Indigenous males and females in Western Australia between 1991 and 2005.
- There were also significant declines in Indigenous infant mortality rates in Western Australia, South Australia and the Northern Territory over the same period.

HEALTH SERVICES

- In 2004–05, $1.17 was spent on Aboriginal and Torres Strait Islander health for every $1.00 spent on the health of non-Indigenous Australians, only 17% higher despite the poorer health of the Indigenous population.
- More than two-thirds of this expenditure was on publicly provided health services such as public hospitals (46%) and community health services (22%).
- Indigenous males and females were more than twice as likely to be hospitalised as other Australian males and females.
- Aboriginal and Torres Strait Islander people may experience difficulties accessing health care. Indigenous people in non-remote areas were more likely than those in remote areas to report cost as a reason for not seeking health care, while for those in remote areas, transport/distance and the service not being available in the area were more commonly reported reasons.
- In 2006, Indigenous people aged 15 years and over were under-represented in almost all health-related occupations and comprised 1% of the health workforce. They were better represented in welfare and community service-related occupations, comprising 3.6% of this workforce.

COMMUNITY SERVICES

- Indigenous children were over-represented in the child protection system in 2005–06, with the rate of Indigenous children on care and protection orders over six times the rate of other Australian children.
- Indigenous youth were under juvenile justice supervision at a rate of 44 per 1,000, compared with 3 per 1,000 for other Australian youth.
- Compared with other Australians, Aboriginal and Torres Strait Islander people used both disability and aged care services at younger ages, consistent with their poorer health status and high mortality rates.

INDIGENOUS SUB-POPULATIONS OF SPECIAL INTEREST

Torres Strait Islander Peoples

- The estimated resident Torres Strait Islander population in 2006 was 53,300, or 10% of the total Indigenous population
- Some 15% of Torres Strait Islander people were living in the Torres Strait Indigenous Region, 47% in other parts of Queensland and 15% in New South Wales.
- Compared with all Indigenous Australians, Torres Strait Islander people had higher rates of Year 12 completion and labour force participation, as well as higher equivalised household income.
- Torres Strait Islander people living in the Torres Strait Indigenous Region had higher rates of Year 12 completion and labour force participation and lower unemployment rates than those living in other parts of Australia.

Mothers and Children

- Aboriginal and Torres Strait Islander females have higher fertility, with an estimated total fertility rate of 2.1 babies, compared with 1.8 babies for all Australian females.
- The median age of Indigenous females who gave birth in the period 2001–2004 was 25 years, compared with a median age of 30 years for other mothers.

Mothers and Children
continued

- In the period 2003–2005, the perinatal mortality rate for Indigenous babies in Queensland, Western Australia, South Australia and the Northern Territory combined was 1.5 times the rate for non-Indigenous babies.
- The perinatal mortality rate for Indigenous babies, however, declined significantly in Western Australia between 1991–93 and 2003–05.
- The mortality rate for Indigenous infants and Indigenous children aged 1–14 years in the period 2001–2005 was around three times that for non-Indigenous infants and children.

People with disablity and Carers

- Some 4% of Aboriginal and Torres Strait Islander people in 2006 were identified as needing assistance with self-care, physical mobility or communication.
- After adjusting for differences in the age structure of the two populations, Indigenous people were almost twice as likely as non-Indigenous people to need assistance with core activities.
- In the 2006, one in eight Indigenous people aged 15 years and over (12%) were carers.
- The median age of Indigenous carers was 37 years; 12 years less than the median age of non-Indigenous carers.
- After adjusting for differences in the age structure of the two populations, Indigenous people were 1.2 times as likely as non-Indigenous people to be carers.
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CHAPTER 1 INTRODUCTION

AIM

This publication is the sixth in the series of reports on the health and welfare of Australia's Aboriginal and Torres Strait Islander peoples. By drawing on recent data available from a variety of sources, it aims to provide a comprehensive picture of the health and welfare of Australia's Indigenous population. It covers a range of topics regarded as important for improving the health of Aboriginal and Torres Strait Islander peoples.

The definition of health that underpins the publication is a holistic one put forward in the National Aboriginal Health Strategy Working Party report:

> 'Not just the physical well-being of the individual but the social, emotional and cultural well-being of the whole community. This is a whole of life view and it includes the cyclical concept of life-death-life' (National Aboriginal Health Strategy Working Party 1989).

This report also provides a broader context for the two major indicator based reports on Indigenous health and welfare—the Aboriginal and Torres Strait Islander Health Performance Framework (auspiced by the Australian Health Minister's Advisory Council) and the COAG Overcoming Indigenous Disadvantage (OID) Key Indicators Report. The Health Performance Framework has around 70 indicators under three tiers of reporting—health status and outcomes, determinants of health, and health system performance—while the OID framework reports on 12 headline indicators of social and economic outcomes, such as life expectancy at birth, Years 10 and 12 retention and attainment, labour force participation and unemployment, home ownership, suicide and self-harm, family and community violence, and imprisonment and juvenile detention rates.

Information about the social context and specific issues that impact on the health and welfare of Indigenous Australians is presented in Chapters 2, 3, 4, and 8. Chapter 2 provides background information on the demographic, social and economic context in which Indigenous Australians live. Chapter 3 provides information on education and employment status, including the transition from school to work. Chapter 4 examines the housing circumstances of Indigenous Australians, while Chapter 8 looks at selected health risk factors.

Health status of, and outcomes for, Indigenous Australians are described in Chapters 5, 6, 7, and 9. Chapter 5 focuses on disability (need for assistance with core activities) and carers, primarily using data from the 2006 Census. Chapter 6 provides information on the health status of Indigenous mothers and children; Chapter 7 provides an overview of the health status of Aboriginal and Torres Strait Islander peoples; while Chapter 9 describes Indigenous mortality, including a discussion of trends where these can be observed.

AIM *continued*

Chapters 10 (Health service—provision, access and use) and 11 (Community services) look at system performance issues, including access to, and utilisation of, these services by Indigenous Australians.

Chapter 12 provides a summary of the relevant, available information about the health and welfare of Torres Strait Islander peoples.

The breadth and depth of data assembled for this report will also provide the basis for the development of an ABS Framework for the measurement of Indigenous wellbeing. The Framework has been identified as a key strategic area in the ABS Indigenous statistics program and will be developed in consultation with Indigenous researchers and stakeholders.

DATA SOURCES

The data presented in this report were drawn from key national statistical collections including the latest information from both the Australian Bureau of Statistics (ABS) and the Australian Institute of Health and Welfare (AIHW). Important new information about Aboriginal and Torres Strait Islander health and welfare was collected through the ABS 2006 Census of Population and Housing and 2004–05 National Aboriginal and Torres Strait Islander Health Survey (NATSIHS). The report also includes data from other ABS collections such as the 2006 Community Housing and Infrastructure Needs Survey (CHINS) and the 2002 National Aboriginal and Torres Strait Islander Social Survey (NATSISS). AIHW surveys such as Bettering the Evaluation and Care of Health (BEACH), and national administrative data collections such as the National Hospital Morbidity Data Collection, the National Mortality Data Collection and the National Perinatal Data Collection are all important data sources used in the production of this report. In addition, the report includes updated estimates of expenditure on health services for Indigenous people.

DATA ISSUES

The Aboriginal and Torres Strait Islander 2006 preliminary population estimates used in this report are based on the population counts from the five-yearly 2006 Census of Population and Housing (on a usual residence basis), adjusted for instances in which Indigenous status was unknown (not stated) and for net undercount. Unless otherwise indicated, rates in this publication have been based on the 2001 'low series' resident population estimates and projections.

Estimating the size and composition of the Indigenous population is difficult for a range of reasons, including the incomplete and differential Indigenous identification in births and deaths records across jurisdictions, which do not support the standard approach to population estimation. Indigenous identification is also incomplete in many other administrative data collections used in this report. The ABS and the AIHW, in partnership with state and territory authorities and the Indigenous community, are making efforts to improve the quality and completeness of Indigenous identification in key administrative data collections.

CHAPTER 2 DEMOGRAPHIC, SOCIAL AND ECONOMIC CONTEXT

INTRODUCTION

There is strong evidence from Australia and other developed countries that low socioeconomic status is associated with poor health and increased exposure to health risk factors (Blakely, Hales & Woodward 2004; Turrell & Mathers 2000). Recent statistics from the 2007 Overcoming Indigenous Disadvantage Report by the Steering Committee for the Review of Government Service Provision (SCRGSP) have highlighted some improvements in the lives of Indigenous Australians in the areas of employment, educational attainment and income (SCRGSP 2007a). However, Aboriginal and Torres Strait Islander people continue to experience relative disadvantage compared with non-Indigenous people.

This chapter provides an overview of the demographic characteristics of the Aboriginal and Torres Strait Islander population. The data are primarily from the 2006 Census of Population and Housing, with supplementary information from the 2004–05 National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) and the 2002 National Aboriginal and Torres Strait Islander Social Survey (NATSISS). These data provide a context for the health and welfare information in later chapters, with topics including education, housing, income and labour force status. Some of the topics in this chapter are explored in more detail in later chapters within this report. For more information on the demographic characteristics of the Torres Strait Islander population, see Chapter 12.

DEMOGRAPHIC CHARACTERISTICS

The Australian Bureau of Statistics (ABS) provides two types of Indigenous population figures. The first are Census counts, which are taken from the five-yearly Census of Population and Housing. These figures represent the number of people enumerated by the Census without any adjustment. The second type of population figures are estimated resident population (ERP) figures, which are initially based on Census counts, and then adjusted to account for unknown Indigenous status and undercount from the Census (see box 2.3). In this chapter, Indigenous ERP data have been used to describe the age structure and distribution of the Indigenous population across states and territories. All other analyses (including those for Indigenous Regions) are based on Census counts.

Preliminary estimated resident Indigenous population

At 30 June 2006, the estimated resident Aboriginal and Torres Strait Islander population of Australia was 517,200, or 2.5% of the total Australian population. The Indigenous population is estimated to have increased by 58,700 (13%) between 2001 and 2006 (ABS 2007e and table 2.1). Finalised ERP data will be available in mid-2008.

2.1 ESTIMATED RESIDENT POPULATION(a), by Indigenous status—2006 (preliminary)

	Aboriginal	*Torres Strait Islander*	*Both Aboriginal and Torres Strait Islander*	*Total Indigenous*	*Non-Indigenous*	*All persons*	*Proportion of total Indigenous population*	*Proportion of state/territory population*
	no.	no.	no.	no.	no.	no.	%	%
New South Wales	140 000	5 100	3 100	148 200	6 669 000	6 817 200	28.7	2.2
Victoria	27 700	2 200	900	30 800	5 097 500	5 128 300	6.0	0.6
Queensland	113 300	21 100	12 000	146 400	3 945 100	4 091 500	28.3	3.6
South Australia	24 600	1 000	400	26 000	1 542 200	1 568 200	5.0	1.7
Western Australia	75 200	1 400	1 300	77 900	1 981 100	2 059 000	15.1	3.8
Tasmania	15 000	1 300	600	16 900	473 000	489 900	3.3	3.4
Northern Territory	64 100	800	1 700	66 600	144 100	210 700	12.9	31.6
Australian Capital Territory	3 800	200	100	4 000	330 200	334 200	0.8	1.2
Australia	**463 900**	**33 100**	**20 200**	**517 200**	**20 184 300**	**20 701 500**	**100.0**	**2.5**

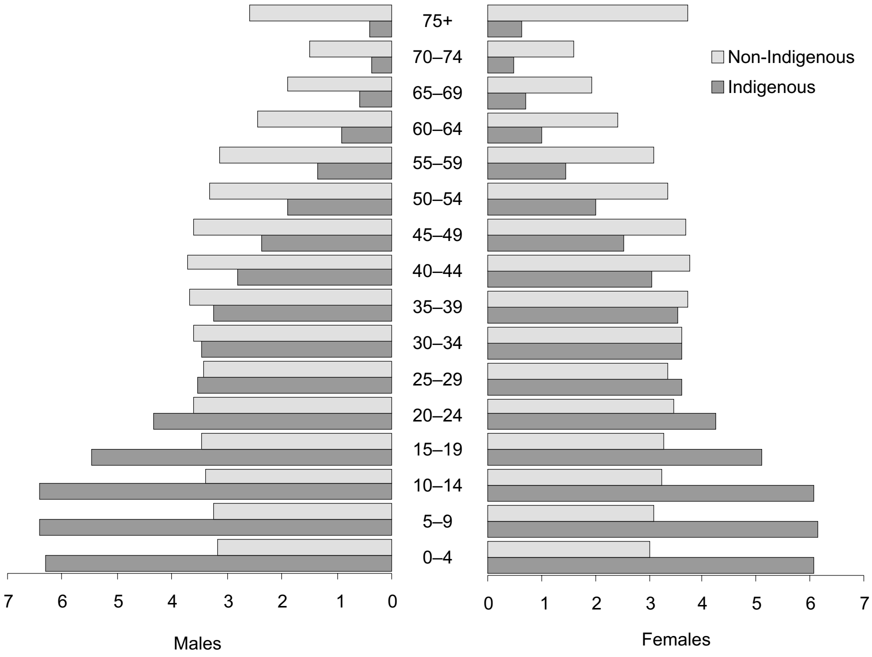
(a) Estimates are subject to revision once 2006 population estimates have been finalised and after analysis of growth in the Indigenous population (demographic and non-demographic factors) between 2001 and 2006.

Source: ABS 2007f

Age

The Indigenous population is relatively young, with a median age of 21 years compared with 37 years for the non-Indigenous population. This is largely the product of higher rates of fertility and deaths occurring at younger ages among the Indigenous population (ABS 2004c). At 30 June 2006, people aged 65 years and over comprised just 3% of the Indigenous population, compared with 13% of the non-Indigenous population. In comparison, 37% of Indigenous people were under 15 years of age compared with 19% of non-Indigenous people (figure 2.2).

2.2 ESTIMATED RESIDENT POPULATION, BY INDIGENOUS STATUS AND AGE — 2006 (PRELIMINARY)



Age continued

Because age is closely associated with health status, some comparisons between Indigenous and non-Indigenous data in this report are presented for separate age groups, or otherwise age standardised. For more information on age standardisation, see the Glossary.

Life expectancy

The latest available data presenting estimated Indigenous life expectancy at birth are for the period 1996–2001. Nationally, experimental estimated Indigenous life expectancy was 59 years for Indigenous males (compared with 77 for all males) and 65 years for Indigenous females (compared with 82 years for all females). This is a difference of around 17 years for both males and females (ABS 2004b). Life expectancy data for the 2001–2006 period will be released in late 2008.

Where Indigenous people live

At 30 June 2006, the jurisdictions with the largest estimated resident Indigenous populations were New South Wales (148,200 or 29% of the total Indigenous population) and Queensland (146,400 or 28% of the total Indigenous population). The Northern Territory had a higher proportion of Indigenous residents (32%) than any other state or territory.

For Australians living in remote areas, distance can be a barrier to accessing services. While an estimated one-third of Indigenous Australians (32%) were living in major cities and a further 43% were living in regional areas at 30 June 2006, a much larger proportion of the Indigenous than non-Indigenous population were living in remote or very remote areas (25% compared with 2%). For more information on access to services, see Chapter 10 of this report.

2.3 2006 CENSUS COUNTS

Census undercount

Each Census, some people are missed and others are counted more than once. In Australia, a greater number of people are missed than are counted more than once and the overall effect is called net undercount. In 2006, the Indigenous preliminary net undercount was estimated to be 11.5%, and this was not uniform across all states and territories (ABS 2007f).

Census counts

The number of people identified as being of Aboriginal and/or Torres Strait Islander origin in the 2006 Census was 455,000, representing 2.3% of the total Australian population. This is an increase of 11% since the 2001 Census, compared with an increase of 6% in the total Australian population over the same period. Among people identified as Indigenous in 2006, 90% were of Aboriginal origin only, 6% were of Torres Strait Islander origin only and 4% were of both Aboriginal and Torres Strait Islander origin. Around three-quarters (76%) of the Indigenous population were living in major cities and regional areas in 2006, with the remaining 24% in remote areas.

Where Indigenous people live continued

INDIGENOUS REGIONS

Indigenous Regions (IREGs) are the highest level of the Australian Indigenous Geographical Classification (AIGC). IREGs are based on Aboriginal and Torres Strait Islander Commission (ATSIC) Regions (used in the 2001 Census of Population and Housing) but also reflect recent changes in both local government areas and in government administrative arrangements. Where possible and appropriate, the 2001 ATSIC boundaries were maintained to allow the characteristics of Indigenous people within a region to be compared across Censuses. The map below (figure 2.4) indicates the new Indigenous Region structure across Australia.

2.4 INDIGENOUS REGIONS 2006

In 2006, the Indigenous Regions with the largest populations were Sydney (41,800), Brisbane (41,400) and Coffs Harbour (40,000). The Indigenous Regions with the highest proportion of Indigenous residents, which were outside major population centres, included the Torres Strait Islander Region in Queensland (83%), and the Apatula and Jabiru Indigenous Regions in the Northern Territory (79% and 77% respectively). The highest regional increases in the Indigenous population between 2001 and 2006, based on 2006 AIGC boundaries, occurred in the Indigenous Regions of Coffs Harbour (25%), *Where Indigenous people live continued*

INDIGENOUS REGIONS *continued*

Non-Metropolitan Victoria (25%), Wagga Wagga (21%) and Melbourne (20%) (ABS 2007f).

POPULATION CHARACTERISTICS

Language

Aboriginal and Torres Strait Islander languages were spoken in the home by 12% of Indigenous Australians aged five years and over in 2006, the majority of whom (83%) were also proficient English speakers. The Indigenous languages most commonly spoken at home were Torres Strait Creole (5,800 speakers), Kriol (3,900), Arrernte (2,800), Djambarrpuyngu (2,700), Pitjantjatjara (2,600) and Warlpiri (2,500).

Homelands

In the 2002 National Aboriginal and Torres Strait Islander Social Survey (NATSISS), 70% of Indigenous people aged 15 years and over recognised an area as their homelands or traditional country, while 22% lived in homelands or traditional country. Almost half (46%) of the Indigenous population did not live in their homelands or traditional country, but were allowed to visit. Nationally between 1994 and 2002 the proportion of Indigenous people living in their homelands or traditional country decreased (from 29% to 22%) (ABS 2004d).

Social networks

In 2002, 90% of Indigenous people aged 15 years and over reported that they had been involved in social activities in the last three months; nearly half (49%) had participated in sport or physical recreation activities in the last 12 months and 28% had undertaken voluntary work in the last 12 months. In addition, the overwhelming majority of Indigenous people (90%) were able to get support in a time of crisis from someone outside their household; most commonly from family members and friends (ABS 2004d). For further information, see the 2005 edition of this report (ABS & AIHW 2005).

Education

The educational opportunities available to an individual can have a significant impact on their future health, wellbeing and socioeconomic status. Between 2001 and 2006, there was a slight increase in the proportion of Indigenous people aged 15 years and over (excluding those still at school) that had completed Year 12 (from 20% to 23%), with the largest increases in major cities and very remote areas (4% between 2001 and 2006). Indigenous males and females had similar rates of Year 12 attainment (22% compared with 24%). In comparison, almost half (49%) of non-Indigenous Australians had completed Year 12 in 2006.

In both 2001 and 2006, there were around 7,100 Indigenous people studying at a university. This represents a slight decrease in the proportion of Indigenous people attending university (from 5% to 4%). Among Indigenous people aged 25–64 years, 26% had a non-school qualification compared with over half (54%) of non-Indigenous people. One in five Indigenous people aged 25–64 years with a non-school qualification (20%) had a bachelor degree or above, and three-quarters had a certificate or diploma as their highest qualification.

REMOTENESS

Levels of educational attainment among Indigenous people aged 15 years and over (excluding those still at school) were lower in geographically remote areas. In 2006, almost one-third (31%) of those living in major cities had completed Year 12 compared

Education continued

with 22% of Indigenous people living in regional areas and 14% in remote areas (table 2.5).

2.5 HIGHEST YEAR OF SCHOOL COMPLETED(a), Indigenous persons aged 15 years and over—2006

		Major Cities	*Regional*	*Total Remote*	*Australia*(b)
Year 12 or equivalent	%	30.8	22.2	14.0	23.0
Year 10 or 11	%	44.4	46.4	36.2	43.2
Year 9 or below(c)	%	24.8	31.3	49.8	33.8
Total stated	%	100.0	100.0	100.0	100.0
Highest year of school completed not stated	no.	9 345	14 950	8 444	32 951
Persons aged 15 years and over(a)	no.	**85 822**	**111 737**	**67 046**	**265 820**

(a) Excludes persons still attending school.

(b) Includes 'Offshore and migratory'.

(c) Includes persons who did not attend school.

Source: ABS 2006 Census of Population and Housing

The attainment of non-school qualifications is also higher in urban locations. In the 2006 Census, one-third (34%) of Indigenous people aged 25–64 years living in major cities had attained a non-school qualification, compared with just over one-quarter (27%) of those living in regional areas and 15% of those in remote areas. Although a higher proportion of Indigenous Australians had attained a non-school qualification (26% in 2006 compared with 20% in 2001), Indigenous Australians were less than half as likely as non-Indigenous Australians to have a non-school qualification in 2006 (26% compared with 53%).

Labour force status

2.6 LABOUR FORCE STATUS—CENSUS AND INDIGENOUS-SPECIFIC SURVEY DATA

Labour force estimates from the 2006 Census, 2002 National Aboriginal and Torres Strait Islander Social Survey (NATSISS) and 2004–05 National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) are based on the same underlying concepts as those used in the monthly Labour Force Survey (LFS). However, there are differences in the collection methodologies, definitions, questions and estimation procedures which affect the comparability of data between collections. While the labour force estimates may differ, the broad trends are similar across collections.

Collection methodologies

The 2006 Census was collected by self-enumeration, except in Discrete Indigenous Communities where interviewers were used to assist respondents in providing the required data. These collection methodologies differed from those used in the 2002 NATSISS and the 2004–05 NATSIHS, both of which collected labour force data from selected persons aged 15 years and over via a personal interview.

Scope and content

Labour force status continued

The questions used to derive labour force status in the 2006 Census, 2002 NATSISS and 2004–05 NATSIHS were not as detailed or comprehensive as those used in the LFS. While NATSISS and NATSIHS both included the standard labour force module for household surveys, the 2006 Census used a shorter questionnaire module. In addition, the NATSISS and NATSIHS samples covered usual residents of private dwellings only, i.e. people in hotels, motels, hostels and hospitals, and visitors to private dwellings, were excluded.

Community Development Employment Projects (CDEP)

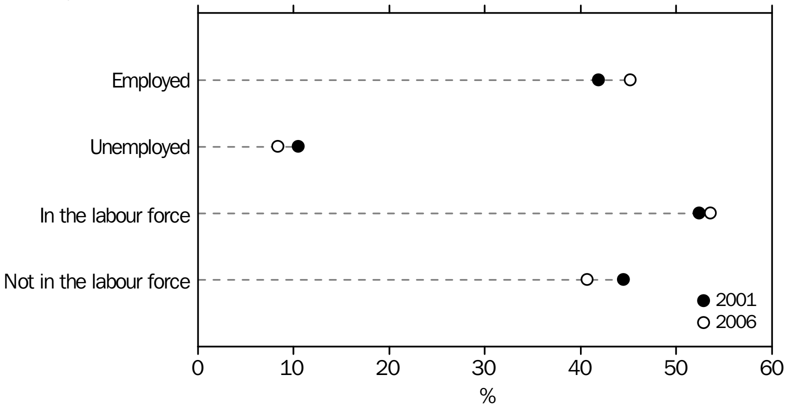
The NATSISS and NATSIHS labour force modules also differ from current LFS practices and the self-completion forms used in the 2006 Census in that they specifically asked respondents about participation in the CDEP programme. In the 2006 Census, consistent with recent changes in policy, coverage of CDEP participation was limited to people in Discrete Indigenous Communities, where it was collected by interviewers. As CDEP participants are categorised as employed, the absence of specific CDEP prompts on the 2006 Census self-completion forms has resulted in substantially lower counts of CDEP participants, and may also have resulted in a lower overall Indigenous employment rate than would have otherwise been obtained.

LABOUR FORCE PARTICIPATION

Labour force participation is the number of persons in the labour force (employed plus unemployed) expressed as a percentage of the total population aged 15–64 years. People who did not report their labour force status are excluded when calculating the participation rate.

There was an increase in the labour force participation rate for Indigenous people aged 15–64 years from 52% in 2001 to 54% in 2006 (graph 2.7). In 2006, Indigenous males were more likely than females to be participating in the labour force (63% compared with 51%). Consistent with data from the 2001 Census, Indigenous Australians aged 15–64 years were less likely to be participating in the labour force than non-Indigenous Australians (54% compared with 75%).

2.7 LABOUR FORCE STATUS, Indigenous persons aged 15–64 years—2001 and 2006



Source: ABS 2001 and 2006 Censuses of Population and Housing

Labour force status continued

EMPLOYMENT

In 2006, almost half (45%) of Indigenous people aged 15–64 years were employed (graph 2.7). Of those who were employed, half (53%) were employed full-time, compared with 65% of non-Indigenous people. Part-time employment accounted for a greater share of total employment among Indigenous people (37%) than non-Indigenous people (29%). The remaining employed Indigenous people (10%) were away from work at the time of the Census.

2.8 COMMUNITY DEVELOPMENT EMPLOYMENT PROJECTS (CDEP)

The following data on the Community Development Employment Projects (CDEP) programme are taken from the 2004–05 National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) as coverage of this topic in the 2006 Census was limited to people in remote areas.

The CDEP programme accounts for a significant proportion of employment for Indigenous Australians. This programme aims to create local employment opportunities in Indigenous communities (predominantly in remote and regional areas) where the labour market might not otherwise offer employment. CDEP employment is usually part-time work and income is received in place of an income support payment. In the 2004–05 NATSIHS, there were around 30,600 Indigenous CDEP participants aged 15–64 years, accounting for 21% of employed Indigenous people in this age group (SCRGSP 2007a).

UNEMPLOYMENT

Between 2001 and 2006, the unemployment rate (i.e. the unemployed as a proportion of the labour force) for Indigenous people aged 15–64 years decreased from 20% to 16%. However, the unemployment rate for Indigenous Australians was still three times the rate for non-Indigenous Australians (16% compared with 5%), similar to the rate ratios from the 2001 Census (20% compared with 7%) (table 2.9) (ABS 2003). As CDEP is considered a form of employment, those people who reported being employed under the CDEP programme are excluded from unemployment figures. This has a greater effect on the unemployment rate in remote areas than in non-remote areas.

NOT IN THE LABOUR FORCE

In the 2006 Census, 41% of Indigenous people aged 15–64 years were not in the labour force. Almost half (46%) of all Indigenous females aged 15–64 years were not in the labour force compared with just over one-third of Indigenous males (35%). Indigenous people in remote areas were more likely than those in major cities to not be participating in the labour force (43% compared with 37%) (table 2.9).

2.9 LABOUR FORCE STATUS, by Indigenous status—2001 and 2006

		INDIGENOUS 2001	INDIGENOUS 2006				NON-INDIGENOUS 2006
		Total	*Major Cities*	*Regional*	*Remote*	*Total*	*Total*
Employed							
Full time	%	na	30.2	23.6	16.7	24.1	45.9
Part time	%	na	14.7	15.4	21.2	16.6	20.5
Total(a)	%	41.9	49.5	43.4	42.8	45.2	70.8
nemployed							
Looking for full time work	%	8.2	6.2	6.8	4.0	5.9	2.4
Looking for part time work	%	2.3	2.6	2.8	1.8	2.4	1.5
Total	%	10.5	8.8	9.6	5.8	8.4	3.8
Not in the labour force	%	44.5	37.2	42.0	43.1	40.7	24.2
Not stated	%	3.1	4.5	5.0	8.4	5.7	1.2
Persons aged 15–64 years	no.	**237 636**	**88 012**	**113 675**	**65 919**	**268 807**	**12 276 785**
Labour force participation rate	%	52.4	58.3	53.0	48.6	53.6	74.7
Unemployment rate	%	20.0	15.0	18.1	11.9	15.6	5.1

na not available

(a) Includes persons employed but away from work.

Source: ABS 2001 and 2006 Censuses of Population and Housing

Income

Nationally, the median weekly individual income of Indigenous Australians aged 15 years and over was $278 in 2006; just over half the median income for non-Indigenous Australians which was $473. Indigenous people in the ACT had higher median weekly personal income than those in any other state or territory, at $508. Indigenous people in major cities had higher median personal weekly income ($352) than those in regional areas ($294) or remote areas ($223).

Household characteristics

An Indigenous household is defined as a household in which there are one or more Aboriginal and/or Torres Strait Islander people usually resident. Households in which there are no identified Indigenous usual residents are referred to as 'other households' in this report. There were around 166,700 Indigenous households in 2006, representing 2.3% of all households in Australia.

Equivalised household income

2.10 EQUIVALISED INCOME

Equivalised gross household income is a standardised income measure, adjusted for the different income needs of households of different size and composition. It takes into account the greater income needs of larger households and the economies of scale achieved when people live together. For a lone person household, it is equal to gross household income. For a household comprising more than one person, it indicates the gross household income that would need to be received by a lone person household to achieve the same economic wellbeing as a household comprising more than one person.

Low resource households

In this publication, people in low resource households are defined as those with a mean equivalised gross household income within the income boundaries of the first quintile, or lowest 20%. People with mean equivalised gross household income in the first quintile who were living in a home that was owned outright or owned with a mortgage by a household member, or in which there was an owner/manager of an unincorporated business have been excluded from this definition.

Equivalised household income provides an indication of how much money is available to each individual, taking into account the combined income, size and composition of the household in which they live. In 2006, the median equivalised gross household income of Indigenous people was $362 per week, with the highest median reported in major cities ($439). The median weekly equivalised gross household income for Indigenous people was equivalent to just over half the corresponding income for non-Indigenous people, which was $642. For more information on equivalised income, see the Glossary.

PEOPLE IN LOW RESOURCE HOUSEHOLDS

In 2006, 39% of Indigenous people were living in low resource households, more than four times the rate of non-Indigenous people (8%). For more information on low resource households and income quintiles, see box 2.10 and the Glossary.

Tenure type

In the 2006 Census, one-third (34%) of Indigenous households were living in dwellings that were either owned outright or owned with a mortgage by a member of the household; half the rate of home ownership reported by other households (69%). The median monthly housing loan repayment being made by Indigenous households was $1,127 compared with $1,300 for other households.

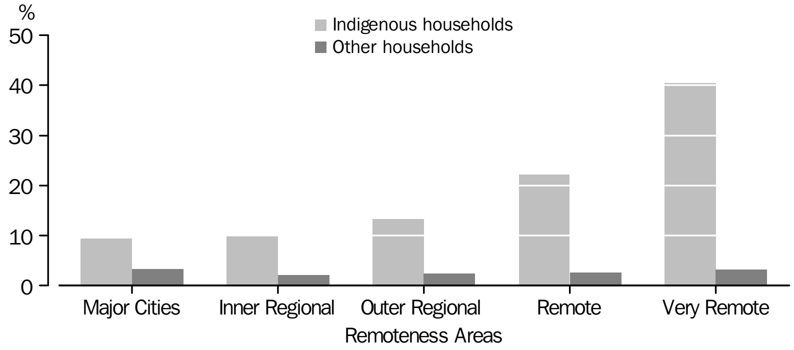
More than half (59%) of Indigenous households were renting in 2006 (either privately or from state/territory or community housing providers), double the rate for other households (26%). Median weekly rent paid by Indigenous households was $140, with those renting from private and other landlords paying the highest median weekly rent ($190). Almost half (48%) of Indigenous households renting from state/territory housing authorities were paying less than $100 per week.

Household size

The Canadian National Occupancy Standard for housing appropriateness is an internationally accepted measure of housing utilisation that is sensitive to both household size and composition. Using this measure, households that require at least one additional bedroom are considered to experience some degree of overcrowding. For more information on the criteria used in the Canadian National Occupancy Standard, see Chapter 4.

In the 2006 Census, the average number of bedrooms in all Australian dwellings was 3.1. However, the average number of persons per bedroom in Indigenous households was higher than in other households (3.4 compared with 2.6). Based on the Canadian National Occupancy Standard for housing utilisation, around one in eight Indigenous households (14%) were living in dwellings that needed one or more extra bedrooms compared with 3% of other households. In 2006, the proportion of Indigenous households experiencing overcrowding was higher in remote areas, with dwellings in very remote areas being the most likely to require one or more extra bedrooms (graph 2.11). Reflecting the generally higher rates of overcrowding in remote areas, some 34% of Indigenous households in the Northern Territory were living in overcrowded conditions, followed by 14% in both Western Australia and Queensland.

2.11 HOUSEHOLDS(a) REQUIRING AN EXTRA BEDROOM(b)—2006



(a) In occupied private dwellings.
(b) Based on the Canadian National Occupancy Standard for housing appropriateness.

Source: ABS 2006 Census of Population and Housing

Law and justice

In the 2002 NATSISS, around one-quarter (24%) of Indigenous people aged 15 years and over reported being a victim of physical or threatened violence in the 12 months prior to the survey (26% of males and 23% of females), nearly double the overall rate reported in 1994 (13%). In addition, one in five Indigenous people (19%) reported a family member having been sent to jail/currently in jail in 2002 (ABS 2004d).

Indigenous prisoners represented 24% of the total prisoner population at 30 June 2007. The proportion of prisoners that were Indigenous varied across states and territories. In the Northern Territory, which has the largest proportion of Indigenous residents, 84% of the prisoner population was Indigenous, while in Victoria, 6% of the prisoner population was Indigenous. After adjusting for differences in the age structure of the Indigenous and non-Indigenous populations, the Indigenous imprisonment rate was 1,787 per 100,000 adult Indigenous population, 13 times the non-Indigenous rate at 30 June 2007 (table 2.12) (ABS 2007g). Indigenous people were 21 times more likely to be in prison than non-Indigenous people in Western Australia; the highest age standardised ratio of Indigenous to non-Indigenous rates of imprisonment in Australia.

2.12 IMPRISONMENT RATES(a)(b), by Indigenous status and state/territory—30 June 2007

	NSW(c)	*Vic.*	*QLD*	*SA*	*WA*	*Tas.*	*NT*	*ACT*(d)	*Australia*
Crude rates									
Indigenous	2 467.4	1 288.5	1 761.4	2 334.7	3 886.2	632.9	2 046.6	774.9	2 255.5
Non-Indigenous	155.0	99.1	132.0	113.6	141.8	124.4	126.1	83.8	129.2
Ratio of crude rates(e)	15.9	13.0	13.3	20.6	27.4	5.1	16.2	9.2	17.5
Age-standardised rates									
Indigenous	1 987.7	999.5	1 405.4	1 839.5	3 077.2	521.1	1 602.9	672.8	1 786.7
Non-Indigenous	161.8	100.8	136.1	124.9	146.1	140.6	117.0	80.5	133.5
Ratio of age standardised rates(e)	12.3	9.9	10.3	14.7	21.1	3.7	13.7	8.4	13.4
All prisoners	**195.4**	**104.6**	**174.0**	**143.9**	**241.9**	**140.6**	**595.2**	**90.6**	**169.4**

(a) Rate per 100,000 adult population.
(b) The data presented in this table have been confidentialised to prevent identification of individuals.
(c) Data for NSW excludes ACT prisoners held in NSW prisons.
(d) Data for ACT includes prisoners held in NSW prisons as well as ACT prisoners held in ACT prisons.
(e) The ratio of Indigenous to non-Indigenous imprisonment is calculated by dividing the Indigenous rate by the non-Indigenous rate.

Source: ABS 2007g

Access to motor vehicles

In the 2006 Census, almost one-quarter (23%) of Indigenous households did not have ready access to a registered vehicle (i.e. garaged or parked at, or near, their dwelling), compared with 10% of other households. The Northern Territory had the highest proportion of Indigenous households without access to a registered vehicle (44%).

SUMMARY

The Aboriginal and Torres Strait Islander population of Australia was estimated to be 517,200 at 30 June 2006, or 2.5% of the total Australian population. The Indigenous population is relatively young, with a median age of 21 years, compared with a median age of 37 years in the non-Indigenous population.

At 30 June 2006, an estimated 32% of the Indigenous population were living in major cities, 43% in regional areas and one-quarter (25%) in remote areas. The jurisdictions with the largest estimated resident Indigenous populations were New South Wales (148,200 or 29% of the total Indigenous population) and Queensland (146,400 or 28% of the total Indigenous population). The Northern Territory had a higher proportion of Indigenous residents (32%) than any other state or territory.

Between the 2001 and 2006 Censuses, there was an increase in the proportion of Indigenous people completing Year 12 (from 20% to 23%). Over the same period, there was also a decrease in the Indigenous unemployment rate from 20% to 16% and an increase in the amount of household income available to Indigenous people. In 2006, the median weekly equivalised gross household income for Indigenous people ($362) was equivalent to 56% of the corresponding income for non-Indigenous people ($642). Despite these improvements, the unemployment rate was still much higher for Indigenous people than non-Indigenous people (16% compared with 5%), and rates of home ownership for Indigenous households were half those of other households (34% compared with 69%).

CHAPTER 3 EDUCATION AND HEALTH

INTRODUCTION

Education is considered to be a key factor in improving the health and wellbeing of Indigenous Australians. Higher levels of educational attainment are thought to directly impact on health by improving a person's health-related knowledge and their ability to efficiently use this information. Educational attainment is also associated with better employment prospects and higher income which, in turn, may serve to increase access to health-related services and products. Being employed also enhances self-esteem, increases opportunities for self-development and reduces social alienation (SCRGSP 2007a) (for more information on how socioeconomic status influences health, see Chapter 8).

The first part of this chapter provides an overview of the educational attainment of Aboriginal and Torres Strait Islander people from the 2006 Census of Population and Housing. The second explores the ways in which education, employment and health are interlinked. Previously, this report has outlined how health impacts on Indigenous children's participation and attendance at school (ABS & AIHW 2005). With the subsequent release of the 2004–05 National Aboriginal and Torres Strait Islander Health Survey (NATSIHS), this chapter examines the related issue of how education impacts on economic and health outcomes in adulthood.

SCHOOL RETENTION

A major focus of Indigenous education initiatives has been to encourage students to continue their education beyond the compulsory years of schooling in order to increase their future employment prospects and opportunities for non-school education.

The National Schools Statistics Collection showed that, in 2007, the apparent retention rate for Indigenous full-time students from Year 7/8 to Year 10 was 91% and to Year 12 was 43% (see the Glossary for more information on apparent retention rates).

Indigenous retention to Year 10 and beyond has steadily increased over the last 10 years (table 3.1). This trend is particularly evident at the Year 11 level, where the apparent retention rate from Year 7/8 rose from 52% in 1998 to 70% in 2007.

3.1 APPARENT SCHOOL RETENTION RATES, by Indigenous status—1998–2007

	1998	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*
	%	%	%	%	%	%	%	%	%	%
To Year 9										
Indigenous	95.0	93.9	95.5	96.5	97.8	96.8	97.2	99.2	98.4	97.5
Non-Indigenous	99.7	99.9	99.8	99.9	99.9	99.9	99.9	99.9	100.0	100.4
Difference (percentage points)	–4.7	–6.0	–4.3	–3.4	–2.0	–3.1	–2.7	–0.7	–1.6	–2.9
To Year 10										
Indigenous	83.3	82.0	83.0	85.7	86.4	87.2	85.8	88.3	91.4	90.5
Non-Indigenous	97.4	97.9	98.0	98.4	98.5	98.9	98.5	98.6	98.9	99.7
Difference (percentage points)	–14.1	–15.9	–15.0	–12.7	–12.1	–11.7	–12.7	–10.3	–7.5	–9.2
To Year 11										
Indigenous	52.3	56.0	53.6	56.1	58.9	61.4	61.1	62.3	67.7	69.7
Non-Indigenous	85.4	86.4	86.2	87.6	88.7	89.5	89.0	88.3	88.8	89.4
Difference (percentage points)	–33.1	–30.4	–32.6	–31.5	–29.8	–28.1	–27.9	–26.0	–21.1	–19.7
To Year 12										
Indigenous	32.1	34.7	36.4	35.7	38.0	39.1	39.8	39.5	40.1	42.9
Non-Indigenous	72.7	73.2	73.3	74.5	76.3	76.5	76.9	76.6	75.9	75.6
Difference (percentage points)	–40.6	–38.5	–36.9	–38.8	–38.3	–37.4	–37.1	–37.1	–35.8	–32.7

Source: National Schools Statistics Collection, ABS 2008

SCHOOL RETENTION *continued*

While Indigenous retention rates remain considerably lower than those for non-Indigenous school students, the disparity between the two groups is slowly lessening. In Year 11, the difference between Indigenous and non-Indigenous students decreased by 13 percentage points between 1998 and 2007. While the Year 12 differences decreased by 8 percentage points over this time period, Indigenous students were still much less likely than non-Indigenous students to progress to the final year of schooling in 2007.

EDUCATIONAL ATTAINMENT

Highest year of school completed

Among those who reported their highest year of schooling, the proportion of Indigenous people aged 15 years and over who had completed school to Year 12 increased from 20% in 2001 to 23% in 2006 (table 3.2). Rates of Year 12 completion improved in all states and territories, with the largest increases recorded in Tasmania (17% to 22%), the ACT (42% to 46%) and Queensland (26% to 30%).

Highest year of school completed continued

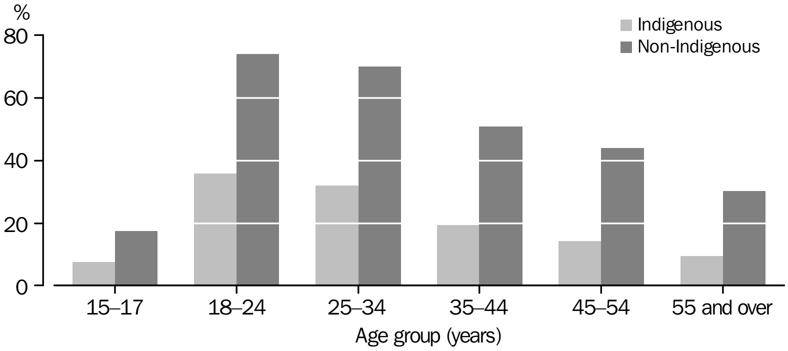
3.2 HIGHEST YEAR OF SCHOOL COMPLETED, Indigenous persons aged 15 years and over(a)—2001 and 2006

	2001		2006	
	no.	%	no.	%
Year 12	41 233	19.5	53 490	23.0
Year 10/11	87 303	41.4	100 552	43.2
Year 9 or below(b)	82 481	39.1	78 826	33.9
Total	***211 017***	***100.0***	***232 870***	***100.0***
Not stated	20 113	. .	32 951	. .

. . not applicable
(a) Excludes persons still attending secondary school.
(b) Includes persons who never attended school.
Source: ABS 2001 and 2006 Censuses of Population and Housing

Younger Indigenous people were more likely than older Indigenous people to have completed Year 12. The proportion of Indigenous people who had completed Year 12, as shown in the 2006 Census, ranged from 36% of people aged 18–24 years to 9% of people aged 55 years and over (graph 3.3). Overall, Indigenous males and females reported similar rates of Year 12 completion (22% compared with 24%).

3.3 COMPLETED SCHOOL TO YEAR 12(a)(b), by Indigenous status—2006



(a) Persons who were not attending school.
(b) Excludes persons who did not state their highest year of school completed.
Source: ABS 2006 Census of Population and Housing

Indigenous people living in rural or remote areas of Australia were less likely than those in urban areas to have completed Year 12. In 2006, 31% of Indigenous people living in major cities had completed school to this level, compared with 22% in regional areas and 14% in remote areas. With the exception of Queensland, this was reflected across the states and territories, with the ACT (46%) having the largest proportion of Indigenous people who had completed Year 12 and the Northern Territory the lowest (10%).

Despite the improvements in school completion within the Indigenous population, Indigenous people aged 15 years and over were still half as likely as non-Indigenous Australians to have completed school to Year 12 in 2006 (23% compared with 49%). They were also twice as likely to have left school at Year 9 or below (34% compared with 16%). In 2006, around 10,400 young Indigenous adults aged 18–24 years (22%) had left school

Highest year of school completed continued

at Year 9 or below compared with 58,100 non-Indigenous young people in the same age group (4%). These relative differences have remained unchanged since 2001.

Non-school qualifications

Non-school qualifications are attained through the successful completion of vocational education and training and/or higher education at universities. Some vocational education and training may be undertaken in conjunction with secondary school studies. At the broadest level, non-school qualifications are grouped as follows: Postgraduate degree; Graduate diploma/Graduate certificate; Bachelor degree; Advanced diploma/Diploma; and Certificate. Within the Certificate grouping, a distinction is made between Certificate levels I/II and Certificate levels III/IV due to significant differences in the skills and knowledge attained by students completing Certificates at these levels. While Certificate levels I/II can be generally characterised as providing a set of basic vocational skills with a narrow range of application, Certificate levels III/IV provide a broader knowledge base and the skills necessary to perform a wide range of skilled tasks, to provide technical advice of a complex nature, and to provide work group leadership when organising activities (ABS 2001).

Results from the 2006 Census of Population and Housing show that 47,600 Indigenous people aged 25–64 years had attained a non-school qualification. The proportion of Indigenous people who had a non-school qualification increased from 20% in 2001 to 26% in 2006. The majority of this increase was at the Certificate/Diploma level (14% to 20%). There was only a slight increase in the proportion of those with a Bachelor Degree or above (4% to 5%).

There was no difference in the proportion of Indigenous males and females who had a non-school qualification in 2006 (26%). Reflecting the location of tertiary institutions and the availability of jobs that utilise tertiary qualifications, the likelihood of having a non-school qualification was lower in remote areas than in non-remote areas. Overall, 30% of Indigenous people aged 25–64 years in non-remote areas had a non-school qualification compared with 15% of people in remote areas.

A relatively small number of Indigenous people did not report the level of their non-school qualification (2,200 or 5% of those with a non-school qualification). Of the 45,300 Indigenous people aged 25–64 years who reported their level of qualification in 2006, 62% had obtained a Certificate (48% had a Certificate level III/IV, 8% had a Certificate level I/II, and 6% had a Certificate, the level of which was unknown). Reflecting a greater tendency on the part of men to undertake study towards a trade qualification, Indigenous men had attained a Certificate level III/IV at almost twice the rate of Indigenous women (63% compared with 34%). Around one in six Indigenous people (17%) had an Advanced Diploma or Diploma and 21% had a Bachelor Degree or above. The majority of Indigenous people with higher level degrees (i.e. above the Certificate level) were female. Indigenous women were twice as likely as Indigenous men to have an Advanced Diploma or Diploma (22% compared with 12%) and more than one-and-a-half times as likely to have a Bachelor degree or above (26% compared with 15%).

Among the 42,400 Indigenous people aged 25–64 years who reported both the level of their non-school qualification and their main field of study, 18% had studied in the field of Management and Commerce, 17% in Society and Culture, and 16% in Engineering and

Non-school qualifications continued

Related Technologies. Indigenous men were much more likely than women to have a qualification in the field of Engineering and Related Technologies and Architecture and Building, whereas women were more likely than men to have attained a qualification in the fields of Management and Commerce, Education, and Health.

Although there have been continued improvements in the educational attainment of Indigenous Australians in recent years, their levels of attainment remain below those of non-Indigenous Australians. Among those aged 25–64 years, non-Indigenous people were twice as likely as Indigenous people to have a non-school qualification in 2006 (53% compared with 26%). Non-Indigenous people were more than four times as likely to have a Bachelor Degree or above (21% compared with 5%) and twice as likely to have an Advanced Diploma or Diploma (9% compared with 4%).

EDUCATION, EMPLOYMENT AND INCOME

The transition from education to work

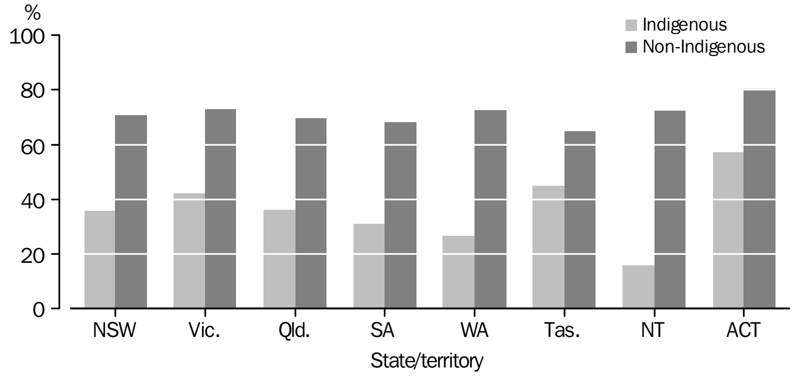
The transition from school to continued study or full-time employment can have long-term implications. For example, those who are not fully engaged in either education and/or work (i.e. not in full-time work, full-time education or in a combination of both part-time work and part-time study) during this period may be at risk of becoming long-term unemployed, underemployed or only marginally attached to the labour force (ABS 2006f).

One-third (33%) of all Indigenous young people aged 18–24 years were fully engaged in work and/or study in 2006, similar to the rate reported in 2001 (31%). Indigenous males were more likely than Indigenous females to be fully engaged (36% compared with 29%), while participation in full-time work and/or study was higher among people in non-remote than remote areas (38% compared with 18%).

In 2006, Indigenous young people aged 18–24 years were half as likely as non-Indigenous young people to be engaged in either full-time work, full-time study or in both part-time work and part-time study (33% compared with 71%). Across the states and territories, there was relatively wide variation in the proportion of Indigenous young people fully engaged compared with non-Indigenous young people. Reflecting increased access to educational institutions and mainstream employment opportunities in urban areas, the ACT had the highest proportion of Indigenous young people fully participating in education and/or work (57%), followed by Tasmania (45%) and Victoria (42%) (graph 3.4).

The transition from education to work continued

3.4 FULLY ENGAGED IN EDUCATION AND/OR WORK(a), Persons aged 18–24 years—2006



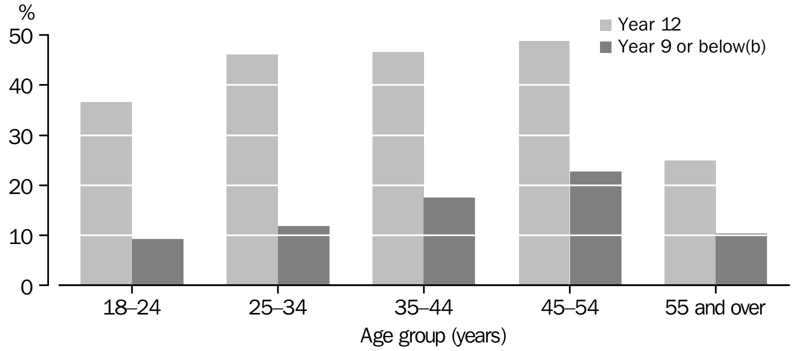
(a) Employed full-time, studying full-time or both employed part-time and studying part-time.

Source: ABS 2006 Census of Population and Housing

Education and employment

The positive effect that education has on an individual's economic outcomes, particularly employment and income, has been well established (Biddle 2005). Results from the 2006 Census show that Indigenous people aged 15 years and over with higher levels of schooling (who were not currently attending secondary school) were more likely than those with lower levels of attainment to be in full-time employment. In every broad age group, Indigenous people who had completed Year 12 were more than twice as likely as those who had completed school to Year 9 or below to have a full-time job (graph 3.5). This was particularly the case for young people aged 18–24 years, where the rate of full-time employment among those who had completed Year 12 was four times as high as among those who had left school at Year 9 or below (37% compared with 9%).

3.5 HIGHEST YEAR OF SCHOOL COMPLETED(a), Indigenous persons in full-time employment—2006



(a) Excludes persons still attending secondary school.
(b) Includes persons who never attended school.

Source: ABS 2006 Census of Population and Housing

Among those who had completed Year 12, the proportion of people in full-time employment was lower in the Indigenous population than in the non-Indigenous population (42% compared with 49%). Rates of part-time employment and non-participation in the labour force were similar for both groups. However, among

Education and employment continued

Australians who had completed Year 12, Indigenous people were more than twice as likely as non-Indigenous people to be unemployed (7% compared with 3%) (table 3.6).

3.6 LABOUR FORCE STATUS, by highest year of school completed—Persons aged 15 years and over—2006

		YEAR 12		YEAR 10/11		YEAR 9 OR BELOW(a)	
		Indigenous	*Non-Indigenous*	*Indigenous*	*Non-Indigenous*	*Indigenous*	*Non-Indigenous*
Employed							
Full-time	%	(b)41.7	49.2	29.8	42.2	13.7	19.2
Part-time	%	20.5	20.6	18.7	17.9	14.0	9.5
Total(c)	%	***68.2***	***74.1***	***53.6***	***64.2***	***31.3***	***31.3***
Unemployed	%	7.1	3.2	10.3	3.6	8.5	2.8
Not in the labour force	%	23.3	22.2	34.1	31.4	57.1	64.2
Not stated	%	1.4	0.6	2.0	0.8	3.1	1.6
Persons aged 15 years and over	no.	**53 491**	**6 549 115**	**100 552**	**4 693 351**	**78 827**	**2 104 152**
Labour force participation rate	%	75.3	77.2	63.9	67.8	39.8	34.2
Unemployment rate	%	9.5	4.1	16.1	5.3	21.4	8.3

(a) Includes persons who never attended school.

(b) Unemployed persons as a proportion of those in the labour force.

(c) Includes persons for whom full-time/part-time status was not known and persons who were away from work in the last four weeks.

Source: ABS 2006 Census of Population and Housing

The same pattern of association is evident among those who had completed a non-school qualification. Indigenous people aged 25–64 years who had a non-school qualification of a Certificate III or above were more than twice as likely as those without a non-school qualification to be employed full-time (52% compared with 23%). Indigenous women with a Certificate III or above were less likely than Indigenous men with the same level of qualification to be employed full-time, and were around twice as likely to be employed part-time or not be participating in the labour force. This reflects the fact that many women in this age group are likely to be caring for children full-time, or combining childcare with part-time employment (ABS 2006d).

In 2006, the difference in the full-time employment rates for Indigenous and non-Indigenous people with a Certificate III or above was 8 percentage points (52% compared with 60%) (table 3.7). This disparity in full-time employment rates was considerably lower than the difference between the full-time employment rates for Indigenous and non-Indigenous people with a non-school qualification (35% compared with 56%) and between Indigenous and non-Indigenous people without a non-school qualification (23% compared with 41%).

Education and employment *continued*

3.7 LABOUR FORCE STATUS, by non-school qualification—Persons aged 25–64 years—2006

		NON-SCHOOL QUALIFICATION				
		Certificate III or above(a)	*Other*	*Total*	*No non-school qualification*	*Total*
INDIGENOUS						
Employed						
Full-time	%	51.8	16.1	34.9	22.8	27.7
Part-time	%	18.7	11.7	15.4	17.4	16.6
Total(b)	%	***76.2***	***32.3***	***55.4***	***44.6***	***49.0***
Unemployed	%	5.7	5.6	5.7	8.4	7.3
Not in the labour force	%	17.1	39.2	27.6	45.1	38.0
Not stated	%	0.9	22.9	11.3	1.9	5.7
Persons aged 25–64 years	no.	**38 939**	**35 067**	**73 998**	**108 786**	**182 791**
Labour force participation rate	%	82.0	37.9	61.1	53.0	56.3
Unemployment rate	%	7.0	14.8	9.3	15.8	13.0
NON-INDIGENOUS						
Employed						
Full-time	%	60.3	38.3	56.5	41.1	50.0
Part-time	%	18.7	20.0	18.9	19.4	19.1
Total(b)	%	***83.6***	***63.6***	***80.1***	***64.6***	***73.6***
Unemployed	%	2.5	3.5	2.7	3.8	3.2
Not in the labour force	%	13.6	26.1	15.8	30.8	22.1
Not stated	%	0.3	6.7	1.4	0.7	1.1
Persons aged 25–64 years	no.	**4 670 956**	**981 530**	**5 652 487**	**4 165 625**	**9 818 107**
Labour force participation rate	%	86.1	67.2	82.8	68.5	76.7
Unemployment rate	%	2.9	5.3	3.2	5.6	4.1

(a) Comprises Certificate levels 3 and 4, Diplomas and Advanced diplomas, Bachelor degrees, Graduate diplomas, Graduate certificates and Postgraduate degrees.

(b) Includes persons for whom full-time/part-time status was not known and persons who were away from work in the last four weeks.

Source: ABS 2006 Census of Population and Housing

Education and income

In 2006, Indigenous people who had completed secondary school had higher incomes than those who had left school at lower grades. Among those who were employed, Indigenous people aged 15 years and over who had completed Year 12 had a median gross individual income of $620 per week compared with $405 per week for those who left school at Year 9 or below. Nevertheless, employed Indigenous people who had completed Year 12 had a lower median weekly income in 2006 than did employed non-Indigenous people with Year 12 ($620 per week compared with $811 per week).

Likewise, among those aged 25–64 years who were employed, Indigenous people with a Certificate III or above had one-and-a-half times the weekly income of those without a non-school qualification ($791 compared with $510). However, they still had a lower median weekly income compared with non-Indigenous people with the equivalent qualification level ($791 compared with $965).

LINKS BETWEEN EDUCATION AND HEALTH

There is growing evidence that education leads to more than just better employment opportunities and higher income. International research has clearly established that higher levels of educational attainment are also associated with improved health outcomes (ABS & AIHW 2005). For example, strong positive correlations have been found between parental education, particularly that of the mother, and child health. It has also been shown that higher levels of educational attainment are associated with better self-assessed health and physical functioning, and lower levels of morbidity and mortality (Albano et al 2007; Ross & Wu 1995).

However, while there is general acceptance of a positive association between education and health, the full extent of this relationship has yet to be explained (see box 3.8). Likewise, while there is some evidence to suggest that the effect of education on health is similar for Aboriginal and Torres Strait Islander people (Biddle 2005; Gray & Boughton 2001), there has been relatively little research overall.

3.8 EXPLAINING THE LINKS BETWEEN EDUCATION AND HEALTH

While the positive association between education and health has been well established, the explanations for the association have not. Generally, the most common explanations fall into two main categories. Firstly, education may lead to better health outcomes through increasing a person's health-related knowledge and information, or their ability to make efficient use of such information. Doing so may increase the likelihood of a person engaging in positive health behaviour (e.g. exercising, regular health check-ups), or alternatively not engaging in behaviour likely to be harmful to one's health (e.g. smoking).

Furthermore, those with higher education levels are more likely to be employed and generally have access to better working conditions and higher incomes. These factors may in turn affect health by allowing a person to avoid some of the negative health consequences of 'low status' jobs, or through increasing the ability to pay for health or health related products, such as medication, health insurance, specialist services and so on. Well educated people may also feel a greater sense of control over their lives and their health, and have higher levels of social support.

Secondly, the association between education and health may be partly explained by the fact that healthy individuals are better able to undertake education in the first place. A child's health has a powerful impact on whether or not they attend school and on their ability to learn and participate in school activities. Therefore children with disability or chronic health conditions may be at risk of not completing their education (for more details on the impact of health on education, see Chapter 3 in the 2005 edition of this report). Similarly, poor health could manifest itself through relatively low life expectancy, thereby not allowing a person to enjoy the benefits of education for as long as they otherwise would. Poor health may also restrict a person's ability to make use of their enhanced earnings power derived from their education.

Source: Biddle 2005; Kennedy 2003; Ross & Wu 1995

Health and education correlations from the 2004–05 NATSIHS

This section explores the relationship between highest level of schooling and selected health indicators for Indigenous people aged 18 years and over using the results from the 2004–05 NATSIHS. However, it is important to note that the interactions between educational attainment and health outcomes are complex and are difficult to measure in household surveys. So while the NATSIHS can provide insights into the associations between school completion and health (and vice versa), it cannot determine the causal pathways that underlie them.

Furthermore, both level of education and health status are strongly related to age, meaning that younger people are much more likely than older people to be in good health and to be well educated. For example, in 2004–05, those aged 18–34 years comprised 71% of all Indigenous people who had completed Year 12 and 62% of all Indigenous people who reported excellent/very good health, although this age group represented slightly less than half the total adult population. Therefore to reduce the effect of age, the following analysis focuses on two broad age groups: young adults aged 18–34 years and older adults aged 35 years and over.

Results from the 2004–05 NATSIHS show that educational attainment was positively associated with health status. Table 3.9 shows that young Indigenous adults (aged 18–34 years) who had completed Year 12 were more likely than those who had left school at Year 9 or below to rate their health as excellent or very good (57% compared with 45%), and were less likely to rate their health as fair or poor (10% compared with 16%). They were also around half as likely to report high/very high levels of psychological distress in the last four weeks (19% compared with 35%). A similar pattern of association between educational attainment and health outcomes was also observed for Indigenous people aged 35 years and over.

The likelihood of engaging in health risk behaviours also decreased with higher levels of schooling. In 2004–05, young adults who had completed Year 12 were half as likely as those who had completed Year 9 or below to regularly smoke and to consume alcohol at long-term risky/high risk levels. In non-remote areas, Indigenous young people with higher educational attainment were also less likely to be sedentary or engage in low levels of exercise, and to have no usual daily intake of fruit or vegetables (table 3.9). However, among Indigenous people aged 35 years and over, only rates of smoking and low fruit consumption significantly decreased with higher levels of schooling.

3.9 SELECTED HEALTH CHARACTERISTICS OF INDIGENOUS PERSONS, by highest year of school completed(a)—2004–05

		18–34 YEARS				35 YEARS AND OVER			
		Year 12	*Year 10/11*	*Year 9 or below*(b)	*Total*(c)	*Year 12*	*Year 10/11*	*Year 9 or below*(b)	*Total*(c)
Self-assessed health status									
Excellent/Very good	%	(d)57.4	48.5	(d)44.8	50.6	(e)38.9	35.8	(e)21.2	29.4
Good	%	32.9	36.6	39.4	36.0	34.4	40.2	34.1	36.6
Fair/poor	%	(d)9.7	14.8	(d)15.7	13.3	(e)26.7	24.0	(e)44.7	34.1
Long-term health conditions									
Has a long-term health condition	%	(d)75.5	70.4	(d)68.2	71.6	89.1	88.7	92.1	90.4
Diabetes/high sugar levels	%	*1.9	3.3	*3.5	2.8	(e)15.7	11.5	(e)25.9	18.8
Eyes/sight problems	%	(d)33.8	24.0	(d)18.5	26.0	(e)63.9	59.3	(e)75.9	67.7
Ear/hearing problems/diseases	%	(d)8.7	10.3	(d)15.7	11.0	20.0	15.9	21.8	19.2
Heart and circulatory problems/diseases	%	(d)5.4	9.1	(d)10.5	8.2	(e)27.0	23.8	(e)40.9	32.3
Asthma	%	18.0	17.2	13.8	16.7	15.8	14.2	18.1	16.3
Arthritis	%	5.4	5.9	5.7	5.7	24.0	23.2	30.7	26.8
Back pain/symptoms	%	14.8	20.9	19.7	18.6	28.3	28.1	27.0	27.7
Osteoporosis	%	np	np	np	*—	**(e)0.8	*2.2	(e)4.0	2.9
Kidney disease	%	**0.9	*2.4	*2.1	1.8	**(e)0.8	2.7	(e)5.9	3.9
Does not have a long-term health condition	%	(d)24.5	29.6	(d)31.8	28.4	10.9	11.3	7.9	9.6
Health risk factors									
Current daily smoker	%	(d)33.8	58.7	(d)70.1	53.0	(e)35.4	50.4	(e)48.2	47.4
Long-term risky/high risk alcohol consumption(f)	%	(d)9.8	19.8	(d)20.5	16.6	18.1	16.4	15.8	16.3
Short-term risky/high risk alcohol consumption(f)	%	(d)13.8	24.5	(d)27.3	21.6	*12.8	17.4	18.0	17.1
Overweight/obese(g)	%	50.0	52.2	54.7	51.9	73.1	67.7	67.1	68.2
Sedentary/low levels of exercise(h)	%	(d)69.0	74.8	(d)79.6	73.5	75.0	81.0	84.3	81.6
No usual daily fruit intake	%	(d)11.4	18.7	(d)19.5	16.5	(e)5.1	12.8	(e)15.9	13.3
No usual daily vegetable intake	%	*(d)3.5	6.1	(d)10.1	6.1	*4.6	3.1	7.0	5.1
High/very high psychological distress(i)	%	(d)19.2	28.1	(d)34.5	26.5	(e)20.9	26.0	(e)31.0	27.7
Indigenous persons aged 18 years and over	no.	**41 100**	**57 200**	**27 200**	**125 600**	**17 100**	**52 600**	**62 100**	**131 800**

* 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

— nil or rounded to zero (including null cells)

np not available for publication but included in totals where applicable, unless otherwise indicated

(a) Excludes persons still attending secondary school.

(b) Includes persons who never attended school.

(c) Includes 'Highest year of school completed not stated'.

(d) Difference between Year 12 and Year 9 or below for persons aged 18–34 years is statistically significant.

(e) Difference between Year 12 and Year 9 or below for persons aged 35 years and over is statistically significant.

(f) See Glossary for more information.

(g) Proportions are calculated excluding 'Body mass index unknown'.

(h) Non-remote areas only.

(i) In the last four weeks.

Source: ABS 2004–05 NATSIHS

Health and education correlations from the 2004–05 NATSIHS continued

Education level has also been shown to be associated with long-term health conditions, particularly heart disease and diet-related illnesses (MCEETYA 2001). In 2004–05, Indigenous people aged 35 years and over who had completed school to Year 12 were around half as likely to report having diabetes or cardiovascular disease as those who had left school at Year 9 or below. They were also less likely to report eye/sight problems, osteoporosis and kidney disease.

Poor health among young people may also impact on their opportunity to attend and succeed at school. As outlined in the 2005 edition of this report, health conditions such as otitis media (middle ear infection) and poor nutrition have been shown to negatively affect educational attainment. In 2004–05, young Indigenous people who had left school

Health and education correlations from the 2004–05 NATSIHS continued

at Year 9 or below were around twice as likely as those who had completed Year 12 to have ear/hearing problems and heart/circulatory diseases. These conditions—if present from childhood—may have had a significant impact on both school performance and attendance. However, because the NATSIHS did not collect information on age of onset of chronic conditions, causality cannot be determined.

ADDITIONAL EFFECTS OF EMPLOYMENT AND INCOME ON HEALTH

Overall, half (51%) of Indigenous people aged 18–34 years reported excellent or very good health in 2004–05. This proportion was higher among those who had completed Year 12 (57%) and among those who were employed (55%). Just under two-thirds (63%) of people who had completed Year 12 and who were also employed reported excellent/very good health. This proportion was only slightly higher among those who had completed Year 12, who were employed and who had access to higher household incomes (64%) (table 3.10).

3.10 SELECTED SOCIOECONOMIC INDICATORS, Indigenous persons aged 18–34 years with excellent/very good self-assessed health—2004–05

	Excellent/very good health	
	%	no.
Completed Year 12	57.4	23 600
Employed	55.1	38 400
Household income in third quintile or above(a)	57.8	20 600
Completed Year 12 and employed(b)	62.9	15 600
Completed Year 12 and household income in third quintile or above(c)	64.1	11 600
Completed Year 12 and employed and household income in third quintile or above(b)(c)	65.5	11 200
Indigenous persons aged 18–34 years with excellent/very good health	**51.3**	**64 000**

(a) Based on equivalised gross household weekly income.
(b) Excludes persons for whom information on highest year of school completed was not known.
(c) Excludes persons for whom information on highest year of school completed and/or household income was not known.
Source: ABS 2004–05 NATSIHS

The 2004–05 NATSIHS used a modified five-item version of the Kessler Psychological Distress Scale (known as the K5) to measure non-specific psychological distress. A high score indicates that the person may be experiencing feelings of anxiety or depression on a regular basis, whereas a low score indicates that the person is experiencing these feelings infrequently or not at all. In 2004–05, around three-quarters (73%) of all Indigenous people aged 18–34 years reported low levels of psychological distress in the four weeks prior to interview. Again, the proportion of Indigenous people reporting low levels of psychological distress was higher among those who had completed Year 12 (81%) and those who were employed (79%), but was only slightly higher for those who met both criteria (83%). The rate did not change significantly with inclusion of the income criterion (83%) (table 3.11).

Health and education correlations from the 2004–05 NATSIHS continued

ADDITIONAL EFFECTS OF EMPLOYMENT AND INCOME ON HEALTH *continued*

3.11 SELECTED SOCIOECONOMIC INDICATORS, Indigenous persons aged 18–34 years with low levels of psychological distress—2004–05

	Low psychological distress(a)	
	%	no.
Completed Year 12	80.6	32 800
Employed	79.3	54 800
Household income in third quintile or above(b)	79.7	28 300
Completed Year 12 and employed(c)	82.7	20 400
Completed Year 12 and household income in third quintile or above(b)(d)	82.5	14 900
Completed Year 12 and employed and household income in third quintile or above(b)(d)	83.1	14 200
Indigenous persons aged 18–34 years with low levels of psychological distress	**73.0**	**91 100**

(a) In the four weeks prior to interview.
(b) Based on equivalised gross household weekly income.
(c) Excludes persons for whom information on highest year of school completed was not known.
(d) Excludes persons for whom information on highest year of school completed and/or household income was not known.
Source: ABS 2004–05 NATSIHS

SUMMARY

Educational attainment among Aboriginal and Torres Strait Islander people continues to improve. Between 2001 and 2006, the proportion of Indigenous people aged 15 years and over who had completed Year 12 increased from 20% to 23%. There was also an increase in the proportion of people who had completed a non-school qualification (20% to 26%).

Higher educational attainment was associated with better employment prospects and higher income in 2006. In every broad age group, Indigenous people aged 15 years and over who had completed Year 12 were more than twice as likely as those who had completed school to Year 9 or below to be in full-time employment in 2006. Likewise, rates of full-time employment were twice as high among Indigenous people aged 25–64 years with a non-school qualification of a Certificate III or above compared with those without a non-school qualification.

Among employed Indigenous people aged 15 years and over, the median individual weekly income for those who had completed Year 12 ($620 per week) was one-and-a-half times that of people who had completed Year 9 or below ($405 per week). Similarly, employed Indigenous people aged 25–64 years who had a Certificate III or above had one-and-a-half times the median individual weekly income of those without a non-school qualification ($791 compared with $510) .

Higher levels of schooling were also linked with improved health outcomes. In 2004–05, Indigenous people aged 18–34 years with higher levels of schooling were more likely than those with lower levels of schooling to report better self-assessed heath and lower

SUMMARY *continued*

levels of psychological distress. They were also less likely to regularly smoke, drink alcohol at risky/high risk levels, be physically inactive and have no usual daily intake of fruit or vegetables.

CHAPTER 4 HOUSING CIRCUMSTANCES

INTRODUCTION

The housing circumstances of Aboriginal and Torres Strait Islander people differ markedly from those of other Australians. Indigenous people are much less likely to own their homes and are more likely to receive some form of government housing assistance. The average size of Indigenous households is larger than the size of other Australian households. Some Indigenous people, particularly those in more remote areas, live in poorly maintained housing without essential infrastructure such as a supply of safe drinking water or effective sewerage systems. Indigenous people are also vulnerable to homelessness because of their relative social and economic disadvantage.

Housing has been identified as a major factor affecting the health of Aboriginal and Torres Strait Islander people. Inadequate or poorly maintained housing and the absence of functioning infrastructure can pose serious health risks. Overcrowded dwellings and poor quality housing have been associated with poorer physical and mental health among residents.

Housing assistance programs are especially important for Indigenous people as they are generally aimed at people on low incomes or those with special needs (box 4.5). A large proportion of Indigenous households rent their accommodation through housing assistance programs such as public housing or Indigenous community housing. For those in the private rental market, rent assistance programs provide an important income supplement for lower income households. Housing assistance programs also play a role in relation to homelessness both by directly assisting homeless people and by helping those at risk of homelessness. For example, the Supported Accommodation Assistance Program (SAAP) was designed specifically to assist homeless people with accommodation and other services.

This chapter describes the characteristics of Indigenous households and their housing circumstances. It includes data on tenure type and housing assistance, location and housing costs. The chapter examines the relationship between housing and health, and provides data on those housing characteristics that may contribute to poor health outcomes—overcrowding and poor quality housing. The final part of the chapter focuses on those who are most disadvantaged in relation to housing, namely homeless people. Detailed information on the characteristics of homeless people is provided through data from the AIHW SAAP National Data Collection.

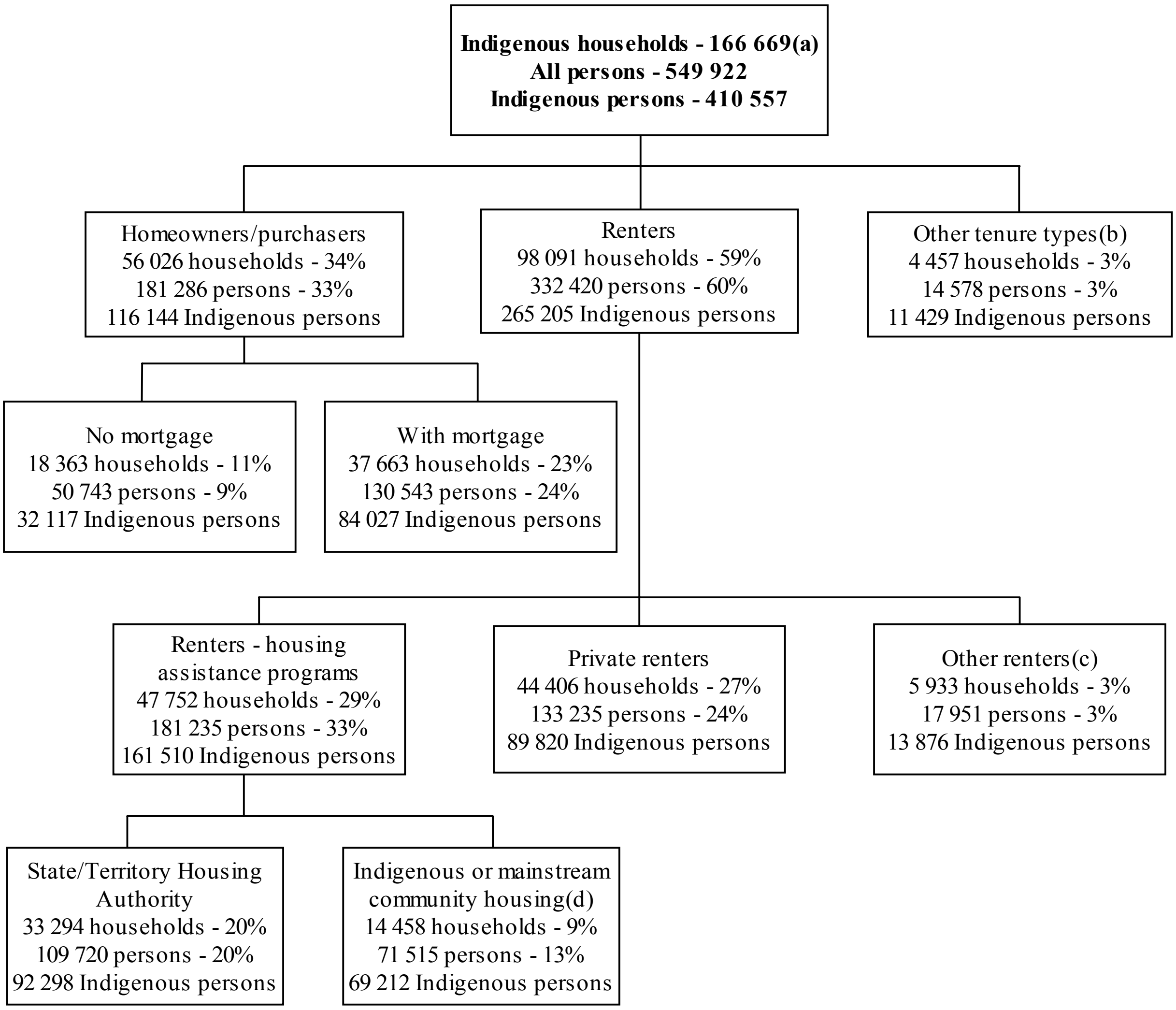
Indigenous households

For the purposes of analysis, Indigenous households have been defined as households containing at least one Indigenous person of any age, excluding visitors. This definition is also used in the National Housing Assistance Data Dictionary (AIHW 2006e).

HOUSING TENURE

Of the estimated 166,700 Indigenous households in the 2006 Census, 34% were home owners (with or without a mortgage), 59% were renting and 3% had other types of tenure (figure 4.1). Among the 98,100 Indigenous households in rental accommodation, 27% were renting privately, 20% were renting from state or territory housing authorities, 9% were renting from Indigenous or mainstream community housing organisations and the remaining 4% were other renters (i.e. with other or unspecified landlord types) (figure 4.1). In comparison, 69% of the estimated 7 million other Australian households were home owners (with or without a mortgage) 26% were renting and 2% had other tenure types. Of the 1.8 million other households that were renting, the majority were renting privately (1.4 million or 20% of other households), with just 4% renting from state or territory housing authorities and 1% from Indigenous or mainstream community organisations.

4.1 INDIGENOUS HOUSEHOLDS AND PERSONS IN INDIGENOUS HOUSEHOLDS—2006



(a) The 8,095 Indigenous households with tenure type not stated are not shown in this chart.
(b) Includes households and persons in rent/buy schemes, living rent-free or under a life tenure scheme.
(c) Includes 1,331 Indigenous households with landlord not stated.
(d) Community housing managed by Indigenous community housing organisations or mainstream community housing providers.

Source: ABS 2006 Census of Population and Housing

HOUSING TENURE *continued*

Home ownership provides a relatively secure form of housing tenure. There are much lower rates of home ownership among Indigenous households, partly reflecting the lower socioeconomic status of many Indigenous households and the fact that one-quarter of the Indigenous population live on Indigenous land in remote areas where individual home ownership is generally not possible. In 2006, 11% of Indigenous households were home owner households without a mortgage and 23% were home owner households with a mortgage (figure 4.1).

As most residents of Indigenous households are Aboriginal or Torres Strait Islander people, the proportion of Indigenous people in Indigenous households, by tenure type, is broadly similar to the distribution of Indigenous households by tenure type. However, there are some differences related to the size of households across the different tenure types (see table 4.8). There was a larger proportion of Indigenous people living in Indigenous or mainstream community housing (17%) than the proportion of Indigenous households with this tenure type (9%). In contrast, a smaller proportion of Indigenous people were living in home owner households (28%) than the proportion of home owner households (34%) (table 4.2). This reflects the larger average household size for those living in Indigenous or mainstream community housing (see table 4.8). Information about the housing circumstances of Indigenous people, in addition to Indigenous households, is shown in selected tables in this chapter.

Changes over time in housing tenure

Between 2001 and 2006 the proportion of Indigenous home owner households increased from 31% to 34%. The proportion of these households without a mortgage decreased from 13% in 2001 to 11% in 2006, while the proportion with a mortgage increased from 18% to 23% over the same period (table 4.2). The proportions of Indigenous households renting from Indigenous or mainstream community housing organisations and those renting from private or other providers, fell by around two percentage points between 2001 and 2006, while the proportion of Indigenous households renting from state housing authorities remained relatively unchanged over this period.

Consistent with increases in the proportion of households living in dwellings that were being purchased, the proportion of Indigenous people living in these dwellings increased from 16% in 2001 to 20% in 2006 (table 4.2). Over the same period, there was a decrease in the proportion of Indigenous people living in Indigenous or mainstream community housing (from 21% in 2001 to 17% in 2006).

Changes over time in housing tenure continued

4.2 INDIGENOUS HOUSEHOLDS AND INDIGENOUS PERSONS, by tenure type—2001 and 2006

		HOUSEHOLDS		PERSONS(a)	
		2001	*2006*	*2001*	*2006*
Fully owned	%	12.6	11.0	9.1	7.8
Being purchased	%	18.4	22.6	16.2	20.4
Private and other renter(a)	%	32.2	30.2	26.3	25.3
Renter state or territory housing authority	%	20.4	20.0	22.5	22.5
Renter Indigenous/mainstream community housing	%	10.9	8.7	20.8	16.8
Other tenure(b)	%	2.3	2.7	2.3	2.8
Not stated	%	3.2	4.9	2.9	4.4
Total number(c)	no.	**144 493**	**166 669**	**372 125**	**411 334**

(a) Includes households for which landlord type was not stated.
(b) Includes those living under life tenure schemes, those living rent free and participants in rent/buy schemes.
(c) Excludes visitors.
Source: ABS 2001 and 2006 Censuses of Population and Housing

Tenure by state and territory

The tenure type of Indigenous households varies by state and territory, partly reflecting differences in the types of housing that are available to Indigenous people. In 2006, the Northern Territory had the lowest proportion of Indigenous home owner households (18%) and the highest proportion of households in Indigenous or mainstream community housing (41%). Tasmania, on the other hand, had a relatively high proportion of Indigenous home owner households (52%) and just 1% of Indigenous households in Indigenous or mainstream community housing (table 4.3).

Rates of home ownership were highest in jurisdictions with mainly urban Indigenous populations—Tasmania (52%), the Australian Capital Territory (42%) and Victoria (39%). The proportions of Indigenous households renting from private and other landlords were highest in Queensland (37%), New South Wales (32%), and Victoria (31%). Relative to other jurisdictions, South Australia (29%), the Australian Capital Territory (27%) and Western Australia (26%) had high proportions of Indigenous households renting from state/territory housing authorities (table 4.3). State and territory housing authorities provide both public housing and state and territory owned and managed Indigenous housing (SOMIH). Information on SOMIH is covered in some detail in later sections of this chapter.

At the state/territory level, the distribution of Indigenous people, by tenure type, is broadly similar to the proportions of Indigenous households by tenure type. Variation is due to differences in the size of households by tenure type. For example, the proportion of Indigenous people living in Indigenous or mainstream community housing in the Northern Territory was significantly greater than the proportion of Indigenous households in these types of dwellings (63% compared with 41%) (table 4.3). This difference reflects the higher average number of people living in Indigenous or mainstream community housing (five people per dwelling) compared with other types of housing (three people per dwelling). For more information on household size by tenure, see table 4.8.

4.3 INDIGENOUS HOUSEHOLDS AND PERSONS, by tenure type and state/territory—2006

		NSW	*Vic.*	*Qld*	*WA*	*SA*	*Tas.*	*ACT*	*NT*	*Australia*(a)
HOUSEHOLDS										
Home owner/purchaser	%	35.6	39.3	31.5	29.4	33.4	51.9	41.5	17.9	33.6
Private and other renter(b)	%	32.1	30.7	36.5	24.2	23.6	25.3	27.0	13.9	30.2
Renter state/territory housing authority	%	21.0	19.5	16.3	25.8	28.8	16.6	26.5	14.3	20.0
Renter Indigenous/mainstream community housing	%	4.9	2.4	8.6	10.9	6.3	1.0	2.0	41.2	8.7
Other tenure	%	2.2	2.7	2.7	3.4	2.3	2.6	1.4	4.0	2.7
Not stated	%	4.2	5.3	4.3	6.4	5.6	2.7	1.7	8.7	4.9
Total number(c)	no.	**57 246**	**14 151**	**45 938**	**18 381**	**9 949**	**7 923**	**1 814**	**11 199**	**166 669**
PERSONS										
Home owner/purchaser	%	33.1	37.8	26.4	23.6	29.6	52.1	40.1	10.1	28.3
Private and other renter(b)	%	29.5	27.2	31.4	19.2	19.6	23.9	23.2	7.7	25.3
Renter state/territory housing authority	%	24.1	24.2	20.5	29.7	32.1	18.1	30.6	10.7	22.5
Renter Indigenous/mainstream community housing	%	7.3	3.2	14.6	18.5	11.5	1.0	2.9	62.6	16.8
Other tenure	%	2.2	2.6	3.1	3.3	2.2	2.6	1.2	3.6	2.8
Not stated	%	3.9	5.1	4.0	5.8	5.1	2.3	2.0	5.3	4.4
Total number(c)	no.	**126 623**	**27 674**	**115 428**	**51 275**	**23 019**	**15 847**	**3 565**	**47 705**	**411 334**

(a) Includes 'Other territories'.
(b) Includes landlord type not stated.
(c) Excludes visitors.

Source: ABS 2006 Census of Population and Housing

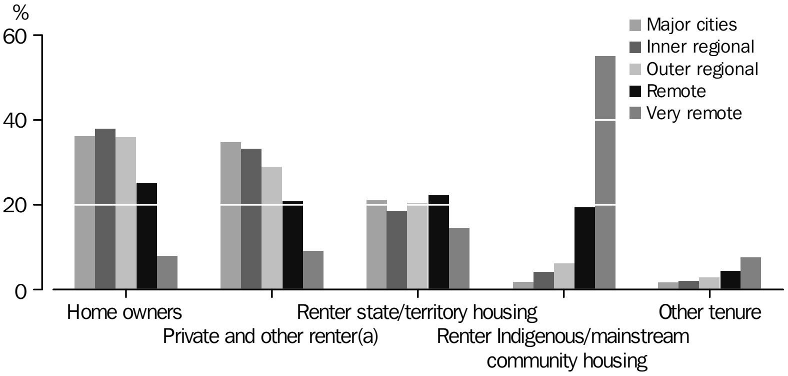
Tenure by Remoteness Areas

In 2006, there were around 24,300 Indigenous households (15%) in remote or very remote areas, 76,000 (46%) living in inner and outer regional areas and 66,300 (40%) living in major cities. Tenure type varied by remoteness, reflecting the different housing options available to Indigenous people in different locations, as well as the generally lower socioeconomic status of Indigenous households in more remote areas.

Home ownership rates (with or without a mortgage) were highest among Indigenous households in inner regional areas (38%) and lowest among those in very remote areas (8%). The proportion of Indigenous households living in Indigenous or mainstream community housing was highest in very remote areas (55%) (graph 4.4).

Tenure by Remoteness Areas continued

4.4 INDIGENOUS HOUSEHOLDS, by tenure type and Remoteness Areas—2006



(a) Includes landlord type not stated.

Source: ABS 2006 Census of Population and Housing

HOUSING ASSISTANCE

A large proportion of Indigenous households receive government housing assistance of some kind (see box 4.5). The following analysis is based on data from housing administrative data collections including the AIHW Commonwealth-State Housing Agreement (CSHA) and National Reporting Framework for Indigenous housing data collections, and the Commonwealth Rent Assistance data collection.

Administrative data on the number of households in these programs differ from data on tenure type from the 2006 Census. This is due to a range of factors including the under-identification of Indigenous households in public and mainstream community housing data collections. The Census data and the housing administrative data collections are also based on different reference periods and use different collection methodologies. There may also be some undercounting of Indigenous households in the Census data as this definition is dependent on the identification of Indigenous people in the Census.

4.5 MAJOR HOUSING ASSISTANCE PROGRAMS AND ADMINISTRATIVE DATA COLLECTIONS

Indigenous-specific programs:

- State and territory owned and managed Indigenous housing (SOMIH) is managed by the state governments and allocated specifically to Indigenous Australians. Funding is through the Commonwealth-State Housing Agreement (CSHA).
- Indigenous community housing (ICH) is managed by Indigenous community housing organisations, with funding provided by the states and territories and the Australian Government.

Mainstream programs:

- Public housing is administered by the states and territories and provides publicly owned dwellings that are funded through CSHA and used to provide appropriate, affordable and accessible shelter for low to moderate income earners who may have difficulty entering the housing market.

HOUSING ASSISTANCE
continued

- Community housing is managed by non-profit community-based organisations such as local governments, churches and charity groups and is funded through the CSHA. It takes several forms: from emergency or crisis accommodation, to medium-term or transitional accommodation, to long-term housing.
- Commonwealth Rent Assistance (CRA) is an income supplement that may be payable to recipients of social security, family tax benefit and Australian Government Department of Veteran's Affairs payments in the private rental market. To be eligible for assistance the rent paid must be above a specified threshold level, which varies according to a client's family situation.
- Private Rental Assistance (PRA) is a suite of housing assistance programs, including rental assistance (subsidies), bond assistance and relocation expenses, provided by the states and territories through the CSHA and aimed at assisting low-income households experiencing difficulty in securing or maintaining private rental accommodation. For the year ending 30 June 2006, there were 7,989 new Indigenous households who received PRA.
- Home Purchase Assistance (HPA) or home ownership assistance is provided for people who wish to buy their own house but need help with financing. Assistance can be in the form of deposit assistance, mortgage relief and access to surplus housing stock. For the year ending 30 June 2006 there were 295 new Indigenous households who received HPA.

Administrative data collections

The AIHW collects the national administrative data on programs funded under the CSHA, that is public rental housing, mainstream community housing, private rent assistance and home purchase assistance. There is much variability in the quality of information about mainstream housing assistance for Indigenous Australians. Indigenous identification is not complete and the number of Indigenous households receiving assistance under these programs is therefore underestimated.

The AIHW also collects data on Indigenous community housing from the Australian Government and the states and territories in the National Reporting Framework (NRF) data collection. This administrative data collection was established in 2003–04.

Data on those in receipt of Commonwealth Rent Assistance (CRA) come from the FaHCSIA Housing Dataset. A copy of this dataset is provided to the AIHW each year.

At 30 June 2006, administrative data collections recorded around 55,000 Indigenous households receiving assistance through a range of housing programs—an estimated 22,200 in Indigenous community housing, 12,400 in SOMIH, 21,100 in public rental housing and 1,700 in mainstream community housing. There were another 30,200 Indigenous income units (single persons, couples or family units comprising parents with dependent children) in receipt of CRA (table 4.6). Across Australia, over 50 in every 100 Indigenous households were receiving housing assistance of some kind—18 per 100 were in receipt of CRA, 13 per 100 in both Indigenous community housing and public housing and 7 per 100 in SOMIH.

Housing assistance by state/territory

The rate of Indigenous households in the different housing assistance programs varied across states and territories. Compared with other states, the Northern Territory had much higher rates for Indigenous community housing (61 per 100). This was followed by Western Australia (18 per 100) and Queensland (12 per 100). For SOMIH, South Australia had the highest rate (18 per 100) followed by Western Australia (12 per 100). Western Australia had the highest rate of Indigenous households in public housing (24 per 100) followed by New South Wales and the Northern Territory (15 per 100). The rate of Indigenous households receiving CRA was highest in Queensland (23 per 100) followed by New South Wales (20 per 100).

4.6 INDIGENOUS HOUSEHOLDS OR INCOME UNITS IN MAJOR HOUSING ASSISTANCE PROGRAMS, by state/territory—30 June 2006

	NSW	*Vic.*	*Qld*	*WA*	*SA*	*Tas.*	*ACT*	*NT*	*Australia*
NUMBER									
Indigenous community housing(a)	4 989	442	5 671	3 213	991	56	23	6 807	22 192
SOMIH	4 041	1 248	2 822	2 138	1 791	346	. .	. .	12 386
Public housing	(b)8 700	1 233	3 122	4 399	1 210	639	191	1 647	21 141
Community housing	661	56	725	121	65	11	24	na	1 663
Commonwealth Rent Assistance(c)	11 692	1 945	10 377	2 612	1 368	1 007	124	1 031	30 168
RATE PER 100 HOUSEHOLDS									
Indigenous community housing(a)	8.7	3.1	12.3	17.5	10.0	0.7	1.3	60.8	13.3
SOMIH	7.1	8.8	6.1	11.6	18.0	4.4	. .	. .	7.4
Public housing	(b)15.2	8.7	6.8	23.9	12.2	8.1	10.5	14.7	12.7
Community housing	1.2	0.4	1.6	0.7	0.7	0.1	1.3	na	1.0
Commonwealth Rent Assistance(c)	20.4	13.7	22.6	14.2	13.8	12.7	6.8	9.2	18.1

. . not applicable
na not available
(a) ICH data are number of dwellings at 30 June 2006 as data on the number of households are not available. The number of households would be similar to the number of dwellings.
(b) Estimate based on the 2001 Census of Population and Housing.
(c) Commonwealth Rent Assistance data refer to income units receiving CRA at 3 March 2006. Income units are used to determine eligibility for CRA and comprise single persons, couples, or families with dependent children. In some cases there may be more than one income unit per household.

Source: AIHW CSHA data collection and AIHW NRF data collection, CRA data collection

Remoteness Areas

The location of dwellings (with resident Indigenous households) provided under the three major housing assistance programs according to remoteness areas is shown in table 4.7. SOMIH is provided across all remoteness areas with 34% of SOMIH dwellings located in major cities, 48% in regional areas and 18% in remote or very remote areas. Public housing dwellings (with resident Indigenous households) were also spread across remoteness areas, with the highest proportion located in major cities (33%) followed by outer regional areas (30%). Over two-thirds of Indigenous community housing dwellings were located in remote or very remote areas (68%), with 32% located in non-remote areas (table 4.7).

At 30 June 2006, most Indigenous income units receiving CRA were located in major cities or inner regional areas (67%) with only 2% in very remote areas (Australian Government Housing Dataset June 2006).

Remoteness Areas continued

4.7 DWELLINGS (WITH INDIGENOUS HOUSEHOLDS) IN MAJOR HOUSING ASSISTANCE PROGRAMS, by Remoteness Areas—2006

	SOMIH		*Public housing*(a)		*Indigenous community housing*(b)	
	no.	%	no.	%	no.	%
Major cities	4 389	34.1	4 049	32.5	na	na
Inner regional	2 858	22.2	1 827	14.7	7 006	32.1
Outer regional	3 350	26.0	3 772	30.3	na	na
Remote	1 092	8.5	2 047	16.5	2 441	11.2
Very remote	1 198	9.3	746	6.0	12 407	56.8
Total	**12 893**	**100.0**	**12 441**	**100.0**	**21 854**	**100.0**

na not available

(a) The public housing data do not include New South Wales because of the under reporting of Indigenous status. When NSW data are included the proportion of dwellings by location is similar.

(b) Includes permanent dwellings managed by Indigenous housing organisations. Data were categorised as non-remote, remote and very remote according to the location of the organisation managing the dwellings.

Source: AIHW CSHA data collections, ABS 2006 CHINS

HOUSEHOLD TYPES AND SIZE

According to the 2006 Census, 76% of the 166,700 Indigenous households were one family households, and 14% were lone person households. The remaining 10% of Indigenous households was divided equally between multi-family households (5%) (that is, with two or more families in the household) and group households (5%) (that consist of unrelated adults).

Indigenous households are more likely to be larger than other Australian households, with an average household size of 3.4 people compared with 2.6 in other households (table 4.8 and Chapter 2). In 2006, 23% of Indigenous households had five or more residents, 18% had four, 20% had three, 26% had two and 14% had one person.

Average Indigenous household size varied by tenure type, with an average of 4.8 people per household in Indigenous or mainstream community housing compared with 3.1 for those renting from private and other landlords and 3.3 for home owner households (with or without a mortgage). Almost half (47%) of households in Indigenous or mainstream community housing had five or more residents compared with 18% of households renting from private and other landlords (table 4.8).

4.8 INDIGENOUS HOUSEHOLDS, by tenure type and number of persons in household—2006

	Home owners	Private and other renter	Renter state/territory housing authority	Renter Indigenous/mainstream community housing	Other tenure types	Total
			NUMBER			
One person	5 008	7 005	5 543	1 508	845	23 030
Two people	15 654	14 811	7 206	2 098	1 114	42 537
Three people	11 236	11 046	6 642	1 984	762	32 737
Four people	12 201	8 648	5 367	2 059	658	29 780
Five or more people	11 927	8 829	8 536	6 809	1 079	38 586
Total	**56 027**	**50 339**	**33 294**	**14 458**	**4 458**	**166 669**
Average number per household	*3.3*	*3.1*	*3.4*	*4.8*	*3.3*	*3.4*
			PROPORTION (%)			
One person	8.9	13.9	16.6	10.4	19.0	13.8
Two people	27.9	29.4	21.6	14.5	25.0	25.5
Three people	20.1	21.9	19.9	13.7	17.1	19.6
Four people	21.8	17.2	16.1	14.2	14.8	17.9
Five or more people	21.3	17.5	25.6	47.1	24.2	23.2
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: ABS 2006 Census of Population and Housing

HOUSING COSTS

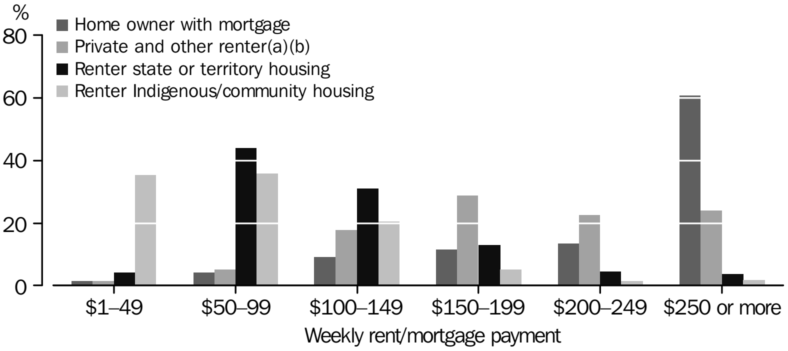
Indigenous Australians have access to a range of housing assistance programs, but housing costs remain high relative to incomes for many households. Weekly housing costs reflect the type of housing, and to some extent, the condition of the dwelling (discussed further in the section on Housing quality). Households renting from state or territory housing authorities and those renting from Indigenous or community housing providers pay rents that are subsidised or related to income, and therefore have lower effective housing costs than those renting in the private market.

Among Indigenous households in 2006, the median weekly mortgage payment for home owners with a mortgage was $264. The median weekly rents for private/other renters were $190, for renters of public housing (from state or territory housing authorities) were $100 and for those renting from Indigenous or mainstream community housing organisations were $60.

Data on the distribution of weekly housing costs for Indigenous households paying mortgages or rent are shown in graph 4.9. Of the 34,800 Indigenous households that reported their mortgage payments, 60% were paying $250 or more per week in mortgage payments in 2006. Of the 48,600 Indigenous households renting from private/other landlords, 24% were paying $250 or more per week in rent. More than two-thirds (71%) of Indigenous households renting from Indigenous or mainstream community organisations and 48% of those renting from state/territory housing authorities were paying less than $100 per week in rent in 2006.

HOUSING COSTS *continued*

4.9 INDIGENOUS HOUSEHOLDS PAYING RENT OR MORTGAGES, Weekly amount paid by tenure type—2006



(a) Without adjustment for Commonwealth Rent Assistance.
(b) Includes landlord type not stated.

Source: ABS 2006 Census of Population and Housing

HOUSING AND HEALTH

Housing is a key social determinant of health and is often considered to be a proxy indicator of socioeconomic status as well as of health and wellbeing (Shaw 2004). In Britain, housing tenure has been found to be related to health outcomes such as self-assessed health, hospital admissions and mortality; with home owners having better outcomes than renters.

Housing can impact on health in both direct and indirect ways (Shaw 2004). Overcrowding, poor dwelling conditions and inadequate basic utilities such as facilities for washing clothes, sewerage systems or safe drinking water, can directly impact on both physical and mental health. Indirect effects include the area or neighbourhood in which housing is located, proximity to services and facilities, and the broader community functioning (Shaw 2004; Bailie 2007).

Health problems related to inadequate housing and infrastructure in remote areas of Australia include infectious diseases such as skin infections and infestations, respiratory infections, eye and ear infections, diarrhoeal diseases and rheumatic fever (Menzies School of Health Research 2000). These diseases have the greatest impact on Indigenous children and are directly related to factors such as inadequate water supplies, sanitation and overcrowding (Bailie 2007).

Information on the status of housing and infrastructure in discrete Indigenous communities (including access to essential services) is presented later in this chapter. Data are from the 2006 Community Housing and Infrastructure Needs Survey (CHINS).

Overcrowding

Overcrowding can put stress on bathroom, kitchen and laundry facilities as well as on sewerage systems such as septic tanks. It can lead to the spread of infectious diseases such as meningococcal, tuberculosis, rheumatic fever, respiratory diseases and skin infections (Howden-Chapman & Wilson 2000). It has also been associated with poorer self-reported physical and mental health and higher rates of smoking and hazardous drinking (Waters 2001; Shaw 2004).

Overcrowding continued

4.10 WAACHS—POOR QUALITY HOUSING

The 2001–02 Western Australian Aboriginal Child Health Survey (WAACHS) collected a range of data about the housing characteristics of families with Aboriginal children and examined their relationship to life stresses, family functioning and community characteristics (Silburn et al 2006). Using criteria based on number of bedrooms and number of people in the household, the WAACHS researchers classified 15% of dwellings with Aboriginal children as overcrowded. This result is similar to that for WA using the Canadian National Occupancy Standard and 2006 Census data (see table 4.12).

In the 2001–02 WAACHS, overcrowding was independently associated with poor housing quality, higher levels of life stresses, overuse of alcohol (causing problems in the household) and a higher number of neighbourhood problems. An earlier report from the survey, however, found that overcrowding had some positive effects. Children living in households with a high household occupancy level were half as likely to be at risk of clinically significant emotional or behavioural difficulties as children living in homes with a low household occupancy level (Zubrick et al 2005).

Data on overcrowding at the national level come from ABS surveys and the Census. Various measures can be used to define and measure the extent of overcrowding. The Canadian National Occupancy Standard for housing appropriateness is an internationally accepted measure of housing utilisation. Households that require one additional bedroom to meet the standard are considered to experience 'a moderate degree of overcrowding', whereas households requiring two or more bedrooms are said to experience a 'high degree of overcrowding'. The Canadian model is sensitive to both household size and composition and uses the following criteria to assess bedroom requirements:

- there should be no more than two people per bedroom;
- a household of one unattached individual may reasonably occupy a bed-sit (i.e. have no bedroom);
- couples and parents should have a separate bedroom;
- children less than five years of age, of different sexes, may reasonably share a bedroom;
- children five 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; and
- single household members aged 18 years or over should have a separate bedroom.

In the 2006 Census, information on the number of bedrooms (in dwellings) was obtained for 151,900 Indigenous households (91% of all Indigenous households). Some 376,600 Indigenous people were living in these dwellings. The following overcrowding rates are based on these dwellings (and their Indigenous residents), i.e. those for whom housing utilisation could be determined.

Using the Canadian housing utilisation measure, there were around 20,700 overcrowded Indigenous households (14%) and 102,400 Indigenous people (27%) living in

Overcrowding continued

overcrowded conditions in 2006. There has been some improvement in rates of overcrowding, with the proportion of Indigenous households that were overcrowded decreasing from 16% in 2001 to 14% in 2006 (table 4.11).

Overcrowding rates varied according to tenure, with the highest rates of overcrowding found in Indigenous households renting Indigenous/mainstream community housing (40% of Indigenous households and 64% of Indigenous people). In contrast, home owners (with or without a mortgage) had the lowest rates of overcrowding (7% of Indigenous households and 11% of Indigenous people).

4.11 OVERCROWDED INDIGENOUS HOUSEHOLDS AND PERSONS LIVING IN OVERCROWDED CONDITIONS(a)(b), by tenure type—2001 and 2006

	Households 2001		Households 2006		Persons 2006	
	no.	%	no.	%	no.	%
Home owner/purchaser	3 310	7.7	3 687	6.9	12 528	11.4
Private and other renter	6 077	13.5	5 570	11.6	19 167	18.6
Renter state/territory housing authority	4 546	16.3	4 970	15.9	24 371	28.1
Renter Indigenous/mainstream community housing	6 572	42.9	5 567	39.9	43 853	63.6
Total	**21 258**	**15.7**	**20 734**	**13.6**	**102 364**	**27.2**

(a) Excludes dwellings for which the number of bedrooms was not stated.
(b) Excludes visitors.
Source: 2001 and 2006 Censuses of Population and Housing

STATE OR TERRITORY

Overcrowding rates also varied by jurisdiction, reflecting the type of housing options available to Indigenous people in different parts of Australia. In 2006, Queensland had the largest number of overcrowded Indigenous households (6,200) followed by New South Wales (5,200). The highest rates of overcrowding among Indigenous households were in the Northern Territory (38%) followed by Western Australia (16%). Rates of overcrowding were especially high in the Indigenous/mainstream community housing sector in the Northern Territory, where 61% of households were overcrowded.

4.12 OVERCROWDED INDIGENOUS HOUSEHOLDS(a), by tenure type and state/territory—2006

	NSW	Vic.	Qld	WA	SA	Tas.	ACT	NT	Australia
NUMBER OF CROWDED HOUSEHOLDS									
Home owner/purchaser	1 301	318	1 081	366	194	187	22	218	3 687
Private and other renter(b)	1 977	423	2 088	413	210	177	21	258	5 570
Renter state/territory housing authority	1 309	323	1 511	894	390	133	44	366	4 970
Renter Indigenous/mainstream community housing	475	50	1 253	811	223	6	3	2 743	5 567
Other	135	40	246	109	31	22	3	163	752
Total(c)	**5 246**	**1 170**	**6 232**	**2 615**	**1 064**	**530**	**93**	**3 775**	**20 734**
OVERCROWDED HOUSEHOLDS AS A PROPORTION OF ALL INDIGENOUS HOUSEHOLDS									
Home owner/purchaser	6.7	6.0	7.9	7.2	6.1	4.8	3.1	11.6	6.9
Private and other renter(b)	11.3	10.1	13.0	9.8	9.3	9.2	4.5	17.5	11.6
Renter state/territory housing authority	11.5	12.3	21.5	20.5	14.5	10.7	9.6	24.9	15.9
Renter Indigenous/mainstream community housing	18.0	15.6	33.0	41.7	36.9	8.7	8.8	60.8	39.9
Other	11.2	11.4	13.5	19.4	14.6	11.4	13.0	39.9	18.1
Total(c)	**10.0**	**9.0**	**14.8**	**16.0**	**11.8**	**7.2**	**5.5**	**38.5**	**13.6**

(a) Excludes dwellings for which the number of bedrooms was not stated.
(b) Includes landlord type not stated.
(c) Includes tenure type not stated.
Source: ABS 2006 Census of Population and Housing

Housing quality

The most recent national survey to include measures of housing quality was the 2002 National Aboriginal and Torres Strait Islander Social Survey (NATSISS). According to the survey, around one-third (35%) of Indigenous households were living in dwellings that had structural problems (e.g. rising damp, major cracks in floors or walls, major electrical/plumbing problems and roof defects). Just over half (55%) of Indigenous households renting mainstream or community housing reported that their dwellings had structural problems, while the corresponding proportions for renters of state/territory housing, private and other renters, and home owners were 42%, 33% and 22% respectively (ABS & AIHW 2005). In 2006, the ABS Community Housing and Infrastructure Needs Survey (CHINS) also collected information about the state of repair of houses in discrete Indigenous communities, and their connection to essential services. Selected data from the survey are presented in tables 4.13 and 4.14.

The WAACHS developed a measure of housing quality based on the healthy living practices outlined in the National Framework for Indigenous Housing. The survey classified 16% of dwellings with Aboriginal children as being of 'poor housing quality'. Dwellings with poor housing quality were more likely to be rented, and to be located in areas of extreme isolation and areas of relative socioeconomic disadvantage. Households living in poor quality dwellings had poorer economic wellbeing, lower levels of family functioning, experienced more life stresses and were more likely to overuse alcohol (Silburn et al 2006).

DISCRETE INDIGENOUS COMMUNITIES

The 2006 CHINS provides more detailed information on the housing quality of dwellings in discrete Indigenous communities (ABS 2007). Discrete Indigenous communities are those inhabited predominantly by Aboriginal and Torres Strait Islander people, with housing or infrastructure that is managed on a community basis. These communities

Housing quality continued

DISCRETE INDIGENOUS COMMUNITIES *continued*

have an estimated population of 92,960 people and are primarily located in remote and very remote areas of Australia (ABS 2007d).

Dwelling condition

The CHINS data on dwelling condition were collected for permanent dwellings and categorised according to the cost of repairs required to the dwelling. No data were collected on the 1,596 temporary or improvised dwellings in these communities which are likely to have been in the poorest condition. Some 4,039 Indigenous people (4% of the usual resident population) were living in temporary or improvised dwellings in 2006.

In discrete Indigenous communities across Australia, there were around 6,674 dwellings (31%) that required major repair or replacement (table 4.13). Dwellings in remote and very remote areas tended to be in the poorest condition, with 9% requiring replacement compared with 4% of dwellings in non-remote areas.

4.13 CONDITION OF PERMANENT DWELLINGS IN DISCRETE INDIGENOUS COMMUNITIES, by remoteness—2006

Dwelling condition	Non-remote	Remote	Very remote	Total
	NUMBER			
Minor or no repair	5 015	1 560	8 605	15 180
Major repair	1 718	634	2 759	5 111
Replacement	273	247	1 043	1 563
Total	**7 006**	**2 441**	**12 407**	**21 854**
	PERCENT			
Minor or no repair	71.6	63.9	69.4	69.5
Major repair	24.5	26.0	22.2	23.4
Replacement	3.9	10.1	8.4	7.2
Total	**100.0**	**100.0**	**100.0**	**100.0**

Source: ABS 2006 CHINS

Connection to services

The 2006 CHINS collected data on main source of water, sewerage and electricity at the community level for all discrete Indigenous communities. While the data show services available to communities and the number of permanent dwellings located in these communities, some of these dwellings may not have had access to a service that was available at the community level. In addition there are improvised dwellings in these communities for which data were not collected.

The main source of drinking water for the majority of permanent dwellings (8,078 or 53%) was bore water. There were another 4,685 dwellings (30%) in communities connected to a town supply and 1,682 (11%) in communities where the main source of water was a river or reservoir. In addition there were 201 permanent dwellings in communities where the main source of water was a well or spring and 10 permanent dwellings in communities that had no organised water supply (table 4.14).

Housing quality *continued*

Connection to services *continued*

In relation to sewerage, 5,725 permanent dwellings (33%) were in communities with some type of septic system. The next most common type of sewerage system was a town system (5,229 or 30% of dwellings) followed by community water-borne systems (5,162 or 30% of dwellings). There were also 51 permanent dwellings in communities with no organised sewerage supply (table 4.14).

The main type of electricity supply for the majority of permanent dwellings (9,161 or 53%) was community generators. There were also 6,323 dwellings (37%) in communities connected to the state grid and 447 (3%) in communities with domestic generators as their main source of electricity. In addition, there were 85 permanent dwellings in communities with no organised electricity supply (table 4.14).

4.14 TYPES OF CONNECTION TO WATER, SEWERAGE AND ELECTRICITY IN DISCRETE INDIGENOUS COMMUNITIES—2006

	All communities	*Number of permanent dwellings*(a)	*Proportion of dwellings*
	no.	no.	%
Main source of drinking water			
Connected to town supply	209	4 685	27.3
Bore water	694	8 078	47.0
Rain water tank	41	525	3.1
River or reservoir	57	1 682	9.8
Well or spring	39	201	1.2
Carted water	27	105	0.6
Other organised supply	3	33	0.2
No organised supply	9	10	0.1
Type of sewerage system(b)			
Connected to town system	121	5 229	30.4
Community water-borne system	108	5 162	30.1
Septic tanks with common effluent disposal	101	2 194	12.8
Septic tank with leach drain	593	3 531	20.6
Pit toilets	202	587	3.4
Pan toilets	1	3	—
Other organised sewerage system	9	6	—
No organised sewerage system	25	51	0.3
Main type of electricity supply			
State grid transmitted supply	274	6 323	36.8
Community generators	377	9 161	53.3
Domestic generators	178	447	2.6
Solar	105	304	1.8
Solar hybrid	107	395	2.3
Other organised electricity supply	8	214	1.2
No organised electricity supply	32	85	0.5
Total	**1 187**	**17 177**	. .

. . not applicable

— nil or rounded to zero (including null cells)

(a) Data are collected at the community level and some permanent dwellings may not be connected to the type of service reported at the community level.

(b) More than one type of sewerage system could be specified.

Source: ABS 2006 CHINS

Housing quality continued

Connection to services continued

Between the 2001 and 2006 CHINS' there was a decrease in the number and proportion of permanent dwellings not connected to an organised sewerage system (table 4.15). Over this period, the number of dwellings in communities not connected to an organised sewerage system fell from 153 to 51. There was also a small decrease in the number of dwellings in communities not connected to an organised water supply (from 13 to 10) and a small increase in the number of permanent dwellings in communities not connected to an organised supply of electricity (from 80 to 85).

4.15 PERMANENT DWELLINGS IN DISCRETE INDIGENOUS COMMUNITIES, not connected to an organised supply of water, sewerage and/or electricity—2001 and 2006

	2001		2006	
	Number of dwellings in communities with no organised supply	*Total number of permanent dwellings*	*Number of dwellings in communities with no organised supply*	*Total number of permanent dwellings*
Water	13	16 966	10	17 177
Sewerage	153	16 966	51	17 177
Electricity	80	16 966	85	17 177

Source: ABS 2001 and 2006 CHINS

HOMELESSNESS

Aboriginal and Torres Strait Islander people are more likely to be homeless than other Australians as they generally do not have the same access to affordable and secure housing. The Indigenous population is more mobile than the remainder of the population. Indigenous people often need to leave their home to access services or to observe cultural obligations. These factors combined with the absence of adequate temporary accommodation, can contribute to homelessness in this population (Keys Young 1998). Measuring the extent of homelessness, however, can be difficult and depends on which definition is used. This section examines how homelessness is defined and measured and then provides a range of data on Indigenous homeless people in the major program response to homelessness, the SAAP.

Defining and measuring homelessness

Homeless people may be simply defined as those with no housing or residing in temporary or emergency accommodation. The concept of homelessness is, however, subjective and depends on prevailing community standards. The Chamberlain and MacKenzie (2003) definition, adopted by the ABS, defines people as homeless if their accommodation falls below the minimum community standard of a small rental flat with a bedroom, living room, kitchen, bathroom and some security of tenure.

The definition of homelessness can also be related to Aboriginal and Torres Strait Islander history, values and beliefs (Keys Young 1998; Memmott et al 2004). Keys Young developed a number of definitions of Indigenous homelessness which emphasised the multi-layered and multi-dimensional nature of Indigenous homelessness and incorporated the concept of spiritual homelessness. Underlying these definitions was the understanding that 'home' can have different meanings for Indigenous Australians (AIHW

Defining and measuring homelessness continued

2003a). These differing concepts of homelessness are not, however, captured in current data sources.

ESTIMATING THE NUMBER OF HOMELESS INDIGENOUS PEOPLE

Chamberlain and MacKenzie defined the following three levels of homelessness:

- Primary homelessness—includes all people with no conventional accommodation such as people living on the streets, in the parks, in derelict buildings and other improvised dwellings.
- Secondary homelessness—includes people who move frequently from one form of temporary shelter to another. This includes people residing temporarily with other households because they have no accommodation of their own, as well as people accommodated in SAAP establishments.
- Tertiary homelessness—includes people who live in boarding houses on a medium-to-long-term basis, operationally defined as 13 weeks or longer. These people are regarded as homeless because their accommodation situation is below community standard.

To provide a count of the number of Indigenous homeless people, Chamberlain and MacKenzie used Census data supplemented with data from the SAAP National Data Collection. The Chamberlain and MacKenzie estimate also included an adjustment for undercounting. Using this approach, there were an estimated 7,526 homeless Indigenous people at the time of the 2001 Census (a rate of 176 per 10,000) compared with 91,699 homeless non-Indigenous people (or 50 per 10,000 population) (ABS & AIHW 2005).

A similar count using data from the 2006 Census and SAAP data is not yet available. The following table therefore provides an estimate of the number and rate of Indigenous homeless people using Census data only, and with no adjustment for undercounting. This is the simple definition of homelessness and provides an estimate that is considerably lower than that determined by Chamberlain and MacKenzie using 2001 Census data.

According to the 2006 Census, there were 4,116 Indigenous people who were homeless on Census night (table 4.16). This included 2,283 Indigenous people with no conventional accommodation (i.e. in improvised dwellings or sleeping rough), 662 in hostels, refuges or night shelters, and 1,171 residing temporarily with others. The Northern Territory recorded the largest number of Indigenous homeless people (1,143), followed by Queensland (1,019).

4.16 NUMBER OF HOMELESS INDIGENOUS PERSONS, by state/territory—2006

	NSW	*Vic.*	*Qld*	*WA*	*SA*	*Tas.*	*ACT*	*NT*	*Australia*
	no.	no.	no.	no.	no.	no.	no.	no.	no.
No conventional accommodation	250	55	469	402	152	24	4	927	2 283
Hostel, refuge, night shelter	206	38	198	76	39	9	14	82	662
Friends/relatives	315	70	352	171	67	43	19	134	1 171
Total number	**771**	**163**	**1 019**	**649**	**258**	**76**	**37**	**1 143**	**4 116**

Source: ABS 2006 Census of Population and Housing

Homeless people in the Supported Accommodation Assistance Program (SAAP)

There are two major national programs that provide assistance to homeless people:

- the SAAP, which provides temporary accommodation and support services, such as domestic violence counselling, employment assistance and living skills development to homeless people, and aims to help them achieve self-reliance and independence. It is jointly funded and managed by the Australian and state/territory governments with services delivered largely by non-government agencies with some local government participation.
- the Crisis Accommodation Program (CAP) which is funded under the Commonwealth-State Housing Agreement and provides emergency accommodation for homeless people. Funds are used for the purchase, lease and maintenance of dwellings.

The SAAP was established to assist those who are homeless or at risk of homelessness, defined by the *Supported Accommodation Assistance Program Act 1994* (Section 4) as someone who has 'inadequate access to safe and secure housing' (FaCS 1999:19). In the context of homelessness, the Act refers to housing situations that may damage health, threaten safety, marginalise a person from both personal amenities and the economic and social support a home normally offers; where the affordability, safety, security or adequacy of housing is threatened; or where there is no security of tenure. A person is also considered homeless under the Act if they are living in SAAP or other emergency accommodation.

Those using SAAP services represent a subset of homeless people, no matter which definition of homelessness is used, as not all people experiencing homelessness will use SAAP services. The existence of the SAAP National Data Collection, however, means that there is a wide range of information available on SAAP clients. In addition to counting all people assisted by SAAP, there are also some data collected on those who seek accommodation but whose requests for accommodation could not be met.

There were 16,200 Aboriginal and Torres Strait Islander people aged 15 years or over who received SAAP support in 2005–06 (table 4.17), making up 17% of all SAAP clients. In every state and territory, Indigenous clients of SAAP services were substantially over-represented relative to the proportion of Indigenous people in those jurisdictions.

Homeless people in the Supported Accommodation Assistance Program (SAAP) continued

4.17 INDIGENOUS SAAP CLIENTS(a)—2005–06

	INDIGENOUS CLIENTS(b)		INDIGENOUS PERSONS	
	Number	*% of all SAAP clients*	*Number*	*% of the total Australian population*
New South Wales	4 100	17.6	89 400	1.6
Victoria	1 800	5.4	19 400	0.5
Queensland	3 400	21.7	84 400	2.7
Western Australia	3 100	40.1	45 100	2.8
South Australia	1 800	18.8	17 600	1.4
Tasmania	400	9.8	11 500	3.0
Australian Capital Territory	200	9.9	2 700	1.0
Northern Territory	1 800	62.2	39 600	25.5
Australia	**16 200**	**16.8**	**309 800**	**1.9**

(a) Clients and Indigenous population aged 15 years and over. Numbers are rounded to the nearest hundred.

(b) Number excluded due to errors and omissions (weighted): 5,131 clients. Figures have been weighted to adjust for agency non-participation and client non-consent. The number of clients within a state or territory relates to clients who have received assistance from a SAAP agency in that state or territory. Since a client may have support periods in more than one state or territory, state and territory figures do not sum to the national figure.

Source: AIHW SAAP Client Collection

CLIENT PROFILE

The demographic profile of Indigenous and non-Indigenous SAAP clients is shown in table 4.18. Consistent with differences in the age structures of the Indigenous and non-Indigenous populations, Indigenous clients were more likely to be younger than non-Indigenous clients. For example, 68% of Indigenous clients were aged less than 35 years compared with 60% of non-Indigenous clients.

Nearly three-quarters (73%) of Indigenous SAAP clients were female compared with only 57% of non-Indigenous SAAP clients. Among Indigenous clients aged 25–29 years, over 80% were female. In two jurisdictions, the Northern Territory and Western Australia, there were far more Indigenous female clients than other Australian-born female clients—76% compared with 21% in the Northern Territory and 53% compared with 34% in Western Australia (AIHW 2007g:32). The high rate of Indigenous females in SAAP reflects the support which this program provides for those who have experienced domestic violence and those at risk of homelessness, both of which are areas of particular concern for Indigenous women (see tables 4.18 and 4.20, and Chapter 6).

Homeless people in the Supported Accommodation Assistance Program (SAAP) continued

CLIENT PROFILE *continued*

4.18 SAAP CLIENTS, by Indigenous status, age and sex—2005–06

Age group (years)		INDIGENOUS SAAP CLIENTS			NON-INDIGENOUS SAAP CLIENTS		
		Male	*Female*	*Total*	*Male*	*Female*	*Total*
15–19	%	21.4	18.9	19.6	17.4	20.1	18.9
20–24	%	16.0	19.2	18.3	13.5	15.9	14.9
25–29	%	10.3	16.0	14.4	12.2	13.4	12.9
30–34	%	13.3	16.8	15.8	13.0	14.2	13.7
35–39	%	13.6	12.2	12.6	12.3	13.0	12.7
40–44	%	9.9	7.9	8.4	10.3	9.1	9.6
45–49	%	6.9	4.2	4.9	7.7	6.0	6.7
50–54	%	4.5	2.3	2.9	5.1	3.2	4.0
55–59	%	2.0	1.3	1.5	3.5	2.1	2.7
60–64	%	1.3	0.7	0.9	2.2	1.2	1.6
65 and over	%	0.9	0.5	0.6	2.8	1.9	2.3
Total	%	100.0	100.0	100.0	100.0	100.0	100.0
Total	%	**27.2**	**72.8**	**100.0**	**42.7**	**57.3**	**100.0**
	no.	**4 400**	**11 800**	**16 200**	**34 200**	**45 900**	**80 100**

Source: AIHW SAAP Client Collection

CHILDREN ACCOMPANYING SAAP CLIENTS

For the purposes of the National Data Collection, children who attend a SAAP service with their parent or guardian are not counted as clients in their own right, but are counted as accompanying children. In 2005–06, the first year in which the Indigenous status of accompanying children was collected, 27% of all accompanying children in SAAP were of Aboriginal and/or Torres Strait Islander origin (AIHW 2007g).

Reflecting the over-representation of Indigenous people among SAAP clients and the high proportion of clients who have experienced domestic violence, Indigenous children were far more likely than non-Indigenous children to have accompanied a parent or guardian to a SAAP agency (table 4.19). Indigenous children attended a SAAP agency at a rate of 537 per 10,000, compared with 69 per 10,000 for non-Indigenous children. In the 0–4 years age group, there were 906 Indigenous children in SAAP for every 10,000 Indigenous children in this age group. That is, 1 in every 11 Indigenous children aged 0–4 years attended a SAAP agency in 2005–06. The corresponding rates for non-Indigenous children were 113 per 10,000, or 1 in every 88 children.

Homeless people in the Supported Accommodation Assistance Program (SAAP) continued

CHILDREN ACCOMPANYING SAAP CLIENTS *continued*

4.19 CHILDREN ACCOMPANYING SAAP CLIENTS, by Indigenous status and age—2005–06

Age group (years)	INDIGENOUS			NON-INDIGENOUS			TOTAL		
	no.	*%*	*rate*(a)	*no.*	*%*	*rate*(a)	*no.*	*%*	*rate*(a)
0–4	5 500	47.3	906	13 900	43.1	113	19 400	44.2	150
5–9	3 500	29.8	572	9 300	28.9	73	12 700	29.1	95
10–14	2 200	18.6	349	6 900	21.4	51	9 000	20.6	65
15–17	500	4.3	150	2 100	6.6	27	2 600	6.0	32
Total	**11 600**	**100.0**	**537**	**32 200**	**100.0**	**69**	**43 800**	**100.0**	**90**

(a) Rate per 10,000 population. The rate is estimated by comparing the number of Indigenous and non-Indigenous SAAP accompanying children with the estimated resident population in each of these groups and age groups.

Source: AIHW SAAP Client Collection

REASONS FOR SEEKING SUPPORT

In 2005–06, the most common reason cited by Indigenous and non-Indigenous clients for seeking accommodation assistance was domestic violence (in 31% and 21% of support periods respectively) (table 4.20). A further one in five Indigenous and non-Indigenous clients sought accommodation assistance as a result of relationship or family breakdown, which also includes time out from family or other situations, and interpersonal conflict (in 21% and 20% of support periods, respectively).

Indigenous clients were less likely to cite accommodation difficulties as a reason for seeking assistance than non-Indigenous clients (in 10% and 17% of support periods, respectively), where accommodation difficulties include being evicted or asked to leave, or the ending of previous accommodation or emergency accommodation. However, Indigenous clients were twice as likely to cite overcrowding as a reason for seeking assistance, in 4% of support periods compared with 2% for non-Indigenous clients.

Indigenous clients were less likely to report financial difficulties (budgeting, rent too high, or other financial difficulty) as a reason for seeking assistance (in 8% of support periods, compared with 14% for non-Indigenous clients), while proportions for the other main reasons given for seeking assistance did not differ greatly from non-Indigenous clients. A slightly higher proportion of Indigenous clients, compared with non-Indigenous clients, were likely to be seeking assistance for being itinerant or a recent arrival to the area with no means of support.

Homeless people in the Supported Accommodation Assistance Program (SAAP) continued

REASONS FOR SEEKING SUPPORT *continued*

4.20 SAAP SUPPORT PERIODS, main reason for seeking SAAP assistance by Indigenous status of clients—2005–06

	INDIGENOUS	NON-INDIGENOUS	TOTAL	
Main reason for seeking assistance	%	%	%	no.
Accommodation difficulties(a)	10.4	16.8	15.7	24 400
Relationship/family breakdown(b)	21.3	20.4	20.6	31 900
Sexual/physical/emotional abuse	2.9	2.3	2.4	3 700
Domestic violence	31.2	21.0	22.6	35 100
Financial difficulty(c)	7.9	14.2	13.1	20 300
Overcrowding	4.0	1.9	2.2	3 400
Gambling	0.1	0.4	0.3	500
Drug/alcohol/substance abuse	5.5	5.7	5.7	8 800
Recently left institution	1.3	1.4	1.4	2 100
Psychiatric illness	0.3	1.1	1.0	1 600
Recent arrival in area with no means of support	4.6	4.1	4.2	6 500
Itinerant	3.2	2.5	2.6	4 100
Mental health issues	0.8	1.9	1.7	2 700
Other health issues	1.3	1.1	1.1	1 700
Gay/lesbian/transgender issues	—	0.1	0.1	100
Other	5.0	5.1	5.1	7 900
Total	***100.0***	***100.0***	***100.0***	—
Total (%)	**16.4**	**83.6**	**100.0**	—
Total (no.)	**25 400**	**129 600**	—	**155 000**

— nil or rounded to zero (including null cells)

(a) Eviction/asked to leave; Previous accommodation ended; Emergency accommodation ended.

(b) Time out from family/ other situation; Interpersonal conflict.

(c) Budgeting; Rent too high; Other financial difficulty.

Source: AIHW SAAP Client Collection

SAAP clients before and after support

SAAP aims to assist clients in re-establishing their capacity to live independently once they cease to receive assistance from the Program. To evaluate the Program's success in achieving this objective, information is collected about clients' tenure and income source both before and after their use of SAAP services. Closed support periods, that is, support periods that finished on or before 30 June 2006, are used as the basis for this analysis. The data presented in tables 4.21 and 4.22 relate only to support periods for which both before and after information on clients' tenure and income source were provided. Instances where only before or after information were provided, or neither, have been excluded so caution should be exercised in assessing the data.

Among Indigenous clients, the major type of tenure both before and after SAAP support was public housing, which increased from 23% before assistance to 25% after assistance (table 4.21). There was also a small increase in the proportion of clients in private rental accommodation, from 14% to 16%. For non-Indigenous clients, private rental was the major type of tenure both before support (28%) and after support (29%).

SAAP clients before and after support continued

4.21 SAAP SUPPORT PERIODS, type of tenure before and after SAAP support by Indigenous status of clients—2005–06

		INDIGENOUS		NON-INDIGENOUS	
Type of accommodation		*Before support*	*After support*	*Before support*	*After support*
SAAP/CAP crisis short term accommodation	%	7.7	8.2	8.2	8.8
SAAP/CAP medium long term accommodation	%	2.1	3.7	2.7	5.2
Other SAAP/CAP funded accommodation	%	2.2	2.6	2.1	2.7
Institutional setting	%	2.3	2.1	3.3	2.7
Improvised dwelling/sleeping rough	%	7.0	4.1	8.7	4.9
Other (no tenure)	%	1.3	0.8	1.6	1.1
Purchasing/purchased own home	%	0.9	0.7	5.3	3.9
Private rental	%	14.3	15.5	28.0	29.0
Public housing rental	%	23.3	25.4	10.7	14.1
Community housing rental	%	14.8	15.3	2.4	3.8
Rent-free accommodation	%	7.7	6.8	8.9	6.6
Boarding	%	16.4	14.8	18.0	17.2
Total	%	***100.0***	***100.0***	***100.0***	***100.0***
Total	%	**15.9**	**15.9**	**84.1**	**84.1**
	no.	**15 800**	**15 800**	**83 500**	**83 500**

Source: AIHW SAAP Client Collection

There were only small changes in the proportions of Indigenous clients with the various sources of income before and after support. The proportion of Indigenous clients on a pension or benefit, for example, increased from 89% before support to 91% after support, and the proportion with no income decreased from 6% to 5% (table 4.22). Among non-Indigenous clients, the proportion on a government pension or benefit increased from 85% before support to 87% after support, and the proportion with no income decreased from 7% to 5%.

4.22 SAAP SUPPORT PERIODS, primary income source immediately before and after SAAP support by Indigenous status—2005–06

		INDIGENOUS		NON-INDIGENOUS	
Source of income		*Before support*	*After support*	*Before support*	*After support*
No income	%	6.4	4.6	7.2	4.8
No income, awaiting pension/benefit	%	0.7	0.8	1.0	0.8
Government pension/benefit	%	89.3	90.5	84.6	86.5
Other	%	3.7	4.1	7.1	7.8
Total	%	100.0	100.0	100.0	100.0
Total	%	**16.4**	**16.4**	**83.6**	**83.6**
	no.	**20 400**	**20 400**	**107 500**	**107 500**

Source: AIHW SAAP Client Collection

Unmet need for SAAP

The Demand for Accommodation Collection attempts to measure unmet need for SAAP accommodation in two separate weeks during the year. This collection counts those who were seeking accommodation but whose request for accommodation could not be met. The identification of Indigenous clients in this data collection is less complete than in the main SAAP data collection, with Indigenous status unknown for around 31% of people making valid unmet requests for accommodation (AIHW 2007e).

In addition to those clients who were provided with assistance, in December 2005 and May 2006 there were an average 78 Indigenous people per day with valid unmet requests for assistance. There were more Indigenous females (44) with unmet requests for assistance than Indigenous males (34) (table 4.23). While these data are an indicator of unmet need for accommodation assistance, it is difficult to extrapolate these figures to annual figures because of seasonal factors and because people can have several unmet requests for assistance in the same year.

4.23 VALID UNMET REQUESTS FOR SAAP ACCOMMODATION(a)— 7–13 December 2005 and 17–23 May 2006

	NSW	*Vic.*	*Qld*	*WA*	*SA*	*Tas.*	*ACT*	*NT*	*Australia*
Males	4.6	1.7	11.9	9.9	3.1	0.3	0.6	2.3	34.4
Females	6.2	2.4	11.1	15.0	3.6	0.2	0.6	4.5	43.8
Persons	**10.8**	**4.1**	**23.1**	**24.9**	**6.7**	**0.5**	**1.3**	**6.8**	**78.1**

(a) Estimated average number per day of potential Indigenous clients with accompanying children.

Source: AIHW SAAP Demand for Accommodation Collection

SUMMARY

The tenure type of Indigenous households differs from that of other Australian households. Indigenous households are much less likely to be home owner households (with or without a mortgage) and much more likely to receive some form of housing assistance, such as Indigenous/mainstream community housing or public housing. There was, however, an increase in the proportion of Indigenous households that were home owners, from 31% in 2001 to 34% in 2006.

The housing tenure of Indigenous households varies by remoteness reflecting the availability of different tenure options for Indigenous people according to location. Home ownership rates were highest in inner regional areas (38%) and lowest in very remote areas (8%), while the proportion of Indigenous households renting mainstream or community housing was highest in very remote areas (55%).

Some Indigenous households, especially those in remote areas, live in conditions that do not support good health. In 2006, 14% of Indigenous households were overcrowded, which puts stress on basic facilities and contributes to the spread of infectious diseases. The highest rate of overcrowding was among renters of Indigenous or mainstream community housing in the Northern Territory, where 61% of Indigenous households were overcrowded. Across Australia, however, overcrowding rates fell from 16% of Indigenous households in 2001 to 14% in 2006.

There are still some dwellings in Indigenous communities not connected to essential services. In 2006 there were 51 dwellings in communities not connected to an organised sewerage system, 85 not connected to an organised electricity supply and 10 not

SUMMARY *continued*

connected to an organised water supply. The number of dwellings in communities not connected to an organised sewerage system fell from 153 in 2001 to 51 in 2006.

The rate of Indigenous homelessness was three times the rate for other Australians. Indigenous clients made up 17% of all SAAP clients and nearly three-quarters of Indigenous clients using SAAP were women. The most common reasons for Indigenous clients seeking support through SAAP were domestic violence and family breakdown. Twenty-seven per cent of all children attending a SAAP service with their parent or guardian were Indigenous. Among Indigenous children aged less than four years, one in eleven attended a SAAP service in 2005–06.

CHAPTER 5

DISABILITY AND CARERS

INTRODUCTION

Aboriginal and Torres Strait Islander Australians typically experience higher rates of disability and long-term health conditions and hospitalisation than do other Australians (ABS 2006c; ABS & AIHW 2005). In the 2006 Census of Population and Housing, a total of 19,600 Indigenous people (4%) were identified as needing assistance with core activities (self-care, mobility or communication) some or all of the time. After taking account of age differences between the Indigenous and non-Indigenous populations, the level of need for assistance among Indigenous people overall was almost twice as high as that among non-Indigenous people.

These Census-based indicators of disability in the Indigenous population are consistent with the relatively high disability rates among Indigenous people aged 15 years and over reported in the 2002 National Aboriginal and Torres Strait Islander Social Survey (NATSISS). Results from that survey revealed that among adults in non-remote areas, Indigenous Australians were twice as likely as non-Indigenous Australians to have a profound/severe core activity limitation (ABS & AIHW 2005).

The Census 'Core Activity Need for Assistance' concept was developed, recognising the need to identify Australians at the more severe end of the disability spectrum. This supports analyses by geographic area, and other shared characteristics such as Indigenous status. The Census measure of disability is relatable to the ABS Survey of Disability, Ageing and Carers (SDAC) and 2002 NATSISS concepts of profound/severe core activity limitation (see Glossary).

This chapter outlines some of the similarities and differences between rates of need for assistance with core activities (from the 2006 Census) and profound/severe core activity limitation (from the 2002 NATSISS) in the Indigenous population. The relationships between need for assistance and selected socioeconomic indicators such as educational attainment, labour force participation, income, language spoken at home, and social marital status are then explored using 2006 Census data, supplemented with information on social participation and support from the 2002 NATSISS.

The final section of this chapter examines some of the characteristics of Aboriginal and Torres Strait Islander carers—those who provided unpaid care, help or assistance to another person because of their disability, long-term illness or problems related to old age (see Appendix 1).

COMPARISON OF 2006 CENSUS AND 2002 NATSISS DISABILITY MEASURES

The 2002 NATSISS included a short disability survey module comprising 12 questions (and associated prompt cards), and the 2006 Census need for assistance measure comprised a set of four questions—one for each of the core activity areas and an additional question to ascertain why assistance with core activities was needed (see ABS & AIHW 2005 and Appendix 1 of this report). In order to differentiate between the two measures, Indigenous people identified as meeting the criteria in the 2002 NATSISS are referred to as having a 'profound/severe core activity limitation' while in the 2006 Census, the corresponding population is referred to as 'needing assistance with core activities'. Results from the 2002 NATSISS and 2006 Census are based on relatable concepts, but are not suitable for direct comparison to provide an indication of change in the prevalence of disability over time.

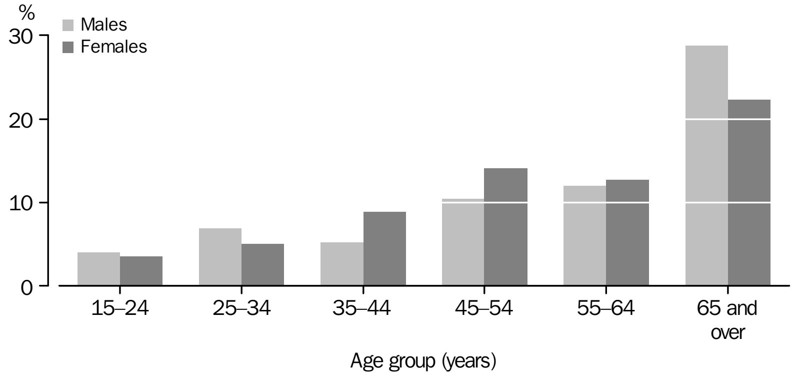
Prevalence by age and sex

The following analysis is restricted to persons living in private dwellings (i.e. excludes people in nursing homes and other cared accommodation) with further age and geographic restrictions to align the populations measured in the 2006 Census, the 2002 NATSISS and the 2002 General Social Survey (GSS).

According to the 2006 Census, around one in 20 Indigenous people aged 15 years and over in private dwellings (5%) needed assistance with core activities. In comparison, the overall rate of profound/severe core activity limitation among Aboriginal and Torres Strait Islanders aged 15 years and over reported in the 2002 NATSISS was 8%. In both collections, the disability rate was higher in older age groups, ranging from 2% of those aged 15–24 years to 22% of those aged 65 years and over in the 2006 Census, and from 4% to 25% for the same age groups in the 2002 NATSISS.

The need for assistance rates from the 2006 Census were lower than the rates of profound/severe core activity limitation from the 2002 NATSISS for all groups apart from men aged 55–64 years and women aged 65 years and over, for whom survey and Census rates were similar (graphs 5.1 and 5.2). In interpreting other characteristics of people reporting need for assistance with core activities, or profound/severe core activity limitation, the differences in levels measured in the 2002 NATSISS and 2006 Census should be taken into account.

5.1 PROFOUND/SEVERE CORE ACTIVITY LIMITATION(a), Indigenous persons in private dwellings—2002

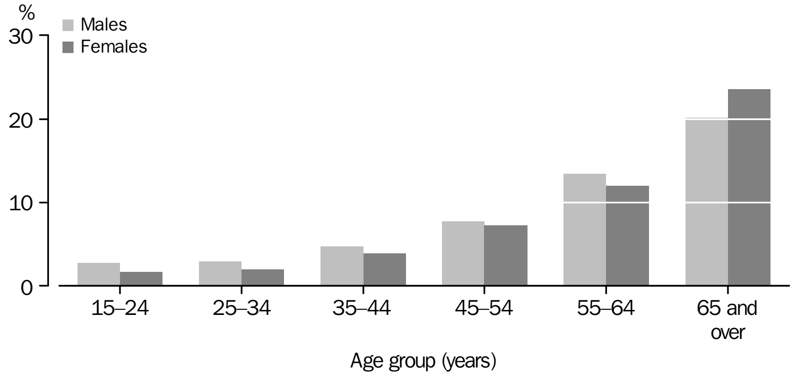


(a) Self-care, mobility and/or communication.

Source: ABS 2002 NATSISS

Prevalence by age and sex continued

5.2 NEEDS ASSISTANCE WITH CORE ACTIVITIES(a), Indigenous persons in private dwellings—2006



(a) Self-care, mobility and/or communication.

Source: ABS 2006 Census of Population and Housing

COMPARISON WITH NON-INDIGENOUS PEOPLE

The proportions of Indigenous and non-Indigenous adults with a profound/severe core activity limitation in non-remote areas are available from the 2002 NATSISS and 2002 GSS (table 5.3). When Indigenous and non-Indigenous age-specific rates are compared, the resulting rate ratio provides an indication of the relative prevalence of profound/severe core activity limitation in the two populations. For more information on the calculation of rate ratios, see the Glossary.

The Indigenous to non-Indigenous rate ratios, based on age-specific profound/severe core activity limitation rates from the 2002 NATSISS and 2002 GSS, indicate that Indigenous people were between one-and-a-half and three-and-a-half times as likely as non-Indigenous people to have a profound/severe core activity limitation. When differences in the age structure of the Indigenous and non-Indigenous populations were taken into account, Indigenous people overall were twice as likely as non-Indigenous people to have a profound/severe core activity limitation (table 5.3).

Similarly, Indigenous to non-Indigenous rate ratios from the 2006 Census indicate that Indigenous adults in non-remote areas were between one-and-a-half and three times as likely as non-Indigenous adults to need assistance with core activities. When differences in the age structure of the Indigenous and non-Indigenous populations were taken into account, Indigenous adults in non-remote areas were twice as likely as non-Indigenous adults to need assistance with core activities (table 5.3).

Prevalence by age and sex continued

COMPARISON WITH NON-INDIGENOUS PEOPLE *continued*

5.3 NEEDS ASSISTANCE AND PROFOUND/SEVERE CORE ACTIVITY LIMITATION, age-specific rates(a)(b)—2006 and 2002

	NEEDS ASSISTANCE WITH CORE ACTIVITIES (2006 CENSUS)		PROFOUND/SEVERE CORE ACTIVITY LIMITATION (2002 NATSISS AND GSS)		INDIGENOUS TO NON-INDIGENOUS RATE RATIOS	
Age group (years)	*Indigenous*	*Non-Indigenous*	*Indigenous*	*Non-Indigenous*	*2006 Census*	*2002 NATSISS and GSS*
	%	%	%	%	ratio	ratio
18–24	2.5	1.3	3.6	1.8	2.0	2.0
25–34	2.8	1.2	6.8	2.2	2.3	3.1
35–44	4.9	1.7	7.5	4.0	2.8	1.9
45–54	8.2	2.7	12.4	3.5	3.1	3.5
55–64	13.2	4.8	11.0	5.9	2.8	1.9
65 and over	20.2	13.4	20.2	12.7	1.5	1.6
18 and over	6.1	4.2	8.1	4.9	1.5	1.7
Total - Age standardised	**8.4**	**4.1**	**10.5**	**5.0**	**2.1**	**2.1**

(a) Persons aged 18 years and over, living in private dwellings in non-remote areas.
(b) These data do not represent change in prevalence over time.
Source: ABS 2006 Census of Population and Housing, 2002 NATSISS, 2002 GSS

5.4 2006 CENSUS — CORE ACTIVITY NEED FOR ASSISTANCE

2006 Census - Need for assistance questions

The 2006 Census asked three questions about need for assistance with core activities of self-care, mobility and communication and then a further question about the reason(s) that help was needed. Responses to these questions were used to identify whether there was a Core Activity Need for Assistance (see Appendix 1). While conceptually consistent with the 'severe/profound core activity limitation' concept from the 2002 NATSISS, the Census criteria asked fewer questions to identify people with disability. Because of this, the number of people identified in the 2006 Census as needing assistance with core activities will generally be lower than comparable estimates of people with a profound/severe core activity limitation from the 2002 NATSISS (and other surveys using the standard short disability module).

Collection methodologies

While information in the 2002 NATSISS was collected via personal interview, Census data for more than three-quarters of the Indigenous population (77%) were provided by a household member filling in a Census form for themselves and/or on behalf of other usual household residents, without prompting or assistance. Data for 17% of Indigenous people (in discrete Indigenous communities) were collected via interview, on the Interviewer Household Form (IHF), and a further 5% (in non-private dwellings) were enumerated on a Personal Form which they may or may not have completed themselves.

Prevalence by age and sex continued

Unlike household surveys, where missing values may be imputed using statistical techniques, Census data retain this non-response within separately identified 'not stated' categories, and this is a contributor to lower numbers of Indigenous people identified as needing assistance in the Census. In the Indigenous population, the non-response rate was 7% for the questions about need for assistance, and in the non-Indigenous population, non-response was 2%.

NEED FOR ASSISTANCE

Age

In the 2006 Census, around 19,600 Aboriginal and Torres Strait Islander Australians (4%) were identified as needing assistance with self-care (eating, washing, dressing or toileting), physical mobility or communication.

Among those needing assistance, the median age for Indigenous males was 41 years, and for females, 49 years. The corresponding median ages for non-Indigenous males and females who needed assistance were 61 years and 75 years respectively. The prevalence of need for assistance with core activities increased noticeably from about 35 years of age onwards for both Indigenous men and women. This is consistent with the patterns for chronic long-term health conditions such as heart/circulatory diseases and diabetes which show onset some ten years earlier in the Indigenous population than in the non-Indigenous population (ABS 2006c).

Among Indigenous children aged 0–14 years, need for assistance was higher for boys than for girls. Male age-specific rates of core activity need for assistance were also higher than female rates for all five-year age groups from 15–69 years. A larger proportion of Indigenous females than males were aged 70 years or over in 2006 and Indigenous women were more likely than men in this age group to need assistance with core activities (table 5.5).

Age continued

5.5 INDIGENOUS PERSONS WHO NEEDED ASSISTANCE WITH CORE ACTIVITIES—2006

	INDIGENOUS				INDIGENOUS TO NON-INDIGENOUS RATE RATIOS	
	Males(a)(b)		*Females*(a)(b)		*Males*	*Females*
Age group (years)	no.	%	no.	%	ratio	ratio
0–4	388	1.4	238	0.9	1.2	1.3
5–9	963	3.3	525	1.9	1.2	1.3
10–14	970	3.3	556	2.0	1.3	1.5
15–19	697	2.8	422	1.8	1.6	1.5
20–24	461	2.5	318	1.7	1.8	1.6
25–29	381	2.6	308	1.9	1.9	1.8
30–34	482	3.2	351	2.1	2.1	1.8
35–39	572	4.0	562	3.4	2.2	2.3
40–44	711	5.6	689	4.8	2.6	2.5
45–49	742	6.9	786	6.6	2.7	2.7
50–54	773	9.0	817	8.7	2.8	2.8
55–59	796	12.7	787	11.3	2.6	2.8
60–64	688	16.3	717	15.1	2.5	3.0
65–69	500	18.5	578	17.4	2.8	2.8
70–74	382	21.6	581	25.0	2.4	2.5
75 and over	642	33.3	1 232	40.3	1.5	1.3
Total	10 147	4.5	9 468	4.1	1.2	0.9
Total - Age standardised(c)	. .	**7.5**	. .	**7.2**	**1.9**	**1.7**

. . not applicable
(a) Components may not add to total due to perturbation of component data.
(b) Rates are age-specific so will not add to 100%.
(c) Age standardised to the 2001 final estimated resident population (ERP).
Source: ABS 2006 Census of Population and Housing

COMPARISON WITH NON-INDIGENOUS PEOPLE

Indigenous people were more likely than non-Indigenous people to need assistance with core activities, regardless of age. Among Australian children aged 0–14 years in 2006, Indigenous children were 1.3 times as likely as non-Indigenous children to need assistance (i.e. more than would usually be required for a child of their age) with self-care, mobility or communication. The proportion of Indigenous people needing assistance then increased to at least one-and-a-half times the rate for non-Indigenous people for age groups from 15–29 years, and to at least twice the rate among Australians in age groups from 30–74 years (table 5.5).

After adjusting for differences in the age structures of the Indigenous and non-Indigenous populations, Aboriginal and Torres Strait Islander people were almost twice as likely as non-Indigenous people to need assistance with core activities in 2006.

Need for assistance by Remoteness Areas

In 2006, the proportion of Indigenous people identified as needing assistance with core activities ranged from 3% of the population in very remote parts of Australia to 5% of those living in major cities and inner regional areas. The lowest rates of need for assistance among Indigenous Australians occurred in outer regional (4%) remote (4%) and very remote (3%) areas.

Need for assistance by state/territory

Indigenous people living in Victoria, Tasmania, New South Wales and South Australia all recorded higher rates of need for assistance with core activities (around 5%) than the national rate (4%), while those in the Northern Territory recorded a lower rate (3%) (table 5.6).

5.6 NEED FOR ASSISTANCE, by state/territory and remoteness—Indigenous persons—2006

	NEEDS ASSISTANCE(a)						
	Non-remote	*Remote*	*Total*	*Does not need assistance*	*Total*(b)(c)		*Population in remote areas*
	%	%	%	%	%	no.	%
New South Wales	5.0	4.0	5.0	88.7	100.0	138 508	5.1
Victoria	5.2	10.5	5.3	88.0	100.0	30 142	0.1
Queensland	4.1	2.7	3.8	90.1	100.0	127 581	22.2
South Australia	5.0	4.2	4.9	88.3	100.0	25 556	18.6
Western Australia	3.9	3.9	3.9	87.6	100.0	58 709	41.5
Tasmania	5.2	5.9	5.2	90.7	100.0	16 766	3.5
Northern Territory	3.6	3.2	3.3	86.8	100.0	53 662	80.2
Australian Capital Territory	3.9	—	3.9	92.9	100.0	3 875	—
Australia(d)	**4.6**	**3.3**	**4.3**	**88.8**	**100.0**	**455 027**	**23.8**

— nil or rounded to zero (including null cells)
(a) With core activities of self-care, mobility and/or communication.
(b) Includes Indigenous persons in each state/territory who did not answer the need for assistance questions.
(c) Components may not add to total due to perturbation of component data.
(d) Includes Other Territories.
Source: ABS 2006 Census of Population and Housing

Living arrangements

In 2006, the majority of Aboriginal and Torres Strait Islander people identified as needing assistance with core activities (17,700 or 90%) were living in private dwellings, with around one in five (3,300 people) in households that required at least one additional bedroom. For more information on overcrowding, refer to Chapter 4 and the Glossary. The remaining 1,900 Indigenous people needing assistance (10%) were living in non-private dwellings—primarily nursing homes, accommodation for the retired or aged, hospitals and hostels for the disabled. Reflecting the different age structures of the two populations, a much smaller proportion of Indigenous people who needed assistance were living in nursing homes or accommodation for the retired or aged (5%) compared with non-Indigenous people (15%) (table 5.7).

Living arrangements continued

5.7 PERSONS WHO NEEDED ASSISTANCE(a), by Indigenous status and living arrangements—2006

	INDIGENOUS		NON-INDIGENOUS	
	no.	*%*	*no.*	*%*
Private dwellings	17 691	90.2	630 208	80.7
Non-private dwellings				
Hospital	380	1.9	15 797	2.0
Nursing home or accommodation for the retired or aged (not self-contained)	954	4.9	119 157	15.3
Hostel for the disabled	194	1.0	7 655	1.0
Other non-private dwelling	391	2.0	7 934	1.0
Total	1 919	9.8	150 543	19.3
Total(b)	**19 616**	**100.0**	**780 817**	**100.0**

(a) With core activities of self-care, mobility and/or communication.

(b) Includes persons in offshore and migratory CDs.

Source: ABS 2006 Census of Population and Housing

NEED FOR ASSISTANCE BY SOCIOECONOMIC INDICATORS

Highest year of school completed

According to the 2006 Census, there were 228,200 Indigenous people aged 15 years or over (excluding those still at school) who provided information on both their highest level of schooling and whether or not they needed assistance with core activities. Around 6% of them (13,600 people) needed assistance with core activities (table 5.8). While it is possible to examine the relationship between the need for assistance and highest year of school completed, causality cannot be determined as the Census did not collect information on age of onset of disability. It is likely that a need for assistance in childhood contributes to lower levels of educational attainment, but also, that lower levels of schooling, together with other risk factors, increase the likelihood of a person requiring assistance with core activities in their adult years. For more information about the relationship between educational attainment and health risk factors, see Chapter 3 of this report.

In 2006, Indigenous people not needing assistance with core activities were more likely to have completed school to at least Year 10 than those needing assistance, regardless of age. When overall attainment rates were compared, Indigenous people not needing assistance were twice as likely as those needing assistance to have completed Year 12 (24% compared with 12%), and around one-and-a-half times as likely to have completed school to at least Year 10 (44% compared with 27%) (table 5.8).

Highest year of school completed continued

5.8 HIGHEST YEAR OF SCHOOL COMPLETED, by age and whether needs assistance—Indigenous persons(a)—2006

	Needs assistance with core activities		*Does not need assistance with core activities*	
	no.	%	no.	%
Age group (years)				
15–24				
Year 12 or equivalent	362	27.9	17 508	30.2
Year 10 or 11	440	33.9	25 889	44.7
Year 9 or below(b)	495	38.2	14 515	25.1
25–34				
Year 12 or equivalent	284	20.3	16 964	32.4
Year 10 or 11	511	36.5	23 232	44.4
Year 9 or below(b)	606	43.3	12 084	23.1
35–44				
Year 12 or equivalent	306	13.3	9 383	19.7
Year 10 or 11	930	40.4	25 268	53.0
Year 9 or below(b)	1 066	46.3	13 021	27.3
45–54				
Year 12 or equivalent	303	10.8	4 756	14.7
Year 10 or 11	935	33.3	14 751	45.5
Year 9 or below(b)	1 570	55.9	12 931	39.9
55–64				
Year 12 or equivalent	219	8.4	1 727	10.7
Year 10 or 11	515	19.8	4 316	26.8
Year 9 or below(b)	1 867	71.8	10 051	62.5
65 and over				
Year 12 or equivalent	141	4.4	742	9.0
Year 10 or 11	333	10.4	1 450	17.6
Year 9 or below(b)	2 727	85.2	6 045	73.4
15 and over				
Year 12 or equivalent	1 615	11.9	51 080	23.8
Year 10 or 11	3 664	26.9	94 906	44.2
Year 9 or below(b)	8 331	61.2	68 647	32.0
Total(b)	**13 610**	. .	**214 633**	. .

. . not applicable
(a) Aged 15 years and over excluding persons still at school and those for whom the highest year of school completed was not stated.
(b) Includes Indigenous persons who did not go to school.
Source: ABS 2006 Census of Population and Housing

COMPARISON WITH NON-INDIGENOUS PEOPLE

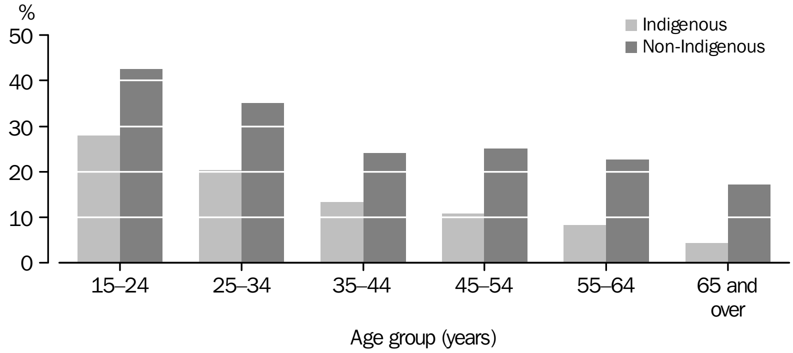
In both the Indigenous and non-Indigenous populations, Year 12 completion rates were generally lower in older age groups. In addition, Indigenous people were considerably less likely than non-Indigenous people to have completed Year 12, regardless of whether or not they needed assistance with core activities.

After adjusting for differences in the age structures of the two populations, Indigenous people who needed assistance were less likely than non-Indigenous people who needed assistance to have completed Year 12 (age standardised rate ratio of 0.8). Unadjusted age-specific Indigenous to non-Indigenous rate ratios ranged from 0.7 for people aged 15–24 years to 0.3 for people aged 65 years and over (graph 5.9). For more information on the calculation of rate ratios, see the Glossary.

Highest year of school completed continued

COMPARISON WITH NON-INDIGENOUS PEOPLE *continued*

5.9 COMPLETED YEAR 12 BY INDIGENOUS STATUS AND AGE, Persons(a) who needed assistance with core activities—2006



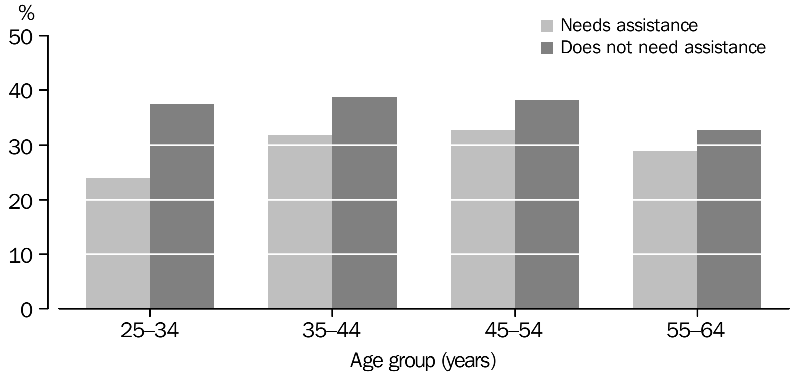
(a) Aged 15 years and over, excluding persons still at school and those for whom highest year of schooling was not stated.

Source: ABS 2006 Census of Population and Housing

Non-school qualifications

Among the 10,200 Aboriginal and Torres Strait Islander people aged 25–64 years identified as needing assistance in 2006, around 3,100, or 30% overall, reported that they had a non-school qualification. The proportion of Indigenous people with a non-school qualification was lower among those needing assistance than among those not needing assistance, for all age groups (graph 5.10).

5.10 NON-SCHOOL QUALIFICATION BY WHETHER NEEDS ASSISTANCE(a), Indigenous persons aged 25–64 years—2006



(a) With core activities of self-care, mobility and/or communication.

Source: ABS 2006 Census of Population and Housing

COMPARISON WITH NON-INDIGENOUS PEOPLE

Among Australians aged 25–64 years, Indigenous people were less likely than non-Indigenous people to have attained a non-school qualification. However, the difference in attainment rates between those who needed and didn't need assistance was much smaller among Indigenous people (30% compared with 38%) than non-Indigenous people (36% compared with 58%).

Labour force status

In the 2006 Census, around 12,100 Indigenous people aged 15–64 years (4%) needed assistance with core activities of daily living. Among those who needed assistance, 12% were employed, 3% were unemployed and looking for work, and 80% were not in the labour force. Aboriginal and Torres Strait Islander people who needed assistance were participating in the labour force at around one-quarter the rate of those not needing assistance (16% compared with 59%), and experienced higher unemployment rates (21% compared with 15%) (table 5.11).

5.11 LABOUR FORCE STATUS, by whether needs assistance—Indigenous persons aged 15–64 years—2006

	AGE GROUP (YEARS)					AGED 15–64 YEARS	
	15–24	*25–34*	*35–44*	*45–54*	*55–64*	*Percent*	*Number*
	%	%	%	%	%	%	no.
NEEDS ASSISTANCE WITH CORE ACTIVITIES							
Employed	13.3	16.9	16.2	12.2	6.7	12.5	1 502
Unemployed	6.5	5.1	3.8	2.2	0.9	3.3	394
In the labour force	***19.8***	***22.0***	***20.0***	***14.4***	***7.6***	***15.7***	***1 896***
Not in the labour force	77.3	75.4	77.1	81.7	86.5	80.4	9 698
Total(a)	100.0	100.0	100.0	100.0	100.0	100.0	12 058
Unemployment rate(b)	33.0	23.0	18.9	15.6	11.8	20.8	. .
DOES NOT NEED ASSISTANCE WITH CORE ACTIVITIES							
Employed	39.8	53.3	57.2	59.3	41.9	49.7	118 318
Unemployed	11.4	9.9	8.8	6.2	3.6	9.1	21 690
In the labour force	***51.2***	***63.2***	***66.0***	***65.4***	***45.5***	***58.8***	***140 008***
Not in the labour force	45.7	33.9	31.2	31.5	50.9	38.1	90 714
Total(a)	100.0	100.0	100.0	100.0	100.0	100.0	237 955
Unemployment rate(b)	22.2	15.6	13.3	9.5	7.9	15.5	. .

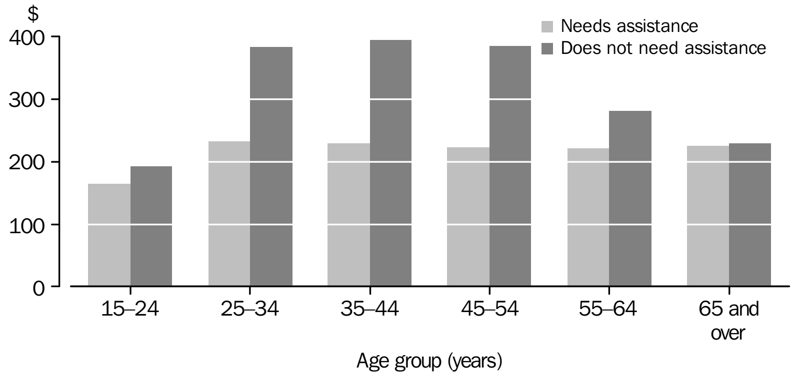
. . not applicable
(a) Includes persons for whom labour force status was not known.
(b) Unemployed persons as a proportion of those in the labour force.
Source: ABS 2006 Census of Population and Housing

Individual weekly income

Just under half (49%) of Aboriginal and Torres Strait Islander people who needed assistance in 2006 reported weekly income in the range $150–$249, with median weekly income for males of $218, and for females, $221. Median weekly incomes for Indigenous males and females who needed assistance were lower than the corresponding incomes for those not needing assistance, across all age groups. However, the difference in median incomes was most pronounced among people of prime working age (i.e. aged 25–54 years), reflecting significantly lower employment and labour force participation rates among those needing assistance with core activities. Within these age groups, the median income for Indigenous people who needed assistance was equivalent to around 60% of the median income for those who did not need assistance (graph 5.12).

Individual weekly income continued

5.12 MEDIAN INDIVIDUAL WEEKLY INCOME BY WHETHER NEEDS ASSISTANCE(a), Indigenous persons aged 15 years and over—2006



(a) With core activities of self-care, mobility and/or communication.

Source: ABS 2006 Census of Population and Housing

COMPARISON WITH NON-INDIGENOUS PEOPLE

Among Australians needing assistance with core activities, the median individual weekly income was lower for Indigenous than non-Indigenous people ($220 per week compared with $240 per week). However, this difference in median incomes was much smaller than that between Indigenous and non-Indigenous people not needing assistance ($291 per week compared with $499 per week).

Low resource households

Another income measure—equivalised gross weekly household income on a per person basis—provides an indication of how much money is available to each individual, taking into account the combined income, size and composition of the household in which they live. In this report, Indigenous people whose equivalised gross weekly household income was in the lowest quintile, i.e. less than $315 per week, were considered to be living in low resource households. For more information on the definitions of low resource households and income quintiles, see Glossary.

Data from the 2006 census show that Indigenous people who needed assistance with core activities were more likely than those not needing assistance to be living in a low resource household (44% compared with 38%).

COMPARISON WITH NON-INDIGENOUS PEOPLE

Indigenous people overall were almost five times as likely as non-Indigenous people to be living in a low resource household (39% compared with 8%). After adjusting for differences in the age structures of the two populations, Indigenous people who needed assistance were twice as likely as non-Indigenous people who needed assistance, to be living in a low resource household.

Language spoken at home

In the 2006 Census, around 16,300 Aboriginal and Torres Strait Islander people who needed assistance with core activities (83%) spoke English at home and a further 2,200 people (11%) spoke an Australian Indigenous language. Prevalence of need for assistance was the same among Indigenous people who only spoke English and those who spoke an Australian Indigenous language at home (both 4%).

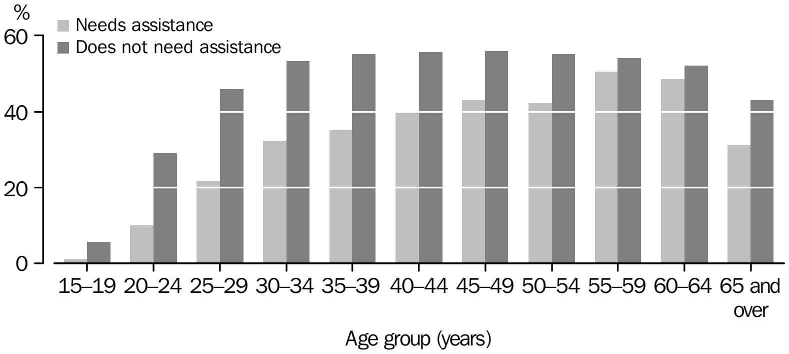
Social networks

Good support networks, friendships and relationships are positive social determinants of health. Conversely, disability and illness can lead to social exclusion and marginalisation (The Fred Hollows Foundation 2007). Information on the support provided by carers to people who need help because they are old and/or have disability is explored in some detail in later sections of this chapter. Complementary information about participation in social activities and sources of support for Indigenous people aged 15 years and over, including those with a profound/severe core activity limitation, are available from the 2002 NATSISS. These data show that Indigenous people with a profound/severe core activity limitation had been involved in social activities in the previous three months at similar rates to those without disability (88% compared with 92%). Similarly, access to support in times of crisis was reported by 87% of Indigenous people with a profound/severe core activity limitation, compared with 92% of those without disability.

SOCIAL MARITAL STATUS

While data from the 2002 NATSISS suggest that disability is not necessarily a barrier to social participation, a person's need for assistance with core activities may impact on their chances of partnering. According to the 2006 Census, Indigenous people aged 15 years and over who needed assistance with core activities were less likely to be in a registered or de facto marriage than were people of the same age who did not need assistance (graph 5.13). The same pattern was evident in the non-Indigenous population.

5.13 MARRIAGE RATES(a) BY WHETHER NEEDS ASSISTANCE(b), Indigenous persons aged 15 years and over in private dwellings—2006



(a) Registered or de facto marriage.
(b) With core activities of self-care, mobility and/or communication.

Source: ABS 2006 Census of Population and Housing

Living with a carer

In 2006, around 10,300 Aboriginal and Torres Strait Islander people (58% of those who needed assistance in private dwellings) were living in a household in which there was at least one identified carer (i.e. a person who provided unpaid care, help or assistance to another person because of their disability, long-term illness or problems related to old age). While the Census data do not link people who needed assistance to a specific caregiver, it may be reasonable to assume the existence of a caring relationship in most instances where both a person needing assistance and at least one carer were living in the same household.

Living with a carer continued

The proportion of Indigenous people needing assistance who were living with a carer was lower in older age groups—51% of those aged 65 years and over, compared with 74% of children aged 0–14 years (table 5.14). It is possible that some people with disability had a carer outside their immediate household, and also likely that not all carers will have been identified (see box 5.16), so it should not be assumed that the lack of an identified carer within the household is a measure of unmet need for care.

5.14 INDIGENOUS PERSONS WHO NEEDED ASSISTANCE(a), by whether living with a carer—2006

	HOUSEHOLDS WITH A CARER(b)		HOUSEHOLDS WITHOUT A CARER(b)		TOTAL(b)(c)	
Age group (years)	*no.*	*%*	*no.*	*%*	*no.*	*%*
0–14	2 655	74.1	682	19.0	3 584	100.0
15–24	1 216	67.2	435	24.0	1 809	100.0
25–34	778	56.2	503	36.3	1 384	100.0
35–44	1 225	53.2	892	38.7	2 304	100.0
45–54	1 484	51.6	1 117	38.8	2 877	100.0
55–64	1 387	51.9	1 002	37.5	2 670	100.0
65 and over	1 557	50.8	1 103	36.0	3 064	100.0
Total	**10 302**	**58.2**	**5 734**	**32.4**	**17 692**	**100.0**

(a) Living in private dwellings.
(b) Components may not add to total due to perturbation of component data.
(c) Includes persons living in households in which the carer status of resident(s) was not known.

Source: ABS 2006 Census of Population and Housing

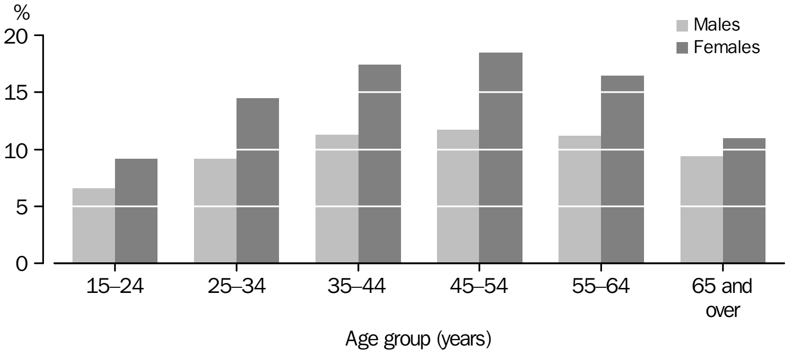
CARERS

Prevalence by age and sex

In 2006, for the first time, the Census collected information on the number of carers aged 15 years or over in Australia. The analysis that follows is based on carers of people with disability, living in private dwellings.

There were 11,600 Indigenous male carers (9%) and 20,000 Indigenous female carers (14%) in 2006. The proportion of Indigenous carers ranged from 8% of those aged 15–24 years, increased to a peak of 15% of those aged 45–54 years, and then decreased to 10% of those aged 65 years and over (graph 5.15).

5.15 INDIGENOUS CARERS(a), by age and sex—2006



(a) Living in private dwellings. Persons who provided unpaid care, help or assistance to another person because of their disability, long-term illness or problems related to old age.

Source: ABS 2006 Census of Population and Housing

Prevalence by age and sex continued

5.16 2006 CENSUS—CARER STATUS

Carer status

The 2006 Census asked two questions about the provision of unpaid assistance which were then combined to produce the Unpaid Assistance to a Person with a Disability measure (see Appendix 1). Some carers may not have been identified as such due to the relative positioning of questions on Core Activity Need for Assistance and the provision of unpaid care (i.e. these question sets were not sequential). Appearing much later on the Census form, the carer questions used the word 'disability' to signify the Core Activity Need for Assistance concept, which may also have resulted in some people misunderstanding the intended connection between the two measures.

Non-response

It should be noted that the proportion of carers in the Indigenous population is likely to be understated as around 11% of Aboriginal and Torres Strait Islander people aged 15 years and over in private dwellings did not answer these questions. The corresponding rate of non-response in the non-Indigenous population was 5%.

COMPARISON WITH NON-INDIGENOUS CARERS

After adjusting for differences in the age structures of the Indigenous and non-Indigenous populations, Aboriginal and Torres Strait Islander people were more likely than non-Indigenous people to be caring for another person with disability, long-term illness or problems related to old age. The median age of Indigenous carers was 37 years; 12 years less than the median age of non-Indigenous carers (49 years). Reflecting higher birth rates at younger ages (younger parenting), and the earlier onset of many chronic diseases in the Aboriginal and Torres Strait Islander population, the Indigenous to non-Indigenous carer rate ratio was greatest among people aged 15–34 years (table 5.17).

Prevalence by age and sex continued

COMPARISON WITH NON-INDIGENOUS CARERS *continued*

5.17 CARERS(a), by Indigenous status, age and sex—2006

	Indigenous	*Non-Indigenous*	*Indigenous to non-Indigenous rate ratio*
	%	%	ratio
Age group (years)			
15–24	7.9	4.5	1.7
25–34	12.1	7.5	1.6
35–44	14.7	11.2	1.3
45–54	15.3	15.0	1.0
55–64	14.0	16.5	0.9
65 and over	10.4	10.4	1.0
Total	11.9	10.8	1.1
Males—Age standardised	9.8	8.3	1.2
Females—Age standardised	14.5	12.6	1.2
Total—Age standardised	**12.4**	**10.5**	**1.2**
NUMBERS			
Total carers	**31 600**	**1 532 057**	..

.. not applicable

(a) Persons aged 15 years or over living in private dwellings who provided unpaid care, help or assistance to another person because of their disability, long-term illness or problems related to old age.

Source: ABS 2006 Census of Population and Housing

State/territory and remoteness

At the state/territory level, similar proportions of Aboriginal and Torres Strait Islander people aged 15 years and over were carers—ranging from 11% in Queensland to 13% in the Australian Capital Territory. Carer rates were higher for females than males in all jurisdictions. There were no significant differences in the prevalence of carers according to remoteness areas.

Labour force status

For carers of working age, there can be opportunity and financial costs if their caring role prevents or makes it difficult for them to work in paid employment. Carers providing the intensive level of care associated with self-care tasks such as washing, dressing and toileting are often required to perform these tasks at short notice, making regular full-time paid employment outside the home difficult.

In 2006, Indigenous carers were participating in the labour force (i.e. either employed or unemployed and looking for work) at a similar rate to those who were not caregivers (54% compared with 58%). In both the Indigenous and non-Indigenous populations, carers were more likely than those who were not providing care, to be employed part-time. Among Indigenous people who were employed, 44% of carers were in part-time work compared with 37% of those who were not providing care.

Labour force status continued

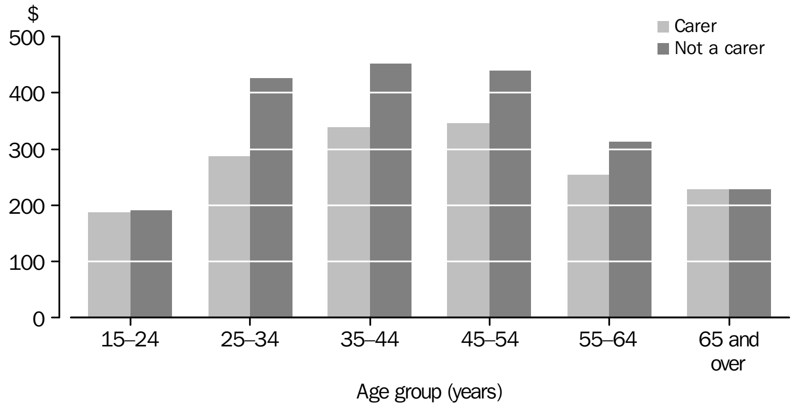
COMPARISON WITH NON-INDIGENOUS CARERS

After adjusting for differences in the age structures of the Indigenous and non-Indigenous populations, non-Indigenous carers were around one-and-a-half times more likely to be employed than were Indigenous carers. Among those who were employed, rates of part-time work were similar for Indigenous and non-Indigenous carers.

Median individual weekly income

In the 2006 Census, the median individual weekly income for male carers was $248, and for female carers, $289. While the 2006 Census did not ask people whether their caring role prevented them from working, age-specific information on weekly income shows that among Indigenous people aged 25–64 years, the median income of carers was lower than the median income of those who were not providing care. Among people in this age group, the median weekly income for Indigenous male carers was between $60 and $140 lower than the corresponding income for males who were not providing care, while among Indigenous females, the median weekly income for carers was up to $25 lower than the corresponding income for those who were not providing care (graphs 5.18 and 5.19).

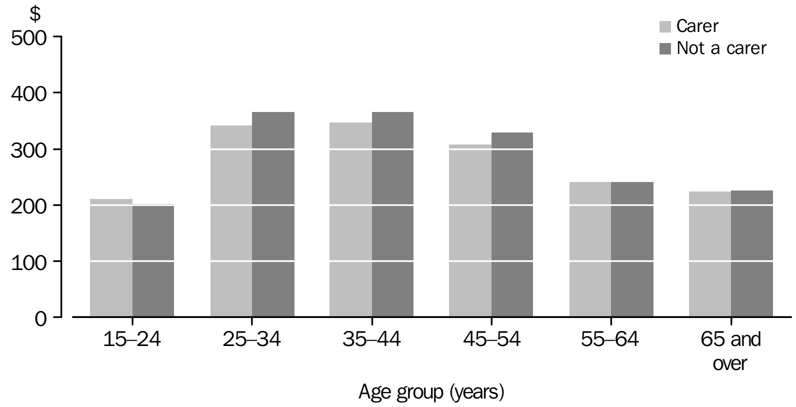
5.18 MEDIAN INDIVIDUAL WEEKLY INCOME BY CARER STATUS, Indigenous males aged 15 years and over in private dwellings—2006



Source: ABS 2006 Census of Population and Housing

Median individual weekly income continued

5.19 MEDIAN INDIVIDUAL WEEKLY INCOME BY CARER STATUS, Indigenous females aged 15 years and over in private dwellings—2006



Source: ABS 2006 Census of Population and Housing

COMPARISON WITH NON-INDIGENOUS CARERS

Reflecting lower employment rates, the median weekly income for Indigenous male carers was equivalent to 42% of the median weekly income for non-Indigenous male carers ($248 compared with $589). Although still considerable, the difference between the median weekly income for Indigenous and non-Indigenous female carers was much smaller ($289 compared with $356). The median weekly income for Indigenous male and female carers was lower than that for non-Indigenous carers of the same sex across all age groups.

Low resource households

In this report, Indigenous people whose equivalised gross weekly household income was in the lowest quintile, i.e. less than $315 per week, were considered to be living in low resource households. Data from the 2006 Census show that Indigenous carers aged 15 years and over were more likely than those not providing care to be living in a low resource household (36% compared with 33%). For more information on the definitions of low resource households and income quintiles, see Glossary.

COMPARISON WITH NON-INDIGENOUS CARERS

After adjusting for differences in the age structures of the Indigenous and non-Indigenous populations, Indigenous carers were four times as likely as non-Indigenous carers to be living in a low resource household. However, a similar degree of relative disadvantage was also evident between Indigenous and non-Indigenous people aged 15 years and over who were not carers.

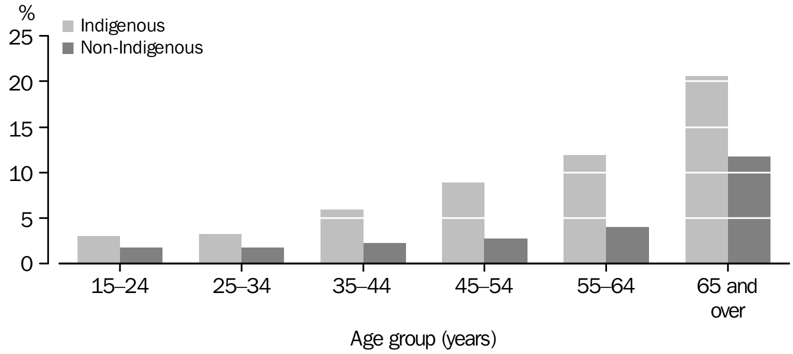
Language spoken at home

In 2006, around 5,000 Aboriginal and Torres Strait Islander carers (16%) reported speaking an Australian Indigenous language at home and 25,300 (80%) spoke English only. A majority of those who spoke an Indigenous language at home reported that they were also proficient English speakers.

Carers' need for assistance

In the 2006 Census, around 2,100 Indigenous carers needed help with core activities themselves, of whom more than two-thirds (68%) were under 55 years of age. Indigenous carers were between one-and-a half and three times as likely as non-Indigenous carers to need assistance with core activities (graph 5.20).

5.20 CARERS(a) WHO NEEDED ASSISTANCE(b) BY INDIGENOUS STATUS—2006



(a) Aged 15 years and over, living in private dwellings.
(b) With core activities of self-care, mobility and/or communication.

Source: ABS 2006 Census of Population and Housing

SUMMARY

In the 2006 Census, around 19,600 Aboriginal and Torres Strait Islander Australians (4%) were identified as needing assistance with self-care (eating, washing, dressing or toileting), physical mobility or communication. After taking account of age differences between the Indigenous and non-Indigenous populations, Indigenous people were almost twice as likely as non-Indigenous people to require assistance with core activities.

The prevalence of disability among Indigenous people is higher at all ages. Among those needing assistance, the median age for Indigenous males was 41 years, and for females, 49 years. The corresponding median ages for non-Indigenous males and females who needed assistance were 61 years and 75 years respectively. The prevalence of need for assistance with core activities increased noticeably from about 35 years of age onwards for both Indigenous men and women. This is consistent with the patterns for chronic long-term health conditions such as heart/circulatory diseases and diabetes, which show onset some ten years earlier in the Indigenous population than in the non-Indigenous population (ABS 2006c).

While Indigenous people are generally disadvantaged when compared with non-Indigenous people, those needing assistance with core activities were likely to experience a further degree of social and economic disadvantage. When compared with Indigenous people who did not need assistance, they were, on average, half as likely to have completed Year 12 (12% compared with 24%), participating in the labour force at around one-quarter the rate (16% compared with 59%), and more likely to be living on lower incomes. In addition, Aboriginal and Torres Strait Islander people who needed assistance were less likely to be partnered than were those not needing assistance.

In 2006, for the first time, the Census collected information on the number of Australians aged 15 years and over who provided unpaid care, help or assistance to another person because of their disability, long-term illness or problems related to old age. Around

SUMMARY *continued*

11,600 Indigenous male carers (9%) and 20,000 Indigenous female carers (14%) were identified in 2006. The median age of Indigenous carers was 37 years, 12 years less than the median age of non-Indigenous carers (49 years). Around 2,100 Indigenous carers needed help with core activities themselves, of whom more than two-thirds (68%) were under 55 years of age. Indigenous carers were between one-and-a-half and three times as likely as non-Indigenous carers to need assistance with core activities, similar to the overall Indigenous to non-Indigenous rate ratios for those needing assistance.

CHAPTER 6 MOTHERS AND CHILDREN

INTRODUCTION

Aboriginal and Torres Strait Islander females have higher fertility rates than other Australian females and are more likely to give birth at younger ages. Indigenous maternal mortality rates and the proportion of low birthweight babies born to Indigenous females are higher than for non-Indigenous females. The perinatal death rate for Indigenous babies is also higher than for non-Indigenous babies, but this rate has declined since the early 1990s. Mortality rates for Indigenous infants and children have also fallen in some jurisdictions over a similar period of time.

This chapter includes some background information on the circumstances of Indigenous families and communities to provide the broader context in which the health and welfare of Indigenous mothers and children is determined. The relatively poor socioeconomic status and social disadvantage experienced by many Indigenous families contributes to the generally poorer health and wellbeing of Indigenous children.

The data on Indigenous mothers and babies focus on the periods of pregnancy, childbirth and infancy. As well as data on fertility, the chapter includes information on the risk factors during pregnancy, and perinatal and child health outcomes. These outcomes include maternal mortality, gestational age, low birthweight and perinatal mortality. Data are also included on some of the factors that impact on healthy child development—breastfeeding, diet and nutrition, immunisation, and exposure to passive smoking and risky/high risk drinker(s) in the household. The health status of Indigenous children is then examined through data on the prevalence of long-term health conditions, burden of disease, hospitalisations and mortality.

The focus of the chapter is Indigenous mothers and Indigenous children aged 0–14 years, except where information for these ages was not available. For the first time, data on trends over time are provided for some of the measures.

INDIGENOUS FAMILIES AND COMMUNITIES

Indigenous household and family structures

Data from the 2006 Census show that the majority of both Indigenous and other Australian households are single family households (76% and 70% respectively), however a larger proportion of Indigenous households are multi-family households (5% compared with 1%) and a smaller proportion are lone person households (14% compared with 25%). Indigenous households are more likely to be larger, with an average of 3.4 people compared with 2.6 for other Australian households.

In 2006, Indigenous single family households were three times more likely than other single family households to be one-parent families with dependent children or students (30% compared with 10%), but less likely to be families without dependents (33% compared with 54%). Indigenous and non-Indigenous single family households were equally likely to be couples with dependent children (around 37%).

The classifications used to describe Indigenous households and family structures in the ABS five-yearly Census do not fully capture the complexity of many Indigenous families

Indigenous household and family structures continued

and their living arrangements (Morphy 2006). The characteristics of Indigenous households differ from the majority of Australian households—they tend to be larger, non-nuclear and more fluid in composition. Indigenous families have overlapping and extensive kinship networks, with both adults and children commonly moving between different households (Smith 2001; Morphy 2006). These extensive and fluid family structures are more common in remote communities, but are also found in more settled areas of Australia (Smith 2000).

Socioeconomic status

The relatively poor socioeconomic status of Indigenous people and families has been well documented. Chapter 2, for example, outlines the lower employment rates, income levels and education attainment of Indigenous Australians when compared with non-Indigenous Australians. Indigenous people in remote areas have limited access to services and mainstream labour markets. This has important implications for Indigenous children born and raised in these environments, and impacts on their health and other life outcomes.

Daly and Smith (2005) identified a key set of statistical variables that they regarded as indicators of exclusion from mainstream social and economic opportunities. They analysed the 2001 Census and other data on these indicators of risk for Indigenous and non-Indigenous children and concluded that Indigenous children were among the most socially disadvantaged in Australia. Compared with other Australian children, children living in Indigenous households were:

- less likely to be living with a parent (88% of Indigenous children compared with 98% of non-Indigenous children);
- had lower weekly household incomes (median weekly incomes of households with Indigenous children were 67% of the median weekly incomes of households with other children (i.e. no Indigenous children));
- more reliant on income support (33% of Indigenous families with dependants were receiving Parenting Payment compared with 16% of non-Indigenous families);
- more likely to have parents who left school early (57% of children in Indigenous households were living with parents who had not completed Year 10 compared with 25% of children in other households); and
- less likely to have a parent in paid employment (47% of Indigenous families had no parent working compared with 20% of other families).

On a number of the indicators examined, Indigenous children living in very remote areas were more disadvantaged than those in less remote areas. Many Indigenous children experienced multiple risk factors and there was evidence that the damage caused by these compounded with each additional risk factor (Daly & Smith 2005).

Family and community functioning

Family functioning has been shown to have strong associations with the social, economic and psychological environment of the family and wider community (Silburn et al 2006). It is important because good family functioning is associated with positive child outcomes, while poor family functioning leads to poor emotional and behavioural outcomes for children. The impact of poor family functioning on child outcomes can be ameliorated by the level of community functioning. Recent data on Indigenous family and community functioning should be viewed in the context of the social disadvantage experienced by many Indigenous families and the life stresses they experience.

Family and community functioning continued

The 2001–02 Western Australian Aboriginal Child Health Survey (WAACHS) examined life stresses, family functioning and community characteristics across geographical areas. WAACHS asked primary carers if any of 14 major life stressors had occurred in the family in the previous 12 months (see box 6.1). Families with Aboriginal children reported very high levels of life stresses, with 22% of children living in families in which 7–14 life stress events had occurred in the last 12 months. The survey found that similar levels of stress were reported across all levels of geographic isolation. Carers of Aboriginal children experienced an average of 3.9 life stress events, over three times the average experienced by carers of non-Aboriginal children (1.2 life stressors) (Silburn et al 2006).

The survey found that most Aboriginal families were functioning well, based on measures of family functioning developed for the survey (see box 6.1). Those in the lowest quarter of the measure of functioning were classified as having poor family functioning. Carers living in areas of extreme isolation were more likely to be living in families classified as having poor family functioning. Two of the major factors associated with poor family functioning in areas of extreme isolation were family financial strain and the quality of children's diets.

6.1 WESTERN AUSTRALIAN ABORIGINAL CHILD HEALTH SURVEY (WAACHS)

The Western Australian Aboriginal Child Health Survey (WAACHS) was a large scale investigation into the health of 5,289 Western Australian Aboriginal and Torres Strait Islander children aged 0–17 years. It was undertaken in 2001 and 2002 by the Telethon Institute for Child Health Research in conjunction with the Kulunga Research Network. The survey was the first to gather comprehensive health, educational and developmental information on a population based sample of Aboriginal and Torres Strait Islander children, their families and communities.

Level of Relative Isolation (LORI)

LORI is a new classification of remoteness indicating the relative distance of localities from population centres of various sizes. The LORI is based on an extension of the ARIA (Accessibility/Remoteness Index of Australia) called ARIA++ which has an 18 point remoteness scale and gives a more detailed description of more remote areas by including more service centres in calculating remoteness scores. Based on the ARIA++ scores, five categories of isolation have been defined. These categories are referred to as LORIs and range from None (the Perth metropolitan area) to Low (e.g. Albany), Moderate (e.g. Broome), High (e.g. Kalumburu) and Extreme (e.g. Yiyili).

Life stresses

Primary carers were asked if any of 14 major life stress events had occurred in their family in the preceding 12 months. These events included: a close family member had a medical problem and was in hospital; a close family member was in prison; your child/children was involved in or upset by family arguments; a parent/caregiver lost his or her job; a close family member had an alcohol or drug problem; an important family member passed away; and/or parents or carers had left because of a family split up.

Family and community functioning continued

Family functioning

Family functioning was measured in the WAACHS using a nine-item scale based on key family recovery and family protective factors identified in international research and modified for Aboriginal families. The family protective factors include accord, communication, hardiness and acceptance. Based on these indicators, the authors concluded that the majority of families with Aboriginal children scored highly on the family functioning scale. But in order to produce a single measure of family functioning, responses were summed to produce an overall score and then split into quartiles, each representing one-quarter of the population. These quartiles were labelled Poor, Fair, Good and Very Good.

Source: Silburn et al 2006

The WAACHS also explored the characteristics of communities with Aboriginal children and found that there were significant differences across the spectrum of geographical isolation (Silburn et al 2006). The maintenance of Aboriginal languages and traditional cultures were much more common in areas of extreme isolation. Neighbourhood and community problems, such as being bothered by drug and alcohol abuse, break-ins and car stealing were most common in areas of moderate isolation.

A range of studies have found that the incidence of violence in Indigenous families and communities is significantly higher than in the Australian community as a whole, and this has particularly adverse impacts on the health and wellbeing of Aboriginal and Torres Strait Islander children (AIHW: Al-Yaman et. al. 2006; Gordon et. al. 2002). In 2002, some 41% of Indigenous people in remote areas and 14% of those in non-remote areas reported that family violence was a neighbourhood problem. In 2003–04 Indigenous females were hospitalised for family violence-related assaults at 35 times the rate of non-Indigenous females, while 7,950 Indigenous females and 350 Indigenous males sought assistance through the Supported Accommodation Assistance Program (SAAP) to escape domestic violence (AIHW: Al-Yaman et al 2006). In 2005–06 there were 11,600 Indigenous children who attended a SAAP service with their parent or guardian. Among Indigenous children aged four years or less, one in every 11 attended a SAAP service in 2005–06 (see Chapter 4). Chapter 11 provides data on the relatively high rates of Indigenous children in the child protection system.

INDIGENOUS MOTHERS

This section includes data on Indigenous mothers, mainly during the period of pregnancy. Data on female contraceptive practices are provided, followed by information on fertility rates, maternal age, risk factors during pregnancy and maternal mortality.

Female contraceptive practices

The 2004–05 National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) provides information on the contraceptive practices of Indigenous women aged 18–49 years. Overall, the most common forms of contraception used by Indigenous women were condoms (20%) followed by the contraceptive pill (14%) (ABS 2006e). Forms of contraceptive use differed according to remoteness. While 24% of Indigenous women living in non-remote areas reported using condoms and 17% were taking the contraceptive pill, only 9% of women in remote areas used condoms and less than 5% were taking the contraceptive pill. In contrast, Indigenous women in remote areas

Female contraceptive practices continued

were more than twice as likely as those in non-remote areas to report using contraceptive injections (14% compared with 5%) or implants (13% compared with 5%)

Mothers

During 2001–2004, Indigenous mothers comprised nearly 4% of all females who gave birth in Australia. The proportion of Indigenous mothers ranged from less than 1% of females who gave birth in Victoria to 39% in the Northern Territory. The number of Indigenous mothers was highest in Queensland (11,041), followed by New South Wales (8,734), Western Australia (6,164) and the Northern Territory (5,622) (table 6.2).

6.2 INDIGENOUS MOTHERS, by state/territory—2001–2004

	Number	Proportion of all mothers(a)
	no.	%
New South Wales	8 734	2.6
Victoria	1 633	0.7
Queensland	11 041	5.6
South Australia	1 793	2.6
Western Australia	6 164	6.3
Tasmania(b)	na	na
Northern Territory	5 622	38.9
Australian Capital Territory(c)	277	1.5
Australia	**35 264**	**3.5**

na not available
(a) Indigenous mothers as a proportion of all mothers in each jurisdiction.
(b) Data for Tasmania are unavailable.
(c) Data includes ACT and non-ACT residents who gave birth in the ACT.
Source: AIHW National Perinatal Data Collection

Fertility

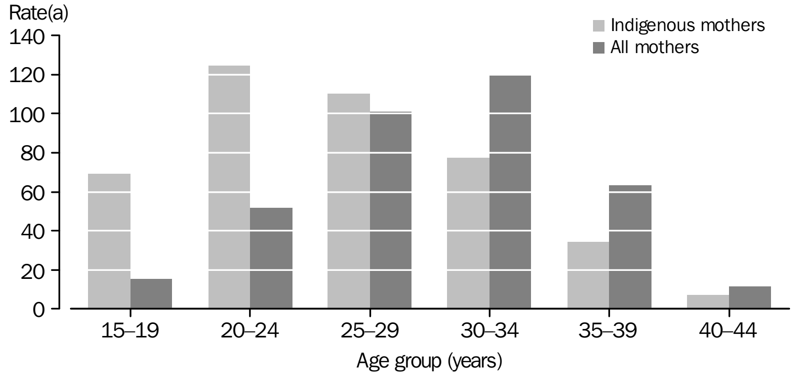
The total fertility rate (TFR) represents the number of children a woman would have during her lifetime if she were to experience current age-specific fertility rates at each stage of her reproductive life. Measures of the fertility of Indigenous females account for only part of the impact of births on measures of the growth of the Indigenous population. This is because the Indigenous TFR is based on the Indigenous status of the mother, and about one-third of Indigenous babies have an Indigenous father and non-Indigenous mother. In addition, the fertility rate of Indigenous females is likely to be underestimated because the Indigenous status of the mother is not always recorded in birth registrations that are used to calculate fertility rates. The TFR for 2006 was derived using the numbers of births registered to Indigenous mothers in 2006 and the 30 June 2006 preliminary estimated resident population of Aboriginal and Torres Strait Islander females.

In 2006, the TFR for Indigenous females was estimated to be 2.1 babies, compared with 1.8 babies for all Australian females. Indigenous TFRs vary across the states and territories. The highest Indigenous TFR in 2006 occurred in South Australia (2.5 babies per female), followed by the Northern Territory (2.4) and Western Australia (2.3) (ABS 2007a).

Fertility continued

High fertility at younger ages contributes to the relatively high fertility of Indigenous females. Teenage births (i.e. births to females less than 20 years of age) are more common among Indigenous than non-Indigenous females. In 2006, the teenage birth rate for Indigenous females (69 babies per 1,000 females) was more than five times the teenage birth rate for non-Indigenous females (13 babies per 1,000 females). The peak age group for births to Indigenous females in 2006 was 20–24 years (125 babies per 1,000), followed by women aged 25–29 years (110 babies per 1,000 females). In contrast, the peak age group for births to non-Indigenous females was 30–34 years (120 babies per 1,000 females) (graph 6.3) (ABS 2007a).

6.3 AGE-SPECIFIC FERTILITY RATES, by Indigenous status of mother—2006



(a) Number of babies per 1,000 females.

Source: ABS 2007a

Maternal age

The age of the mother can affect the development of the foetus, with the risk of foetal complications being higher for pregnancies that occur in the teenage years or among women over the age of about 35 years. Maternal age is also associated with perinatal health, with adverse outcomes more likely among younger and older mothers (Laws et al 2006a). The median age of Indigenous mothers in the period 2001–2004 was 25 years, some five years lower than the median age of non-Indigenous mothers (30 years) (AIHW: Leeds et al 2007).

In the period 2001–2004, approximately 23% of Indigenous females who gave birth were aged less than 20 years, compared with 4% of non-Indigenous females. The jurisdiction with the largest proportion of Indigenous females aged less than 20 years who gave birth during this period was the Northern Territory (29%), followed by Western Australia (24%), Victoria (22%) and South Australia (22%). The corresponding proportions for non-Indigenous females were 5% in the Northern Territory, 5% in Western Australia, 3% in Victoria and 5% in South Australia. Around 7% of Indigenous females who gave birth in the period 2001–2004 were aged 35 years or over compared with 19% of non-Indigenous females (table 6.4).

6.4 MOTHERS(a), by maternal age and Indigenous status—2001–2004

	Less than 20 years		*20–34 years*		*35 years or over*		*Total*(b)	
	no.	%	no.	%	no.	%	no.	%
New South Wales								
Indigenous	1 868	21.4	6 186	70.9	672	7.7	8 734	100.0
Non-Indigenous	12 349	3.7	253 284	76.9	63 627	19.3	329 386	100.0
Victoria								
Indigenous	360	22.0	1 139	69.7	133	8.1	1 633	100.0
Non-Indigenous	7 191	2.9	187 560	76.1	51 645	21.0	246 418	100.0
Queensland								
Indigenous	2 161	19.6	8 020	72.7	860	7.8	11 041	100.0
Non-Indigenous	10 111	5.4	144 929	78.0	30 683	16.5	185 723	100.0
South Australia								
Indigenous	391	21.8	1 269	70.8	133	7.4	1 793	100.0
Non-Indigenous	3 349	4.9	52 584	77.6	11 867	17.5	67 800	100.0
Western Australia								
Indigenous	1 467	23.8	4 309	69.9	388	6.3	6 164	100.0
Non-Indigenous	4 120	4.5	71 223	77.3	16 773	18.2	92 116	100.0
Northern Territory								
Indigenous	1 636	29.1	3 652	65.0	329	5.9	5 622	100.0
Non-Indigenous	460	5.2	6 787	77.4	1 519	17.3	8 773	100.0
Australian Capital Territory								
Indigenous	41	14.8	210	75.8	26	9.4	277	100.0
Non-Indigenous	540	2.9	13 921	75.8	3 896	21.2	18 357	100.0
Australia(c)								
Indigenous	**7 924**	**22.5**	**24 785**	**70.3**	**2 541**	**7.2**	**35 264**	**100.0**
Non-Indigenous	**38 120**	**4.0**	**730 288**	**77.0**	**180 010**	**19.0**	**948 573**	**100.0**

(a) Excludes mothers whose Indigenous status was not stated.
(b) Includes mothers for whom age was not stated.
(c) Excludes Tasmania.

Source: AIHW National Perinatal Data Collection

Risk factors during pregnancy

Smoking and alcohol use during pregnancy are both major risk factors for poor perinatal and child health.

SMOKING

Smoking during pregnancy increases the risk of complications and is associated with poorer perinatal outcomes, such as low birthweight, preterm birth and perinatal death (Graham et al 2007). Maternal factors that have been found to be associated with smoking during pregnancy include maternal age, marital status, socioeconomic status and number of children (Ventura et al 2003; Kahn et al 2002).

The National Perinatal Data Collection (NPDC) contains data on smoking during pregnancy from New South Wales, Western Australia, South Australia, the Australian Capital Territory and the Northern Territory for the period 2001–2004. During this period, half (51%) of Indigenous females in these states and territories reported smoking during pregnancy. Indigenous mothers were around three times as likely to smoke during pregnancy as non-Indigenous mothers (Laws et al 2006b).

ALCOHOL CONSUMPTION

Excessive alcohol intake during pregnancy is associated with an increased risk of alcohol withdrawal symptoms in the baby, Foetal Alcohol Syndrome, and perinatal mortality (Walker, Rosenberg & Balaban-Gil 1999 in Zubrick et al 2004). In the 2001–02 WAACHS,

Risk factors during pregnancy continued

the mothers of an estimated 23% of Aboriginal children in Western Australia reported that they had consumed alcohol during pregnancy (Zubrick et al 2004).

Maternal mortality

Maternal mortality is defined as the death of a woman while pregnant or within 42 days of the termination of pregnancy, irrespective of the duration and the site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes (Sullivan & King 2006). For the period 2000–2002 there were 13 maternal deaths of Aboriginal and Torres Strait Islander females (Sullivan & King 2006). For 2000–02, the maternal mortality rate for Indigenous females (45.9 per 100,000 females who gave birth) was five times the rate for non-Indigenous females (8.7 per 100,000 females who gave birth). The Indigenous maternal mortality rate is likely to be an underestimate because of incomplete ascertainment of Indigenous status in deaths data.

BABIES AND CHILDREN

This section provides the latest data on Indigenous babies and children. It begins with data on the length of pregnancy and births, including birthweight and perinatal mortality. This is followed by data on some of the factors that impact on child development—breastfeeding, diet and nutrition, immunisation and passive smoking. The final section provides information on the health status of Indigenous children, that is, the prevalence of long-term health conditions, hospitalisation and deaths.

Births

Information on births is published annually by the ABS from birth registration data and through the National Perinatal Data Collection (NPDC). The number of Indigenous births in both data collections is likely to be an underestimate as the Indigenous status of the parents is not always recorded, or recorded correctly.

In 2006, there were around 12,300 live births registered in Australia where at least one parent was of Indigenous origin, accounting for around 5% of total births (ABS 2007a). Around one-third (30%) of these babies had both an Indigenous mother and an Indigenous father, and 41% had an Indigenous mother and a non-Indigenous father—a total of 8,735 babies (71%) born to Indigenous mothers. The remaining 29% of babies had a non-Indigenous mother and an Indigenous father.

In the 2004 NPDC there were 9,004 births to Aboriginal and Torres Strait Islander mothers (8,905 live births and 99 foetal deaths). This represented 4% of all births in Australia in 2004 where maternal Indigenous status was known (251,597) (Laws et al 2006b). Over the period 2001–2004, the number of live births to Indigenous mothers increased and the number of foetal deaths decreased (table 6.5).

Births continued

6.5 BIRTHS TO INDIGENOUS FEMALES, by birth status—2001–2004

Birth status	*2001*	*2002*	*2003*	*2004*
Live births	8 675	8 827	8 851	8 905
Foetal deaths	116	102	107	99
All births	**8 791**	**8 929**	**8 958**	**9 004**

Source: AIHW National Perinatal Data Collection

The main reason for the difference in the number of Indigenous births identified in the ABS Births Registration Collection and the NPDC is that the latter does not collect paternal information and therefore only births to Indigenous mothers are identified as Indigenous births. Other differences between the two collections include the different methodologies used to collect information, and delays in the registration of, or failure to register, some live births (AIHW: Leeds et al 2007).

Gestational age

Gestational age is the length of a pregnancy in completed weeks. The gestational age at birth for term pregnancies is between 37 and 41 weeks; for preterm births it is less than 37 weeks. Preterm birth is associated with neonatal problems that cause significant morbidity and mortality in newborn babies. In the period 2001–2004, there were 4,962 preterm babies born to Indigenous mothers, representing 14% of all births to Indigenous mothers. This was almost double the rate of preterm births among non-Indigenous mothers (8%) in the same period (AIHW: Leeds et al 2007).

Birthweight

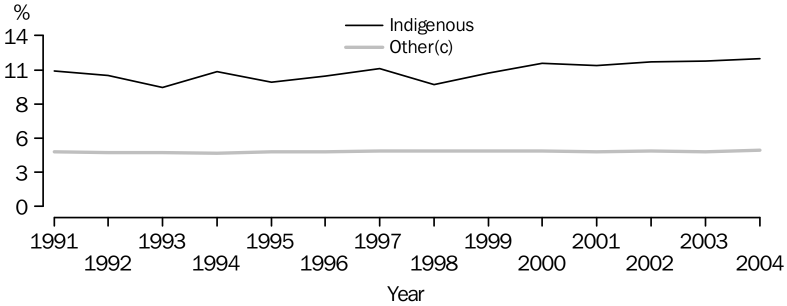
A baby's birthweight is a key indicator of health status. Babies born with a birthweight of less than 2,500 grams are classified as 'low birthweight'. Low birthweight may be a result of preterm birth, foetal growth restriction, or a combination of the two. Low birthweight babies are at greater risk of poor health and death, require longer periods of hospitalisation after birth, and are more likely to develop significant disabilities (Goldenberg & Culhane 2007). Some factors that contribute to low birthweight are socioeconomic disadvantage, size of parents, age of the mother, number of babies previously born, mother's nutritional status, smoking and alcohol intake, and illness during pregnancy (Ashdown-Lambert 2005; Moshin et al 2003).

In 2001–04 there were 4,578 low birthweight babies born to Indigenous mothers, representing 13% of liveborn babies to Indigenous mothers. This was more than double the proportion of low birthweight live born babies with non-Indigenous mothers (6%) (AIHW: Leeds et al 2007).

Data from 1991 to 2004 show a significant increase in the rate of low birthweight babies among singleton live births to Indigenous mothers, from 11.1 to 12.1 per 100 live births (graph 6.6). There was also a significant, but much smaller increase in the proportion of low birthweight babies born to non-Indigenous mothers over this period from 4.5 to 4.6 per 100 live births (AIHW Leeds et al 2007). Some of the increase in the proportion of low birthweight babies born to Indigenous mothers may be the result of improved identification of Indigenous mothers over time.

Birthweight continued

6.6 RATE OF LOW BIRTHWEIGHT BABIES(a)(b), by Indigenous status of mother—1991–2004



(a) Excludes data for Tasmania and the Australian Capital Territory.
(b) Rates have been directly age standardised using all Australian mothers who gave birth in 2001 as the standard population.
(c) Comprises non-Indigenous mothers and mothers for whom Indigenous status was not stated.

Source: AIHW National Perinatal Data Collection

Perinatal mortality

Perinatal deaths include both foetal deaths (stillbirths) and deaths of liveborn babies within the first 28 days after birth. These deaths are almost all due to factors during pregnancy and childbirth. Perinatal mortality reflects the health status of the population as well as their access to quality health care.

Data on perinatal deaths are available from the ABS Deaths Registration Collection and the NPDC. Data from the ABS Deaths Registration Collection have been presented here, as babies born to both Indigenous mothers and fathers are identified in this dataset. The identification of Indigenous status in deaths registration data has been assessed by the ABS and AIHW as having a sufficient level of coverage to enable statistics on Aboriginal and Torres Strait Islander mortality to be produced in four jurisdictions—Queensland, Western Australia, South Australia and the Northern Territory (ABS & AIHW 2005). Long-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.

Over the period 2003–2005, there were 350 perinatal deaths of Indigenous infants in the four jurisdictions. The 2003–2005 rate of perinatal deaths in the four jurisdictions was 15.7 per 1,000 births for Indigenous babies compared with 10.3 per 1,000 births for non-Indigenous babies.

There was a significant decline in the perinatal death rate for Aboriginal and Torres Strait Islander babies in Western Australia from 20 per 1,000 births in the period 1991–1993 to 13 per 1,000 births in 2003–2005 (table 6.7).

Perinatal mortality continued

6.7 PERINATAL MORTALITY RATES(a), by Indigenous status— 1991–1993 to 2003–2005

	1991–1993	1994–1996	1997–1999	2000–2002	2003–2005
Indigenous rate					
Western Australia	20.2	20.2	19.8	12.3	12.6
South Australia	23.3	14.3	12.2	16.1	14.4
Northern Territory	28.5	24.5	27.5	15.3	21.2
Other rate(b)					
Western Australia	9.2	8.8	7.2	7.4	9.0
South Australia	9.0	9.0	7.3	7.9	8.9
Northern Territory	13.3	11.3	8.5	8.3	9.9
Ratio(c)					
Western Australia	2.2	2.3	2.7	1.7	1.4
South Australia	2.6	1.6	1.7	2.1	1.6
Northern Territory	2.1	2.2	3.2	1.8	2.1

(a) Rate per 1,000 births.

(b) Other includes deaths of non-Indigenous people and those for whom Indigenous status was not stated.

(c) Mortality rate for Indigenous Australians divided by the mortality rate for other Australians.

Source: ABS Deaths Registration Collection

HEALTHY CHILD DEVELOPMENT

Breastfeeding

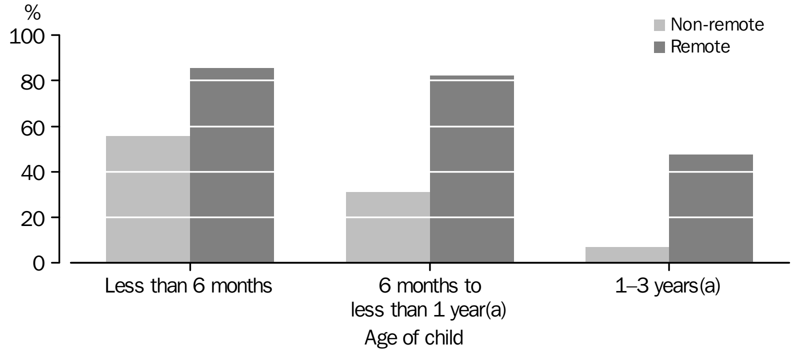
Breastfeeding has many positive effects on the survival, growth, development and health of infants. Many studies have shown that breastfeeding has a protective effect against conditions such as diarrhoea and respiratory infections and has benefits for children's growth, cognitive development and immunological functioning (Kramer 2001; Oddy et al. 2003 ; Lawton & Shortridge 1997: all cited in Zubrick et al 2004). Other studies have shown a protective effect against sudden infant death syndrome, asthma and other allergic diseases (Hoffman 1988; Oddy et al 1999; Merrett 1988).

The 2004–05 NATSIHS provides information on the breastfeeding status of infants and young children. In 2004–05, approximately 79% of Indigenous children aged 0–3 years in non-remote areas had been breastfed compared with 88% of non-Indigenous children. A higher proportion of non-Indigenous children (aged 0–3 years) than Indigenous children had been breastfed for 12 months or more (14% compared with 11%) (ABS 2006c).

Among Aboriginal and Torres Strait Islander children aged 0–3 years, 85% of those in remote areas and 79% of those in non-remote areas were currently breastfeeding or had previously been breastfed in 2004–05 (AIHW 2007a). The proportions of Indigenous infants aged less than 12 months who were breastfeeding in 2004–05 were particularly high in remote areas (85% of those aged less than six months and 82% of those aged 6–12 months (graph 6.8).

Breastfeeding continued

6.8 CURRENTLY BREASTFEEDING BY REMOTENESS, Indigenous children aged 0–3 years—2004–05



(a) Non-remote estimate has a relative standard error of 25% to 50% and should be used with caution.

Source: ABS 2004–05 NATSIHS

Diet and nutrition

Poor diet and nutrition in the early years of life can affect childhood development, growth, functioning and health (Tomkins 2001). It is also a principal cause of many of the health conditions suffered by Aboriginal and Torres Strait Islander people. A diet high in carbohydrates and saturated fats, for example, is associated with high levels of obesity, Type 2 diabetes and renal disease, while consumption of fresh fruit and vegetables can be a protective factor against many of these diseases (NPHP 2001). Aboriginal and Torres Strait Islander families living in isolated areas, however, face particular challenges in providing their children with fresh, affordable food on a regular basis.

The National Health and Medical Research Council Dietary Guidelines recommend consuming a wide variety of nutritious foods, including a high intake of plant food such as fruit and vegetables, while also recommending moderating total fat and saturated fat intake (NHMRC 2003b). The daily food consumption guidelines for fruit and vegetable intake recommend:

- one serve of fruit and two serves of vegetables for children aged 4–7 years
- one serve of fruit and three serves of vegetables for children aged 8–11 years
- three serves of fruit and three serves of vegetables for adolescents aged 12–18 years.

The 2004–05 NATSIHS collected information on the dietary behaviour of Indigenous people aged 12 years and over, including the number of daily serves of fruit and vegetables usually eaten by those living in non-remote areas. Among Indigenous children aged 12–14 years in non-remote areas, 24% met the recommended daily fruit intake of three or more serves, and 59% met the recommended daily vegetable intake of three or more serves. Among teenagers aged 15–17 years, 20% met the daily fruit consumption guidelines and 61% met the daily vegetable consumption guidelines (table 6.9). There were no significant differences between the proportion of Indigenous and non-Indigenous children whose fruit and vegetable consumption met the recommended daily guidelines.

Diet and nutrition continued

6.9 CHILDREN'S USUAL DAILY INTAKE OF FRUIT AND VEGETABLES IN NON-REMOTE AREAS, by Indigenous status—2004–05

	12–14 YEARS		15–17 YEARS	
	Indigenous	*Non-Indigenous*	*Indigenous*	*Non-Indigenous*
	%	%	%	%
Number of serves of fruit				
Does not eat fruit	5.4	4.7	12.5	7.8
1 serve or less	40.8	39.1	41.8	40.4
2 serves	30.0	29.8	25.4	25.3
3 serves	15.9	15.3	12.9	15.6
4 or more serves	8.0	11.1	7.4	11.0
Total	**100.0**	**100.0**	**100.0**	**100.0**
Number of serves of vegetables				
Does not eat vegetables	1.7	1.2	1.0	1.1
1 serve or less	20.4	22.6	25.2	23.9
2 serves	18.6	21.5	(a)12.8	(a)19.5
3 serves	29.0	27.9	34.4	30.0
4 or more serves	30.2	26.9	26.6	25.5
Total	**100.0**	**100.0**	**100.0**	**100.0**

(a) Difference between Indigenous and non-Indigenous data is statistically significant.

Source: AIHW analysis of 2004–05 NATSIHS and 2004–05 NHS

Immunisation

The Australian Childhood Immunisation Register (ACIR), managed by the Health Insurance Commission, holds information on childhood immunisation coverage. All children under seven years of age, enrolled in Medicare, are automatically included on the ACIR. Children who are not eligible to enrol in Medicare can be added to the ACIR when details of a vaccination are received from a doctor or immunisation provider. It should be noted that coverage estimates for Aboriginal and Torres Strait Islander children include only those who are identified 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.

Vaccination coverage rates for children aged one year, two years and six years at 31 December 2005 for New South Wales, Victoria, Western Australia, South Australia and the Northern Territory combined are shown in table 6.10. Aboriginal and Torres Strait Islander children had lower coverage compared with non-Indigenous children for all vaccines at 12 months of age (82% compared with 91%), while at two years of age the difference in vaccination coverage between Indigenous and non-Indigenous children was not as large (90% and 92% respectively). Immunisation rates at six years of age were similar for Indigenous and non-Indigenous children. This suggests that there may be a delay in the receipt of vaccines by Indigenous children, or in the transfer of data for Indigenous children to ACIR (AIHW 2007a).

6.10 VACCINATION COVERAGE ESTIMATES FOR CHILDREN AT 1, 2 AND 6 YEARS OF AGE, by Indigenous status—31 December 2005(a)(b)

	ONE YEAR OLD		TWO YEARS OLD		SIX YEARS OLD	
	Indigenous	*Non-Indigenous*	*Indigenous*	*Non-Indigenous*	*Indigenous*	*Non-Indigenous*
	%	%	%	%	%	%
Hepatitis B	93.9	94.8	97.9	95.9	. .	. .
DTP (diphtheria, tetanus and pertussis)	86.0	92.6	94.9	95.2	85.3	85.5
OPV (oral polio vaccine)	85.6	92.5	94.7	95.2	85.6	85.7
Hib (Haemophilius influenzae type b)	93.1	94.5	91.6	93.6	. .	. .
MMR (measles, mumps and rubella)	. .	. .	93.1	93.8	85.4	85.7
Total	**82.2**	**91.1**	**89.9**	**92.1**	**84.3**	**84.6**

. . not applicable

(a) Three-month cohorts, for cohorts born between 1 July and 30 September 2004, 1 July and 30 September 2003, and 1 July and 30 September 1999 respectively.

(b) Data for NSW, Vic., WA, SA and NT only as data on Indigenous status from other jurisdictions were incomplete.

Source: AIHW 2007a

Immunisation continued

The 2004–05 NATSIHS also provides information on the immunisation status of Indigenous children aged 0–6 years in non-remote areas of Australia. Among Indigenous children for whom immunisation records were available, 93% were fully immunised according to the recommended course of vaccinations at a specific age. In particular, 78% of Indigenous children in non-remote areas were fully immunised against diphtheria/tetanus, 74% against whooping cough, 82% against Hepatitis B, 78% against polio, 72% against Hib and 84% against measles, mumps and rubella (AIHW 2007a).

Selected environmental risk factors

PASSIVE SMOKING

Exposure to environmental tobacco smoke, commonly referred to as passive smoking, has been shown to be a significant cause of morbidity and mortality, and children are the most vulnerable to its effects. For babies, passive smoking is one of the significant risk factors for sudden infant death syndrome (AMA 1999). Exposure to second hand smoking also increases children's risk of ear infections and respiratory illnesses, such as asthma (Strachan & Cook 1997). Children living with parents and relatives who smoke indoors are particularly at risk.

In 2004–05, an estimated 119,000 Aboriginal and Torres Strait Islander children lived with a regular smoker. This represents two-thirds (66%) of all Indigenous children aged 0–14 years. In comparison, around one-third (35%) of non-Indigenous children aged 0–14 years lived with a regular smoker. Regular smokers may or may not smoke at home indoors. Some 28% of Aboriginal and Torres Strait Islander children were living in households with a regular smoker who smoked at home indoors, three times the comparable rate for non-Indigenous children (9%) (table 6.11).

Selected environmental risk factors continued

PASSIVE SMOKING *continued*

6.11 WHETHER LIVING WITH REGULAR SMOKER(S), by Indigenous status—Children aged 0–14 years—2004–05

	REGULAR SMOKERS IN HOUSEHOLD			
	Smokes indoors at home	*Does not smoke indoors at home*	*No regular smokers in household*	*Total*(a)
	%	%	%	%
Indigenous	28.5	37.6	31.4	100.0
Non-Indigenous	9.2	26.2	64.6	100.0

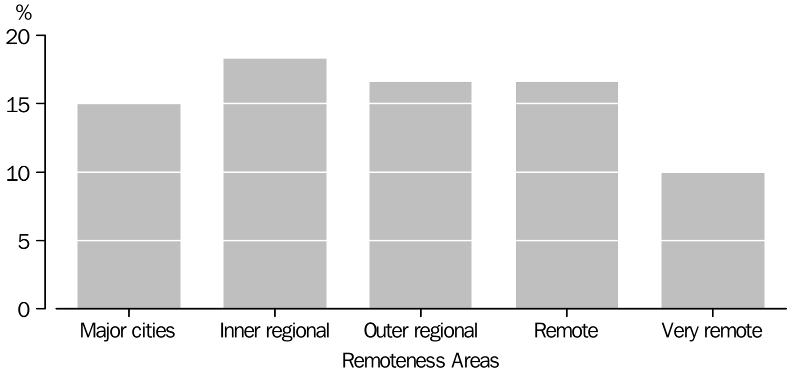
(a) Includes children in households in which the smoker status of the resident adults was not known.

Source: ABS 2004–05 NATSIHS, AIHW 2007a

EXPOSURE TO RISKY/HIGH RISK DRINKER(S)

According to the 2004–05 NATSIHS, an estimated 27,900 Indigenous children (15%) were living in a household in which there was at least one risky/high risk drinker, compared with 11% of non-Indigenous children aged 0–14 years. The proportion of Indigenous children exposed to risky/high risk drinking within their household ranged from 10% of those in very remote areas to 18% of those in inner regional areas (graph 6.12).

6.12 LIVING IN A HOUSEHOLD WITH RISKY/HIGH RISK DRINKER(a), Indigenous children aged 0–14 years—2004–05



(a) Risk level based on Australian Alcohol Guidelines 2000 for risk of harm in the long-term.

Source: ABS 2004–05 NATSIHS

Health status of children

LONG-TERM HEALTH CONDITIONS

The 2004–05 NATSIHS and 2004–05 NHS collected data on the prevalence of long-term health conditions among children 0–14 years of age, based on information provided by the person with main caring responsibility for the child. Similar proportions of Indigenous and non-Indigenous children had at least one long-term condition (44% compared with 42%) in 2004–05. The most common long-term health conditions reported for Indigenous children were respiratory diseases (19%), diseases of the ear (10%) and diseases of the eye (8%) (ABS 2006c).

While the same proportion of Indigenous and non-Indigenous children had respiratory disease(s) in 2004–05, Indigenous children were more likely than non-Indigenous children to have asthma (14% compared with 11%) and/or bronchitis (2% compared with 1%). Indigenous children were also more likely than non-Indigenous children to have ear/hearing problems, especially partial deafness (5% compared with 1%) and/or otitis media (4% compared with 2%) (table 6.13).

6.13 CHILDREN AGED 0–14 YEARS WITH A LONG-TERM HEALTH CONDITION, by Indigenous status and type of condition—2004–05

	Indigenous	*Non-Indigenous*
Type of condition	%	%
Diseases of the respiratory system	19.1	19.4
Asthma	(a) 13.9	(a) 11.4
Bronchitis	(a) 2.2	(a) 1.2
Chronic sinusitus	(a) 2.2	(a) 3.2
Diseases of the ear and mastoid	(a) 9.5	(a) 3.0
Deafness (complete/partial)	(a) 4.5	(a) 1.2
Otitis media	(a) 4.4	(a) 1.5
Diseases of the eye and adnexa	8.5	10.5
Short-sighted	(a) 1.9	(a) 3.5
Long-sighted	3.9	3.7
Diseases of the skin and subcutaneous tissue	2.8	3.1
Diseases of the nervous system	2.2	2.1
Diseases of the musculoskeletal system and connective tissue	1.9	1.8
Congenital malformations, deformations and chromosomal abnormalities	1.6	1.1
Diseases of the heart and circulatory system	1.5	1.3
Other(b)	(a) 13.0	(a) 9.7
Conditions not elsewhere classified	7.7	8.4
Total with a long-term condition(c)	**44.0**	**41.2**

(a) Difference between Indigenous and non-Indigenous data is statistically significant.

(b) Includes diseases of the digestive system, infectious and parasitic diseases, diseases of the blood and blood forming organs, diseases of the genitourinary system, neoplasms/cancer, mental and behavioural disorders and endocrine, nutritional and metabolic diseases.

(c) Sum of components may be more than total as persons may have reported more than one type of condition.

Source: ABS 2006c

Health status of children continued

BURDEN OF DISEASE AND INJURY

The burden of disease and injury among Indigenous Australians was assessed using Disability Adjusted Life Years (DALYS)—the sum of years of life lost due to premature death and years lived with disability (Vos et al 2007). In 2003 it was estimated that the burden of disease and injury for Indigenous Australians aged 0–14 years was 20,187 DALYS, representing 21% of the total burden of disease and injury for all Indigenous Australians (95,976 DALYS). The leading causes of this burden were neonatal (20%), mental disorders (19%), acute and chronic respiratory infections (18%) and congenital anomalies (12%).

Four major risk factors (tobacco, alcohol, illicit drugs and unsafe sex) attributed around 5% of the total burden of disease among Aboriginal and Torres Strait Islander children in this age group. Tobacco was by far the largest contributor to the disease burden in this age group due to the association between smoking during pregnancy and the increased risk of having a low birthweight baby (Vos et al 2007).

HOSPITALISATIONS OF INFANTS AND CHILDREN

Hospitalisations data provide a measure of a population's use of health services, but are not a direct measure of health status (see box 7.7 in Chapter 7). The quality of Indigenous identification in hospitalisations data varies across jurisdictions, with 2005–06 data presented for the six jurisdictions with adequate Indigenous identification—New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory (see box 7.9 in Chapter 7).

In 2005–06, Aboriginal and Torres Strait Islander infants (aged less than one year) were hospitalised at a rate 1.4 times that of other Australian infants. Conditions originating in the perinatal period were the leading cause of hospitalisation of Indigenous infants, followed by diseases of the respiratory system and infectious and parasitic diseases. For skin diseases, diseases of the respiratory system and infectious and parasitic diseases, Indigenous infant hospitalisation rates were around three to four times the rates for other infants (table 6.14).

6.14 REASONS FOR HOSPITALISATIONS OF INFANTS(a), by Indigenous status—2005–06

	NUMBER		RATE(b)		
	Indigenous	*Other*(d)	*Indigenous*	*Other*(d)	*Rate ratio*(c)
Conditions originating in the perinatal period (P00–P96)	2 584	49 141	215.7	204.2	1.1
Diseases of the respiratory system (J00–J99)	2 416	15 056	201.7	62.6	3.2
Infectious and parasitic diseases (A00–B99)	1 174	8 344	98.0	34.7	2.8
Contact with health services (Z00–Z99)	622	13 197	51.9	54.8	0.9
Symptoms not elsewhere classified (R00–R99)	524	11 953	43.7	49.7	0.9
Congenital malformations (Q00–Q99)	427	7 731	35.6	32.1	1.1
Diseases of the skin (L00–L99)	227	1 144	18.9	4.8	4.0
Injury and poisoning (S00–T98)	219	2 636	18.3	11.0	1.7
Diseases of the digestive system (K00–K93)	172	4 382	14.4	18.2	0.8
Diseases of the genitourinary system (N00–N99)	121	2 560	10.1	10.6	0.9
Subtotal	***8 486***	***116 144***	***708.4***	***482.6***	***1.5***
Other(e)	343	9 568	28.6	39.8	0.7
Total(f)	**8 838**	**125 813**	**737.8**	**522.7**	**1.4**

(a) Data for NSW, Vic., Qld, WA, SA and NT combined. Excludes private hospitals in NT. Hospitalisations are based on state of usual residence.
(b) Per 1,000 population aged less than one year.
(c) Rate for Indigenous persons divided by the rate for other persons.
(d) Comprises hospitalisations of non-Indigenous infants and hospitalisations of infants whose Indigenous status was not stated.
(e) Includes diseases of the ear and mastoid process, endocrine, nutritional and metabolic diseases, diseases of the nervous system, diseases of the eye and adnexa, diseases of the circulatory system, diseases of the blood and blood forming organs, diseases of the musculoskeletal system, neoplasms, and mental and behavioural disorders.
(f) Includes hospitalisations for which no principal diagnosis was recorded.

Source: AIHW National Hospital Morbidity Database

Health status of children continued

HOSPITALISATIONS OF INFANTS AND CHILDREN *continued*

In 2005–06, Aboriginal and Torres Strait Islander children aged 1–14 years were hospitalised at a rate 1.3 times that of other children of the same age. Diseases of the respiratory system were the leading cause of hospitalisation among Indigenous children, followed by injury and poisoning and infectious and parasitic diseases. Aboriginal and Torres Strait Islander children were hospitalised for skin diseases at more than three times the rate of other Australian children, and were hospitalised for infectious and parasitic diseases at around twice the rate of other children (table 6.15).

6.15 REASONS FOR HOSPITALISATIONS OF CHILDREN AGED 1–14 YEARS(a), by Indigenous status—2005–06

	NUMBER		RATE(b)		
	Indigenous	*Other*(d)	*Indigenous*	*Other*(d)	*Rate ratio*(c)
	no.	no.	%	%	%
Diseases of the respiratory system (J00–J99)	4 412	68 505	27.1	19.8	1.4
Injury and poisoning (S00–T98)	3 583	58 799	22.0	17.0	1.3
Infectious and parasitic diseases (A00–B99)	2 229	28 097	13.7	8.1	1.7
Diseases of the digestive system (K00–K93)	2 081	45 306	12.8	13.1	1.0
Diseases of the skin (L00–L99)	1 526	9 583	9.4	2.8	3.4
Symptoms not elsewhere classified (R00–R99)	1 349	22 554	8.3	6.5	1.3
Diseases of the ear and mastoid process (H60–H95)	1 204	25 026	7.4	7.2	1.0
Contact with health services (Z00–Z99)	1 099	20 410	6.8	5.9	1.1
Diseases of the genitourinary system (N00–N99)	661	11 367	4.1	3.3	1.2
Diseases of the nervous system (G00–G99)	577	12 910	3.5	3.7	1.0
Subtotal	***18 721***	***302 557***	***115.1***	***87.4***	***1.3***
Other(e)	2 593	59 350	15.9	17.1	0.9
Total(f)	**21 321**	**362 008**	**131.1**	**104.5**	**1.3**

(a) Data for NSW, Vic., Qld, WA, SA and NT combined. Excludes private hospitals in NT. Hospitalisations are based on state of usual residence.

(b) Per 1,000 population aged 1–14 years.

(c) Rate for Indigenous persons divided by the rate for other persons.

(d) Comprises both hospitalisations of non-Indigenous children and hospitalisations of children whose Indigenous status was not stated.

(e) Includes diseases of the nervous system, congenital malformations and deformations, diseases of the circulatory system, endocrine, nutritional and metabolic diseases, neoplasms, mental and behavioural disorders, diseases of the blood and blood forming organs, diseases of the eye and adnexa, pregnancy, childbirth and the puerperium and conditions originating in the perinatal period.

(f) Includes hospitalisations for which no principal diagnosis was recorded.

Source: AIHW National Hospital Morbidity Database

Infant and child mortality

Identification of Indigenous Australians is incomplete in all states and territories however current mortality data are considered to have a sufficient level of coverage to enable statistics on Aboriginal and Torres Strait Islander mortality to be produced for four jurisdictions—Queensland, Western Australia, South Australia and the Northern Territory (see Chapter 9).

For analysis of trends over time in Indigenous and child mortality from 1991–2005, only three jurisdictions have a sufficient level of coverage to enable statistics on Aboriginal and Torres Strait Islander mortality to be produced—Western Australia, South Australia and the Northern Territory. Ideally, the trends data would compare rates for Indigenous and non-Indigenous infant and child mortality. The 'not stated' category for Indigenous status, however, was only included from 1998 onwards (before which, deaths with Indigenous status 'not stated' were included with non-Indigenous deaths). Indigenous mortality rates have therefore been compared with the mortality rates for 'other' Australians (i.e. deaths of both non-Indigenous people as well as those for whom Indigenous status was not stated).

Due to the incompleteness of Indigenous identification in mortality data, the number of deaths registered as Indigenous is an underestimate of the actual number of deaths that occur in the Indigenous population. Identification of Indigenous Australians may also differ between death registrations, birth registrations and the Census. Identification may also vary over time, and at different rates in states and territories. Therefore trends in

Infant and child mortality continued

infant and child mortality rates for Aboriginal and Torres Strait Islander children should be treated with caution.

INFANT MORTALITY

Infant deaths are deaths of live-born babies who die before reaching their first birthday. For the period 2001–2005, the infant mortality rate for Aboriginal and Torres Strait Islander infants living in Queensland, Western Australia, South Australia and the Northern Territory combined was almost three times that of non-Indigenous infants (table 6.16). The leading causes of death for Indigenous infants were conditions originating in the perinatal period (mainly foetus and newborn babies affected by complications of placenta, cord and membrane, and foetus and newborn babies affected by maternal complications of pregnancy), symptoms, signs and ill-defined conditions (mainly sudden infant death syndrome), congenital malformations, respiratory diseases (mainly pneumonia), injury and poisoning (mainly accidental suffocation and strangulation in bed) and infectious and parasitic diseases (such as septicaemia, meningococcal infection and congenital syphilis).

Mortality rates for respiratory diseases and infectious and parasitic diseases were particularly high for Aboriginal and Torres Strait Islander infants. For these two conditions, mortality rates were 11 and 5 times the rates for non-Indigenous infants.

6.16 MAIN CAUSES OF INFANT DEATHS(a), by Indigenous status—2001–2005

	NUMBER		RATE(b)		
	Indigenous	*Non-Indigenous*	*Indigenous*	*Non-Indigenous*	*Rate ratio*(c)
Conditions originating in the perinatal period (P00–P96)	204	955	562.9	218.8	2.6
Symptoms, signs and ill-defined conditions (R00–R99)	99	213	273.2	48.8	5.6
Congenital malformations (Q00–Q99)	57	451	157.3	103.3	1.5
Respiratory diseases (J00–J99)	36	38	99.3	8.7	11.4
External causes (Injury/poisoning) (V01–Y98)	20	67	55.2	15.4	3.6
Infectious and parasitic diseases (A00–B99)	16	36	44.2	8.2	5.4
All other causes(d)	28	144	77.3	33.0	2.3
Total	**460**	**1 904**	**1 269.3**	**436.2**	**2.9**

(a) Data for Qld, WA, SA and NT. Deaths are based on state of usual residence and year of registration of death. Excludes a total of 61 deaths for which Indigenous status was not stated.

(b) Per 100,000 population aged less than one year.

(c) Rate for Indigenous persons divided by the rate for non-Indigenous persons.

(d) Includes neoplasms, endocrine, nutritional and metabolic diseases, mental and behavioural disorders, diseases of the musculoskeletal system, diseases of the ear and mastoid process, diseases of the eye and adnexa, diseases of the circulatory system, diseases of the skin and subcutaneous tissues, diseases of the genitourinary system, diseases of the nervous system, diseases of the digestive system, diseases of the blood and blood forming organs.

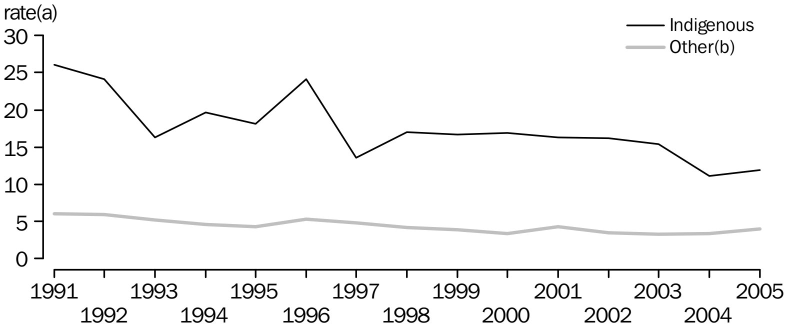
Source: AIHW National Mortality Database

Infant and child mortality continued

Trends in infant mortality

Infant mortality rates for Aboriginal and Torres Strait Islander infants decreased significantly in Western Australia, South Australia and the Northern Territory over the period 1991 to 2005. In Western Australia the infant mortality rate fell from 26 per 1,000 live births in 1991 to 12 per 1,000 live births in 2005, with corresponding decreases for South Australia (from 20 to 10 per 1,000 live births) and for the Northern Territory (from 25 to 16 per 1,000 live births). The mortality rate for other Australian infants also declined over this period, but to a lesser extent, so the difference between the two has decreased significantly (graphs 6.17, 6.18 and 6.19). Infant mortality rates in single years for each of these jurisdictions are presented in Chapter 9.

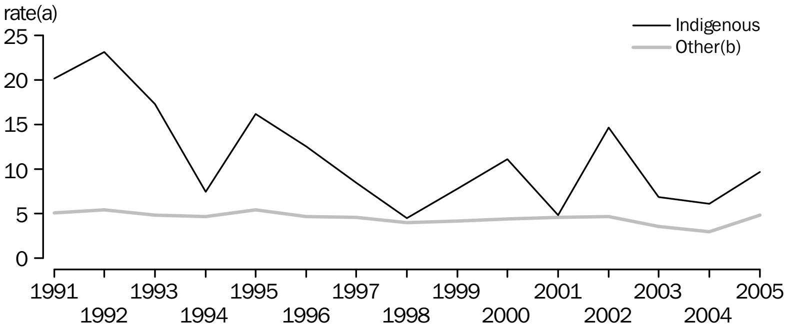
6.17 INFANT MORTALITY RATES—WESTERN AUSTRALIA, by Indigenous status—1991–2005



(a) Infant deaths per 1,000 live births.
(b) Comprises deaths of non-Indigenous infants and those for whom Indigenous status was not stated.

Source: AIHW National Mortality Database

6.18 INFANT MORTALITY RATES—SOUTH AUSTRALIA, by Indigenous status—1991–2005



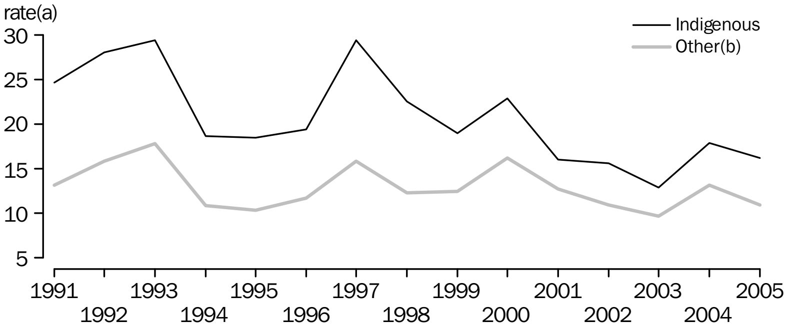
(a) Infant deaths per 1,000 live births.
(b) Comprises deaths of non-Indigenous infants and those for whom Indigenous status was not stated.

Source: AIHW National Mortality Database

Infant and child mortality continued

Trends in infant mortality continued

6.19 INFANT MORTALITY RATES—NORTHERN TERRITORY, by Indigenous status—1991–2005



(a) Infant deaths per 1,000 live births
(b) Comprises deaths of non-Indigenous infants and those for whom Indigenous status was not stated.

Source: AIHW National Mortality Database

CHILD MORTALITY

In the period 2001–2005, the mortality rate for Aboriginal and Torres Strait Islander children aged 1–14 years in Queensland, Western Australia, South Australia and the Northern Territory combined, was almost three times the mortality rate for non-Indigenous children in these jurisdictions (table 6.20).

6.20 MAIN CAUSES OF DEATH FOR CHILDREN AGED 1–14 YEARS(a), by Indigenous status—2001–2005

	NUMBER		RATE(b)		
	Indigenous	*Non-Indigenous*	*Indigenous*	*Non-Indigenous*	*Rate ratio*(c)
External causes (V01–Y98)	90	417	17.9	6.3	2.9
Diseases of the nervous system (G00–G99)	20	102	4.0	1.5	2.6
Diseases of the circulatory system (I00–I99)	18	43	3.6	0.6	5.6
Neoplasms (C00–D48)	16	194	3.2	2.9	1.1
Congenital malformations (Q00–Q99)	12	64	2.4	1.0	2.5
Symptoms, signs and abnormal findings (R00–R99)	12	45	2.4	0.7	3.5
Infectious and parasitic diseases (A00–B99)	10	39	2.0	0.6	3.4
Diseases of the respiratory system (J00–J99)	10	38	2.0	0.6	3.5
All other causes(d)	10	75	2.0	1.1	1.8
Total	**198**	**1 017**	**39.5**	**15.3**	**2.6**

(a) Data from Qld, WA, SA and NT. Data based on state of usual residence and year of registration of death. Excludes a total of 29 deaths of children for whom Indigenous status was not stated.
(b) Per 100,000 population aged 1–14 years.
(c) Rate for Indigenous children divided by the rate for non-Indigenous children.
(d) Includes endocrine, nutritional and metabolic diseases, mental and behavioural disorders, diseases of the musculoskeletal system, diseases of the ear and mastoid process, diseases of the eye and adnexa, diseases of the skin and subcutaneous tissues, diseases of the genitourinary system, diseases of the digestive system, diseases of the blood and blood forming organs, certain conditions originating in the perinatal period.

Source: AIHW National Mortality Database

External causes (such as transport accidents, assault and intentional self-harm) were the leading cause of death among Aboriginal and Torres Strait Islander children, and occurred at three times the rate for non-Indigenous children. Indigenous children died

Infant and child mortality continued

CHILD MORTALITY *continued*

from infectious and parasitic diseases, diseases of the respiratory system and circulatory diseases at three to six times the rate of non-Indigenous children.

Trends in child mortality

Childhood mortality rates should be interpreted with caution due to the small number of deaths each year for Indigenous and other Australian children. The data indicate that the child mortality rate for Aboriginal and Torres Strait Islander children decreased significantly in the Northern Territory from 86 per 100,000 children in the period 1991–1993 to 52 per 100,000 children in the period 2003–2005. The child mortality rate for other Australian children decreased significantly in Western Australia and South Australia over this period—from 19 to 15 per 100,000 children in Western Australia—and from 19 to 13 per 100,000 children in South Australia (table 6.21).

6.21 CHILD MORTALITY RATES(a)(b), by Indigenous status—1991–1993 to 2003–2005

	1991–1993	*1994–1996*	*1997–1999*	*2000–2002*	*2003–2005*
Indigenous rate					
WA	71.7	74.6	46.6	49.0	54.1
SA	40.0	32.0	33.8	36.5	28.8
NT	86.4	69.1	74.2	60.2	51.9
Other Australian rate(c)					
WA	18.8	19.0	17.0	16.2	15.0
SA	19.2	18.7	16.8	14.6	13.2
NT	33.1	29.6	17.7	16.4	24.2
Rate ratio(d)					
WA	3.8	3.9	2.7	3.0	3.6
SA	2.1	1.7	2.0	2.5	2.2
NT	2.6	2.3	4.2	3.7	2.1

(a) Deaths are based on year of registration of death.
(b) Per 100,000 population aged 1–14 years.
(c) Comprises deaths of non-Indigenous children and those for whom Indigenous status was not stated.
(d) Mortality rate for Indigenous children divided by the mortality rate for other Australian children.

Source: AIHW National Mortality Database

SUMMARY

Many Indigenous mothers and children live in environments of relative socioeconomic disadvantage and this has adverse impacts on their health and wellbeing. Overall, Indigenous mothers and babies have poorer outcomes in relation to pregnancy and childbirth compared with other Australian mothers and babies. The maternal mortality rate for Indigenous females was five times the corresponding rate for non-Indigenous females, the proportion of low birthweight babies born to Indigenous mothers was double the rate for non-Indigenous mothers, and the perinatal death rate for Indigenous babies was 1.5 times the rate for other babies. The perinatal death rate for Indigenous babies has, however, decreased significantly in Western Australia since the early 1990s, falling from 20 per 1,000 births in 1991–1993 to 13 per 1,000 births in 2003–2005.

SUMMARY *continued*

There were some positive findings in relation to the factors affecting childhood development. The proportion of Indigenous children aged less than 12 months who were breastfeeding in 2004–05 was particularly high in remote areas (85% of those aged less than six months and 82% of those aged six to 12 months). A much higher proportion of Indigenous children (28%), however, lived in households with regular smokers who smoked indoors compared with non-Indigenous children (9%).

The prevalence of at least one long-term health condition was similar among Indigenous and non-Indigenous children (44% compared with 41%). Indigenous children had, however, higher rates of asthma, partial deafness and otitis media. Among Aboriginal and Torres Strait Islander infants, conditions originating in the perinatal period were the leading cause of both hospitalisation and death. Diseases of the respiratory system were the leading cause of hospitalisations for Indigenous children aged 1–14 years, while external causes, such as injury and poisoning, were the leading causes of death.

Indigenous mortality rates for infants have fallen in Western Australia, South Australia and the Northern Territory, and for children, have fallen in the Northern Territory. There has been a narrowing of the gap between Indigenous and non-Indigenous infant mortality rates in South Australia and the Northern Territory.

CHAPTER 7

HEALTH STATUS

INTRODUCTION

Aboriginal and Torres Strait Islander people are more likely to report poorer self-assessed health, and have higher rates of hospitalisation and higher prevalence rates for many health conditions than other Australians. The burden of disease suffered by Indigenous Australians is estimated to be two-and-a-half times greater than the burden of disease in the total Australian population. Long-term health conditions responsible for much of the ill-health experienced by Indigenous people include circulatory diseases, diabetes, respiratory diseases, musculoskeletal conditions, kidney disease, and eye and ear problems. For most of these conditions, Indigenous Australians experience an earlier onset of disease than other Australians.

The Indigenous population is disadvantaged across a range of socioeconomic dimensions that affect health outcomes, such as income, employment, educational attainment and home ownership (see Chapters 2, 3 and 4). In addition, Indigenous people are often more exposed to certain health risks such as smoking, poor nutrition, alcohol misuse, overcrowded living conditions and violence (see Chapter 8).

This chapter outlines the national data from a number of different health data collections to provide an overview of the health status of Aboriginal and Torres Strait Islander people. The chapter begins by providing information on the self-assessed health of Indigenous Australians, and the relationship between health status and various socio-demographic factors.

The chapter then provides an overview of the main causes of ill-health using self-reported prevalence data for selected health conditions, visits to general practitioners and admissions to hospitals. For the first time, a detailed section is included with information on the social and emotional wellbeing of Aboriginal and Torres Strait Islander people. Finally, specific causes of ill-health are examined in more detail, including circulatory system diseases, diabetes, chronic kidney disease, cancer, injury, respiratory diseases, communicable diseases, arthritis and other musculoskeletal conditions, eye and vision problems, ear and hearing problems, and oral health.

The quality and completeness of data vary between different sources and across jurisdictions. In many of the administrative data sources used in this chapter, such as the hospitals data, Indigenous people are under-identified and the rates of illness reported are therefore likely to be underestimates of the true rates of illness in the Aboriginal and Torres Strait Islander population.

SELF-ASSESSED HEALTH

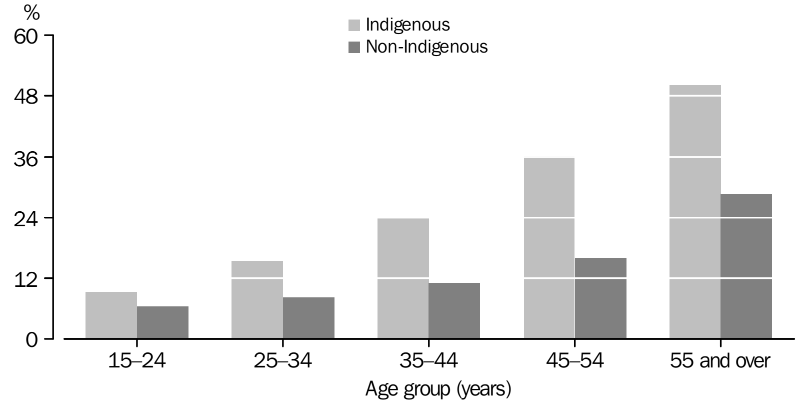
Self-assessed health status provides an overall measure of a population's health based on individuals' personal perceptions of their own health. Health is recognised as having physical, mental, social, and spiritual components and measures of health must therefore go beyond more objective measures such as morbidity and mortality. Self-assessed health provides a suitable broad measure of health status. It is dependent on an individual's awareness of their health as well as the social constructs and definitions of health that surround them. There may therefore be inconsistencies between a person's own self-assessed health status and their health status as measured by objective health assessment techniques (AHMAC 2006). Despite self-assessed health status being a subjective measure of health status, international studies have found it has strong predictive power for subsequent mortality (Quesnel-Vallee 2007).

In the 2004–05 National Aboriginal and Torres Strait Islander Health Survey (NATSIHS), around 43% of the Indigenous population aged 15 years and over reported their health as very good or excellent, 35% reported their health as being good and 22% reported their health as fair or poor. After adjusting for differences in the age structures of the Indigenous and non-Indigenous populations, Indigenous Australians were twice as likely as non-Indigenous Australians to report their health as fair or poor in 2004–05 (ABS 2006c).

The proportion of both Indigenous and non-Indigenous Australians reporting fair or poor health was higher in older age groups (graph 7.1). Around one in ten Indigenous Australians aged 15–24 years (9%) reported fair or poor health compared with 50% of those aged 55 years and over (ABS 2006c).

Indigenous females were more likely to report their health as fair or poor than Indigenous males (24% compared with 19% respectively). Indigenous Australians aged 15 years and over in non-remote areas were more likely than those in remote areas to report fair or poor health (23% compared with 19%) (AIHW 2007a).

7.1 PERSONS REPORTING FAIR OR POOR HEALTH, by Indigenous status and age—2004–05



Source: ABS 2004–05 NATSIHS, 2004–05 NHS

Changes over time in self-assessed health

Between 1994 and 2004–05, the proportion of Indigenous Australians who reported their health as fair or poor increased from 18% to 22%. There were corresponding decreases in the proportions reporting their health status as good and excellent/very good (table 7.2). The increase in the proportion reporting fair/poor health was more pronounced among Indigenous females, rising from 17% in 1994 to 24% in 2004–05.

7.2 SELF-ASSESSED HEALTH STATUS, Indigenous persons aged 15 years and over, by sex—1994 and 2004–05

		1994 NATSIS			2004–05 NATSIHS		
		Males	*Females*	*Persons*	*Males*	*Females*	*Persons*
Excellent/very good	%	48.8	42.1	45.3	44.9	41.7	43.2
Good	%	32.8	40.9	37.1	35.7	34.1	34.9
Fair/poor	%	18.1	16.8	17.5	19.4	24.1	21.9
Total	no.	**102 200**	**112 400**	**214 600**	**139 600**	**154 000**	**293 600**

Source: ABS 1994 NATSIS, 2004–05 NATSIHS

Self-assessed health and socioeconomic factors

Health status is related to socioeconomic status—people with higher socioeconomic status generally enjoy better health than those with lower socioeconomic status. In 2004–05, Indigenous adults with relatively high equivalised household incomes (as measured by the fourth and fifth quintiles) were more likely to report very good or excellent health than those with lower equivalised household incomes (49% compared with 33%) (table 7.3). For more information on equivalised income and income quintiles, see Glossary.

Indigenous males and females who had completed Year 12 or equivalent were also much more likely to report very good or excellent health (54% of males and 50% of females) compared with those whose highest level of schooling was Year 9 or below (28% of males and 29% of females). Similarly, employed Aboriginal and Torres Strait Islander people were more likely than those who were unemployed to report very good or excellent health (48% compared with 41%) (table 7.3). Those who were not in the labour force were even less likely than the unemployed to report very good or excellent health (29%), however, this is probably also age-related (i.e. older people comprise a greater share of those who are not in the labour force, and a smaller share of those with very good or excellent health).

After adjusting for age differences between the Indigenous and non-Indigenous populations, Indigenous adults were less likely than non-Indigenous adults with the same socioeconomic characteristics to report very good or excellent health. Apart from unemployed Indigenous and non-Indigenous females who were equally likely to report very good or excellent health, Indigenous to non-Indigenous sex-specific rate ratios were between 0.6 and 0.8 for the selected socioeconomic characteristics (table 7.3).

Self-assessed health and socioeconomic factors *continued*

7.3 SELECTED SOCIOECONOMIC CHARACTERISTICS, Proportion of Indigenous persons aged 18 years and over with excellent/very good health—2004–05

	PROPORTION WITH EXCELLENT/VERY GOOD HEALTH			INDIGENOUS TO NON-INDIGENOUS RATE RATIO(a)		
	Males	*Females*	*Persons*	*Males*	*Females*	*Persons*
	%	%	%	rate	rate	rate
Equivalised gross household income(b)						
Lowest quintile	31.3	34.2	33.0	0.8	0.7	0.7
Second quintile	42.0	37.1	39.3	0.7	0.6	0.7
Third quintile	51.9	43.6	48.1	0.8	0.7	0.7
Fourth and fifth quintile	46.8	51.6	49.2	0.7	0.7	0.7
Highest year of school completed(c)						
Year 9 or below(d)	28.3	28.5	28.4	0.8	0.7	0.7
Year 10 or 11	45.5	39.8	42.4	0.6	0.6	0.7
Year 12 or equivalent	54.0	50.2	51.9	0.7	0.6	0.7
Labour force person						
Employed	48.7	46.0	47.5	0.7	0.6	0.7
Unemployed	43.2	37.8	40.8	0.6	1.0	0.8
Not in the labour force	23.5	32.1	29.3	0.7	0.6	0.6

(a) Rate ratios are the age standardised rates for Indigenous persons divided by the rates for other persons. Rates are directly age standardised to the 2001 Australian population.

(b) The annual household income quintile boundaries are based on the equivalised gross household income per week for the total population of Australia. Boundaries are as follows: lowest quintile $0–264 per week; second quintile $265–426 per week; third quintile $427–611 per week; fourth quintile $612–869 per week; and fifth quintile $870 or more per week.

(c) Excludes persons still at school.

(d) Includes persons who never attended school.

Source: AIHW analysis of the ABS 2004–05 NATSIHS

Self-assessed health status and other selected indicators

According to the 2004–05 NATSIHS, Indigenous adults who reported having been removed from their natural families as children were more likely to report fair or poor health (35% of men and 41% of women) than those who had not (20% of men and 25% of women). Indigenous adults who spoke English as their main language at home were more likely to report fair or poor health (22% of men and 27% of women) than those who spoke an Aboriginal or Torres Strait Islander language at home (19% of both men and women).

HEALTH CONDITIONS AND ILLNESS

This section provides an overview of Indigenous peoples' experience of ill-health using burden of disease and injury estimates, self-reported prevalence data, visits to general practitioners and admissions to hospitals. This is followed by more detailed information on the specific causes of ill-health. For information on the prevalence of need for assistance with core activities among Aboriginal and Torres Strait Islander people, see Chapter 5.

Burden of disease and injury

The burden of disease and injury for Indigenous Australians was assessed using Disability Adjusted Life Years (DALYS)—the sum of years of life lost due to premature death and years lived with disability (Vos et al 2007). In 2003 it was estimated that the burden of disease and injury for Indigenous Australians was 95,976 DALYS. This was 3.6% of the burden of disease for the total Australian population.

Burden of disease and injury continued

Cardiovascular disease (18%) and mental disorders (16%) were the leading causes of the disease burden in the Indigenous population (table 7.4). Intentional and unintentional injuries accounted for a further 13% of the disease and injury burden.

7.4 DISABILITY ADJUSTED LIFE YEARS (DALYS), broad cause group, Indigenous persons—2003

Cause	DALYS no.	Proportion of total %
Cardiovascular disease	16 786	17.5
Mental disorders	14 860	15.5
Chronic respiratory disease	8 587	8.9
Diabetes	8 498	8.9
Cancers	7 817	8.1
Unintentional injuries	6 989	7.3
Intentional injuries	5 395	5.6
Other	27 044	28.2
All causes	**95 976**	**100.0**

Source: Vos et al 2007

LEADING SPECIFIC CAUSES OF THE BURDEN OF DISEASE

Ischaemic heart disease was the leading specific cause of the disease burden experienced by Indigenous males, accounting for 12% of the total Indigenous male burden. Type 2 diabetes, anxiety and depression, and suicide were the next three leading specific causes, together accounting for another 18% of the Indigenous male burden. For Indigenous females, the leading specific cause of the burden was anxiety and depression, accounting for 10% of the burden. Type 2 diabetes, ischaemic heart disease and asthma were the next three leading specific causes, accounting for a further 23% of the Indigenous female burden.

COMPARISON WITH THE AUSTRALIAN BURDEN OF DISEASE

Indigenous Australians suffer a burden of disease that is two-and-a-half times greater than the burden of disease in the total Australian population. This indicates a very large potential for health gain. Two-thirds of the difference in the burden of disease was due to mortality and one-third was due to disability which, in part, reflects a higher case fatality among Indigenous Australians. Non-communicable diseases, which include chronic illnesses such as cardiovascular disease, diabetes, mental disorders and chronic respiratory diseases were responsible for 70% of the observed difference in the burden of disease between the Indigenous and non-Indigenous population. If Indigenous Australians experienced the same burden rates as the total Australian population due to the 11 selected risk factors examined, 29% of the total Indigenous Australian burden of disease could be avoided. (Vos et al 2007).

Prevalence of long-term health conditions

Information about the self-reported prevalence of long-term health conditions is available from the 2004–05 NATSIHS, with comparable data for non-Indigenous people available from the 2004–05 National Health Survey (NHS). In the NATSIHS, respondents were asked whether they had any of a number of specific health conditions (e.g. asthma, cancer, arthritis, diabetes, etc.) or any other health conditions that had lasted, or were expected to last, for six months or more.

Prevalence of long-term health conditions continued

Around two-thirds of Indigenous people (65%) reported at least one long-term health condition in 2004–05 (ABS 2006c). Eye/sight problems (30%), asthma (15%), musculoskeletal conditions (including back conditions and arthritis) (13%) and heart and circulatory diseases (12%) were the most commonly reported long-term health conditions among Indigenous people (table 7.5).

The NATSIHS did not specifically ask about mental health or psychological problems in the context of long-term health conditions, but respondents in non-remote areas were shown a prompt listing that included mental health conditions when asked if they had any other long-term health conditions. Some 22% of Aboriginal and Torres Strait Islander people in non-remote areas indicated that they had a long-term mental or behavioural condition when responding to this question (AIHW forthcoming).

7.5 PREVALENCE OF SELECTED LONG-TERM HEALTH CONDITIONS AND AGE STANDARDISED RATE RATIOS—2001 and 2004–05

	2001			2004–05		
	Indigenous	*Non-Indigenous*	*Rate ratio*(b)	*Indigenous*	*Non-Indigenous*	*Rate ratio*(b)
Long-term health conditions(a)	%	%	rate	%	%	rate
Arthritis	8.1	13.7	1.2	9.1	15.4	1.2
Asthma	16.5	11.5	1.5	15.1	10.2	1.6
Back pain/problems n.e.c., disc disorders	15.2	20.9	1.0	13.1	16.2	1.2
Diabetes/high sugar levels	5.2	3.2	3.3	6.1	3.8	3.4
Ear/hearing problems	14.6	13.8	1.1	(c)12.2	(c)12.7	(c)1.0
Eye/sight problems	29.2	51.7	0.9	(c)30.2	(c)52.2	(c)0.9
Heart, circulatory problems/diseases	10.5	17.0	1.1	11.8	18.0	1.3
Kidney disease	1.2	0.3	5.3	1.8	0.3	10.0
Neoplasms/cancer	**0.8	1.7	0.7	0.8	2.0	0.7
Osteoporosis	*0.3	1.6	0.4	0.9	3.0	0.7

* 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) ICD-10 based output classification.

(b) Rate ratios are the age standardised rates for Indigenous persons divided by the rates for non-Indigenous persons.

(c) Difference between Indigenous and non-Indigenous data is not statistically significant.

Source: ABS 2001 NHS, 2001 NHS(I), 2004–05 NATSIHS, 2004–05 NHS

Indigenous people had a higher prevalence of most types of long-term health conditions compared with non-Indigenous people (table 7.5). The differences were greatest for kidney disease, (where the overall age standardised Indigenous rate was 10 times the non-Indigenous rate) and diabetes/high sugar levels (three times higher).

Between 2001 and 2004–05, there was a significant decrease in the proportion of Indigenous Australians reporting ear and hearing problems (from 15% to 12%) and a significant increase in the proportion of Indigenous Australians reporting kidney problems (from 1% to 2%).

Encounters with general practitioners

Information about encounters with general practitioners (GPs) is available from the 'Bettering the Evaluation and Care of Health' (BEACH) survey. Encounters can be direct consultations (the patient was seen by the GP) or indirect consultations (the patient was not seen by a GP but a clinical service was provided). Information is collected from a random sample of approximately 1,000 GPs from across Australia each year. A sample of 100 consecutive encounters is collected from each GP.

Over the period 2001–02 to 2005–06, there were 496,100 GP encounters recorded in the BEACH survey, of which 7,682 encounters (1.5%) were with patients who identified as Aboriginal and/or Torres Strait Islander. The number of GP encounters with Indigenous Australians in the BEACH survey is likely to be underestimated. This may be due to lower attendance in general practices where other services exist (e.g. Aboriginal Community Controlled Health Services), failure by GPs to record the Indigenous status of patients, or reluctance on the part of patients to identify as Indigenous (AIHW 2002a). However, other evidence, such as continuing lower levels of access to MBS-funded services (AHMAC 2006) suggests that Indigenous people are accessing primary health care services at a lower rate than non-Indigenous people. The reliability of the results of the BEACH survey has been tested in a sub-study in 2003 of about 9,000 patient encounters during the survey. The sub-study found that when the question on Indigenous status was asked of the patient within the context of a series of questions about origin and cultural background, 2.2% identified as Aboriginal or Torres Strait Islander—twice the rate recorded in the BEACH survey for that year (AIHW: Britt et al 2003).

Table 7.6 presents the number and age standardised rate of selected problems managed at GP encounters with Indigenous and other patients over the period 2001–02 to 2005–06. Respiratory problems were the most frequently managed problems at GP encounters with both Indigenous and other patients (around 20 per 100 encounters). Circulatory problems and endocrine and metabolic problems (including diabetes) were also frequently managed at encounters with Indigenous clients (20 and 19 per 100 encounters respectively).

The rate of GP encounters for non-gestational diabetes was three times higher for Indigenous patients than for other patients (10 compared with 3 per 100 encounters) (table 7.6). For most types of problems managed, however, GP encounter rates were similar for Indigenous and other Australians. Contrasting the problems identified in table 7.6 with hospitalisation rates for similar conditions (table 7.8) suggests a much higher use of hospital services by Indigenous people in comparison to GP services. It is impossible to know, however, how much of this difference is a reflection of under-identification of Indigenous people in BEACH data or to what extent it represents lower use of GP services by Indigenous Australians.

Encounters with general practitioners continued

7.6 PROBLEMS MANAGED BY GENERAL PRACTITIONERS, by Indigenous status of patient—2001–02 TO 2005–06

	NUMBER		RATE(b)		
Problems managed(a)	*Indigenous*	*Other*	*Indigenous*	*Other*	*Ratio*
Respiratory	1 582	96 697	20.3	19.8	1.0
Circulatory	1 034	81 995	19.8	16.7	1.2
Endocrine and metabolic	1 139	55 339	18.6	11.3	1.6
Diabetes—non-gestational(c)	587	15 017	10.2	3.1	3.3
Musculoskeletal	1 048	84 712	15.3	17.3	0.9
Skin	1 231	82 684	14.7	16.9	0.9
Psychological	983	56 822	12.0	11.6	1.0
Digestive	804	48 966	10.9	10.0	1.1
Pregnancy and family planning	485	21 157	4.7	4.4	1.1
Ear	395	19 708	4.1	4.0	1.0
Other	2 665	179 319	35.9	36.7	1.0
Total problems	**11 366**	**727 399**	**156.4**	**148.8**	**1.1**

(a) Classified according to ICPC-2 chapter codes (Classification Committee of the World Organization of Family Doctors (WICC) 1998).
(b) Per 100 encounters. Rates are directly age standardised using the total encounters over the period 2001–02 to 2005–06 as the standard.
(c) ICPC-2 codes T89-T90.
Source: BEACH survey of general practice, AGPSCC

Hospitalisations

Hospitalisation statistics are not a measure of prevalence or incidence of a disease, but can provide insights into the health of the population who use hospitals, through data on the number of, and reasons for, hospitalisations. The principal diagnosis is the main reason for the patient's episode of hospital care (see box 7.7 for information on the hospitalisations data and box 7.9 on Indigenous identification in these data.)

7.7 HOSPITALISATIONS DATA

Hospitalisation data provides a measure of a population's use of hospital services. A number of qualifications need to be made about hospitalisation data with regard to Indigenous identification, which is incomplete in some jurisdictions. In this publication, hospital separations (hospitalisations) for 2005–06 are presented for New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory for public and most private hospitals, and have not been adjusted for under-identification. Box 7.9 provides detailed information about the identification of Indigenous status in the hospitalisations data.

All hospitalisations are presented by principal diagnosis or the diagnosis established to be the problem that was chiefly responsible for the patient's episode of care in hospital. Disease categories are based on the International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification (ICD-10-AM Fifth Edition).

Age standardised ratios have been used in this chapter as a measure of hospitalisation in the Indigenous population relative to other Australians. Ratios of this type illustrate differences between the rates of hospital admissions among Indigenous people and those of other Australians, taking into account differences in age distributions. They

Hospitalisations continued

reflect differences between observed hospitalisations of Aboriginal and Torres Strait Islander people and those expected if they had the same hospitalisation rate as other Australians.

All hospitalisation rates have been calculated using the average of the Indigenous and non-Indigenous Estimated Resident Population projections for the years 2005 and 2006 based on the 2001 Census. The data are presented by state of residence, rather than state of hospitalisation as this is more consistent with the population data used to calculate rates. State of residence is also likely to have a greater impact on health status than state of hospitalisation.

Hospitalisations for which Indigenous status was not reported are included with the non-Indigenous hospitalisations under the ‘Other’ category. This is because a preliminary analysis of the data indicated that the demographic profile of patients for whom Indigenous status was not recorded was similar to that of ‘non-Indigenous’ patients. In 2005–06, there were approximately 128,900 hospitalisations for which the Indigenous status of the patient was not reported in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, compared with approximately 243,100 hospitalisations recorded for Indigenous people. In these six jurisdictions, the proportion of records where Indigenous status was not reported declined from approximately 11.8% of hospitalisations in 1997–98 to 1.8% of hospitalisations in 2005–06.

in 2005–06, in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, the most common diagnosis for hospitalisation of Indigenous Australians was for care involving dialysis which is used in the treatment of kidney failure. Indigenous Australians were also commonly hospitalised for injury (e.g. transport accidents, assault and suicide); pregnancy and childbirth (e.g. complications of labour and delivery); respiratory diseases (e.g. influenza and pneumonia); digestive diseases (e.g. diseases of the liver, intestines and oral cavity); mental and behavioural disorders (e.g. schizophrenia and psychoactive substance use) and circulatory diseases (e.g. ischaemic heart disease and cerebrovascular disease). 'Symptoms, signs and abnormal clinical and laboratory findings' was also a common diagnosis for Indigenous Australians and includes a broad range of conditions such as Sudden Infant Death Syndrome (SIDS), convulsions, fever of unknown origin, pain in throat and chest, and abdominal and pelvic pain (table 7.8).

Hospitalisation rates for Indigenous Australians were higher than for other Australians for many diagnoses (table 7.8). Indigenous Australians were hospitalised for care involving dialysis at 14 times the rate, and for endocrine, nutritional and metabolic diseases, which includes diabetes, at three times the rate for other Australians.

7.8 HOSPITALISATIONS OF INDIGENOUS PERSONS(a), by principal diagnosis—2005–06

Principal diagnoses (ICD-10-AM chapter)	Observed hospitalisations	Expected hospitalisations	Ratio(b)
	no.	no.	rate
Factors influencing health status and contact with health services (Z00–Z99)	108 682	18 634	5.8
Care involving dialysis (Z49)	100 153	7 392	13.5
Other (Z00–Z48, Z50–Z99)	8 529	11 241	0.8
Injury, poisoning and certain other consequences of external causes (S00–T98)	18 843	9 383	2.0
Complications of pregnancy, childbirth and the puerperium (O00–O99)	18 012	11 548	1.6
Diseases of the respiratory system (J00–J99)	15 722	6 877	2.3
Diseases of the digestive system (K00–K93)	12 906	13 342	1.0
Symptoms, signs and abnormal clinical and laboratory findings, n.e.c. (R00–R99)	10 461	6 723	1.6
Mental and behavioural disorders (F00–F99)	10 083	5 318	1.9
Diseases of the circulatory system (I00–I99)	7 859	3 799	2.1
Diseases of the genitourinary system (N00–N99)	6 220	5 614	1.1
Diseases of the skin and subcutaneous tissue (L00–L99)	5 599	2 073	2.7
Certain infectious and parasitic diseases (A00–B99)	5 249	2 562	2.0
Endocrine, nutritional and metabolic diseases (E00–E89)	4 797	1 610	3.0
Other (C00–D48, G00–H95, M00–M99, P00–Q99)(c)	18 609	21 265	0.9
Total(d)	**243 106**	**108 793**	**2.2**

(a) Data are for NSW, Vic., Qld, WA, SA and NT combined. These six jurisdictions are considered to have adequate levels of Indigenous identification. Data exclude private hospitals in the NT.

(b) Ratio is observed hospitalisations divided by expected hospitalisations. Expected hospitalisations are calculated based on the age, sex and cause-specific rates of other Australians.

(c) Includes: diseases of the musculoskeletal system and connective tissue, neoplasms, diseases of the nervous system, certain conditions originating in the perinatal period, diseases of the ear and mastoid process, diseases of the eye and adnexa, diseases of the blood and blood-forming organs and certain disorders involving the immune system, and congenital malformations, deformations and chromosomal abnormalities.

(d) Includes hospitalisations for which no principal diagnosis was recorded.

Source: AIHW National Hospital Morbidity Database

Hospitalisations continued

7.9 IDENTIFICATION OF INDIGENOUS PERSONS IN HOSPITAL RECORDS

Information on the number of hospitalisations of Indigenous people is limited by the accuracy with which Indigenous patients are identified in hospital records. Problems associated with identification result in an underestimation of morbidity patterns and hospitalisation use among Aboriginal and Torres Strait Islander persons. At present, it is not possible to ascertain the extent to which a change in hospitalisation rates for Indigenous people is due to differences in Indigenous identification or a genuine change in hospital use/ health status.

Information on the quality of Indigenous identification in hospital data is provided annually to the Australian Institute of Health and Welfare by the states and territories. For several years, Queensland, South Australia, Western Australia and the Northern Territory reported that Indigenous status in their hospital separations data was of acceptable quality (AIHW 2007b). The AIHW, however, has recently completed an assessment of the level of Indigenous under-identification in hospital data in all states and territories. Results from this assessment indicate that New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory have adequate Indigenous identification (20% or less overall under-identification of Indigenous patients) in their hospital separations data. These six states and territories

Hospitalisations continued

have therefore been included in all analyses of Indigenous hospitalisations data in this report.

From the AIHW study, it was possible to produce factors for the level of under-identification in hospital data for each jurisdiction. The use of these factors to adjust 2005–06 hospitalisations data resulted in an 11% increase in hospitalisations recorded for Indigenous people. Therefore, the adjusted age standardised hospitalisation rate for Indigenous Australians was 2.4 times the rate for other Australians instead of 2.2 times the rate.

SPECIFIC CAUSES OF ILL-HEALTH

The following section covers prevalence of various conditions as well as information on hospitalisations for specific conditions such as diabetes, respiratory diseases, circulatory diseases, ear and hearing problems, eye and vision problems and musculoskeletal diseases.

Mental health and social and emotional wellbeing

From the perspective of Indigenous Australians, mental health and social and emotional wellbeing are part of a holistic understanding of life that encompasses not only the wellbeing of the individual, but also the wellbeing of their family and community (Swan & Raphael 1995). In addition, social and emotional wellbeing refers to more than simply the presence or absence of illness (i.e. a deficit approach); it also incorporates a strengths perspective that refers to the wellness of the individual.

Until recently, the majority of national data on the social and emotional wellbeing of Aboriginal and Torres Strait Islander people centred on the use of mental health services. These data consistently indicate higher usage rates of mental health services by Indigenous Australians when compared with other Australians.

For the first time, national data about the social and emotional wellbeing of Indigenous adults were collected in the 2004–05 NATSIHS. The social and emotional wellbeing module in the 2004–05 NATSIHS included measures of psychological distress, the impact of psychological distress, positive wellbeing, feelings of anger, experiences of stressors, perceptions of discrimination, cultural identification, and removal from family. Some selected findings from the 2004–05 NATSIHS and other data sources are reported below.

LIFE STRESSORS

In the 2004–05 NATSIHS, respondents aged 18 years and over were asked to indicate which (if any) of 15 stressors they, their family and/or friends had experienced during the previous 12 months (ABS 2006c). Four in ten (42%) of Indigenous respondents reported that they, their family and/or friends had experienced the death of a family member or close friend in the previous year, 28% indicated serious illness or disability, 20% reported alcohol-related problems, 19% reported that a member of their family had been sent to jail or was in jail, 17% reported not being able to get a job, and 17% reported overcrowding at home.

Non-Indigenous comparisons are not available for 2004–05 as a question on life stressors was not asked of non-Indigenous Australians in the 2004–05 NHS. However, data from the 2002 National Aboriginal and Torres Strait Islander Social Survey (NATSISS) and 2002

Mental health and social and emotional wellbeing continued

LIFE STRESSORS *continued*

General Social Survey (GSS) show that Indigenous Australians aged 18 years and over were 1.4 times as likely as non-Indigenous Australians to report experiencing at least one stressor in the previous 12 months (83% compared with 57%) (ABS 2004d). Specifically, Indigenous adults were three-and-a-half times as likely as non-Indigenous adults to have been affected by alcohol/drug-related problems and/or abuse/violent crime and were twice as likely to have reported the death of a family member/close friend. In addition, Indigenous adults in non-remote areas were twice as likely as non-Indigenous adults to have reported mental illness as a stressor.

PSYCHOLOGICAL DISTRESS

Five questions from the Kessler Psychological Distress Scale were used to measure psychological distress in the 2004–05 NATSIHS. The responses to these five questions were then scored and summed to create a 'Kessler–5' (K5) psychological distress score. The results indicated that 27% of Indigenous adults had high or very high levels of psychological distress, with Indigenous females significantly more likely than Indigenous males to report high levels of psychological distress (32% and 21%, respectively) (AIHW forthcoming). The proportions of Indigenous people reporting high or very high levels of psychological distress did not differ significantly by age group or geographic remoteness.

By utilising data from both the 2004–05 NATSIHS and the 2004–05 NHS, the levels of psychological distress among Indigenous and non-Indigenous Australians can be compared. After adjusting for age differences between the Indigenous and non-Indigenous populations, Indigenous Australians were twice as likely as non-Indigenous Australians to report high or very high levels of psychological distress. This difference applied to males as well as to females (AIHW forthcoming).

Among Indigenous Australians who indicated some level of psychological distress (i.e. those who answered 'a little of the time', 'some of the time', 'most of the time' or 'all of the time' to at least one K5 question), 21% indicated having been unable to work or carry out their normal activities because of their distress for at least one day during the previous four weeks, while 12% had seen a doctor or other health professional at least once for this reason over the same time period. One in seven (15%) of those who indicated some level of psychological distress indicated that physical health problems were the main cause of those feelings all or most of the time.

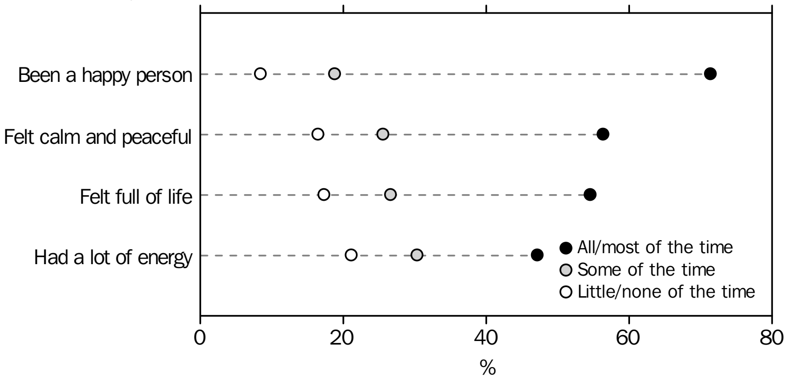
POSITIVE WELLBEING

Four items were selected from the mental health and vitality scales of the Medical Outcome Short Form Health Survey (SF-36) to provide a measure of positive wellbeing in the 2004–05 NATSIHS. These items measured the extent to which respondents felt calm/peaceful, happy, full of life, and had lots of energy in the previous four weeks. More than half of the adult Indigenous population reported being happy (71%), calm and peaceful (56%) and/or full of life (55%) all or most of the time, while just under half (47%) said they had a lot of energy all or most of the time (graph 7.10). Only a relatively small proportion (between 2% and 7%) of Indigenous Australians said they experienced these feelings of positive wellbeing 'none of the time' (AIHW 2007a).

Mental health and social and emotional wellbeing continued

POSITIVE WELLBEING *continued*

7.10 POSITIVE WELLBEING INDICATORS(a), Indigenous persons aged 18 years and over—2004–05



(a) In the four weeks prior to interview.
Source: ABS 2004–05 NATSIHS

Indigenous people aged 55 years and over were more likely than those in the younger age groups to report feeling happy and calm/peaceful all or most of the time however the only statistically significant difference was between the rates for this older group and those aged 25–34 years. Indigenous people aged 55 years and over were least likely to report feeling full of life or having a lot of energy all or most of the time (AIHW forthcoming).

HOSPITALISATIONS FOR MENTAL AND BEHAVIOURAL DISORDERS

Data on hospitalisations for mental and behavioural disorders provide a measure of the use of hospital services by those with problems related to mental health. In 2005–06 in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, there were 5,504 hospitalisations of Indigenous males and 4,579 hospitalisations of Indigenous females for mental and behavioural disorders (table 7.11). This represented 5% and 3% of all hospitalisations of Indigenous males and females respectively.

There were more hospitalisations of Indigenous males and females than expected based on the rates for other Australians for most types of mental and behavioural disorders (table 7.11). In particular, hospitalisations for 'mental and behavioural disorders due to psychoactive substance use' were almost five times higher for Indigenous males and around three times higher for Indigenous females than for other males and females.

Hospitalisation rates for intentional self-harm may also be indicative of mental illness and distress. In 2005–06 in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, Indigenous Australians were more likely to be hospitalised for intentional self-harm than other Australians (rates were three times as high for Indigenous males and twice as high for Indigenous females) (see table 7.26).

7.11 HOSPITALISATIONS OF INDIGENOUS PERSONS FOR MENTAL AND BEHAVIOURAL DISORDERS(a), by principal diagnosis—2005–06

	MALES			FEMALES		
	Observed	*Expected*	*Ratio*	*Observed*	*Expected*	*Ratio*
Mental disorders due to psychoactive substance use (F10–F19)	2 436	538	4.5	1 331	400	3.3
Schizophrenia, schizotypal and delusional disorders (F20–F29)	1 517	558	2.7	1 035	412	2.5
Mood and neurotic disorders (F30–F48)	1 111	906	1.2	1 816	1 790	1.0
Disorders of adult personality and behaviour (F60–F69)	93	51	1.8	143	168	0.8
Organic mental disorders (F00–F09)	81	34	2.4	71	30	2.3
Other mental and behavioural disorders (F50–F59, F70–F99)	266	186	1.4	183	264	0.7
Total	**5 504**	**2 273**	**2.4**	**4 579**	**3 064**	**1.5**

(a) Data are for NSW, Vic., Qld, WA, SA and NT combined, based on state/territory of usual residence. Data exclude private hospitals in the NT.

Source: AIHW National Hospital Morbidity Database

Circulatory system diseases

Circulatory system diseases include coronary heart disease, stroke, peripheral vascular disease, hypertension and heart failure. The main underlying problem in circulatory system diseases is atherosclerosis, a process that clogs blood vessels with deposits of fat, cholesterol and other substances that have built up in the inner lining of the vessels. It is most serious when it affects the blood supply to the heart (which can lead to angina, heart attack or sudden death) or to the brain (which can lead to a stroke).

PREVALENCE OF CIRCULATORY DISEASE

In 2004–05, an estimated 12% of Indigenous people reported suffering from heart disease and/or other circulatory conditions (table 7.5). The reported prevalence of heart and circulatory conditions was higher among older people. For example, 54% of Indigenous people aged 55 years and over reported a heart or circulatory condition compared with 11% of those aged 25–34 years (ABS 2006c).

Hypertensive disease (high blood pressure) was the most common type of heart or other circulatory condition reported by both Indigenous and non-Indigenous Australians in 2004–05 (15% and 11% respectively). After adjusting for age differences between the Indigenous and non-Indigenous populations, Indigenous people were one-and-a-half times as likely as non-Indigenous people to have hypertensive disease (AIHW 2007a).

HOSPITALISATIONS FOR CIRCULATORY DISEASES

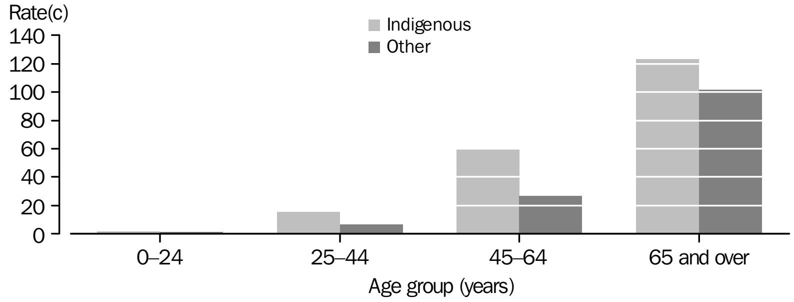
In 2005–06 in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, diseases of the circulatory system were the main reason for 4,181 hospitalisations of Indigenous males, representing 4% of hospitalisations for Indigenous males. For Indigenous females, the comparative figures were 3,678 hospitalisations, representing 3% of hospitalisations for Indigenous females (table 7.13).

Indigenous Australians had higher hospitalisation rates for diseases of the circulatory system than other Australians across all age groups. The differences were most marked in relative terms among those aged 25–44 years and 45–64 years, where Indigenous hospitalisation rates were more than twice the rates for other Australians (graph 7.12).

Circulatory system diseases continued

HOSPITALISATIONS FOR CIRCULATORY DISEASES *continued*

7.12 HOSPITALISATION RATES, CIRCULATORY DISEASES(a)(b), by Indigenous status and age—2005–06



(a) Data for NSW, Vic, Qld, WA, SA and NT combined.
(b) Based on principal diagnosis.
(c) Rates are per 1,000 population.

Note: ICD-10-AM codes I00–I99.

Source: AIHW National Hospital Morbidity Database

Indigenous Australians were hospitalised at higher rates than other Australians for most types of circulatory system diseases (table 7.13). For the most common type of circulatory system disease (ischaemic heart disease), there were over twice as many hospitalisations of Indigenous males and four times as many hospitalisations of Indigenous females as for other Australian males and females. Hospitalisations for hypertensive disease were also substantially higher in the Indigenous population than among other Australians. Most notably, hospitalisations for rheumatic heart disease were 8 and 13 times higher for Indigenous males and females respectively. These large differences are to some extent determined by the very low prevalence of rheumatic heart disease in the non-Indigenous population (see section on rheumatic heart disease).

7.13 HOSPITALISATIONS OF INDIGENOUS PERSONS FOR DISEASES OF THE CIRCULATORY SYSTEM(a), by principal diagnosis—2005–06

	MALES			FEMALES		
	Observed	*Expected*	*Ratio*(b)	*Observed*	*Expected*	*Ratio*(b)
Ischaemic heart disease (I20–I25)	1 904	787	2.4	1 406	359	3.9
Other heart disease (I30–I52)	1 228	538	2.3	1 039	385	2.7
Cerebrovascular disease (I60–I69)	343	143	2.4	309	124	2.5
Hypertensive disease (I10–I15)	112	27	4.2	189	33	5.6
Rheumatic heart disease (I05–I09)	54	6	8.4	134	10	12.8
Other diseases of the circulatory system (I00–I02, I26–I28, I70–I99)(c)	540	660	0.8	601	686	0.9
Total	**4 181**	**2 161**	**1.9**	**3 678**	**1 598**	**2.3**

(a) Data are for NSW, Vic., Qld, WA, SA and NT combined, based on state/territory of usual residence. Data exclude private hospitals in the NT.

(b) Ratio is observed hospitalisations divided by expected hospitalisations. Expected hospitalisations are calculated based on the age, sex and cause-specific rates of other Australians.

(c) Includes diseases of arteries, arterioles and capillaries, diseases of veins, lymphatic vessels and lymph nodes and other and unspecified disorders of the circulatory system.

Source: AIHW National Hospital Morbidity Database

Rheumatic heart disease

Rheumatic heart disease is caused by the long-term damage done to the heart muscle or heart valves as a result of acute rheumatic fever. Acute rheumatic fever is a delayed complication of a throat or possibly skin infection caused by group A streptococcus bacterium. Both acute rheumatic fever and rheumatic heart disease are important and preventable causes of ill-health and death. They are typically associated with overcrowding, poor sanitary conditions and other aspects of socioeconomic disadvantage. Limited access to medical care for adequate diagnosis and/or appropriate treatment of these diseases contributes to their occurrence and recurrence in some population subgroups (Couzos & Carapetis 2003).

A register of persons with known or suspected rheumatic fever and rheumatic heart disease has operated in the Top End of the Northern Territory since 1997 and in Central Australia since 2002. Between 2003 and 2006 there were 250 new cases of acute rheumatic fever in the Top End and Central Australia, 246 (98%) of whom were Aboriginal and/or Torres Strait Islander people. Over this period, more than half (54%) of Indigenous people who suffered acute rheumatic fever were aged 5–14 years, with the disease creating a foundation for continuing health problems throughout their lives. Rates of rheumatic fever in the age group 5–14 years were 2.5 per 1,000 persons; considerably higher than the rates for those in younger and older age groups (table 7.14).

7.14 NEW AND RECURRENT CASES OF ACUTE RHEUMATIC FEVER AMONG INDIGENOUS PERSONS(a), by age—2003–2006

Age group (years)	*Number*	*Percent*	*Rate*(b)
0–4	5	2.0	0.2
5–14	133	54.1	2.5
15–24	64	26.0	1.4
25–34	22	8.9	0.6
35–44	13	5.3	0.5
45 and over	9	3.7	0.3
Total	**246**	**100.0**	**1.1**

(a) Data are for the Top End of NT and Central Australia.

(b) Rates are per 1,000 population.

Source: AIHW analysis of Top End Rheumatic Heart Disease Register and Central Australian Rheumatic Heart Disease Register data.

Diabetes

Diabetes mellitus (diabetes) is a significant health problem for Indigenous Australians. There are three main types of diabetes: Type 1, Type 2 and gestational diabetes. Type 1 diabetes is caused by a total lack, or near total lack of insulin, while Type 2 diabetes is marked by a reduced level of insulin or the inability of the body to use insulin properly (i.e. insulin resistance). Gestational diabetes occurs during pregnancy in about 3% to 8% of all females not previously diagnosed with diabetes and usually disappears after the baby is born (AIHW 2002b). Gestational diabetes increases the risk of subsequently developing Type 2 diabetes.

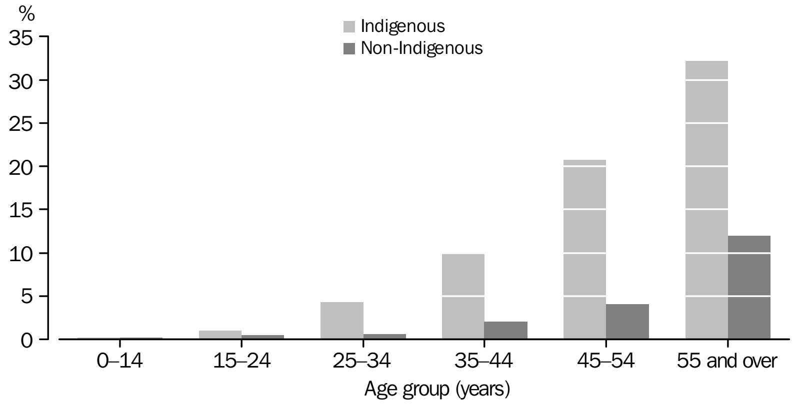
Diabetes continued

PREVALENCE OF DIABETES

The overall proportion of Indigenous Australians reporting diabetes as a long-term health condition in 2004–05 was 6% (table 7.5). Indigenous people in remote areas were more likely to report having diabetes than those in non-remote areas (9% and 5% respectively). Prevalence of diabetes was highest among Indigenous people aged 55 years and over (32%) (ABS 2006c).

After adjusting for age differences between the Indigenous and non-Indigenous populations, Indigenous people were three times as likely as non-Indigenous people to report having diabetes in 2004–05 (table 7.5). The greatest differences in diabetes prevalence between Indigenous and non-Indigenous Australians were among those aged 35–44 years and 45–54 years where rates for Indigenous people were around five times those for non-Indigenous Australians (graph 7.15).

7.15 PREVALENCE OF DIABETES/HIGH SUGAR LEVELS, by Indigenous status and age—2004–05



Source: ABS 2004–05 NATSIHS

HOSPITALISATIONS DUE TO DIABETES

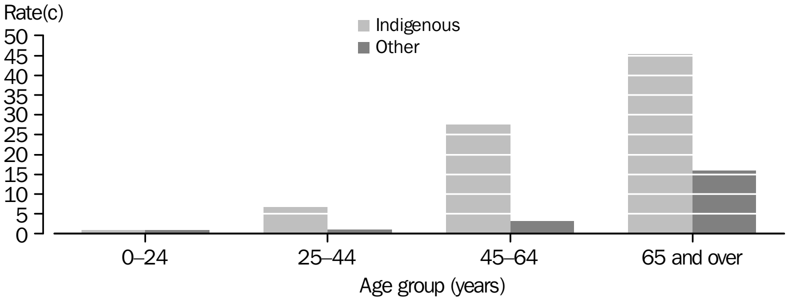
In 2005–06, diabetes was the principal diagnosis for 3,400 hospitalisations of Indigenous Australians in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, representing 1.4% of all hospitalisations in which the patient was Indigenous (53% were females). Despite a relatively low prevalence of Type 1 diabetes in the Indigenous population, 13% of hospitalisations of Indigenous people for diabetes were for Type 1 diabetes. Hospitalisation rates for diabetes for Indigenous persons ranged from around 7 per 1,000 population for those aged 25–44 years to 45 per 1,000 population for those aged 65 years and over (graph 7.16). Among people aged 25 years or over, hospitalisation rates for diabetes among Indigenous males and females were considerably higher than for other Australian males and females.

After adjusting for differences in the age structures of the Indigenous and non-Indigenous populations, hospitalisation rates for all types of diabetes for Indigenous males and females were four and five times those for other Australian males and females respectively. Hospitalisation rates for Type 2 diabetes for Indigenous males and females were 7 and 10 times those for other Australian males and females respectively.

Diabetes continued

HOSPITALISATIONS DUE TO DIABETES *continued*

7.16 HOSPITALISATION RATES, DIABETES(a)(b), by Indigenous status and age—2005–06



(a) Data for NSW, Vic, Qld, WA, SA and NT combined.
(b) Based on principal diagnosis.
(c) Rates are per 1,000 population.

Note: ICD-10-AM codes E10-E14.

Source: AIHW National Hospital Morbidity Database

DIABETES AS AN ASSOCIATED DIAGNOSIS

The data shown in graph 7.16 are for diabetes as a principal diagnosis only. However diabetes is more frequently reported as an additional or associated diagnosis (other diagnoses reported for a hospital episode) than as a principal diagnosis. In 2005–06 in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, diabetes was recorded as an associated diagnosis for 37,378 hospitalisations of Indigenous Australians (excluding hospitalisations with a principal diagnosis of diabetes). It should be noted that there has been a substantial increase in the number of hospitalisations for diabetes recorded as an additional diagnosis in recent years, mainly due to a coding rule which was recently introduced in Western Australia whereby all patients hospitalised with a principal diagnosis of 'care involving dialysis' who were clinically documented as having diabetes must now have diabetes recorded as an additional diagnosis.

Among the complications of, or conditions associated with, diabetes, are coronary heart disease, stroke, peripheral vascular disease, digestive diseases, cancer of the pancreas, retinopathy and kidney disease (AIHW 2002b). In 2005–05, around 20% of hospitalisations of Indigenous Australians for care involving dialysis had diabetes as an associated diagnosis compared with 5% of hospitalisations for other Australians. Diseases of the circulatory system were the most common principal diagnosis for hospitalisations in which diabetes was an associated diagnosis (table 7.17). Approximately 58% of hospitalisations of Indigenous Australians for this disease category had diabetes recorded as an associated diagnosis, compared with 17% of other Australians.

7.17 HOSPITALISATIONS OF PERSONS WITH DIABETES AS AN ADDITIONAL DIAGNOSIS(a)(b), by principal diagnosis and Indigenous status of patient—2005–06

	NUMBER		PROPORTION(c)	
	Indigenous	*Other*(d)	*Indigenous*	*Other*(d)
Factors influencing health status and contact with health services (Z00–Z99)	19 836	79 827	24.3	5.0
Care involving dialysis (Z49)	18 861	41 487	20.4	5.4
Diseases of the circulatory system (I00–I99)	3 164	74 632	58.1	17.3
Diseases of the respiratory system (J00–J99)	2 505	26 982	28.7	8.8
Diseases of the digestive system (K00–K93)	1 964	45 859	29.8	5.9
Symptoms, signs and abnormal clinical and laboratory findings, n.e.c. (R00–R99)	1 903	37 310	33.4	8.7
Injury, poisoning and certain other consequences of external causes (S00–T98)	1 812	28 271	25.0	6.4
Diseases of the genitourinary system (N00–N99)	1 022	23 320	28.4	6.8
Other (A00–H95), (L00–M99), (O00–Q99)(e)	5 172	122 127	20.6	5.0
Total(f)	**37 378**	**438 328**	**24.2**	**6.5**

(a) Excludes hospitalisations with a principal diagnosis of diabetes.

(b) Data are for NSW, Vic., Qld, WA, SA and NT combined, based on state/territory of usual residence. Data exclude private hospitals in the NT.

(c) Indirectly standardised proportion of hospitalisations with diabetes as an additional diagnosis, based on the age, sex and cause-specific proportions of other Australians.

(d) Includes hospitalisations of non-Indigenous persons and hospitalisations for which the Indigenous status of the patient was not stated.

(e) Includes: diseases of the skin and subcutaneous tissue, diseases of the genitourinary system, neoplasms, complications of pregnancy childbirth and the puerperium, certain infectious and parasitic diseases, mental and behavioural disorders, diseases of the nervous system, diseases of the blood and blood-forming organs and certain disorders involving the immune system, endocrine nutritional and metabolic diseases, diseases of the eye and adnexa, diseases of the ear and mastoid process, diseases of the musculoskeletal system and connective tissue, certain conditions originating in the perinatal period, and congenital malformations, deformations and chromosomal abnormalities.

(f) Includes hospitalisations where the principal diagnosis was unknown.

Source: AIHW National Hospital Morbidity Database

Kidney disease

The main function of the kidneys is 'to regulate the water content, mineral composition and acidity of the body' (Vander et al 1990:472). They are also involved in the excretion of metabolic waste products and of various chemicals. Kidney disease has a marked impact on the quality of life of those who have it as well as those who care for them. It is expensive to treat, and the rates of kidney disease are known to be high in some Indigenous communities (McDonald et al 2005; Shephard et al 2003).

The association between kidney disease and other aspects of the health of Indigenous people is extremely important. Diseases and conditions such as diabetes, high blood pressure, infections, low birthweight and obesity are risk factors for kidney disease (Catford et al 1997), and are all more common among Indigenous people than among other Australians. Socioeconomic disadvantage has also been shown to be associated with higher rates of renal disease among Indigenous Australians (Cass et al 2002; Cass et al 2004). Cass et al 2004, illustrated a number of pathways linking disadvantage and kidney disease including psychosocial factors, cultural factors, damaging health behaviours, factors related to the health care system and government/corporate policies.

The following section presents information from the Australia and New Zealand Dialysis and Transplant Registry (ANZDATA), and the AIHW's National Hospital Morbidity Database.

Kidney disease continued

CHRONIC KIDNEY DISEASE

Chronic kidney disease includes diabetic nephropathy, hypertensive renal disease, glomerular disease and chronic renal failure and end-stage renal disease (ESRD). ESRD results when the kidneys cease functioning almost entirely, leading to a build-up of waste products and excess water in the body causing progressively worse illness (AHMAC 2006). This is the last and most debilitating stage of chronic kidney disease in which dialysis or kidney transplantation is necessary to maintain life.

Information is available on Indigenous persons with ESRD from ANZDATA. 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. Indigenous identification in the ANZDATA registry is based on self-identification in hospital records. However, because of the heightened awareness of the extent of renal disease among Indigenous Australians, and the prolonged and repeated contact with renal units in hospitals, it is believed that Indigenous identification in the ANZDATA registry is more complete than in general hospital data (Cass et al 2001). There is little information, however, on earlier chronic kidney disease, despite its importance in the Indigenous population. The main focus of this section is therefore on ESRD.

END-STAGE RENAL DISEASE

In 2005, there were 2,654 new patients registered with ANZDATA. Of these, 207 (or 8%) identified as Aboriginal or Torres Strait Islander. This is higher than the proportion of Indigenous people in the total population (2.5%). Indigenous people commencing ESRD treatment were substantially younger, on average, than other Australians commencing ESRD treatment. This is in part because many Aboriginal and Torres Strait Islander people suffer chronic conditions such as diabetes and hypertension at younger ages than other Australians which, if left untreated, often lead to an earlier onset of ESRD (AHMAC 2006). Over half (56%) of Aboriginal and Torres Strait Islander people registered with ANZDATA were aged less than 55 years, whereas approximately one-third (31%) of other Australians registered were below this age.

The number of Indigenous patients starting ESRD treatment has more than tripled over the last decade, from 64 in 1992 to 207 in 2005 (table 7.18). Some of this increase may be due to improvements in the identification of Indigenous patients over this period. The increase in the number of Indigenous patients starting ESRD treatment, combined with a lower rate of transplantation, leads to a much higher rate of ESRD prevalence among Indigenous people (Excell & McDonald 2006).

In all states and territories, Indigenous Australians accounted for a disproportionate number of new cases of ESRD. Indigenous patients accounted for 91% of all newly registered patients in the Northern Territory, 19% in Western Australia and 10% in Queensland (Excell & McDonald 2006). Incidence rates for ESRD among Indigenous Australians were higher in remote areas of Australia than in major cities. Indigenous Australians were 26 times more likely to register for treatment of ESRD than other Australians in remote areas, 18 times more likely in outer regional areas and 12 times more likely in very remote areas. In major cities and inner regional areas, incidence rates

Kidney disease continued

END-STAGE RENAL DISEASE *continued*

for Indigenous Australians were four to five times those for other Australians living in these areas (AIHW 2007a).

7.18 NEW PATIENTS STARTING END-STAGE RENAL DISEASE TREATMENT, by Indigenous status—1992–2005

	NUMBER		PERCENT		INCIDENCE RATE(a)		
	Indigenous	*Other*	*Indigenous*	*Other*	*Indigenous*	*Other*	*Rate ratio*
1992	64	1 280	4.8	95.2	27.4	7.2	3.8
1993	90	1 305	6.5	93.5	32.5	7.9	4.1
1994	112	1 463	7.1	92.9	41.2	7.9	5.2
1995	128	1 538	7.7	92.3	53.9	8.7	6.2
1996	103	1 625	6.0	94.0	59.8	9.0	6.6
1997	152	1 662	8.4	91.6	46.4	9.3	5.0
1998	137	1 857	6.9	93.1	65.7	9.4	7.0
1999	157	1 979	7.4	92.6	64.8	10.3	6.3
2000	150	2 038	6.9	93.1	71.0	10.7	6.6
2001	175	2 214	7.3	92.7	65.3	10.9	6.0
2002	173	2 209	7.3	92.7	77.2	11.5	6.7
2003	173	2 291	7.0	93.0	75.1	11.3	6.7
2004	191	2 224	7.9	92.1	72.4	11.5	6.3
2005	207	2 447	7.8	92.2	74.1	10.9	6.8

(a) Rates per 100,000 population, directly age standardised using the 2001 Estimated Resident Population.

Source: AIHW analysis of Excell & McDonald 2006 (ANZDATA)

A number of other health conditions are associated with renal disease, including cerebrovascular disease, lung disease, peripheral vascular disease, coronary artery disease, smoking and diabetes. In 2005, most of these conditions were reported in similar proportions for Aboriginal and Torres Strait Islander and other patients beginning ESRD treatment. Diabetes, however, was much more likely to be reported for Aboriginal and Torres Strait Islander patients than for other patients (78% and 38% respectively). The greater excess of diabetes among ESRD Indigenous entrants reflects the burden of this disease in the Aboriginal and Torres Strait Islander population. In 2005, diabetes was the primary cause of more than 58% of Indigenous people using dialysis compared with 22% of all other dialysis patients (Excell & McDonald 2006).

MANAGEMENT OF KIDNEY DISEASE

ESRD patients require either a kidney transplant or dialysis to maintain the functions normally performed by the kidneys. Patterns of treatment for ESRD differ between Indigenous and other patients. In 2005, of all ANZDATA-registered Indigenous ESRD patients, 87% were reliant on dialysis and 13% had received a kidney transplant. In comparison, just over half (55%) of other Australians living with ESRD were reliant on dialysis and 45% had received a kidney transplant (table 7.19). This difference in treatment patterns has changed relatively little over the last several years.

Kidney disease continued

MANAGEMENT OF KIDNEY DISEASE *continued*

7.19 END-STAGE RENAL DISEASE PATIENTS(a), by treatment type and Indigenous status—2001–2005

	INDIGENOUS			OTHER		
	Number	*Percent*	*Rate*(b)	*Number*	*Percent*	*Rate*(b)
DIALYSIS						
2001	763	84.4	276.3	14 262	54.5	40.5
2002	832	85.6	301.3	15 099	54.9	42.2
2003	890	86.5	319.8	15 896	55.4	44.0
2004	956	87.0	338.3	16 524	55.0	44.4
2005	1 043	87.2	367.5	17 368	55.4	46.0
TRANSPLANT						
2001	763	15.6	44.2	14 262	45.5	33.9
2002	832	14.4	42.2	15 099	45.1	35.0
2003	890	13.5	41.4	15 896	44.6	35.8
2004	956	13.0	42.0	16 524	45.0	37.0
2005	1 043	12.8	44.3	17 368	44.6	37.8

(a) Data exclude transplant patients lost to follow up.

(b) Rate per 100,000 population, directly age standardised using the 2001 Estimated Resident Population.

Source: AIHW analysis of Excell & McDonald 2006 (ANZDATA)

HOSPITALISATIONS DUE TO CHRONIC KIDNEY DISEASE

In 2005–06 in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, there were around 101,900 hospitalisations of Indigenous Australians for chronic kidney disease and its sequelae, 44% of which were hospitalisations of Indigenous males and 56% of Indigenous females. There were around 10 times as many hospitalisations of Indigenous males and 18 times as many hospitalisations of Indigenous females as hospitalisations of other Australian males and females respectively. For care involving dialysis, Indigenous males and females were hospitalised at 10 and 19 times the rates of other males and females respectively. Rate ratios were also high for most other types of chronic kidney disease such as diabetic nephropathy (table 7.20). Of all hospitalisations for chronic kidney disease and its sequelae, the majority (100,153 or 98%) were for care involving dialysis.

7.20 HOSPITALISATIONS OF INDIGENOUS PERSONS FOR CHRONIC KIDNEY DISEASE AND ITS SEQUELAE(a), by principal diagnosis—2005–06

	MALES			FEMALES		
	Observed	*Expected*	*Ratio*(b)	*Observed*	*Expected*	*Ratio*(b)
Diabetic nephropathy (E102, E112, E122, E132 and E142)	253	19	13.4	343	16	20.8
Renal tubulo-interstitial diseases (N11–N12 and N14–N16)	63	20	3.2	347	123	2.8
Chronic renal failure (N18–N19)	239	27	8.7	107	22	4.8
Glomerular diseases ((N00–N08)	106	35	3.0	91	24	3.8
Hypertensive renal disease (I12–I13, I150 and I151)	14	4	3.6	16	2	6.6
Other chronic kidney disease (N25–N28, N391, N392, Q60–Q63, T824, T861 and Z940)	47	43	1.1	78	35	2.2
Care involving dialysis (ESRD) (Z49)	44 026	4 368	10.1	56 127	2 938	19.1
Total	**44 748**	**4 516**	**9.9**	**57 109**	**3 162**	**18.1**

(a) Data are for NSW, Vic., Qld, WA, SA and NT only. Data exclude private hospitals in the NT.

(b) Ratio is observed hospitalisations divided by expected hospitalisations. Expected hospitalisations are calculated based on the age, sex and cause-specific rates of other Australians.

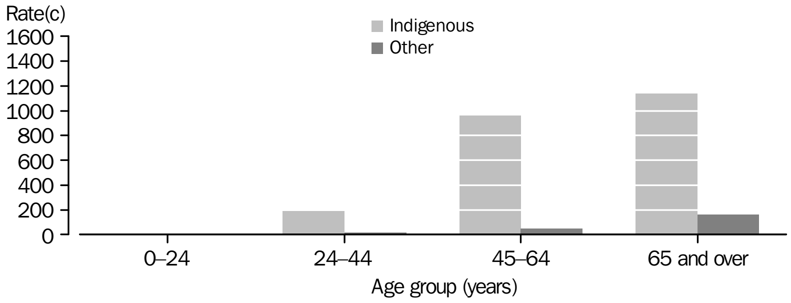
Source: AIHW National Hospital Morbidity Database

Kidney disease continued

HOSPITALISATIONS DUE TO CHRONIC KIDNEY DISEASE *continued*

Hospitalisation rates for care involving dialysis for Indigenous Australians were markedly higher in older age groups, peaking for those aged 65 years and over (graph 7.21). The rates for other Australians also peaked at ages 65 years and over, however at much lower levels. It should be noted that the rates of hospitalisation for dialysis reflect the outcome of some individuals accessing services many times, for example an individual reliant on treatment may undergo dialysis 2–3 times a week.

7.21 HOSPITALISATION RATES FOR CARE INVOLVING DIALYSIS(a)(b), by Indigenous status and age—2005–06



(a) Data for NSW, Vic, Qld, WA, SA and NT combined.
(b) Based on principal diagnosis.
(c) Rates are per 1,000 population.

Note: ICD-10-AM code Z49.

Source: AIHW National Hospital Morbidity Database

Cancer

Cancer includes a range of diseases in which abnormal cells proliferate and spread out of control. Normally, cells grow and multiply in an orderly way to form organs that have a specific function in the body. Occasionally, however, cells multiply in an uncontrolled way after being affected by a carcinogen, or after developing a random genetic mutation, and form a mass which is called a tumour or neoplasm. Tumours can be benign (not a cancer) or malignant (a cancer). Benign tumours do not invade other tissues or spread to other parts of the body, although they can expand to interfere with healthy structures (AIHW 2007c).

For many cancers, the causes are unknown. Some cancers occur as a direct result of smoking (in particular, lung cancer), dietary influences (especially cancers of the digestive system), infectious agents (especially cervical cancer through exposure to the human papilloma virus) or exposure to radiation (especially melanomas through excessive sun exposure), while others may be a result of an inherited genetic predisposition (for example, prostate and breast cancer are higher for persons with a family history of these cancers) (AIHW 2007c). However, the greatest risk factor for most cancers in the general population is advancing age, with the median age of first diagnosis for all cancers being 69 years for men and 65 years for women.

INCIDENCE OF CANCER

Cancer incidence and survival data come from state and territory cancer registries. Identification of Aboriginal and Torres Strait Islander people is not yet included on pathology forms and the extent to which Aboriginal and Torres Strait Islander cancer patients are identified in hospital inpatient statistics varies around Australia. Nevertheless Indigenous identification in the registries has been improving. All-cancer incidence rates for New South Wales and Victoria for 2000–2004 have increased to be comparable with the rates for the Northern Territory, Queensland and Western Australia, the jurisdictions previously found to have good Indigenous identification.

MOST COMMON CANCERS

Across Australia, there were 3,083 cancers diagnosed among Aboriginal and Torres Strait Islander people in the period from 2000 to 2004. The most common cancers diagnosed among Indigenous males in the period were cancer of the lung, bronchus and trachea (19% of all male cancer cases reported), prostate cancer (10%), colorectal cancer (10%), cancer of unknown primary site (6%), and lymphomas (5%) (table 7.22). The most common cancers diagnosed among Indigenous females were breast cancer (25% of all female cancer cases reported), cancer of the lung, bronchus and trachea (12%), colorectal cancer (9%), cancer of the cervix (7%) and cancer of unknown primary site (6%) (table 7.22). In contrast to the non-Indigenous population, more new cases of cancer were reported among Indigenous females (1,598) than Indigenous males (1,485) in this period.

Cancer *continued*

MOST COMMON CANCERS *continued*

7.22 MOST COMMON CANCERS DIAGNOSED AMONG INDIGENOUS PERSONS—2000–2004

	NUMBER		PERCENT	
Cancer site	*Indigenous*	*Non-Indigenous*	*Indigenous*	*Non-Indigenous*
MALES				
Lung, bronchus and trachea	288	27 220	19.4	10.9
Prostate	145	63 511	9.8	25.3
Colorectal	141	34 466	9.5	13.8
Unknown primary site	95	8 195	6.4	3.3
All lymphomas	71	11 129	4.8	4.4
Oesophagus	58	3 663	3.9	1.5
All leukaemias	55	7 611	3.7	3.0
Liver	52	3 094	3.5	1.2
Stomach	52	6 118	3.5	2.4
Pancreas	49	4 882	3.3	1.9
All cancers	**1 485**	**250 594**	**100.0**	**100.0**
FEMALES				
Breast	392	58 742	24.5	28.4
Lung, bronchus and trachea	186	14 948	11.6	7.2
Colorectal	142	28 226	8.9	13.6
Cervix	110	3 522	6.9	1.7
Unknown primary site	102	7 832	6.4	3.8
Uterus, body	85	7 810	5.3	3.8
Ovary	61	5 773	3.8	2.8
Thyroid	41	4 742	2.6	2.3
Pancreas	38	4 802	2.4	2.3
All leukaemias	34	5 314	2.1	2.6
All cancers	**1 598**	**207 148**	**100.0**	**100.0**

Source: AIHW National Cancer Statistics Clearing House

Table 7.23 presents age standardised incidence per 100,000 population for the 12 most common cancers diagnosed among Indigenous people in 2000–2004, in order of incidence. Among the most common cancers, age standardised incidence, even with under-reporting, was higher among Indigenous males and females for lung cancer, cancers of the mouth and throat and cancer of unknown primary site. The rates for cervical cancer among Indigenous females were more than double those for non-Indigenous females. Incidence was lower among Indigenous people for colorectal cancer, prostate cancer and lymphomas. High incidence of cancers of the lung, mouth and throat are caused by high rates of smoking earlier in life, while high cervical cancer incidence is preventable by early detection in Pap test screening. High incidence of cancer of unknown primary site is likely to be associated with late diagnosis.

Among the less common cancers, age standardised incidence was also higher in the period 2000–2004 for the Indigenous population than for the non-Indigenous population for cancers of the liver and gallbladder, pancreatic cancer, cancer of the oesophagus, and, in males only, thyroid cancer.

Cancer *continued*

MOST COMMON CANCERS *continued*

7.23 AGE STANDARDISED CANCER INCIDENCE RATES(a), by Indigenous status and sex—2000–2004

Cancer	Indigenous rate	Non-Indigenous rate	Ratio
MALES			
Lung	91.0	61.1	1.5
Unknown primary site	31.3	18.8	1.7
Colorectal	39.7	76.4	0.5
Prostate	55.7	140.6	0.4
Lymphomas	42.6	58.8	0.7
Thyroid	4.8	3.4	1.4
Pancreas	16.2	10.9	1.5
Oesophagus	16.5	8.1	2.0
Liver and gallbladder	20.5	9.7	2.1
Mouth and throat	25.6	11.4	2.2
All cancers	**426.3**	**555.7**	**0.8**
FEMALES			
Lung	43.6	28.1	1.6
Breast	84.7	115.0	0.7
Unknown primary site	27.0	14.2	1.9
Colorectal	36.6	52.4	0.7
Cervix	16.9	7.1	2.4
Lymphomas	22.2	38.7	0.6
Thyroid	6.4	9.8	0.7
Pancreas	11.9	8.8	1.4
Oesophagus	4.4	3.4	1.3
Liver and gallbladder	13.9	5.4	2.6
Mouth and throat	11.2	10.6	1.1
All cancers	**351.8**	**397.7**	**0.9**

(a) Data for NSW, Vic., Qld, WA, SA and NT combined.

Source: AIHW National Cancer Statistics Clearing House

BREAST CANCER SCREENING

In the BreastScreen Australia Program in 2003–2004 there were 12,459 women aged 40 years and over who identified themselves as Indigenous. Participation in the Program in the 50–69 years target age group was estimated at 35% for Indigenous women, much lower than the 56% participation for the total Australian female population in this age group (AIHW & DoHA 2007).

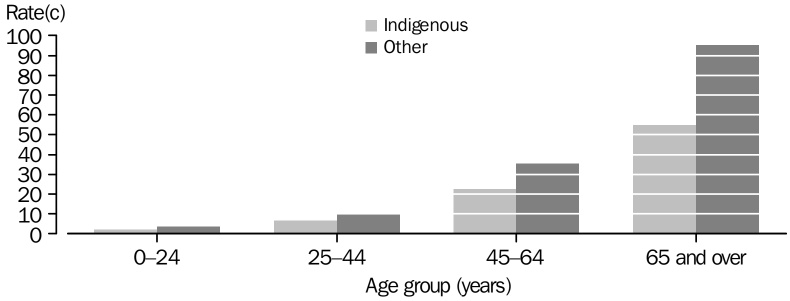
HOSPITALISATIONS DUE TO CANCER

In 2005–06, cancer was responsible for 1,423 hospitalisations of Indigenous males and 2,109 hospitalisations of Indigenous females, both representing just over 1% of all hospitalisations in which the patient was Indigenous. This does not include most chemotherapy and radiotherapy activity procedures. Hospitalisation rates for cancer for both Indigenous and other Australians increased from age 25 years onwards but were considerably lower for Indigenous than for other Australians in each age group (graph 7.24).

Cancer *continued*

HOSPITALISATIONS DUE TO CANCER *continued*

7.24 HOSPITALISATION RATES FOR CANCER(a)(b), by Indigenous status and age—2005–06



(a) Data for NSW, Vic., Qld, WA, SA and NT combined.
(b) Based on principal diagnosis.
(c) Rates are per 1,000 population.

Note: ICD-10-AM codes C00-D48.

Source: AIHW National Hospital Morbidity Database

The five most common malignant cancers for which Indigenous males were hospitalised in 2005–06 were lung cancer (140 hospitalisations), skin cancer (106 hospitalisations), prostate cancer (59 hospitalisations), secondary cancer of the respiratory and digestive organs (51 hospitalisations) and secondary malignant neoplasm of other sites (45 hospitalisations). The five most common cancers for which Indigenous females were hospitalised in 2005–06 were breast cancer (140 hospitalisations), lung cancer (112 hospitalisations), skin cancer (108 hospitalisations), cervical cancer (84 hospitalisations), and secondary cancer of other sites (60 hospitalisations).

Injury and poisoning

Injury and poisoning are large contributors to Indigenous morbidity, especially for younger people. A variety of factors can affect a person's risk of being injured, including age, sex, alcohol use and socioeconomic status. Widespread hurt, loss, and suffering in Indigenous communities also leads to an increase in self-harm, making the incidence of intentional injury much more common among Aboriginal and Torres Strait Islander people than other Australians (AHMAC 2006). Injury data can be viewed in terms of the damage sustained to the body (e.g. broken bones, head injuries), or by the external cause of the injury (e.g. falls, poisoning and drowning), both of which are recorded by hospitals on admission.

HOSPITALISATIONS FOR INJURY AND POISONING

In 2005–06 in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, injury or poisoning was the principal diagnosis recorded in 18,843 hospitalisations of Indigenous patients (table 7.25). Over half (57%) of these hospital episodes were for Indigenous males. Hospitalisations due to injury and poisoning represented 10% of all hospitalisations for Indigenous males and 6% of all hospitalisations for Indigenous females. Indigenous males and females were hospitalised for injury and poisoning at 1.8 times the rate of other males while for females, the corresponding rate ratio was 2.4.

7.25 HOSPITALISATIONS OF INDIGENOUS PERSONS FOR INJURY AND POISONING(a), by principal diagnosis—2005–06

	MALES			FEMALES		
	Observed	*Expected*	*Ratio*(b)	*Observed*	*Expected*	*Ratio*(b)
Injuries (mechanical) (S00–T19)(c)	8 496	4 788	1.8	5 979	2 253	2.7
Complications of surgical and medical care, nec. (T80–T88)	939	507	1.9	921	533	1.7
Poisoning (T36–T50)	427	238	1.8	735	438	1.7
Burns and frostbite (T20–T35)	341	134	2.5	203	71	2.9
Other effects of external causes, early complications of trauma (T66–T79 and T89)	264	119	2.2	219	94	2.3
Toxic effects (T51–T65)	191	101	1.9	128	65	2.0
Total	**10 658**	**5 888**	**1.8**	**8 185**	**3 454**	**2.4**

(a) Data are for NSW, Vic., Qld, WA, SA and NT combined, based on state/territory of usual residence. Data exclude private hospitals in the NT.

(b) Ratio is observed hospitalisations divided by expected hospitalisations. Expected hospitalisations are calculated based on the age, sex and cause-specific rates for other Australians.

(c) Includes injuries to specified body parts (ICD-10 AM S00-T19).

Source: AIHW National Hospital Morbidity Database

Injury and poisoning continued

HOSPITALISATIONS FOR INJURY AND POISONING *continued*

Rates of hospitalisation due to injury and poisoning varied with age. For Indigenous people, rates were highest among those aged 25–44 years, while for other Australians rates were highest for those aged 65 years and over. In all age groups, Indigenous males were more likely to be hospitalised for injury and poisoning than were Indigenous females.

EXTERNAL CAUSES OF INJURY RESULTING IN HOSPITALISATIONS

In 2005–06 in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, as in previous years, the most commonly recorded external causes of injury resulting in hospitalisation among Indigenous Australians were assault (males 22%; females 31%), accidental falls (males 17%; females 17%), exposure to inanimate mechanical forces (e.g. explosion of materials, contact with glass) (males 15%; females 9%), complications of medical or surgical care (males 9%; females 12%) and transport-related injuries (males 11%; females 7%).

Indigenous males and females were hospitalised more often than other Australians for most external causes of injury (table 7.26). Hospitalisations for injury due to assault were 6 and 33 times higher for Indigenous males and females respectively.

7.26 HOSPITALISATIONS OF INDIGENOUS PERSONS FOR INJURY AND POISONING DUE TO EXTERNAL CAUSES(a)(b)—2005–06

	MALES			FEMALES		
	Observed	*Expected*	*Ratio*(c)	*Observed*	*Expected*	*Ratio*(c)
Assault (X85–Y09)	2 352	382	6.2	2 572	78	33.0
Accidents						
Accidental falls (W00–W19)	1 809	1 275	1.4	1 352	948	1.4
Exposure to inanimate mechanical forces (W20–W49)	1 579	1 064	1.5	752	366	2.1
Transport accidents (V01–V99)	1 212	997	1.2	547	422	1.3
Exposure to animate mechanical forces (W50–W64)	528	289	1.8	248	100	2.5
Exposure to electric current/smoke/fire/animals/nature (W85–X39)(d)	423	185	2.3	236	99	2.4
Accidental poisoning (X40–X49)	219	138	1.6	234	136	1.7
Other causes of accidental injury (W65–W84, X50–X59)(e)	835	785	1.1	465	335	1.4
Complications of medical and surgical care ((Y40–Y84)	964	521	1.8	943	550	1.7
Intentional self-harm (X60–X84)	563	193	2.9	687	361	1.9
Other external causes (Y10–Y36, Y85–Y98)(f)	146	53	2.7	131	58	2.2
Total(g)	**10 658**	**5 888**	**1.8**	**8 185**	**3 454**	**2.4**

(a) Cause of injury is based on the first reported cause where the principal diagnosis was 'Injury, poisoning and certain other consequences of external causes' (S00-T98).

(b) Data are for NSW, Vic., Qld, WA, SA and NT combined, based on state/territory of usual residence. Data exclude private hospitals in the NT.

(c) Ratio is observed hospitalisations divided by expected hospitalisations. Expected hospitalisations are calculated based on the age, sex and cause-specific rates of other Australians.

(d) Includes exposure to electric current, radiation, extreme ambient air temperature and pressure, smoke, fire, flames, forces of nature, contact with heat and hot substances, and contact with venomous animals and plants.

(e) Includes accidental drowning and submersion; other accidental threats to breathing; overexertion, travel and privation; accidental exposure to other unspecified factors.

(f) Includes event of undetermined intent; legal interventions and operations of war; sequelae of external causes of morbidity and mortality; supplementary factors related to causes of morbidity and mortality classified elsewhere.

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

Source: AIHW National Hospital Morbidity Database

Respiratory diseases

Respiratory diseases are leading causes of illness, disability and mortality around the world. Common respiratory diseases include asthma, chronic obstructive pulmonary disease ((COPD), comprising both chronic bronchitis and emphysema), influenza and pneumonia. While all these respiratory diseases are also leading causes of illness resulting in a high use of health services, pneumonia and COPD are leading underlying causes of death (see Chapter 9 for more information).

PREVALENCE OF RESPIRATORY DISEASES

In the 2004–05 NATSIHS, the proportion of Aboriginal and Torres Strait Islander people who reported some form of respiratory disease was 27%. This represents a small decrease from 29% in 2001. The most common form of respiratory disease reported by Indigenous people in 2004–05 was asthma (15%) (table 7.5).

After adjusting for age differences between the Indigenous and non-Indigenous populations, Indigenous people were nearly twice as likely as non-Indigenous people to report having bronchitis, and one-and-a-half times as likely to report having asthma (ABS 2006c). The prevalence of respiratory diseases in the Indigenous population was highest among people aged 55 years and over (38%), whereas in the non-Indigenous population those in age groups 25–34 years and 35–44 years had the highest proportions of people with respiratory diseases (both 33%).

Respiratory diseases continued

HOSPITALISATIONS FOR RESPIRATORY DISEASES

About 15,700 hospitalisations of Indigenous people with a principal diagnosis of respiratory disease occurred in 2005–06 in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, representing about 6% of all hospitalisations of Indigenous people in these jurisdictions. Hospitalisation rates for respiratory diseases in the Indigenous population were more than twice those in the non-Indigenous population.

For both Indigenous people and other Australians, hospitalisations for respiratory disease were most common among the very young and the old (graph 7.27). In 2005–06, the hospitalisation rates for respiratory diseases among Indigenous children aged 0–4 years were twice the rate for other Australian children. Almost half of hospitalisations among children aged 0–4 years were for infants (aged less than one year). Hospitalisation rates for Indigenous infants were more than twice the rate for other Australian infants. Indigenous Australians aged 25 years and over were hospitalised for respiratory disease at three to five times the rates of other Australians.

7.27 HOSPITALISATION RATES, RESPIRATORY DISEASES(a)(b), by Indigenous status and age—2005–06

(a) Data for NSW, Vic., Qld, WA, SA and NT combined.
(b) Based on principal diagnosis.
(c) Rates are per 1,000 population.

Note: ICD-10-AM codes J00-J99.

Source: AIHW National Hospital Morbidity Database

Indigenous Australians were hospitalised at higher rates for most types of respiratory diseases than other Australians (table 7.28). In 2005–06, Indigenous males and females were hospitalised for influenza and pneumonia (combined) at around five times the rate, for COPD at around six to eight times the rate and for asthma at up to twice the rate of other Australians.

7.28 HOSPITALISATIONS OF INDIGENOUS PERSONS FOR RESPIRATORY DISEASES(a), by principal diagnosis—2005–06

	MALES			FEMALES		
	Observed	*Expected*	*Ratio*(b)	*Observed*	*Expected*	*Ratio*(b)
Chronic lower respiratory diseases (J40–J47)	2 060	861	2.4	2 515	718	3.5
Asthma (J45–J46)	906	686	1.3	1 188	533	2.2
Chronic obstructive pulmonary disease (J41–J44)	942	155	6.1	1 098	146	7.5
Influenza and pneumonia (J10–J18)	2 132	463	4.6	1 996	425	4.7
Other acute lower respiratory infections (J20–J22)	1 779	447	4.0	1 675	334	5.0
Acute upper respiratory infections (J00–J06)	995	647	1.5	990	506	2.0
Other respiratory diseases (J30–J40, J47–J99)	813	1 290	0.6	767	1 179	0.7
Total	**7 779**	**3 708**	**2.1**	**7 943**	**3 162**	**2.5**

(a) Data are for NSW, Vic., Qld, WA, SA and NT combined, based on state/territory of usual residence. Data exclude private hospitals in the NT.

(b) Ratio is observed hospitalisations divided by expected hospitalisations. Expected hospitalisations are calculated based on the age, sex and cause-specific rates of other Australians.

Source: AIHW National Hospital Morbidity Database

Communicable diseases and HIV/AIDS

While much of the burden of communicable diseases comes from respiratory infections such as influenza, data presented here include notification and hospitalisation as the result of other serious communicable diseases such as sexually transmissible infections (STIs), viral hepatitis and viral infections such as mumps, measles and rubella. The evidence from these analyses reinforces the fact that the burden of communicable diseases for Indigenous Australians is far greater than for other Australians.

NOTIFICATIONS

In Australia, communicable diseases of particular health importance are 'notifiable', and under legislation each case must be notified to state and territory health authorities. Notifications are received from hospitals, general practitioners and diagnostic laboratories. While each Australian state and territory has its own set of notifiable diseases, a set of 56 diseases and conditions are nationally notifiable. Data on all these cases are forwarded to the National Notifiable Diseases Surveillance System (NNDSS), managed by the Australian Government Department of Health and Ageing. The numbers of notifications, however, represent a variable proportion of all the actual cases of any disease. This is because for some diseases, many cases may go undetected for a long period of time and infections that are diagnosed in a laboratory test are more likely to be notified than those that are not (Menzies, McIntyre & Beard 2004).

Only data from Western Australia, South Australia and the Northern Territory on the notification rates of infectious diseases have been reported in this section. This is because the recording of Indigenous status in these jurisdictions was assessed by the NNDSS in 2004 as being adequate (more than 60% coverage) (AIHW & ABS 2005). However, recording of Indigenous status for Human Immunodeficiency Virus (HIV)/Acquired Immune Deficiency Syndrome (AIDS) data is considered reliable by the National Centre for HIV Epidemiology and Clinical Research (NCHECR) for all states and territories, with the exception of the ACT, from 2004 onwards. Over the period 2004–2006, notification rates for Indigenous Australians were higher than for other Australians for many notifiable diseases (table 7.29).

Communicable diseases and HIV/AIDS continued

Sexually transmitted infections

Rates of STIs were much higher in the Indigenous population than among other Australians, with the rates for syphilis and gonococcal infection among Indigenous people 61 and 86 times the rates among other Australians. Rates of Hepatitis A, B and C were also higher among Indigenous Australians (ratios of between 5 and 12) (table 7.29). The substantially higher levels of chlamydia, gonorrhoea and syphilis infection among Indigenous people compared with other persons may also facilitate HIV transmission in the Indigenous population (Grosskurth et al 1995).

Pneumonia

Pneumococcal disease is caused by the bacterium Streptococcus pneumoniae and can cause infection in parts of the respiratory tract (otitis media, sinusitis, pneumonia) or enter the bloodstream. For the period 2004–2006, there were 403 notifications of invasive pneumococcal disease among Indigenous people in Western Australia, South Australia and the Northern Territory combined. The notification rate for Indigenous Australians was almost 13 times the rate for other Australians.

7.29 NOTIFICATIONS FOR SELECTED DISEASES(a), by Indigenous status—2004–2006

	INDIGENOUS		OTHER(b)	
	Observed	*Expected*	*Observed*	*Ratio*(c)
	no.	no.	no.	quotient
Gonococcal infection	8 777	102	2 328	85.9
Chlamydial infection (n.e.c.)	7 527	953	21 718	7.9
Syphilis(d)	1 065	18	399	60.8
Salmonellosis (n.e.c.)	809	189	4 306	4.3
Pneumococcal disease	403	30	771	13.5
Hepatitis A	107	9	209	11.7
Hepatitis C (incident)	120	18	410	6.7
Ross River virus infection	101	151	3 451	0.7
Tuberculosis	41	25	570	1.6
Meningococcal infection	50	6	146	7.8
Pertussis	198	319	7 270	0.6
Donovanosis(e)	14	—	—	—
Hepatitis B (incident)	31	6	132	5.4
Haemophilus influenzae type b	5	—	np	28.5
Mumps	np	np	95	0.5
Measles	13	26	587	0.5
Rubella	—	np	15	—
Leprosy	6	—	5	22.8

— nil or rounded to zero (including null cells)

np not available for publication but included in totals where applicable, unless otherwise indicated

(a) Data are for WA, SA and NT combined. Adequate levels of completeness of Indigenous status identification are defined as at least 60 per cent for a substantial majority of the diseases analysed.

(b) Comprises notifications for non-Indigenous people, and those for whom Indigenous status was not stated.

(c) Ratio is observed Indigenous notifications divided by expected Indigenous notifications. Expected notifications are calculated based on the age, sex and disease-specific rates of other Australians.

(d) Includes syphilis, syphilis infectious and syphilis more than two years.

(e) Donovanosis not notifiable in South Australia.

Source: AIHW analysis of National Notifiable Diseases Surveillance System, Department of Health and Ageing

Communicable diseases and HIV/AIDS continued

HIV/AIDS

Notifications of HIV and AIDS infections are forwarded to NCHECR and are recorded in the National AIDS Registry and the National HIV Database. Between 2004 and 2006, 58 notifications of HIV infection and 22 notifications of AIDS infection were recorded in the Indigenous population (table 7.30). The majority (80%) of these notifications were for Indigenous males. The notification rate for AIDS and HIV was similar for Indigenous males and other males however the notification rate for AIDS and HIV for Indigenous females was 60% more than that for other females.

7.30 NOTIFICATION RATES FOR HIV AND AIDS, by Indigenous status and sex—2004–2006(a)

	INDIGENOUS		OTHER(b)		
	Number	*Rate*(d)	*Number*	*Rate*(d)	*Ratio*(c)
Males	64	10.8	2 955	10.1	1.1
Females	16	2.2	408	1.4	1.6
Persons	**80**	**6.3**	**3 371**	**5.7**	**1.1**

(a) Calendar year reporting. Excludes data from the ACT as data were not available from this jurisdiction in 2004.
(b) Comprises notifications for non-Indigenous people and those for whom Indigenous status was not stated.
(c) Ratio is observed Indigenous notifications divided by expected Indigenous notifications. Expected notifications are based on the age and disease-specific rates for other Australians.
(d) Indirectly age standardised rates per 100,000 population.
Source: AIHW analysis of the National AIDS registry and National HIV database

HOSPITALISATIONS DUE TO CERTAIN INFECTIOUS AND PARASITIC DISEASES

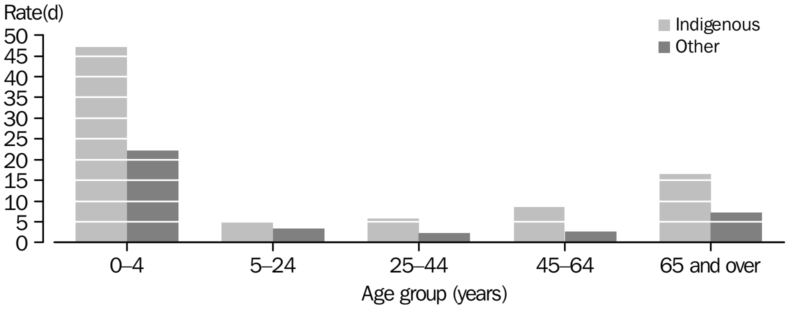
In 2005–06 in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, infectious and parasitic diseases, which include illnesses such as intestinal infectious diseases, septicaemia, viral infections and fevers, sexually transmitted infections, tuberculosis and mycoses, were responsible for 2,666 hospitalisations of Indigenous males, representing 3% of all hospitalisations of Indigenous males. For Indigenous females, the comparative figure was 2,583 hospitalisations, representing 2% of all hospitalisations of Indigenous females (table 7.32).

Indigenous males and females were hospitalised for infectious and parasitic diseases at twice the rate of other males and females. The highest rates of hospitalisation for infectious and parasitic diseases occurred among Indigenous children aged 0–4 years. Over 40% of the hospitalisations in this age group were for Indigenous infants (less than one year old) who were hospitalised at a rate of 98 per 1,000 population. Indigenous infants were hospitalised at twice the rate of other infants. The greatest difference in rates occurred among those aged 25–44 years and 45–64 years where Indigenous Australians were hospitalised at around three times the rate of other Australians (graph 7.31).

Communicable diseases and HIV/AIDS continued

HOSPITALISATIONS DUE TO CERTAIN INFECTIOUS AND PARASITIC DISEASES *continued*

7.31 HOSPITALISATION RATES FOR INFECTIOUS AND PARASITIC DISEASES(a)(b)(c), by Indigenous status and age—2005–06



(a) Data for NSW, Vic., Qld, WA, SA and NT combined.
(b) Based on principal diagnosis.
(c) ICD-10-AM codes A00–B99).
(d) Rates are per 1,000 population.

Source: AIHW National Hospital Morbidity database

Indigenous males and females were hospitalised for intestinal infectious diseases at twice the rate of other males and females (table 7.32).

7.32 HOSPITALISATIONS OF INDIGENOUS PERSONS FOR INFECTIOUS AND PARASITIC DISEASES(a), by principal diagnosis—2005–06

	MALES			FEMALES		
	Observed	*Expected*	*Ratio*(b)	*Observed*	*Expected*	*Ratio*(b)
	no.	no.	quotient	no.	no.	quotient
Intestinal infectious diseases (A00–A09)	1 367	668	2.0	1 263	672	1.9
Other bacterial diseases (A30–A49)	369	108	3.4	408	91	4.5
Septicaemia (A40–A41)	294	71	4.1	351	62	5.6
Pneumococcal septicaemia (A40.3)	17	2	8.3	18	2	9.1
Viral infections (A80–B19)	186	142	1.3	158	129	1.2
Viral hepatitis (B15–B19)	50	35	1.4	33	21	1.6
Infections, sexual transmission (A50–A64)	37	7	5.5	139	13	10.6
Mycoses (B35–B49)	46	17	2.7	62	21	3.0
Tuberculosis (A15–A19)	20	7	2.7	12	7	1.8
Other and unspecified infectious and parasitic diseases (A20–A28, A65–A79, B20–B34, B50–B99)	641	358	1.8	541	320	1.7
Total	**2 666**	**1 307**	**2.0**	**2 583**	**1 254**	**2.1**

(a) Data are for NSW, Vic., Qld, WA, SA and NT combined, based on state/territory of usual residence. Data exclude private hospitals in the NT.

(b) Ratio is observed hospitalisations divided by expected hospitalisations. Expected hospitalisations are calculated based on the age, sex and cause-specific rates of other Australians.

Source: AIHW National Hospital Morbidity Database

Musculoskeletal conditions

Musculoskeletal conditions, including arthritis, are a major cause of pain and disability, especially among the elderly. Arthritis is a heterogenous group of disorders in which there may be inflammation of the joints, causing chronic pain, stiffness, functional limitations and deformity. Its two most common forms are osteoarthritis and rheumatoid arthritis (AIHW 2005a).

Musculoskeletal conditions continued

Diseases of the musculoskeletal system and connective tissue were reported by 22% of Indigenous people in 2004–05. In particular, 13% reported back pain/disc disorders and 9% reported arthritis (table 7.5). The proportion of Aboriginal and Torres Strait Islander people reporting musculoskeletal diseases was higher in older age groups. Higher prevalence was reported for Indigenous Australians than other Australians among people aged 25–54 years (ABS 2006c).

HOSPITALISATIONS FOR MUSCULOSKELETAL DISEASES

In 2005–06 in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, diseases of the musculoskeletal system and connective tissue were the principal diagnosis for 4,205 hospitalisations of Aboriginal and Torres Strait Islander people, representing around 2% of all hospitalisations of Indigenous people. Hospitalisation rates for musculoskeletal diseases ranged from about 2 per 1,000 for Indigenous children aged 0–4 years to 31 per 1,000 population for Indigenous people aged 65 years and over. Hospitalisation rates for musculoskeletal diseases for Indigenous Australians were similar to, or lower than, rates for other Australians across all age groups.

Of all musculoskeletal diseases, arthritis was the most common cause of hospitalisation for Indigenous Australians. Indigenous Australians were hospitalised for rheumatoid arthritis and osteoarthritis at lower rates than other Australians.

Eye and vision problems

In 2004–05, 30% of the Indigenous population reported diseases of the eye and adnexa (appendages of the eyeball which include the eyelids, muscles and soft tissue) (table 7.5). One in six (16%) reported hyperopia (long-sightedness) and 10% reported myopia (short-sightedness). Within the Indigenous population, those living in non-remote areas were more likely to report eye and sight problems (32%) than those living in remote areas (25%).

While the overall age standardised prevalence of eye and vision problems was slightly lower among Indigenous Australians than among other Australians (47% compared with 51%), Indigenous people reported having cataracts and either complete or partial blindness at higher rates than non-Indigenous people. The prevalence of eye and vision problems was higher in older age groups in both the Indigenous and non-Indigenous populations (ABS 2006c).

HOSPITALISATIONS FOR EYE AND VISION PROBLEMS

In 2005–06, there were a total of 1,170 hospitalisations of Indigenous Australians in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, with a principal diagnosis of diseases of the eye and adnexa, representing about 0.5% of all Indigenous hospitalisations. The overall rates of hospitalisations for diseases of the eye and adnexa among Indigenous Australians were slightly less than those for other Australians. Rates of hospitalisation due to diseases of the eye were highest among those aged 65 years and over, reaching around 30 per 1,000 for Indigenous Australians and 56 per 1,000 for other Australians in this age group.

Ear and hearing problems

In 2004–05, a higher proportion of Indigenous people than non-Indigenous people reported ear and hearing problems across all age groups, except for those aged 55 years and over, among whom prevalence rates were similar.

Otitis media, a common childhood disease, is often the result of a pneumococcal invasion of the nasopharynx. Recurrence of chronic otitis media is often characterised by a perforated tympanic membrane, which can lead to hearing loss, deafness and further complications such as learning difficulties. In 2004–05, rates of otitis media were three times as high among Indigenous children aged 0–14 years as non-Indigenous children in this age group (ABS 2006c).

HOSPITALISATIONS FOR EAR AND HEARING PROBLEMS

In 2005–06 in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, there were 1,714 hospitalisations of Indigenous people for diseases of the ear and mastoid process (temporal bone behind the ear), representing 0.7% of all hospitalisations of Indigenous people.

Overall, hospitalisation rates for ear and hearing problems among Indigenous Australians were similar to those for other Australians. Hospitalisations were highest among children aged 0–4 years for both Indigenous and other Australians. In 2005–06, 61% of all hospitalisations of Indigenous people for ear and hearing problems were due to otitis media. Chronic ear and hearing problems are greater among Indigenous children than among other children. According to Coates (2002), Indigenous children and young adults between the ages of 2 and 20 years experience an average of 32 weeks of middle ear disease compared with 2 weeks for other children.

Oral health

Oral health refers to the health of a number of tissues in the mouth, including mucous membrane, connective tissue, muscles, bone, teeth and periodontal structures or gums. It may also refer to immunological, physiological, sensory and digestive system functioning, but is most often used to refer to two specialised tissues of the mouth: the teeth and the gums. Oral health outcomes are usually measured in terms of the number of decayed, missing or filled baby (deciduous) and adult (permanent) teeth (dmft and DMFT scores) (AIHW 2007k).

The latest available data on DMFT scores for Indigenous adults come from adults seeking dental care in Australia in 2004–06. Indigenous adults had a greater average number of decayed and missing teeth and a lower average number of filled teeth than non-Indigenous adults across most age groups (table 7.33).

Oral health continued

7.33 AVERAGE NUMBER OF DECAYED, MISSING OR FILLED TEETH, by Indigenous status and age—2004–2006

	AGE GROUP (YEARS)				
	15–34	*35–54*	*55–74*	*75 and over*	*15 and over(a)*
Mean number of decayed teeth					
Indigenous	1.7	4.1	1.4	np	2.7
Non-Indigenous	0.9	0.8	0.5	0.6	0.8
Mean number of missing teeth					
Indigenous	4.0	7.4	13.1	np	7.4
Non-Indigenous	3.5	5.3	10.2	14.2	6.1
Mean number of filled teeth					
Indigenous	1.3	4.3	8.8	np	4.7
Non-Indigenous	0.1	8.2	11.5	9.6	5.9
Mean number of decayed, missing or filled teeth					
Indigenous	7.0	15.8	23.3	np	14.8
Non-Indigenous	4.5	14.3	22.2	24.4	12.8

np not available for publication but included in totals where applicable, unless otherwise indicated

(a) Excludes those with no natural teeth.

Source: 2004–2006 Adult Dental Health Survey (Roberts-Thompson & Do 2007)

HOSPITALISATIONS RELATED TO ORAL HEALTH PROBLEMS

In 2005–06 there were 2,395 hospitalisations of Indigenous people in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, for diseases of the oral cavity, salivary glands and jaw. The majority of these hospitalisations were for dental caries (54%), followed by diseases of the pulp and periapical tissues (14%). Indigenous Australians were less likely to be hospitalised for diseases of the oral cavity, salivary glands and jaw than other Australians.

SUMMARY

Indigenous Australians have poorer self-assessed health than non-Indigenous Australians. In 2004–05, Indigenous Australians were twice as likely to report their health as fair or poor compared with other Australians (age standardised rates of 29% and 15% respectively).

Indigenous Australians also have higher rates of hospitalisation and higher prevalence rates for many diseases. Analyses of data from a number of different sources indicate the long-term health conditions responsible for much of the ill-health among Indigenous Australians. These conditions include circulatory diseases, diabetes, respiratory diseases, musculoskeletal conditions, kidney disease, and eye and ear problems. Indigenous Australians experience an earlier onset of disease than other Australians for most of these conditions.

Indigenous Australians suffer a burden of disease that is two-and-a-half times greater than the burden of disease in the total Australian population. Chronic illnesses are responsible for 70% of the difference in the burden of disease observed between the Indigenous and non-Indigenous populations.

Aboriginal and Torres Strait Islander people suffer higher rates of mental illness than non-Indigenous people. Indigenous adults were twice as likely as non-Indigenous Australians to report high to very high levels of psychological distress in 2004–05 (age

SUMMARY *continued*

standardised rates of 27% and 13% respectively). However, data on social and emotional wellbeing also reveal that there is a strong sense of positive wellbeing among many Aboriginal and Torres Strait Islander people.

While data on general practitioner encounters reveal that the rates at which Indigenous people visit general practitioners are similar to those for non-Indigenous people for many conditions, Indigenous people are somewhat underestimated in this dataset and thus the true GP encounter rates for Indigenous people are likely to be much higher than those reported.

CHAPTER 8 HEALTH RISK FACTORS

INTRODUCTION

Health risk factors affect the onset and prognosis of a variety of chronic diseases. A wide body of research has demonstrated complex yet robust connections between a number of biomedical and behavioural factors and major chronic diseases and conditions, including the fact that the major chronic diseases share common risk factors (AIHW 2006c). Environmental factors from cultural, socioeconomic and physical domains have also been shown to have a strong association with both disease and ill-health.

The National Chronic Disease Strategy, endorsed by all Health Ministers in 2005, places a strong emphasis on health promotion and risk factor reduction across the entire continuum of chronic disease prevention and care—to prevent the disease itself, where possible, and to prevent progression of the disease and its associated complications and co-morbidities (NHPAC 2006).

The health risk factors presented in this chapter focus on behavioural or lifestyle factors, including smoking, excessive alcohol consumption, physical inactivity, poor nutrition and overweight/obesity. Associations between these risk factors and other health indicators are also presented. The 2004–05 National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) provides the most recent data for the majority of the risk factors presented in this chapter. Where possible, information from the 2004–05 National Health Survey (NHS) has also been included in order to provide comparisons between the Indigenous and non-Indigenous populations.

RISK FACTORS AND SOCIOECONOMIC STATUS

As outlined in Chapter 2, Aboriginal and Torres Strait Islander people experience disadvantage across a range of socioeconomic indicators including education, employment, income and housing. There is strong evidence from Australia and other developed countries that low socioeconomic status is associated with poor health and increased exposure to health risk factors (Blakely, Hales & Woodward 2004; Turrell & Mathers 2000; Carson et al 2007). For example, in 2004–05, Indigenous people with low levels of educational attainment were more likely than those who had completed Year 12 to regularly smoke, to consume alcohol at risky/high risk levels, and to engage in low levels of exercise, and were less likely to eat fruit or vegetables on a daily basis (table 8.1).

However, because of the close associations between particular socioeconomic variables (e.g. education and employment) and because the causal relationship between health and socioeconomic status can sometimes work both ways (e.g. low educational attainment may lead to poor health but poor health may also lead to low educational attainment), it is difficult to measure and quantify these relationships in household surveys.

8.1 HEALTH RISK FACTORS, by selected socioeconomic characteristics—Indigenous persons—2004–05

	HIGHEST YEAR OF SCHOOL COMPLETED(a)		LABOUR FORCE STATUS		EQUIVALISED HOUSEHOLD INCOME(b)	
	Year 12	*Year 9 or below*	*Employed*	*Unemployed*	*Third quintile and above*	*First & second quintile*
Selected risk factors	%	%	%	%	%	%
Current daily smokers(c)	(d)34.3	(d)54.9	(e)45.2	(e)66.3	(f)39.7	(f)55.4
Risky/high risk alcohol consumption(c)	(d)12.2	(d)17.2	19.1	20.4	18.4	15.5
Has used illicit substances in last 12 months(g)(h)	27.6	35.4	26.0	27.9	28.4	29.3
Sedentary/low level of exercise(g)(h)	(d)70.5	(d)81.9	73.7	69.4	75.2	74.5
Overweight/obese(g)(i)	56.2	61.9	58.7	51.4	57.0	56.7
Does not eat fruit daily(g)	(d)9.4	(d)16.9	14.3	14.4	(f)10.4	(f)16.6
Does not eat vegetables daily(g)	(d)3.8	(d)7.7	5.0	4.0	(f)1.0	(f)7.4

(a) Excludes persons still attending school.
(b) See the Glossary for more information.
(c) Persons aged 18 years and over.
(d) Difference between Year 12 and Year 9 or below is statistically significant.
(e) Difference between Employed and Unemployed is statistically significant.
(f) Difference between First & Second quintile and Third quintile and above is statistically significant.
(g) Persons aged 15 years and over.
(h) Persons in non-remote areas only.
(i) Proportions are calculated excluding 'Body Mass Index not known'.

Source: ABS 2004–05 NATSIHS

SMOKING

Tobacco smoking in the Australian population increases the risk of numerous cancers, heart and vascular diseases, respiratory diseases and a variety of other conditions. It contributes to more drug-related hospitalisations and deaths than alcohol and illicit drug use combined (AIHW 2006a). Tobacco smoking was the leading cause of the burden of disease and injury for Indigenous Australians in 2003, accounting for 12.1% of the total burden and 20% of all deaths (Vos et al 2007).

In 2004–05, half (50%) of the adult Indigenous population were current daily (or regular) smokers. While smoking rates have decreased slightly for the total Australian population over the ten years to 2004–05, there has been no significant change in smoking rates for the Indigenous population in this period.

Similar proportions of Indigenous men (51%) and women (49%) were current daily smokers in 2004–05. While there was little difference between the overall proportions of Indigenous people in remote and non-remote areas who smoked, males in remote areas were more likely than males in non-remote areas to smoke on a daily basis (58% compared with 49%).

In 2004–05, around one in ten Indigenous adults who were current daily smokers or ex-smokers had begun smoking regularly before the age of 13 years. More than two-thirds (68%) had begun smoking regularly before the legal age of 18 years. Nearly half (46%) of all current daily smokers/ex-smokers aged 18–34 years and 90% of those aged 35 years and over had been regularly smoking for 10 years or more.

In 2004–05, Indigenous people who were current daily smokers or ex-smokers, were more likely than those who had never smoked to report being in fair or poor health (27% compared with 17%). They were also more likely to report having experienced high/very high levels of psychological distress in the last month (30% compared with

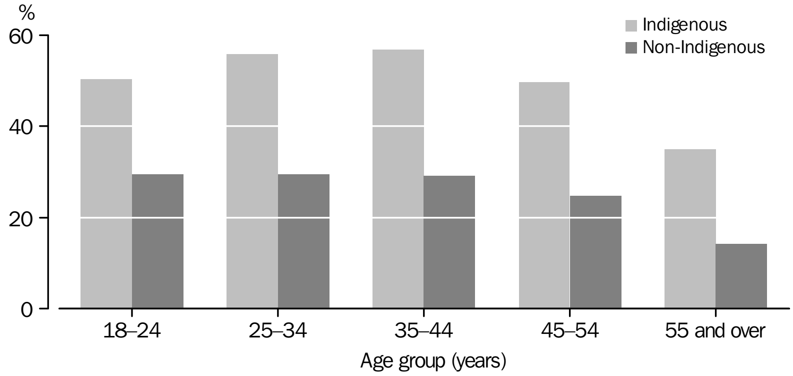
SMOKING *continued*

20%). However, the 2004–05 NATSIHS did not show an association between smoking and elevated rates of tobacco-related health conditions, such as respiratory disease and cardiovascular disease. This may be due to time lag, i.e. smoking behaviours continuing for many years before a disease manifests, or people quitting smoking after being diagnosed with a chronic health condition (see ABS 2007h for more information).

Current daily smokers reported higher rates of other substance use in 2004–05. Aboriginal and Torres Strait Islander people who smoked regularly were more than twice as likely as non-smokers (includes ex-smokers and people who had never smoked) to report long-term risky/high risk levels of alcohol consumption (23% compared with 9%) (see the Glossary for more information on alcohol risk levels). In non-remote areas, Indigenous smokers aged 18–34 years were twice as likely as non-smokers to report illicit substance use. This was particularly the case for marijuana use, where nearly half (46%) of regular smokers aged 18–34 years had used marijuana in the last 12 months compared with 16% of non-smokers.

For both men and women, smoking was more prevalent among Indigenous than non-Indigenous adults in every age group (graphs 8.2 and 8.3). After adjusting for age differences between the two populations, Indigenous people aged 18 years and over were more than twice as likely as non-Indigenous people to be current daily smokers.

8.2 CURRENT DAILY SMOKERS, Males(a)—2004–05

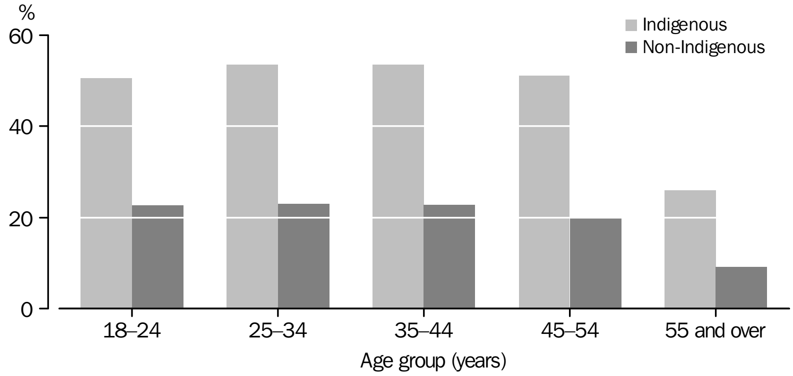


(a) Aged 18 years and over.

Source: ABS 2004–05 NATSIHS, 2004–05 NHS

SMOKING *continued*

8.3 CURRENT DAILY SMOKERS, Females(a)—2004–05



(a) Aged 18 years and over.
Source: ABS 2004–05 NATSIHS, 2004–05 NHS

ALCOHOL CONSUMPTION

Excessive alcohol consumption is a major risk factor for morbidity and mortality in all populations (AIHW 2006b). People who regularly drink at harmful levels place themselves at substantially increased risk of chronic ill-health and premature death, while an episode of heavy drinking places the drinker and others at increased risk of injury and morbidity (NHMRC 2001). In 2003, alcohol was associated with 7% of all deaths and 6% of the total burden of disease for Indigenous Australians (Vos et al 2007). Excessive alcohol consumption also accounted for the greatest proportion of the burden of disease and injury for young Indigenous males (aged 15–34 years) and the second highest (after intimate partner violence) for young Indigenous females.

Two measures of alcohol consumption risk level were derived from the 2004–05 NATSIHS. The first measure was designed to capture long-term risk and was based on a person's reported average daily consumption of alcohol in the previous week. The second measure was designed to capture short-term risk, or binge drinking, and was based on the frequency of consuming five or more (for females) or seven or more (for males) standard drinks on any one occasion in the last 12 months. See box 8.4 for further details.

8.4 MEASURES OF ALCOHOL CONSUMPTION IN ABS INDIGENOUS HOUSEHOLD SURVEYS

Two measures of alcohol consumption are collected in ABS Indigenous household surveys: risk level associated with long-term (or chronic) patterns of alcohol consumption; and risk level associated with episodes of short-term (or binge) drinking. Risk levels in both the 2004–05 NATSIHS and 2002 NATSISS were based on the 2001 National Health and Medical Research Council (NHMRC) risk levels for harm in the long-term and short-term. Both surveys assume the level of long-term alcohol consumption in the reference period was typical.

In the 2004–05 NATSIHS, information on long-term risky/high risk alcohol consumption was collected for Indigenous persons aged 18 years and over, based on the average self-reported daily amount (mls) of alcohol consumed in the week prior to interview.

ALCOHOL CONSUMPTION *continued*

This methodology was essentially the same as that used in the 2001 NHS(I), therefore the results for the two surveys are considered directly comparable.

Information on short-term (or binge) risky/high risk alcohol consumption was collected in the NHS for the first time in 2004–05. This measure was based on the self-reported frequency of consuming five or more (for females) or seven or more (for males) standard drinks on any one occasion in the 12 months prior to interview. The output for this item comprised two parts: short-term risky/high risk alcohol consumption at least once a week in the last 12 months; and short-term risky/high risk alcohol consumption on at least one occasion in the last 12 months.

The 2002 NATSISS also collected both long-term and short-term measures of alcohol consumption, but these measures were different from those used in the 2004–05 NATSIHS. The long-term risky/high risk measure was collected for Indigenous persons aged 15 years and over and was based on the self-reported amount of alcohol (mls) consumed on a usual drinking day, as well as the frequency of consumption, in the 12 months prior to interview. The short-term measure was based on the self-reported largest quantity of alcohol consumed on a single day during the fortnight prior to interview.

Given the different conceptual elements and collection methodologies between the two surveys (particularly for short-term alcohol risk) the results cannot be directly compared. However, both the NATSIHS and NATSISS produced very similar estimates of the proportion of Indigenous adults who drink at chronic risky/high risk levels.

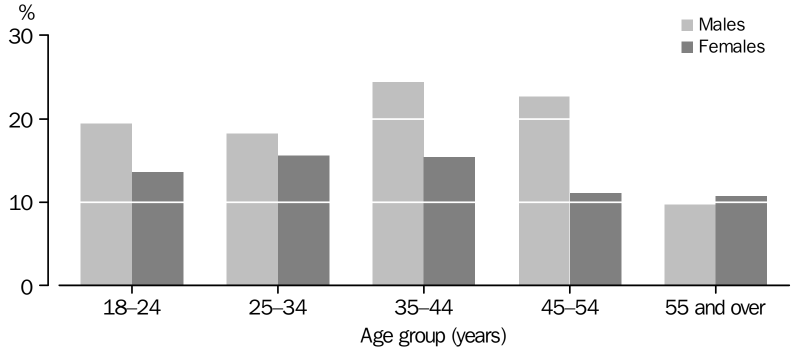
Chronic alcohol consumption

In 2004–05, Indigenous people aged 18 years and over were more likely than non-Indigenous people to abstain from drinking alcohol (table 8.6). Of those who did consume alcohol in the week prior to the survey, one in six Indigenous adults (16%) reported long-term (or chronic) risky/high risk alcohol consumption, up from 13% in 2001. In non-remote areas, the proportion of Indigenous adults who drank at chronic risky/high risk levels increased from 12% in 2001 to 17% in 2004–05.

Indigenous men were more likely than Indigenous women to drink at long-term risky/high risk levels (19% compared with 14%). This was evident in all broad age groups under 55 years (graph 8.5). While rates of risky/high risk drinking were similar for Indigenous people in remote and non-remote areas, people in remote areas were nearly three times as likely as those in non-remote areas to report never having consumed alcohol (18% compared with 6%).

Chronic alcohol consumption continued

8.5 CHRONIC RISKY/HIGH RISK ALCOHOL CONSUMPTION(a), Indigenous persons aged 18 years and over—2004–05



(a) Persons who consumed alcohol in the last week. Risk levels are based on NHMRC guidelines for risk of harm in the long-term. See Glossary for more information.

Source: ABS 2004–05 NATSIHS

Indigenous people who drank at long-term risky/high risk levels were more likely than those who drank at low risk levels to report fair/poor health (25% compared with 18%) and were less likely to report excellent or very good health (35% compared with 45%). Chronic risky/high risk alcohol consumption was also associated with higher rates of tobacco smoking (69% compared with 48% of low risk drinkers), high/very high levels of psychological distress (32% compared with 24%) and hypertensive disease (23% compared with 16% for those aged 35 years and over).

After adjusting for age differences between the two populations, the rates of chronic risky/high risk drinking were similar for both Indigenous and non-Indigenous Australians in 2004–05 (table 8.6).

8.6 CHRONIC ALCOHOL CONSUMPTION, Persons aged 18 years and over—2004–05

	INDIGENOUS			
	Males	*Females*	*Total*	*Age standardised rate ratio*(a)
Chronic alcohol risk level	%	%	%	
Low risk	38.2	26.7	32.1	0.6
Risky/high risk	19.5	13.8	16.5	1.1
Total drinkers in the last week(b)	58.1	40.6	48.8	0.7
Did not consume alcohol in the last week(c)	41.2	58.2	50.2	1.5
Total(d)	100.0	100.0	100.0	. .

. . not applicable
(a) Rate ratios are calculated by dividing the Indigenous age standardised proportion for a particular characteristic by the non-Indigenous age standardised proportion for the same characteristic.
(b) Includes persons for whom risk level was unknown.
(c) Includes persons who had never consumed alcohol.
(d) Includes persons for whom time since last consumed alcohol was not known.

Source: ABS 2004–05 NATSIHS, 2004–05 NHS

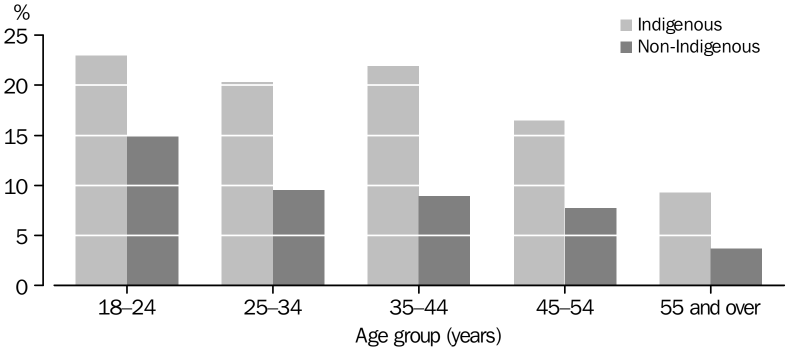
Binge drinking

In 2004–05, more than half (55%) of Indigenous people aged 18 years and over reported drinking at short-term risky/high risk levels on at least one occasion in the last 12 months. One in five (19%) reported drinking at these levels at least once a week. Rates of weekly binge drinking were lower among older age groups, ranging from 23% of those aged 18–24 years to 9% of those aged 55 years and over. In all age groups, regular binge drinking was more common among Indigenous males than Indigenous females. Overall, 24% of males drank at short-term risky/high risk levels on a weekly basis compared with 15% of females.

Regular binge drinking was associated with poorer health and wellbeing among Indigenous young people in 2004–05. Indigenous people aged 18–34 years who reported binge drinking at least once a week were less likely to say their health was excellent/very good compared with those who had not consumed alcohol in the last 12 months (43% compared with 58%). They were also more likely to report high/very high levels of psychological distress in the four weeks prior to interview (35% compared with 21%). Weekly binge drinkers were also more likely than those who had not consumed alcohol in the last year to regularly smoke (67% compared with 37%) and, in non-remote areas, to have recently used illicit substances (43% compared with 11%).

In 2004–05, rates of binge drinking were higher for Indigenous than non-Indigenous people in every age group (graph 8.7). After adjusting for age differences between the two populations, Indigenous Australians were twice as likely as non-Indigenous Australians to drink at short-term risky/high risk levels at least once a week.

8.7 ACUTE RISKY/HIGH RISK ALCOHOL CONSUMPTION(a), Persons aged 18 years and over—2004–05



(a) Based on NHMRC guidelines for risk of harm in the short-term. See Glossary for more information.

Source: ABS 2004–05 NATSIHS, 2004–05 NHS

ILLICIT SUBSTANCE USE

The term 'illicit substance use' refers to a variety of substances that are either illegal to possess (e.g. heroin) or legally available, but used inappropriately (e.g. misuse of prescription medication, petrol sniffing). Substance use is a contributing factor to illness and disease, accident and injury, violence and crime, family and social disruption, and workplace problems. The use of inhalants (for example, petrol) can lead to serious health consequences, including brain damage, disability or even death (SCRGSP 2007a).

In the 2004–05 NATSIHS, information on substance use was collected from Indigenous people living in non-remote areas using a voluntary self-completion form. In 2004–05,

ILLICIT SUBSTANCE USE *continued*

28% of Indigenous people aged 15 years and over who accepted the substance use form reported having used an illicit substance in the 12 months prior to interview, similar to the rate reported in the 2002 NATSISS (26%). Around half (49%) had reported having tried at least one illicit substance in their lifetime.

Substance use was more prevalent among Indigenous males than females. Half (54%) had tried an illicit substance (compared with 45% of females) and one-third (32%) had used at least one type of substance in the last 12 months (compared with 25% of females). Overall, recent substance use peaked among those aged 25–34 years (38%).

Marijuana was the most commonly reported illicit substance used by Indigenous people in 2004–05. Under half (43%) reported having tried marijuana and 23% had used it in the last 12 months. Amphetamines/speed was the next most frequently reported substance ever used (15%) or recently used (7%) by Indigenous people.

Along with alcohol, illicit substance use accounted for the greatest amount of burden of disease and injury among Australia's young people in 2003 (Begg et al 2007). This burden is often exacerbated when multiple substances are used in combination (AIHW 2007n). The 2004–05 NATSIHS showed that Indigenous young people aged 18–34 years who had recently used illicit substances were around twice as likely as those who had never used substances to regularly smoke (66% compared with 34%) and to binge drink on a weekly basis (28% compared with 13%). They were also less likely to report being in excellent or very good health (41% compared with 58%).

The 2004–05 NHS did not collect information on substance use among non-Indigenous Australians. However, results from the 2004 AIHW National Drug Strategy Household Survey showed that 15% of non-Indigenous people reported using illicit substances in the last 12 months—nearly half the rate reported by Indigenous Australians in the 2004–05 NATSIHS.

OVERWEIGHT/OBESITY

In Australia and worldwide, the prevalence of overweight/obesity has been increasing markedly over the last two decades (AIHW 2006b). Obesity increases the risk of developing a range of health problems including Type 2 diabetes, cardiovascular disease, high blood pressure, osteoarthritis and certain cancers. As a single risk factor, high body mass was the second leading cause of the burden of illness and injury among Indigenous Australians in 2003, accounting for 11% of the total burden of disease and 13% of all deaths (Vos et al 2007).

In 2004–05, of those who reported their height and weight, 38% of Indigenous people aged 15 years and over were a healthy weight, 28% were overweight and 29% were obese (for more information on the calculation of Body Mass Index (BMI) see the Glossary). Overall, more than half (57%) of Indigenous people aged 15 years and over were overweight or obese. Between 1995 and 2004–05, rates of overweight/obesity among Indigenous people aged 15 years and over in non-remote areas increased from 48% to 56%.

In 2004–05, the rates of overweight/obesity were higher in older age groups, ranging from 37% of people aged 15–24 years to 74% of people aged 55 years and over. Overall, the rates of overweight/obesity were similar for both Indigenous males (58%) and females (55%).

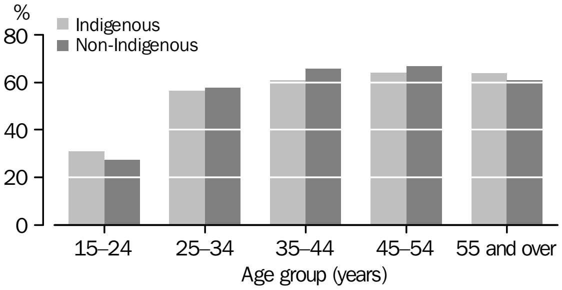
OVERWEIGHT/OBESITY *continued*

Overweight/obesity was associated with poorer self-assessed health among Indigenous people in 2004–05. Indigenous people aged 15 years and over who were overweight/obese were more likely than those who were a healthy weight to report their health as fair or poor (25% compared with 16%) and were less likely to report their health as excellent or very good (39% compared with 51%).

Similarly, Indigenous people aged 35 years and over who were overweight/obese were more likely than those who were a healthy weight to report diabetes/high sugar levels (22% compared with 10%) and/or cardiovascular disease (36% compared with 23%). The 2003 Australian Burden of Disease study showed that the majority of illness and injury among Indigenous people who were overweight/obese was a result of diabetes (49%) and ischaemic heart disease (40%) (Vos et al 2007).

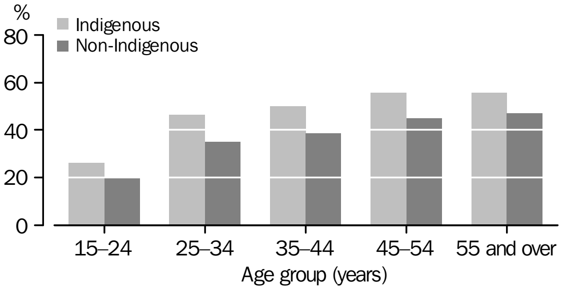
After adjusting for age differences between the two populations, rates of overweight/obesity were similar for both Indigenous and non-Indigenous adults. However, Indigenous women were around one-and-a-half times as likely as non-Indigenous women to be overweight/obese. There was little variation in the rates of overweight/obesity for Indigenous and non-Indigenous men (graphs 8.8 and 8.9).

8.8 OVERWEIGHT/OBESE, Males aged 15 years and over—2004–05



Source: ABS 2004–05 NATSIHS, 2004–05 NHS

8.9 OVERWEIGHT/OBESE, Females aged 15 years and over—2004–05



Source: ABS 2004–05 NATSIHS, 2004–05 NHS

POOR NUTRITION

Fruit and vegetable consumption is strongly linked to the prevention of chronic disease and to better health (NHMRC 2003a, NHMRC 2003b). Many of the principal causes of ill-health among Aboriginal and Torres Strait Islander people are diseases that can be affected by poor nutrition, such as heart disease, Type 2 diabetes and kidney disease (AHMAC 2006). In 2003, insufficient fruit and vegetable consumption contributed to 3% of the total burden of disease and 6% of deaths for Indigenous Australians (Vos et al 2007).

In 2004–05, the majority of Indigenous people aged 12 years and over reported eating vegetables (95%) and/or fruit (86%) on a daily basis. Fruit and vegetables may be less accessible to Indigenous people living in remote areas, where one in five (20%) reported no usual daily fruit intake compared with one in eight (12%) in non-remote areas. The disparity was even greater for vegetable consumption, where 15% of people in remote areas reported no usual daily intake compared with only 2% in non-remote areas.

The NHMRC guidelines recommend a minimum of five serves of vegetables and two serves of fruit per day (see the Glossary for more information). Of people in non-remote areas, 42% were eating the recommended daily intake of fruit and 10% the recommended daily intake of vegetables. Indigenous people in remote areas were not asked to specify how many serves of fruit and vegetables they usually eat on a daily basis.

After adjusting for age differences between the two populations, there was little difference in the rates of Indigenous and non-Indigenous people who did not meet the recommended daily intake of vegetables (89% compared with 86%), however Indigenous people were more likely than non-Indigenous people to have not met the recommended daily intake of fruit (55% compared with 46%). In both populations, women were more likely than men to meet the daily fruit and vegetable intake requirement.

PHYSICAL INACTIVITY

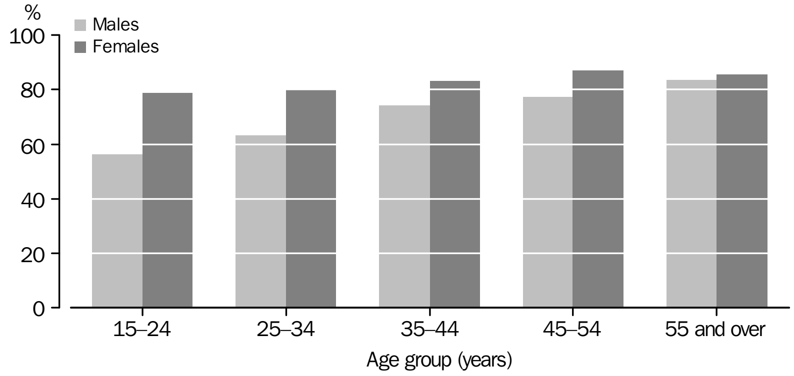
Low levels of physical activity are a major risk factor for ill-health and mortality. People who do not engage in sufficient physical activity have a greater risk of cardiovascular disease, colon and breast cancers, Type 2 diabetes and osteoporosis. Being physically active, on the other hand, improves mental and musculoskeletal health and reduces the chances of being overweight, having high blood pressure and/or high blood cholesterol (AIHW 2004). Physical inactivity was the third leading cause of the burden of illness and disease for Indigenous Australians in 2003, accounting for 8% of the total burden and 12% of all deaths (Vos et al 2007).

In 2004–05, three-quarters (75%) of Indigenous people aged 15 years and over who were living in non-remote areas reported being sedentary or exercising at low levels in the two weeks prior to interview, an increase from 68% in 2001. One-quarter (24%) reported exercising at moderate/high levels in 2004–05, compared with 32% in 2001 (see the Glossary for more information).

In 2004–05, rates of physical inactivity increased with age, with two-thirds (67%) of people aged 15–24 years being sedentary/exercising at low levels compared with 85% of those aged 55 years and over. Overall, rates of sedentary/low levels of exercise were higher among Indigenous females than Indigenous males (82% compared with 67%) (graph 8.10).

PHYSICAL INACTIVITY
continued

8.10 SEDENTARY/LOW LEVELS OF EXERCISE, Indigenous persons aged 15 years and over(a)—2004–05



(a) In non-remote areas.
Source: ABS 2004–05 NATSIHS

One-quarter (25%) of Indigenous people aged 15 years and over who were sedentary or who engaged in low levels of exercise reported fair/poor health, compared with 15% of those who engaged in moderate or high levels of exercise. People who were sedentary/engaged in low levels of exercise were also more likely to be overweight/obese (58% compared with 51%) and to smoke on a daily basis (51% compared with 42%).

Among Indigenous people aged 35 years and over, those who were sedentary/engaged in low levels of exercise were more likely than people who exercised at moderate/high levels to have three or more long-term health conditions (66% compared with 55%). They also reported higher rates of cardiovascular disease (33% compared with 23%) and asthma (18% compared with 13%).

The proportion of females who were sedentary/exercised at low levels was higher than males across all age groups in both the Indigenous and non-Indigenous populations. After adjusting for differences in the age structure between the two populations, Indigenous Australians were more likely than non-Indigenous Australians to be sedentary or to exercise at low levels.

EXPOSURE TO VIOLENCE

Aboriginal and Torres Strait Islander people are much more likely than non-Indigenous people to be victims of violence and to be hospitalised for injuries arising from assault (AHMAC 2006). Victims of violence may suffer serious injury, disability or death and, together with those who witness violence, are more likely to experience debilitating stress and trauma (ABS & AIHW 2005). Similarly, people who perceive their neighbourhood as unsafe may feel isolated and be discouraged from accessing local services and recreational facilities, or from creating social networks close to their homes.

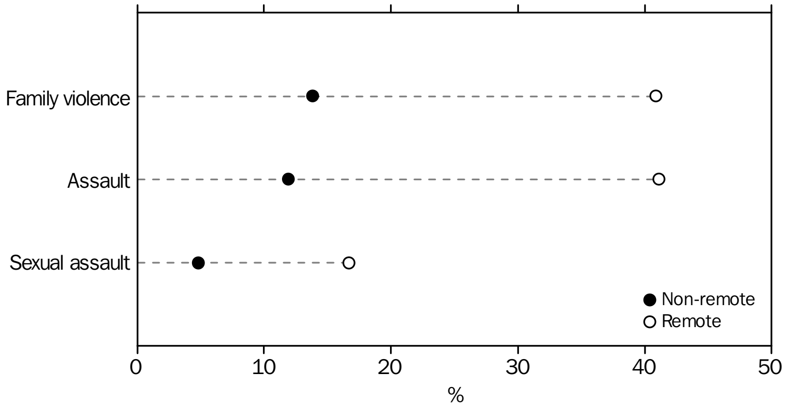
In the 2002 NATSISS, nearly one-quarter (24%) of Indigenous people aged 15 years or over reported being a victim of physical or threatened violence in the previous 12 months; nearly double the rate reported in 1994 (13%). Rates of victimisation were similar for people living in remote and non-remote areas (23% compared with 25%) and for men and women overall (26% compared with 23%). Younger people were more likely to have been a victim of physical or threatened violence in 2002, with men aged 15–24 years having the highest rate of any age group (36%). When age differences

EXPOSURE TO VIOLENCE *continued*

between the Indigenous and non-Indigenous populations were taken into account, Indigenous people aged 18 years or over experienced double the victimisation rate of non-Indigenous people in 2002. For more information on victimisation, see Chapter 8 in the 2005 edition of this report.

The 2002 NATSISS also collected information on an individual's experience of violence within their neighbourhood or community. Indigenous people in remote areas were three times as likely as those in non-remote areas to report family violence (41% compared with 14%), assault (41% compared with 12%) or sexual assault (17% compared with 5%) as a neighbourhood/community problem (graph 8.11). They were also more likely to report witnessing violence (30% compared with 10%) and abuse or violent crime (17% compared with 9%) as life stressors experienced in the last 12 months.

8.11 SELECTED NEIGHBOURHOOD/COMMUNITY PROBLEMS, Indigenous persons aged 15 years and over—2002



Source: ABS 2002 NATSISS

MULTIPLE RISK FACTORS

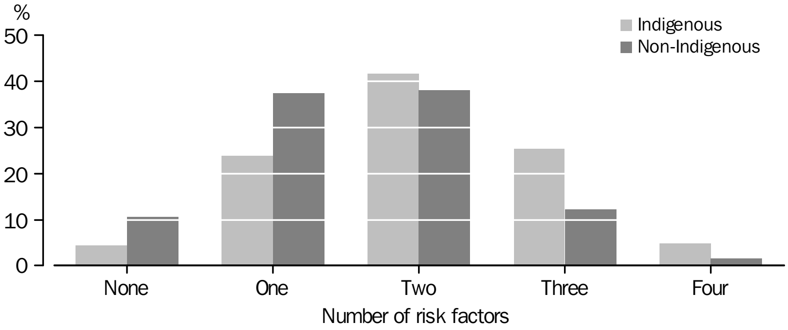
In this chapter, health risk factors such as smoking, alcohol and overweight/obesity have been assessed largely in isolation from one another. However, the level of risk attached to a particular factor may depend on whether other factors are also present, as risk factors tend to coexist and be interactive in their effects (AIHW 2006c). The Burden of Disease study assessed the impact of selected risk factors on the burden of disease and injury in Aboriginal and Torres Strait Islander people. Together, these risk factors explained 37% of the total burden of disease experienced by Indigenous Australians in 2003 (Vos et al 2007). The study also found that almost half of the burden of disease gap between Indigenous and non-Indigenous Australians was due to these risk factors (Vos et al. 2007).

For the total Indigenous population, the ten risk factors associated with cardiovascular disease together explained 69% of the total cardiovascular disease burden. Tobacco contributed the most to this cause, followed closely by high body mass, high blood cholesterol, physical inactivity and high blood pressure. In contrast, 69% of the diabetes burden was explained by the combination of only two risk factors—high body mass and physical inactivity. This indicates the potential to considerably reduce the disease and injury experienced by Indigenous Australians with interventions targeted at the specific risk factors for each disease/condition (Vos et al 2007).

MULTIPLE RISK FACTORS
continued

The 2004–05 NATSIHS and NHS show that, on average, Indigenous adults in non-remote areas reported more multiple risk factors (2.0) than did non-Indigenous adults (1.6) (where the risk factors examined were smoking, long-term risky/high risk alcohol consumption, sedentary/low levels of exercise and overweight/obesity). Nearly three-quarters (72%) of Indigenous adults in non-remote areas reported two or more risk factors in 2004–05, compared with half (52%) of non-Indigenous adults (graph 8.12). In both populations, the most common combinations of multiple risk factors included physical inactivity and overweight/obesity.

8.12 NUMBER OF RISK FACTORS REPORTED(a)(b), Persons aged 18 years and over in non-remote areas—2004–05



(a) Risk factors included are current daily smoking, long-term risky/high risk alcohol consumption, sedentary/low levels of exercise and overweight/obesity.
(b) Excludes not stated responses.

Source: ABS 2004–05 NATSIHS, 2004–05 NHS

SUMMARY

The relative socioeconomic disadvantage experienced by Aboriginal and Torres Strait Islander people compared with non-Indigenous people places them at greater risk of exposure to health risk factors.

In 2004–05, half (50%) of the Indigenous population aged 18 years and over smoked on a daily basis. One in six (16%) reported consuming alcohol at chronic risky/high risk levels in the last week and 19% at short-term risky/high risk levels on a weekly basis. In non-remote areas, 28% of Indigenous people aged 15 years and over reported having used illicit substances in the 12 months prior to interview and 49% reported having tried at least one illicit substance in their lifetime.

More than half (57%) of Indigenous people aged 15 years and over were overweight or obese in 2004–05. In non-remote areas, three-quarters (75%) of Indigenous people were sedentary or engaged in low levels of exercise, while 42% were eating the recommended daily intake of fruit and only 10% the recommended daily intake of vegetables. With the exception of fruit and vegetable consumption, all lifestyle risk factors were associated with fair/poor self-assessed health among Indigenous people in 2004–05.

CHAPTER 9 MORTALITY

INTRODUCTION

The Australian population enjoys good health by world standards, but Aboriginal and Torres Strait Islander people experience higher death rates than non-Indigenous Australians across all age groups, and from all major causes of death. The overall mortality rates for Indigenous males and females are almost three times those for non-Indigenous males and females. Conditions responsible for the majority of deaths among Aboriginal and Torres Strait Islander people include circulatory diseases, external causes, endocrine, metabolic and nutritional diseases, diseases of the respiratory system, and cancer.

This chapter examines the mortality of the Indigenous population. It begins by presenting information on data quality and availability and life expectancy. It then provides data on infant mortality, years of life lost and all-cause mortality, followed by an overview of major causes of death among Aboriginal and Torres Strait Islander peoples. Lastly, trends in mortality are presented for Indigenous and other Australians.

While the difference in mortality rates between the Indigenous and non-Indigenous populations is very large, the exact magnitude cannot be established at this time, because of the incomplete recording of Indigenous status on death records. While this limitation restricts precise analysis of the data and presents difficulties for the monitoring of mortality trends over time, it is still possible to provide some measures of Aboriginal and Torres Strait Islander mortality, and to make some comparisons with the mortality of non-Indigenous Australians.

DATA QUALITY AND AVAILABILITY

Almost all deaths in Australia are registered. However, Indigenous status is not always recorded, or recorded correctly. The incompleteness of Indigenous identification means that the number of deaths registered as Indigenous is an underestimate of the actual number of deaths which occur in the Indigenous population.

Coverage

The extent to which the identification of Indigenous Australians occurs in data collections is referred to as 'coverage' or 'completeness of coverage'. While there is incomplete coverage of Indigenous deaths in all state and territory registration systems, some jurisdictions have been assessed by the Australian Bureau of Statistics (ABS) as having a sufficient level of coverage to enable statistics on Aboriginal and Torres Strait Islander mortality to be produced. Table 9.1 presents the implied coverage of Indigenous deaths for each of the jurisdictions (except Tasmania and the Australian Capital Territory) for the period 2001–2005. Implied coverage is calculated by dividing the number of Indigenous deaths registered for the period 2001–2005 by the number of projected Indigenous deaths for the same period (ABS 2007c). The projected deaths are obtained from the low series of population projections in *Experimental Estimates and Projections, Aboriginal and Torres Strait Islander Australians 1991 to 2009* (ABS 2004c).

Coverage *continued*

9.1 INDIGENOUS DEATHS, implied coverage—2001–2005

	Deaths registered as Indigenous	*Projected Indigenous deaths*	*Implied coverage of Indigenous deaths*(a)
States/Territories	no.	no.	%
New South Wales	2 479	5 469	45
Victoria	364	1 182	31
Queensland	2 822	5 430	52
South Australia	642	1 011	64
Western Australia	1 860	2 658	70
Tasmania	123	(b). .	(b). .
Northern Territory	2 229	2 430	92
Australian Capital Territory	36	(b). .	(b). .
Australia(c)	**10 564**	**18 973**	**56**

. . not applicable

(a) Calculated as the ratio of deaths registered to projected Indigenous deaths.

(b) Not calculated due to small numbers.

(c) Includes Other Territories.

Source: ABS 2007c

The jurisdictions assessed as having a sufficient level of coverage are Queensland, Western Australia, South Australia and the Northern Territory. These data have been combined for 2001–2005 to enable an analysis of Indigenous mortality. The less than complete coverage of Indigenous deaths in these four jurisdictions means the aggregate analyses presented in this chapter, which compare Indigenous and non-Indigenous mortality statistics, will underestimate the actual mortality experience of Indigenous people.

Longer term mortality trends discussed in this chapter are based on an analysis of data from three jurisdictions—Western Australia, South Australia and the Northern Territory—the only jurisdictions with 15 years of reasonable coverage of Indigenous deaths registrations. Indigenous mortality rates have been compared with the mortality rates of 'other Australians' (which include deaths of non-Indigenous people and deaths for which Indigenous status was not stated). This is due to a late inclusion of a 'not stated' category of Indigenous status in 1998, before which 'not stated' responses were included with non-Indigenous deaths.

Year of registration or year of occurrence

Deaths can be analysed by year of occurrence of death or by year of registration of death. While the majority of deaths are registered in the year they occur, some of those registered in a given year occurred in previous years, and some which occurred in one year are not registered until subsequent years. Delays in registration can occur when deaths are subject to the findings of a coroner and are more common when the death occurs in a remote area. Late registrations are more common among deaths of Indigenous than non-Indigenous people. For example, in Queensland, Western Australia, South Australia and the Northern Territory for deaths of non-Indigenous Australians that occurred in 2004, 95% were registered in 2004 while 5% were registered in 2005. For Indigenous deaths, the corresponding figures were 88% in 2004 and 12% in 2005. The proportion of deaths that occurred and were registered in the same year has

Year of registration or year of occurrence continued

remained relatively stable over the period 1991–2004 for both Indigenous and other Australians (table 9.2).

While late registrations are more common among Indigenous Australians, table 9.2 shows that there is little difference between the number of deaths registered in a given year and the number of deaths that occurred in the same year for both Indigenous and other Australians. This is because for each year, the number of deaths that are not registered in the year they occur are offset by deaths that occurred in previous years but were registered late. This indicates that analysis of mortality data using year of registration of death will produce similar results to analysis using year of occurrence of death for the period of interest.

The analyses of deaths reported in this chapter are based on year of registration of death for the period 2001–2005 (1991 to 2005 for trends analysis). Year of registration of death was used so that deaths for the most recent year of data available can be included in the analysis and to be consistent with the publication of mortality statistics by the ABS. It should be noted that the 2005 edition of this publication 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. Rates published in this report may therefore differ slightly from those published in the previous edition for comparable years of data.

9.2 PROPORTION OF DEATHS THAT WERE REGISTERED IN THE YEAR THEY OCCURRED(a)—1991–2004

	Indigenous	*Other*
	%	%
1991	84.5	95.3
1992	85.3	94.7
1993	85.9	95.0
1994	84.7	95.4
1995	86.8	94.3
1996	80.4	95.4
1997	84.3	95.1
1998	85.1	95.0
1999	83.3	95.0
2000	84.7	94.9
2001	84.2	94.4
2002	85.8	95.0
2003	86.2	95.3
2004	88.3	95.1

(a) Data for Qld, WA, SA and NT combined. Deaths are based on year of registration of death.

Source: AIHW National Mortality Database

Cause of death statistics in this chapter are based on the tenth revision of the International Classification of Diseases (ICD-10). Mortality coding using ICD-10 was introduced in Australia for deaths registered from 1 January 1997. All rates and ratios derived in this chapter are calculated using the ABS 2001 Census-based experimental Indigenous population projections (low series).

LIFE EXPECTANCY

Life expectancy refers to the average number of years a person of a given age and sex can expect to live, if current age-sex-specific death rates continue to apply throughout his or her lifetime. A 'life table' is created from age-specific death rates that are used to calculate values which measure mortality, survivorship and life expectancy. To construct a life table, data on total population, births and deaths are needed, and the accuracy of the life table depends upon the completeness of these data. Because of uncertainty about the estimates of these components for Aboriginal and Torres Strait Islander peoples, indirect experimental methods are used to calculate life expectancies for the Indigenous population. These experimental life expectancies should only be used as an indicative summary measure of the level of mortality of the Indigenous population.

The estimates of life expectancy presented here are drawn from the Australian life tables, 1998–2000, and the Experimental Indigenous Abridged Life Tables, 1996–2001 (ABS 2006b) which use the Bhat method (ABS 2004b) to estimate life expectancy (see box 9.3 for information on the different methods used to estimate life expectancy). Life expectancy estimates are not available for the non-Indigenous population so estimates for the total Australian population have been used for comparison with estimates for the Indigenous population. The life expectancy estimates presented here are the same as those presented in the 2005 edition of this report. This is because at present, Indigenous life expectancy estimates have not been calculated for a later period than 1996–2001. Life expectancy estimates for the total Australian population are available for the period 2004–2006, however, for comparative purposes, 1998–2000 data for the Australian population have been used in this chapter.

In the period 1996–2001, the life expectancy at birth for Indigenous Australians was estimated to be 59 years for males and 65 years for females, compared with 77 years for all males and 82 years for all females for the period 1998–2000; a difference of approximately 17 years for both males and females.

9.3 METHODS USED TO CALCULATE LIFE EXPECTANCY

A number of different indirect methods have been used to estimate life expectancy of Indigenous Australians. All of these methods rely on different assumptions and subjective expert opinions (ABS 2004b) and there is no direct way of verifying the accuracy of the estimates derived from these methods. More work needs to be done on such estimates as more robust methods become available and data quality improves. Below is a description of the methods used.

Preston and Hill (1980)

The ABS first used a method proposed by Preston and Hill (1980) to estimate the completeness of recording of deaths of Indigenous Australians in the national mortality database relative to the number of Indigenous Australians recorded in the five-yearly Census of Population and Housing. The Preston-Hill method yields correction factors which adjust the counts of deaths recorded during the intercensal period so that the census population estimates at each end of the period are consistent with corrected intercensal death registration. In this method, net internal migration (by age, sex and state/territory) and net overseas migration (by age and sex) are assumed to be nil, and

LIFE EXPECTANCY *continued*

no adjustment is made for change in the extent to which people were identified as Indigenous in the census. In a review of the performance of the method, the ABS determined that the method was not appropriate for application to the Indigenous population because the method only allows for stable populations (ABS 2004a) which is not the case for the Indigenous population. The 1980 Preston-Hill method has been used extensively worldwide and was used by the ABS to estimate Indigenous mortality for the period 1991–1996. The ABS application of the Preston-Hill method produced estimates of life expectancies at birth of 57 years for Indigenous males and 62 years for Indigenous females for 1991–1996. Indigenous life expectancy estimates using the Preston-Hill method have also been calculated for the periods 1997–99 and 1999–2001, resulting in an estimated life expectancy for Indigenous males of 56 years and for Indigenous females of 62 years for both periods. These estimates are around 20 years lower than the life expectancy estimates derived for all Australian males and females.

Bhat (2002)

Following the 2001 census, the ABS shifted to a method proposed by Bhat (2002) that offers improvement over other indirect methods used earlier by the ABS to estimate life expectancy from incomplete data. The Bhat method has advantages over other methods in that it allows for an adjustment for 'migration' which is used to allow for the 'unexplained growth' of the Indigenous population which is attributed to a changing propensity to identify as Indigenous between censuses. However it should be noted that this method was primarily developed for population estimation and requires information about the rate of natural increase of the population and remains experimental. The application of the Bhat method, assuming 2.0% growth per annum during the 1996–2001 period, produced life expectancy estimates of 59 for Indigenous males and 65 years for Indigenous females, about 17 years lower than those estimated for all Australian males and females.

General Growth Balance Method (GGB) (2007)

The GGB method is similar to the Bhat method however it treats change in identification as change in census coverage without an additional adjustment for 'identification migration', i.e. assuming a population growth rate. The GGB method was used by the University of Queensland in the 2007 report 'The burden of disease and injury in Indigenous Australians, 2003'. This report estimated life expectancy at birth for Indigenous Australians around 13 years lower than that of the total Australian population (64 years for Indigenous males and 69 years for Indigenous females compared with 77 years for all males and 82 years for all females.)

DEATHS 2001–2005

For the period 2001–2005, there were 7,544 registered deaths identified as Indigenous (4,329 males and 3,215 females) for people reported to have been usual residents of Queensland, Western Australia, South Australia and the Northern Territory. These deaths accounted for 3.2% of all deaths of usual residents of these four jurisdictions.

DEATHS 2001–2005 *continued*

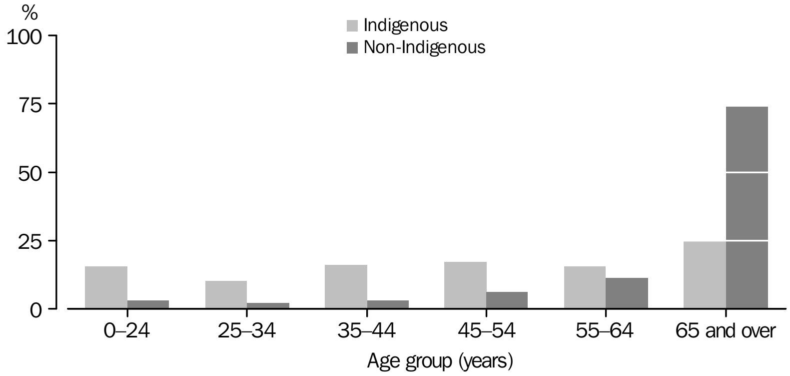
Age at death

In Queensland, Western Australia, South Australia and the Northern Territory combined, approximately 75% of Indigenous males and 65% of Indigenous females died before the age of 65 years. This is in stark contrast to the non-Indigenous population where only 26% of males and 16% of females died aged less than 65 years (graphs 9.4 and 9.5).

Infant deaths (deaths under one year) contribute to the younger age at death of the Indigenous population. For the period 2001–2005, Indigenous infant deaths represented 6.4% of total Indigenous male deaths and 5.7% of total Indigenous female deaths compared with 0.9% and 0.8% of the total for non-Indigenous male and female infant deaths.

The 35–44 year age group accounted for 16% of total Indigenous male deaths compared with only 3% of total non-Indigenous male deaths, while the 45–54 year age group accounted for 15% of Indigenous female deaths compared with 4% of total non-Indigenous female deaths.

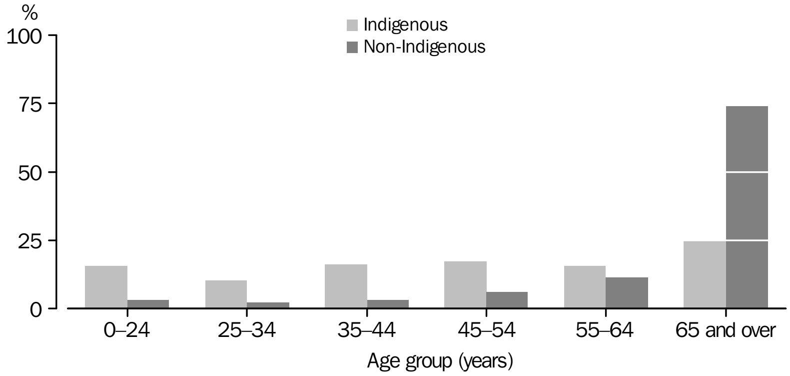
9.4 MALE DEATHS(a), by Indigenous status and age—2001–2005



(a) Data for Qld, WA, SA and NT combined. Deaths are based on year of registration of death.

Source: AIHW National Mortality Database

9.5 FEMALE DEATHS(a), by Indigenous status and age—2001–2005



(a) Data for Qld, WA, SA and NT combined. Deaths are based on year of registration of death.

Source: AIHW National Mortality Database

Age at death continued

For the four jurisdictions included in this analysis, Indigenous Australians were over-represented in mortality statistics, in almost every age group. Table 9.6 shows Indigenous deaths as a proportion of total deaths by age group in 2001–2005 and their respective proportions of the total population for the same period.

9.6 DEATHS OF INDIGENOUS PERSONS(a)—2001–2005

	NUMBER OF INDIGENOUS DEATHS		INDIGENOUS DEATHS AS A PROPORTION OF TOTAL DEATHS (%)		INDIGENOUS PERSONS AS A PROPORTION OF TOTAL POPULATION (%)(b)	
Age group (years)	*Males*	*Females*	*Males*	*Females*	*Males*	*Females*
Less than 1	277	182	20.3	17.2	7.7	7.7
1–4	54	50	16.2	21.3	7.3	7.5
5–14	54	40	13.5	14.5	6.9	6.8
15–24	285	130	12.4	15.3	5.1	5.4
25–34	452	218	13.8	17.4	4.1	4.4
35–44	695	435	15.0	16.6	3.0	3.3
45–54	742	498	9.1	10.0	2.1	2.3
55–64	671	523	4.6	6.4	1.4	1.6
65 and over	1 075	1 122	1.2	1.2	0.8	0.9
Total(c)	**4 329**	**3 215**	**3.5**	**2.8**	**3.8**	**3.9**

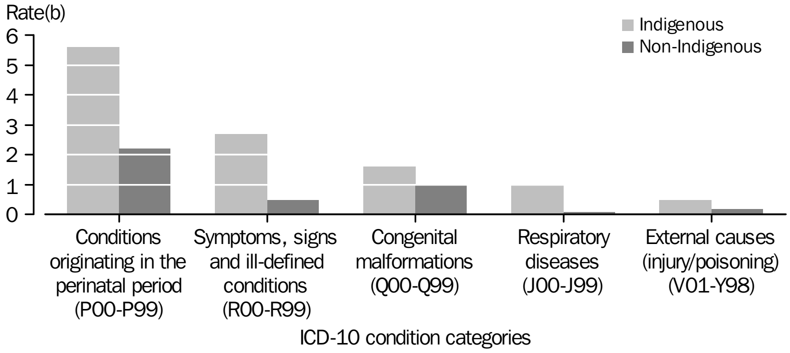
(a) Data for Qld, WA, SA and NT combined. Deaths are based on year of registration of death.
(b) Estimates of the Indigenous population for 2001–2005 are the Indigenous population projections, based on the 2001 Census of Population and Housing.
(c) Includes deaths where age was not stated.
Source: AIHW National Mortality Database

Infant deaths

Infant deaths are deaths of live-born children which occur before they reach their first birthday. In 2001–2005, for Indigenous infants in Queensland, Western Australia, South Australia and the Northern Territory, the mortality rate for males and females was two to three times that for non-Indigenous male and female infants (table 9.8). Almost half (44%) of total infant deaths were due to conditions originating in the perinatal period—conditions related to the foetus and newborn affected by complications of pregnancy, labour and delivery, and disorders related to length of gestation and foetal growth. Symptoms, signs and ill-defined conditions, including Sudden Infant Death Syndrome (SIDS), were responsible for 22% of infant deaths, and congenital malformations accounted for 12%. For respiratory diseases and external causes (mainly accidents), which accounted for a further 8% and 4% of infant deaths, the mortality rates for Indigenous infants were 11 and 4 times those of non-Indigenous infants respectively (graph 9.7). Infectious and parasitic diseases were the sixth most common cause of death among Indigenous infants accounting for almost 4% of infant deaths. Indigenous infants died from infectious and parasitic diseases at around five times the rate of non-Indigenous infants. See Chapter 6 for further information on infant deaths.

Infant deaths continued

9.7 MAIN CAUSES OF INFANT DEATHS(a), by Indigenous status—2001–2005



(a) Data for Qld, WA, SA and NT combined. Deaths are based on year of registration of death.
(b) Per 1,000 live births.

Source: AIHW National Mortality Database

Age-specific death rates

In Queensland, Western Australia, South Australia and the Northern Territory combined, age-specific death rates for Indigenous males and females across all age groups were higher than the rates for non-Indigenous males and females (table 9.8). The age-specific death rates for Indigenous Australians were at least twice those experienced by the non-Indigenous population in all age groups except those aged 65 years and over. The greatest differences occurred among those in the 35–44 and 45–54 year age groups, where the rates for Indigenous males and females were five to six times those recorded for non-Indigenous males and females (table 9.8).

9.8 AGE-SPECIFIC DEATH RATES(a)(b), by Indigenous status—2001–2005

	MALES			FEMALES		
Age group (years)	*Indigenous rate*	*Non-Indigenous rate*	*Rate ratio(c)*	*Indigenous rate*	*Non-Indigenous rate*	*Rate ratio(c)*
Less than 1(d)	14.3	4.6	3.1	9.5	3.9	2.4
1–4	74.1	29.2	2.5	70.8	20.4	3.5
5–14	29.3	13.6	2.2	23.1	9.7	2.4
15–24	207.0	76.4	2.7	95.0	28.5	3.3
25–34	415.5	106.6	3.9	185.9	39.8	4.7
35–44	824.2	141.5	5.8	468.8	77.4	6.1
45–54	1 384.7	285.3	4.9	847.8	173.3	4.9
55–64	2 530.7	715.0	3.5	1 711.7	411.6	4.2
65 and over	6 251.1	4 319.9	1.4	4 961.3	3 687.0	1.3

(a) Data for Qld, WA, SA and NT combined. Deaths are based on year of occurrence of death for 1999–2002 and year of registration of death for 2003.
(b) Per 100,000 population.
(c) Rate for Indigenous Australians divided by the rate for non-Indigenous Australians.
(d) Per 1,000 live births.

Source: AIHW National Mortality Database

YEARS OF LIFE LOST (YLL)

Years of life lost is an indicator of premature mortality and is calculated by multiplying the number of deaths by the standard life expectancy (in years). A study on the burden of disease and injury in Aboriginal and Torres Strait Islander peoples found that in 2003, there were an estimated 51,475 years of life lost due to disease and injury for the Indigenous population. This represented around 4% of the total years of life lost due to disease and injury for the total Australian population (Begg et al 2007).

Cardiovascular disease was the leading cause of years of life lost (YLL) due to disease and injury for Indigenous Australians, responsible for 12,573 YLL, which accounted for around one-quarter (24%) of total YLL among Aboriginal and Torres Strait Islander peoples. Cancer was the next leading cause of YLL responsible for 14% of YLL, followed by unintentional injuries (11%), intentional injuries (9%) and diabetes (7%) (table 9.9).

9.9 YEARS OF LIFE LOST (YLL) FOR THE LEADING DISEASE AND INJURY CATEGORIES, Indigenous persons—2003

	YLL	*Percentage of total*
Cause	no.	%
Cardiovascular disease	12 573	24.4
Cancers	7 351	14.3
Unintentional injuries	5 524	10.7
Intentional injuries	4 774	9.3
Diabetes	3 552	6.9
Chronic respiratory disease	2 771	5.4
Mental disorders	2 525	4.9
Neonatal causes	2 379	4.6
Infectious and parasitic diseases	2 114	4.1
Nervous system and sense organ disorders	1 485	2.9
Other	6 427	12.5
All causes	**51 475**	**100.0**

Source: 2007 Vos et al

Ischaemic heart disease was the leading specific cause of YLL due to disability and injury for both Indigenous males and females, accounting for 5,026 (17%) YLL for Indigenous males and 2,995 (13%) YLL for Indigenous females. Suicide and road traffic accidents were the second and third leading specific causes of YLL among Indigenous males, accounting for 2,628 (9%) and 1,786 (6%) of YLL. Type 2 Diabetes and road traffic accidents were the second and third leading causes of YLL among Indigenous females, accounting for 1,735 (8%) and 1,008 (5%) of YLL.

The Burden of Disease study also examined the health gap between Indigenous Australians and the general population. While 54% of the total burden of disease for Indigenous Australians (which included the burden of disease arising from disability), was due to mortality, two-thirds of the Indigenous health gap was due to mortality. This means that the mortality gap was considerably greater than the disability gap, and in part reflects a higher case fatality: when sick Indigenous Australians are more likely to die (Vos et al 2007).

CAUSE OF DEATH

In 2001–2005, the five leading causes of death for Aboriginal and Torres Strait Islander peoples resident in Queensland, Western Australia, South Australia and the Northern Territory were diseases of the circulatory system, external causes of morbidity and mortality (predominantly accidents, intentional self-harm and assault), neoplasms (cancer), endocrine, metabolic and nutritional disorders (mainly diabetes), and respiratory diseases (table 9.10). Deaths due to these causes accounted for around three-quarters of all Indigenous deaths. Circulatory diseases and neoplasms accounted for a higher proportion of all non-Indigenous deaths than Indigenous deaths (37% and 30% compared with 27% and 15% respectively). In contrast, external causes and endocrine, metabolic and nutritional disorders accounted for a higher proportion of all Indigenous deaths than non-Indigenous deaths (16% and 9% compared with 6% and 4% respectively).

Standardised mortality ratios (SMRs) have been used in this section to compare death rates between the Indigenous and non-Indigenous populations. The SMR is the ratio between the observed number of deaths in the Indigenous population and the expected number of deaths that would have occurred if the Indigenous population experienced the same age-specific death rates as the non-Indigenous population. If the SMR is greater than 1.0, there were more deaths than expected; if the ratio is less than 1.0, there were fewer deaths than expected.

While the overall undercoverage of the Indigenous deaths in the four jurisdictions used for this analysis may understate the SMRs for all causes and for all people, differential undercoverage by sex and by cause may also affect detailed analysis of SMRs.

In 2001–2005, for both Indigenous males and females, there were almost three times as many deaths from all causes as would be expected, based on the rates for non-Indigenous Australians. The highest SMRs for Indigenous males and females were for endocrine, nutritional and metabolic diseases, caused mainly by diabetes mellitus. The rates for Indigenous males and females for these diseases were 8 and 10 times the rates for non-Indigenous males and females (table 9.10). There were also large disparities between Indigenous and non-Indigenous mortality rates for diseases of the digestive system, diseases of the genitourinary system, symptoms, signs and abnormal findings and certain infectious and parasitic diseases (SMRs of between 5 and 6 for males and females). Indigenous males were six times as likely, and Indigenous females three times as likely, to die from mental and behavioural disorders as non-Indigenous males and females respectively.

9.10 INDIGENOUS DEATHS(a), main causes—2001–2005

	MALES			FEMALES			PERCENTAGE OF TOTAL DEATHS	
	Observed deaths	*Expected deaths*	*SMR*(b)	*Observed deaths*	*Expected deaths*	*SMR*(b)	*Indigenous*	*Non-Indigenous*
Diseases of the circulatory system (I00–I99)	1 150	360	3.2	856	320	2.7	26.6	36.8
External causes (V01–Y98)	851	292	2.9	369	105	3.5	16.2	6.3
Neoplasms (C00–D48)	592	406	1.5	547	351	1.6	15.1	29.7
Endocrine, nutritional and metabolic diseases (E00–E90)	315	42	7.5	367	36	10.1	9.0	3.5
Diabetes (E10–E14)	281	26	10.8	319	22	14.5	8.0	2.4
Diseases of the respiratory system (J00–J99)	378	88	4.3	281	77	3.6	8.7	8.7
Diseases of the digestive system (K00–K93)	251	43	5.8	182	36	5.1	5.7	3.3
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00–R99)	169	28	6.0	85	19	4.6	3.4	0.7
Certain conditions originating in the perinatal period (P00–P96)	126	44	2.9	82	36	2.3	2.8	0.4
Diseases of the genitourinary system (N00–N99)	79	16	4.8	119	20	6.0	2.6	2.2
Diseases of the nervous system (G00–G99)	122	42	2.9	69	44	1.6	2.5	3.3
Certain infectious and parasitic diseases (A00–B99)	102	20	5.1	72	14	5.0	2.3	1.2
Mental and behavioural disorders (F00–F99)	101	17	5.8	72	23	3.1	2.3	2.3
All causes	**4 329**	**1 438**	**3.0**	**3 215**	**1 123**	**2.9**	**100.0**	**100.0**

(a) Data for Qld, WA, SA and NT combined. Deaths are based on year of registration of death. Disease groupings are based on ICD-10 chapter.

(b) Standardised mortality ratio is the observed Indigenous deaths divided by expected Indigenous deaths, based on the age, sex and cause-specific rates for non-Indigenous persons.

Source: AIHW National Mortality Database

CAUSE OF DEATH *continued*

In the age groups in which differences in death rates between Indigenous and non-Indigenous populations are greatest (35–54 years), ischaemic heart disease, diseases of the liver (i.e. alcoholic liver disease and cirrhosis of the liver), diabetes and other forms of heart disease are major causes of death (table 9.11). Indigenous males and females aged 35–54 years died from diabetes at 23 and 37 times the rates, and from influenza and pneumonia at 18 and 27 times the rates, of non-Indigenous males and females of the same age for these conditions. There were also large discrepancies between Indigenous and non-Indigenous mortality rates for assault (ratios of 16 and 12 for males and females respectively); chronic lower respiratory diseases (ratios of 14 and 12); mental and behavioural disorders due to psychoactive substance use (ratios of 12 and 19) and pedestrian injured in transport accident (ratios of 18 and 67). While some of these rates have been derived from a relatively small number of deaths—for example assault and pedestrian injured in transport accident among Indigenous women (17 and 23 deaths respectively)—differences between the two population groups are still striking.

9.11 AGE-SPECIFIC DEATH RATES, MAIN CAUSES(a), Persons aged 35–54 years—2001–2005

	INDIGENOUS(b)		NON-INDIGENOUS(b)		RATE RATIO(c)	
	Males	*Females*	*Males*	*Females*	*Males*	*Females*
Ischaemic heart disease (I20–I25)	227.7	87.1	32.3	6.1	7.0	14.2
Disease of the liver (K70–K77)	75.4	50.8	8.8	3.6	8.6	14.0
Diabetes (E10–E14)	74.7	51.5	3.2	1.4	23.1	37.2
Other selected forms of heart disease (I30–I52)	45.7	21.8	5.6	2.0	8.1	10.8
Malignant neoplasm of the digestive organs (C15–C26)	40.6	19.1	20.1	12.3	2.0	1.6
Chronic lower respiratory disease (J40–J47)	32.6	25.1	2.4	2.1	13.6	11.7
Intentional self harm (X60–X84)	46.4	9.9	26.1	7.1	1.8	1.4
Malignant neoplasm of the respiratory and intrathoracic organs (C30–C39)	31.9	21.1	12.2	8.1	2.6	2.6
Cerebrovascular disease (I60–I69)	28.3	24.4	5.5	4.7	5.1	5.2
Influenza and pneumonia (J10–J18)	30.5	21.1	1.7	0.8	18.4	26.5
Pedestrian injured in a transport accident (V01–V09)	23.9	15.2	1.4	0.2	17.7	(d)66.7
Ill-defined and unknown causes of mortality (R95–R99)	30.5	8.6	4.0	2.2	7.6	3.8
Car occupant injured in a transport accident (V40–V49)	23.2	11.9	5.7	2.9	4.1	4.0
Mental and behavioural disorders due to psychoactive substance use (F10–F19)	24.7	9.9	2.1	0.5	11.8	19.3
Assault (X85–Y09)	23.2	11.2	1.5	0.9	15.6	12.3

(a) Data for Qld, WA, SA and NT combined. Deaths are based on year of year of registration of death. Disease groupings are based on 3-digit groupings of ICD-10.

(b) Age-specific rate per 100,000 population aged 35–54 years.

(c) Rate for Indigenous persons divided by the rate for non-Indigenous persons.

(d) The confidence intervals for this ratio are quite large (46.2–96.3) due to the small number of deaths recorded.

Source: AIHW National Mortality Database

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 deaths in the Indigenous population.

Over the period 2001–2005 there were 2,891 excess deaths among Indigenous males and 2,092 excess deaths among Indigenous females in Queensland, Western Australia, South Australia and the Northern Territory. Diseases of the circulatory system accounted for the highest proportion of excess deaths (2,006 deaths in total, 1,326 of which were excess deaths). Other major causes of excess deaths were external causes, endocrine, nutritional and metabolic diseases and diseases of the respiratory system. Deaths due to these causes were responsible for around two-thirds of excess deaths among Indigenous males and females (2,561 deaths in total, 1,921 of which were excess deaths) (table 9.12).

9.12 MAIN CAUSES OF EXCESS INDIGENOUS DEATHS(a)(b)—2001–2005

	NUMBER		PROPORTION (%)	
	Indigenous males	*Indigenous females*	*Indigenous males*	*Indigenous females*
Diseases of the circulatory system (I00–I99)	790	536	27.3	25.6
External causes (V01–Y98)	559	264	19.3	12.6
Endocrine, nutritional and metabolic diseases (E00–E90)	273	331	9.5	15.8
Diseases of the respiratory system (J00–J99)	290	204	10.0	9.7
Neoplasms (C00–D48)	186	196	6.4	9.4
Diseases of the digestive system (K00–K93)	208	146	7.2	7.0
Symptoms, signs and abnormal clinical and laboratory findings, n.e.c. (R00–R99)	141	66	4.9	3.2
Diseases of the genitourinary system (N00–N99)	63	99	2.2	4.7
Certain infectious and parasitic diseases (A00–B99)	82	58	2.8	2.8
Mental and behavioural disorders (F00–F99)	84	49	2.9	2.3
Certain conditions originating in the perinatal period (P00–P96)	82	46	2.8	2.2
All other causes	134	97	4.6	4.6
All causes	**2 891**	**2 092**	**100.0**	**100.0**

(a) Excess deaths are equal to the observed Indigenous deaths minus expected Indigenous deaths (based on the 1999–2003 age, sex and cause-specific rates for non-Indigenous persons).

(b) Data for Qld, WA, SA and NT combined. Deaths are based on year of registration of death. Disease groupings are based on ICD-10 chapter.

Source: AIHW National Mortality Database

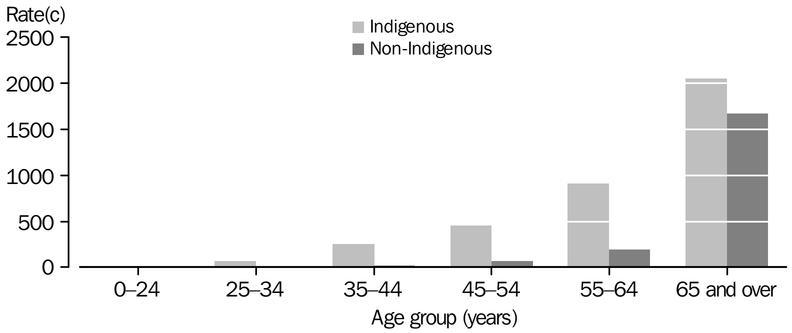
Diseases of the circulatory system

Diseases of the circulatory system were responsible for around 27% of total Indigenous male and female deaths for the period 2001–2005. In comparison, these diseases accounted for 34% of all male deaths and 40% of all female deaths for non-Indigenous Australians. Within circulatory system diseases, ischaemic heart diseases (heart attack, angina) were responsible for 64% of Indigenous male deaths and 49% of Indigenous female deaths, while cerebrovascular disease (stroke) accounted for 14% of male deaths and 19% of female deaths.

Compared with non-Indigenous Australians, Indigenous males and females experienced higher rates of mortality from diseases of the circulatory system in every age group. The greatest differences in age-specific death rates for males occurred in the age groups 25–34 and 35–44 years, with Indigenous males recording a rate 9 to 11 times the rate for non-Indigenous males (rates of around 69 and 251 per 100,000 for Indigenous males compared with 7 and 23 per 100,000 for non-Indigenous males). Indigenous females recorded rates of around 12 times the rates for non-Indigenous females for the 35–44 and 45–54 year age groups (rates of 32 and 122 per 100,000 for Indigenous females compared with 4 and 10 per 100,000 for non-Indigenous females) (graphs 9.13 and 9.14).

Diseases of the circulatory system continued

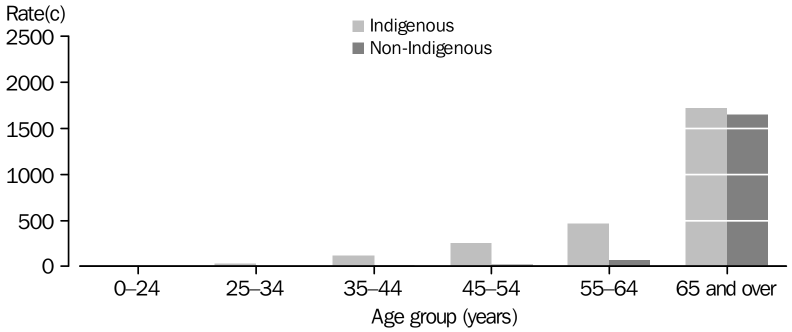
9.13 MALE DEATH RATES(a), CIRCULATORY DISEASES(b), by Indigenous status and age—2001–2005



(a) Data for Qld, WA. SA and NT combined. Deaths are based on year of registration of death.
(b) ICD-10 codes I00-I99.
(c) Per 100,000 population.

Source: AIHW National Mortality Database

9.14 FEMALE DEATH RATES(a), CIRCULATORY DISEASES(b), by Indigenous status and age—2001–2005



(a) Data for Qld, WA, SA and NT combined. Deaths are based on year of registration of death.
(b) ICD-10 codes I00-I99.
(c) Per 100,000 population.

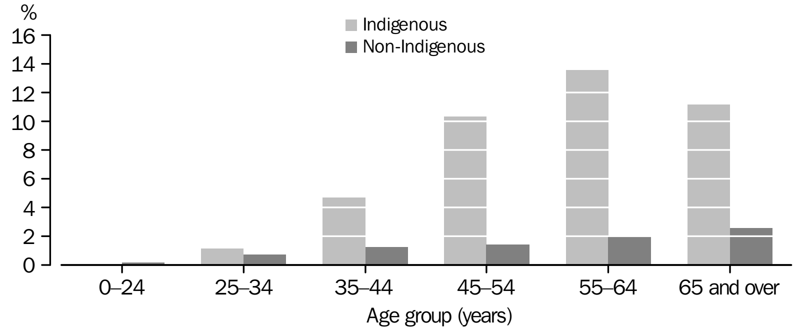
Source: AIHW National Mortality Database

Diabetes

The major cause of Indigenous deaths within the endocrine disease category is diabetes. Diabetes has a far greater impact on mortality for the Indigenous population than for the non-Indigenous population. For the period 2001–2005, diabetes was responsible for 8% of total Indigenous deaths compared with 2% of non-Indigenous deaths. For non-Indigenous Australians, the proportion of total deaths caused by diabetes was 1% to 3% for all age groups from 25–34 years and over. For Indigenous Australians, diabetes was responsible for 10% of deaths in the 45–54 years age group and for 14% of total Indigenous deaths in the 55–64 year age group (graph 9.15).

Diabetes continued

9.15 DIABETES DEATHS(a) AS A PROPORTION OF TOTAL DEATHS(b)(c), by Indigenous status and age—2001–2005

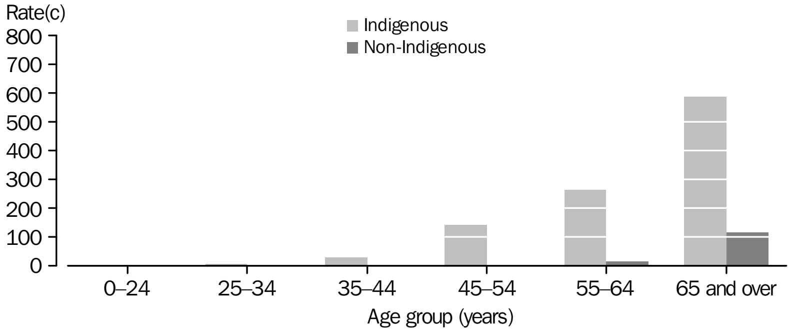


(a) Data for Qld, WA, SA and NT combined. Deaths are based on year of registration of death.
(b) ICD-10 codes E10-E14
(c) Underlying cause of death.

Source: AIHW National Mortality Database

The earlier onset of diabetes experienced by the Indigenous population is reflected in the differences in age-specific death rates. For the period 2001–2005, Indigenous males in the 35–44 and 45–54 years age groups experienced age-specific death rates 16 and 31 times, respectively, the corresponding rates for non-Indigenous males (rates of 31 and 144 per 100,000 for Indigenous males compared with 2 and 5 per 100,000 for non-Indigenous males) (graph 9.16). For the same age groups, the rates experienced by Indigenous females were 32 and 46 times the corresponding non-Indigenous female rates (graph 9.17) (rates of 29 and 87 per 100,000 for Indigenous females compared with 1 and 2 per 100,000 for non-Indigenous females). The markedly higher death rates from diabetes in the Indigenous population are partly a reflection of the earlier onset of diabetes in this population compared with the non-Indigenous population combined with a high prevalence of some of the risk factors associated with diabetes such as smoking, hypertension and obesity. Higher death rates from diabetes may also reflect poorer management of diabetes among Indigenous people, in particular those living in rural and remote areas (Wood & Patterson 1999).

9.16 MALE DEATH RATES(a), DIABETES(b), by Indigenous status and age—2001–2005

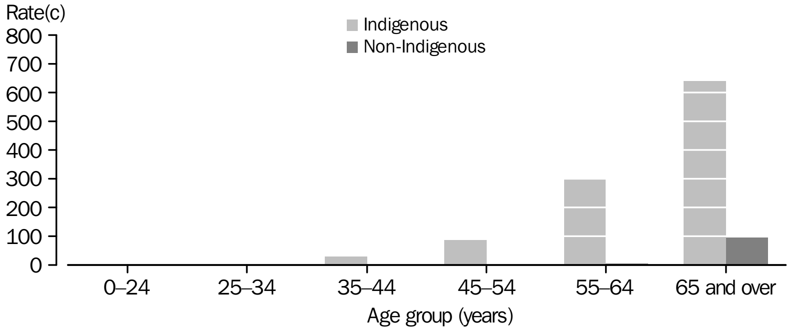


(a) Data for Qld, WA, SA and NT combined. Deaths are based on year of registration of death.
(b) ICD-10 codes E10-E14
(c) Per 100,000 population.

Source: AIHW National Mortality Database

Diabetes continued

9.17 FEMALE DEATH RATES(a), DIABETES(b), by Indigenous status and age—2001–2005



(a) Data for Qld, WA, SA and NT combined. Deaths are based on year of registration of death.
(b) ICD-10 codes E10-E14
(c) Per 100,000 population.

Source: AIHW National Mortality Database

Chronic kidney disease

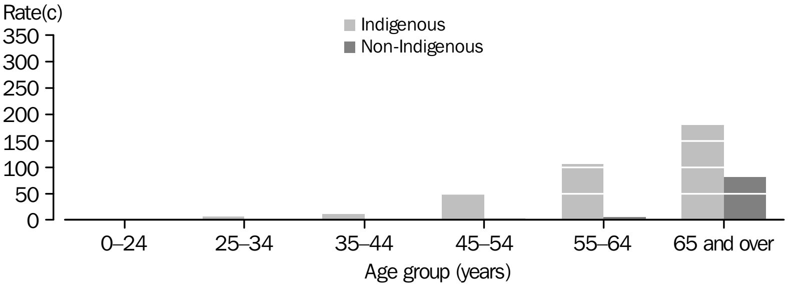
Chronic kidney disease includes diabetic nephropathy, hypertensive renal disease, glomerular disease and chronic renal failure and end-stage renal disease (ESRD). ESRD results when the kidneys cease functioning almost entirely, leading to a build up of waste products and excess water in the body causing progressively worse illness (AHMAC 2006). This is the last and most debilitating stage of chronic kidney disease in which dialysis or kidney transplantation is necessary to maintain life.

Chronic kidney disease was responsible for 2% and 5% of Indigenous male and female deaths respectively for the period 2001–2005. The overall death rates from chronic kidney disease were 7 and 9 times as high as the rates for non-Indigenous males and females respectively. Among Indigenous deaths from chronic kidney diseases, chronic renal failure accounted for 43% of male deaths and 37% of female deaths, while diabetic nephropathy accounted for 23% (males) and 25% (females) respectively.

Both Indigenous males and females experienced markedly higher rates of mortality from chronic kidney disease after the age of 25 years. The greatest differences in age-specific death rates for males occurred in the 45–54 year age group with Indigenous males recording a rate 31 times the rate for non-Indigenous males (50 compared with 2 deaths per 100,000) (graph 9.18). For females, the greatest difference in age-specific death rates also occurred in the 45–54 year age group with Indigenous females recording a rate 51 times that for non-Indigenous females (56 compared with 1 per 100,000) (graph 9.19).

Chronic kidney disease continued

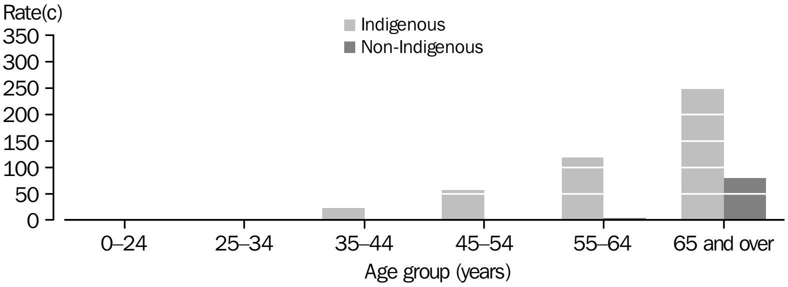
9.18 MALE DEATH RATES(a) CHRONIC KIDNEY DISEASE(b), by Indigenous status and age—2001–2005



(a) Data for Qld, WA, SA and NT combined. Deaths are based on year of registration of death.
(b) ICD-10 codes: B520, B650, D593, E102, E112, E122, E132, E142, E851, M300, M321, I12, I13, I150, I151, N00, N01, N02, N03, N04, N05, N06, N07, N11, N12, N14, N15, N18, N19, N25, N26, N27, N28, N391, N392, Q60, Q61, Q62, Q63, T824, T861.
(b) Per 100,000 population.

Source: AIHW National Mortality Database

9.19 FEMALE DEATH RATES(a), CHRONIC KIDNEY DISEASE(b), by Indigenous status and age—2001–2005



(a) Data for Qld, WA, SA and NT combined. Deaths are based on year of registration of death.
(b)ICD-10 codes: B520, B650, D593, E102, E112, E122, E132, E142, E851, M300, M310, M321, I12, I13, I150, I151, N00, N01, N02, N03, N04, N05, N06, N07, N11, N12, N14, N18, N19, N25, N26, N27, N28, N391, N392, Q60, Q61, Q62, Q63, T824, T861.
(c) Per 100,000 population.

Source: AIHW National Mortality Database

External causes of mortality

The quality of external causes of death data is affected by differences in the way that coronial deaths are reported across the various jurisdictions and in procedures around reportable deaths (i.e. deaths reported to a coroner). In addition, statistics on suicide deaths are dependent on coronial processes to determine the intent of a death (whether intentional self-harm, accidental, homicide or undetermined intent) as this information is required for the correct ICD-10 coding of cause of death. The timing of data compilation can therefore be affected by the length of coronial processes. For more information on data quality issues pertaining to external causes of death data, see ABS *Information Paper: External Causes of Death, Data Quality, 2005* (ABS 2007e).

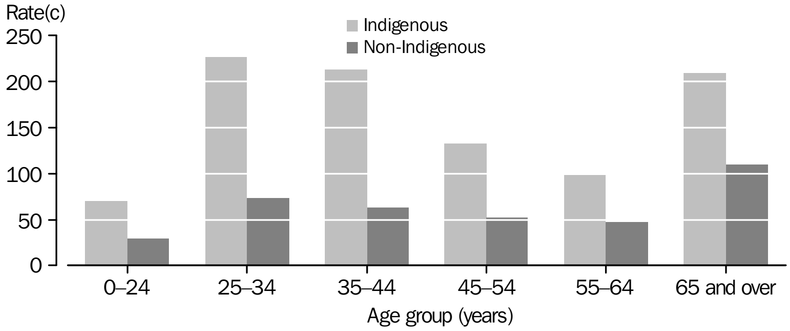
For the period 2001–2005, deaths due to external causes, such as accidents, intentional self-harm (suicide) and assault accounted for 16% of all Indigenous deaths, compared with 6% of all deaths among non-Indigenous Australians. For both populations, males accounted for around 70% of the total deaths due to external causes. For Indigenous males, the leading causes of death from external causes were intentional self-harm (35%), transport accidents (27%) and assault (8%), while for Indigenous females the

External causes of mortality continued

leading causes of death were transport accidents (30%), intentional self-harm (18%) and assault (16%).

Over the period 2001–2005, for most age groups the age-specific death rates for Indigenous males were two to three times the corresponding rates for non-Indigenous males (graph 9.20). Indigenous females experienced higher age-specific death rates than non-Indigenous females in every age group, with the greatest difference occurring in the 35–44 year age group. In this age group, Indigenous females recorded a rate almost five times that of non-Indigenous females (87 deaths per 100,000 compared with 18 per 100,000) (graph 9.21).

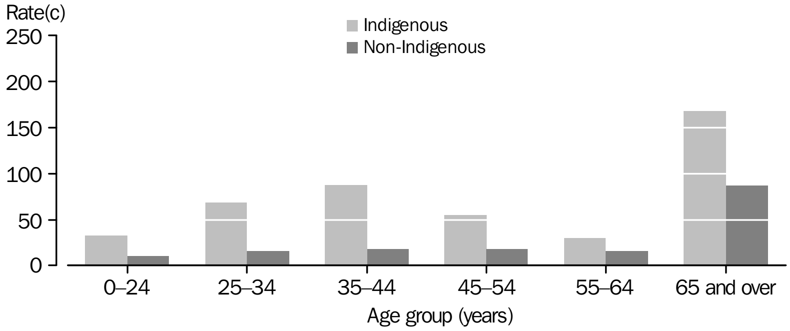
9.20 MALE DEATH RATES(a), EXTERNAL CAUSES OF MORBIDITY AND MORTALITY(b), by Indigenous status and age—2001–2005



(a) Data for Qld, WA, SA and NT combined. Deaths are based on year of registration of death.
(b) ICD-10 codes V01-Y98
(c) Per 100,000 population.

Source: AIHW National Mortality Database

9.21 FEMALE DEATH RATES(a), EXTERNAL CAUSES OF MORBIDITY AND MORTALITY(b), by Indigenous status and age—2001–2005



(a) Data for Qld, WA, SA and NT combined. Deaths are based on year of registration of death.
(b) ICD-10 codes V01-Y98
(c) Per 100,000 population.

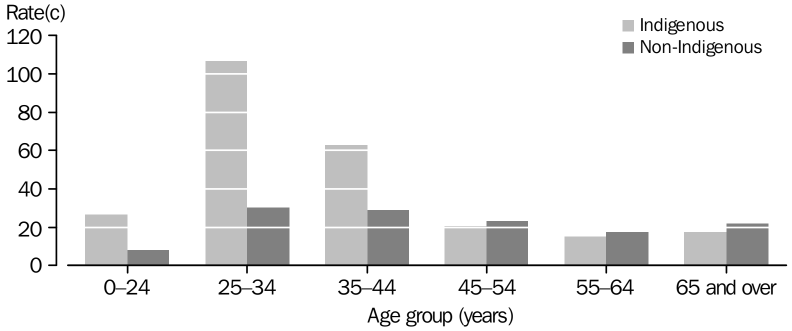
Source: AIHW National Mortality Database

External causes of mortality continued

INTENTIONAL SELF-HARM (SUICIDE)

Intentional self-harm was the leading cause of death from external causes for Indigenous males for the 2001–2005 year period. The suicide rate was almost three times that for non-Indigenous males, with the major differences occurring in younger age groups. For Indigenous males aged 0–24 years and 25–34 years, the age-specific rates were three and four times the corresponding age-specific rates for non-Indigenous males respectively (graph 9.22).

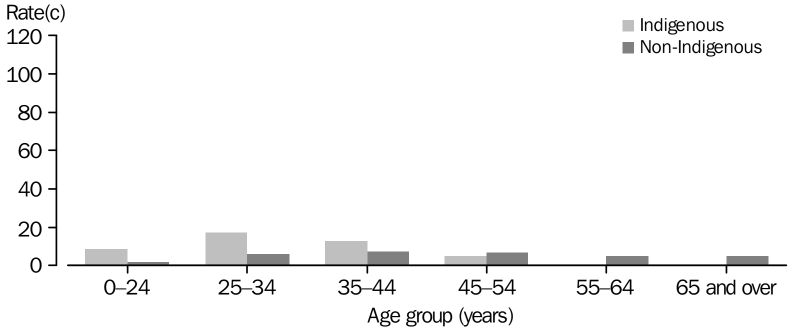
9.22 MALE DEATH RATES(a), INTENTIONAL SELF-HARM(b), by Indigenous status and age—2001–2005



(a) Data for Qld, WA, SA and NT combined. Deaths are based on year of registration of death.
(b) ICD-10 codes X60-X84.
(c) Per 100,000 population.
Source: AIHW National Mortality Database

The suicide rate for Indigenous females aged 0–24 years was five times the corresponding age-specific rates for non-Indigenous females. For age groups 45–54 years and over, age-specific rates for Indigenous females were similar to, or lower than the corresponding rates for non-Indigenous females (graph 9.23).

9.23 FEMALE DEATH RATES(a), INTENTIONAL SELF-HARM(b), by Indigenous status and age—2001–2005



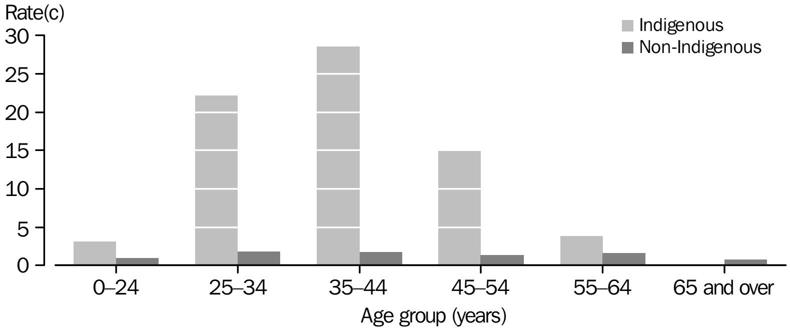
(a) Data for Qld, WA, SA and NT combined. Deaths are based on year of registration of death.
(b) ICD-10 codes X60-X84.
(c) Per 100,000 population.
Source: AIHW National Mortality Database

External causes of mortality continued

ASSAULT

Assault is a significant cause of death for both Indigenous males and females. Over the period 2001–2005, the Indigenous male age-specific death rates for ten year age groups from 25 through to 54 were between 11 and 17 times the corresponding age-specific rate for non-Indigenous males, while for females the rates ranged between 9 and 23 times the equivalent age-specific rates for non-Indigenous females (graphs 9.24 and 9.25).

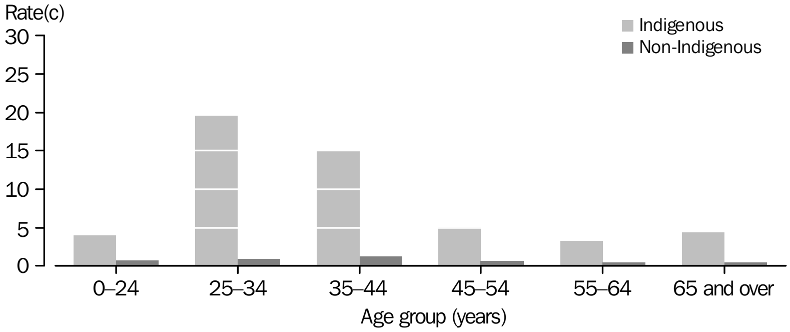
9.24 MALE DEATH RATES(a), ASSAULT(b), by Indigenous status and age—2001–2005



(a) Data for Qld, WA, SA and NT combined. Deaths are based on year of registration of death.
(b) ICD-10 codes X85-Y09.
(c) Per 100,000 population.

Source: AIHW National Mortality Database

9.25 FEMALE DEATH RATES(a), ASSAULT(b), by Indigenous status and age—2001–2005



(a) Data for Qld, WA, SA and NT combined. Deaths are based on year of registration of death.
(b) ICD-10 codes X85-Y09.
(c) Per 100,000 population.

Source: AIHW National Mortality Database

Neoplasms (cancer)

Neoplasms were responsible for 15% of total Indigenous deaths compared with 30% of total non-Indigenous deaths for the period 2001–2005. Nevertheless, Indigenous people are over-represented in deaths from cancer compared with non-Indigenous Australians (the SMR for males and females is 1.4 and 1.5 respectively). This apparent contradiction is due to high numbers of deaths for other causes in the Indigenous population as well as high mortality rates from neoplasms for Indigenous Australians in the middle age groups. The major causes of cancer deaths for Indigenous males were malignant neoplasms of the digestive organs (30% of total), malignant neoplasms of the respiratory and intrathoracic organs (30%), and malignant neoplasms of lip, oral cavity and pharynx (9%). For Indigenous females the major causes were malignant neoplasms of the respiratory and intrathoracic organs (21% of total), malignant neoplasms of the digestive organs (21%), and malignant neoplasms of the female genital organs (14%).

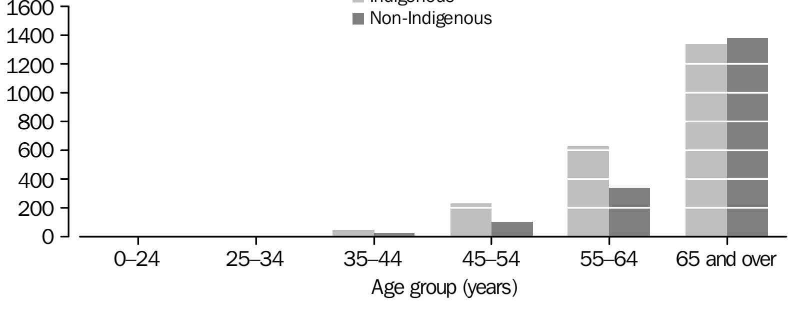
Indigenous people were over-represented in a number of cancer groups, including malignant neoplasms of the lip, oral cavity and pharynx (7% of total Indigenous cancer deaths compared with 2% of non-Indigenous cancer deaths), malignant neoplasms of the respiratory and intrathoracic organs (26% Indigenous, 20% non-Indigenous) and malignant neoplasms of the female genital organs, which includes cervical cancer (14% total Indigenous females, 9% non-Indigenous females). Most of these cancers are smoking-related which is a reflection of the higher prevalence of smoking among the Indigenous population. Cervical cancer is also preventable through Pap Smear screening.

Indigenous people were under-represented in other cancer groups, including melanoma and other malignant neoplasms of skin (1% of total Indigenous cancer deaths compared with 4% of non-Indigenous cancer deaths), and malignant neoplasms of male genital organs, which includes prostate cancer (4% of total Indigenous males, 13% of non-Indigenous males).

The 2001–2005 age-specific death rates for neoplasms indicate that for age groups 0–24 years and 65 years and over, the rates for Indigenous males and females were similar to those for non-Indigenous males and females. For the age groups 35–44, 45–54 and 55–64 years, the rates for Indigenous males and females were about twice the non-Indigenous rates (graphs 9.26 and 9.27).

Neoplasms (cancer) continued

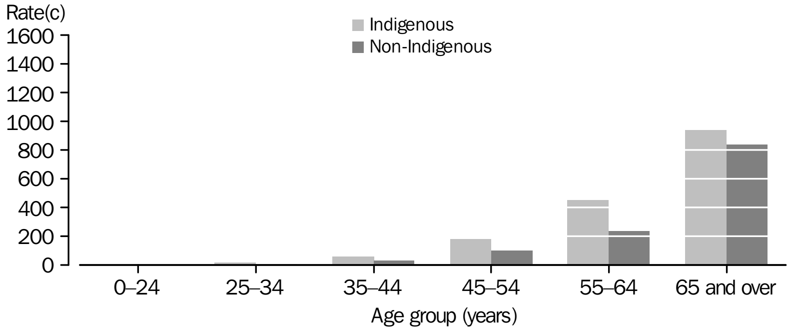
9.26 MALE DEATH RATES(a), NEOPLASMS(b), by Indigenous status and age—2001–2005



(a) Data for Qld, WA, SA and NT combined. Deaths are based on year of registration of death.
(b) ICD-10 codes C00-D48.
(c) Per 100,000 population.

Source: AIHW National Mortality Database

9.27 FEMALE DEATH RATES(a), NEOPLASMS(b), by Indigenous status and age—2001–2005



(a) Data for Qld, WA, SA, and NT combined. Deaths are based on year of registration of death.
(b) ICD-10 codes C00-D48.
(c) Per 100,000 population.

Source: AIHW National Mortality Database

Neoplasms (cancer) continued

Cancer mortality of the Northern Territory Indigenous population has been compared with that of the Australian population for 1977–2000 (Condon et al 2004). The cancer mortality rate among Indigenous people was higher than the total Australian rate for cancers of the liver, lungs, uterus, cervix and thyroid, and, in younger people only, for cancers of the oropharynx, oesophagus and pancreas. Northern Territory cancer mortality rates for Indigenous Australians were lower than the total Australian rates for renal cancers and melanoma, and, in older people only, for cancers of the prostate and bowel. Over the period 1977–2000, there were increases in death rates for cancers of the oropharynx, pancreas and lung; all three are smoking-related cancers.

A study by Condon et al (2005) compared people diagnosed with cancer in Western Australia and Tasmania with Indigenous people diagnosed with cancer in the Northern Territory over the period 1991–2001. The study found that Northern Territory Indigenous patients had poorer survival rates for most cancers and the relative risk of death was higher for cancers of the oropharynx, colon and rectum, pancreas, lung, uterus, cervix, vulva, lymphoma, breast and leukaemia. Survival rates are the proportion of all cancer patients alive at the beginning of the period who are still alive at the end of the period. It was concluded that for cancers of the liver, lung and oesophagus, higher Northern Territory Indigenous mortality rates were due mostly to higher cancer incidence rates. For other cancers that have better survival rates in all Australians, such as cancer of the thyroid and cervix, high Indigenous mortality rates were due to both higher incidence and lower survival.

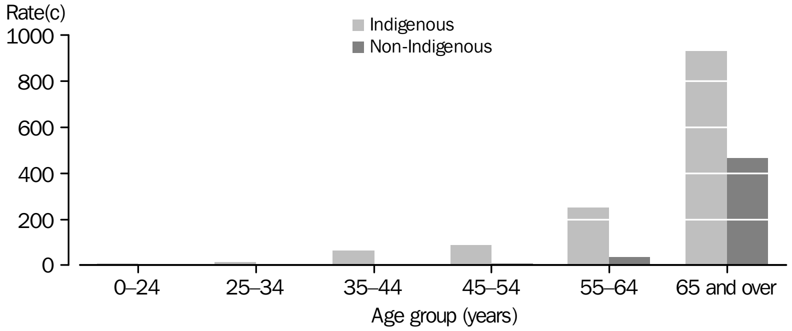
Respiratory diseases

Respiratory diseases, which include 'influenza' and 'pneumonia' and 'chronic lower respiratory diseases' (including asthma, bronchitis and emphysema), were responsible for 9% of total Indigenous deaths for the period 2001–2005. Like diabetes, respiratory diseases affect the Indigenous population at younger age groups than is the case for the non-Indigenous population, and this is reflected in the differences in age-specific death rates from these diseases. For the period 2001–2005, Indigenous males in the 35–44 years age group experienced age-specific death rates 22 times higher than the corresponding rate for non-Indigenous males (63 per 100,000 compared with 3 per 100,000), while the rate for Indigenous females in this age group was 20 times higher

Respiratory diseases continued

than that for the corresponding rate for non-Indigenous females (37 per 100,000 compared with 2 per 100,000) (graphs 9.28 and 9.29).

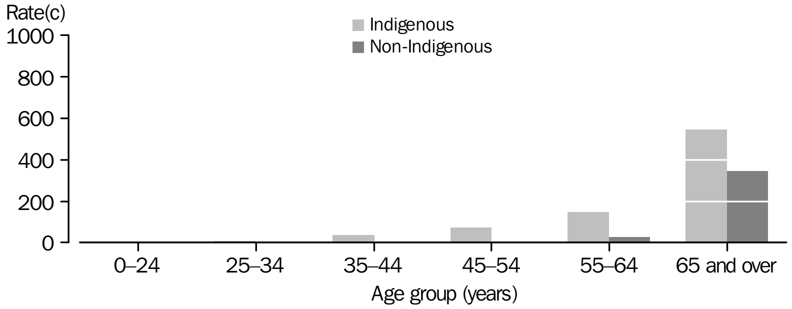
9.28 MALE DEATH RATES(a), RESPIRATORY DISEASES(b), by Indigenous status and age—2001–2005



(a) Data for Qld, WA, SA and NT combined. Deaths are based on year of registration of death.
(b) ICD-10 codes J00-J99.
(c) Per 100,000 population.

Source: AIHW National Mortality Database

9.29 FEMALE DEATH RATES(a), RESPIRATORY DISEASES(b), by Indigenous status and age—2001–2005



(a) Data for Qld, WA, SA and NT combined. Deaths are based on year of registration of death.
(b) ICD-10 codes J00-J99.
(c) Per 100,000 population.

Source: AIHW National Mortality Database

Multiple causes of death

Multiple causes of death include all causes and conditions reported on the death certificate. Since 1997, the ABS has coded all causes of death reported on each death certificate, including the underlying, immediate and other associated causes of death. While only one cause can be recorded as the underlying cause of death, many deaths due to chronic diseases, such as heart disease, kidney disease and diabetes often occur with concurrent or co-existing conditions. It is useful, therefore, to describe the extent to which any or all of these conditions have been reported. For deaths where the underlying cause was identified as an external cause, multiple causes include circumstances of injury, the nature of injury as well as any other conditions reported on the death certificate.

For the 7,544 Indigenous deaths in 2001–2005 in Queensland, Western Australia, South Australia and the Northern Territory, there was a total of 23,977 causes reported, an

Multiple causes of death continued

average of three causes per death. Deaths where only a single cause was reported occurred in 15% of total Indigenous male deaths and 12% of total Indigenous female deaths, less than for non-Indigenous males (22%) and females (24%) (table 9.30). Correspondingly, deaths where multiple causes were reported were more common among Indigenous people. For example, 27% of deaths among Indigenous males and 29% of deaths among Indigenous females recorded five or more causes of death, compared with 15% of non-Indigenous male and female deaths.

9.30 DEATHS(a), by number of causes reported, Indigenous status and sex—2001–2005

	NUMBER OF DEATHS		PROPORTION OF DEATHS (%)(b)	
	Males	*Females*	*Males*	*Females*
	no.	no.	%	%
Indigenous				
1	732	496	15.1	12.0
2	1 217	751	22.0	21.4
3	920	685	24.5	25.7
4	613	546	18.8	21.1
5 or more	847	737	26.9	28.6
Total(c)	**4 329**	**3 215**	**100.0**	**100.0**
Non-Indigenous				
1	26 681	25 558	22.4	23.6
2	31 596	27 499	26.5	25.4
3	25 727	23 838	21.6	22.0
4	17 087	15 526	14.3	14.4
5 or more	18 120	15 764	15.2	14.6
Total(c)	**119 211**	**108 185**	**100.0**	**100.0**

(a) Data for Qld, WA, SA and NT combined. Deaths are based on year of registration of death.

(b) Proportions have been indirectly age standardised using the age and sex specific proportions for non-Indigenous Australians. Components may not add to total when indirect age standardisation is used.

(c) Includes deaths for which no cause of death was recorded.

Source: AIHW National Mortality Database

Table 9.31 shows the relationships between a number of underlying causes of death and associated causes for Indigenous and non-Indigenous Australians. For deaths from ischaemic heart disease, diabetes was reported as an associated cause of death among Indigenous males and females at two to three times the rates of non-Indigenous males and females. For deaths from diabetes, renal failure was reported as an associated cause of death among Indigenous males and females at almost twice the rates of non-Indigenous males and females.

Multiple causes of death continued

9.31 UNDERLYING CAUSES OF DEATH(a)(b)(c), by selected associated causes and Indigenous status—2001–2005

	INDIGENOUS		NON-INDIGENOUS	
	Males	*Females*	*Males*	*Females*
	%	%	%	%
Neoplasms (C00–D48)				
Reported alone	26.5	27.4	39.4	43.7
Reported with				
Septicaemia	4.5	5.6	3.6	3.3
Diabetes mellitus	11.9	20.2	4.7	3.9
Ischaemic heart disease	10.2	12.8	8.5	5.8
Cerebrovascular diseases	4.8	3.2	3.7	3.6
Influenza and pneumonia	10.6	9.4	7.8	5.9
Renal failure	11.2	11.2	5.9	4.5
Chronic lower respiratory diseases	15.8	8.2	7.0	4.2
Diabetes mellitus (E10–D14)				
Reported alone	0.1	0.6	1.5	1.6
Reported with				
Septicaemia	13.5	9.9	7.2	7.7
Ischaemic heart disease	48.6	45.5	58.5	50.7
Cerebrovascular diseases	23.9	26.9	21.0	24.3
Influenza and pneumonia	11.6	12.0	8.8	7.5
Renal failure	37.5	39.1	24.0	23.3
Chronic lower respiratory diseases	6.0	3.8	7.5	4.9
Ischaemic heart disease (I20–I25)				
Reported alone	9.1	6.5	15.5	12.4
Reported with				
Diabetes mellitus	19.2	22.0	10.2	9.0
Cerebrovascular diseases	10.1	12.0	7.9	10.1
Influenza and pneumonia	9.1	5.6	4.8	5.2
Renal failure	14.9	26.0	10.8	9.6
Chronic lower respiratory diseases	19.9	12.7	11.5	7.6
Neoplasms	8.4	5.5	7.8	5.0
Renal failure (N17–N19)				
Reported alone	12.8	8.7	8.6	13.4
Reported with				
Septicaemia	21.3	18.4	13.0	10.1
Diabetes mellitus	10.9	12.5	9.1	9.3
Ischaemic heart disease	45.7	17.9	37.2	29.8
Cerebrovascular diseases	17.5	2.5	9.5	8.0
Influenza and pneumonia	11.7	11.0	15.1	14.2
Chronic lower respiratory diseases	11.5	7.9	10.5	5.4

(a) Data are for Qld, WA, SA and NT combined. Deaths based on year of occurrence of death for 1999-2002 and year of registration of death for 2003.

(b) Proportions have been indirectly age standardised using the age, sex and cause-specific proportions of non-Indigenous persons.

(c) Totals may add to more than 100% as more than one associated cause can be recorded for each death.

Source: AIHW National Mortality Database

Table 9.32 uses the recording of multiple causes of death to associate the category of external cause of death with the nature of the injury sustained by Indigenous people. For the period 2001–2005, of all deaths from transport accidents, 42% involved injuries to multiple body parts, 38% involved injuries to the head and 17% involved injuries to the chest. For deaths from accidents other than transport accidents, 33% were for 'other and unspecified effect', while injuries to the head involved 15% of deaths and poisoning

Multiple causes of death continued

involved 13% of deaths from these accidents. Most deaths from intentional self-harm were for 'other and unspecified effects' (which includes suffocation and drowning) (85%), while deaths from assault most commonly involved injuries to the head (27%) or to the chest (32%).

9.32 INDIGENOUS DEATHS DUE TO EXTERNAL CAUSES(a), by nature of injury—2001–2005

Nature of injury	*Transport accidents*	*Other accidents*	*Intentional self-harm*	*Assault*	*Total*
Injuries to the head	37.6	15.4	3.6	26.9	18.7
Injuries to the neck	7.7	3.6	6.0	11.9	6.3
Injuries to the thorax (chest)	17.2	1.8	1.9	32.1	9.6
Injuries to the abdomen, lower back, lumbar spine, pelvis, hip and thigh	10.9	11.1	1.4	20.1	8.9
Injuries involving multiple body parts	42.3	1.8	0.8	8.2	13.5
Injuries to unspecified part of trunk, limb or body region	10.4	4.8	0.5	13.4	5.8
Effects of foreign body entering through natural orifice	1.2	6.6	0.5	3.0	2.6
Burns and corrosions	0.9	5.7	0.8	—	2.0
Poisoning by drugs, medicaments and biological substances	—	13.3	3.6	—	4.8
Toxic effects of substances chiefly non-medicinal as to source	3.0	13.3	9.0	4.5	7.8
Other and unspecified effects of external causes	3.3	32.8	85.0	4.5	36.2
Other	4.1	7.8	1.4	8.2	6.9
Total deaths (V01–Y98)(b)	**338**	**332**	**366**	**134**	**1 220**

— nil or rounded to zero (including null cells)
(a) Data for Qld, WA, SA and NT combined. Deaths are based on year of registration of death.
(b) Components add to more than 100% as more than one injury can be recorded for each death from external causes.
Source: AIHW National Mortality Database

TRENDS IN MORTALITY

Analyses of trends in Indigenous mortality must be undertaken with care, because of the limited understanding of the ways in which changes in the recording of Indigenous status on death registrations have affected the recorded numbers of deaths.

Various statistical measures may be used to assess trends in mortality over time. A measure derived from comprehensive life tables—such as life expectancy at birth—is generally to be preferred as it takes into account age-sex specific death rates (and any shifts in those rates) across all ages. However, the construction of such a measure depends on the availability of an accurate series of age-sex specific population estimates together with an accurate series of age-sex specific counts of deaths. Recent work by the ABS has improved the demographic estimates available to support trend analyses, but those estimates are still regarded as experimental. Any discussion of Indigenous mortality trends should therefore be based on a range of analytical measures to provide a broader understanding of possible trends than can be obtained from any one measure.

This section examines changes over time in all-cause mortality rates, infant mortality rates, age at death and cause-specific mortality rates. Each of these measures has advantages and limitations for understanding trends. These are discussed in the relevant sections of the chapter.

The mortality patterns observed among Australia's Indigenous people are slow moving, and therefore trends are best detected over long periods of time. There is some evidence of more rapid progress in reducing mortality among the Indigenous population in other countries (Ring & Brown 2003). However, the potential for analysis of long-term trends in Indigenous mortality in Australia is greatly constrained by the availability of consistently accurate data over time. When assessed in terms of consistency over time in the number of recorded deaths identified as Indigenous, Western Australia, South

TRENDS IN MORTALITY *continued*

Australia and the Northern Territory are each judged to have had reasonably high and reasonably stable coverage of Indigenous deaths since around 1989, although the level of coverage is different in each of those jurisdictions. To test whether the observed trends would have differed if the analyses had been based on a different time window, several different time periods were tested. While the estimated rate of changes differed, there was no change in the direction of trends or their significance. As there is a consistent time series of population estimates from 1991, data for Western Australia, South Australia and the Northern Territory for the period 1991–2005 have been used for the analyses of Indigenous all-cause and infant mortality in this chapter. Due to changes in the coding of cause of death in 1997, the analyses of cause-specific mortality have been based on the period 1997–2005.

It is important to note, that in 2001, the Indigenous populations of Western Australia, South Australia and the Northern Territory together represented 32% of the total estimated Indigenous population in Australia (14% in Western Australia, 6% in South Australia and 12% in the Northern Territory). As a consequence, any statement about the possible detection of trends in mortality in these jurisdictions can give, at best, a partial account of trends in Indigenous mortality in Australia as a whole.

A further constraint in assessing time series trends in Indigenous mortality is the relatively small size of the Indigenous population which means that, even with the high mortality rates being experienced, the absolute numbers of deaths of Indigenous people recorded each year in each jurisdiction have, for statistical purposes, been quite small. Between 1991 and 2005, annual deaths for Western Australia, South Australia and the Northern Territory averaged 125, 373 and 415 respectively. Thus, the year to year fluctuations in the numbers of deaths can be quite large relative to any gradual underlying trend, and it is not meaningful to look at changes in mortality from one year to the next. Longer term changes have been analysed in several ways—examining the rate of change between the beginning and end year, and modelling trends throughout the period. A limitation of the first method is that the results are affected by the particular choice of the start and end year, whereas the trends modelling takes account of all the observations throughout the period. In this chapter, statements about the broad pace of change occurring over a number of years have been based on the fitted trends. When the trend has an estimated p-value of less than 0.05, it is characterised in subsequent text as 'significant'.

The mortality trends analyses presented in this chapter differ from analyses presented in the 2005 edition of this report. While the 2005 edition presented crude Indigenous mortality rates only, in this edition mortality rates for both Indigenous and other Australians are presented using age standardised data. While there is an ongoing debate as to whether standardisation is necessary or even appropriate for this type of analyses because trends may not be the same in all age groups, directly age standardised rates have been used to enable comparisons to be made between mortality trends for Indigenous and other Australians. Due to the inclusion of a 'not stated' category of Indigenous status in 1998 (before which 'not stated' responses were included with non-Indigenous deaths), Indigenous mortality rates have been compared with the mortality rates of 'Other' Australians (which include deaths of both non-Indigenous people and deaths for which Indigenous status was not stated).

TRENDS IN MORTALITY *continued*

While data about changes in mortality among Indigenous Australians are important in their own right, and can inform the design and evaluation of policy and interventions, it is also important to develop an understanding of how these changes in mortality compare with those for other Australians. Mortality rate ratios have therefore been added to this section since the 2005 edition to give an indication of whether the differences between mortality rates for Indigenous and other Australians are lessening over time. Any discussion of trends in Indigenous mortality should be read in the context of changes in mortality for other Australians over the same period.

All-cause mortality

The results presented in this section are for recorded deaths, and assume no change in the rate at which Indigenous status is reported on death registrations. The impact of such changes in recording on the robustness of the conclusions is provided in the later section 'The sensitivity of mortality trends to changes in Indigenous identification'.

Between 1991 and 2005, there was a significant decline in recorded mortality rates in Western Australia, for Indigenous Australians (table 9.33). Over this period there was an average yearly decline in recorded deaths of around 23 deaths per 100,000 population for Indigenous people—this is equivalent to a reduction in the death rate of around 20% during the period of analyses. Significant declines in mortality were observed for both Indigenous males and females in Western Australia. In the Northern Territory, there was a significant decline in recorded mortality rates for Indigenous females only. Over the period, there was an average yearly decline in recorded deaths of around 20 deaths per 100,000 population for Indigenous females—this is equivalent to a reduction in the death rate of around 15% between 1991 and 2005.

Over the same period, there were significant declines in recorded mortality rates for other Australians in Western Australia, South Australia and the Northern Territory. In Western Australia there was an average yearly decline in the rate of around 15 per 100,000 for other Australians (equivalent to a reduction in the death rate of around 26% during the period of analyses); in South Australia there was an average yearly decline in the rate of around 14 per 100,000 for other Australians (equivalent to a reduction in the death rate of around 25% during the period of analyses); and in the Northern Territory there was an average yearly decline in the rate of around 43 per 100,000 for other Australians (equivalent to a reduction in the death rate of around 49% during the period of analyses).

Despite declines in Indigenous mortality in recent years, the mortality rate ratio between Indigenous and other Australians for all causes of death increased significantly in South Australia and the Northern Territory over the period 1991 to 2005, while in Western Australia there was an increase in the rate ratio for males only.

9.33 AGE STANDARDISED DEATH RATES(a)(b), by Indigenous status—1991–2005

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
INDIGENOUS RATE PER 100,000															
WA															
Males	1 799	1 568	1 789	1 672	1 785	1 731	1 522	1 702	1 522	1 697	1 639	1 274	1 422	1 651	1 512
Females	1 523	1 299	1 466	1 517	1 394	1 197	1 095	1 109	1 043	1 183	861	1 155	899	1 389	1 293
Persons	1 661	1 433	1 628	1 597	1 583	1 452	1 299	1 387	1 270	1 419	1 211	1 206	1 139	1 518	1 397
SA															
Males	1 420	1 054	1 157	1 597	1 473	1 363	2 006	1 675	1 077	1 511	1 399	1 060	1 522	1 168	1 392
Females	1 077	956	1 058	1 055	984	967	848	1 013	1 095	1 233	1 041	893	780	1 218	841
Persons	1 255	1 010	1 105	1 301	1 210	1 164	1 355	1 294	1 111	1 354	1 219	970	1 121	1 197	1 096
NT															
Males	2 075	2 484	1 955	2 138	2 154	1 756	2 630	2 021	1 978	2 068	2 127	2 065	2 105	1 896	1 874
Females	1 831	1 634	1 499	1 604	1 473	1 166	1 818	1 490	1 601	1 688	1 341	1 449	1 311	1 477	1 321
Persons	1 947	1 985	1 697	1 839	1 776	1 460	2 091	1 725	1 786	1 866	1 695	1 731	1 666	1 675	1 574
OTHER RATE PER 100,000(c)															
WA															
Males	979	955	975	975	916	933	887	860	826	811	778	770	758	757	757
Females	629	623	641	625	604	616	600	576	556	548	548	552	540	532	525
Persons	783	769	789	779	743	757	729	704	678	667	653	651	640	634	631
SA															
Males	934	938	963	939	906	940	874	835	825	777	746	739	723	686	674
Females	598	617	622	608	596	616	593	560	556	526	526	544	526	501	484
Persons	746	758	773	753	734	760	719	684	678	639	627	635	617	587	573
NT															
Males	1 764	1 259	1 434	1 357	1 235	1 064	1 104	879	875	995	838	811	764	714	802
Females	722	952	801	839	768	701	648	717	644	495	610	514	565	450	494
Persons	1 231	1 117	1 104	1 100	1 002	893	879	814	774	762	738	676	673	596	666
RATE RATIO(d)															
WA															
Males	1.9	1.8	1.8	1.8	2.0	1.8	2.2	2.1	1.9	2.2	2.3	2.0	2.2	2.3	2.3
Females	2.0	1.8	1.8	1.9	1.8	1.5	1.8	1.8	1.9	2.1	1.6	1.9	1.6	2.3	2.0
Persons	2.2	2.0	2.0	2.1	2.1	1.9	2.2	2.1	2.1	2.4	2.1	2.1	2.1	2.5	2.4
SA															
Males	1.4	1.1	1.2	1.6	1.6	1.5	2.3	1.9	1.3	1.8	1.7	1.3	1.9	1.6	1.9
Females	1.3	1.2	1.3	1.3	1.3	1.3	1.2	1.4	1.6	1.8	1.5	1.3	1.2	2.0	1.3
Persons	1.6	1.3	1.4	1.6	1.6	1.6	1.9	1.8	1.6	2.0	1.8	1.5	1.7	1.9	1.8
NT															
Males	1.2	2.0	1.4	1.6	1.7	1.7	2.4	2.3	2.3	2.1	2.5	2.5	2.8	2.7	2.3
Females	1.5	1.5	1.4	1.5	1.5	1.3	2.1	1.8	2.1	2.2	1.8	2.1	1.9	2.5	2.0
Persons	1.6	1.8	1.5	1.7	1.8	1.6	2.4	2.1	2.3	2.4	2.3	2.6	2.5	2.8	2.4

(a) Deaths are based on year of registration of death.

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

(c) Other includes deaths of non-Indigenous people and those for whom Indigenous status was not stated.

(d) Mortality rate for Indigenous Australians divided by the mortality rate for other Australians.

Source: AIHW National Mortality Database

Infant mortality rates

Consistent with the all-cause mortality analyses, the results presented in this section are also for recorded deaths, and assume no change in the rate at which Indigenous status is reported on infant deaths registrations. Indigenous status on infant death registrations has generally been more comprehensively recorded than for deaths at older ages.

There was a significant decline in recorded mortality for Indigenous infants in Western Australia, South Australia and the Northern Territory during the period

Infant mortality rates continued

1991–2005 (table 9.34). The average yearly decline in infant mortality was around 0.8 deaths per 1,000 live births in each of the three jurisdictions—equivalent to a reduction in the infant mortality rate of around 41% in Western Australia, 58% in South Australia and 46% in the Northern Territory.

Over the same period, there was a significant decline in recorded infant mortality for other Australian infants in Western Australia and South Australia—an average yearly decline of around 0.2 deaths per 1,000 live births in Western Australia (equivalent to a reduction in the infant mortality rate of around 39%) and an average yearly decline of around 0.1 deaths per 1,000 live births in South Australia (equivalent to a reduction in the infant mortality rate of around 26%).

The relative difference between Indigenous and other infant mortality rates significantly declined over the period 1991–2005. The rate ratio, which is the Indigenous rate divided by the rate for other Australians, declined significantly in South Australia and the Northern Territory by an average of 0.1 per year in South Australia (from around 4.0 in 1991 to 2.0 in 2005) and by an average of 0.04 per year in the Northern Territory (from around 1.9 in 1991 to 1.5 in 2005). The rate difference, which is the Indigenous rate minus the rate for other Australians, declined significantly in Western Australia, South Australia and the Northern Territory (from around 20 per 1,000 births to 8 per 1,000 births in Western Australia and from around 11 per 1,000 births to 5 per 1,000 births in the Northern Territory) and by an average of 0.8 per 1,000 per year in South Australia (from around 15 per 1,000 births to 5 per 1,000 births).

9.34 INFANT MORTALITY RATES(a)(b), by Indigenous status—1991–2005

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
INDIGENOUS															
WA	(c)26.1	(c)24.1	16.3	19.6	18.1	24.1	13.6	17.0	16.7	16.9	16.3	16.2	15.4	11.1	11.9
SA	20.2	23.2	17.3	7.5	16.2	12.6	8.5	4.5	7.8	11.1	4.9	14.7	6.9	6.1	9.7
NT	24.7	28.1	29.4	18.7	18.5	19.4	29.4	22.6	19.0	22.9	16.0	15.6	12.9	17.9	16.2
OTHER(d)															
WA	(c)6.0	(c)5.9	5.2	4.6	4.3	5.3	4.8	4.2	3.9	3.4	4.3	3.5	3.3	3.4	4.0
SA	5.1	5.5	4.9	4.7	5.5	4.7	4.6	4.0	4.2	4.4	4.6	4.7	3.6	3.0	4.9
NT	13.2	15.9	17.8	10.9	10.4	11.7	15.9	12.3	12.5	16.2	12.7	11.0	9.7	13.2	11.0
RATE RATIO(e)															
WA	(c)4.4	(c)4.1	3.1	4.2	4.2	4.5	2.8	4.0	4.3	4.9	3.8	4.6	4.7	3.3	2.9
SA	4.0	4.2	3.6	1.6	3.0	2.7	1.8	1.1	1.9	2.5	1.1	3.1	1.9	2.0	2.0
NT	1.9	1.8	1.7	1.7	1.8	1.7	1.8	1.8	1.5	1.4	1.3	1.4	1.3	1.4	1.5
RATE DIFFERENCE(f)															
WA	(c)20.1	(c)18.2	11.1	15.0	13.8	18.8	8.8	12.8	12.8	13.4	12.0	12.7	12.1	7.7	7.9
SA	15.1	17.6	12.5	2.9	10.8	7.9	3.8	0.6	3.6	6.7	0.3	10.0	3.3	3.1	4.8
NT	11.4	12.2	11.6	7.8	8.1	7.6	13.5	10.3	6.5	6.6	3.3	4.6	3.2	4.7	5.1

(a) Infant deaths per 1,000 live births.
(b) Deaths are based on year of registration of death and state of usual residence. Births are based on year of registration.
(c) The average of births over 1993–1995 in Western Australia was used to as the denominator for the estimates of the infant mortality rates for 1991 and 1992 to correct for errors in births recorded for 1991 and 1992.
(d) Other includes deaths of non-Indigenous people and those for whom Indigenous status was not stated.
(e) Mortality rate for Indigenous Australians divided by the mortality rate for other Australians.
(f) Mortality rate for Indigenous Australians minus the mortality rate for other Australians.

Source: AIHW National Mortality Database

Cause-specific mortality

Another potentially informative approach to assessing mortality trends is to examine changes in the pattern of deaths, by specific causes of death. These analyses have the advantage that they may reveal trends that are disguised by the more heterogeneous aggregate of mortality figures. But the available data constrain the analyses that can be done, and caution must be exercised when interpreting changes. First, the numbers of deaths that underlie the analysis diminish when the data are disaggregated to specific causes and the finer the disaggregation, the smaller the numbers and the larger the fluctuations relative to any underlying trend. The analyses undertaken for this report have been confined to five main causes of death—diseases of the circulatory system; diseases of the respiratory system; external causes; endocrine, nutritional and metabolic diseases; and neoplasms. Second, there was a change in the classification and coding of causes of death between 1996 and 1997. ICD-9 was used to classify causes of death prior to 1997 and ICD-10 has been used to classify causes of death from 1997 onwards. As these changes affect the comparability of the data for the two periods, the analyses reported here are for the period 1997–2005. Third, when analysing five causes of death for three jurisdictions and for three population groups (persons, males and females), some statistically significant changes may arise by chance—attention should therefore be paid to those causes that show some consistency of pattern, not to individual differences or changes.

Cause-specific mortality continued

Consistent with the analyses of all-cause mortality, the results presented in this section are for recorded deaths and assume no change in the rate at which Indigenous status is reported on deaths registrations, including no changes in rates of recording Indigenous status by specific causes of death. The impact of such changes in recording on the robustness of the conclusions is provided in the latter section 'The sensitivity of mortality trends to changes in Indigenous identification'.

Of the five causes examined, only diseases of the circulatory system showed consistently significant changes in recorded mortality (table 9.35).

9.35 CAUSE-SPECIFIC AGE STANDARDISED MORTALITY RATES(a)(b)(c), by Indigenous status—1997–2005

	1997	*1998*	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*
	rate	rate	rate	rate	rate	rate	rate	rate	rate
CIRCULATORY DISEASES (I00-I99)									
Indigenous rate(b)	606.0	539.4	510.4	505.0	415.6	396.3	406.9	502.4	435.5
Other rate(b)(d)	297.6	285.0	267.3	251.6	245.2	235.9	228.6	220.5	217.8
Rate ratio(e)	2.0	1.9	1.9	2.0	1.7	1.7	1.8	2.3	2.0
RESPIRATORY DISEASES (J00-J99)									
Indigenous rate(b)	152.9	193.2	143.5	164.2	164.8	162.1	142.7	199.2	144.2
Other rate(b)(d)	63.3	57.6	54.2	60.1	57.5	62.9	62.0	57.6	52.8
Rate ratio(e)	2.4	3.4	2.6	2.7	2.9	2.6	2.3	3.5	2.7
EXTERNAL CAUSES (V01-Y98)									
Indigenous rate(b)	110.8	139.1	105.3	130.6	127.1	124.4	123.8	121.1	157.8
Other rate(b)(d)	41.8	47.7	41.8	43.8	41.1	38.8	39.9	38.9	41.0
Rate ratio(e)	2.6	2.9	2.5	3.0	3.1	3.2	3.1	3.1	3.9
ENDOCRINE, NUTRITIONAL AND METABOLIC DISEASES (E00-E89)									
Indigenous rate(b)	158.1	112.6	137.1	171.0	174.7	151.4	128.0	160.9	166.6
Other rate(b)(d)	23.1	21.1	21.6	21.4	22.2	22.2	22.0	24.8	24.0
Rate ratio(e)	6.8	5.3	6.3	8.0	7.9	6.8	5.8	6.5	6.9
NEOPLASMS (C00-D48)									
Indigenous rate(b)	245.9	224.4	196.9	263.4	214.9	233.2	247.3	260.2	243.0
Other rate(b)(d)	203.2	194.4	195.3	192.4	190.4	191.0	187.1	189.8	188.7
Rate ratio(e)	1.2	1.2	1.0	1.4	1.1	1.2	1.3	1.4	1.3

(a) Deaths are based on year of registration of death and state of usual residence.
(b) Directly age standardised rate per 100,000 population using the 2001 estimated resident population.
(c) Data for WA, SA and NT combined
(d) Comprises deaths of non-Indigenous persons and those for whom Indigenous status was not stated.
(e) Mortality rate for Indigenous persons divided by the mortality rate for other persons.

Source: AIHW National Mortality Database

Over the period 1997–2005, there were significant declines in recorded mortality from circulatory diseases for Indigenous people in Western Australia, South Australia and the Northern Territory (the mortality in 2005 was around three-quarters the rate in 1997). This was mainly due to a significant decline for males (a reduction in the mortality rate of around 32% during the period of analysis).

Cause-specific mortality continued

Over the same period, there were also significant declines in recorded mortality from circulatory diseases for other Australians (the mortality rate in 2005 being around three-quarters of the 1997 rate).

For external causes and neoplasms, there were significant declines in recorded mortality for other Australians over the period 1997–2005 however there were corresponding significant changes in the mortality rates for Indigenous Australians for these causes of death.

There was a significant increase in the rate ratio between Indigenous and other Australian mortality rates for external causes of death (from around 3 in 1997 to 4 in 2005).

The sensitivity of mortality trends to changes in Indigenous identification

When analysing trends in recorded Indigenous mortality, it is important to try to distinguish changes that arise because of real changes in mortality from those that arise because of changes in the reporting of Indigenous status on deaths registrations. But only broad, indicative estimates of changes in coverage are available, so it is not possible to definitively dissect observed changes in recorded mortality into the real and reporting effects.

In the absence of such a definitive dissection, the fitted trends discussed earlier in this chapter have been examined for their sensitivity to changes in Indigenous coverage. If those trends were to persist under a range of plausible assumptions regarding coverage, that would add to the confidence that the trends reflect some real alteration in mortality and are not just artefacts of changes in coverage.

The same approach as was used in the 2005 edition of this report has been used here. Three scenarios for coverage were posed—constant coverage, increasing coverage and decreasing coverage.

- Under the constant coverage scenario, the numbers of deaths for the entire period under study were adjusted using coverage estimates derived from the most recent ABS analyses (relating to the period 2001–2005). These estimates are: Western Australia—70%; South Australia—64% and the Northern Territory—92%.
- Under the increasing coverage scenario, deaths were adjusted by linearly increasing the coverage through the period under study—from 63% in 1991 to 70% in 2005 for Western Australia; from 58% to 64% for South Australia; and from 87% to 92% for the Northern Territory.
- Under the decreasing coverage scenario, deaths were adjusted by linearly decreasing the coverage—from 77% in 1991 to 70% in 2005 for Western Australia; from 70% to 64% for South Australia; and from 97% to 92% for the Northern Territory.

The adjustments in the latter two scenarios were based on judgments about the largest plausible shifts in coverage during the decade. Of course, if any actual shift in coverage were more extreme than has been posed under these scenarios, then the observed trends in mortality might not persist. For all three scenarios, the population figures (used as denominators in the calculation of mortality rates) were re-estimated to reflect the altered number of deaths implied by each scenario.

- The declines in infant mortality rates for Indigenous Australians in Western Australia, South Australia and the Northern Territory during the period 1991–2005 remained statistically significant under all three identification coverage scenarios.

The sensitivity of mortality trends to changes in Indigenous identification continued

- The declines in mortality rates from diseases of the circulatory system during the period 1997–2005 remained significant under all three identification scenarios for Indigenous males and remained significant under the increasing identification scenario (which is the most likely scenario) for Indigenous people.

Other research and analyses

CHRONIC DISEASES

Another recent study also undertaken in the Northern Territory looked at long-term mortality trends in Indigenous deaths from chronic diseases (Thomas et al 2006). Trends in rates of mortality from six chronic diseases were analysed over the period 1977–2001 comparing Indigenous Australians in the Northern Territory with the total Australian population. The chronic diseases analysed were ischaemic heart disease (IHD), chronic obstructive pulmonary disease (COPD), cerebrovascular disease, diabetes mellitus, renal failure and rheumatic heart disease (RHD). Results found that over the 25 years examined, Northern Territory Indigenous mortality rates increased significantly for IHD and diabetes mellitus, however the rate of increase slowed significantly after 1990. For COPD, mortality increased before 1990, however significantly decreased thereafter. For RHD, the Indigenous mortality rate decreased for those aged less than 50 years and increased for those aged 50 years and over. The ratio of Indigenous mortality rates in the Northern Territory to total Australian mortality rates increased for all six chronic diseases. This increase was statistically significant for all diseases except COPD.

LIFE EXPECTANCY IN THE NORTHERN TERRITORY

A recent study was undertaken in 2007 by Wilson, Condon and Barnes to assess the extent of changes in life expectancy at birth for Indigenous Australians living in the Northern Territory over the period 1967–2004. Life expectancy at birth figures were calculated via life table calculations using Indigenous mortality data and population data from the Northern Territory.

The study found that the life expectancy at birth of Indigenous Australians has risen considerably in the Northern Territory, increasing from 52 years for males and 54 years for females in the late 1960s to around 60 years for males and 68 years for females in recent years. The gap between Indigenous and total Australian female life expectancy in the Northern Territory has narrowed between 1967 and 2004, while the gap between Indigenous and total Australian male life expectancy has remained the same.

Wilson, Condon and Barnes reported that declines in infant mortality accounted for a large amount of the increases in life expectancy for the Northern Territory Indigenous population between the late 1960s and mid 1980s, especially for males. A significant proportion of female life expectancy gains in this early period also came from other childhood and adult ages. From the mid 1980s to the early 2000s, declines in mortality at ages 45 years and over were responsible for the majority of life expectancy gains for both Indigenous males and females in the Northern Territory. For the total Australian population, improvements in middle age and older adult mortality were responsible for the vast majority of gains to Australian life expectancy over the entire period 1967 to 2004.

Other research and analyses continued

LIFE EXPECTANCY IN THE NORTHERN TERRITORY *continued*

The gains in life expectancy for Indigenous males and females in the Northern Territory reported by Wilson, Condon and Barnes indicate that Indigenous health status has improved considerably in recent decades in the Northern Territory. There is still however substantial disparity between life expectancy measures of the Indigenous and non-Indigenous populations.

SUMMARY

Overall, all-cause mortality for Indigenous Australians in Western Australia declined by 20% between 1991 and 2005. Despite this decline, all-cause mortality for other Australians in Western Australia declined by 26% over the period and the difference between Indigenous and other Australian mortality is widening in South Australia and the Northern territory. For the period 2001–2005, in Queensland, Western Australia, South Australia and the Northern Territory, the mortality rates for Indigenous males and females were almost three times those for non-Indigenous males and females.

There have been significant declines in recorded infant mortality for Indigenous Australians in recent years and the gap between Indigenous and other Australians has narrowed. Despite these improvements, the infant mortality rate for Indigenous Australians is still three times the rate for non-Indigenous Australians.

Over the period 2001–2005, in Queensland, South Australia, Western Australia and the Northern Territory, for all age groups below 65 years, the age-specific death rates for people identified as Indigenous were at least twice those for non-Indigenous Australians. The largest differences occurred in the middle age groups (35–54 years) where the death rates for Indigenous males and females were five to six times those recorded for non-Indigenous Australians.

The five leading causes of death for Aboriginal and Torres Strait Islander peoples over the period 2001–2005 in the four jurisdictions were diseases of the circulatory system, injury (predominantly accidents, intentional self-harm and assault), cancer, endocrine, metabolic and nutritional disorders and respiratory diseases, representing around three-quarters of all deaths of Aboriginal and Torres Strait Islander people. Indigenous Australians had much higher rates of mortality than non-Indigenous Australians from these major causes of death (SMRs of between 2 and 8 for males and 2 and 10 for females). The difference between Indigenous and non-Indigenous mortality appears to be widening for all of these causes of death, however the increase is only statistically significant for external causes of death.

Deaths of Indigenous people involve higher rates of co-morbidity than deaths of non-Indigenous people. For the period 2001–2005, deaths where multiple causes were reported were more common among Indigenous people than non-Indigenous people. For example, 27% of deaths among Indigenous males and 29% of deaths among Indigenous females recorded five or more causes of death, compared with 15% of non-Indigenous male and female deaths. For deaths from certain diseases such as ischaemic heart disease, renal failure and cancer, diabetes was reported as an associated cause of death among Indigenous males and females at more than twice the rate among non-Indigenous males and females.

CHAPTER 10 HEALTH SERVICES—PROVISION, ACCESS AND USE

INTRODUCTION

There is some evidence that Aboriginal and Torres Strait Islander people do not have the same level of access to many health services as other Australians and this can adversely impact on their health outcomes. The relatively poor health status and high mortality and morbidity rates among Indigenous Australians points to the need for more health services and a greater per capita investment of health resources for this population. Indigenous people face a number of barriers in accessing health care, including language and cultural barriers, distance to services, and the cost or services. Aboriginal and Torres Strait Islander people are under-represented in health-related occupations and in graduate courses in health. While Indigenous people were twice as likely as other Australians to be hospitalised, they were less likely to undergo a procedure once admitted to hospital.

Health services include primary health care services such as those provided by general medical practitioners (GPs), nurses and allied health professionals. They also include acute care provided in hospitals, and specialist services, such as those provided by obstetricians and eye specialists among others. These services are provided in a range of settings including community health centres, doctors' and specialists' rooms and hospitals. Aboriginal health services, which operate across Australia, are also important providers of comprehensive primary health services for Indigenous Australians, particularly in more remote areas. These services have funding provided by the Australian Government, the state and territory governments, or both.

This chapter presents analyses of various data collections in order to provide a comprehensive picture of Indigenous Australians' access to, and use of, health services. Health expenditure patterns show how health services are delivered and used. Some of the factors that impact on access to and use of health services are then examined, including cultural factors, such as language; availability of health professionals; the distances clients must travel to services and facilities; affordability of health services; and the participation of Indigenous people in the health and welfare workforce. The chapter also includes information on the use of health services, including Australian Government funded Aboriginal primary health care services, services provided by GPs, alcohol and other drug treatment services, mental health services and hospital services.

It is not always possible to accurately quantify the extent to which Aboriginal and Torres Strait Islander people access and use different health services. The administrative data on health services are collected by the various providers including Australian, state and territory governments, community organisations and private sector providers. There are, however, variations in the quality and coverage of these data, and in the accuracy with which Indigenous people are identified in various health service records.

PROVISION OF HEALTH SERVICES

Expenditure on health goods and services

Examining expenditure on health goods and services is one way of understanding the ways in which health resources are delivered and used. Expenditures reflect needs on which resources have been spent, rather than overall needs or needs that have not been met. Expenditures can also provide some broad insights into the use of health services. But any such interpretation must be undertaken with care, because the amount of expenditure incurred for a given level of use can also be affected by factors such as the demographic composition of the population and its geographic distribution. Thus, information about expenditure must be considered alongside the information about the numbers, types and locations of services that are presented in this and other chapters of this report.

In 2004–05, estimated expenditure on health goods and services for Indigenous Australians was $2,304 million or 2.8% of total health expenditure (table 10.1). More than two-thirds (67%) of the 2004–05 expenditure was on publicly provided health services such as public hospitals (46%) and community health services (22%).

10.1 EXPENDITURE ON HEALTH GOODS AND SERVICES, by area of expenditure, current prices—2004–05

	TOTAL EXPENDITURE ($M)		AVERAGE PER PERSON EXPENDITURE ($)		
Service	*Indigenous*	*Non-Indigenous*	*Indigenous*	*Non-Indigenous*	*Ratio*(a)
Hospitals	1 080.7	27 337.6	2 213	1 386	1.6
Public hospital services(b)	1 048.6	21 042.7	2 147	1 067	2.0
Admitted patient services	799.4	16 226.8	1 637	823	2.0
Non-admitted patient services	249.2	4 815.8	510	244	2.1
Private hospitals	32.1	6 295.0	66	319	0.2
High-level residential care	41.7	6 283.4	85	319	0.3
Patient transport	103.5	1 369.9	212	69	3.1
Medical services	164.6	14 483.5	337	734	0.5
Community health services	497.8	3 052.7	1 019	155	6.6
Dental and other health practitioners	78.0	7 811.8	160	396	0.4
Medications	109.4	11 056.4	224	561	0.4
Aids and appliances	18.6	2 591.4	38	131	0.3
Public health	88.9	1 350.3	182	68	2.7
Research	46.0	1 669.0	94	85	1.1
Health administration n.e.c.	74.6	2 254.5	153	114	1.3
Total	**2 304.0**	**79 260.4**	**4 718**	**4 019**	**1.2**

(a) Average per person expenditure on Indigenous Australians divided by the average per person expenditure on other Australians.

(b) Excludes any dental services, community health services, patient transport services, public health and health research undertaken by the hospital.

Source: AIHW 2008a

On a per person basis, average expenditure on health goods and services for Aboriginal and Torres Strait Islander people was $4,718—some 17% higher than the expenditure for non-Indigenous people ($4,019). Considering the high level of morbidity among Indigenous Australians, and mortality rates that are more than twice those for other Australians, these figures suggest that expenditures for Aboriginal and Torres Strait Islander people were not sufficient to match needs (AHMAC 2006).

In 2004–05, average expenditure on services for Indigenous people was greater than that for non-Indigenous Australians in a number of program areas. These included community health services (where average expenditure on Indigenous people was 6.6 times higher than for non-Indigenous people), patient transport (over 3.1 times

Expenditure on health goods and services continued

higher) and public health, including prevention of hazardous and harmful drug use, cancer screening and environmental health (2.7 times higher) (table 10.1).

In contrast, average expenditure on some goods and services provided outside public hospitals was lower for Indigenous Australians than for non-Indigenous Australians. For example, average expenditures on high level residential care, medical services, medications, and dental and other health practitioners were less than half of that for non-Indigenous Australians.

Over the nine years to 2004–05, expenditure on health services on a per person basis for Aboriginal and Torres Strait Islander people has been between 14% and 20% higher than for other Australians (AIHW 2008a). A number of factors should be noted when reviewing changes over time, including that the methodology for developing estimates has changed. Thus, caution should be exercised when interpreting changes in expenditures over time.

ACCESS TO HEALTH SERVICES

Differences in the utilisation of health care services by Indigenous and other Australians may be related to differences in health care status, differing levels of service provision and/or barriers to accessing services. In some areas services may not be available, or where they are available, access for Indigenous people may be affected by distance to services, lack of transport, the cost of health care and/or language and cultural barriers. These factors may result in Indigenous Australians not accessing health care when needed.

Information on use of health care services when needed by Aboriginal and Torres Strait Islander people was collected in the 2004–05 National Aboriginal and Torres Strait Islander Health Survey (NATSIHS); a survey of around 10,400 Indigenous Australians of all ages. In 2004–05, one in seven Indigenous Australians (15%) reported that they needed to go to a doctor in the previous 12 months, but had not gone; 8% needed to go to another type of health professional (e.g. nurse, Aboriginal health worker), but had not gone; 7% needed to go to a hospital, but had not gone; and 21% needed to go to a dentist, but had not gone (table 10.2).

Indigenous people in non-remote areas were more likely than those in remote areas to report that they had needed to go to a doctor, other health professional or dentist, but had not gone (AHMAC 2006). Indigenous females were more likely than Indigenous males to report that they had needed to go to a doctor or a dentist, but had not gone.

10.2 INDIGENOUS PERSONS WHO DID NOT ACCESS HEALTH SERVICES WHEN NEEDED(a), by remoteness and sex—2004–05

	REMOTENESS				SEX					
	Non-remote		Remote		Male		Female		Total	
	'000	%	'000	%	'000	%	'000	%	'000	%
Needed to go to a doctor but didn't	57.7	16.6	12.0	9.5	29.4	12.7	40.2	16.6	69.7	14.7
Needed to go to other health professional but didn't	29.7	8.5	6.0	4.7	16.0	6.9	19.7	8.1	35.7	7.5
Need to go to a hospital but didn't	23.0	6.6	8.8	7.0	15.4	6.6	16.4	6.8	31.8	6.7
Needed to go to a dentist but didn't(b)	74.1	22.4	18.9	15.6	40.5	18.2	52.4	22.8	92.9	20.5

(a) In the previous 12 months.
(b) Persons aged two years and over. Other categories include all Indigenous persons.

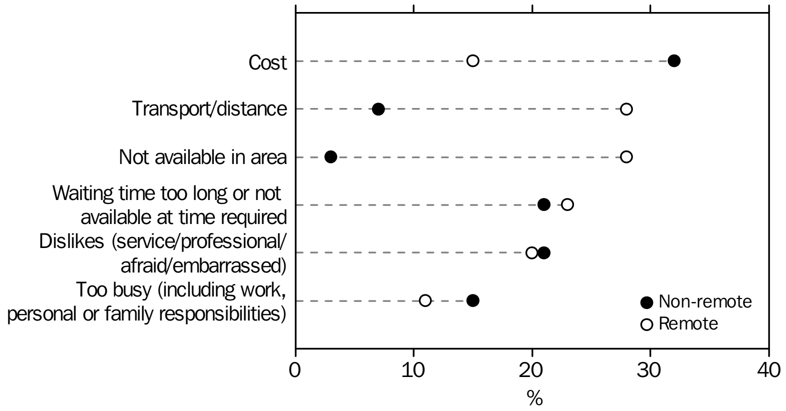
Source: ABS 2004–05 NATSIHS

ACCESS TO HEALTH SERVICES *continued*

The 2004–05 NATSIHS also collected information on the reasons that Indigenous people did not use health care services when needed, and on barriers to access. Factors such as transport and distance, long waiting times and cost were reported by a high proportion of those who had not seen a doctor when needed (AHMAC 2006).

While a higher proportion of Indigenous people in non-remote areas reported cost as a reason for not seeking health care when needed, transport/distance and the service not being available in the area were more commonly given as reasons by people in remote areas. For example, cost was reported as a reason for not seeing a dentist when needed by 32% of respondents in non-remote areas, compared with 15% of those in remote areas (graph 10.3). On the other hand, respondents in remote areas were much more likely than those in non-remote areas to report transport/distance (28% compared with 7%), or a service not being available in the area (28% compared with 3%) as reasons for not seeing a dentist when needed (AHMAC 2006).

10.3 REASONS FOR NOT VISITING A DENTIST WHEN NEEDED, Indigenous persons aged 2 years and over—2004–05



Source: ABS 2004–05 NATSIHS

Cultural and language barriers

A lack of understanding of Aboriginal and Torres Strait Islander culture, concepts of health and history, and Western-dominated models of care can result in Indigenous Australians feeling disempowered and less likely to use health services (Bailey 2005). According to Anderson et al (2004), Aboriginal and Torres Strait Islander peoples may need a different approach when consulting a GP, because of differences in how Indigenous people respond to illness and how they interact with health care providers.

COMMUNICATING WITH SERVICE PROVIDERS

The 2002 National Aboriginal and Torres Strait Islander Social Survey (NATSISS) collected information on whether Indigenous Australians spoke a language other than English at home and whether they had difficulty communicating with service providers. About 14% of Indigenous people aged 15 years and over reported that they spoke a language other than English at home. Indigenous people living in remote areas were much more likely to report speaking an Aboriginal or Torres Strait Islander language at home (39%) than were those living in non-remote areas (2%) (ABS 2004d).

Difficulties in communicating with service providers may also affect treatment choices and treatment outcomes. Around 11% of Indigenous adults reported that they had difficulty understanding and/or being understood by service providers. Indigenous people living in remote areas were more likely than those in non-remote areas to report experiencing difficulty (19% compared with 8%) (ABS & AIHW 2005).

Condon et al (2006) examined the effect of speaking a language other than English on health outcomes in a study about cancer diagnosis and treatment in the Northern Territory. Among Indigenous people diagnosed with cancer, those with an Indigenous first language had a much higher risk of cancer death than English language speakers. Indigenous people were more likely to have a more advanced stage of cancer at diagnosis than non-Indigenous people, and for those whose first language was Indigenous, poorer treatment after diagnosis was also a contributing factor. The authors note that while Indigenous first language may point to possible communication difficulties, it is also 'a marker of social, cultural, economic, educational and geographic factors'.

TREATMENT WHEN SEEKING HEALTH CARE

The 2004–05 NATSIHS asked Indigenous Australians how they felt they were treated when they sought health care in the previous 12 months. The majority (77%) of Indigenous people reported that they felt they were treated the same as non-Indigenous people, 5% reported that they were treated better than non-Indigenous people and 4% reported that they were treated worse than non-Indigenous people (AIHW 2007a). A higher proportion of Indigenous people in remote areas reported that they were treated better than non-Indigenous people (11% compared with 3%). Approximately 16% of Aboriginal and Torres Strait Islander people felt that they were treated badly when they sought health care because they were Indigenous.

Availability of health professionals, services and facilities

Indigenous Australians are more likely to live outside urban areas than non-Indigenous Australians, and are therefore more likely to live further from mainstream health services and health professionals. Aboriginal health services, operating in many parts of the country, including remote areas, go some way towards addressing the differences in health service provision for a more geographically dispersed population. Indigenous people living in more remote areas, however, still do not have access to many of the services provided in urban areas.

LOCATION OF HEALTH PROFESSIONALS

The number of medical practitioners per head of population decreases with increasing geographic remoteness. This limits access to medical practitioners for people in rural and remote areas. As a higher proportion of Indigenous Australians live in rural and remote areas, they are more likely to have to move or travel substantial distances in order to get access to medical care. The supply rate of medical practitioners is measured by the full-time equivalent (FTE) rate per 100,000 population.

In 2005 there were more than twice as many medical practitioners per person in major cities (335 FTE per 100,000) as in remote/very remote areas (148 FTE per 100,000) (table 10.4). The number of medical specialists per person in major cities was eight times that in remote areas. The concentration of primary care practitioners, specialists and specialists in training in major cities and inner regional areas can be partially explained by the location of facilities for services provided by these types of professions.

Between 2002 and 2005, there was a slight increase in the supply of medical practitioners in Australia (from 271 FTE to 288 FTE per 100,000). The increase was spread across all remoteness areas.

Availability of health professionals, services and facilities continued

LOCATION OF HEALTH PROFESSIONALS *continued*

10.4 EMPLOYED MEDICAL PRACTITIONERS(a)(b), by remoteness area—2002 and 2005

	Major cities	*Inner regional*	*Outer regional*	*Remote/ Very remote*	*Australia*(c)
			2002		
Clinicians	288	169	138	131	252
Primary care	105	90	80	89	101
Hospital non-specialist	29	14	15	22	25
Specialist	114	55	35	16	95
Specialist in training	40	10	8	5	31
Non-clinicians	24	7	8	9	19
Total (2002)	**312**	**176**	**146**	**140**	**271**
			2005		
Clinicians	311	174	145	133	269
Primary care	100	88	84	92	98
Hospital non-specialist	40	18	13	22	33
Specialist	122	56	38	16	100
Specialist in training	49	12	10	4	37
Non-clinicians	24	7	8	14	19
Total (2005)	**335**	**181**	**153**	**148**	**288**

(a) Rate per 100,000 population; FTE rate: full time equivalent rate is based on a standard full-time working week of 45 hours.

(b) The FTE rates by Remoteness Areas are underestimates as they do not include medial practitioners who did not provide information on the location of their main job, whereas the Australian estimates are based on all employed medical practitioners. Care should be taken in interpreting the data by Remoteness Areas, particularly for the Remote/Very remote areas as there are large numbers of missing values.

(c) Includes medical practitioners who did not report the remoteness areas in which they worked.

Source: AIHW Medical Labour Force Survey 2002, 2005

The pattern across remoteness areas was different for nurses compared with medical practitioners. In 2005, the supply rate of nurses was highest in very remote areas (1,177 FTE per 100,000) and second highest in outer regional areas (1,139 FTE), while major cities had the lowest rate of nursing supply (1,074 FTE) (table 10.5). Between 2001 and 2005, the supply of nurses in Australia increased from 1,031 to 1,133 FTE per 100,000 population.

Availability of health professionals, services and facilities continued

LOCATION OF HEALTH PROFESSIONALS *continued*

10.5 EMPLOYED NURSES(a)(b)—2001 and 2005

	Major cities	*Inner regional*	*Outer regional*	*Remote*	*Very Remote*	*Australia*(c)
Nurses (2001)	940	947	910	896	925	1 031
Nurses (2005)	1 074	1 107	1 139	1 081	1 177	1 133

(a) Rate per 100,000 population; FTE rate: full time equivalent rate is based on a standard full time working week of 35 hours.

(b) The FTE by Remoteness Areas are underestimates as they do not include nurses who did not provide information on the location of their main job, whereas the Australian estimates are based on all employed nurses.

(c) Includes nurses who did not report information on location of main job.

Source: AIHW 2001, 2005 Nursing Labour Force Survey

PEOPLE LIVING IN DISCRETE INDIGENOUS COMMUNITIES

Detailed information about the distance to, and the availability of, health facilities and health professionals for people living in discrete Indigenous communities is collected in the ABS Community Housing and Infrastructure Needs Survey (CHINS). The 2006 CHINS collected data from a total of 1,187 discrete Indigenous communities with a combined population of approximately 92,960 (ABS 2007d). Approximately 87% of the Indigenous people in these communities were living in remote and very remote parts of Australia. Nearly three-quarters (73%) of all communities included in the CHINS reported a usual population of less than 50.

Health facilities

The 2006 CHINS collected data on access by all communities to three types of health facilities—hospitals, Aboriginal Primary Health Care Centres and other (state funded) community health centres. These questions were asked separately for each community.

There were 10 discrete communities (with a usual population of 14,090) that had a hospital located within the community, and another 89 communities (with a usual population of 7,743) that had a hospital located within 10 kilometres of the community (table 10.6). Over half (56%) of the people living in discrete Indigenous communities (51,992 people in 755 communities) were located 100 kilometres or more from the nearest hospital.

There were 107 discrete communities (with a usual population of 41,450) that had an Aboriginal primary health care centre within the community, and 104 communities (with a usual population of 7,743) that were located within 10 kilometres of such a centre. Over one-quarter of those living in discrete Indigenous communities (27% or 25,486 people) were located 100 kilometres or more from the nearest Aboriginal primary health care centre (table 10.6).

Availability of health professionals, services and facilities continued

Health facilities continued

There were 104 discrete communities (with a usual population of 35,737) that had some other (generally state funded) community health centre located in the community and 113 communities (with a usual population of 8,101) that were located within 10 kilometres of such a centre. One-quarter of people living in discrete Indigenous communities were located 100 kilometres or more from the nearest other (state funded) community health centre (table 10.6).

10.6 ACCESS TO HEALTH FACILITIES, Discrete Indigenous communities—2006

	Communities		Usual population	
Type of facility and location	no.	%	no.	%
Hospital				
Located in community	10	0.8	14 090	15.2
Within 10km	89	7.5	7 743	8.3
10–99km	224	18.9	18 368	19.8
100km or more	755	63.6	51 992	55.9
Aboriginal Primary Health Care Centre				
Located in community	107	9.0	41 450	44.6
Within 10km	104	8.8	7 743	8.3
10–99km	426	35.9	13 438	14.5
100km or more	417	35.1	25 486	27.4
Other community health centre				
Located in community	104	8.8	35 737	38.4
Within 10km	113	9.5	8 101	8.7
10–99km	463	39.0	16 241	17.5
100km or more	372	31.3	23 308	25.1
Total(a)	**1 187**	**100.0**	**92 960**	**100.0**

(a) Includes those with access not stated.
Source: ABS 2006 CHINS

Of the 755 discrete Indigenous communities that were located 100 km or more from the nearest hospital, 268 (35%) reported having access to a medical emergency air service. The remaining 487 communities (with a usual population of 9,337), did not have access to a medical emergency air service.

Availability of health professionals

While location of health services provides one measure of access, people in communities may also have access to visiting health professionals or health workers. The CHINS collected information for all communities on the availability of services from four types of health professionals—doctors, registered nurses and female and male Indigenous health workers.

In 2006, there were 14 communities (with a usual population of 11,344) who had daily access to a doctor and another 162 (with a usual population of 37,447) with weekly to monthly access (table 10.7). Around four in ten people usually resident in these communities (39,759 people or 43%), did not have regular access to a doctor.

People living in discrete Indigenous communities had greater access to registered nurses than to doctors. There were 120 communities (with a usual population of 44,923) that had daily access to a nurse and another 81 communities (with a usual population of

Availability of health professionals, services and facilities continued

Availability of health professionals continued

9,717) with weekly or monthly access to a nurse. There were 37,237 people (40%) living in communities that did not have regular access to a registered nurse.

Some 15% of communities had access to a female health worker at least monthly and 11% had access to a male health worker at least monthly.

10.7 ACCESS TO SELECTED HEALTH PROFESSIONALS, Discrete Indigenous communities—2006

Type of professional and frequency of access	Communities		Usual population	
	no.	%	no.	%
Doctor				
Daily	14	1.2	11 344	12.2
Weekly to monthly	162	13.6	37 447	40.3
3 monthly or less	16	1.3	4 410	4.7
No access/not stated	995	83.8	39 759	42.8
Registered nurse				
Daily	120	10.1	44 923	48.3
Weekly to monthly	81	6.8	9 717	10.5
3 monthly or less	10	0.8	1 083	1.2
No access/not stated	976	82.2	37 237	40.1
Female Indigenous health worker				
Daily	121	10.2	45 587	49.0
Weekly to monthly	52	4.4	4 611	5.0
3 monthly or less	7	0.6	939	1.0
No access/not stated	1 007	84.8	41 823	45.0
Male Indigenous health worker				
Daily	75	6.3	34 300	36.9
Weekly to monthly	57	4.8	6 322	6.8
3 monthly or less	16	1.3	2 354	2.5
No access/not stated	1 039	87.5	49 984	53.8
Total(a)	**1 187**	**100.0**	**92 960**	**100.0**

(a) Includes those with access not stated.

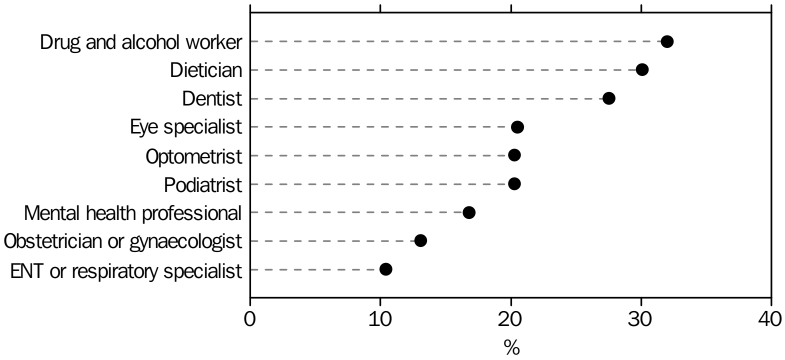
Source: ABS 2006 CHINS

Community access to other selected health professionals (such as dentists, obstetricians, optometrists) was collected from communities with a population of 50 or more and all communities with a population of 50 or less that were self-administered (375 communities in total). Access could be anything from daily to less than three-monthly visits, or visits as required. Around one-third (32%) of the communities surveyed reported having access to a drug and alcohol worker, 113 communities (30%) had access to a dietician and 103 communities (27%) had access to a dentist (graph 10.8). A much smaller proportion of communities reported having access to an obstetrician or gynaecologist (13%), and ear, nose and throat or respiratory specialist (10%).

Availability of health professionals, services and facilities continued

Availability of health professionals continued

10.8 ACCESS TO SELECTED HEALTH PROFESSIONALS, Discrete Indigenous communities(a)—2006



(a) Communities with a population of 50 or more and those with a population of less than 50 that were self-administered

Source: ABS 2006 CHINS

TRANSPORT

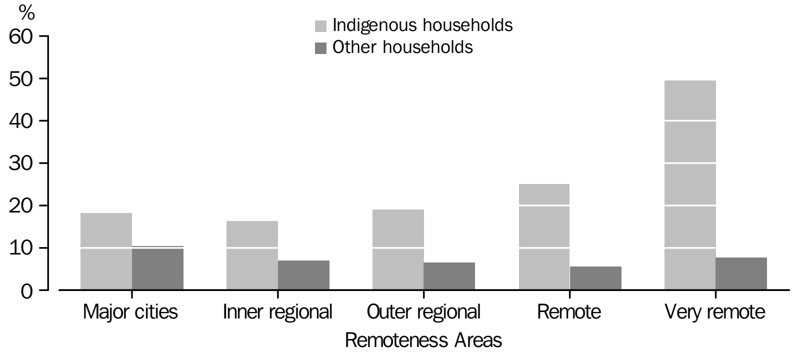
Distance to various health services provides one measure of access, but lack of transport may mean that comparatively short distances are an impediment to service use. Lack of transport can impact on people living in both remote and non-remote areas. Data are available from the 2006 Census (for all Indigenous households) on the number of motor vehicles owned or used by household members and garaged or parked at or near the dwelling on Census night.

The 2006 Census shows that Indigenous households were more likely than other households to be without access to a motor vehicle (graph 10.9). The proportion of Indigenous households that did not have a motor vehicle was 21%, compared with 9% for other households. These proportions were similar to those reported in the 2001 Census (23% and 9% respectively). Indigenous households in remote and very remote areas were less likely than those in non-remote areas to have ready access to a motor vehicle.

Availability of health professionals, services and facilities continued

TRANSPORT *continued*

10.9 HOUSEHOLDS WITHOUT A MOTOR VEHICLE(a), by Remoteness Areas—2006



(a) Owned or used by household members and garaged or parked at or near their dwelling on Census Night.

Source: ABS 2006 Census of Population and Housing

In the 2004–05 NATSIHS, difficulty with transport/distance was reported as the main reason that Indigenous Australians didn't visit the following services when needed in the previous 12 months—a hospital (19%), doctor (14%) and other health professional (8%). Around one in ten Indigenous people (11%) reported transport/distance as the main reason for not visiting a dentist when needed in the previous 12 months. A higher proportion of Indigenous people living in remote areas than in non-remote areas reported transport/distance as a reason for not accessing health services.

AFFORDABILITY

Many health services provided outside of public hospitals involve direct out-of-pocket payments by patients. This has a greater impact on access to health services for people with limited economic means and, given the generally poorer economic position of Aboriginal and Torres Strait Islander people (see Chapter 2), the effect is likely to be greater on Indigenous Australians than on other Australians.

Services which require out-of-pocket payments include those provided by dentists, physiotherapists, psychologists and other health professionals not covered by Medicare or not provided as part of a comprehensive primary health care service. It also includes pharmaceuticals not covered by the Pharmaceutical Benefits Scheme (PBS). In addition medical services subsidised under Medicare can attract co-payments if they are not bulk-billed. In the December quarter 2006, 72% of medical services were bulk-billed (DoHA 2007b). In 2005–06, GP bulk-billing rates were higher in capital cities than in rural or remote areas (SCRCSSP 2007b). Regardless of location, all Australian Government funded Aboriginal Community Controlled Health Services that have doctors or allied health workers can apply to be covered by Medicare and patients using these services are bulk-billed.

Availability of health professionals, services and facilities continued

AFFORDABILITY *continued*

The 2004–05 NATSIHS collected information on whether people in non-remote areas were required to make a co-payment for their last visit to a medical practitioner or other health professional. Around 15% of Indigenous people in non-remote areas were required to make a co-payment to the doctor, 37% were required to make a co-payment to a specialist and 17% were required make a co-payment to other health professionals (AIHW 2007a).

People who are prescribed drugs under the PBS are also required to make out-of-pocket co-payments. The amount that a patient pays is adjusted to some extent in accordance with the patient's ability to pay. Different co-payments apply to concession card holders, pensioners and general patients. The PBS also has safety net provisions that protect individuals and families from large overall expenses for PBS medicines.

PRIVATE HEALTH INSURANCE

Lack of health insurance is a barrier to accessing private hospitals and the services of those health professionals who work solely or primarily within the private health system. In the 2004–05 NATSIHS and 2004–05 NHS, a much higher proportion of Indigenous than non-Indigenous Australians in non-remote areas reported that they were not currently covered by private health insurance (83% compared with 49%) (AIHW 2007a).

The large gap in private health insurance coverage between Indigenous and other Australians is due, at least in part, to the relative economic disadvantage of Indigenous Australians. The most common reasons reported by Indigenous Australians for not getting private health insurance were that they could not afford it (65%), and that they felt that Medicare cover was sufficient (19%) (AIHW 2007a).

TELEPHONE

A working telephone in the home is often considered a necessity in cases of emergency so that health services such as hospitals, ambulances and doctors can be contacted quickly. People without a working telephone in the home are less equipped to seek medical help when required. Of those surveyed in the 2002 NATSISS, 71% of Indigenous Australians aged 15 years and over reported having a working telephone in their home. Indigenous people living in non-remote areas were almost twice as likely to have a working telephone (82%) as those living in remote areas (43%) (ABS 2004d).

CURRENT AND FUTURE INDIGENOUS HEALTH AND WELFARE/COMMUNITY SERVICES WORKFORCE

The availability of Aboriginal and Torres Strait Islander staff is an important factor in whether or not Indigenous people are able to effectively access health services (Kowanko et al 2003; Ivers et al 1997). One of the objectives of the Aboriginal and Torres Strait Islander Health Workforce National Strategic Framework (Australian Health Ministers' Advisory Council) is to increase the number of Aboriginal and Torres Strait Islander people working across all the health professions (SCATSIH 2002).

There are a number of sources of information about the participation of Indigenous Australians in the health workforce and in higher education courses in health and welfare-related fields. These include the ABS Census of Population and Housing, the Australian Government Department of Education, Employment and Workplace Relations (DEEWR) Higher Education Student Statistics Collection, the AIHW Medical and Nursing

CURRENT AND FUTURE INDIGENOUS HEALTH AND WELFARE/COMMUNITY SERVICES WORKFORCE *continued*

Labour Force Surveys, and DoHA's Service Activity Reporting (SAR). These data sources vary in coverage and not all of them have accurate and consistent recording of Indigenous status. For example, in the Medical Labour Force Survey, most jurisdictions use a simplified version of the standard ABS question on Indigenous status (yes/no response). Because of the issues around the quality of Indigenous identification, information from this survey has not been presented here. Data in this section therefore come from the 2006 Census of Population and Housing, the Nursing and Midwifery Labour Force Census, SAR and the Higher Education Student Statistics Collection.

The health workforce

Indigenous people represent 1.9% of the total population aged 15 years and over. In 2006, there were 4,891 Aboriginal and Torres Strait Islanders employed in selected health-related occupations, representing 1% of the health workforce (table 10.10). There were 100 Indigenous medical practitioners in Australia, including 40 who were medical specialists of some kind, representing only 0.2% of people employed in these occupations.

The health occupations with the largest number of Indigenous workers were registered nurse (1,107), Aboriginal and Torres Strait Islander health worker (965) and nursing support worker (442). The health occupations with the highest proportion of Indigenous workers were Aboriginal and Torres Strait Islander health worker (96%), health promotion officer (11%) and environmental health worker (3%). Aboriginal and Torres Strait Islander health workers may be employed as specialists in such areas as alcohol and drug treatment, mental health, diabetes, eye and ear health, and sexual health, or they may work as generalist members of primary care teams, or as hospital liaison officers.

The health workforce continued

10.10 EMPLOYMENT IN SELECTED HEALTH-RELATED OCCUPATIONS, Indigenous persons aged 15 years and over—2006

	Indigenous		All persons
Occupation	%	no.	no.
Medical practitioners			
General medical practitioner	0.2	60	29 920
Other -specialist, psychiatrist or surgeon	0.2	40	25 155
Midwifery and nursing professionals			
Midwife	0.4	53	13 164
Nurse educator or researcher	0.5	17	3 762
Nurse manager	0.4	46	10 899
Registered nurse	0.6	1 107	172 575
Health therapy professionals			
Dental practitioner	0.2	16	9 065
Dental hygienist, technician or therapist	0.4	22	5 169
Dental assistant	1.1	171	15 378
Physiotherapist	0.4	54	12 286
Psychologist	0.3	39	13 437
Health and welfare service managers	1.3	141	10 807
Health diagnostic and promotion professionals			
Medical imaging professional	0.2	18	10 147
Environmental health officer	2.5	98	3 907
Occupational health and safety adviser	0.7	50	6 840
Health promotion officer	11.2	437	3 898
Health and welfare support workers			
Aboriginal and Torres Strait Islander health worker	95.5	965	1 010
Ambulance officer or paramedic	1.7	153	9 098
Diversional therapist	1.0	41	4 078
Enrolled or mothercraft nurse	1.1	215	19 397
Massage therapist	0.7	54	8 200
Hospital orderly	1.7	165	9 939
Nursing support worker	2.0	442	22 380
Personal care assistant	1.5	339	21 956
Other nursing support or personal care worker	1.0	39	3 899
Total	**1.0**	**4 891**	**492 342**

Source: ABS 2006 Census of Population and Housing

While the ABS Census provides self-reported information on the number of people employed in health-related occupations, the Nursing and Midwifery Labour Force Census provides information about nurses who have renewed their registration/enrolment with a state or territory nursing and midwifery registration board at the time the Nursing and Midwifery Labour Force Census is conducted. In 2005, the proportions of enrolled and registered nurses who identified as Indigenous were 0.9% and 0.3% respectively (table 10.11).

The health workforce continued

10.11 EMPLOYED REGISTERED AND ENROLLED NURSES, by Indigenous status—2005

	Indigenous		All persons(a)
	%	no.	no.
Employed registered nurses	0.3	644	198 315
Employed enrolled nurses	0.9	419	46 044
Total	**0.4**	**1 063**	**244 360**

(a) Includes not stated responses.

Source: AIHW 2008b

The welfare and community services workforce

People employed in welfare and community service-related occupations such as counselling, disability and social work often support the work of other health professionals, and may also be working within the health industry (AIHW 2003b). In 2006, Indigenous people were more likely to report being employed in selected welfare and community service-related occupations than in health-related occupations.

There were 12,411 Indigenous people employed in selected welfare-related occupations in 2006, representing 3.6% of those employed in these occupations. The largest numbers of Indigenous people employed in this sector were teachers' aides (2,011), carers for the aged or people with disability (1,735), child care workers (1,424) and Aboriginal and Torres Strait Islander education workers (1,379) (table 10.12).

Aboriginal and Torres Strait Islander people were well represented among family support workers (16%), youth workers (9%), special care workers (8%) and community workers (7%). Indigenous people also made up 2% of child carers.

The welfare and community services workforce continued

10.12 EMPLOYMENT IN SELECTED WELFARE AND COMMUNITY SERVICE-RELATED OCCUPATIONS, Indigenous persons aged 15 years and over—2006

	Indigenous		All persons
Occupation	%	no.	no.
Welfare workers			
Community worker	7.1	1 270	17 874
Family support worker	15.9	309	1 946
Youth worker	8.6	687	8 024
Other welfare support workers	1.8	228	12 450
Child carers			
Child care worker	2.4	1 424	59 473
Other child carers	2.2	562	25 783
Child care centre and welfare centre managers	1.9	178	9 479
Education aides			
Aboriginal and Torres Strait Islander education worker	91.3	1 379	1 510
Teachers' aide	5.9	2 011	34 316
Other education aides	1.4	303	20 937
Aged or disabled carer	2.2	1 735	77 413
Special care workers	7.8	184	2 354
Other health and welfare support workers	4.4	324	7 432
Welfare, recreation and community arts workers			
Welfare worker	5.7	643	11 270
Other welfare, recreational, community arts workers	5.5	147	2 664
Counsellors	2.6	386	14 646
Minister of religion	0.6	88	14 784
Social professionals	3.4	237	6 908
Social workers	2.2	269	12 441
Social and welfare professionals nfd	5.5	47	849
Total	**3.6**	**12 411**	**342 553**

Source: ABS 2006 Census of Population and Housing

Undergraduate studies in health, welfare and community service-related courses

The future involvement of Indigenous Australians in health and welfare services will be influenced by their current participation in health and welfare-related education. Overall in 2005, 166 Indigenous students completed health-related undergraduate courses, and 83 completed welfare-related courses, representing 1% of all students completing undergraduate courses in these two fields (table 10.13). In the health-related field, the largest proportions of course completions by Indigenous students were in public health (e.g. Environmental Health and Indigenous Health) (47%) and Nursing (29%). In 2005, Indigenous students accounted for 11% of all graduates in the field of public health and less than 1% of nursing graduates. The welfare-related courses most commonly completed by Indigenous students were early childhood education (33%), Behavioural science, which includes psychology (23%) and social work (18%). Indigenous students accounted for around 1% of all early childhood education and social work graduates and less than 1% of behavioural science graduates in 2005.

In 2005, 13 Indigenous students completed a degree in Medical Studies, 48 in Nursing and 78 in Public Health. The number of Indigenous students who completed health-related courses was similar in 2003 and 2005 (168 and 166 respectively). The number of Indigenous students who completed welfare-related courses declined from 124 in 2003 to 83 in 2005.

Undergraduate studies in health, welfare and community service-related courses continued

10.13 INDIGENOUS STUDENTS WHO COMPLETED HEALTH AND WELFARE-RELATED UNDERGRADUATE COURSES(a)—2003 and 2005

	2003			2005		
	Indigenous		All persons	Indigenous		All persons
	%	no.	no.	%	no.	no.
Health						
Medical Studies	0.6	10	1 735	0.8	13	1 697
Nursing	0.8	61	7 497	0.6	48	7 565
Pharmacy	0.1	1	769	0.2	2	1 037
Dental Studies	0.7	2	306	0.6	2	343
Optical Science	1.7	2	121	1.1	1	92
Public Health(b)	6.0	40	672	10.6	78	736
Radiography	—	—	468	0.4	3	688
Rehabilitation Therapies	0.5	12	2 193	0.2	6	2 451
Complementary Therapies(c)	—	—	408	1.0	3	315
Other health(d)	1.9	40	2 100	0.4	10	2 471
Total(e)	**1.0**	**168**	**16 269**	**1.0**	**166**	**17 395**
Welfare						
Early childhood education	2.3	45	1 971	1.4	27	1 949
Special education	1.2	3	253	1.1	2	186
Human Welfare Studies and Services	4.6	16	347	3.0	9	296
Social work	1.6	19	1 224	1.1	15	1 367
Counselling	2.7	4	146	3.5	8	228
Behavioural science(f)	0.8	27	3 317	0.5	19	3 561
Other welfare(g)	2.2	10	456	0.6	3	485
Total(e)	**1.6**	**124**	**7 714**	**1.0**	**83**	**8 072**

— nil or rounded to zero (including null cells)

(a) Based on ABS narrow field of education. Health course codes in order of appearance: 060100–060199; 060300–060399; 060500–060501; 060700–060799; 060900–060999; 061300–061399; 061500–061501; 061900–061999; 069900–069999. Welfare course codes in order of appearance: 70101; 70113; 90500; 90501; 90513; 090700–090799; 90503, 90505, 90507, 90509, 90511, 90515, 90599.

(b) Includes occupational health and safety, environmental health, Indigenous health, health promotion, community health, epidemiology and public health n.e.c.

(c) Includes naturopathy, acupuncture, traditional Chinese medicine, complementary therapies n.e.c.

(d) Includes nutrition and dietetics, human movement, paramedical studies, first aid and health n.e.c.

(e) The data take 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.

(f) Includes psychology and behavioural science n.e.c.

(g) Includes children's services, youth work, care for the aged, care for the disabled, residential client care, welfare studies and human welfare studies and services n.e.c.

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

According to the 2004 VET Provider Collection, 111 vocational and training sector (VET) students had completed a course aimed at Aboriginal and Torres Strait Islander Health Worker occupations in Australia (table 10.14). The majority of these course completions were at the Certificate III or IV level (89%). Of all the VET sector students who had completed a course aimed at Aboriginal and Torres Strait Islander Health Worker occupations in 2004, 71% were female (79 course completions) and 28% were male (31 course completions).

Undergraduate studies in health, welfare and community service-related courses continued

10.14 ABORIGINAL AND TORRES STRAIT ISLANDER HEALTH WORKERS(a)(b), course completions by level of qualification—2004

	Males	*Females*	*Persons*(c)
	no.	no.	no.
Certificate I	—	—	—
Certificate II	—	—	—
Certificate III	16	32	49
Certificate IV	13	37	50
Diploma or higher	2	10	12
Total	**31**	**79**	**111**

— nil or rounded to zero (including null cells)

(a) ASCO (Occupation) classification - 3493 Aboriginal and Torres Strait Islander Health Workers.

(b) An ASCO code assigned to the courses indicates the most likely occupation associated with this course. Students may enrol in more than one course.

(c) Includes one student for whom sex was not stated.

Source: NCVER 2004 VET Provider Collection, AHMAC 2006

USE OF HEALTH SERVICES

Information on the use of health services by Aboriginal and Torres Strait Islander people is available from a range of sources. This section draws on survey data from the 2004–05 NATSIHS and the survey of general practice activity, as well as administrative data from services such as alcohol and other drug treatment services, mental health services and hospitals.

The 2004–05 NATSIHS and 2004–05 NHS asked respondents about health-related actions they may have taken in the previous two weeks, and about hospital admissions in the previous 12 months. Approximately 20% of Indigenous Australians reported they had visited a doctor or specialist in the last 2 weeks, 17% had consulted with other health professionals in the last 2 weeks, while 16% had been admitted to hospital in the last 12 months (ABS 2006c).

After adjusting for differences in the age structures of the Indigenous and non-Indigenous populations, a higher proportion of Indigenous people than non-Indigenous people had taken at least one health-related action. The differences were most marked in relation to visits to casualty (rate ratio of 2.3) and other health professionals (rate ratio of 1.5). On the other hand, Indigenous Australians visited a dentist at 0.6 times the rate for non-Indigenous Australians (ABS 2006c).

Community controlled primary health services

Health services that are initiated, controlled and operated by the Indigenous community have the potential to increase the level of access to health services for Aboriginal and Torres Strait Islander people by providing holistic and culturally appropriate care. A review of the Australian Government's Aboriginal and Torres Strait Islander primary health care program (the Primary Health Care Review), completed in 2003–04, found that access to comprehensive primary health care was an essential component of action to improve health status (Dwyer et al 2004).

Aboriginal and Torres Strait Islander primary health care services offer clinical care, screening programs, and a wide range of preventative health care activities, as well as

Community controlled primary health services continued

health-related and community support services. In addition, other services offered include social and emotional wellbeing support, provided by counsellors and social workers; substance use treatment and health-related community support roles, such as men's and women's support groups; transport to medical appointments; and school-based activities. The Australian Government provides funding to some 140 community controlled Aboriginal and Torres Strait Islander primary health care services. State and territory governments also provide a number of community-based Indigenous primary health care services.

A recent initiative by the Australian Government aims to improve primary health care for Aboriginal and Torres Strait Islander people that is delivered through both community controlled and other health services (box 10.15)

10.15 HEALTHY FOR LIFE

Healthy for Life is an Australian Government program that aims to improve the capacity and performance of primary health care services to deliver high quality maternal and children's health services, and chronic disease care to Aboriginal and Torres Strait Islander people. The program uses population health approaches and is guided by best practice and quality improvement principles. It is funded by the Office for Aboriginal and Torres Strait Islander Health (OATSIH) of the Australian Government Department of Health and Ageing. At the end of 2007 there were 73 services participating in the program.

The collection of good quality data by Healthy for Life services is important for improving local service delivery, as well as for monitoring of national expected outcomes for the Healthy for Life program. OATSIH has developed a set of 11 essential indicators, with additional qualitative indicators, for which services are required to provide data. A web-based information system is used by services to report indicator and related data and generate reports back to services. The AIHW is responsible for storage, collation and analysis of data collected from the Healthy for Life services.

General practice

Information about the extent to which GPs are used by both Indigenous and other Australians is available from a survey of general practice activity in Australia known as the Bettering the Evaluation and Care of Health (BEACH) survey. See Chapter 7 for more information on the BEACH methodology and for data on consultations between Indigenous people and GPs for the period 2001–02 to 2005–06 (table 7.6).

Over the five-year period 2001–02 to 2005–06, only 1.5% of total consultations were with Aboriginal and Torres Strait Islander patients. This rate of consultation is low, relative to the proportion of Indigenous people in the total population (2.5% at 30 June 2006). These lower figures may be the result of the geographic distribution of GPs not reflecting that of the Indigenous population; lower use of private GP services by Indigenous people where other services such as Aboriginal primary health care services exist; Indigenous people using other services such as hospital emergency departments or pharmacists; failure by GPs to record the Indigenous status of patients; or Indigenous patients not identifying as Indigenous. Supplementary surveys in recent years (Supplementary

General practice continued

Analysis of Nominated Data (SAND)) together with investigations of means for better ascertaining the Indigenous status of patients in the BEACH survey, have suggested ways for improving such data in the future.

Alcohol and other drug treatment services

Information on the use of alcohol and other drug treatment services by Aboriginal and Torres Strait Islander people is available from a number of sources, including the Drug and Alcohol Service Report (DASR), the Service Activity Reporting (SAR) data, and the Alcohol and Other Drug Treatment Services National Minimum Data Set (AODTS-NMDS). It should be noted that the DASR, SAR and AODTS-NMDS have different collection purposes, scope and counting rules, therefore the resulting data are not comparable.

The DASR collects information from all Australian Government-funded Aboriginal and Torres Strait Islander substance use-specific services. In 2004–05, of the estimated 27,600 clients seen by these services, 78% (21,600) identified as being of Aboriginal and/or Torres Strait Islander origin (AIHW 2006a). Common substances/drugs for which services provided treatment or assistance included alcohol use (100% of services), cannabis (95%), multiple drug use (78%), amphetamines and tobacco/nicotine (61% each).

The SAR collects information from all Australian Government-funded Aboriginal and Torres Strait Islander primary health care services. Around half of these services had treated clients for multiple drug use (53%), benzodiazepines (52%), solvents and inhalants (49%) and petrol (47%). Most services covered issues relating to alcohol use (89%), tobacco/nicotine (84%) and/or cannabis (82%) (AIHW 2006a).

The AODTS-NMDS is a nationally agreed set of common data items collected by in-scope government-funded service providers of clients of alcohol and other drug treatment services (AIHW 2006a). Reported numbers in the 2004–05 annual report on the AODTS-NMDS do not include the majority of services covered by the DASR and SAR collections, as these services are not included in the specific program under which the Australian Government currently reports AODTS-NMDS data. Data for 2004–05, the fifth year of collection, are presented here.

In 2004–05, there were 13,666 closed treatment episodes (10%) involving clients who identified as being of Aboriginal and/or Torres Strait Islander origin (table 10.16) (AIHW 2006a). A closed treatment episode refers to a period of contact between a client and a treatment agency, with defined start and end dates.

Alcohol and other drug treatment services continued

10.16 CLOSED TREATMENT EPISODES, by Indigenous status and age—2004–05

Age group (years)	Indigenous no.	Indigenous %	Other(a) no.	Other(a) %	Total no.	Total %
10–19	2 786	2.0	14 620	10.3	17 406	12.2
20–29	4 387	3.1	41 857	29.4	46 244	32.5
30–39	3 935	2.8	36 188	25.5	40 123	28.2
40–49	1 672	1.2	22 284	15.7	23 956	16.9
50–59	395	0.3	9 198	6.5	9 593	6.7
60 and over	80	0.1	3 248	2.3	3 328	2.3
Not stated	411	0.3	1 083	0.8	1 494	1.1
Total	**13 666**	**9.6**	**128 478**	**90.4**	**142 144**	**100.0**

(a) Includes closed treatment episodes for clients for whom Indigenous status was not stated (5% of episodes).

Source: AIHW 2006a

Overall, closed treatment episodes involving Aboriginal and Torres Strait Islander clients were most likely to involve alcohol (43%), cannabis (23%), heroin (12%) or amphetamines (11%)—that is, the same four principal drugs of concern as for non-Indigenous Australians—but with alcohol more likely to be nominated (43% compared with 37%) and heroin less so (12% compared with 18%).

Community mental health services

Mental health care is provided by a broad range of services and agencies including care provided by general practitioners, psychologists and medical specialists, as well as through community mental health services. Information on the use of community mental health services by Aboriginal and Torres Strait Islander people is available from the AIHW National Community Mental Health Care Database (NCMHCD). Community mental health care is defined as care which is provided by specialised public mental health services dedicated to the assessment, treatment, rehabilitation and care of non-admitted clients. This excludes specialised mental health care for admitted patients (covered in Chapter 7), support that is not provided by specialised mental health care services, care provided by non-government organisations, and residential care.

Data on the use of community mental health services by Indigenous clients in 2004–05 are presented here. There is likely to be an under-estimation of the actual number of service contacts for Indigenous clients in these data due to data quality issues. In some instances, Indigenous clients may have been reported as non-Indigenous, or they may have been represented within the service contacts with a 'not stated' Indigenous status (AIHW 2007j).

In 2004–05, around 4% of service contacts (224,213) were for clients who identified themselves as Indigenous (table 10.17). After adjusting for differences in the age structures of the Indigenous and non-Indigenous populations, the rate at which community mental health services were accessed by Aboriginal and Torres Strait Islander peoples was 507 service contacts per 1,000 population compared with 220 service contacts per 1,000 population for other Australians—a rate ratio of 2.3. The rate ratio of service contacts for Indigenous Australians and other Australians has increased from 1.4 in 2002–03 and 1.7 in 2003–04, however, this may be due to increased coverage of services and/or improved identification of Aboriginal and Torres Strait Islander clients,

Community mental health services *continued*

rather than an actual increase in the proportion of Indigenous people accessing community mental health services.

Consistent with differences in the age structures of the two populations, Indigenous Australians were more likely than other Australians to have service contacts in the younger age groups and correspondingly lower representation in the older age groups. For example, 24% of service contacts for Indigenous males were for clients aged 15–24 years compared with 17% of service contacts for other Australian males. There were more service contacts for Aboriginal and Torres Strait Islander males than for females (1.6 times) whereas the rates for other Australian males and females were similar.

10.17 COMMUNITY MENTAL HEALTH SERVICE CONTACTS, by Indigenous status, sex and age—2004–05(a)

Sex and age group (years)	Indigenous		Other(b)		Total	
	no.	%	no.	%	no.	%
Males						
Less than 15	12 158	8.7	223 624	8.9	235 782	8.9
15–24	32 650	23.5	416 807	16.6	449 457	17.0
25–34	53 098	38.2	661 254	26.3	714 352	26.9
35–44	27 891	20.1	517 875	20.6	545 766	20.6
45–54	8 927	6.4	327 865	13.0	336 792	12.7
55–64	3 319	2.4	165 311	6.6	168 630	6.4
65 and over	929	0.7	191 163	7.6	192 092	7.2
Total(c)	139 037	100.0	2 512 477	100.0	2 651 514	100.0
Females						
Less than 15	6 284	7.4	143 567	6.5	149 851	6.5
15–24	18 963	22.3	388 419	17.5	407 382	17.7
25–34	24 910	29.3	400 826	18.0	425 736	18.5
35–44	19 460	22.9	410 706	18.5	430 166	18.7
45–54	10 446	12.3	330 475	14.9	340 921	14.8
55–64	2 169	2.6	198 289	8.9	200 458	8.7
65 and over	2 709	3.2	341 794	15.4	344 503	14.9
Total(c)	84 985	100.0	2 221 516	100.0	2 306 501	100.0
Total(c)	**224 213**	. .	**4 884 311**	. .	**5 108 524**	. .

. . not applicable

(a) These data should be interpreted with caution due to likely under-identification of Indigenous persons.

(b) Includes service contacts for clients for whom Indigenous status was not stated.

(c) Includes service contacts for clients for whom age or sex was not stated.

Source: AIHW 2007j

Hospital services

Hospital services are a major component of expenditure on health services for Aboriginal and Torres Strait Islander people. Although the reasons for which people are hospitalised and the procedures they may undergo in hospital are not necessarily indicative of the health of the total population, information on hospitalisations can provide some insights into the health of the population.

Hospitalisation statistics are limited to information about the conditions for which people are admitted to hospital, thereby excluding service use information regarding those who visited the emergency department but were not admitted, or had hospital outpatient clinic visits, or who made use of other health services, such as GPs and community health clinics. The number and pattern of hospital admissions can also be affected by the variation between hospitals in decisions about whether to admit patients

Hospital services *continued*

or to treat them as non-admitted patients. Information concerning non-admitted patients is only reported in selected public hospitals and is not always available at the episode-level. Other factors, such as the availability of, and access to, other medical services, may influence hospital utilisation. For example, a rising rate of hospitalisation could mean that health status has deteriorated, or that access to hospitals has improved, or that access to GPs has decreased, or all of these.

Indigenous Australians are less likely than other Australians to undergo a procedure once admitted to hospital. It is not known which factors cause this disparity. Presentation late in the course of the illness, the presence of co-morbidities and communication difficulties are some of the suggested factors that may be involved (AHMAC 2006). Along with data on hospitalisations, this section provides information on hospital procedures recorded for Indigenous and other Australians.

HOSPITALISATIONS

Hospitalisation rates for Indigenous people are influenced by their relatively poor health status, as well as their access to hospital and other health services (AIHW 2007b). Reported hospitalisation rates in the Indigenous population are also influenced by the quality of Indigenous identification in hospital records, which varies among the states and territories (see Chapter 7, box 7.9 for more detail).

The information presented in this section is for the six jurisdictions which have been assessed as having adequate identification of Indigenous people in hospitalisations data in 2004–05—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, however, the information presented here is not necessarily representative of the other two jurisdictions (Tasmania and the Australian Capital Territory).

In Australia, during 2005–06, there were 7.3 million hospitalisations recorded across all jurisdictions (AIHW 2007b). In the same period, around 7.0 million hospitalisations were recorded in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined. Of these, 243,106 or 3.5% were hospitalisations of Indigenous people. The same patient may have been hospitalised more than once during this period. After adjusting for differences in the age structures of the Indigenous and non-Indigenous populations, Indigenous males and females were more than twice as likely to be hospitalised as other Australian males and females.

In 2005–06, in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, about 94% of hospitalisations involving Indigenous patients were recorded in public hospitals, compared with 60% of hospitalisations of other Australians. While Indigenous patients are not identified well in private hospitals compared with public hospitals, the much lower proportions of hospitalisations of Indigenous patients in private hospitals probably reflects lower attendance at private hospitals by Indigenous patients.

The most common diagnosis for both Indigenous males and females in hospitalisations data in 2005–06 was 'care involving dialysis', which is used in the treatment of chronic kidney disease. In New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, hospitalisation rates for a diagnosis of

Hospital services continued

HOSPITALISATIONS *continued*

care involving dialysis accounted for 41% of all hospitalisations involving Indigenous patients, and 11% of hospitalisations for other patients; rates were around 14 times as high for Indigenous Australians compared with other Australians.

POTENTIALLY PREVENTABLE HOSPITALISATIONS

Potentially preventable hospitalisations provide an indication of the scope for health gain through preventative care and early disease management. These are also referred to as ambulatory care-sensitive conditions and are admissions to hospital that potentially could have been prevented through the provision of appropriate non-inpatient health services. Potentially preventable hospitalisations will never be entirely eliminated, but the variation in rates between Indigenous and non-Indigenous Australians demonstrates considerable potential for strengthening the impact of non-hospital care.

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

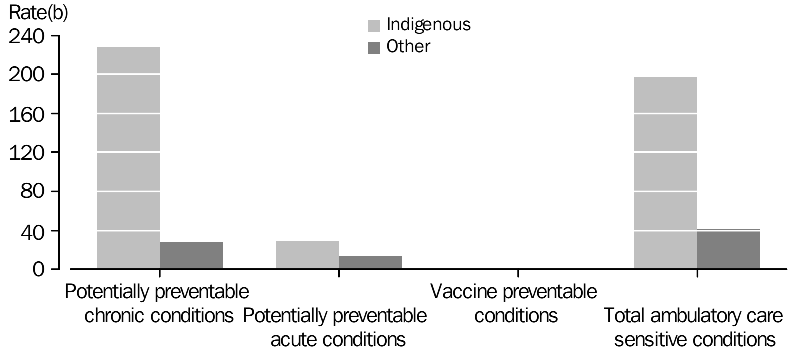
- vaccine-preventable conditions, including influenza, tetanus, measles, mumps, rubella, diphtheria, pertussis and polio;
- potentially preventable acute conditions, including dehydration, gastroenteritis, kidney infection, perforated ulcer, cellulitis, pelvic inflammatory disease, ear, nose and throat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

In 2005–06, in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, the rate of hospitalisations due to ambulatory care-sensitive conditions for Indigenous Australians was five times the rate for other Australians. Indigenous Australians were hospitalised for potentially preventable chronic conditions at eight times the rate of other Australians, for potentially preventable acute conditions at twice the rate, and for vaccine preventable conditions at three times the rate of other Australians (graph 10.18). Of the potentially preventable chronic conditions, diabetes complications had the highest hospitalisation rate, with the rate for Indigenous Australians being twelve times the rate for other Australians.

Hospital services continued

POTENTIALLY PREVENTABLE HOSPITALISATIONS *continued*

10.18 HOSPITALISATION RATES FOR AMBULATORY CARE SENSITIVE CONDITIONS, by Indigenous status(a)—2005–06

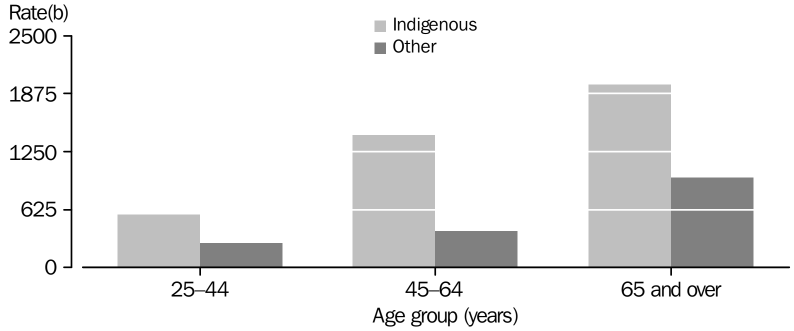


(a) Data are for NSW, Vic., Qld, WA, SA and NT combined.
(b) Rate per 1,000 population

Source: AIHW National Hospital Morbidity Database

Age-specific hospitalisation rates by Indigenous status are shown for three different scenarios (graphs 10.19, 10.20 and 10.21). The first scenario which includes all hospitalisations (including dialysis) shows rates of hospitalisations for Indigenous patients and for other patients in all age groups from 25 years onwards. When dialysis was excluded in the second scenario, the difference in hospitalisation rates between Indigenous and non-Indigenous Australians was much smaller. When hospitalisations from both dialysis and ambulatory care sensitive conditions were excluded in the third scenario, much of the difference in hospitalisation rates between Indigenous and other Australians from 25 years onwards was removed. Dialysis and ambulatory care sensitive conditions accounted for 80% of all hospitalisations of Indigenous people aged 45 years or over, compared with 28% for other Australians in this age group.

10.19 RATES FOR HOSPITALISATIONS INCLUDING DIALYSIS, by Indigenous status and age(a)—2005–06



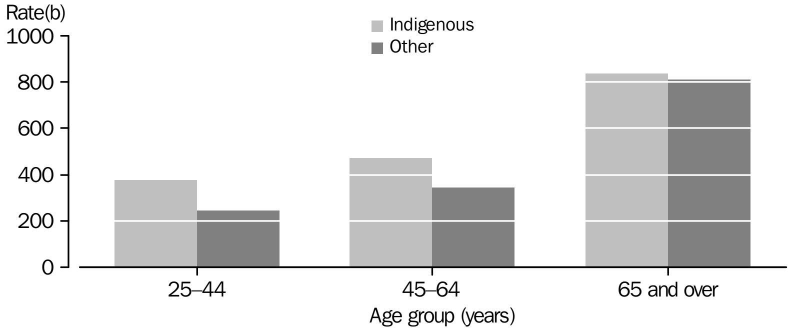
(a) Data are for NSW, Vic., Qld, WA, SA and NT combined.
(b) Rate per 1,000 population.

Source: AIHW National Hospital Morbidity Database

Hospital services continued

POTENTIALLY PREVENTABLE HOSPITALISATIONS *continued*

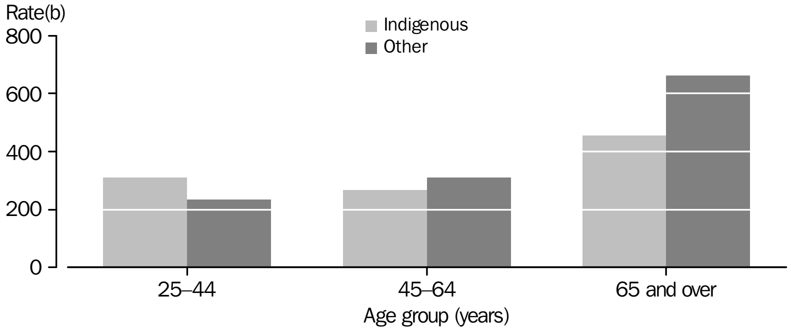
10.20 RATES FOR HOSPITALISATIONS EXCLUDING DIALYSIS, by Indigenous status and age(a)—2005–06



(a) Data are for NSW, Vic., Qld, WA, SA and NT combined.
(b) Rate per 1,000 population.

Source: AIHW National Hospital Morbifity Database

10.21 HOSPITALISATIONS EXCLUDING DIALYSIS AND AMBULATORY CARE SENSITIVE CONDITIONS, by Indigenous status and age(a)—2005–06



(a) Data are for NSW, Vic., Qld, WA, SA and NT combined.
(b) Rate per 1,000 population.

Source: AIHW National Hospital Morbidity Database

Hospitalisations and procedures

Procedures are clinical interventions (surgical interventions and interventions that require specialised training or special facilities or equipment) such as X-rays and chemotherapy. One or more procedures can be reported for each hospitalisation, but many hospital admissions will not involve procedures.

Around half (48%) of all hospitalisations of Indigenous Australians (excluding dialysis hospitalisations) did not have a procedure reported. Around 16% of Indigenous hospitalisations had one procedure reported, 16% had two procedures reported, 8% had three procedures reported and 11% had four or more procedures reported (table 10.22).

While Indigenous Australians were more likely to be hospitalised than other Australians, they were less likely to undergo a procedure once admitted to hospital. Indigenous Australians were twice as likely as other Australians to have no procedures recorded and

Hospitalisations and procedures continued

less likely than other Australians to have 1 to 9 procedures recorded. They were, however, more likely to have 10 or more procedures recorded, probably reflecting higher rates of co-morbidities and case complexity.

10.22 HOSPITALISATIONS (EXCLUDING DIAGNOSES FOR CARE INVOLVING DIALYSIS), by number of procedures—2005–06

	NUMBER		CRUDE PROPORTION	AGE STANDARDISED PROPORTION(a)		
Number of procedures	*Indigenous*	*Other*	*Indigenous*	*Indigenous*	*Other*	*Ratio*(b)
0	70 474	1 276 264	48.3	38.6	20.4	1.9
1	23 940	1 282 689	16.4	18.8	20.5	0.9
2	23 762	1 764 594	16.3	16.5	28.3	0.6
3	12 352	950 506	8.5	9.2	15.2	0.6
4	6 095	410 862	4.2	4.5	6.6	0.7
5–9	7 717	516 492	5.3	5.7	8.3	0.7
10 or more	2 338	75 648	1.6	1.6	1.2	1.3
Total hospitalisations	**145 875**	**6 244 283**	**100.0**	. .	. .	. .
Total hospitalisations with procedure	**76 204**	**5 000 791**	**52.2**	**55.8**	**80.1**	**0.7**

. . not applicable

(a) Proportions are indirectly age standardised using the age-specific proportions of other Australians as the standard.

(b) Ratio is observed hospitalisations divided by the expected number of hospitalisations based on the age and sex-specific proportions for other Australians.

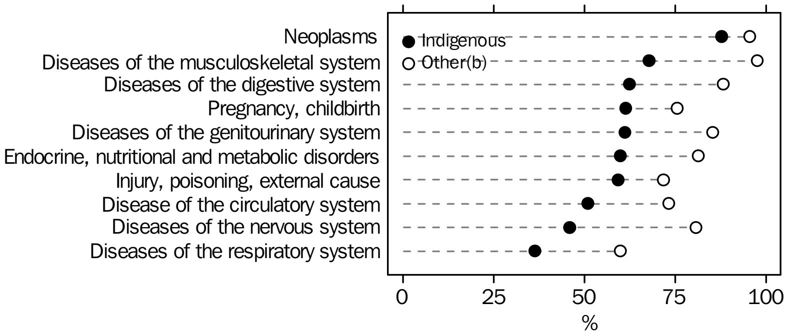
Source: AIHW National Hospital Morbidity Database

For almost all principal diagnoses, Indigenous patients were less likely than other patients to have a procedure recorded (graph 10.23). The greatest disparities between Indigenous and other Australians in the proportion of hospitalisations with a procedure reported were seen in hospitalisations for diseases of the nervous system, diseases of the respiratory system, and symptoms, signs and abnormal findings (e.g. breathing abnormalities, nausea and vomiting, fever of unknown origin).

Indigenous Australians are less likely to undergo a procedure once admitted to hospital than other Australians but it is not known which factors cause this disparity. This can include institutionalised racism (AMA 2007) which has been defined as 'systemic practices not ill-intentioned, but still discriminatory, and almost invisible to the patient provider encounter' (AHMAC 2006). Presentation late in the course of the illness, the presence of co-morbidities and communication difficulties are some of the other suggested factors that may be involved (AHMAC 2006).

Hospitalisations and procedures continued

10.23 HOSPITALISATIONS WITH A PROCEDURE RECORDED, by principal diagnosis and Indigenous status(a)—2005–06



(a) Excludes care involving dialysis.
(b) Includes hospitalisations of non-Indigenous Australians and those for whom Indigenous status was not stated.

Source: AIHW National Hospital Morbidity Database

CORONARY PROCEDURES

A study by Coory and Walsh (2005), which followed patients admitted to Queensland hospitals for acute myocardial infarction (AMI) between 1998 and 2002, found that rates of coronary procedures among Indigenous patients were significantly lower (by 22%) than among other patients with AMI.

The AIHW report *Aboriginal and Torres Strait Islander people with coronary heart disease: further perspectives on health status and treatment*, outlines the disparities between Aboriginal and Torres Strait Islander people and other Australians in the health status and treatment of coronary heart disease (CHD), including the use of coronary procedures in hospital (AIHW 2006b). Among those Australians hospitalised with CHD in 2002–03, Indigenous Australians were less likely than other Australians to receive key coronary investigations and procedures, such as coronary angiography and revascularisation. This was evident across all age groups.

In 2002–03, there were 4,126 hospitalisations of Indigenous Australians with CHD as the principal diagnosis, compared with 113,109 hospitalisations of other Australians. After adjusting for differences in the age structures of the Indigenous and non-Indigenous populations, the angiography and revascularisation rates for Aboriginal and Torres Strait Islanders were 40% lower than the rate for other Australians (rate ratios of 0.6 for both). Revascularisation procedures include percutaneous coronary intervention (PCI) and coronary artery bypass grafts (CABG). Similar results were observed when PCI and CABG were analysed separately, with Indigenous Australians generally less likely to receive these procedures than other Australians across all age groups for those hospitalised for CHD. The age-adjusted procedure rate for PCI is around 40% lower than other Australians, while the age-adjusted rate for CABG is 20% lower (age standardised rate ratio of 0.6 and 0.8 respectively).

Indigenous Australians with CHD tended to be more complex cases (as measured by the number of co-morbidities). However, the complexity of cases did not explain the lower procedure rate in Indigenous Australians compared with other Australians. In 2002–03, Aboriginal and Torres Strait Islander people with CHD were less likely to undergo a coronary procedure across all levels of complexity. The largest difference in procedure

Hospitalisations and procedures continued

CORONARY PROCEDURES *continued*

rates between Indigenous Australians and other Australians occurred in the least complex groups (no or 1–2 co-morbidities present). In these groups, Indigenous Australians were just over half as likely to have had a coronary procedure.

TREATMENT FOR CANCER

A study of 815 Indigenous and 810 non-Indigenous patients diagnosed with cancer in Queensland between 1997 and 2002 found that after adjustment for stage at diagnosis, treatment and co-morbidities, non-Indigenous Australians had better survival rates than Indigenous patients. Indigenous patients were less likely to have had treatment for cancer (e.g. surgery, chemotherapy, radiotherapy) and were more likely to have waited longer for surgery than non-Indigenous patients (Valery et al 2006).

A study in Western Australia of patients who had a cancer registration in the state between 1982 and 2001 found that Indigenous women were as likely as non-Indigenous women to undergo breast-conserving surgery for breast cancer, but Indigenous men were less likely than non-Indigenous men to receive radical prostatectomy for prostate cancer. Indigenous people were also less likely than non-Indigenous people to receive surgery for lung cancer (Hall et al 2004).

SUMMARY

In 2004–05, $1.17 was spent on Aboriginal and Torres Strait Islander health for every $1.00 spent on the health of non-Indigenous Australians. The relatively high levels of morbidity and mortality among Indigenous Australians, however, suggest that current expenditures for Aboriginal and Torres Strait Islander people may not be sufficient to address their health needs.

The access of Aboriginal and Torres Strait Islander people to health services may be hindered by a number of barriers, sometimes resulting in them not accessing care when needed. In the 2004–05 NATSIHS, for example, 21% of Indigenous Australians reported they had needed to go to a dentist in the last 12 months, but had not gone, and 15% had needed to go to a doctor, but had not gone. Reasons reported for not accessing care include lack of availability of services, transport and distance to services, cost, and language and cultural barriers. A higher proportion of Indigenous people in non-remote areas reported cost as a reason for not seeking health care, while for those in remote areas, transport/distance and the service not being available in the area were more commonly reported.

Indigenous participation in the delivery of services is considered an important factor for improving access to services. In 2006 Indigenous Australians were under-represented in almost all health-related occupations and comprised 1% of the health workforce. Indigenous students were also under-represented among those completing graduate courses in health. Aboriginal and Torres Strait Islander people, however, were better represented in selected welfare and community service occupations, comprising 3.6% of people employed in this sector.

After adjusting for differences in the age structures of the Indigenous and non-Indigenous populations, Indigenous Australians were more likely to have taken at least one health-related action in 2004–05, such as visiting a doctor or being admitted to hospital, than non-Indigenous Australians. The differences were most marked in relation

SUMMARY *continued*

to visits to casualty and other health professionals where the rates for Indigenous Australians were twice the rates for non-Indigenous Australians. On the other hand, the rate of Indigenous Australians who visited a dentist was 0.6 times the rate for non-Indigenous Australians.

In 2005–06, Indigenous males and females were more than twice as likely as other males and females to have been hospitalised, with the greatest differences in hospitalisation rates for people aged 25 years and over. Most of the difference in hospitalisation rates was due to high rates of care involving dialysis, and potentially preventable hospitalisations. Indigenous Australians were hospitalised for care involving dialysis at 14 times the rate of other Australians and for potentially preventable hospitalisations at five times the rate of other Australians.

While Indigenous Australians were more likely to be hospitalised than other Australians, they were less likely to undergo a procedure once admitted to hospital. It is not clear why Indigenous patients are less likely to undergo a procedure, but some possible factors include communication difficulties, institutionalised racism, the presence of co-morbidities, and presentation late in the course of illness.

CHAPTER 11 COMMUNITY SERVICES

INTRODUCTION

This chapter presents information about the use of community services by Aboriginal and Torres Strait Islander clients in the areas of child care, child protection, adoptions, juvenile justice, disability services and aged care. Aboriginal and Torres Strait Islander children and young people are over-represented in both the child protection and juvenile justice systems. Only 3% of disability service users were Indigenous, even though their rates of disability are almost twice the rate of non-Indigenous Australians (see Chapter 5). Indigenous people were more likely to utilise both disability and aged care services at younger ages, reflecting their poorer health status and lower life expectancy.

Community services are provided by Australian, state, territory and local government agencies, as well as by non-government not-for-profit and for-profit organisations. Most of the data in this chapter come from national data collections compiled by the Australian Institute of Health and Welfare (AIHW) from the administrative databases of community service providers. While these data provide useful information, there are some limitations on data quality. The Indigenous status of clients is not always disclosed by the clients or recorded by the service provider. In addition, in some cases where Indigenous status is recorded, inconsistencies in recording methods result in data that are not comparable between jurisdictions (see box 11.21).

CHILD CARE

Child care services provide care and development activities for children generally aged 12 years and younger. These services enable parents to participate in employment, education and training, community activities and personal activities. They may also be used for family support reasons. As a condition of government funding and regulation, child care services must promote and enhance children's emotional, intellectual, social and physical development. Dedicated preschool services offer educational and developmental programs for children in the year or two before full-time school.

In early 2008 the Australian Government Department of Education, Employment and Workplace Relations (DEEWR) gained responsibility for child care (prior to this, child care was the responsibility of the Department of Families, Housing, Community Services and Indigenous Affairs (FaHCSIA)). DEEWR funds most child care services through the Australian Government Child Care Support Program. DEEWR also provides supplementary funding for Indigenous children enrolled in government and non-government preschools under the *Indigenous Education (Targeted Assistance) Act 2000* in order to accelerate improvements to the educational outcomes of Indigenous Australians. During 2005–2008, over $500 million in Supplementary Recurrent Assistance (SRA) will be allocated to schools, including preschools (DEST 2004).

All state and territory governments fund dedicated preschool services. They also provide some funding for other child care services, either solely or in conjunction with the Australian Government.

CHILD CARE *continued*

The Australian Government supports mainstream child care services such as long day care centres, family day care services and outside hours care services, as well as culturally specific services for Aboriginal and Torres Strait Islander children. These include:

- Multifunctional Aboriginal Children's Services (MACS), which provide flexible services to meet Aboriginal and Torres Strait Islander children's social and developmental needs. MACS offer care for children under school age and for school age children, including long day care, playgroups, before and after school care and school holiday care, and cultural programs.
- Aboriginal Playgroups and Enrichment Programs. Aboriginal playgroups provide opportunities for children under school age and their parents to socialise and interact with one another. Enrichment programs provide supervised care, organised activities, homework centres and nutrition services for school age children.

Although not specifically for Indigenous children, the Australian Government also funds mobile children's services which visit remote areas and provide occasional care, school holiday care, playgroups, story telling, games and toy library services for children and information and support for parents.

Nationally, comprehensive and comparable data on children using child care and preschool services are not available. The development phase of a Children's Services National Minimum Data Set (CSNMDS) has been completed. The final report on the development of the CSNMDS was released in February 2007 and work is currently underway to develop options for its implementation. Since most child care services are supported by the Australian Government, the Census of Child Care Services (previously administered by FaHCSIA) is currently the most comprehensive source of data on Indigenous children attending child care services in Australia. Results from the 2006 Child Care Census are not yet available for reporting. Data from the 2004 Child Care Census are therefore provided.

In 2004, there were 651,044 children using Australian Government supported child care services, of whom 11,971 (1.8%) were Indigenous. Not surprisingly, Indigenous-specific services such as Aboriginal Playgroups and Enrichment Services and Multifunctional Aboriginal Children's Services had the highest proportions of Indigenous children (88% and 79% respectively). Among mainstream services in 2004, around 10% of children using Mobile and Toy Library Services were Indigenous and 6% of children using Multifunctional Children's Services were Indigenous. Indigenous children represented less than 2% of all children using the remaining service types.

CHILD CARE *continued*

11.1 CHILDREN IN AUSTRALIAN GOVERNMENT SUPPORTED CHILD CARE, by Indigenous status and service type—May 2004

		Indigenous children	*Other children*(a)
Long day care centres	%	50.7	59.0
Family day care	%	8.9	13.8
Occasional care	%	1.1	1.2
Multifunctional Aboriginal Children's Services	%	11.7	—
Multifunctional Children's Services	%	0.5	0.2
Before/after school care (Outside of School Hours Care) services	%	15.5	24.9
Vacation care	%	—	—
Mobile and Toy Library Services	%	2.5	0.4
Aboriginal Playgroups and Enrichment Services	%	8.9	—
In-home Care Services	%	0.2	0.5
Total	%	**100.0**	**100.0**
	no.	**11 971**	**639 073**

— nil or rounded to zero (including null cells)

(a) Includes children for whom Indigenous status was not stated.

Source: 2004 FaCS Australian Government Census of Child Care Services

Of all Indigenous children in Australian Government supported child care services, 51% were in long day care centres, 16% were in before/after school care and 9% were in family day care (table 11.1). The corresponding proportions for other Australian children were 59%, 25% and 14% respectively.

Some data are also available on the number of Indigenous children enrolled in state and territory funded and non-government funded preschool services from the annual census conducted by DEEWR. In 2006, there were 4,931 Aboriginal and Torres Strait Islander children enrolled in state/territory funded preschools in all jurisdictions, excluding Queensland and Victoria (children attending state and territory funded preschools in Queensland and Victoria were excluded from the data collection in 2006), and there were a further 4,344 Indigenous children enrolled in non-government funded preschools in all states and territories.

CHILD PROTECTION

Each state and territory has a department which is responsible for child protection services. Children who come into contact with these departments for protective reasons include those:

- who have been abused, neglected or otherwise harmed
- whose parents cannot provide adequate care or protection.

Children who are seen to be in need of protection can come to the attention of child protection authorities through a report by an individual or organisation, or by the children themselves. Reports of suspected abuse or neglect can lead to the matter being dealt with as a family support issue (whereupon services will be provided) or as a child protection notification. Departments then determine if a notification requires an investigation or is better dealt with by other means, such as referral to other organisations or family support services. If an investigation is carried out, the outcome can be a substantiation, meaning that the investigating authority concludes that the child has been, is being, or is likely to be, abused, neglected or otherwise harmed. A range of services may then be provided to the child and the child's family.

CHILD PROTECTION *continued*

The departments provide assistance to these children through the provision of, or referral to, a wide range of services. Non-government agencies are often contracted by the departments to provide these services which range from family support to the placement of children in out-of-home care.

In more serious cases, the department may also apply to the relevant court to place a child under a care and protection order. Care and protection orders vary between jurisdictions but can provide for a supervisory role for the department or transfer of legal guardianship to the department. The issuing of a care and protection order is often a legal requirement if a child is to be placed in out-of-home care. This option can be used to protect the child from further harm, where there is family conflict and 'time out' is needed, or where parents are ill or unable to care for the child.

The three areas of child protection services for which national data are collected are:

- child protection notifications, investigations and substantiations
- children on care and protection orders
- children in out-of-home care.

Each state and territory has its own legislation, policies and practices in relation to child protection, so the data provided by jurisdictions are not strictly comparable, and national data are limited. This is particularly the case with the data on notifications, investigations and substantiations, where jurisdictions use different definitions and processes (AIHW 2007d). It is also worth noting that the quality of Indigenous data varies across jurisdictions due to differences in the practices used to identify and record the Indigenous status of children and young people in the child protection system.

Substantiations

In 2005–06, the rates of Aboriginal and Torres Strait Islander children who were the subject of a child protection substantiation were substantially higher than the rates for other children in all jurisdictions except Tasmania (table 11.2). Data for Tasmania, however, should be interpreted with caution due to the low incidence of child protection workers recording Indigenous status at the time of the substantiation.

Substantiations continued

11.2 CHILDREN WHO WERE THE SUBJECT OF A CHILD PROTECTION SUBSTANTIATION(a), by Indigenous status—2005–06

	NUMBER OF CHILDREN			RATE PER 1,000 CHILDREN(b)			
	Indigenous	*Other*(d)	*Total*	*Indigenous*	*Other*(d)	*Total*	*Rate ratio*(c)
State/territory	no.	no.	no.	rate	rate	rate	ratio
New South Wales	2 696	9 931	12 627	44.2	6.9	8.4	6.4
Victoria	834	6 453	7 287	67.7	6.0	6.7	11.3
Queensland	1 340	8 737	10 077	23.0	10.1	10.9	2.3
Western Australia	316	603	919	10.9	1.4	2.0	7.8
South Australia	360	1 101	1 461	32.3	3.5	4.5	9.2
Tasmania(e)	34	635	669	4.4	6.2	6.1	0.7
Australian Capital Territory	99	754	853	56.8	10.9	12.0	5.2
Northern Territory	354	108	462	15.2	3.2	8.1	4.8

(a) Aged 0–16 years.
(b) Based on ABS 'low series' population projections.
(c) The rate for Indigenous children divided by the rate for other children.
(d) Includes children for whom Indigenous status was not stated.
(e) Data should be interpreted with caution due to the high proportion of investigations not finalised by 31 August 2006 (the cut-off date for the processing of investigations for inclusion in the data for that year).

Source: AIHW 2007d

Substantiations are classified into one of the following four categories depending on the main type of abuse or neglect that has occurred: physical abuse, sexual abuse, emotional abuse, or neglect. While more than one type of abuse or neglect may be recorded, only the most serious type of abuse or neglect for the first substantiation of the year for each child is reported. Thus, it is difficult to measure the real patterns of abuse or neglect that each child may experience. The precise definition of type of abuse or neglect, as well as the types of incidences that may be substantiated, vary according to the policies and practices of the different jurisdictions.

The pattern of substantiated abuse and neglect for Aboriginal and Torres Strait Islander children differs somewhat from the pattern for other children. Indigenous children were more likely to be the subject of a substantiation of neglect than other children. For example, in Western Australia 40% of Indigenous children in substantiations were the subject of a substantiation of neglect, compared with 30% of other children (table 11.3). However, other Australian children were more likely than Indigenous children to have substantiations where the main type of abuse was sexual. For example, in New South Wales, 17% of other Australian children had substantiations where the main type of abuse was sexual abuse, compared with 9% of Indigenous children. Victoria and the Australian Capital Territory had a relatively high proportion of substantiations that were classified as 'emotional abuse' for both Indigenous and other children.

Substantiations continued

11.3 CHILDREN WHO WERE THE SUBJECT OF A CHILD PROTECTION SUBSTANTIATION(a), by type of abuse or neglect and Indigenous status—2005–06

Type of abuse or neglect	NSW	Vic.	Qld	WA	SA	Tas.(b)	ACT(b)	NT
INDIGENOUS CHILDREN								
Physical abuse	17.5	20.7	20.7	27.4	14.7	26.5	7.1	33.1
Sexual abuse	9.2	5.6	4.2	16.4	5.8	2.9	—	4.2
Emotional abuse	37.0	49.3	36.2	16.1	36.1	23.5	69.7	28.4
Neglect	36.3	24.3	38.9	40.1	43.3	47.1	23.2	34.3
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
OTHER CHILDREN								
Physical abuse	21.5	25.1	22.1	28.6	25.9	22.2	9.0	31.5
Sexual abuse	16.7	9.4	6.6	23.6	9.7	12.5	3.3	9.3
Emotional abuse	38.1	43.1	42.4	17.9	32.1	26.9	71.8	37.0
Neglect	23.6	22.5	28.8	29.9	32.3	38.5	15.9	22.2
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

— nil or rounded to zero (including null cells)

(a) Children aged 0–17 years.

(b) The proportion of Indigenous children who were the subject of a substantiation in Tasmania and the Australian Capital Territory should be interpreted with caution due to small numbers in these jurisdictions.

Source: AIHW 2007d

Care and protection orders and out-of-home care

The rate of Aboriginal and Torres Strait Islander children being placed on care and protection orders and in out-of-home care was around seven times the rate for other Australian children (table 11.4). The rate ratios varied considerably by jurisdiction and were highest in Victoria (12.3 for children on care and protection orders and 11.4 for children in out-of-home care) and lowest in Tasmania (2.3 for children on care and protection orders and 2.2 for children in out-of-home care). Again, however, it should be noted that data from Tasmania should be interpreted with caution due to the low incidence of child protection workers recording Indigenous status at the time of the substantiation.

Care and protection orders and out-of-home care continued

11.4 CHILDREN ON CARE AND PROTECTION ORDERS AND IN OUT-OF-HOME CARE(a), by Indigenous status—30 June 2006

	CARE AND PROTECTION ORDERS			OUT-OF-HOME CARE		
State/Territory	*Indigenous*	*Other*(b)	*Rate ratio*(c)	*Indigenous*	*Other*(b)	*Rate ratio*(c)
New South Wales	37.2	4.5	8.3	44.7	4.6	9.7
Victoria	56.4	4.6	12.3	42.1	3.7	11.4
Queensland	26.7	5.2	5.1	24.0	4.7	5.1
Western Australia	31.8	3.9	8.2	30.2	3.4	8.9
South Australia	25.8	2.7	9.6	24.8	2.6	9.5
Tasmania(d)	15.2	6.5	2.3	11.9	5.4	2.2
Australian Capital Territory	12.2	3.8	3.2	10.0	3.0	3.3
Northern Territory	53.3	6.2	8.6	43.7	4.1	10.7
Australia	**29.9**	**4.5**	**6.6**	**29.8**	**4.1**	**7.3**

(a) Rates per 1,000 children aged 0–17 years, based on 'low series' ABS population projections from the 2001 Census of Population and Housing.
(b) Includes children for whom Indigenous status was not stated.
(c) Rate ratio is equal to the rate for Indigenous children divided by the rate for other children.
(d) Data for Tasmania should be interpreted with caution due to the low incidence of child protection workers recording Indigenous status.
Source: AIHW 2007d

One of the most significant changes in child welfare policy in relation to Indigenous children was the introduction of the Aboriginal Child Placement Principle (box 11.5). The Principle outlines a preference for placing Aboriginal and Torres Strait Islander children with relatives/kin or other Indigenous carers. All jurisdictions have adopted the Aboriginal Child Placement Principle in legislation and policy.

11.5 THE ABORIGINAL CHILD PLACEMENT PRINCIPLE

The Aboriginal Child Placement Principle expresses a preference for the placement of Aboriginal and Torres Strait Islander children with other Aboriginal and Torres Strait Islander people when they are placed outside their family (Lock 1997). The Principle has the following order of preference for the placement of Aboriginal and Torres Strait Islander children:

- with the child's extended family
- within the child's Indigenous community
- with other Indigenous people.

The Principle covers the placement of Indigenous children in out-of-home care as well as the adoption of Indigenous children.

The impact of the Aboriginal Child Placement Principle is reflected in the relatively high proportion of Indigenous children who are placed with Indigenous caregivers or with relatives, though this proportion varies by state and territory. At 30 June 2006, the proportion of Indigenous children in out-of-home care placed with relatives/kin, other Indigenous caregivers or in Indigenous residential care was at least 62% in all jurisdictions, except Tasmania (table 11.6). These data do not necessarily reflect the effort made to place a child in accordance with the Principle, however, as the availability

Care and protection orders and out-of-home care continued

of Indigenous caregivers and other considerations in relation to the suitability of the placement can impact on the placement outcomes.

11.6 INDIGENOUS CHILDREN IN OUT-OF-HOME CARE(a), by relationship to, and Indigenous status of carer—30 June 2006

Relationship/Indigenous status of carer	*NSW*	*Vic.*	*Qld*	*WA*	*SA*	*Tas.*	*ACT*	*NT*
NUMBER								
Indigenous relative/kin	1 669	152	379	394	109	10	28	90
Other Indigenous caregiver	512	102	400	143	138	13	17	67
Other relative/kin	282	80	142	64	28	8	11	(b)na
Indigenous residential care	9	21	9	18	—	—	1	—
Total with relative/kin, other Indigenous caregivers, Indigenous residential care	***2 472***	***355***	***930***	***619***	***275***	***31***	***57***	***157***
Other caregiver	374	166	538	92	62	55	18	87
Other residential care	43	27	28	45	22	7	6	—
Total other caregivers, other residential care	***417***	***193***	***566***	***137***	***84***	***62***	***24***	***87***
Total	**2 889**	**548**	**1 496**	**756**	**359**	**93**	**81**	**244**
PERCENT								
Indigenous relative/kin	57.8	27.7	25.3	52.1	30.4	10.8	34.6	36.9
Other Indigenous caregiver	17.7	18.6	26.7	18.9	38.4	14.0	21.0	27.5
Other relative/kin	9.8	14.6	9.5	8.5	7.8	8.6	13.6	na
Indigenous residential care	0.3	3.8	0.6	2.4	—	—	1.2	—
Total with relative/kin, other Indigenous caregivers, Indigenous residential care	***85.6***	***64.8***	***62.2***	***81.9***	***76.6***	***33.3***	***70.4***	***64.3***
Other caregiver	12.9	30.3	36.0	12.2	17.3	59.1	22.2	35.7
Other residential care	1.5	4.9	1.9	6.0	6.1	7.5	7.4	—
Total other caregivers, other residential care	***14.4***	***35.2***	***37.8***	***18.1***	***23.4***	***66.7***	***29.6***	***35.7***
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

— nil or rounded to zero (including null cells)

na not available

(a) This table does not include Indigenous children who were living independently or whose living arrangements were unknown.

(b) In the Northern Territory, children placed with family members have all been included in the 'Indigenous relative/kin' category.

Source: AIHW 2007d

ADOPTION

The formal adoption of Aboriginal and Torres Strait Islander children has not been a common practice in recent years. In many cases where Aboriginal or Torres Strait Islander children cannot live with their birth parents, informal arrangements are made for them to live with a relative or other member of the community (HREOC 1997). Arrangements of this type are generally preferred and adoption orders are only made when informal alternatives are judged not to be in the best interests of the child.

Between 2001–02 and 2005–06, there were only 18 adoptions of Aboriginal and Torres Strait Islander children in Australia. Eight of these were 'known' child adoptions where the adoptive parents had a pre-existing relationship with the child (e.g. relatives/kin or carers), and 10 were 'local' adoptions where there was no pre-existing relationship between the adoptive parents and the child.

Although the Aboriginal Child Placement Principle (box 11.5) also covers the adoption of Indigenous children, of the 10 'local' adoptions of Indigenous children between 2001–02 and 2005–06, three were adoptions by Indigenous parents and seven were adoptions by non-Indigenous parents.

JUVENILE JUSTICE

The juvenile justice system is responsible for dealing with young people who have committed or allegedly committed an offence while a 'juvenile'. In Queensland, juvenile justice legislation applies to those people who were aged 10–16 years of age at the time of the offence. In most other jurisdictions, however, those who were aged 10–17 years of age are included as juveniles. Victoria also has a sentencing option for adult courts which allows for some 18–20 year-olds to be sentenced to detention in juvenile justice facilities.

Juvenile justice is a state and territory responsibility and each jurisdiction has its own legislation that dictates policies and practices in this area. While there are differences in detail, the intent of the legislation is very similar across Australia. For example, key elements of juvenile justice in all jurisdictions include:

- diversion of young people from court where appropriate;
- incarceration as a last resort;
- victim's rights;
- the acceptance of responsibility by the offender for his or her behaviour; and
- community safety.

The juvenile justice system in each state and territory comprises several organisations, each having a different primary role and responsibility in dealing with young offenders:

- the Police, who are usually the young person's first point of contact with the justice system. Where considered appropriate, the Police may administer warnings, cautions and in some jurisdictions use conferencing to divert the juvenile from proceeding to court;
- the courts (usually a special children's or youth court), where matters regarding the charges against the young person are heard. The courts are largely responsible for decisions regarding bail (and remand) and sentencing options if the young person admits guilt or is found guilty by the court;
- the juvenile justice departments, which are responsible for the supervision of juveniles on a range of community-based orders and supervised bail and which are also responsible for the administration of juvenile detention centres.

The AIHW and the Australasian Juvenile Justice Administrators (AJJA) have developed a national data collection with information about young people who are on supervised community-based orders or in detention centres. The latest report from this new Juvenile Justice National Minimum Data Set was released in August 2007 and presents data from 2005–06, with trends from 2000–01—the first year of data collected (AIHW 2007i). The quality of information collected on the Indigenous status of juvenile justice clients varies according to differing collection and recording practices in the states and territories. Since the first report of the NMDS was released in February 2006, the quality has improved and it is expected that further improvements will be made over the next couple of years as standardised methods are implemented.

Few young people have contact with the juvenile justice system and many who do are diverted from the court when the offences committed are relatively minor and/or are a first offence. Of those young people who do go to court, most receive either non-supervised orders or community-based orders, with only a small proportion of young people placed in juvenile detention centres. Community-based supervision includes supervised bail, probation, community service orders and parole. Detention supervision includes both custodial remand prior to the case being finalised in court and

JUVENILE JUSTICE *continued*

sentenced detention. Juvenile justice supervision includes those under community-based supervision and those in detention.

The rates of juvenile justice supervision for all young people aged 10–17 years show high levels of over-representation of Indigenous youth during the period 2003–04 to 2005–06, relative to the proportion of Indigenous youth in state and territory populations (table 11.7). In 2005–06, Aboriginal and Torres Strait Islander young people were under juvenile justice supervision at a rate of 44 per 1,000, compared with a rate of 3 per 1,000 for non-Indigenous young people.

Rates of juvenile justice supervision for both Indigenous and non-Indigenous young people decreased in most states and territories during the period 2003–04 to 2005–06.

11.7 RATES OF YOUNG PEOPLE AGED 10–17 YEARS UNDER JUVENILE JUSTICE SUPERVISION(a)(b), by Indigenous status—2003–04 to 2005–06

	NSW	*Vic.*	*Qld*	*WA*	*SA*	*Tas.*(c)	*ACT*	*NT*	*Australia*
					2003–04				
Indigenous	35.8	26.5	41.6	99.6	63.0	11.9	56.7	21.6	45.1
Non-Indigenous	2.5	2.6	3.6	3.8	4.5	3.8	6.7	3.9	3.1
Total	**4.1**	**2.8**	**5.8**	**10.1**	**6.7**	**6.3**	**7.9**	**11.3**	**5.1**
					2004–05				
Indigenous	33.8	23.9	39.7	103.4	58.0	14.4	59.3	23.0	44.3
Non-Indigenous	2.5	2.2	3.1	3.8	4.0	4.1	5.8	3.3	2.9
Total	**4.0**	**2.5**	**5.3**	**10.2**	**6.1**	**6.3**	**7.1**	**11.6**	**4.9**
					2005–06				
Indigenous	34.7	23.8	39.8	106.6	51.4	17.7	44.2	21.2	44.4
Non-Indigenous	2.6	2.0	3.0	4.2	3.9	4.9	5.1	3.5	2.9
Total	**4.3**	**2.6**	**5.3**	**10.8**	**5.8**	**6.9**	**6.2**	**11.2**	**5.0**

(a) Age is calculated as at date of first juvenile justice supervision during the relevant year.
(b) Rates per 1,000 young people. Calculation of rates excludes records for young people whose Indigenous status was not stated. The rates are based on ABS high series 2001 Estimated Resident Indigenous population projections.
(c) Indigenous data for Tasmania may not be reliable due to limitations in the reporting capabilities of the information system.

Source: AIHW 2007i

Community-based supervision

In the period 2000–01 to 2005–06, the average daily number of Indigenous young people in community-based supervision increased by 24% (from 1,579 to 1,961). In comparison, there was a 4% decrease (from 2,980 to 2,853) for non-Indigenous young people over the same period. Part of the increase in Aboriginal and Torres Strait Islander numbers is likely to be due to a decrease in the number of young people whose Indigenous status was unknown, from 613 to 266 over this period (table 11.8).

Community-based supervision *continued*

11.8 YOUNG PEOPLE, average daily number in community supervision by Indigenous status(a)(b)—2000–01 to 2005–06

Year	*Indigenous*	*Non-Indigenous*	*Unknown*	*Total*(c)
2000–01	1 579	2 980	613	5 172
2001–02	1 543	3 026	448	5 017
2002–03	1 674	3 026	407	5 107
2003–04	1 757	2 969	344	5 070
2004–05	1 814	2 833	258	4 905
2005–06	1 961	2 853	266	5 081

(a) Averages are calculated by summing the community supervision days throughout the year and then dividing by 365.25 to get an average daily number. A community supervision day is one day of community-based supervision for one person.

(b) Australian Capital Territory is excluded as data for 2000–01, 2001–02 and 2002–03 were unavailable.

(c) Components may not add to total due to rounding.

Source: AIHW 2007h, 2007i

Detention supervision

In the period 2000–01 to 2005–06, the average daily number of Indigenous young people in detention supervision increased by 11%, from 321 in 2000–01 to 357 in 2005–06 (excluding the Australian Capital Territory for which data from 2000–01 to 2002–03 were unavailable). In comparison, there was a 15% decrease (from 501 to 425) for non-Indigenous young people over this period. The higher number of Indigenous young people in detention supervision may be due, or partly due, to improvements in Indigenous identification, with the average daily number of young people in detention whose Indigenous status was unknown decreasing from 59 to 15 over this period (table 11.9).

11.9 YOUNG PEOPLE, average daily number in detention by Indigenous status(a)(b)—2000–01 to 2005–06

Year	*Indigenous*	*Non-Indigenous*	*Unknown*	*Total*(c)
2000–01	321	501	59	881
2001–02	340	501	44	886
2002–03	333	465	35	833
2003–04	346	438	29	814
2004–05	341	406	19	766
2005–06	357	425	15	798

(a) Averages are calculated by summing the detention supervision days throughout the year and then dividing by 365.25 to get an average daily number. A detention supervision day is one day of detention supervision for one person.

(b) Australian Capital Territory is excluded as data for 2000–01, 2001–02 and 2002–03 were unavailable.

(c) Components may not add to total due to rounding.

Source: AIHW 2007h, 2007i

Juvenile justice supervision

Most young people under juvenile justice supervision are in community-based supervision rather than detention (tables 11.8 and 11.9). However, on an average day in 2005–06, Indigenous young people comprised a larger share of those in detention (45%) than those under community-based supervision (38%).

Juvenile justice supervision continued

Young Indigenous males under juvenile justice supervision outnumbered Indigenous females by a ratio of four to one. However, Indigenous females comprised a larger share of all females under supervision (45%) than did Indigenous males as a proportion of all males under supervision (37%) (table 11.10).

11.10 YOUNG PEOPLE UNDER JUVENILE JUSTICE SUPERVISION, by Indigenous status and sex—2005–06

Indigenous status	*Males*	*Females*	*Total*
NUMBER			
Indigenous	4 044	1 009	5 054
Non-Indigenous	6 385	1 084	7 470
Unknown/not recorded	602	127	730
Total	**11 031**	**2 220**	**13 254**
PERCENT			
Indigenous	36.7	45.5	38.1
Non-Indigenous	57.9	48.8	56.4
Unknown/not recorded	5.5	5.7	5.5
Total	**100.0**	**100.0**	**100.0**

Source: AIHW 2007i

Most young people under juvenile justice supervision during 2005–06 were aged 16 years or over (64%). However, 14% of Indigenous young people under supervision were aged 13 years or less, compared with only 6% of non-Indigenous young people (table 11.11).

11.11 YOUNG PEOPLE UNDER JUVENILE JUSTICE SUPERVISION, by Indigenous status and age—2005–06

	AGE (YEARS)									
Indigenous status	*10*	*11*	*12*	*13*	*14*	*15*	*16*	*17*	*18 and over*	*Total*
NUMBER										
Indigenous	20	65	170	430	736	948	1 129	1 094	462	5 054
Non-Indigenous	8	31	64	280	675	1 207	1 835	2 026	1 344	7 470
Unknown/not recorded	—	5	2	19	45	113	175	188	183	730
Total	**28**	**101**	**236**	**729**	**1 456**	**2 268**	**3 139**	**3 308**	**1 989**	**13 254**
PERCENT										
Indigenous	0.4	1.3	3.4	8.5	14.6	18.8	22.4	21.5	9.2	100.0
Non-Indigenous	0.1	0.4	0.9	3.7	9.0	16.2	24.6	27.1	18.0	100.0
Unknown/not recorded	—	0.7	0.3	2.6	6.2	15.5	24.0	25.8	25.1	100.0
Total	**0.2**	**0.8**	**1.8**	**5.5**	**11.0**	**17.1**	**23.7**	**25.0**	**15.0**	**100.0**

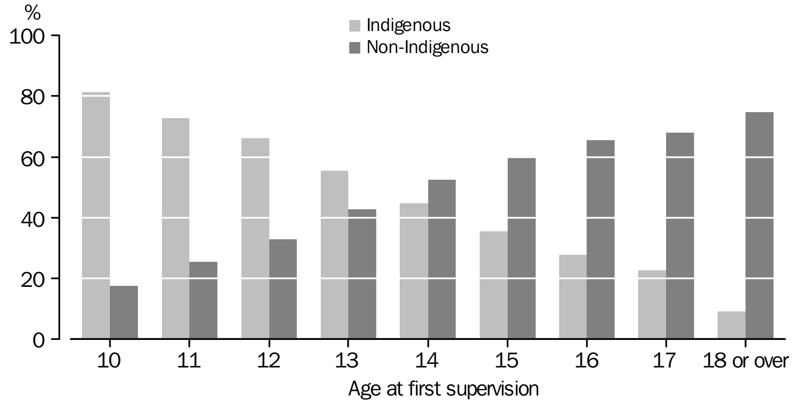
— nil or rounded to zero (including null cells)

Source: AIHW 2007i

Juvenile justice supervision continued

There are also differences in the age at which young people were first placed under juvenile justice supervision. Of those under juvenile justice supervision in 2005–06, Aboriginal and Torres Strait Islander young people were younger, on average, at the time of first ever supervision than non-Indigenous young people (graph 11.12). Just over half (56%) of Indigenous young people were aged 14 years or less during their initial supervision, compared with 30% of non-Indigenous young people.

11.12 YOUNG PEOPLE UNDER JUVENILE JUSTICE SUPERVISION, by Indigenous status and age at first supervision—2005–06



Source: AIHW 2007i

The over-representation of Indigenous people in the justice system is not confined to young people. While Aboriginal and Torres Strait Islander people comprise around 2% of the adult population, they constituted 24% of the average daily number of prisoners in full-time custody and 18% of adults on community corrections orders in the March 2007 quarter (ABS 2007b).

DISABILITY SERVICES

Services funded under the Commonwealth State-Territory Disability Agreement (CSTDA) are designed for people who need ongoing support with everyday life activities. Under this agreement the Australian Government has responsibility for planning, policy setting and management of employment services, while the states and territories have responsibilities for all other disability services. These include:

- accommodation support—services that provide accommodation to people with disability and services that provide the support needed to enable a person with disability to remain in his or her existing accommodation or move to more suitable or appropriate accommodation
- community support—services that provide the support needed for a person to live in a non-institutional setting, including therapy, early childhood intervention, counselling and case management
- community access—services that provide opportunities for people with disability to gain and use their abilities to enjoy their full potential for social independence, including day programs (alternatives to employment) and recreation/holiday programs
- respite—services that provide a short-term break for families and other voluntary caregivers of people with disability, while providing a positive experience for the person with disability.

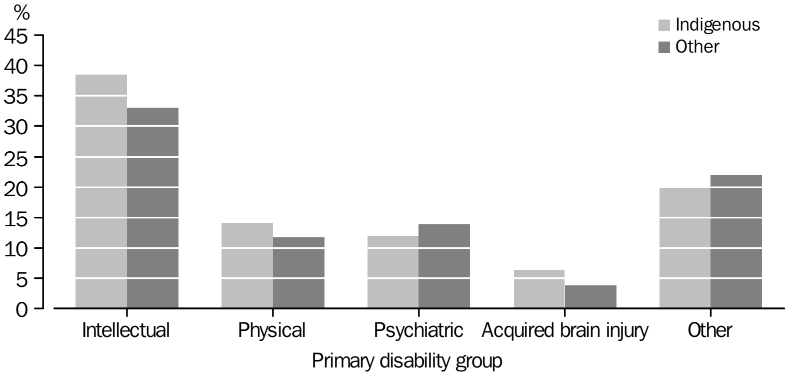
DISABILITY SERVICES *continued*

Advocacy, print disability and information services are considered shared responsibilities of the Australian state and territory governments.

National data on services are collected through the CSTDA National Minimum Data Set (NMDS), which includes information relating to CSTDA services and the people who use these services throughout the financial year. Data are collected by each state and territory and the Australian Government and forwarded to the AIHW for collation and analysis.

Data presented here are from the 2005–06 data collection, the third full year of the CSTDA NMDS. In 2005–06 there were 7,182 Indigenous CSTDA-funded service users, representing 3% of all users. The Indigenous status of 23,156 service users (11%) was unknown. The proportion of service users who were Indigenous has changed little over the three collection years (AIHW 2007f).

11.13 USERS OF CSTDA-FUNDED SERVICES, by Indigenous status and primary disability group (a)—2005–06



(a) Excludes 33,350 service users with primary disability group not stated.

Source: AIHW 2007f

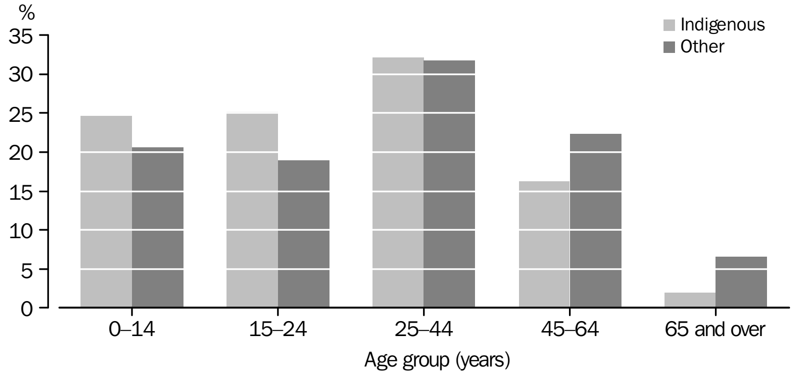
The most commonly reported primary disabilities for Indigenous service users were intellectual (39%), followed by physical (14%) and psychiatric (12%) (graph 11.13). Among non-Indigenous service users the most commonly reported primary disabilities were also intellectual (36%), but these were followed by people with psychiatric (15%) and then physical (11%) disabilities (AIHW 2007f).

Service users who were Indigenous more often reported multiple disabilities. Nearly half of all Indigenous service users (46%) reported a primary disability and at least one other significant disability, compared with 34% of non-Indigenous users (AIHW 2007f).

Indigenous service users of CSTDA services were younger, on average, than other service users (graph 11.14). The median age for Indigenous service users was 25 years, compared with a median age of 32 years for other service users (AIHW 2007f). This is consistent with the earlier onset of many chronic health conditions and shorter life expectancy in the Indigenous population (see Chapter 7).

DISABILITY SERVICES
continued

11.14 USERS OF CSTDA-FUNDED SERVICES, by Indigenous status and age(a)—2005–06



(a) Excludes 167 service users whose age was not stated.
Source: AIHW 2007f

Patterns of service use were similar for Indigenous and non-Indigenous service users (table 11.15). Similar to non-Indigenous users, Indigenous service users most commonly accessed community support services, followed by employment, accommodation, community access, and respite services. Indigenous service users were more likely than non-Indigenous users to access community support services (53% compared with 42%) respite services (20% compared with 13%), and accommodation services (20% compared with 18%). A lower proportion of Indigenous users accessed employment services (24% compared with 38%) and community access services (20% compared with 23%).

Differences in the types of services accessed may reflect different availability of services in regional/remote areas rather than differing needs of Indigenous and non-Indigenous service users. Some 12% of Indigenous users lived in remote and very remote areas, compared with 1% of other users, while 37% of Indigenous users were located in major cities compared with 64% of other users (AIHW 2007f).

11.15 USERS OF CSTDA-FUNDED SERVICES(a), by Indigenous status and service group —2005–06

	Indigenous		*Non-Indigenous*		*Unknown*		*Total*(b)	
Service group	no.	%	no.	%	no.	%	no.	%
Accommodation support	1 443	20.1	32 909	17.6	1 214	5.2	35 566	16.4
Community support	3 819	53.2	77 831	41.7	15 014	64.8	96 664	44.5
Community access	1 402	19.5	42 063	22.5	4 273	18.5	47 738	22.0
Respite	1 404	19.5	23 971	12.8	1 944	8.4	27 319	12.6
Employment	1 748	24.3	70 121	37.5	1 288	5.6	73 157	33.7
All service groups	**7 182**	**100.0**	**186 805**	**100.0**	**23 156**	**100.0**	**217 143**	**100.0**

(a) Service user data are estimates after use of a statistical linkage key to account for individuals who received services from more than one service type outlet during the twelve months from 1 July 2005 to 30 June 2006.
(b) Column totals may not be the sum of the components since individuals may have accessed services in more than one service group during the twelve month period.
Source: AIHW 2007f

AGED CARE

This section provides information on government services that give care and support to frail older people who are living in the community or who are in a residential aged care facility. Entry to many of the programs requires assessment and approval by an Aged Care Assessment Team (ACAT), but ACATs also refer clients to other services which do not require formal approval. The Home and Community Care Program (HACC) is one such program and is the largest community care program, both in terms of expenditure and numbers of clients receiving care in any given year.

HACC is jointly funded by the Australian and state and territory governments. It provides community-based support services, such as home nursing, personal care, respite, domestic help, meals, and transport to people who can be appropriately cared for in the community and can therefore live at home.

ACAT approval is required to access Community Aged Care Packages (CACPs), Extended Aged Care at Home (EACH) packages, EACH Dementia packages and residential aged care (including residential respite care), all of which are subsidised by the Australian Government. In addition, ACAT assessment is required for entry to the Transition Care Program, and may be required by some states and territories for entry to the Multi-purpose Service program, both of which are funded jointly with the states and territories.

CACPs provide support and care to people who prefer to remain at home rather than enter low level residential aged care for which they are also eligible. EACH is a relatively new program which provides home care for people who are otherwise eligible for high level residential aged care. A recent innovation in provision of high care packages has seen the introduction of the EACH Dementia program with packages that are specifically targeted at people with dementia and associated behaviour and psychological symptoms (EACH Dementia). Use of the EACH and EACH Dementia programs by Indigenous people has been relatively low.

Residential aged care is subsidised by the Australian Government and provides accommodation and other support services such as personal care, help with performing daily tasks, and nursing care.

Although these services are mainly used by older people, a proportion of younger people utilise such services. This occurs relatively more often among Indigenous Australians because of the higher prevalence of chronic diseases among young people. For example, Type 2 diabetes, cardiovascular diseases and kidney disease typically occur at younger ages among Indigenous people and can result in a need for care at younger ages.

When planning service places and packages for older people, the Australian Government uses population estimates for the general population aged 70 years and over. However, in the allocation of places and packages across the country the Government also takes into account the number of Indigenous Australians who are 50 years and over (as a proxy for old age) (DHAC 2001). A research project, funded under the National Health and Medical Research Council/Australian Research Council *Ageing Well, Ageing Productively* program is underway in the School for Social and Policy Research at Charles Darwin University to examine the robustness of this planning assumption.

In developing programs to meet the care needs of older people, particular consideration is given to issues of access and equity for groups with special needs—such as Indigenous

AGED CARE *continued*

Australians. The Aboriginal and Torres Strait Islander Aged Care Strategy was developed in 1994 after consultation with Indigenous communities and organisations involved in the provision of aged care services. This Strategy tackles issues of access to services, including those related to the rural and remote location of many Indigenous communities. The Strategy established Aboriginal and Torres Strait Islander Flexible Services, which provide aged care services with a mix of residential and community care places that can change as community needs vary. Many of these services have been established in remote areas where no aged care services were previously available. The flexible services developed as part of the Strategy are now funded under the National Aboriginal and Torres Strait Islander Flexible Aged Care Program.

In rural and remote locations that are too small to support the standard systems of aged care provision, Multi-purpose Services provide a more workable care and treatment model by bringing together a range of local health and aged care services, often including residential aged care, under one management structure. Multi-purpose Services provide flexible care places.

Home and Community Care Program

Data about client characteristics and services provided through the HACC program are collected on a quarterly basis and records are linked across quarters to form the annual HACC Minimum Data Set (MDS). Although a set of demographic, circumstance and assistance totals is held in the data repository for each agency reporting a client's data, only one set of demographic data is included in the combined linked data set. These demographic data are not a compilation from multiple data records but rather a selection of the demographic data record with the most recent assessment date. Consequently, not all valid demographic values may be captured and some invalid or missing values may be included. This may have an impact on the consistency of reporting of Indigenous status over time within the linked data. In 2005–06, Indigenous status was not recorded or not known for nearly 16% of HACC clients, compared with 11% of clients in 2004–05.

During 2005–06 approximately 3,200 organisations (around 82% of HACC-funded organisations) submitted data on the services they provided to clients across Australia. Among participating agencies, HACC services were provided to about 777,500 clients of all ages. Of these, just over 2.5% (about 19,100 after pro-rating of clients with missing Indigenous status) were reported to be Indigenous clients, ranging from 45% in the Northern Territory to 1% in Victoria and the Australian Capital Territory (DoHA 2007a).

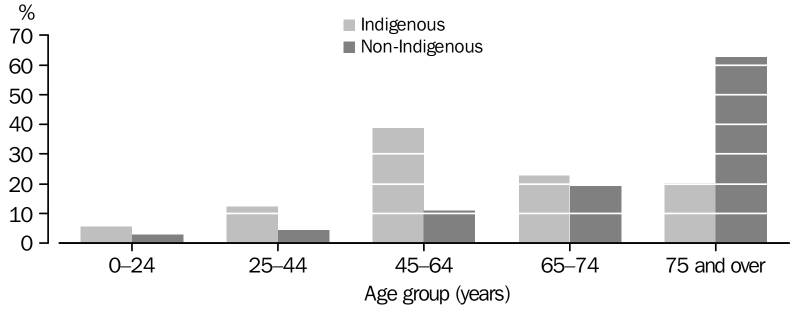
AGE PROFILE

Analysis of HACC MDS data shows that Indigenous HACC clients had a younger age profile than other clients (graph 11.16). About 57% of Indigenous clients were aged less than 65 years, compared with 18% of non-Indigenous clients. About 20% of Indigenous clients were aged 75 years or over, compared with 63% of non-Indigenous clients. The proportion of both Indigenous and non-Indigenous clients who were aged 75 years or over has increased slightly for both groups since 2003–04 (18% and 57% respectively), reflecting the ageing of the Australian population overall (DOHA 2007a).

Home and Community Care Program *continued*

AGE PROFILE *continued*

11.16 HOME AND COMMUNITY CARE CLIENTS, by Indigenous status and age(a)—2005–06



(a) Excludes 152,349 clients whose Indigenous status was not stated. Within age groups, these clients have been distributed between 'Indigenous' and 'Non-Indigenous' categories in accordance with the proportions that occurred for clients with known Indigenous status.

Source: AIHW analysis of the DoHA Aged and Community Care Management Information System Database

USAGE RATES

An examination of age-specific usage rates for Indigenous HACC clients in 2005–06 suggests the existence of some data quality problems. For some groups (e.g. Indigenous women aged 75 years and over) and for some states, the number of HACC clients identified as Indigenous were close to or greater than the ABS estimates of the corresponding Indigenous population. There may be a number of factors contributing to this. Repeat HACC clients may provide different name or birth date information to different HACC agencies, resulting in them being counted more than once. Over-estimation of the clients' ages could also result in higher age-specific usage rates for older clients. The usage rate might also be inflated if people were more inclined to identify themselves as Indigenous in the HACC collection than in the 2001 Census.

Because of these concerns about Indigenous identification in the HACC MDS, further information by Indigenous status is not presented for the Home and Community Care Program.

The Aged Care Assessment Program

The Aged Care Assessment Program (ACAP) is jointly funded by the Australian Government and the states

and territories to support the network of multidisciplinary Aged Care Assessment Teams (ACATs) which operate in each state and territory within Australia. The primary purpose of ACATs is to comprehensively assess the care needs of frail older people and assist them to gain access to the types of available services most appropriate to meet their care needs. The assessment of care needs takes into account a person's physical, medical, psychological and social needs and assists them in gaining access to appropriate care services.

Aged Care Assessment Teams (ACATs) may be hospital or community-based. The main professional groups represented in teams are doctors, nurses, social workers, physiotherapists and occupational therapists. The target populations for assessment by

The Aged Care Assessment Program continued

an ACAT are non-Indigenous people aged 70 years or over and Indigenous people aged 50 years or over. Data about ACAT clients and services are recorded at a national level in the ACAP MDS. Indigenous status was not known or not recorded for 3.4% of completed assessments in 2004–05 (ACAP NDR 2006).

In 2004–05, there were 2,075 referrals to ACAP for Indigenous clients. Nationwide, 5% of the Indigenous population aged 50 years and over were referred to the ACAP and 1,862 received a complete assessment (ACAP NDR 2006). Nationally, the proportion of referrals to the ACAP for Indigenous clients was only 46% of the expected number, given the proportion of people in the target population (ACAP NDR 2006).

Both waiting times for assessment and the duration of the assessment process were generally shorter for Indigenous than non-Indigenous clients. The report from the ACAP National Data Repository notes that 'ACATs seem to have made an effort to complete assessments for Indigenous clients quickly, even though Indigenous clients often live in isolated communities and their assessments may require assistance from an interpreter or culturally appropriate assessor'.

National Aboriginal and Torres Strait Islander Flexible Aged Care Program

At 30 June 2006, there were around 30 services delivering 580 flexible places for Indigenous clients under the National Aboriginal and Torres Strait Islander Flexible Aged Care Program. These services are funded to deliver culturally appropriate aged care, close to home and country, mainly in rural and remote areas.

As part of the 1994 National Strategy, services were established to provide aged care using a flexible model. Communities are encouraged to participate in every aspect of service provision, from the very early planning stages right through to the operation of the services. These services are now funded under the National Aboriginal and Torres Strait Islander Flexible Aged Care Program.

The funding is 'cashed-out' and can be used flexibly so that a mix of residential and community aged care services can be provided. The mix of services may change as aged care needs vary. Funding is based on an agreed allocation of places, and not on the occupancy of those places. This provides a constant income stream so that service providers have both stability of income from the funding and flexibility to manage the delivery of aged care services. No demographic data are available for clients of these services.

Community Aged Care Packages

Out of a total of 31,803 people receiving Community Aged Care Packages (CACP) at 30 June 2006, 1,204 (4%) identified as being of Aboriginal or Torres Strait Islander origin. Indigenous status was not known for 0.4% of care recipients.

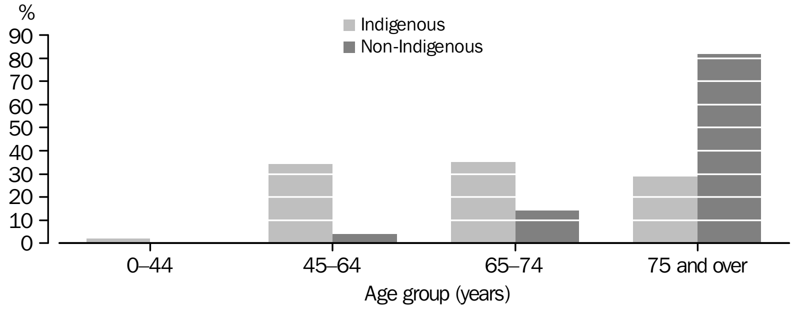
AGE PROFILE

Of people receiving assistance, proportionately more Indigenous recipients were in younger age groups (graph 11.17). About 36% of Indigenous CACP recipients were aged less than 65 years of age, compared with fewer than 4% of other CACP recipients. About 29% of Indigenous care recipients were aged 75 years and over, compared with 82% of other care recipients.

Community Aged Care Packages continued

AGE PROFILE *continued*

11.17 COMMUNITY AGED CARE PACKAGE RECIPIENTS, by Indigenous status and age(a)—30 June 2006



(a) Includes 134 clients whose Indigenous status was not stated. Within age groups, these clients have been distributed between the 'Indigenous' and 'Non-Indigenous' categories in accordance with the proportions that occurred for clients with a known Indigenous status.

Source: AIHW analysis of the DoHA Aged and Community Care Management Information System Database.

USAGE RATES

Use of Community Aged Care Packages is higher for Indigenous Australians compared with other Australians in all age groups examined. At 30 June 2006, there were 16 per 1,000 Indigenous clients aged 50–74 years, compared with 1 per 1,000 other Australian clients in the same age group (table 11.18). There were 85 per 1,000 Indigenous Australians aged 75 years and over using Community Aged Care Packages, compared with 20 per 1,000 other Australians in this age group.

11.18 COMMUNITY AGED CARE PACKAGE RECIPIENTS(a), by Indigenous status and age(b)—30 June 2006

	RECIPIENTS			USAGE RATE PER 1,000(c)		
Age group (years)	*Indigenous*	*Other*	*Total*	*Indigenous*	*Other*	*Total*
Less than 50	58	128	186	0.1	—	—
50–74	806	5 431	6 237	15.7	1.1	1.2
75 and over	345	25 035	25 380	84.8	19.6	19.8
Total	1 209	30 594	31 803	0.2	1.5	1.5

— nil or rounded to zero (including null cells)

(a) Recipients of packages provided by multi-purpose services and services receiving flexible funding under the National Aboriginal and Torres Strait Islander Flexible Aged Care Program are not included, as age-specific figures are not available for these programs.

(b) There were 134 recipients whose Indigenous status was not stated. Within age groups, these recipients have been distributed between the 'Indigenous' and 'Other' categories in accordance with the proportion that occurred for recipients with a known Indigenous status.

(c) Rates per 1,000 are based on the 'low series' ABS population projections based on the 2001 Census.

Source: AIHW analysis of the DoHA Aged and Community Care Management Information System Database

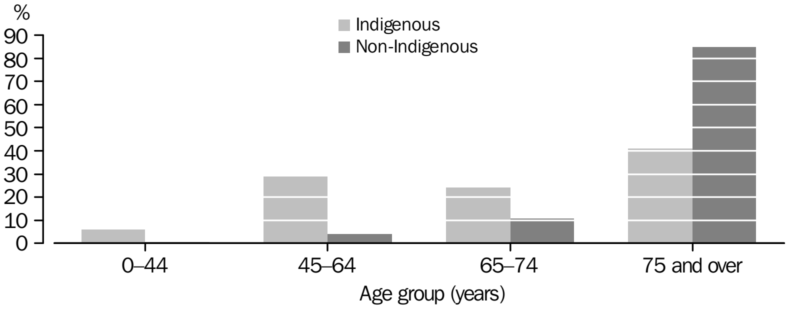
Residential aged care services

There were 154,872 people using residential aged care services at 30 June 2006. Of these, 872 permanent residents (0.6% of all permanent residents) and 35 people in respite care (1.1% of all people in respite care) identified as being of Aboriginal or Torres Strait Islander origin. Indigenous status was not recorded or not known for 10,967 residents (5%) (AIHW 2007m).

AGE PROFILE

Of those who were admitted to permanent or respite care during 2005–06, proportionately more Indigenous people were in younger age groups (graph 11.19). Almost 35% of Indigenous Australians were less than 65 years of age on admission to residential aged care, compared with 4% of other Australians. In contrast, about 41% of Indigenous Australians were aged 75 years or over on admission, compared with 85% of other Australians.

11.19 RESIDENTIAL AGED CARE ADMISSIONS, by Indigenous status and age(a)—2005–06



(a) Includes 612 clients whose Indigenous status was not stated. Within age groups, these clients have been distributed between the 'Indigenous' and 'Non-Indigenous' categories in accordance with the proportions that occurred for clients with a known Indigenous status.

Source: AIHW analysis of the DoHA Aged and Community Care Management Information System Database.

USAGE RATES

Age-specific usage rates show that Indigenous Australians make higher use of residential aged care services than other Australians at all ages (table 11.20). At 30 June 2006, 8 per 1,000 Indigenous people aged 50–74 years were residents in residential aged care, compared with 4 per 1,000 other Australians. At ages 75 years and over, 109 per 1,000 Indigenous people were in residential care, and 105 per 1,000 other Australians were in residential care. However, total usage rates for Indigenous Australians are lower than for non-Indigenous Australians due to the small proportion of the Indigenous population aged 75 years and over, the age group in which usage rates are highest.

Residential aged care services *continued*

USAGE RATES *continued*

11.20 RESIDENTS OF RESIDENTIAL AGED CARE SERVICES AND SERVICE USAGE RATES(a), by resident's Indigenous status and age—30 June 2006

	RESIDENTS			USAGE RATE PER 1,000(c)		
Age range (years) (b)	*Indigenous*	*Other*	*Total*	*Indigenous*	*Other*	*Total*
Under 50	85	963	1 048	0.2	0.1	0.1
50–74	428	18 677	19 105	8.3	3.8	3.8
75 and over	444	134 275	134 719	109.0	105.3	105.3
Total	957	153 915	154 872	1.9	7.6	7.5

(a) Places provided by multi-purpose services and services receiving flexible funding under the Aboriginal and Torres Strait Islander Aged Care Strategy are not included, as age-specific figures are not available for these programs.

(b) There were 6,799 residents whose Indigenous status was not stated. Within age groups, these residents have been distributed between the 'Indigenous' and 'Other' categories in accordance with the proportion that occurred for residents with a known Indigenous status.

(c) Rates per 1,000 are based on the 'low series' ABS population projections based on the 2001 Census.

Source: AIHW analysis of the DoHA Aged and Community Care Management Information System Database

DEPENDENCY LEVELS

The care needs of residents (dependency levels) are indicated by scores on the Resident Classification Scale (RCS). The RCS has eight categories which represent eight levels of care need in descending order from 1 to 8, with categories 1–4 representing high-care status and categories 5–8 representing low-care status.

Overall, 72% of Indigenous residents were classified as high-care at 30 June 2006, compared with 68% of other residents.

Residential respite care

Respite care supports community living for people who receive assistance from informal providers (family carers), by giving carers a break from providing assistance to see to their own affairs, to visit family and friends, to take a holiday or in instances where carers themselves encounter health, personal or family problems.

Residential respite care is recognised as an important component of the carer support system and provides short-term accommodation and care in residential aged care homes on a planned or emergency basis. Apart from emergencies, ACAT approval is required to access residential respite care and an approval remains valid for 12 months. A person with a valid ACAT approval for residential respite care may use up to 63 days of respite care in a financial year, which can be taken in 'blocks', for example, one or two weeks at a time. An extra 21 days may be available if deemed necessary by an ACAT.

There were 49,727 admissions for residential respite care between 1 July 2005 and 30 June 2006, 490 of which (1%) were for people who identified as Indigenous. Admission rates for Indigenous people in younger age groups were higher than non-Indigenous people, however, over two-thirds (68%) of admissions of Indigenous

Residential respite care continued

people were for those aged 65 years and over. At 30 June 2006, there were 3,135 respite residents, 35 (or 1%) of whom were Indigenous.

11.21 INDIGENOUS IDENTIFICATION IN COMMUNITY SERVICES COLLECTIONS

Indigenous identification in community services collections

Since the 2005 edition of this report, the quality of identification of Aboriginal and Torres Strait Islander clients in eight community services data collections has been examined, by analysing the extent to which Indigenous status is missing or not stated in each of the data collections (AIHW 2007l). The rates of missing/not stated were compared with those reported earlier, and a survey of activities at the national and the jurisdictional level to improve the quality of Indigenous identification in these data collections was also carried out.

The eight data collections examined were:

- Commonwealth-State Disability Agreement Minimum Data Set
- Residential Aged Care Services Data Collection
- Home and Community Care Minimum Data Set
- Community Aged Care Packages Data Collection
- Supported Accommodation Assistance Program National Data Collection
- Juvenile Justice National Minimum Data Set
- Alcohol and Other Drug Treatment Services National Minimum Data Set
- National Child Protection data collection, incorporating three data collections:
    - Children who are the subject of notifications, investigations and substantiations;
    - Children on care and protection orders; and
    - Children in out of home care.

Five out of the eight data collections reported decreases in the national missing/not stated Indigenous status rates, while the other three collections recorded an increase. It should be noted that these increases are not necessarily indicative of a decline in the quality of the data collected—the implementation of methods to promote longer term improvements may also contribute to a short-term increase in the rate of missing/not stated Indigenous status.

The extent to which the Indigenous identifier was missing or not stated varied greatly between the datasets. However, any analysis of Indigenous identification data in the community services sector must take into consideration that the preparedness of clients to identify may be influenced by a number of factors related to the nature of the service provided, including the purpose of the service and the voluntary nature of the clients' access to the service.

Activities aimed at improving the identification of Aboriginal and Torres Strait Islander clients that have been implemented at the national level include the development of improved data collection forms and software; implementation of the standard Indigenous status question; consultation with jurisdictions and agencies on the use of their data, including the return of data; and edit checks of national and jurisdictional data. Activities implemented in various data collections at the jurisdictional level have

Residential respite care continued

included supplying feedback to participating agencies by following up on data quality issues as they arise and providing support to participating agencies through training and data guides, help-desks and data collection software packages.

SUMMARY

In 2004, the proportion of Aboriginal and Torres Strait Islander children using Australian Government supported child care services was 1.8%. Of all Indigenous children in Australian Government supported child care services, 51% were in long day care centres, 16% were in before/after school care and 9% were in family day care. The corresponding proportions for other Australian children were 59%, 25% and 14% respectively.

Aboriginal and Torres Strait Islander children were over-represented in the child protection systems across most of Australia, with rates of Indigenous children in substantiations 11 times the rate for other children in Victoria and 9 times the rate in Western Australia. Across Australia, the rate of Indigenous children being placed under care and protection orders and in out-of-home care was seven times the rate for other children. Around two-thirds of children in out-of-home care were placed with Indigenous relatives/kin (37%) or with other Indigenous caregivers (27%). These are the preferred placements under the Aboriginal Child Placement Principle that has been adopted by all jurisdictions.

The rates of juvenile justice supervision for young people aged 10–17 years show high levels of over-representation of Indigenous youth. In 2005–06 there were 44 Indigenous youth per 1,000 under juvenile justice supervision compared with 3 per 1,000 for non-Indigenous youth. Most young people under juvenile justice supervision were in community-based supervision rather than detention. Indigenous youth comprised a larger share of those in detention (45%) than those under community supervision (38%). Aboriginal and Torres Strait Islander young people were younger, on average, than non-Indigenous young people when first placed under juvenile justice supervision.

In 2005–06, 7,182 people, or 3% of those receiving Commonwealth/State/Territory Disability Agreement funded services were Indigenous. The proportion of Indigenous people who use disability services is relatively low given that the rate of disability in the Indigenous population is almost twice the rate of disability in the non-Indigenous population. Indigenous service users were more likely than non-Indigenous users to report a physical disability as their primary disability, acquired brain injury or developmental delay. Disability service users who were Indigenous were younger than other service users, with a median age of 25 years compared with a median age of 32 years for non-Indigenous users.

Aboriginal and Torres Strait Islander people were also more likely than other Australians to utilise aged care services at younger ages, consistent with the poorer health status and lower life expectancy for this population. Of those admitted to permanent or respite residential care during 2005–06, almost 35% were less than 65 years of age, compared with fewer than 4% of other Australians. Of all Indigenous Australians receiving Community Aged Care Packages at 30 June 2006, 36% were less than 65 years of age and 20% were aged 75 years or over. The corresponding rates for other HACC clients were 4% and 63% respectively.

CHAPTER 12 TORRES STRAIT ISLANDER PEOPLES

INTRODUCTION

Torres Strait Islander people are a significant cultural group representing one-tenth of the Australian Indigenous population. While they share many of the characteristics of other Indigenous Australians, some health and welfare characteristics are different from those of Aboriginal peoples.

Since 1971, Torres Strait Islander people have been recognised as a separate group from Aboriginal people according to the Australian Bureau of Statistics (ABS) standard. From the 1996 Census of Population and Housing onwards, Indigenous people have also been able to indicate if they are of both Torres Strait Islander and Aboriginal origin. Torres Strait Islander people are defined in this chapter as those who identified as being of Torres Strait Islander origin only, or of both Torres Strait Islander and Aboriginal origin.

The information in this chapter is drawn from the Censuses of Population and Housing for 2006, 2001 and 1996, the 2004–05 National Aboriginal and Torres Strait Islander Health Survey (NATSIHS), the 2002 National Aboriginal and Torres Strait Islander Social Survey (NATSISS), the 2006 Community Housing and Infrastructure Needs Survey (CHINS), the ABS Birth Registrations Collection, the Australian Institute of Health and Welfare (AIHW) National Hospital Morbidity Database (NHMD), the AIHW National Mortality Database and the AIHW National Perinatal Data Collection.

National data on Torres Strait Islander health and welfare continue to be improved through better design of the Indigenous sample in ABS collections, and through enhanced Indigenous identification within administrative health data sets.

This chapter compares Torres Strait Islander people with the overall Indigenous population, which comprises people of Torres Strait Islander origin and people of Aboriginal origin. Contrasts are also provided with the non-Indigenous people of Australia, and between Torres Strait Islander people living in the Torres Strait Indigenous Region and those living in other areas.

DEMOGRAPHIC CHARACTERISTICS

Estimated resident Indigenous population

The census count of Torres Strait Islander people, based on their place of usual residence, is used to generate a more reliable estimate of the size of this population by adjusting for net undercount and for instances in which Indigenous status is unknown. Births, deaths and migration are taken into account in calculating the Estimated Resident Population (ERP) which provides an estimate of the size of the Torres Strait Islander population, and the Aboriginal population, as well as the total Indigenous population.

The ERP for all people of Torres Strait Islander origin at 30 June 2006 was 53,300 (table 12.1). Torres Strait Islander people comprised around 10% of all Indigenous Australians, 23% of Indigenous people in Queensland and 0.3% of the total Australian population. Across Australia, 20,200 people were estimated to be of both Aboriginal and Torres Strait Islander origin (38% of all Torres Strait Islander people).

Estimated resident Indigenous population continued

In 2006, 62% of Torres Strait Islander people lived in Queensland (including 15% in the Torres Strait Indigenous Region) and a further 15% lived in New South Wales. There were an estimated 7,800 Torres Strait Islander people living in the Torres Strait Indigenous Region. This was 23% of all Torres Strait Islander people who usually live in Queensland, and 15% of all Torres Strait Islander people in Australia.

12.1 ESTIMATED RESIDENT INDIGENOUS POPULATION, by state/territory of usual residence—2006 (preliminary)

State/territory		Torres Strait Islander(a)	Aboriginal only	Total Indigenous
New South Wales	%	15.4	30.2	28.7
Victoria	%	5.8	6.0	6.0
Queensland	%	62.2	24.4	28.3
South Australia	%	2.8	5.3	5.0
Western Australia	%	5.1	16.2	15.1
Tasmania	%	3.6	3.2	3.3
Northern Territory	%	4.7	13.8	12.9
Australian Capital Territory	%	0.5	0.8	0.8
Australia(b)	%	100.0	100.0	100.0
Population estimate(b)	no.	**53 300**	**463 900**	**517 200**

(a) Includes persons who were of both Torres Strait Islander and Aboriginal origin.

(b) Includes Other Territories, comprising Jervis Bay Territory, Christmas Island and Cocos (Keeling) Islands.

Source: ABS 2007f

The age distribution of Torres Strait Islander people was similar to that of the overall Indigenous population. In 2006, 71% of Torres Strait Islander people and the same proportion of the overall Indigenous population were less than 35 years of age. This compared with 47% of the non-Indigenous population who were in this younger age group. Only 10% of Torres Strait Islander people were aged 55 years or over compared with 8% of all Indigenous people and 24% of non-Indigenous people (table 12.2).

12.2 ESTIMATED RESIDENT POPULATION, by Indigenous status and age—2006 (preliminary)

		TORRES STRAIT ISLANDER(a)					
Age group (years)		Torres Strait Indigenous Region	Balance of Australia	Total	Aboriginal only	Total Indigenous	Non-Indigenous
0–14	%	38.9	38.1	38.3	37.3	37.4	19.1
15–34	%	32.3	32.5	32.4	33.5	33.4	27.8
35–54	%	19.5	19.3	19.3	21.6	21.4	28.8
55 and over	%	9.2	10.1	10.0	7.6	7.8	24.3
Total	%	100.0	100.0	100.0	100.0	100.0	100.0
Population estimate	no.	**7 800**	**45 500**	**53 300**	**463 900**	**517 200**	**20 184 300**

(a) Includes persons who were of both Torres Strait Islander and Aboriginal origin.

Source: ABS Unpublished data, available on request

Births

A Torres Strait Islander birth is registered as such when at least one parent identifies as being of Torres Strait Islander origin or of both Torres Strait Islander and Aboriginal origin. Indigenous births data are subject to under-identification and registrations do not always distinguish between Aboriginal and Torres Strait Islander births. Identification of Indigenous births for the period 2002–2006 is estimated to be 95% for Australia and 98% for Queensland (ABS 2007a). Separate estimates of the level of identification of Torres Strait Islander births are not available.

Over the period 2004–2006, Torres Strait Islander births comprised 11% of all registered Indigenous births. In 2006, one-quarter (25%) of Indigenous births in Queensland were registered as being Torres Strait Islander births (table 12.3).

12.3 TORRES STRAIT ISLANDER REGISTERED BIRTHS—2004–2006

	Torres Strait Islander births(a)	*Total Indigenous births*	*Torres Strait Islander births as a proportion of all Indigenous births*
	no.	no.	%
2004	1 296	12 006	10.8
2005	1 374	12 078	11.4
2006	1 378	12 496	11.0
2006			
Queensland	864	3 463	24.9
Balance of Australia	514	9 033	5.7
Males	709	6 288	11.3
Females	669	6 208	10.8

(a) Includes births where mother or father was of both Torres Strait Islander and Aboriginal origin.

Source: ABS Birth Registrations Collection

There were 4,048 births registered as Torres Strait Islander in the period 2004–2006, of which two-thirds (2,582) were to Torres Strait Islander mothers. The median age of Torres Strait Islander mothers was 25 years which was the same as for all Indigenous mothers (table 12.4). This was younger than the median age of non-Indigenous mothers (31 years).

Births continued

12.4 AGE OF PARENTS, Torres Strait Islander registered births—2004–2006

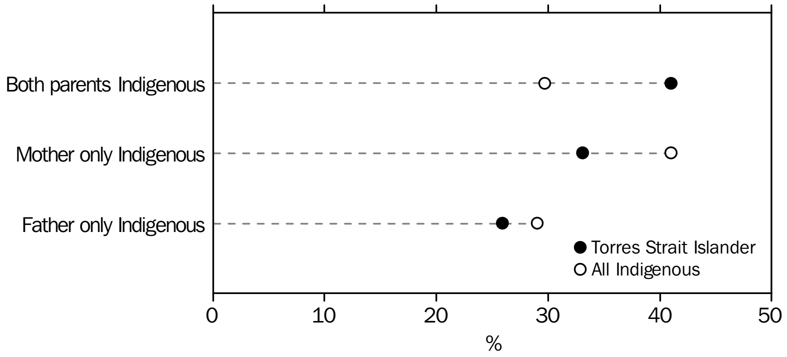
Age of mother (years)		*Torres Strait Islander mothers*(a)	*Total Indigenous mothers*	*Non-Indigenous mothers*
Less than 20	%	17.0	21.1	3.4
20–24	%	31.1	31.1	13.4
25–29	%	23.7	23.3	26.9
30–34	%	18.9	16.2	34.9
35–39	%	7.7	7.0	17.8
40 and over	%	1.5	1.3	3.5
Total	%	100.0	100.0	100.0
Median age of mother	years	25.3	24.6	30.9
Median age of father	years	28.2	27.7	33.1
All registered births	no.	**2 582**	**25 989**	**743 943**

(a) Includes mothers who were of both Torres Strait Islander and Aboriginal origin.

Source: ABS Birth Registrations Collection

Forty-one percent of babies registered as being of Torres Strait Islander origin in 2004–2006 had two Indigenous parents, compared with 30% of Indigenous babies overall (graph 12.5).

12.5 INDIGENOUS STATUS OF PARENTS, Torres Strait Islander(a) and all Indigenous births—2004–2006



(a) Includes births where the mother or father was of both Torres Strait Islander and Aboriginal origin.

Source: ABS Birth Registrations Collection

Babies

The AIHW National Perinatal Statistics Unit (NPSU) collects birth data from midwives and other health professionals who attend births. As birth registrations are based on information provided by parents to state and territory Registrars of Births, Deaths and Marriages, different sources mean that statistics obtained vary. Only the Indigenous status of the mother is collected by the NPSU, while birth registrations collect the Indigenous status of both mother and father.

The AIHW National Perinatal Data Collection recorded an average of 1,041 liveborn babies with a Torres Strait Islander mother each year in the period 2003–2005. Of these babies, 96 each year, on average, were low birthweight babies (less than 2,500 grams at birth) including an average of 20 very low birthweight babies (less than 1,500 grams at birth) per year. With around one in ten liveborn babies (9%) recording a low birthweight, *Babies continued*

Torres Strait Islander mothers were less likely than Indigenous mothers overall (13%) but more likely than non-Indigenous mothers (6%) to have low birthweight babies.

Over the same period, the perinatal death rate was 17 per 1,000 births to Torres Strait Islander mothers. This was similar to the perinatal death rate for births to Indigenous mothers overall (18 per 1,000 births) but 70% higher than the perinatal death rate for births to non-Indigenous mothers (10 per 1,000 births).

Deaths

Undercounting of Indigenous deaths is likely to result from some Torres Strait Islander people not being identified as such when their death is registered. Although identification of Indigenous deaths is incomplete in all state and territory registration systems, the ABS has determined that data for Queensland, Western Australia, South Australia and the Northern Territory have sufficient coverage to enable the production of mortality statistics for Aboriginal and Torres Strait Islander peoples. In 2001–2005, the rate of coverage of Indigenous deaths was over 50% for each of these states and 92% in the Northern Territory. Deaths data presented in this chapter have been combined from these four jurisdictions and should be regarded as indicative only.

During 2001–2005, the median age at death was 55 years for Torres Strait Islander males and 62 years for Torres Strait Islander females (table 12.6).

12.6 INDIGENOUS DEATHS, by sex and median age at death(a)—2001–2005

		Torres Strait Islander(b)	*Total Indigenous*	*Non-Indigenous*
Deaths				
Males	no.	375	4 329	119 211
Females	no.	263	3 215	108 185
Persons	no.	638	7 544	227 396
Median age at death				
Males	years	55	49	76
Females	years	62	55	82
Persons	years	58	51	79

(a) Data are for Qld, WA, SA and NT combined, based on state/territory of usual residence. Deaths are based on year of registration of death for 2001–2005.

(b) Includes deaths where person was of both Torres Strait Islander and Aboriginal origin.

Source: AIHW National Mortality Database

Cause of death

The most commonly recorded cause of death among Torres Strait Islander people in the period 2001–2005, accounting for 30% of registered deaths, were diseases of the circulatory system (e.g. heart diseases). Circulatory diseases were also the most common cause of death in the Indigenous population (accounting for 27% of registered deaths). Torres Strait Islander people were more likely than Indigenous people overall to die from cancer (malignant neoplasms) (21% compared with 15%), and were less likely to die as a result of external causes (including injury) (10% compared with 16%) (table 12.7).

Cause of death continued

12.7 UNDERLYING CAUSE OF DEATH(a), by Indigenous status—2001–2006

	TORRES STRAIT ISLANDER(b)		TOTAL INDIGENOUS	
	no.	*%*	*no.*	*%*
Malignant neoplasms (C00–C96)	132	20.7	1 113	14.8
Endocrine, nutritional and metabolic diseases (E00–E90)	73	11.4	682	9.0
Diabetes (E10–E14)	63	9.9	600	8.0
Diseases of the circulatory system (I00–I99)	190	29.8	2 006	26.6
Diseases of the respiratory system (J00–J99)	40	6.3	659	8.7
Diseases of the digestive system (K00–K93)	25	3.9	433	5.7
External causes of morbidity and mortality (V01–Y98)	66	10.3	1 220	16.2
Other causes	112	17.6	1 431	19.0
All causes	**638**	**100.0**	**7 544**	**100.0**

(a) Data are for Qld, WA, SA and NT combined, based on state/territory of usual residence. Deaths are based on year of registration of death for 2001–2005.

(b) Includes deaths where person was of both Torres Strait Islander and Aboriginal origin.

Source: AIHW National Mortality Database

SOCIOECONOMIC CHARACTERISTICS

The economic and social circumstances of Torres Strait Islander people differ substantially depending on whether they live in the Torres Strait Indigenous Region, or in other parts of Australia. While Torres Strait Islander people living outside of the Torres Strait Indigenous Region display characteristics which are generally similar to the overall Indigenous population, those living in the Torres Strait Indigenous Region tend to share the socioeconomic outcomes of Indigenous people living in very remote parts of Australia. Over a range of indicators, Torres Strait Islander people generally experience greater socioeconomic disadvantage than do non-Indigenous Australians.

Language spoken at home

The preservation of language, as a key element in the maintenance of cultural identity, contributes significantly to overall well-being and health outcomes in Indigenous communities.

According to the 2006 Census, 75% of Torres Strait Islander people in the Torres Strait Indigenous Region reported speaking an Australian Indigenous language at home. Of these, 72% spoke Torres Strait Island Creole and 17% spoke Kalaw Kawaw Ya/Kalaw Lagaw Ya.

The majority of Torres Strait Islander people living outside of the Torres Strait Indigenous Region (80%) spoke only English at home and 7% spoke an Indigenous language. Similarly, 82% of the overall Indigenous population spoke only English at home, and 11% spoke an Indigenous language.

Around four out of five Torres Strait Islander people (81%) who spoke an Indigenous language at home reported being able to speak English well or very well, which was comparable with the level of English proficiency of all Indigenous people who spoke an Indigenous language at home (79%).

In the Torres Strait Indigenous Region, 19% of Torres Strait Islander people who spoke an Indigenous language at home did not speak English well, or did not speak it at all. This was the same proportion reported for all Indigenous people. However, only 13% of

Language spoken at home continued

Torres Strait Islander people living outside the Torres Strait Indigenous Region who spoke an Indigenous language at home did not speak English well, or at all (table 12.8).

12.8 LANGUAGE SPOKEN AT HOME AND PROFICIENCY IN ENGLISH—2006

	TORRES STRAIT ISLANDER(a)			
	Torres Strait Indigenous Region	*Balance of Australia*	*Total*	*Total Indigenous*
	%	%	%	%
Language spoken at home				
English only	12.5	80.3	70.3	81.8
Australian Indigenous language	**75.2**	**6.8**	**16.9**	**11.4**
Other language	8.1	6.1	6.4	1.6
Total(b)	100.0	100.0	100.0	100.0
Proficiency in English				
Spoke English well or very well	80.2	83.8	81.4	78.6
Did not speak English well, or at all	18.6	13.2	16.7	19.0
Total persons who spoke an Australian Indigenous language at home(c)	100.0	100.0	100.0	100.0

(a) Includes persons who were of both Torres Strait Islander and Aboriginal origin.
(b) Includes language spoken at home not stated.
(c) Includes proficiency in English not stated.
Source: ABS 2006 Census of Population and Housing

Highest year of school completed

The relationship between higher levels of educational attainment and improved overall health status in the Indigenous population has been discussed in Chapter 3 of this report.

In 2006, 32% of Torres Strait Islander people aged 15 years or over (excluding those still at school) had completed Year 12; an increase from 27% in 2001. While the Year 12 completion rate for all Indigenous Australians increased from 20% to 23% over the five year period, it remained lower than for Torres Strait Islander people.

Year 12 completion by Torres Strait Islander people was higher among those living in the Torres Strait Indigenous Region (39%) than for those in other parts of Australia (31%). However, levels of secondary school completion were still lower than those for the non-Indigenous population (49%) in 2006 (table 12.9).

12.9 HIGHEST YEAR OF SCHOOL COMPLETED—2006

		TORRES STRAIT ISLANDER(a)				
		Torres Strait Indigenous Region	Balance of Australia	Total	Total Indigenous	Non-Indigenous
Year 12	%	38.5	31.0	32.2	23.0	49.1
Year 10 or 11	%	35.7	42.9	41.7	43.2	35.2
Year 9 or below(b)	%	25.8	26.1	26.1	33.9	15.8
Total	%	100.0	100.0	100.0	100.0	100.0
Persons aged 15 years and over(c)	no.	**3 880**	**19 664**	**23 544**	**232 870**	**13 346 618**
Highest year of school completed not stated	no.	132	3 709	3 841	32 951	730 000

(a) Includes persons who were of both Torres Strait Islander and Aboriginal origin.

(b) Includes persons who never attended school.

(c) Excludes persons whose highest year of school completed was not stated.

Source: ABS 2006 Census of Population and Housing

Highest non-school qualification

In 2006, there were around 5,000 Torres Strait Islander people aged 25–64 years with a non-school qualification (32% of the Torres Strait Islander population). The following analysis focuses on non-school qualifications of Certificate III or higher. For further explanation of the differences between certificate levels, see Chapter 3.

Just over one-quarter (27%) of Torres Strait Islander people aged 25–64 years had attained a Certificate III or higher qualification in 2006, similar to the rate in the overall Indigenous population (25%). These rates were both significantly lower than those for non-Indigenous people (50%). In 2001, 20% of Torres Strait Islander people aged 25–64 years had a Certificate III or higher qualification.

Torres Strait Islander people living in the Torres Strait Indigenous Region in 2006 were as likely as those living in other parts of Australia to have completed a non-school qualification of Certificate III or higher (28% and 27% respectively) (table 12.10).

12.10 HIGHEST NON-SCHOOL QUALIFICATION—2006

		TORRES STRAIT ISLANDER(a)				
		Torres Strait Indigenous Region	Balance of Australia	Total	Total Indigenous	Non-Indigenous
Bachelor degree or above	%	4.0	6.0	5.6	6.1	22.6
Certificate or Diploma, Certificate III or above(b)	%	23.9	21.0	21.5	18.8	27.5
Total with a non-school qualification, Certificate III or above	%	27.8	27.0	27.1	24.9	50.1
Certificate I/II(c)	%	9.1	4.4	5.2	4.1	3.4
No non-school qualification	%	61.2	67.0	66.0	69.6	44.7
Total	%	100.0	100.0	100.0	100.0	100.0
Persons aged 25–64 years(d)	no.	**2 452**	**12 925**	**15 377**	**156 391**	**9 324 895**
Highest non-school qualification not stated	no.	273	2 675	2 948	26 399	493 215

(a) Includes persons who were of both Torres Strait Islander and Aboriginal origin.

(b) Includes persons with a Diploma or Advanced Diploma.

(c) Includes persons with a Certificate n.f.d.

(d) Includes persons with level of education inadequately described. Excludes persons with level of education not stated.

Source: ABS 2006 Census of Population and Housing

Labour force status

Labour force data from the 2006 Census have been used in this report. For further information on the main differences between labour force data from the Census and Indigenous-specific surveys, refer to Chapter 2.

Labour force participation by Torres Strait Islander people aged 15–64 years was 59% in 2006, having changed little since 1996 when the rate was 57%. Their participation was greater than the overall Indigenous rate (54%) but lower than the participation rate for non-Indigenous people (75%). Among Torres Strait Islander people aged 15–64 years, the male labour force participation rate was 65% and the female rate was 53% (table 12.11).

Torres Strait Islander people aged 15–64 years had a lower unemployment rate (12%) than did all Indigenous people in this age group (16%) in 2006. The corresponding unemployment rate for non-Indigenous Australians was 5%. The Torres Strait Islander unemployment rate of 12% had decreased from 19% in 1996, consistent with the general decline in unemployment Australia-wide.

The unemployment rate was 5% for Torres Strait Islander people living in the Torres Strait Indigenous Region in 2006, compared with 14% for those living in other areas. While full-time employment was reported at similar rates for all Torres Strait Islander people aged 15–64 years, part-time employment was almost twice as common for those living in the Torres Strait Indigenous Region than in other parts of Australia (29% compared with 15%).

12.11 LABOUR FORCE CHARACTERISTICS—2006

		TORRES STRAIT ISLANDER(a)				
		Torres Strait Indigenous Region	*Balance of Australia*	*Total*	*Total Indigenous*	*Non-Indigenous*
Labour force status						
Employed						
Full-time	%	31.5	28.5	28.9	24.1	45.9
Part-time	%	28.5	15.1	17.1	16.6	20.5
Total(b)	%	66.5	49.1	51.6	45.2	70.8
Unemployed	%	3.3	7.9	7.2	8.4	3.8
Not in the labour force	%	26.7	36.2	34.8	40.7	24.2
Total(c)	%	100.0	100.0	100.0	100.0	100.0
Labour force participation rate						
Males	%	78.6	62.4	64.7	59.1	81.0
Females	%	61.7	51.3	52.9	48.4	68.5
Persons	%	69.9	57.0	58.9	53.6	74.7
Unemployment rate						
Males	%	4.1	13.4	11.8	15.8	5.1
Females	%	5.4	14.5	12.8	15.4	5.2
Persons	%	4.7	13.9	12.3	15.6	5.1
Total persons aged 15–64 years	no.	**3 934**	**22 921**	**26 855**	**268 807**	**12 276 785**

(a) Includes persons who were of both Torres Strait Islander and Aboriginal origin.
(b) Includes persons who were away from work.
(c) Includes persons whose labour force status was not stated.
Source: ABS 2006 Census of Population and Housing

Labour force status continued

The comparatively low unemployment rate and greater share of part-time work among Torres Strait Islander people in the Torres Strait Indigenous Region is largely the result of higher participation in the Community Development Employment Projects (CDEP) programme. Results from the 2004–05 NATSIHS show that CDEP work comprised 56% of all employment for Torres Strait Islander people aged 15–64 years in the Torres Strait Indigenous Region, whereas 91% of employed Torres Strait Islander people living in other parts of Australia were in mainstream jobs. For further information on the CDEP programme, refer to the Glossary.

Income

In comparing the relative economic wellbeing of households of different size and composition, the actual incomes of households are adjusted using an equivalence scale to produce the equivalised gross weekly income of each person in that household. For further explanation of equivalised gross household income, see the Glossary.

In 2006, the median equivalised gross household income for Torres Strait Islander people was $388 per week. This was higher than that for all Indigenous people ($362 per week), and was equal to 60% of the median equivalised household income for non-Indigenous people ($642 per week).

Torres Strait Islander people who lived in the Torres Strait Indigenous Region had a lower median equivalised household income than those in other parts of Australia ($354 compared with $400). Torres Strait Islander median equivalised incomes were lower for women than for men ($379 compared with $399), and this was also reflected in both the Indigenous and non-Indigenous populations.

LOW RESOURCE HOUSEHOLDS

People with equivalised gross weekly household incomes in the lowest quintile (i.e. less than $315 per week) who were living in a dwelling that was not owned (with or without a mortgage) by a household member, and in which no household member was the owner/manager of an unincorporated business, were considered to be living in low resource households. For further information on income quintiles and low resource households, refer to the Glossary.

In 2006, 32% of Torres Strait Islander people, 39% of Indigenous people overall, and 8% of non-Indigenous people were living in low resource households. Torres Strait Islander people in the Torres Strait Indigenous Region were more likely to be living in low resource households (39%) than those living in other parts of Australia (31%) (table 12.12).

12.12 EQUIVALISED GROSS WEEKLY HOUSEHOLD INCOME(a)—2006

		TORRES STRAIT ISLANDER(b)				
		Torres Strait Indigenous Region	Balance of Australia	Total	Total Indigenous	Non-Indigenous
Lowest income quintile (Less than $315)						
Low resource households(c)	%	38.7	31.1	32.4	38.7	8.0
Remainder of households	%	2.8	7.8	6.9	6.5	11.6
Second and third income quintiles	%	52.0	42.9	44.4	39.0	39.5
Fourth and fifth income quintiles	%	6.5	18.2	16.2	15.8	40.8
Total	%	100.0	100.0	100.0	100.0	100.0
	no.	**5 899**	**28 804**	**34 703**	**337 503**	**15 288 123**
Income not stated(d)	no.	442	7 342	7 784	73 054	1 893 333

(a) Derived from gross weekly household income in occupied private dwellings, where all incomes were reported.

(b) Includes persons who were of both Torres Strait Islander and Aboriginal origin.

(c) Excludes persons in dwellings that were partially or fully owned by a household member and persons in households where a household member was an owner manager of an unincorporated enterprise.

(d) Comprises Nil income, Negative income, Partial incomes stated, All incomes not stated and Not applicable.

Source: ABS 2006 Census of Population and Housing

Housing

Torres Strait Islander people were more likely to be living in a rented dwelling in 2006 than in a dwelling that was owned (with or without a mortgage) by a household member (65% compared with 28%). While the same proportion of Indigenous people overall (65%) were renting, around one-quarter of non-Indigenous people (24%) were living in rented housing.

In 2006, one in ten Torres Strait Islander people (10%) lived in a dwelling that was fully owned, and almost one in five (18%) lived in a dwelling that was being purchased. Similarly, 8% of Indigenous people lived in fully owned dwellings and 20% lived in dwellings that were being purchased. Around one-third of non-Indigenous people (30%) were living in fully owned dwellings and 42% were in dwellings that were being purchased (table 12.13).

There was no significant change in the proportion of Torres Strait Islander people living in homes which were owned (with or without a mortgage) between 1996 (29%) and 2006 (28%). Rates of housing rental among Torres Strait Islander people also changed little (from 60% to 65%) over this period.

In the Torres Strait Indigenous Region in 2006, 88% of Torres Strait Islander people were living in rented housing compared with 61% of Torres Strait Islander people living in other parts of the country. A much smaller proportion of Torres Strait Islander people in the Torres Strait Indigenous Region (7%) were living in a dwelling that was owned (with or without a mortgage), compared with 31% of Torres Strait Islander people living in other areas. Housing tenure among Torres Strait Islander people in the Torres Strait Indigenous Region mirrored that of Indigenous people in other very remote parts of Australia, where 84% lived in rented dwellings and 4% lived in a home that was owned (with or without a mortgage).

In the Torres Strait Indigenous Region, 40% of Torres Strait Islander people were living in housing provided by Indigenous Housing Organisations (IHOs), other housing

Housing continued

co-operatives, or church or community groups, compared with 8% of Torres Strait Islander people living elsewhere in Australia.

12.13 HOUSING TENURE(a)—2006

		TORRES STRAIT ISLANDER(b)				
		Torres Strait Indigenous Region	*Balance of Australia*	*Total*	*Total Indigenous*	*Non-Indigenous*
Homeowner						
Fully owned	%	5.6	10.4	9.7	7.8	30.2
Being purchased	%	1.2	20.8	17.8	20.5	41.6
Total owners/purchasers	%	6.8	31.1	27.5	28.3	71.8
Renter						
State or territory housing authority	%	37.7	21.5	23.9	22.5	3.2
Indigenous housing organisation/community housing	%	39.7	7.6	12.4	16.9	0.4
Private and other renter(c)	%	11.0	31.5	28.5	25.3	20.8
Total renters	%	88.4	60.6	64.8	64.6	24.4
Other tenure type(c)	%	2.6	2.4	2.4	2.8	1.8
Tenure type not stated	%	2.2	5.8	5.3	4.3	2.0
Total	%	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
	no.	**6 341**	**36 146**	**42 487**	**410 557**	**17 181 456**

(a) Data are for persons living in occupied private dwellings. Excludes visitors, Other not classifiable and Not Applicable.

(b) Includes persons who were of both Torres Strait Islander and Aboriginal origin.

(c) Includes landlord type not stated.

Source: ABS 2006 Census of Population and Housing

The 2006 Community Housing and Infrastructure Needs Survey collected information about the state of repair of dwellings owned or managed by IHOs. While dwellings in the Torres Strait Indigenous Region were less likely than other IHO dwellings to require major repairs (14% compared with 26%), they were equally likely to require replacement (9%).

12.14 DWELLING CONDITION, permanent dwellings owned or managed by Indigenous Housing Organisations—2006

	Dwellings in Torres Strait Indigenous Region		*Dwellings in balance of Australia*		*Total Australia*	
	no.	%	no.	%	no.	%
Minor or no repair required	911	77.7	9 382	64.9	10 293	65.7
Major repair required	160	13.7	3 750	25.9	3 910	25.0
Replacement required	101	8.6	1 323	9.2	1 424	9.1
Total IHO owned or managed permanent dwellings	**1 172**	**100.0**	**14 455**	**100.0**	**15 627**	**100.0**

Source: ABS 2006 CHINS

Internet access

In 2006, 35% of Torres Strait Islander people had access to an Internet connection in their home. Internet access was significantly lower in the Torres Strait Indigenous Region, where 84% of people of Torres Strait Islander origin did not have Internet access at home, compared with 54% of those living in other parts of Australia. The situation in the Torres Strait Indigenous Region was similar to very remote areas overall, in which

Internet access continued

86% of Indigenous people did not have Internet access at home. More than half (58%) of Indigenous people and 27% of non-Indigenous people were without Internet access at home (table 12.15).

12.15 INTERNET ACCESS(a)—2006

		TORRES STRAIT ISLANDER(b)				
		Torres Strait Indigenous Region	*Balance of Australia*	*Total*	*Total Indigenous*	*Non-Indigenous*
Type of Internet connection at home						
Broadband	%	6.3	23.5	21.0	22.1	47.0
Dial-up	%	6.2	13.6	12.5	13.1	23.1
Total(c)	%	13.3	38.3	34.6	36.2	70.7
No internet connection at home	%	84.1	54.0	58.5	57.9	27.0
Total(d)	%	100.0	100.0	100.0	100.0	100.0
	no.	**6 341**	**36 146**	**42 487**	**410 557**	**17 181 456**

(a) Information collected for occupied private dwellings.
(b) Includes persons who were of both Torres Strait Islander and Aboriginal origin.
(c) Includes other types of Internet connection.
(d) Includes type of Internet connection not stated.
Source: ABS 2006 Census of Population and Housing

Social and cultural participation

The 2002 National Aboriginal and Torres Strait Islander Social Survey (NATSISS) collected information on participation in social activities and Aboriginal and Torres Strait Islander cultural activities. According to the survey, 44% of Torres Strait Islander people aged 15 years or over identified with a clan, tribal group or language group. While the proportion was higher for all Indigenous people in this age group (54%), similar proportions of Torres Strait Islander and Indigenous people overall recognised homelands or traditional country (67% and 70%) (ABS & AIHW 2005).

In 2002, almost all Torres Strait Islander people aged 15 years or over in the Torres Strait Indigenous Region (99%) had attended some kind of cultural event in the previous 12 months. In comparison, 67% of Torres Strait Islander people living in other parts of Australia reported having attended a cultural event in this period. The majority of Torres Strait Islander people aged 15 years or over (90%) had been involved in social activities in the previous three months, equal to the level of social participation reported by Indigenous people overall. Torres Strait Islander people were more likely than Indigenous people overall to have been involved in church or religious activities in the last three months (30% compared with 24%).

In the 12 months preceding the 2006 Census, 17% of Torres Strait Islander females aged 15 years or over and 14% of Torres Strait Islander males in this age group had undertaken voluntary work. The rates for Indigenous people overall were similar (15% for females and 12% for males). In the non-Indigenous population, corresponding rates were 21% for females and 17% for males.

Stressful life circumstances

In 2004–05, 73% of Torres Strait Islander people aged 18 years or over reported that a stressful life event or circumstance had been a problem for them or someone close to them over the previous 12 months. For further information on the stressors included in the 2004–05 NATSIHS, refer to the Glossary of National Aboriginal and Torres Strait Islander Health Survey 2004–05 (ABS 2006c).

Most commonly reported stressors among Torres Strait Islander people aged 18 years or over in 2004–05 were the death of a family member or friend (40%), household financial stress (39%), overcrowding at home (16%) and inability to find a job (14%). Indigenous adults had similar experiences of life stressors, however Torres Strait Islander people were less likely than Indigenous people overall to report financial stress (39% compared with 51%) and alcohol-related problems (11% compared with 20%).

Neighbourhood problems

In the 2002 NATSISS, 73% of Torres Strait Islander people aged 15 years or over reported the presence of at least one serious problem in their neighbourhood or community. This was comparable to the overall proportion of Indigenous people reporting neighbourhood problems (74%) (ABS & AIHW 2005).

The types of problems most commonly reported by Torres Strait Islander people related to theft (42%), alcohol (36%), illegal drugs (35%), vandalism and other damage to property (33%), youth-related problems (32%), and family violence (26%) (ABS & AIHW 2005).

HEALTH INDICATORS

Self-assessed health and long-term health conditions

In the 2004–05 NATSIHS, 44% of Torres Strait Islander people aged 15 years or over reported that their health was excellent or very good while 23% said they had fair or poor health. These were similar to the rates reported by all Indigenous people (43% and 22% respectively).

Almost three-quarters (73%) of Torres Strait Islander people aged 15 years or over had a long-term health condition in 2004–05, similar to the proportion of all Indigenous people of the same age (77%) (table 12.16). Reporting of long-term conditions by Torres Strait Islander people living in the Torres Strait Indigenous Region was comparable to those living in other areas (70% and 73% respectively).

The most commonly reported long-term conditions among Torres Strait Islander people aged 15 years or over were eye/sight problems (38%) and back pain/problems (18%). While the prevalence of most long-term conditions were similar in the Torres Strait Islander and total Indigenous populations, Torres Strait Islander people were less likely to report heart disease and/or circulatory problems (13% compared with 18%).

Self-assessed health and long-term health conditions continued

12.16 HEALTH STATUS AND SELECTED LONG-TERM CONDITIONS, by Indigenous status—2004–05

		Torres Strait Islander(a)	*Total Indigenous*
Self-assessed health			
Excellent/very good	%	44.5	43.2
Good	%	32.6	34.9
Fair/poor	%	22.9	21.9
Eye/sight problems	%	38.4	43.6
Back pain/symptoms	%	18.3	20.9
Heart and circulatory problems/diseases	%	(b)13.2	(b)18.1
Asthma	%	12.7	15.8
Ear/hearing problems	%	12.1	13.9
Arthritis	%	11.6	14.6
Diabetes/high sugar levels	%	8.8	9.8
Has a long-term condition	%	72.9	77.3
No long-term condition	%	27.1	22.7
Total persons aged 15 years and over	'000	**30.7**	**29.4**

(a) Includes persons who were of both Torres Strait Islander and Aboriginal origin.
(b) Difference between Torres Strait Islander and Indigenous data is statistically significant.

Source: ABS 2004–05 NATSIHS

12.17 IMPROVED INFRASTRUCTURE CREATES POSITIVE HEALTH OUTCOMES FOR TORRES STRAIT COMMUNITIES

The incidence of water and hygiene-associated communicable diseases in the Torres Strait region decreased in the period 1996 to 2006. This has been attributed to improvements in the region’s environmental health infrastructure as part of the Torres Strait’s Major Infrastructure Program (MIP). The facilities delivered through MIP in a partnership between the Torres Strait Regional Authority and the Queensland Department of Local Government, Planning, Sport and Recreation, are producing positive health outcomes in the 15 outer Torres Strait Island communities and the two Northern Peninsula communities of Bamaga and Seisia.

In the Torres Strait region, notifications of environmental health-related diseases such as Shigellosis, Salmonella, and Hepatitis A halved between 1996 and 2006, according to data from the Queensland Notifiable Conditions Database (NOCS). Close to 40 cases were reported in the region in 1996 and under 20 cases were reported in 2006. According to the World Health Organization (WHO), in 2006, 88% of global environmental infectious diseases such as diarrhoea were attributable to poor water, sanitation and hygiene.

Since 1998, developments in the Torres Strait region have included increased access to clean and safe drinking water, flushing toilets, serviced housing lots, sealed roads and drainage systems. Island Councils are better able to manage community waste through the installation of sewerage treatment plants and improved refuse control techniques. Projects commenced in 2007 continued to improve infrastructure standards in the region, including further installation of portable desalination units for the use of island communities affected by drought conditions in recent years.

Source: TSRA media release, MIP Continues To Deliver, 20/02/2007.

Risk factors

In 2004–05, around half (49%) of Torres Strait Islander people aged 18 years or over were current daily smokers. This is similar to the rate reported by the overall Indigenous population (50%). Torres Strait Islander people living in the Torres Strait Indigenous Region reported lower rates of regular smoking than did those in other parts of Australia (38% compared with 51%).

The 2004–05 NATSIHS collected two measures of alcohol consumption using National Health and Medical Research Council (NHMRC) guidelines—one on long-term use and the other on short-term, heavy use (binge drinking). For further information, see the Glossary and Chapter 8 of this publication.

In 2004–05, 13% of Torres Strait Islander people aged 18 years or over reported long-term risky or high risk alcohol consumption and 16% reported risky or high risk short-term alcohol consumption. These rates of alcohol consumption were not significantly different from those reported by Indigenous people overall (table 12.18).

A sedentary lifestyle, defined by very low levels of exercise or no exercise at all, was reported by 36% of the 22,700 Torres Strait Islander people aged 15 years or over in non-remote parts of Australia. Indigenous people overall were more likely to be sedentary, with 47% of those aged 15 years or over in non-remote areas reporting that they do very little or no exercise. Despite their greater engagement in physical exercise, Torres Strait Islander people aged 15 years or over in non-remote areas were just as likely as Indigenous people overall to be overweight or obese (57% and 56% respectively).

In non-remote areas in 2004–05, 45% of Torres Strait Islander people aged 15 years or over who agreed to answer questions regarding substance use reported that they had used illicit substances, and 31% had used illicit substances in the past 12 months. These rates of illicit substance use were not significantly different from those of the overall Indigenous population.

Risk factors *continued*

12.18 SELECTED HEALTH RISK FACTORS—2004–05

		Torres Strait Islander(a)	*Total Indigenous*
Current daily smoker	%	49.4	50.0
Risky/high risk alcohol consumption			
long-term	%	13.0	16.5
short-term	%	16.0	19.3
Total persons aged 18 years and over	%	100.0	100.0
	no.	**26 600**	**258 300**
Overweight	%	29.1	27.5
Obese	%	27.9	28.7
Total overweight and obese	%	57.0	56.2
Total persons aged 15 years and over in non-remote areas who reported a BMI(b)	%	100.0	100.0
	no.	**19 900**	**177 500**
Persons aged 15 years and over in non-remote areas who did not report a BMI(b)	no.	2 800	35 900
Has used illicit substances			
during lifetime	%	44.9	49.1
in last 12 months	%	30.7	28.2
Has never used illicit substances	%	53.9	49.1
Total persons aged 15 years and over in non-remote areas who answered substance use form(c)	%	100.0	100.0
	no.	**17 600**	**165 600**
Persons aged 15 years and over in non-remote areas who did not answer substance use form	no.	5 100	47 900

(a) Includes persons who were of both Torres Strait Islander and Aboriginal origin.
(b) For an explanation of Body Mass Index, refer to Glossary.
(c) Includes persons who did not state whether they had ever used illicit substances.
Source: ABS 2004–05 NATSIHS

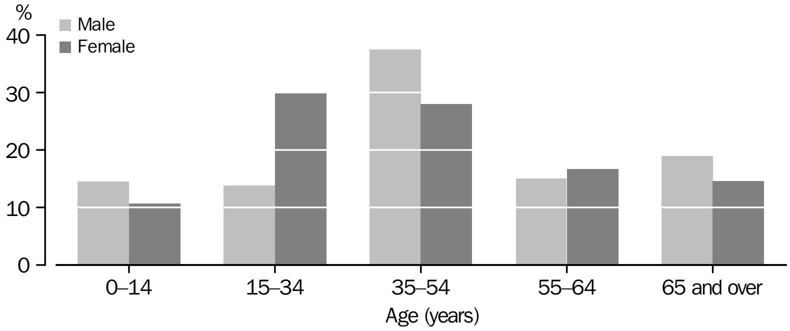
Hospitalisations

A hospital separation (hospitalisation) refers to an admitted patient completing an episode of care in hospital, by being discharged, transferring to another hospital or care facility, or dying. It is therefore possible for the same patient to be counted more than once if they are hospitalised on multiple occasions. For further information on hospital separations, refer to the 2005 edition of this report (ABS & AIHW 2005). While Indigenous identification in hospital separations data are incomplete nationally, coverage in New South Wales, Queensland, Western Australia, South Australia and the Northern Territory is sufficient to support statistics on hospitalisations of Torres Strait Islander people. In 2005–06, these jurisdictions recorded 15,216 hospitalisations involving Torres Strait Islander people, accounting for 8% of all hospitalisations of Indigenous people. More than half (56%) of all hospitalisations involving Torres Strait Islander people were for females, similar to the pattern for Indigenous people overall (57%).

Hospitalisations of Torres Strait Islander females were most common for those of child-bearing age (15–34 years) (29%), and for those aged 35–54 years (26%). The hospitalisation rate for Torres Strait Islander males aged 35–54 years (40%) was significantly higher than for males in other age groups (graph 12.19).

Hospitalisations continued

12.19 HOSPITALISATIONS(a), Torres Strait Islander persons(b)—2005–06



(a) Data are for NSW, Vic., Qld, WA, SA and NT based on state/territory of usual residence. Excludes private hospitals in the NT.
(b) Includes patients who were of both Torres Strait Islander and Aboriginal origin.

Source: AIHW National Hospital Morbidity Databse

During 2005–06, kidney disease involving dialysis was the most commonly recorded principal diagnosis, accounting for 39% of hospitalisations of Torres Strait Islander people, similar to the hospitalisation rate for dialysis for Indigenous people overall (41%) (table 12.20). Over half (53%) of hospitalisations for dialysis treatment of Torres Strait Islander males involved those aged less than 55 years. The corresponding proportion of hospitalisations involving Torres Strait Islander females less than 55 years was 45%.

12.20 HOSPITALISATIONS BY PRINCIPAL DIAGNOSIS(a), for Indigenous persons—2005–06

	Torres Strait Islander(b)		*Total Indigenous*	
	no.	%	no.	%
Certain infectious and parasitic diseases (A00–B99)	285	1.5	5 249	2.2
Neoplasms (C00–D48)	435	2.3	3 532	1.5
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism (D50–D89)	124	0.7	1 161	0.5
Endocrine, nutritional and metabolic diseases (E00–E90)	400	2.1	4 797	2.0
Mental and behavioural disorders (F00–F99)	726	3.8	10 083	4.1
Diseases of the nervous system (G00–G99)	192	1.0	3 347	1.4
Diseases of the eye and adnexa (H00–H59)	158	0.8	1 170	0.5
Diseases of the ear and mastoid process (H60–H95)	104	0.6	1 714	0.7
Diseases of the circulatory system (I00–I99)	644	3.4	7 859	3.2
Diseases of the respiratory system (J00–J99)	921	4.9	15 722	6.5
Diseases of the digestive system (K00–K93)	1 119	5.9	12 906	5.3
Diseases of the skin and subcutaneous tissue (L00–L99)	386	2.0	5 599	2.3
Diseases of the musculoskeletal system and connective tissue (M00–M99)	416	2.2	4 205	1.7
Diseases of the genitourinary system (N00–N99)	556	2.9	6 220	2.6
Pregnancy, childbirth and the puerperium (O00–O99)	1 807	9.6	18 012	7.4
Certain conditions originating in the perinatal period (P00–P96)	241	1.3	2 601	1.1
Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)	109	0.6	879	0.4
Symptoms, signs and abnormal clinical and laboratory findings, n.e.c. (R00–R99)	642	3.4	10 461	4.3
Injury, poisoning and certain other consequences of external causes (S00–T98)	1 261	6.7	18 843	7.8
Factors influencing health status and contact with health services (Z00–Z99 excluding Z49)	1 001	5.3	8 529	3.5
Total excluding care involving dialysis	11 529	61.0	142 953	58.8
Care involving dialysis (Z49)	7 367	39.0	100 153	41.2
Total(c)	**18 896**	**100.0**	**243 106**	**100.0**

(a) Data are for NSW, Vic., Qld, WA, SA and NT combined, based on state/territory of usual residence. Excludes private hospitals in the NT.

(b) Includes patients who were of both Torres Strait Islander and Aboriginal origin.

(c) Includes hospitalisations for which no principal diagnosis was reported.

Source: AIHW National Hospital Morbidity Database

SUMMARY

Torres Strait Islander people have more favourable outcomes than other Indigenous people for several social and economic indicators. They have higher rates of secondary school completion, higher equivalised incomes, and lower unemployment rates than Indigenous people overall. Like the Indigenous population as a whole, however, Torres Strait Islander people experience higher levels of disadvantage than do non-Indigenous Australians across most indicators of health and welfare..

The data suggest that the health and welfare of the Torres Strait Islander population is improving. Between 2001 and 2006, educational attainment improved in terms of Year 12 completion and non-school qualifications. In addition, labour force participation increased and the unemployment rate decreased for Torres Strait Islander people over this five-year period.

When compared with Torres Strait Islander people in other parts of Australia, those living in the Torres Strait Indigenous Region had significantly different outcomes for certain socioeconomic indicators. Torres Strait Islander people in the Torres Strait Indigenous Region had higher rates of secondary school completion and cultural participation, and lower unemployment than those living elsewhere. They also had comparatively low equivalised household incomes, lower rates of home ownership and limited Internet access, reflecting the general disparity in opportunities and services that exist between people living in urban and very remote parts of Australia.

ABBREVIATIONS

ABS	Australian Bureau of Statistics
ACAP	Aged Care Assessment Program
ACAT	Aged Care Assessment Team
ACIR	Australian Childhood Immunisation Register
ACT	Australian Capital Territory
AHMAC	Australian Health Ministers' Advisory Council
AIDS	Acquired Immune Deficiency Syndrome
AIGC	Australian Indigenous Geographical Classification
AIHW	Australian Institute of Health and Welfare
AJJA	Australasian Juvenile Justice Administrators
AMA	Australian Medical Association
AMI	acute myocardial infarction
ANZDATA	Australian and New Zealand Dialysis and Transplant Registry
AODTS-NMDS	Alcohol and Other Drug Treatment Services National Minimum Data Set
ARIA	Accessibility/Remoteness Index of Australia
ASCED	Australian Standard Classification of Education
ASCO	Australian Standard Classification of Occupations
ASGC	Australian Standard Geographical Classification
ATSIC	Aboriginal and Torres Strait Islander Commission
BEACH	Bettering the Evaluation and Care of Health
BMI	body mass index
cat. no.	Catalogue number
CABG	coronary artery bypass graft
CACP	Community Aged Care Package
CAP	Crisis Accommodation Program
CD	collection district
CDEP	Community Development Employment Projects
CHD	coronary heart disease
CHINS	Community Housing and Infrastructure Needs Survey
COAG	Council of Australian Governments
COPD	chronic obstructive pulmonary disease
CRA	Commonwealth Rent Assistance
CS NMDS	Children's Services National Minimum Data Set
CSHA	Commonwealth–State Housing Agreement
CSTDA	Commonwealth State/Territory Disability Agreement
dmft	decayed, missing and filled (deciduous) teeth
DALY	disability-adjusted life-years
DASR	Drug and Alcohol Service Report
DEEWR	Australian Government Department of Education, Employment and Workplace Relations
DEST	Australian Government Department of Education, Science and Training

DHAC	Australian Government Department of Health and Aged Care
DMFT	decayed, missing and filled (permanent) teeth
DoHA	Australian Government Department of Health and Ageing
DTP	diphtheria, tetanus and pertussis vaccine
EACH	extended aged care at home
ERP	estimated resident population
ESRD	end-stage renal disease
FaCS	Australian Government Department of Family and Community Services
FaHCSIA	Australian Government Department of Families, Housing, Community Services and Indigenous Affairs
FTE	full-time equivalent
GP	General Medical Practitioner
GSS	General Social Survey
HACC	Home and Community Care, Australian Government Department of Health and Ageing
Hib	Haemophilus influenzae (type B)
HIV	Human Immunodeficiency Virus
HPA	home purchase assistance
HREOC	Human Rights and Equal Opportunity Commission
ICD-10	International Classification of Diseases 10th Revision
ICD-10-AM	International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification
ICH	Indigenous community housing
IESIP	Indigenous Education Strategic Initiatives Programme
IHD	ischaemic heart disease
IHF	interviewer household form
IHO	Indigenous housing organisation
IREG	Indigenous Region
km	kilometre
K5	Kessler Psychological Distress Scale - modified five-item version
LFS	Labour Force Survey
LORI	Level of Relative Isolation
mL	millilitre
MACS	Multifunctional Aboriginal Children's Services
MCEETYA	Ministerial Council on Education, Employment, Training and Youth Affairs
MDS	minimum data set
MIP	Major Infrastructure Program
MMR	measles, mumps and rubella
n.e.c.	not elsewhere classified
NATSIHS	National Aboriginal and Torres Strait Islander Health Survey
NATSIS	National Aboriginal and Torres Strait Islander Survey
NATSISS	National Aboriginal and Torres Strait Islander Social Survey
NCHECR	National Centre in HIV Epidemiology and Clinical Research
NCIRS	National Centre for Immunisation Research and Surveillance
NCMHCD	National Community Mental Health Care Database
NDR	National Data Repository
NHMD	National Hospital Morbidity Database

NHMRC	National Health and Medical Research Council
NHPAC	National Health Priority Action Council
NHS	National Health Survey
NHS(I)	National Health Survey (Indigenous)
NMDS	National Minimum Data Set
NNDSS	National Notifiable Diseases Surveillance System
NOCS	Notifiable Conditions System
NPDC	National Perinatal Data Collection
NPHP	National Public Health Partnership
NPSU	National Perinatal Statistics Unit
NRF	National Reporting Framework
NSW	New South Wales
NT	Northern Territory
OATSIH	Office for Aboriginal and Torres Strait Islander Health (Australian Government Department of Health and Ageing)
OECD	Organisation for Economic Co-operation and Development
OID	Overcoming Indigenous Disadvantage
OPV	oral polio vaccine
PBS	Pharmaceutical Benefits Scheme
PCI	percutaneous coronary intervention
PRA	private rental assistance
Qld	Queensland
RCS	Resident Classification Scale
RHD	rheumatic heart disease
SA	South Australia
SAAP	Supported Accommodation Assistance Program
SAND	Supplementary Analysis of Nominated Data
SAR	Service Activity Reporting
SCATSIH	Standing Committee on Aboriginal and Torres Strait Islander Health
SCRCSSP	Steering Committee for the Review of Commonwealth/State Service Provision
SCRGSP	Steering Committee for the Review of Government Service Provision
SDAC	Survey of Disability, Ageing and Carers
SF-36	Medical Outcome Short Form Health Survey
SIDS	Sudden Infant Death Syndrome
SMR	standardised mortality ratio
SOMIH	State owned and managed Indigenous housing
SRA	Supplementary Recurrent Assistance
STI	sexually transmissible infection
Tas.	Tasmania
TFR	total fertility rate
TSRA	Torres Strait Regional Authority
VET	vocational education and training
Vic.	Victoria
WA	Western Australia
WAACHS	Western Australian Aboriginal Child Health Survey
WHO	World Health Organization
YLL	years of life lost

APPENDIX

2006 CENSUS QUESTIONS ON CORE ACTIVITY NEED FOR ASSISTANCE AND UNPAID ASSISTANCE TO A PERSON WITH A DISABILITY

CORE ACTIVITY NEED FOR ASSISTANCE

A1.1 HOUSEHOLD FORM

20 **DOES THE PERSON EVER NEED SOMEONE TO HELP WITH, OR BE WITH THEM, FOR SELF CARE ACTIVITIES?**

For example: doing everyday activities such as eating, showering, dressing or toileting.

Yes, always
Yes, sometimes
No

21 **DOES THE PERSON EVER NEED SOMEONE TO HELP WITH, OR BE WITH THEM, FOR BODY MOVEMENT ACTIVITIES?**

For example: getting out of bed, moving around at home or at places away from home.

Yes, always
Yes, sometimes
No

22 **DOES THE PERSON EVER NEED SOMEONE TO HELP WITH, OR BE WITH THEM, FOR COMMUNICATION ACTIVITIES?**

For example: understanding, or being understood, by others.

Yes, always
Yes, sometimes
No

23 **WHAT ARE THE REASONS FOR THE NEED FOR ASSISTANCE OR SUPERVISION SHOWN IN QUESTIONS 20, 21 OR 22?**

No need for help or supervision
Short-term health condition (lasting less than six months)
Long-term health condition (lasting six months or more)
Disability (lasting six months or more)
Old or young age
Difficulty with English language
Other cause

A1.2 INTERVIEWER HOUSEHOLD FORM

26 DOES THE PERSON EVER NEED SOMEONE TO HELP THEM DO EVERYDAY THINGS SUCH AS EATING, WASHING THEMSELVES, DRESSING OR USING THE TOILET?

Yes, always
Yes, sometimes
No

27 DOES THE PERSON EVER NEED SOMEONE TO HELP THEM MOVE AROUND?

For example: getting out of bed, walking, climbing stairs, getting out of a chair.

Yes, always
Yes, sometimes
No

28 DOES THE PERSON EVER NEED SOMEONE TO HELP WITH UNDERSTANDING OTHER PEOPLE, OR BEING UNDERSTOOD BY OTHER PEOPLE?

Yes, always
Yes, sometimes
No

29 WHY DOES THE PERSON NEED HELP IN THE AREAS SHOWN IN QUESTIONS 26, 27 AND 28?

No need for help or supervision
Short-term health condition (lasting less than six months)
Long-term health condition (lasting six months or more)
Disability (lasting six months or more)
Old or young age
Difficulty with English language
Other cause

UNPAID ASSISTANCE TO A PERSON WITH A DISABILITY

A1.3 HOUSEHOLD FORM

49 IN THE LAST TWO WEEKS DID THE PERSON SPEND TIME PROVIDING UNPAID CARE, HELP OR ASSISTANCE TO FAMILY MEMBERS OR OTHERS BECAUSE OF A DISABILITY, A LONG-TERM ILLNESS OR PROBLEMS RELATED TO OLD AGE?

No, did not provide unpaid care, help or assistance
Yes, provided unpaid care, help or assistance sometimes

A1.4 INTERVIEWER HOUSEHOLD FORM

52 IN THE LAST TWO WEEKS DID THE PERSON SPEND TIME PROVIDING UNPAID CARE, HELP OR ASSISTANCE TO FAMILY MEMBERS OR OTHERS BECAUSE OF A DISABILITY, A LONG-TERM ILLNESS OR PROBLEMS RELATED TO OLD AGE?

Record persons who receive a carers benefit in the 'Yes, provided unpaid care, help or assistance' box.
Ad hoc help or assistance, such as shopping, should only be included if the person needs this sort of assistance because of his/her condition.
Do not include work done through a voluntary organisation or group.

No, did not provide unpaid care, help or assistance
Yes, provided unpaid care, help or assistance sometimes

MAIN DATA SOURCES

INTRODUCTION

1 Information in this publication is drawn from many sources, including the Census of Population and Housing, a number of surveys conducted by the Australian Bureau of Statistics (ABS) and other organisations, and from a variety of administrative data sources. A brief description of the main sources used in this report is provided in the following paragraphs. Terms and concepts used in this publication are explained in the Glossary. Additional sources referenced within the publication are included in the list of references.

BETTERING THE EVALUATION AND CARE OF HEALTH (BEACH) SURVEY

2 The BEACH survey collects information about consultations with general practitioners (GPs), including GP and patient characteristics, patient reasons for the visit, problems managed and treatments provided. The survey has been conducted annually since April 1998. Information is collected from a random sample of approximately 1,000 GPs from across Australia each year. Each GP provides details of 100 consecutive consultations. Over the period 2001–02 to 2005–06, 1.5% of GP consultations were with patients who identified as Aboriginal and/or Torres Strait Islander.

3 Although the questionnaire contains an Indigenous identifier, it is unknown whether all GPs ask their patients this question. In sub-study Supplementary Analysis of Nominated Data of approximately 9,000 patients, it was found that if the question on Indigenous status was asked within the context of a series of questions about origin and cultural background, 2.2% identified as Aboriginal or Torres Strait Islander. This is twice the rate routinely recorded in BEACH, indicating that BEACH may underestimate the number of Indigenous consultations. More information on the BEACH survey is available on the BEACH project web site http://www.fmrc.org.au/beach.htm>.

CENSUS OF POPULATION AND HOUSING

4 The Census of Population and Housing is the largest statistical collection undertaken by the ABS and is conducted every five years. Selected results from the 2006 and 2001 Censuses are presented in this report.

5 The Census is a count of the whole population at a given point in time. As such, it forms the basis of the estimated resident population (ERP); the official measure of the Australian population and each state/territory population. These population estimates are used to determine the number of seats in the House of Representatives for each state and territory, and for the allocation of government funding. In addition, Census information about the characteristics of the population as a whole, and of various sub-populations (e.g. Aboriginal and Torres Strait Islander peoples) is used to support the planning, administration and policy development activities of governments, businesses and other users.

COMMUNITY HOUSING AND INFRASTRUCTURE NEEDS SURVEY (CHINS)

6 The 2006 CHINS collected data about the status of housing, infrastructure, education, health and other services available in discrete Indigenous communities throughout Australia. In addition, the survey collected selected information on Indigenous Housing Organisations (IHOs) that provide rental housing to Aboriginal and Torres Strait Islander people.

7 The survey was conducted throughout Australia between March and June 2006, and was the third to be conducted by the ABS. The 2006 CHINS was conducted by the ABS on behalf of, and with full funding from, the then Australian Government Department of Families, Community Services and Indigenous Affairs (FaCSIA).

COMMUNITY HOUSING AND INFRASTRUCTURE NEEDS SURVEY (CHINS) *continued*

8 The 2006 CHINS was administered in conjunction with field preparations for the 2006 Census. Although called a survey, the 2006 CHINS was designed as an enumeration of all 1,187 discrete Indigenous communities in Australia that were occupied at the time of the CHINS or were intended to be reoccupied within 12 months, and of all 496 IHOs managing housing for Aboriginal and Torres Strait Islander people. More information on the survey is available in ABS 2007d.

NATIONAL ABORIGINAL AND TORRES STRAIT ISLANDER HEALTH SURVEY

9 The NATSIHS collected information about the health circumstances of Indigenous Australians, including general health status, health actions taken, and selected lifestyle factors which may influence health outcomes.

10 The survey was conducted from August 2004 to July 2005 by the ABS. Building on the Indigenous components in the 1995 and 2001 National Health Surveys, the NATSIHS is the first Indigenous-specific health survey. It will be conducted six-yearly to coincide with every second (three-yearly) National Health Survey (NHS).

11 The 2004–05 NATSIHS collected information from 10,400 Indigenous Australians of all ages in remote and non-remote areas.

12 In this report, data for non-Indigenous people from the NHS are used to provide comparisons with data for Indigenous people from the 2004–05 NATSIHS. Except where data are compared for small age groups, comparisons are based on age standardised estimates in order to account for the differences in age structure between the Indigenous and non-Indigenous populations. For more information on age standardisation, see the Glossary. More information on the 2004–05 NATSIHS is available in ABS 2006c.

NATIONAL ABORIGINAL AND TORRES STRAIT ISLANDER SOCIAL SURVEY

13 The 2002 NATSISS collected information on a wide range of subjects including family and culture, health, education, employment, income, financial stress, housing, transport and mobility, as well as law and justice.

14 The 2002 NATSISS was conducted from August 2002 to April 2003 and is the second national social survey of Indigenous Australians conducted by the ABS, building on the 1994 National Aboriginal and Torres Strait Islander Survey (NATSIS). The 2008 NATSISS will be enumerated from August to December 2008.

15 The survey collected information from 9,400 Indigenous Australians across all states and territories of Australia, including people living in remote areas. The sample covered persons aged 15 years or over who were usual residents of private dwellings in Australia. Usual residents of 'special' dwellings such as hotels, motels, hostels, hospitals and prisons were not included in the survey.

16 In this report, data for non-Indigenous people from the General Social Survey (GSS) are used to provide comparisons with data for Indigenous people from the 2002 National Aboriginal and Torres Strait Islander Social Survey (NATSISS). In most cases, these comparisons are based on age-standardised estimates in order to account for the differences in age structure between the Indigenous and non-Indigenous populations. For more information on age standardisation, see the Glossary. More information on the 2002 NATSISS is available in ABS 2004d.

NATIONAL HOSPITAL MORBIDITY DATA COLLECTION

17 The National Mortality Data Collection comprises de-identified hospital separation records (discharges, transfers, deaths or changes in type of episode of care) and is maintained by the AIHW. Information on the characteristics, diagnoses and care of admitted patients in public and private hospitals is provided to the AIHW by state and territory health departments. Further information about this collection is provided in AIHW 2007b.

NATIONAL MORTALITY DATA COLLECTION

18 The National Mortality Data Collection comprises de-identified information for all deaths in Australia. This data collection includes deaths registered in Australia from 1964 to the present and is maintained by the 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 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, towards the end of the year, with the previous calendar year's data.

NATIONAL PERINATAL DATA COLLECTION

19 The National Perinatal Data Collection is a national collection that includes data on all births that have occurred in Australia in hospitals, birth centres and the community. It comprises data items as specified in the Perinatal National Minimum Data Set plus additional items collected by the states and territories. The Perinatal National Minimum Data Set is a specification for data collected on all live births, and all stillbirths of at least 20 weeks gestation and/or at least 400 grams birth weight. The Perinatal NMDS was established in 1997. State and territory health authorities provide data to the Australian Institute of Health and Welfare, National Perinatal Statistics Unit for national collation on an annual basis. The Aboriginal or Torres Strait Islander status of the mother is collected, but not that of the father or baby.

SUPPORTED ACCOMMODATION ASSISTANCE PROGRAM (SAAP) NATIONAL DATA COLLECTION

20 The SAAP National Data Collection is a nationally consistent information system that combines information from SAAP agencies and state/territory and Commonwealth funding departments. The Australian Institute of Health and Welfare fulfils the role of the National Data Collection Agency and manages the collection. All non-government organisations funded under the program are required to participate in the SAAP National Data Collection. The SAAP National Data Collection was established in July 1996 to provide information necessary to assist in the planning, monitoring and evaluation of the SAAP program.

WESTERN AUSTRALIAN ABORIGINAL CHILD HEALTH SURVEY (WAACHS)

21 The WAACHS was a large scale investigation into the health of 5,289 Western Australian and Torres Strait Islander children aged 0–17 years. It was undertaken in 2001–02 by the Telethon Institute for Child Health Research in conjunction with the Kulunga Research Network. The survey was the first to gather comprehensive health, educational and developmental information on a population based sample of Aboriginal and Torres Strait Islander children, their families and communities.

22 For more information on the WAACHS, see Zubrick et al 2005; Zubrick et al 2006; Silburn et al 2006, or the Institute's web site <www.ichr.uwa.edu.au>.

GLOSSARY

Aboriginal people	People who identify or are identified as being of Aboriginal origin. May also include people identified as being of both Aboriginal and Torres Strait Islander origin. See also Indigenous people and Torres Strait Islander people.
Access to motor vehicle(s)	Access that a person has to a registered motor vehicle which is owned or used by members of the household, and which is garaged or parked near the occupied dwelling on Census Night. It includes vans and company vehicles kept at home, but excludes motorbikes, scooters and tractors.
Administrative data	Data that are routinely collected in the course of general administration. Includes data from the Registrars of Births, Deaths and Marriages, hospital morbidity data, housing assistance data and child protection data.
Age-specific rate	A rate for a specific age group. The numerator and the denominator relate to the same age group.
Age standardisation	A method of removing the influence of age when comparing populations with different age structures. Where appropriate, estimates in this publication are age standardised to the age composition of the total estimated resident population of Australia as at 30 June 2001. The age standardised rate is that which would have prevailed if the studied population had the standard age composition. Because age standardised estimates do not represent any real population parameters, they should not be used to quantify the difference between the Indigenous and non-Indigenous populations. They should be used as an indication of difference only.
Alcohol consumption risk level	Two measures of alcohol consumption risk were derived from the 2004–05 NATSIHS. See Long-term risky/high risk alcohol consumption and Short-term risky/high risk alcohol consumption.
Apparent retention rates	Apparent retention rates are the percentage of full-time students of a given cohort group who continue from the first year of secondary schooling to a specified year level. Care should be taken in interpreting apparent retention rates, as they do not account for students repeating a year of school or migrating into or out of the Australian school student population. Ungraded secondary students and those enrolled in alternative secondary programs are also not included in retention calculations. For more information, see *Schools Australia, 2007* (ABS cat. no. 4221.0).
Attended a cultural event	Participation in traditional or contemporary Aboriginal or Torres Strait Islander cultural activities and events in the 12 months prior to interview. Events include funerals, ceremonies, Indigenous festivals and carnivals, arts, craft, music, dance, writing or telling stories, and involvement with Aboriginal and Torres Strait Islander organisations. Participation may be for payment or without payment.
Australian Indigenous Language	An Aboriginal or Torres Strait Islander language in the Australian Indigenous Languages group of the Australian Standard Classification of Languages. Excludes Oceanian Pidgins and Creoles and 'Aboriginal English'. See also Language spoken at home.

Body Mass Index	A measure of body weight relative to height. Calculated from reported height and weight information, using the formula weight (in kilograms) divided by the square of height (in metres). To produce a measure of the prevalence of overweight or obesity in adults, BMI values are grouped according to the table below which allows categories to be reported against the World Health Organization guidelines. BMI categories are as follows: Underweight—Less than 18.5 Healthy weight—18.5 to less than 25 Overweight—25 to less than 30 Obese—30 and greater
Canadian National Occupancy Standard for housing appropriateness	A standard measure of housing utilisation that is sensitive to both household size and composition. Based on the following criteria used to assess bedroom requirements, households requiring at least one additional bedroom are considered to be overcrowded: ■ there should be no more than two persons per bedroom ■ a household of one unattached individual may reasonably occupy a bed-sit (i.e. have no bedroom) ■ couples and parents should have a separate bedroom ■ children less than five years of age, of different sexes, may reasonably share a room ■ children five years of age or over, of different sexes, 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.
Care and protection orders	Children subject to a care and protection order are those for whom the Community Services Department has a responsibility as a result of some formal legal order or an administrative/voluntary arrangement. Only orders issued for protective reasons are included.
Carer	A person aged 15 years or over who provides care for another person with disability, a long-term illness, or problems related to old age. The questions used to ascertain carer status in the 2006 Census are in Appendix 1 of this report.
Census	A census is a count of a whole population. The Census of Population and Housing measures the number of people in Australia and their key characteristics, at a given point in time. The ABS conducts the Census every five years; the last was in August 2006. In this publication the word 'Census' refers to the ABS Census of Population and Housing.
Clan, tribal group or language group	A group of Aboriginal and/or Torres Strait Islander people who share a common language and/or clan or tribal membership.
Commonwealth Rent Assistance (CRA) – Income unit	A CRA income unit is defined as either a single person or a couple with or without dependants. Children over 16 years of age are not regarded as dependent unless they are full-time secondary students aged less than 18 years and not receiving social security payments.
Community Development Employment Projects (CDEP) programme	The CDEP programme enables participants (usually members of the Aboriginal and Torres Strait Islander communities) to exchange unemployment benefits for opportunities to undertake work and training in activities which are managed by a local Aboriginal or Torres Strait Islander community organisation. Participants in the programme are classified as employed.

Community health centre	A facility that provides a range of medical and health-related services to the community. The centre may also provide advice to people on issues such as sexually transmitted diseases, immunisation and family planning. In remote areas some of these services may not be available, but the centre would usually have nurses, health workers and/or doctors in regular attendance.
Comorbidity	When a person has two or more health conditions at the same time.
Core activity need for assistance	People who sometimes or always need help or assistance with one or more of three core activities—self-care, mobility and communication—because of disability, a long-term health condition (lasting six months or more) or old age. This 2006 Census concept is relatable to the 2002 NATSISS measure of profound/severe core activity limitation. The questions used to ascertain core activity need for assistance in the 2006 Census are in Appendix 1 of this report. See also Profound/severe core activity limitation.
Current daily smoker	A person who was smoking one or more cigarettes (or cigars or pipes) per day, on average, at the time of interview. See also Smoker status.
Dialysis	A treatment for end-stage renal disease, where the work of the kidneys is performed artificially.
Difficulty communicating with service providers	The extent to which a person has difficulty communicating with service providers, such as government organisations, due to language difficulties.
Discrete Indigenous community	A geographical location with a physical or legal boundary that is inhabited or intended to be inhabited predominantly by Indigenous people (i.e. comprising more than 50% of the usual population), with housing and infrastructure that is either owned or managed on a community basis.
dmft (child teeth)	The number of decayed, missing or filled deciduous (child) teeth.
DMFT (adult teeth)	The number of decayed, missing or filled permanent (adult) teeth.
Dwelling	See Non-private dwelling and Private dwelling.
Dwelling condition	See Permanent dwelling condition.
Educational attainment	The highest level of education attained. Includes both primary and secondary school and non-school qualifications. See also Highest year of school completed and Non-school qualification.
Employed	Persons aged 15 years or over who had a job or business, or who undertook work without pay in a family business, for a minimum of one hour, in the previous week. Includes persons who were absent from a job or business and CDEP participants. See also Labour force status.
Employed full-time	Persons who usually work 35 hours or more per week.
Employed part-time	Persons who usually work at least one hour, but less than 35 hours per week.
Equivalised gross household income	A standardised income measure which enables analysis of the relative wellbeing of households of different size and composition. Equivalence scales are used to adjust the actual incomes of households in a way that accounts for differences in the needs of individuals within those households and the economies of scale achieved by people living together. The adjustment recognises the greater level of income required by larger households compared with smaller households, and also that the resource needs of adults are normally greater than those of children. For example, it would be expected that a household comprising two people would normally need more income than a lone person household if the two households are to enjoy the same standard of living. One way of adjusting for this difference in household size might be simply to divide the income of the household by the number of people within the household so that all income is presented on a per capita basis. However, such a simple adjustment assumes that all individuals have the same needs if they are to enjoy the same standard of living and that there are no economies derived from sharing resources. When household

Equivalised gross household income *continued*	income is adjusted according to an equivalence scale, equivalised household income can be viewed as an indicator of the economic resources available to each individual in a household. In this publication, a 'modified OECD' equivalence scale has been used; the scale widely accepted among Australian analysts of income distribution. This scale allocates 1.0 point for the first adult (aged 15 years or over) in a household; 0.5 for each additional adult; and 0.3 for each child. Equivalised household income is derived by dividing total household income by the sum of the equivalence points allocated to household members. For example, if a household received combined gross income of $2,100 per week and comprised two adults and two children (combined household equivalence points of 2.1), the equivalised gross household income for each household member would be calculated as $1,000 per week. See also People in low income households.
Equivalised household income – quintiles	Groupings of 20% of the total population of Australia when ranked in ascending order according to equivalised gross household income. The population used for this purpose includes all people living in private dwellings, including children. Households in which income was not reported or only partially reported have been excluded.
Estimated resident population (ERP)	The official ABS estimate of the Australian population, based on the Census count (on a usual residence basis). The estimated resident population is compiled at 30 June each census year, and is updated quarterly between censuses. These intercensal estimates of the resident population are revised each time a population census is taken. See also Indigenous estimated resident population.
Estimated resident Indigenous population	The Indigenous ERP is based on the Census count and adjusted for instances in which Indigenous status is unknown and for net undercount. These adjustments are necessary because of the volatility of counts of the Indigenous population between censuses.
Exercise level	Based on frequency, intensity (i.e. walking, moderate exercise and vigorous exercise) and duration of exercise (for recreation, sport or fitness) in the previous two weeks. From these components, an exercise score was derived using factors to represent the intensity of the exercise. Scores were grouped into the following four categories: Sedentary—Less than 100 mins (includes no exercise) Low— 100 mins to less than 1600 mins Moderate—600–3200 mins, or more than 3200 mins but less than 2 hours of vigorous exercise High—More than 3200 mins and 2 hours or more of vigorous exercise
Fertility rate	See Total fertility rate.
Financial stress	In this report, 'financial stress' is defined as the inability of a household to obtain $2000 within a week for something important.
Foetal death (stillbirth)	Death prior to the complete expulsion or extraction from its mother of a product of conception of 20 or more completed weeks of gestation or of 400 grams or more of birthweight (criteria used for the state and territory perinatal collections).
Foetal death rate	The number of foetal deaths in a year per 1,000 total births in the same year.
Health Care Card	These cards provide for medical and/or related services free of charge or at reduced rates to recipients of Australian government pensions or benefits.
Health status	See self-assessed health status.
High level residential aged care	Residential aged care services delivered to residents with high levels of dependency. These are approximately equivalent to the services delivered by nursing homes in the past.

High volume form	Most Supported Accommodation Assistance Program (SAAP) agencies use the general client form to collect data for the SAAP Client collection. This form has 29 questions. 'High volume' agencies have a large number of clients and a high client throughput. These agencies use a 'high volume' client form with a subset of questions from the general client form. Generally, high volume agencies include those providing accommodation to more than 50 people per night, telephone referral agencies, day centres and information and referral centres.
Highest year of school completed	The highest year of primary or secondary school completed, irrespective of the type of educational institution attended, or where that education was undertaken. In this publication, the population of interest excludes people aged less than 15 years and those who were still attending a secondary school.
Homelands/traditional country	An area of land with which Aboriginal or Torres Strait Islander people have ancestral and/or cultural links.
Home owner	See Owner without a mortgage and Owner with a mortgage.
Hospitalisation	Refers to the process by which an admitted patient completes an episode of care in hospital, by being discharged, transferring to another hospital or care facility, or dying. A hospital separation record refers to a patient's administrative record on discharge from hospital. The record gives demographic details such as age, sex and Indigenous status, as well as reasons for hospitalisation, and treatments or procedures performed.
Hospital separation	See Hospitalisation.
Household	A household is defined as a group of two or more related or unrelated people who usually reside in the same dwelling, who regard themselves as a household, and who make common provision for food or other essentials for living; or a person living in a dwelling who makes provisions for his/her own food and other essentials for living, without combining with any other person (i.e. a lone-person household). In this publication, households are separated into those containing at least one Indigenous person (referred to as Indigenous households) and Other households. See also Indigenous household and Other household.
Housing assistance program	A program to assist people to obtain access to housing that is affordable and appropriate to their needs.
Illicit substance use	The use of substances for non-medical purposes. Substances included in the 2004–05 NATSIHS were pain-killers or analgesics, tranquillisers or sleeping pills, amphetamines or speed, marijuana, hashish or cannabis resin, heroin, methadone, cocaine, hallucinogens (both synthetic and naturally occuring), ecstasy or other designer drugs, petrol and other inhalants, and kava. Information was collected on substance use in the previous 12 months and substance use to date, for people aged 18 years or over in non-remote areas, using a self-completion form. Information on substance use was not collected in remote areas due to concerns about guaranteeing respondent confidentiality in instances where personal interview was the collection method.
Imprisonment rate	The number of prisoners per 100,000 adult population.
Incidence	The number of new cases of a particular illness commencing during a given period in a specified population. See also Prevalence.
Income	Regular gross weekly income, which is the income before tax, superannuation, health insurance, or other deductions are made. Gross income includes family allowance, family allowance supplement, pensions, unemployment benefits, student allowances, maintenance (child support), superannuation, wages, overtime, dividends, rents received, interest received, business or farm income (less operation expenses) and workers compensation received.
Income quintiles	See Equivalised gross household income—quintiles.

Indigenous community housing	Dwellings targeted to Indigenous people that are managed by Indigenous Housing Organisations.
Indigenous household	A household in an occupied private dwelling with at least one resident who has been identified as Indigenous, and who was enumerated at home on Census night. The other residents of the household may have been identified as Indigenous, non-Indigenous, or have Indigenous status unknown. See also Household and Other household.
Indigenous Housing Organisation	Any Aboriginal or Torres Strait Islander organisation which is responsible for managing housing for Indigenous people. This includes community organisations, such as Resources Agencies and Land Councils, that have a range of functions, provided that they manage housing for Indigenous people.
Indigenous income unit	An income unit in which the client of a community services program, or their partner, has been identified as Aboriginal or Torres Strait Islander in origin. See also Commonwealth Rent Assistance (CRA) – Income unit.
Indigenous people	People who identified themselves, or were identified by another household member, as being of Aboriginal and/or Torres Strait Islander origin.
Indigenous Region	Indigenous Regions (IREGs) are the highest level of the Australian Indigenous Geographic Classification (AIGC). The AIGC provides a geographical standard for the publication of Census data about the Indigenous population of Australia. In 2001, the highest level of the AIGC was Aboriginal and Torres Strait Islander Commission (ATSIC) Region, which reflected the legal ATSIC Region boundaries defined under the ATSIC Act (1989). When ATSIC ceased operations in 2005, the legal requirement for these boundaries also ceased to exist. IREGs are based on the former ATSIC Region boundaries but reflect recent changes in local government areas. Changes in government administrative arrangements were also taken into account in defining the IREGs. Where possible and appropriate, the 2001 boundaries were maintained to allow the characteristics of Indigenous people within a Region to be compared across Censuses.
Individual weekly income	Gross income (including pensions and allowances) that a person aged 15 years or over usually receives each week. See also Median individual weekly income.
Infant mortality	Deaths of children under one year of age.
Infant mortality rate	The number of deaths of infants per 1,000 live births.
International Statistical Classification of Diseases and Related Health Problems (ICD-10)	The tenth revision of the International Classification of Diseases and Health Related Problems (ICD-10). The Australian modification of the ICD-10 (ICD-10-AM) was adopted for Australian use for deaths registered from 1 January 1999 and superseded ICD-9. The ICD, which is endorsed by the World Health Organization (WHO), is primarily designed for the classification of diseases and injuries with a formal diagnosis.
Involvement in social activities	Participation in social activities in the three months prior to interview including: recreational or cultural group activities; community or special interest group activities; church or religious activities; outings to a cafe, restaurant or bar; involvement in sport or physical activities; attendance at a sporting event as a spectator; visiting a library, museum or art gallery; going to the movies, theatre or concert; visiting a park, botanic gardens, zoo or theme park; attending Aboriginal and Torres Strait Islander Commission or Native Title meetings; attending funerals, ceremonies or festivals; and fishing or hunting in a group.
Jurisdiction	A state or territory of Australia.

Labour force participation rate	The number of persons in the labour force (i.e. employed plus unemployed) expressed as a percentage of the population. Both the numerator and denominator may be restricted to derive labour force participation rates for particular age groups, e.g. persons aged 18–64 years. Persons who did not report their labour force status are excluded when calculating the participation rate. See also Employed, Labour force status, and Unemployed.
Labour force status	Identifies whether a person is employed, unemployed or not in the labour force. See also Employed, Not in the labour force and Unemployed.
Landlord	The person or organisation that provides housing in exchange for rent.
Language spoken at home	In the 2006 Census, language spoken at home was recorded for people who spoke a language other than English at home. It does not identify the main language spoken or number of languages spoken.
Life table	A life table is a statistical model used to show the life expectancy and hence levels of mortality at different ages. It depicts the mortality experience of a hypothetical group of newborn babies throughout their lifetimes. Life tables may be complete or abridged, depending on the age interval used in their compilation. Complete life tables such as those for the Australian population contain data by single years of age, while abridged life tables, such as those for the Indigenous population, contain data for five-year age groups. Life tables are presented separately for males and females.
Long-term health condition	A medical condition (illness, injury or disability) which has lasted at least six months, or which the respondent expects to last for six months or more. In the 2004–05 NATSIHS, some reported conditions were assumed to be long-term, including: asthma; arthritis; cancer; osteoporosis; diabetes; rheumatic heart disease; heart attack; and stroke.
Long-term risky/high risk alcohol consumption	According to National Health and Medical Research Council (NHMRC) guidelines, long-term risky/high risk alcohol consumption equates to 50ml or more of alcohol per day for men and 25ml or more per day for women (see table below). In the 2004–05 NATSIHS, long-term alcohol risk levels were derived from the average daily consumption of alcohol in the seven days prior to interview. It should be noted that risk level as defined by the NHMRC is based on regular alcohol consumption levels, whereas indicators derived from the 2004–05 NATSIHS do not take into account whether consumption in the reference week was more, less or the same as usual.

RISK OF HARM IN THE LONG-TERM, consumption on an average day

Relative risk	*Males*	*Females*
Low	Less than 50 mls	Less than 25 mls
Moderate	50–75 mls	25–50 mls
High	Greater than 75 mls	Greater than 50 mls

Note: One standard drink contains 12.5ml of alcohol.

See also Alcohol consumption risk level and Short-term risky/high risk alcohol consumption.

Low birthweight	Birthweight of less than 2,500 grams.
Low resource household	See People in low resource households.
Major cities	Geographical areas within the 'Major cities of Australia' category of the Australian Standard Geographical Classification (ASGC) Remoteness Structure. See also Remoteness Area.
Marital status	See Social marital status.

Median	The midpoint of a distribution of values. Half the values occur above this point and half below.
Median equivalised gross household income	The midpoint of the distribution of equivalised weekly income values, based on ranged data. See also Equivalised weekly income.
Median individual weekly income	The midpoint of the distribution of individual weekly income values, based on ranged data. See also Individual weekly income.
Morbidity	Any departure, subjective or objective, from a state of physiological or psychological wellbeing.
Multiple causes of death	All morbid conditions, diseases and injuries entered on the death certificate. These include those factors involved in the morbid train of events leading to death which were classified as either the underlying cause, the immediate cause, or any intervening causes and those conditions which contributed to death, but were not related to the disease or condition causing death. For deaths where the underlying cause was identified as an external cause (injury or poisoning) multiple causes include circumstances of injury, the nature of injury as well as any other conditions reported on the death certificate.
Needs assistance with core activities	See Core activity need for assistance.
Neighbourhood/community problems	A person's perception of crime and other problems in their neighbourhood. Problems include: theft; prowlers or loiterers; damage to property; dangerous or noisy driving; alcohol and illegal drugs; family violence; assault; sexual assault; problems with neighbours; youth-related problems; and a perceived lack of personal safety.
Neonatal death	Death of a liveborn infant within 28 days of birth.
Neonatal mortality rate	The number of neonatal deaths in a year per 1,000 live births in the same year.
Non-private dwelling	Includes (but is not limited to) hotel, motel, hospital or psychiatric institution, nursing home, boarding house, hostel for homeless, disabled or backpackers, convent or monastery, prison, corrective institution and immigration detention centre. Non-private dwellings are enumerated on personal forms instead of household forms which are used for private dwellings. See also Private dwelling.
Non-remote	Geographical areas within the 'Major cities of Australia', 'Inner regional Australia' and 'Outer regional Australia' categories of the Australian Standard Geographical Classification (ASGC) Remoteness Structure. See also Remoteness Area.
Non-school qualification	A non-school qualification is awarded for post-school educational attainment. Includes Certificates, Diplomas, Bachelor degrees, Graduate certificates, Graduate Diplomas and Postgraduate degrees. In this publication, the population of interest for non-school qualification is people aged 25–64 years. Non-school qualifications may be attained concurrently with school qualifications. Responses have been coded according to the *Australian Standard Classification of Education (ASCED), 2001* (cat. no. 1272.0).
Not in the labour force	Persons who are retired; no longer working; do not intend to work in the future; permanently unable to work; or who have never worked and never intend to work. See also Labour force status.
Obese	See Body Mass Index.
Other household	A household in an occupied private dwelling not identified as an Indigenous household because no residents were identified as Indigenous on Census night. These households may include residents whose Indigenous status was unknown.
Other tenure type	Comprises persons in dwellings being purchased under a rent/buy scheme, occupied rent-free, under a life tenure scheme, or other tenure type. See also Tenure type.
Overcrowding	See Canadian National Occupancy Standard for housing appropriateness.
Overweight	See Body Mass Index.

Owner with a mortgage	A household where the reference person's outstanding mortgage or loan amount secured against the dwelling is greater than zero. (Persons who have an outstanding mortgage amount but who are not making any payments are included in this category.) See also Tenure type.
Owner without a mortgage	A household where the reference person has no outstanding mortgage or loan amount secured against the dwelling. (Persons who have repaid a mortgage or loan but have not formally discharged the associated mortgage are included in this category.) See also Tenure type.
People in low resource households	People with equivalised gross household income in the bottom 20% of incomes, excluding people in households that were owned (with or without a mortgage) by a household member or where a household member was an owner manager of an unincorporated business. This concept takes into account that for some households in the lowest quintile, income levels may not fully reflect their economic wellbeing. This is particularly so for households that have unincorporated businesses or have access to wealth. As the incidence of such households is higher in the non-Indigenous population than the Indigenous population, the 'low resource household' concept enables better comparison between the economic circumstances of Indigenous and non-Indigenous people on low incomes.
Perinatal mortality rate	The number of perinatal deaths per 1,000 total births in the same year. A perinatal death is a foetal or neonatal death.
Permanent dwelling	A dwelling is a structure or discrete space within a structure designed for people to live in or where people live. A permanent dwelling has fixed walls, roof and doors. They usually have kitchen and bathroom facilities, thought this is not necessary, provided these facilities could be built into the dwelling. Permanent dwellings are made from regular building materials and are intended for long-term residential use.
Permanent dwelling condition	In the 2006 CHINS, permanent dwellings managed by an Indigenous Housing Organisation (IHO) were categorised according to the extent of repairs required. Dwellings that required repairs of less than $20,000 in low cost areas, less than $27,000 in medium cost areas, and less than $33,000 in high cost areas were defined as needing 'minor or no repair' while dwellings requiring repairs of $20,000 to less than $60,000 in low cost areas, $27,000 to less than $80,000 in medium cost areas, and $33,000 to less than $100,000 in high cost areas were defined as needing 'major repair'. Dwellings that required repairs of $60,000 or more in low cost areas, $80,000 or more in medium cost areas, and $100,000 or more in high cost areas were defined as needing replacement.
Prevalence	The number of instances of a specific disease present in a given population at a designated point in time. See also Incidence.
Principal diagnosis	The diagnosis established to be chiefly responsible for a patient's hospitalisation.
Private and other renters	Comprises renters from a real estate agent, relative or other person not in same household, residential park (includes caravan parks and marinas), government or other employer, and landlord not stated. See also Tenure type.
Private dwelling	In general terms, a dwelling is a structure which is intended to have people live in it, and which is habitable on Census Night. A private dwelling can be a house, flat, caravan, houseboat, tent, or a room above a shop occupied by one or more people. Private dwellings are enumerated using household forms, which obtain family and relationship data. Private dwellings exclude houses under construction, derelict houses, vacant tents, hotels, guest houses, prisons, hospitals or other communal dwellings. See also Non-private dwelling.
Procedure (hospital)	Procedures encompass surgical procedures and also non-surgical investigative and therapeutic procedures such as x-rays and chemotherapy. Because a procedure is not undertaken every time a patient visits hospital, the number of hospital separations always exceeds procedures recorded.

Profound/severe core activity limitation	A limitation in the performance of one or more core activities of self-care, mobility or communication. People who needed assistance to perform one or more of these activities, some or all of the time, were categorised as having a profound or severe core activity limitation. This 2002 NATSISS concept is relatable to the 2006 Census measure of core activity need for assistance. See also Core activity need for assistance.
Puerperium	The period from the birth of a child until the mother is again restored to ordinary health. This period is generally regarded as lasting for one month.
Rate ratio	Indigenous to non-Indigenous rate ratios are calculated by dividing the proportion of Indigenous people with a particular characteristic by the proportion of non-Indigenous people with the same characteristic. If the characteristic of interest is highly correlated with age (e.g. need for assistance with core activities), age standardised proportions are used to calculate Indigenous to non-Indigenous rate ratios. A rate ratio of 1.0 indicates that the prevalence of the characteristic is the same in the Indigenous and non-Indigenous populations. Rate ratios of greater than 1.0 indicate higher prevalence in the Indigenous population and rate ratios less than 1.0 indicate higher prevalence in the non-Indigenous population.
Regional	Geographical areas within the 'Inner Regional Australia' and 'Outer Regional Australia' categories of the Australian Standard Geographical Classification (ASGC) Remoteness Structure. See also Remoteness Area.
Remote	Geographical areas within the 'Remote Australia' and 'Very remote Australia' categories of the Australian Standard Geographical Classification (ASGC) Remoteness Structure. This term has been abbreviated to 'Remote' in this publication. See also Remoteness Area.
Remoteness Area	Within the Australian Standard Geographical Classification (ASGC), the Remoteness classification comprises five categories. Determined in the context of Australia as a whole, each of these identify an aggregation of non-contiguous geographical areas, being a grouping of Collection Districts (CDs), which share a particular degree of remoteness. The degrees of remoteness range from 'highly accessible' (i.e. major cities) to 'very remote'. The degree of remoteness of each CD was determined using the Accessibility/Remoteness Index of Australia (ARIA). ARIA measures the remoteness of a point based on the physical road distances to the nearest Urban Centre in each of the five size classes. Therefore, not all Remoteness Areas are represented in each state or territory. There are six Remoteness Areas in this structure: Major Cities of Australia, Inner Regional Australia, Outer Regional Australia, Remote Australia, Very Remote Australia and Migratory (composed of offshore, shipping and migratory CDs). For more information, see *Statistical Geography Volume 1, Australian Standard Geographical Classification (ASGC), 2007* (ABS cat. no. 1216.0).
Risk factor	An aspect of lifestyle or behaviour, a health condition, an environmental exposure, or an inborn or inherited characteristic, known to be associated with health-related conditions that is considered important to prevent, e.g. smoking.
Sedentary/low level exercise	See Exercise level.
Self-assessed health status	A person's general assessment of their own health against a five point scale which ranged from excellent through to poor.

Short-term risky/high risk alcohol consumption

Short-term alcohol risk levels for the 2004–05 NATSIHS were based on the frequency of consuming five (for females) or seven (for males) or more standard drinks on any one occasion in the last 12 months. These risk levels equate to NHMRC guidelines for risk of harm in the short-term.

RISK OF HARM IN THE SHORT-TERM, consumption on any day in the last 12 months

Relative risk	*Males*	*Females*
Low	Less than 75 mls	Less than 50 mls
Moderate	75–125 mls	50–75 mls
High	Greater than 125 mls	Greater than 75 mls

Note: One standard drink contains 12.5ml of alcohol.

See also Alcohol consumption risk level and Long-term risky/high risk alcohol consumption.

Smoker status

The extent to which an adult was smoking at the time of the interview. In the 2004–05 NATSIHS, smoker status was collected from persons aged 18 years or over and referred to regular smoking of tobacco, including manufactured (packet) cigarettes, roll-your-own cigarettes, cigars and pipes, but excludes chewing tobacco and smoking of non-tobacco products. Categories used to describe smoker status are as follows:

Current daily smoker (a person who was smoking one or more cigarettes (or cigars or pipes) per day, on average, at the time of interview);

Current smoker—other (a person who was smoking at least once a week, but not daily at the time of the interview);

Ex-smoker (has previously smoked daily or has smoked 100 or more cigarettes in lifetime or has smoked pipes/cigars etc. at least 20 times);

Never smoked (has not previously smoked daily or smoked 100 or more cigarettes in lifetime or smoked pipes/cigars etc. at least 20 times).

Social marital status

People aged 15 years or over in a couple relationship with another person in the same usual residence. Individuals are regarded as married if they are in a de facto marriage, or if they are living with the person to whom they are registered as married.

Stressors

One or more selected events or circumstances which a person considers to have been a problem for themselves or someone close to them in the last 12 months. In the 2004-05 NATSIHS, the specified stressors were: serious illness or disability; serious accident; death of a family member or close friend; divorce or separation; inability to obtain work; involuntary loss of a job; alcohol-related problems; drug-related problems; witnessing violence; being the victim of abuse or violent crime; trouble with the police; gambling problems; incarceration of self or a family member; overcrowding at home; and discrimination or racism.

Support in time of crisis

The existence of a support network outside a person's household. Such support could be called on in a time of crisis and could take the form of emotional, physical and/or financial help.

Tenure type

The nature of a household's legal right to occupy the dwelling in which they usually reside. Includes home purchasing, renting, rent/buy or shared equity schemes and other tenure types. See also Other tenure type and Private and other renters.

Torres Strait Indigenous Region

The grouping of Census Collection Districts (CDs), comprising islands in the seas between Cape York and the coast of Papua New Guinea, which make up the 'Torres Strait Indigenous Region' according to the Australian Indigenous Geographical Classification (AIGC). The region's geographical area is equivalent to the former ATSIC classification 'Torres Strait Area'. See also Indigenous Region.

Torres Strait Islander people	People identified as being of Torres Strait Islander origin. May also include people identified as being of both Torres Strait Islander and Aboriginal origin. See also Indigenous people.
Total fertility rate	Estimate of the average number of children a woman would bear during her lifetime if she experienced current age-specific fertility rates throughout her reproductive life.
Underlying cause of death	The disease or injury which initiated the morbid train of events leading directly to death. Accidental and violent deaths are classified to the external cause, that is, to the circumstance of the accident or violence which produced the fatal injury rather than to the nature of the injury.
Unemployed	People aged 15 years and over who were not employed but were actively looking for work in the previous four weeks, and were available to start work in the previous week. See also Labour Force Status.
Unemployment rate	Unemployed people expressed as a proportion of the labour force (i.e. unemployed plus employed people).
Usual daily serves of fruit	Refers to the number of serves of fruit (excluding drinks and beverages) usually consumed each day, as reported by the respondent. A serve is approximately 150 grams of fresh fruit or 50 grams of dried fruit. Low usual daily fruit intake is defined as eating one serve or less per day, which includes not eating fruit at all. In the 2004–05 NATSIHS, information on usual daily serves of fruit was collected for persons aged 12 years or over, excluding those in remote areas.
Usual daily serves of vegetables	Refers to the number of serves of vegetables (excluding drinks and beverages) usually consumed each day, as reported by the respondent. A serve is approximately half a cup of cooked vegetables or one cup of salad vegetables—equivalent to approximately 75 grams. Low usual daily vegetable intake is defined as eating one serve or less per day, which includes not eating vegetables at all. Information on usual daily serves of vegetables was collected for persons aged 12 years or over, excluding those in remote areas.
Usual residence	Refers to the place where a person has lived or intends to live for a total of six months or more.
Victim of physical or threatened violence	A person who had physical force or violence used against them, or threatened to be used against them, in the 12 months prior to the survey. Includes violence or threats made by persons known to the respondent.
Voluntary work	The provision of unpaid help in the form of time, service or skills to an organisation or community group in the 12 months prior to interview. 'Unpaid' means the person is not paid in cash or in kind for the work they do. The reimbursement of expenses in full or part (e.g. token payments) or small gifts (e.g. sports club T-shirts or caps) does not constitute payment of a salary, thus people who receive these are still included as voluntary workers.

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