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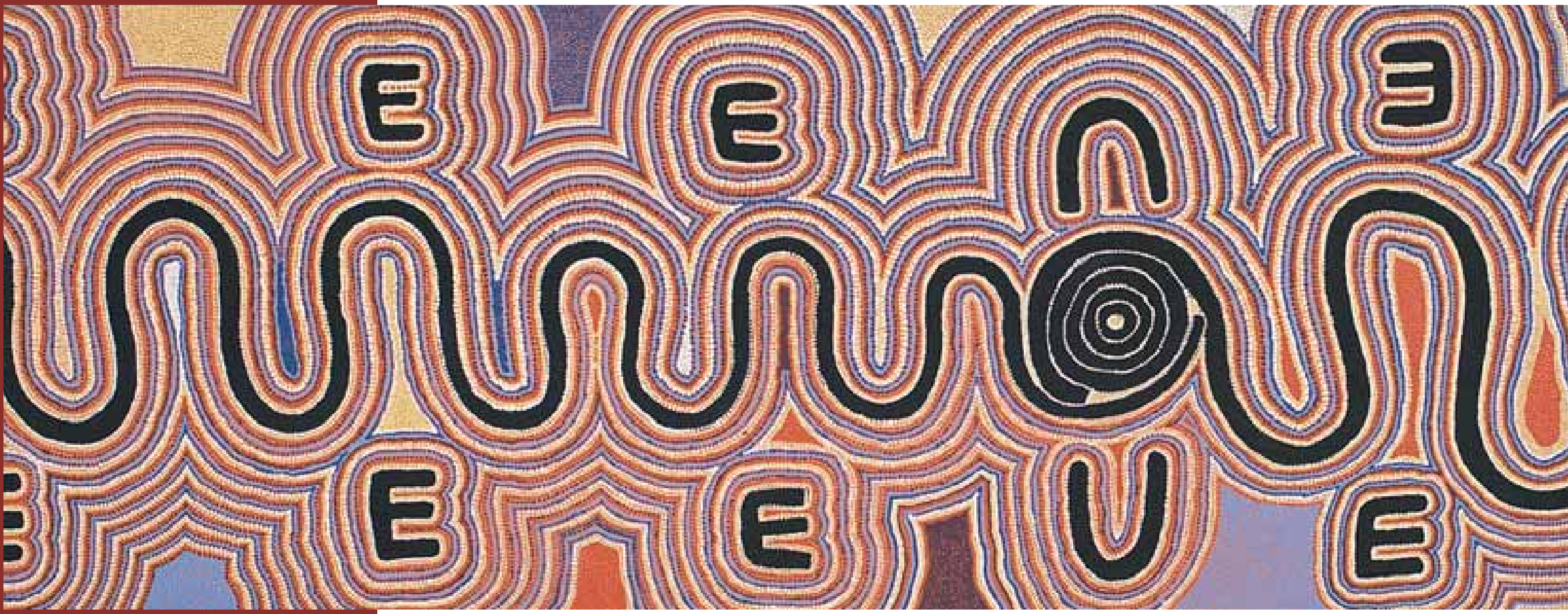
# The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples 2005



100 years of STATISTICS

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

## 2005

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AUSTRALIAN BUREAU OF STATISTICS
AUSTRALIAN INSTITUTE OF HEALTH AND WELFARE

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## INQUIRIES

- For further information about ABS statistics, contact the National Information and Referral Service on 1300 135 070 or the National Centre for Aboriginal and Torres Strait Islander Statistics on 1800 633 216.
- For further information about this publication, please contact the Head of Aboriginal and Torres Strait Islander Health and Welfare Unit, AIHW, GPO Box 570, Canberra ACT 2601, telephone Canberra 02 6244 1032 or visit the Institute's web site at <http:www.aihw.gov.au>.

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# PREFACE

The fifth edition of The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples draws on the extensive surveys and censuses conducted by the Australian Bureau of Statistics and the range of administrative data 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, housing circumstances, health risk factors, disability prevalence, health status and the availability, resourcing and use of services including health and community services.

The physical and social environments in which people live determine to a large degree whether they live productive lives relatively free of serious illness. This is particularly the case for Indigenous people who still suffer disproportionately from some of the consequences of European settlement, in particular the impact of new infectious and chronic diseases and social dislocation. Many Indigenous people live today in conditions of clear social and economic disadvantage. All of these things interact to contribute to poor health in many groups of Indigenous people. The 2002 NATSISS, for the first time, allows for the analysis of the relationship between these social and economic conditions and the health and welfare of Aboriginal and Torres Strait Islander people.

Aboriginal and Torres Strait Islander peoples are diverse in languages and cultures. They live in large cities, small country towns, and the remote areas of Australia, from the tropics to the deserts. The health and welfare of people living in the big cities are, to some extent, influenced by different things to those of people living in the small rural towns, or on the outskirts of Alice Springs. Commonly, however, the information available does not reflect this diversity. This report focuses on national issues, but the diversity of the Indigenous population must always be kept in mind.

The information contained in this report demonstrates that the health status of Australia's Aboriginal and Torres Strait Islander peoples is poor in comparison to the rest of the Australian population. These disparities, however, frequently obscure progress. This report shows that there has been progress and it presents evidence of a number of trends where significant improvements have occurred in educational attainment, employment participation, home ownership and health status.

We believe that this report will be of interest to all those concerned about the health and welfare of Australia's Aboriginal and Torres Strait Islander peoples.

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| Australian Statistician | Australian Institute of Health & Welfare |

# ACKNOWLEDGEMENTS

The Australian Institute of Health and Welfare and the Australian Bureau of Statistics have prepared this report jointly. We gratefully acknowledge the assistance and cooperation received from individuals and organisations that have provided us with the statistics and information which form the basis of this publication. We also thank Aboriginal and Torres Strait Islander people for their cooperation and assistance in the collection of data, without which, this report would not have been possible.

Special thanks go to the principal reviewers of the publication: Ian Anderson, Noel Hayman and Kerry Kirke for their valuable comments on the draft report. The AIHW and the ABS would like to acknowledge the contribution of the following reviewers: Cameron Baddeley, Ross Bailie, Bob Boughton, Carol Bower, John Condon, Joan Cunningham, Robert Griew, Robyn McDermott, Ian Ring, Ian Spicer, Elizabeth Sullivan and Adam Tomison. 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, and financial assistance.

*Artwork*

The painting *Janganpa Mungapunju Jukurrpa* (Native Possum Dreaming at Mungapunju) and *Janganpa Mawurrji Jukurrpa* (Native Possum Dreaming at Mawurrji) was commissioned by the Australian Bureau of Statistics. It is a collaborative work of 35 artists from the Warlukurlangu Artists Aboriginal Association of Yuendumu in the Tanami Desert, north west of Alice Springs, Northern Territory. The principal artist was Andrea Nungarrayi Martin. The eleven metre by one metre acrylic painting on canvas was completed in 2003 and hangs in the atrium of ABS House, Canberra.

# OVERVIEW

This report brings together, from a wide variety of sources, information about the health and welfare of Australia's Aboriginal and Torres Strait Islander peoples. Much of the data comes from sources that cover all Australians but which separately identify Indigenous Australians. Other sources include special purpose ABS surveys, such as the 1994 National Aboriginal and Torres Strait Islander Survey (NATSIS), the 2002 National Aboriginal and Torres Strait Islander Social Survey (NATSISS), the Indigenous supplement to the 2001 National Health Survey (NHS (I)), administrative data from government systems and data from service delivery programs that are Indigenous specific.

The report primarily presents a broad picture at the national level and, wherever possible, uses existing and new data sources to reflect the diversity of the Indigenous population, including a separate chapter about Torres Strait Islander people. Also where possible, changes over time in the health and welfare outcomes for Indigenous people are described. The disparities in health and welfare between Indigenous and non-Indigenous Australians are also explored.

## *Data sources*

Chapter 1 (Introduction) provides a very brief overview of the new and important data sources used in the preparation of this report. Over the last decade there have been significant improvements in the quantity and quality of information about the health and welfare of Aboriginal and Torres Strait Islander peoples. The AIHW and ABS have initiated, and continue to drive, programs in partnership with state and territory authorities to improve the completeness with which Aboriginal and Torres Strait Islander peoples are recorded in a wide range of administrative data sets, and to develop and expand regular Indigenous surveys, including the 2002 NATSISS and the National Aboriginal and Torres Strait Islander Health Survey (NATSIHS).

Indigenous information development is guided and progressed through a number of national committees, in particular the National Advisory Group on Aboriginal and Torres Strait Islander Health Information and Data (NAGATSIHID), providing advice on national priorities, developing work programs and monitoring progress. One example of recent data development was the inclusion in the 2004–05 NATSIHS of a module, auspiced by NAGATSIHID, to assess social and emotional wellbeing among Indigenous Australians.

A report on Indigenous data developments and information governance arrangements will be available later this year from the ABS web site (www.abs.gov.au) and the AIHW web site (www.aihw.gov.au).

*Trends in health and welfare*

Where possible, changes over time in the health and welfare of Indigenous Australians have been identified in this report. Some of these changes, highlighted below, are reported in more detail in the individual topic chapters.

### EDUCATION

Education is generally considered to be a key factor in improving the health and wellbeing of Indigenous Australians, and there have been significant improvements in educational participation and attainment in recent years. Between 1996 and 2004, there were steady increases in Indigenous primary and secondary school enrolments and in apparent retention rates. The proportion of Indigenous people aged 25–64 years who had a non-school qualification rose from 20% in 1994 to 32% in 2002.

### EMPLOYMENT

Employment, and income gained through employment, is important for the wellbeing of people. Between 1994 and 2002, the proportion of Indigenous people aged 18–64 years in mainstream employment rose from 31% to 38% and the unemployment rate fell from 24% to 13%.

### HOUSING

Housing has been identified as a major factor affecting the health and wellbeing of Indigenous Australians. From 1994 to 2002, the proportion of Indigenous households that were owner/purchaser households had increased from 26% to 30%.

### HEALTH

There were significant declines in recorded Indigenous mortality in Western Australia for both males and females between 1991 and 2002. There was also a significant decline in recorded infant mortality in Western Australia, South Australia and the Northern Territory over the same period. Of the main causes of death examined, only mortality from diseases of the circulatory system showed a consistently significant decline. While the analyses in this report support a conclusion that Indigenous mortality has declined, it is important to note that estimates of the magnitude of the trend could also reflect changes in reporting Indigenous status in deaths registrations.

*The demographic, social and economic context*

The Aboriginal and Torres Strait Islander population of Australia is projected to have grown to about 492,700 by mid-2005. Indigenous people represent 2.4% of the total Australian population. The Indigenous population is relatively young, with a median age of 21 years compared to 36 years for the non-Indigenous population.

In 2001, 30% of the Indigenous population lived in major cities, 43% in regional areas and 26% in remote areas. The majority of Indigenous people live in New South Wales (29% of the Indigenous population) and Queensland (27%), Western Australia (14%) and the Northern Territory (12%). Indigenous people comprise about 30% of the Northern Territory population but less than 4% in all other state/territory populations.

Indigenous people remain disadvantaged, compared to other Australians, across a range of areas of social concern. Indigenous people continue to experience lower levels of employment (and higher levels of unemployment than non-Indigenous people, with Indigenous adults in 2002 being more than twice as likely to be unemployed (13%) as non-Indigenous adults (4.6%). The real mean equalised gross household income of Indigenous people was $394 per week in 2002, equal to 59% of that of non-Indigenous adults in 2002.

*Education and health*

While international research has clearly established that higher levels of educational attainment are associated with better health outcomes, there has been little investigation into whether this relationship applies to Indigenous Australians. The ways in which health impacts on educational attainment, however, are better understood. Hearing loss as the result of chronic ear infection, and poor nutrition are the two health issues that are commonly identified as being the most detrimental to Indigenous educational outcomes. Research has shown that both of these conditions are associated with poor school attendance and achievement.

Despite the significant improvements in the educational participation and attainment of Indigenous Australians in recent years, Indigenous people were about half as likely as non-Indigenous people to have a non-school qualification in 2002 (32% compared with 57%). While Indigenous students comprised 3% of the total vocational education and training student population in 2003, they continue to be under-represented in the higher education sector, accounting for only 1% of the total higher education population in 2003.

*Housing circumstances*

Indigenous households are much less likely than other Australian households to be owner/purchaser households and much more likely to live in some form of social housing such as state or territory owned housing or Indigenous or mainstream community housing.

Among Indigenous households in non-remote areas, 34% were home owners, 32% were private or other renters and 24% were renting from state or territory housing authorities. Reflecting, in part, the availability of different tenure options, about half of Indigenous households in remote areas were renting from Indigenous or mainstream community housing providers and only 14% were home owners.

*Housing circumstances* *continued*

Some Indigenous households, especially those in remote areas, live in conditions that do not support good health. In 2002, some 9% of Indigenous households in Australia were living in overcrowded conditions, which can contribute to the spread of infectious diseases and put stress on basic household facilities. The highest rate of overcrowding occurred in households that were renting from Indigenous or mainstream community housing providers (34%).

Dwelling condition and connection to essential services are also important issues in relation to Indigenous community housing. There were 1,882 temporary or improvised dwellings in discrete Indigenous communities in 2001, while for permanent dwellings in these communities, 31% required major repair or replacement and 153 had no organised sewerage supply.

*Disability and ageing*

In 2002, 36% of Indigenous people aged 15 years or over had a disability or long-term health condition and 8% had a profound or severe core activity limitation, meaning that they always or sometimes needed assistance with core activities of daily living (self-care, mobility and communication). Although these estimates are not strictly comparable with those for the non-Indigenous population, it is estimated that Indigenous people were at least twice as likely to have a profound or severe core activity limitation as non-Indigenous people.

The prevalence of disability among Indigenous people is higher at all ages. In 2002, over two-thirds of people aged 55–64 years, and one-half of people aged 45–54 years had a disability or long-term health condition. The earlier onset of disability or long-term health conditions with a profound or severe core activity limitation indicates the comparatively higher need for service provision for Indigenous people with a disability at younger ages.

*Mothers and children*

Indigenous mothers are more likely to have their babies at younger ages than other mothers. The average age of Indigenous mothers who gave birth in 2003 was 25 years, compared with an average age of 31 years for other mothers. For the period 2000–02, 78% of Indigenous mothers who gave birth were aged under 30 years, compared with 49% of other mothers. In 2003, the total fertility rate (TFR) for Indigenous women was estimated to be 2.15 babies, compared with 1.76 babies for the total Australian population.

Babies with an Indigenous mother were twice as likely (13% of births) to be low birthweight babies (those weighing less than 2,500 grams at birth) as babies with a non-Indigenous mother (6%). The perinatal mortality rate for babies with an Indigenous mother in Queensland, South Australia, Western Australia and the Northern Territory was about twice that for babies with a non-Indigenous mother.

Breastfeeding and effective vaccination have many positive effects on the survival chances, growth, development and health of infants. In 2001, a high proportion of Indigenous mothers living in remote areas (95%) and non-remote areas (83%) had breastfed their children. In 2003, Aboriginal and Torres Strait Islander children had lower vaccination coverage than other children at 12 months of age (82% compared with 91%), but by two years of age, they had comparable vaccination coverage (91%).

*Mothers and children continued*

In 2003–04, Indigenous infants were more likely to be hospitalised than other infants, while Indigenous and other children aged 1–14 years were hospitalised at similar rates. In the period 1999–2003, the mortality rate for Indigenous infants in Western Australia, South Australia, Queensland and the Northern Territory was almost three times that for non-Indigenous infants. The death rate of Aboriginal and Torres Strait Islander children aged 1–14 years was more than twice that of non-Indigenous children of the same age in these jurisdictions.

*Health status*

In 2002, after adjusting for age differences between the populations, Indigenous Australians were twice as likely to report their health as fair or poor as non-Indigenous Australians. Levels of reported fair or poor health were higher for those in the lowest income quintile for equalised household income, for those who were unemployed or not in the labour force, and for those whose highest year of school completed was Year 9 or below.

The conditions which account for most of the consultations by Indigenous Australians with General Practitioners, and are the main reasons for hospitalisation of Indigenous Australians, are circulatory diseases, diabetes, respiratory diseases, musculoskeletal conditions, kidney disease, eye and ear problems and mental and behavioural disorders.

Indigenous Australians experience an earlier onset of most chronic diseases, have more GP consultations for the management of certain diseases and are more likely to be hospitalised than other Australians. For example, the prevalence of diabetes among Indigenous Australians was nearly four times the prevalence reported by non-Indigenous Australians; diabetes was managed at a rate of 7 per 100 encounters with Indigenous Australians compared to 3 per 100 encounters with all Australians and Indigenous Australians were hospitalised for diabetes at five times the rate of other Australians.

Hospitalisation rates were 12 times higher for Indigenous Australians than for other Australians for care involving dialysis, and twice those for other Australians for both respiratory diseases and injury.

*Health risk factors*

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 behavioural and environmental health risk factors.

In 2002, about half (49%) of the Indigenous population aged 15 years or over smoked on a daily basis. One in six (15%) reported consuming alcohol at risky or high risk levels in the last 12 months and just over one-half (51%) had not participated in sport or physical recreation activities during this period. One-quarter (24%) of Indigenous people living in non-remote areas reported having used illicit substances in the 12 months prior to interview and 40% reported having tried at least one illicit drug in their lifetime. With the exception of substance use, these behavioural risk factors were associated with poorer self-assessed health among Indigenous people in 2002.

In 2002, about eight in ten (82%) Indigenous people reported experiencing at least one life stressor in the last 12 months and nearly one-quarter (24%) reported being a victim of physical or threatened violence during this period. Higher rates of fair or poor health and health risk behaviour were reported among Indigenous people who had been exposed to these environmental risk factors. Indigenous people who had been removed

*Health risk factors continued*

from their natural families as children also reported poorer health outcomes in comparison to those who were not removed from their families.

*Mortality*

In the period 1996–2001, the life expectancy at birth for Indigenous Australians was estimated to be 59.4 years for males and 64.8 years for females, compared with 76.6 years for all males and 82.0 years for all females for the period 1998–2000, a difference of approximately 17 years for both males and females.

For the period 1999–2003, in Queensland, South Australia, Western Australia and the Northern Territory, 75% of recorded Indigenous male deaths and 65% of Indigenous female deaths occurred before the age of 65 years. This compared with 26% and 16%, respectively, of deaths of non-Indigenous males and females. For all age groups below 65 years, the age-specific death rates for persons identified as Indigenous in the selected jurisdictions were at least twice those for other Australians. The largest differences occurred at ages 35–44 and 45–54 years where the death rates for Indigenous Australians were five times those recorded for non-Indigenous Australians.

Based on 1999–2002 year of occurrence of death and 2003 year of registration of death, the three leading causes of death for Aboriginal and Torres Strait Islander peoples in the four jurisdictions were diseases of the circulatory system, injury (predominantly accidents, intentional self-harm and assault) and cancer.

Over the period 1999–2003, Indigenous males and females died at almost three times the rate of non-Indigenous males and females. Indigenous Australians also had higher rates of mortality from all major causes of death. For example, mortality rates for Indigenous males and females for endocrine, nutritional and metabolic diseases (including diabetes) were around seven and 11 times those for non-Indigenous males and females.

Deaths where multiple causes were reported were more common among Indigenous males and females. For example, 19% of deaths among Indigenous males and 21% of deaths among Indigenous females recorded five or more causes of death, compared with 14% and 13% of non-Indigenous male and female deaths respectively.

*Health services provision, access and use*

Overall, estimated expenditure on health services provided to Aboriginal and Torres Strait Islander peoples during 2001–02 was $3,901 per person. This was 18% higher (ratio 1.18:1) than the estimated expenditure on services delivered to non-Indigenous Australians. The ratio of per capita expenditure on Indigenous Australians to non-Indigenous Australians varies considerably by type of service. Aboriginal and Torres Strait Islander peoples were more intense users of community health centres (where the per capita expenditure rate ratio was 6.5, public health (2.9) and admitted and non-admitted patient services within the public hospital system (1.6 and 1.9 respectively) compared with medical services (0.4) and pharmaceuticals (0.3).

Access to services is affected by a number of factors including the proximity of the service, availability of transport, affordability, availability of culturally appropriate services and the involvement of Indigenous people in the delivery of health services. Approximately one in five Indigenous people living in remote areas in 2002 had difficulty understanding and/or being understood by service providers and around one-half did not have a working telephone in the home. In 2001, Indigenous people were under-represented in selected health-related occupations, comprising around 1% of

*Health services provision, access and use continued*

Australians employed in this area. Aboriginal and Torres Strait Islander people were somewhat better represented in welfare and community-related occupations (2.6%). In 2003 Indigenous students were underrepresented among those completing graduate courses in health (1.0%), but higher proportions of Indigenous people were commencing health and welfare-related courses (1.7% and 2.3% respectively).

Despite likely under-counting of Aboriginal and Torres Strait Islander people in hospital records, in 2003–04, Indigenous males and females were about twice as likely to be hospitalised as other males and females, with the greatest differences in rates being in the age groups 35–44 years, 45–54 years and 55–64 years. Once in hospital however, Indigenous patients were less likely to undergo a procedure than other patients. While hospitalisation rates for Indigenous Australians are several times those for other Australians, most of the difference is due to high rates of care involving dialysis and hospitalisations for other potentially preventable chronic conditions. Indigenous males and females were hospitalised for care involving dialysis at 9 and 17 times the rate of other Australian males and females, and for potentially preventable chronic conditions they were hospitalised at seven times the rate of other Australians.

*Community services*

In 2004, the proportion of Aboriginal and Torres Strait Islander children using Australian Government supported child care services was 2%, less than half the rate for non-Indigenous children. 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. This compared to 59%, 25% and 14% of other children respectively.

Aboriginal and Torres Strait Islander children were over-represented in the child protection systems across most of Australia, with ratios of 10:1 in Victoria and 8:1 in Western Australia and South Australia. The rate of Indigenous children being placed under care and protection orders and in out-of-home care was higher than the rate for other children in all jurisdictions. Just over two-thirds of children in out-of-home care were placed with Indigenous relatives/kin (38%) or with other Indigenous caregivers (30%). These are the preferred placements under the Aboriginal Child Placement Principle that has been adopted by all jurisdictions.

Rates of incarceration in juvenile detention centres for Indigenous Australians aged 10–17 years are much higher than those for other young Australians in all jurisdictions. In 2002–03, 40% of 10–17 year olds in detention centres in Australia were Indigenous.

In 2003–04, 6,524 people, 3.5% of those receiving Commonwealth-State Disability Agreement funded services were identified as Indigenous. The proportion of people who received CSTDA-funded services who were of Indigenous origin varied by service type. Respite (5%), community support (5%) and accommodation (4%) services had an above-average proportion of Indigenous service users. On the other hand, service users of employment (3%) and community access (3%) services had a smaller Indigenous representation than in the overall population.

Aboriginal and Torres Strait Islander people utilise aged care services at a younger age, consistent with poorer health status and lower life expectancy. Of those admitted to permanent or respite residential care during 2003–04, almost 29% were under 65 years of age, compared with fewer than 5% of other Australians. Of all Indigenous Australians

*Community services continued*

receiving Community Aged Care Packages at 30 June 2004, 46% were aged below 65 years compared with 8% among other Australians. Of all clients receiving home and community care, 18% of Indigenous clients were aged 75 years or over compared with 57% of other clients.

*Torres Strait Islander peoples*

Torres Strait Islander people comprise 11% of Australia's Indigenous population. Around one in seven Torres Strait Islander people (14%) live in the Torres Strait Area, with a further 45% in other parts of Queensland and 18% in New South Wales.

While Torres Strait Islander people have their own distinctive cultural identity, they share many of the characteristics of Indigenous Australians generally. They are a relatively young population, with a higher birth rate and lower life expectancy than the non-Indigenous population. Like other Indigenous Australians, Torres Strait Islander people are actively involved in community life. The 2002 NATSISS show that a majority of Torres Strait Islander people (89%) had been involved in social activities in the last 3 months, while in the preceding year, 70% had attended cultural event(s), 51% had participated in sport or physical recreation activities, and 29% in voluntary work.

The various measures of educational attainment, labour force participation and associated economic status indicate that Torres Strait Islander people experience similar levels of disadvantage as other Indigenous Australians. In 2002, Torres Strait Islander people were less likely than non-Indigenous people to have completed Year 12 (26% compared with 44%); less likely to have a non-school qualification (33% compared with 57%); almost four times as likely to be unemployed (22% compared with 6%); and more than twice as likely to be living in a low income household (46% compared with 20%).

# CHAPTER 1 INTRODUCTION

## AIM

This publication is the fifth in the biennial 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).

The report updates information presented in the 2003 report and also provides new information in a number of areas. Some of the enhancements for this report include:

- a new chapter which explores the links between health and education (Chapter 3);
- a new chapter, called Housing circumstances, that presents information on both housing and homelessness issues (Chapter 4); and
- a new chapter on disability and ageing, using information from the 2002 National Aboriginal and Torres Strait Islander Social Survey (NATSISS) (Chapter 5).

The breadth and depth of data assembled for this report provide useful information against each of the three main tiers in the National Health Performance Framework auspiced by the Australian Health Minister's Conference i.e. health status and outcomes; determinants of health; and health system performance.

Information about the broader social context and specific issues (determinants) that impact on the health and welfare wellbeing 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 status. Chapter 4 examines the housing circumstances of Indigenous Australians, while Chapter 8 looks at behavioural and environmental 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 and ageing, primarily using data from the 2002 NATSISS. 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 the mortality experienced by Indigenous Australians, 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.

A report on Indigenous data developments and information governance arrangements will also be available from the ABS web site (www.abs.gov.au) and the AIHW web site (www.aihw.gov.au) later this year.

## 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 2002 National Aboriginal and Torres Strait Islander Social Survey (NATSISS). The report also includes data from other ABS collections such as the 2001 Census of Population and Housing, the 2001 Community Housing and Infrastructure Needs Survey (CHINS) and the 2001 National Health Survey (NHS). AIHW surveys such as Bettering the Evaluation and Care of Health (BEACH), and the national administrative data collections such as the National Hospital Morbidity data collection, the National Mortality data collection, the National Perinatal data collection and the Service Activity Reporting by Aboriginal Community Controlled Health Organisations are all important data sources used in the production of this report. In addition, the report includes updated analytic results, such as the updated estimates of expenditure on health services for Indigenous people.

## DATA ISSUES

Population estimates are based on population counts from the five yearly Census of Population and Housing, adjusted for births, deaths and migration. However, 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.

Estimates and projections of the Aboriginal and Torres Strait Islander population are therefore termed experimental. Unless otherwise indicated, rates in this publication are calculated from the low series of experimental estimates and projections based on the 2001 Census (ABS 2004).

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

The relationship between social and economic circumstances and overall health status is clearly established (see chapter 7). Since 1994 there have been a number of improvements in the social and economic circumstances of Aboriginal and Torres Strait Islander people. These include gains in educational attainment, improvements in employment (with associated reductions in unemployment) and increases in home ownership. Nevertheless, Indigenous people remain disadvantaged across a range of areas of social concern when compared to the social and economic circumstances of non-Indigenous Australians.

This chapter provides a context for the more detailed health and welfare information in later chapters. It presents information on the demographic, social and economic characteristics of Aboriginal and Torres Strait Islander peoples.

The Indigenous demographic data presented here are experimental estimates based on the 2001 Census of Population and Housing. Socioeconomic data are drawn primarily from the Australian Bureau of Statistics' (ABS) 2002 National Aboriginal and Torres Strait Islander Social Survey (NATSISS). Where possible, comparisons are made over time using data from the 1994 National Aboriginal and Torres Strait Islander Survey (NATSIS), and with the non-Indigenous population using the 2002 General Social Survey (GSS). Data on Indigenous prisoners are based on administrative records held by corrective services agencies in each state and territory.

## DEMOGRAPHIC CHARACTERISTICS

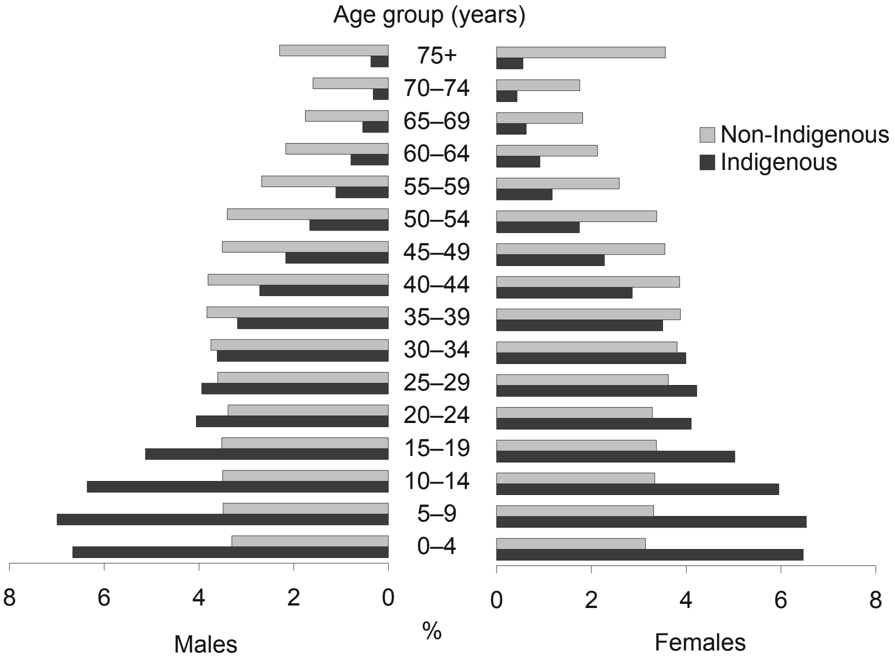
The Aboriginal and Torres Strait Islander population of Australia was estimated at 458,500 people at 30 June 2001, or 2.4% of the total Australian population. The Indigenous population is projected to have grown to between 492,700 (low-series projection) and 525,000 (high-series projection) by mid-2005 (Appendix 2).

In 2001, around 90% of Indigenous people were identified as being of Aboriginal origin, 6% were identified as being of Torres Strait Islander origin and 4% were identified as being of both Aboriginal and Torres Strait Islander origin.

### *Age*

The Indigenous population is relatively young, with a median age of 21 years compared with 36 years for the non-Indigenous population. The younger age structure of the Indigenous population is shown in the following age pyramid (figure 2.1). In 2001, 39% of Indigenous people were under 15 years of age compared with 20% of non-Indigenous people. People aged 65 years or over comprised 3% of the Indigenous population and 13% of the non-Indigenous population (Appendix 1). These figures reflect higher rates of fertility and deaths occurring at younger ages among the Indigenous population. Because age is closely associated with health status, comparisons between the Indigenous and non-Indigenous populations in this publication are age standardised or presented for separate age groups wherever appropriate.

**2.1** POPULATION PROFILE BY INDIGENOUS STATUS, AGE AND SEX—2001



*Life expectancy*

The latest available expectancies of life at birth for the Indigenous population are for the period 1996–2001. At the national level, experimental estimated of Indigenous life expectancy at birth for 1996–2001 were 59 years for males and 65 years for females. This is about 17 years below the 77 years and 82 years life expectancy for all males and females respectively, for the 1998–2000 period.

*Where Indigenous people live*

The states with the largest Indigenous populations in 2001 were New South Wales (134,900 people or 29% of the total Indigenous population) and Queensland (125,900 people or 27% of the total Indigenous population). Other states with large Indigenous populations were Western Australia (14% of the total Indigenous population) and the Northern Territory (12%). Indigenous people comprise 29% of the Northern Territory population.

In 2001, 30% of Indigenous people lived in major cities, about 43% in regional areas and about 27% in remote areas. By comparison, approximately two-thirds (67%) of non-Indigenous people lived in major cities and only 2% lived in remote areas. As a result of these differences in distribution, the proportion of the population who were Indigenous varied from less than 1% in major cities to 58% in remote areas.

In the Northern Territory, the majority of Indigenous people lived in remote areas (81%). In contrast, more than 90% of Indigenous people in New South Wales, Victoria, Tasmania and the Australian Capital Territory lived in major cities or regional areas (table 2.2).

*Where Indigenous people live continued*

## 2.2 ESTIMATED RESIDENT INDIGENOUS POPULATION, by Remoteness Areas—30 June 2001

| | INDIGENOUS | | | | | |
|---|---|---|---|---|---|---|
| | *Major cities* | *Regional* | *Remote* | *Total* | *Indigenous* | *Non-Indigenous* |
| | % | % | % | % | no. | no. |
| New South Wales | 42.1 | 51.6 | 6.3 | 100.0 | 134 900 | 6 440 300 |
| Victoria | 49.0 | 50.7 | 0.3 | 100.0 | 27 800 | 4 776 900 |
| Queensland | 24.8 | 51.1 | 24.1 | 100.0 | 125 900 | 3 503 000 |
| South Australia | 46.2 | 31.7 | 22.1 | 100.0 | 25 500 | 1 486 200 |
| Western Australia | 32.1 | 22.8 | 45.1 | 100.0 | 65 900 | 1 835 200 |
| Tasmania | . . | 96.5 | 3.5 | 100.0 | 17 400 | 454 400 |
| Northern Territory | . . | 18.8 | 81.2 | 100.0 | 56 900 | 140 900 |
| Australian Capital Territory | 100.0 | . . | . . | 100.0 | 3 900 | 315 400 |
| **Australia** | **30.2** | **43.4** | **26.4** | **100.0** | **458 500** | **18 954 700** |

. . not applicable
*Source: ABS 2004e*

## POPULATION CHARACTERISTICS

### *Culture and language*

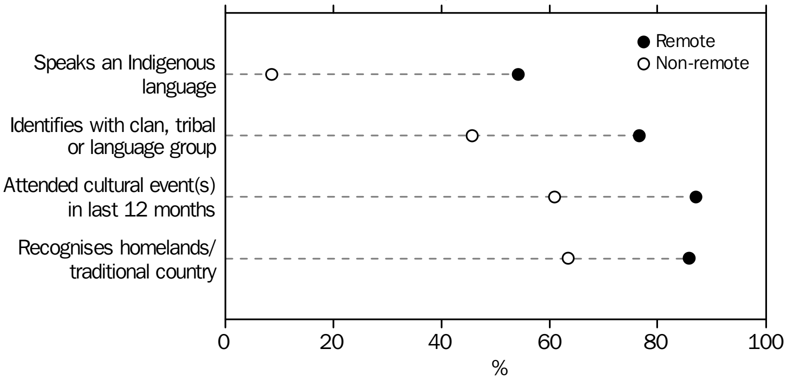
In both 1994 and 2002, just over half of Indigenous people aged 15 years or over reported that they identified with a clan, tribal or language group, while about seven out of ten had attended at least one cultural event in the previous year.

In 2002, 21% of Aboriginal and Torres Strait Islander people aged 15 years or over spoke an Indigenous language. For about one in eight Indigenous people (12%), it was the main language spoken at home, the same as reported in 1994. Indigenous language use was more common among Aboriginal and Torres Strait Islander people living in remote areas, with an Indigenous language being the main language spoken at home for 39% of Indigenous people in remote areas, and for just 2% in non-remote areas. A further 15% of Indigenous people in remote areas, and 7% in non-remote areas, spoke an Indigenous language but for them it was not the main language spoken at home (graph 2.3). More than three-quarters (77%) of Indigenous people living in the Northern Territory spoke an Indigenous language, reflecting the high proportion of Indigenous people living in remote areas.

In 2002, 70% of Indigenous people aged 15 years or over reported that they recognised homelands or traditional country (although they may not necessarily live there) compared with 75% in 1994. In 2002, Indigenous people in remote areas were more likely to recognise an area as their homelands or traditional country (86%) than those in non-remote areas (63%) (graph 2.3).

*Culture and language continued*

**2.3** CULTURAL ATTACHMENT(a), by remoteness—2002



(a) Indigenous persons aged 15 years or over.
*Source: ABS, 2002 NATSISS*

*Family and community life*

### PARTICIPATION IN COMMUNITY ACTIVITIES

In 2002, 90% of Indigenous people aged 15 years or 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. Participation in social activities and sport or physical recreation activities both declined steadily with age while voluntary work peaked among those aged 35–44 years (at 35%) (table 2.4).

**2.4** PARTICIPATION IN COMMUNITY ACTIVITIES—2002

| | | *15–24 years* | *25–34 years* | *35–44 years* | *45–54 years* | *55 years or over* | *Total* |
|---|---|---|---|---|---|---|---|
| Males | | | | | | | |
| Involved in social activities(a) | % | 94.7 | 92.8 | 89.6 | 87.1 | 80.1 | 90.6 |
| Participated in sport or physical recreation activities(b) | % | 75.9 | 63.8 | 49.9 | 37.3 | 28.3 | 57.2 |
| Had undertaken voluntary work(b) | % | 25.7 | 24.2 | 32.4 | 28.3 | 22.1 | 26.6 |
| Females | | | | | | | |
| Involved in social activities(a) | % | 93.4 | 90.5 | 90.0 | 85.5 | 81.3 | 89.5 |
| Participated in sport or physical recreation activities(b) | % | 58.2 | 44.2 | 38.2 | 26.0 | 23.6 | 42.0 |
| Had undertaken voluntary work(b) | % | 24.4 | 25.0 | 37.7 | 29.5 | 28.9 | 28.5 |
| Persons | | | | | | | |
| Involved in social activities(a) | % | 94.1 | 91.6 | 89.8 | 86.2 | 80.8 | 90.0 |
| Participated in sport or physical recreation activities(b) | % | 67.0 | 53.4 | 43.8 | 31.5 | 25.7 | 49.3 |
| Had undertaken voluntary work(b) | % | 25.0 | 24.6 | 35.2 | 28.9 | 25.8 | 27.6 |
| **Indigenous persons aged 15 years or over** | no. | **82 700** | **71 100** | **57 800** | **38 400** | **32 200** | **282 200** |

(a) In the last 3 months.
(b) In the last 12 months.

*Source: ABS, 2002 NATSISS*

### NEIGHBOURHOOD PROBLEMS

In 2002, nearly three-quarters (74%) of Indigenous adults reported the presence of neighbourhood or community problems. Those living in major cities were most likely to report problems (80%), with lower levels in regional areas (69%) and remote areas (74%). In major cities over half (52%) of all Indigenous adults reported theft and dangerous or noisy driving as problems in their neighbourhood. These were also the most commonly reported problems in regional areas. For Indigenous people living in

*Family and community life continued*

### NEIGHBOURHOOD PROBLEMS *continued*

remote areas, the most commonly reported problems were alcohol (54%), problems involving youth (48%) and illegal drugs (46%) (table 2.5).

## 2.5 NEIGHBOURHOOD OR COMMUNITY PROBLEMS—2002

| | | *Major cities* | *Regional* | *Remote* | *Total* |
|---|---|---|---|---|---|
| Type of neighbourhood/community problem | | | | | |
| Theft | % | 52.0 | 37.4 | 41.5 | 43.0 |
| Problems involving youth | % | 28.7 | 24.8 | 47.9 | 32.3 |
| Prowlers/loiterers(a) | % | 15.8 | 14.2 | . . | . . |
| Vandalism/graffiti/damage to property | % | 37.0 | 23.1 | 43.5 | 32.9 |
| Dangerous or noisy driving(a) | % | 51.7 | 40.9 | . . | . . |
| Alcohol | % | 25.7 | 25.9 | 54.1 | 33.5 |
| Illegal drugs | % | 32.5 | 23.1 | 46.1 | 32.3 |
| Family violence | % | 13.4 | 14.0 | 40.9 | 21.2 |
| Assault | % | 14.1 | 10.2 | 41.1 | 19.9 |
| Sexual assault | % | *5.0 | 4.7 | 16.7 | 8.1 |
| Problems with neighbours(a) | % | 16.3 | 12.2 | . . | . . |
| Levels of neighbourhood conflict | % | 9.4 | 8.5 | 30.8 | 14.9 |
| Level of personal safety day or night(a) | % | 14.0 | 8.4 | . . | . . |
| *Total reporting at least one neighbourhood/community problem*(b) | % | *79.6* | *68.8* | *74.2* | *73.6* |
| No neighbourhood/community problems reported | % | 18.9 | 30.3 | 24.9 | 25.3 |
| **Indigenous persons aged 15 years or over** | no. | **86 400** | **118 600** | **77 100** | **282 200** |

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

. . not applicable

(a) Data collected for non-remote areas only.

(b) Components do not add to total as people may have provided more than one response.

*Source: ABS, 2002 NATSISS*

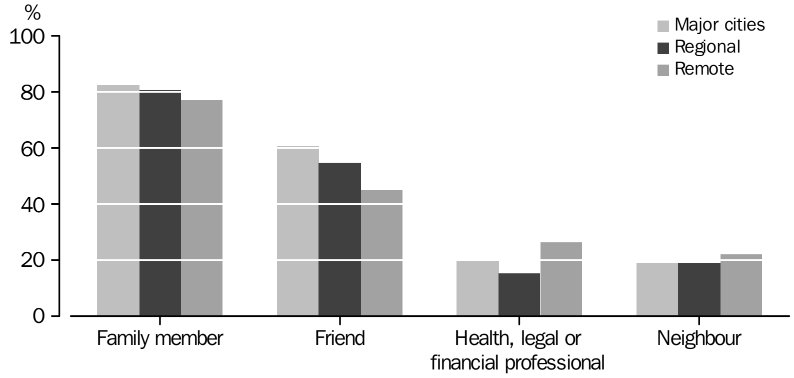
### SUPPORT IN TIME OF CRISIS

In 2002, the overwhelming majority of both Indigenous (90%) and non-Indigenous (94%) adults aged 18 years or over were able to get support in a time of crisis from someone outside their household. Support could come from family members, friends, neighbours, work colleagues or various community, government or professional organisations and could take the form of emotional, physical or financial help. Availability of support was higher for Indigenous adults living in major cities and regional areas (around 92%) than for those in remote areas (87%). Family members and friends were the most commonly available sources of support for Indigenous people across all geographic remoteness areas (graph 2.6).

Family and community life *continued*

SUPPORT IN TIME OF CRISIS *continued*

**2.6** SELECTED SOURCES OF SUPPORT IN TIME OF CRISIS(a), by remoteness area—2002



(a) Indigenous persons aged 18 years or over.
*Source: ABS, 2002 NATSISS*

Education

The proportion of Indigenous adults aged 18 years or over who had completed Year 12 increased from 10% in 1994 to 18% in 2002. Over the same period the proportion of Indigenous adults aged 25–64 years with a non-school qualification increased from 20% to 32%. While the increase in non-school qualifications was primarily for those with a certificate or diploma (from 13% to 24%), gains were also recorded in the proportion with a bachelor degree or above (from 1% to 5%).

Despite these gains in educational attainment, Indigenous adults still have lower levels of educational attainment than non-Indigenous adults. In 2002, 18% of Indigenous adults had completed Year 12 compared with 44% of non-Indigenous adults. Similarly, 32% of Indigenous adults aged 25–64 years had a non-school qualification compared with 57% of non-Indigenous adults.

Levels of Indigenous educational attainment declined with increasing geographic remoteness. In 2002, nearly one-quarter (24%) of Indigenous adults living in major cities had completed Year 12 compared with 18% of those living in regional areas and 14% in remote areas. Similarly, among Indigenous adults aged 25–64 years, 41% of those living in major cities had a non-school qualification compared with 32% in regional areas and 23% in remote areas (table 2.7).

### 2.7 EDUCATIONAL ATTAINMENT—1994 and 2002

| | | INDIGENOUS | | | | | NON-INDIGENOUS |
|---|---|---|---|---|---|---|---|
| | | *1994* | | | | *2002* | *2002* |
| | | *Total*(a) | *Major cities* | *Regional* | *Remote* | *Total*(a)(b) | *Total*(b) |
| Highest year of school completed | | | | | | | |
| Year 12 | % | 9.6 | 23.6 | 17.9 | 13.7 | 18.5 | 43.5 |
| Year 10 or Year 11 | % | 37.0 | 44.3 | 41.6 | 35.3 | 40.7 | 35.5 |
| Year 9 or below(c) | % | 52.5 | 32.0 | 40.5 | 50.9 | 40.8 | 21.0 |
| **Persons aged 18 years or over who were not still at school** | no. | **190 000** | **75 700** | **105 200** | **69 100** | **249 900** | **14 292 100** |
| Highest non-school qualification | | | | | | | |
| Bachelor degree or above | % | 1.2 | 8.4 | 3.5 | 2.1 | 4.6 | 20.6 |
| Certificate III or above(d) | % | 7.9 | 19.3 | 14.5 | 8.8 | 14.4 | 26.3 |
| Certificate I/II | % | 5.3 | 11.5 | 10.0 | 7.7 | 9.8 | 8.5 |
| *Total with a non-school qualification*(e) | % | *20.2* | *41.5* | *31.5* | *22.7* | *32.1* | *56.9* |
| No non-school qualification | % | 79.8 | 58.5 | 68.5 | 77.3 | 67.9 | 43.1 |
| **Persons aged 25–64 years who were not still at school** | no. | **135 600** | **55 500** | **80 400** | **50 600** | **186 400** | **10 258 000** |

(a) All differences between 1994 and 2002 Indigenous data are statistically significant.

(b) Apart from Certificate I/II, differences between 2002 Indigenous and non-Indigenous data are statistically significant.

(c) Includes persons who never attended school.

(d) Includes persons with a Diploma or Advanced Diploma.

(e) Includes level of non-school qualification not determined.

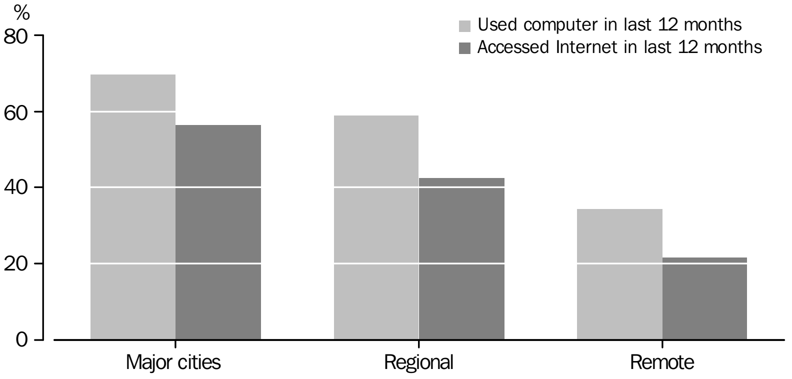
*Source: ABS, 1994 NATSIS, 2002 NATSISS and 2002 GSS*

*Information technology*

In 2002, 56% of Indigenous people aged 15 years or over reported that they had used a computer in the last 12 months and 41% reported that they had accessed the Internet in the last 12 months. The Internet was most commonly used for personal or private use (17%), followed by education or study (12%) and work or business (11%).

Levels of information technology use were lowest in remote areas. Around one-third of Indigenous people living in remote areas had used a computer, compared with around two-thirds of those living in major cities. Similarly, 22% of Indigenous people in remote areas accessed the Internet compared with 42% of those in regional areas and 56% of those in major cities (graph 2.8).

### 2.8 COMPUTER AND INTERNET USE(a), by remoteness area—2002



(a) Indigenous persons aged 15 years or over.

*Source: ABS, 2002 NATSISS*

*Information technology continued*

After taking into account the different age structures of the Indigenous and non-Indigenous populations, Indigenous people have lower levels of information technology use than the non-Indigenous population. In 2002, Indigenous people aged 18 years or over were about two-thirds as likely to have used a computer in the last 12 months and half as likely to have accessed the Internet in the last 12 months as non-Indigenous adults.

*Work*

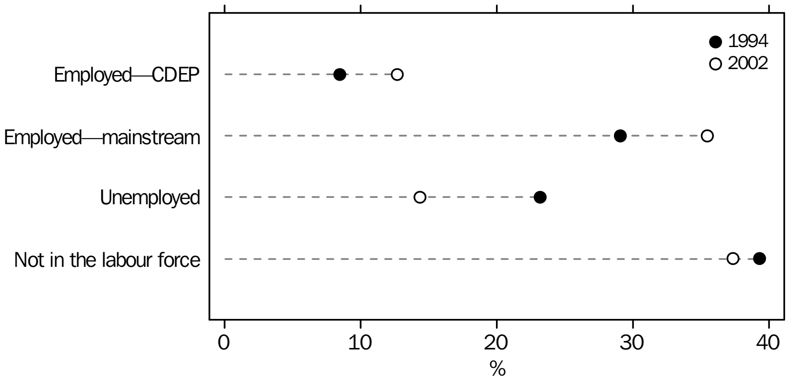
Between 1994 and 2002 the proportion of Indigenous people aged 18–64 years in mainstream employment (non-CDEP jobs) rose from 31% to 38%. Much of this gain was in part-time employment which increased from 8% to 12%.

In 2002, a further 13% of Indigenous people aged 18–64 years were employed in the CDEP scheme. Most CDEP participants were in remote areas, while in non-remote areas there was a higher proportion of people in mainstream employment.

Indigenous employment levels are strongly associated with educational attainment. In 2002, 69% of those aged 18–64 years who had completed Year 12 were employed, compared with 55% of those who had completed Year 10 or Year 11 and only 39% of those with lower levels of schooling.

Over the same period the proportion of Indigenous people who were unemployed fell from 24% to 13%. This translates to a decline in the unemployment rate from 37% in 1994 to 20% in 2002 and is consistent with the general decline in national unemployment over this period. Long-term unemployment among Indigenous people also fell between 1994 and 2002. In 1994, around half of those who were unemployed had been out of work for a year or more, compared with less than one-third in 2002 (table 2.10).

**2.9** LABOUR FORCE STATUS(a)—1994 and 2002



(a) Indigenous persons aged 18–64 years.
*Source: ABS, 1994 NATSIS and 2002 NATSISS*

Despite these gains, Indigenous people continue to experience lower levels of labour force participation and employment and higher levels of unemployment than non-Indigenous people. In 2002, 64% of Indigenous adults aged 18–64 years were in the labour force, including 38% in mainstream employment. In comparison, 79% of non-Indigenous adults were in the labour force, including 74% who were employed. Indigenous adults were about two and a half times as likely as non-Indigenous adults to be unemployed (13% compared with 5%).

## 2.10 LABOUR FORCE STATUS, by Indigenous status—1994 and 2002

| | | INDIGENOUS | | | | | NON-INDIGENOUS |
|---|---|---|---|---|---|---|---|
| | | 1994 | | | | 2002 | 2002 |
| | | Total(a) | Major cities | Regional | Remote | Total(a)(b) | Total(b) |
| Employed | | | | | | | |
| CDEP | % | 9.0 | *4.1 | 5.5 | 36.4 | 13.5 | . . |
| Mainstream | | | | | | | |
| Full-time | % | 22.4 | 35.0 | 25.2 | 14.9 | 25.3 | 53.1 |
| Part-time | % | 7.7 | 15.4 | 13.9 | 6.8 | 12.4 | 21.2 |
| Total(c) | % | 31.1 | 50.4 | 39.0 | 21.8 | 37.8 | 74.4 |
| Total employed | % | 40.1 | 54.5 | 44.5 | 58.2 | 51.3 | 74.4 |
| Unemployed | | | | | | | |
| Less than one year | % | 10.9 | 10.8 | 10.8 | 3.5 | 8.8 | na |
| One year or more | % | 12.4 | 3.3 | 5.0 | 2.2 | 3.7 | na |
| Total unemployed(d) | % | 23.6 | 14.6 | 16.5 | 5.9 | 13.0 | 4.6 |
| Not in the labour force | % | 36.3 | 31.0 | 39.0 | 36.0 | 35.7 | 21.1 |
| **Persons aged 18–64 years** | no. | **183 200** | **72 900** | **100 500** | **65 200** | **238 500** | **12 131 600** |
| Labour force participation rate | % | 63.7 | 69.0 | 61.0 | 64.0 | 64.3 | 78.9 |
| Unemployment rate | % | 37.1 | 21.1 | 27.1 | 9.2 | 20.3 | 5.8 |

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

. . not applicable

na not available

(a) Apart from Not in the labour force and Labour force participation rate, differences between 1994 and 2002 Indigenous data are statistically significant.

(b) All differences between 2002 Indigenous and non-Indigenous data are statistically significant.

(c) Includes people for whom full-time/part-time status was not stated.

(d) Includes people for whom length of unemployment was not stated.

*Source: ABS, 1994 NATSIS, 2002 NATSISS and 2002 GSS*

### *Work continued*

### 2.11 COMMUNITY DEVELOPMENT EMPLOYMENT PROJECTS (CDEP)

In recognition of the limited employment opportunities in remote areas, the Community Development Employment Projects (CDEP) scheme was established; it has since extended into some non-remote areas. By providing Indigenous community organisations with funds to pay participants working on community projects, the scheme provides jobs and training for people who agree to forego an unemployment benefits.

Between 1994 and 2002, administrative records held by the then Aboriginal and Torres Strait Islander Commission indicated that the number of participants in CDEP rose from 24,400 to 34,200. While the estimate of CDEP participation in the 2002 NATSISS (34,200) reflected the corresponding administrative records, CDEP participation was underreported in the 1994 NATSIS (17,700).

According to the 2002 NATSISS, around 70% of all CDEP participants worked 24 hours or less per week and half reported low incomes (that is, equivalised gross household income in the second or third deciles). Indigenous people on CDEP were more than twice as likely as those in mainstream employment to either report working part-time or to have low incomes.

CDEP is regarded as a successful program for developing the work skills of Indigenous people. One of the objectives of CDEP is to provide a stepping stone for participants to move into mainstream employment and the scheme includes a range of incentives and assistance to support this transition.

*Source:* ABS, 1994 NATSIS and 2002 NATSISS.

*Household income*

In 2002, the mean equivalised gross household income of Indigenous people aged 18 years or over was $394 per week, with a higher level reported in major cities ($474 per week) than regional ($362 per week) and remote areas ($354). The real mean equivalised gross household income of Indigenous people between 1994 and 2002 rose from $374 to $394 per week (after adjusting for increases in the cost of living using the Consumer Price Index). Despite this increase, the mean equivalised gross household income of Indigenous adults in 2002 was only 59% of the corresponding income of non-Indigenous adults ($665 per week).

People with low incomes can be defined as those with mean equivalised gross household income in the second and third income deciles (box 2.12). While 20% of non-Indigenous people aged 18 years or over had incomes in the second or third income deciles, 37% of Indigenous people were in this low income group.

### 2.12 EQUIVALISED GROSS HOUSEHOLD 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.

**People in low income households** have mean equivalised gross household income that falls within the income boundaries of the second and third income deciles. People with income in the lowest decile (including those with negative income) have been excluded since they tend to have expenditure patterns more in common with higher income households than with other households at the bottom of the income distribution. For more information on this issue, see *Household Income and Income Distribution, Australia 2000–01* (cat. no. 6523.0)

*Financial stress*

In 2002, just over one-half (54%) of Indigenous people aged 15 years or over were living in households where the household spokesperson reported that household members would be unable to raise $2,000 within a week in a time of crisis. This measure of financial stress was reported by a greater proportion of people in remote areas (73%) than in regional areas (52%) or major cities (40%) (table 2.13). Overall, Indigenous adults aged 18 years or over were almost four times more likely than non-Indigenous adults to be living in a household that reported this measure of financial stress (54% compared with 14%) (ABS 2004f: table 4).

In the 2002 NATSISS, respondents were asked if anyone in their household had taken actions in the previous 12 months because they needed money for basic living expenses (such as for food, clothing, or to pay bills). Almost half of all Indigenous people aged 15 years or over reported using strategies to deal with their cash flow problems, with similar rates for people living in remote and non-remote areas. The most commonly used strategy, regardless of location, was to seek assistance from friends and family (34% overall). Other commonly reported strategies in major cities and regional areas included seeking assistance from welfare or community organisations and pawning or selling something, while in remote areas, respondents were more likely to report running up a tab at a local store or going without meals (table 2.13).

## 2.13 FINANCIAL STRESS(a)—2002

| | | Major cities | Regional | Remote | Total |
|---|---|---|---|---|---|
| Unable to raise $2000 within a week for something important | % | 40.3 | 52.4 | 73.0 | 54.3 |
| Had days without money in last 12 months | % | 44.5 | 44.6 | 41.5 | 43.7 |
| Strategies used to meet basic living expenses in last 12 months(b) | | | | | |
| Sought assistance from friends or family | % | 35.3 | 32.5 | 35.1 | 34.1 |
| Sought assistance from welfare/community organisations | % | 15.1 | 15.6 | 7.2 | 13.1 |
| Pawned or sold something | % | 16.6 | 12.2 | 2.6 | 10.9 |
| Used short term loans | % | 12.5 | 8.2 | 5.7 | 8.8 |
| Ran up a tab (book up) at a local store | % | 2.6 | 6.5 | 17.0 | 8.2 |
| Did not have meals | % | 6.4 | 6.3 | 9.1 | 7.1 |
| *Total reporting at least one strategy*(c) | % | *48.5* | *47.9* | *49.6* | *48.5* |
| **Indigenous persons aged 15 years or over** | no. | **86 400** | **118 600** | **77 100** | **282 200** |

(a) Information provided by a household spokesperson on behalf of household members.

(b) Not all strategies are shown.

(c) Components do not add to total as people may have provided more than one response.

*Source: ABS, 2002 NATSISS*

### Housing

In 2002, the majority (70%) of Indigenous people aged 18 years or over were living in rented dwellings. The proportion renting was lower in major cities and regional areas (around 64%) than in remote areas (85%). In remote areas, three out of four renters were living in accommodation provided by Indigenous Housing Organisations or in other community housing (table 2.14).

Overall, about one-quarter (27%) of Indigenous people were living in dwellings that were either fully owned or being purchased. The proportion of people in dwellings that were being purchased rose from 11% in 1994 to 17% in 2002.

## 2.14 TENURE AND LANDLORD TYPE(a), by Indigenous status—2002

| | | INDIGENOUS | | | | | NON-INDIGENOUS |
|---|---|---|---|---|---|---|---|
| | | 1994 | | | | 2002 | 2002 |
| | | Total(b) | Major cities | Regional | Remote | Total(b)(c) | Total(c) |
| Owner | | | | | | | |
| Owner without a mortgage | % | 10.9 | 9.9 | 14.1 | 4.0 | 10.0 | 38.5 |
| Owner with a mortgage | % | 10.6 | 24.3 | 18.6 | 4.6 | 16.5 | 34.6 |
| Renter | | | | | | | |
| State or Territory Housing Authority | % | 33.3 | 26.5 | 22.9 | 12.6 | 21.2 | 3.8 |
| Indigenous Housing Organisation/ Community housing | % | 16.5 | *5.0 | 11.7 | 64.2 | 24.2 | 0.4 |
| Private and other renter | % | 21.1 | 31.4 | 29.3 | 8.5 | 24.2 | 20.1 |
| *Total renters* | % | *71.5* | *63.1* | *64.1* | *85.3* | 69.6 | *24.3* |
| **Persons aged 18 years or over** | no. | **190 800** | **76 000** | **106 000** | **69 300** | **251 400** | **14 353 800** |

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

(a) Some tenure types are not shown in this table.

(b) Apart from Owner without a mortgage and Total renters, differences between 1994 and 2002 Indigenous data are statistically significant.

(c) All differences between Indigenous and non-Indigenous data are statistically significant.

*Source: ABS, 1994 NATSIS, 2002 NATSISS and 2002 GSS*

### *Access to transport*

Overall, Indigenous people are less likely to have access to transport than non-Indigenous people. In 2002, 60% of Indigenous people aged 18 years or over had access to a motor vehicle to drive compared with 85% of non-Indigenous adults. They were also three times more likely (12% compared with 4%) to report that they had a high level of difficulty getting to the places needed (that is they could not get to, or often had difficulty getting to) the places needed.

Indigenous people living in remote areas had more limited access to transport than those in non-remote areas. A lower proportion in remote areas had access to a motor vehicle to drive while a greater proportion reported a high level of difficulty getting to the places where they needed to go. Public transport use was also more limited in remote areas (14%) compared with regional areas (20%) and major cities (45%) (table 2.15). In remote areas, almost three-quarters (73%) of those who did not use public transport reported the lack of an available service as the main reason for not using public transport.

### **2.15** ACCESS TO TRANSPORT, by Indigenous status—2002

| | | INDIGENOUS | | | | NON-INDIGENOUS |
|---|---|---|---|---|---|---|
| | | *Major cities* | *Regional* | *Remote* | *Total*(a) | *Total*(a) |
| Difficulty with transport | | | | | | |
| Can easily get to the places needed | % | 77.0 | 71.1 | 65.2 | 71.2 | 84.4 |
| Sometimes have difficulty getting to the places needed | % | 14.8 | 17.5 | 17.7 | 16.7 | 11.8 |
| Often have difficulty getting to the places needed | % | 4.4 | 4.8 | 3.4 | 4.3 | 3.2 |
| Cannot get to the places needed | % | 3.7 | 6.3 | 13.0 | 7.3 | 0.4 |
| Has access to motor vehicles to drive | % | 66.6 | 62.8 | 47.5 | 59.7 | 85.2 |
| Does not have access to motor vehicles to drive | % | 33.4 | 37.2 | 51.3 | 39.9 | 14.8 |
| Used public transport in last 2 weeks | % | 44.8 | 20.3 | 13.8 | 25.9 | . . |
| Did not use public tranport in last 2 weeks | % | 55.2 | 79.7 | 86.2 | 74.1 | . . |
| **Persons aged 18 years or over** | no. | **76 000** | **106 000** | **69 300** | **251 400** | **14 353 800** |

. . not applicable

(a) All differences between Indigenous and non-Indigenous data are statistically significant.

*Source: ABS, 2002 NATSISS and 2002 GSS*

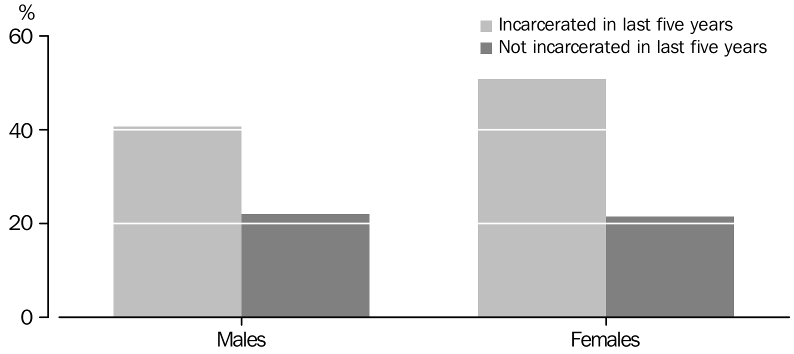
### *Law and justice*

Between 1994 and 2002, the proportion of Indigenous adults aged 18 years or over who reported being a victim of physical or threatened violence in the previous 12 months almost doubled (from 13% to 24%). Different wording of victimisation questions used in the 1994 and 2002 surveys may account in part for the higher level of victimisation in 2002 compared with 1994.

In 2002, higher rates of victimisation were reported among Indigenous adults who had been arrested and/or incarcerated. For example, those who had been incarcerated at some time in the last five years were almost twice as likely to have been a victim of physical or threatened violence in the previous 12 months as those who had not been incarcerated (43% compared with 22%). The association between incarceration and a high level of victimisation was more pronounced for women than men (graph 2.16).

Law and justice *continued*

**2.16** RATE OF VICTIMISATION(a)(b), by whether incarcerated—2002



(a) In the last 12 months.
(b) Indigenous persons aged 18 years or over.
*Source: ABS, 2002 NATSISS*

Based on administrative records held by corrective services agencies in each state and territory, there were 5,048 Indigenous prisoners in Australia at 30 June 2004 (representing 21% of the prisoner population). Of all Indigenous prisoners, 92% were men and 8% women. The crude imprisonment rate for the Indigenous population was 1,852 prisoners per 100,000 population (ABS 2004g).

After adjusting for age differences between the Indigenous and non-Indigenous populations, Indigenous adults were 11 times more likely than non-Indigenous adults to be in prison. Western Australia had the highest age-standardised ratio of Indigenous to non-Indigenous rates of imprisonment, followed by South Australia (table 2.17).

**2.17** IMPRISONMENT RATES, by states and territories—30 June 2004

| | *NSW* | *Vic.* | *Qld* | *SA* | *WA* | *Tas.* | *NT* | *ACT* | *Australia* |
|---|---|---|---|---|---|---|---|---|---|
| **Crude rate** | | | | | | | | | |
| Indigenous | 2 012.2 | 1 068.8 | 1 572.2 | 1 623.7 | 3 114.4 | 597.2 | 1 589.4 | 1 094.7 | 1 851.9 |
| Non-Indigenous | 149.1 | 89.2 | 138.3 | 91.4 | 134.5 | 109.4 | 153.5 | 103.0 | 124.3 |
| Ratio of crude rates | 13.5 | 12.0 | 11.4 | 17.8 | 23.2 | 5.5 | 10.4 | 10.6 | 14.9 |
| **Age-standardised rates** | | | | | | | | | |
| Indigenous | 1 561.9 | 810.5 | 1 203.5 | 1 218.5 | 2 358.7 | 467.2 | 1 218.7 | 867.8 | 1 416.9 |
| Non-Indigenous | 153.6 | 91.1 | 141.4 | 100.1 | 136.6 | 121.3 | 141.0 | 88.9 | 129.0 |
| Ratio of age-standardised rates | 10.2 | 8.9 | 8.5 | 12.2 | 17.3 | 3.9 | 8.6 | 9.8 | 11.0 |

*Source: ABS 2004g*

Indigenous prisoners tend to be younger than non-Indigenous prisoners, with a median age of 30 years, three years less than the median age for non-Indigenous prisoners. Over one in twenty (6%) of all Indigenous males aged 25–29 years were in prison at 30 June 2004 (compared with 0.5% or about one in two hundred non-Indigenous males aged 25–29 years).

## SUMMARY

Since 1994 there have been a number of improvements in the social circumstances of Aboriginal and Torres Strait Islander people. These include gains in educational attainment, improvements in employment (with associated reductions in unemployment) and increases in home ownership.

SUMMARY *continued*

Nevertheless, Indigenous people remain disadvantaged across a range of areas of social concern when compared with the social circumstances of non-Indigenous Australians. In addition, many Indigenous people in remote areas have limited access to services and mainstream labour markets.

Discussion of the association between socioeconomic circumstances and health status can be found in Chapter 7.

# CHAPTER 3 EDUCATION AND HEALTH

## INTRODUCTION

Education is generally considered to be a key factor in improving the health and wellbeing of Indigenous Australians. Higher levels of educational attainment improve employment prospects, which in turn, affect income, standard of housing and access to health care (SEWRSBEC 2000). Education also provides the necessary skills to better access and utilise health and community services and information about welfare (Boughton 2000).

Participation in education by Indigenous Australians continues to slowly increase across all sectors (schools, universities, and vocational education and training (VET)). The number of Indigenous people who have attained a non-school qualification has also increased. Yet despite these improvements, the educational participation and attainment of Indigenous Australians remain below that of other Australians. This is due in part to the high proportion of Indigenous students who experience chronic health problems, such as middle ear infection and nutritional deficiencies, which negatively affect their school attendance and learning outcomes. Other factors that affect participation in education include lack of access to educational institutions, financial constraints and social, cultural and language barriers.

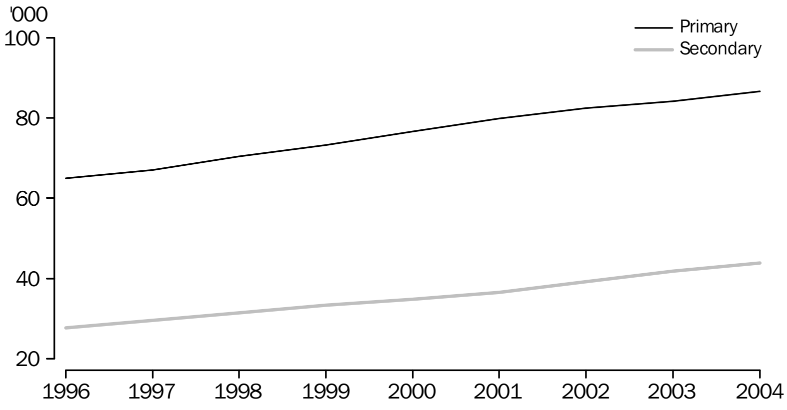
This chapter presents an overview of the educational participation and attainment of Aboriginal and Torres Strait Islander people, and outlines some of the ways in which education and health are interlinked within the Indigenous population. This chapter draws on a range of data sources, including the 2002 National Aboriginal and Torres Strait Islander Social Survey (NATSISS), the National Schools Statistics Collection, the Higher Education Statistics Collection, VET statistics and various academic research papers. Comparisons over time are included where possible.

## SCHOOL

There was a steady increase in the number of full-time Indigenous students attending primary or secondary schools between 1996 and 2004 (graph 3.1). There were increases in every state and territory, with Australia-wide enrolments reaching 130,400 in 2004. The proportion of all full-time students who were of Indigenous origin also rose from 3% in 1996 to 4% in 2004. This reflects the increasingly younger age profile as a result of increased growth in the Indigenous population over this period; and the improved identification of the Indigenous status of students in administrative records.

SCHOOL *continued*

**3.1** PRIMARY AND SECONDARY FULL-TIME SCHOOL ENROLMENTS, Indigenous students—1996–2004



*Source: ABS 2004h and 2005b*

*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 2004, the apparent retention rate for Indigenous full-time students from Year 7/8 to Year 10 was 86% and to Year 12 was 40% (see the Glossary for more information on apparent retention rates).

Indigenous retention to Year 10 and beyond steadily increased between 1996 and 2004 (table 3.2). This trend was particularly evident at the Year 11 level, where the apparent retention rate from Year 7/8 rose from 47% in 1996 to 61% in 2004.

**3.2** APPARENT SCHOOL RETENTION RATES, Indigenous full-time students—1996–2004

| | *1996* | *1997* | *1998* | *1999* | *2000* | *2001* | *2002* | *2003* | *2004* |
|---|---|---|---|---|---|---|---|---|---|
| | % | % | % | % | % | % | % | % | % |
| **From year 7/8** | | | | | | | | | |
| To year 9 | 96.5 | 96.4 | 95.0 | 93.9 | 95.5 | 96.5 | 97.8 | 96.8 | 96.5 |
| To year 10 | 75.8 | 80.6 | 83.3 | 82.0 | 83.0 | 85.7 | 86.4 | 87.2 | 86.4 |
| To year 11 | 47.2 | 49.6 | 52.3 | 56.0 | 53.6 | 56.1 | 58.9 | 61.4 | 61.4 |
| To year 12 | 29.2 | 30.9 | 32.1 | 34.7 | 36.4 | 35.7 | 38.0 | 39.1 | 39.5 |

*Source: ABS 2004h and 2005b*

While Indigenous retention rates remain considerably lower than those for non-Indigenous school students, the gaps between the two groups are slowly closing (table 3.3). In Year 11, the gap between Indigenous and non-Indigenous students closed by nine percentage points between 1996 and 2004. While the Year 12 gap closed by six percentage points over this time period, Indigenous students were still around half as likely as non-Indigenous students to progress to the final year of schooling in 2004.

*School retention continued*

## 3.3 APPARENT SCHOOL RETENTION RATES, Full-time students—1996, 2004

| | *1996* | *2004* |
|---|---|---|
| | % | % |
| **FROM YEAR 7/8** | | |
| **To Year 9** | | |
| Indigenous | 96.5 | 96.5 |
| Non-Indigenous | 99.6 | 99.9 |
| Difference (percentage points) | –3.1 | –3.4 |
| **To Year 10** | | |
| Indigenous | 75.8 | 86.4 |
| Non-Indigenous | 97.3 | 98.5 |
| Difference (percentage points) | –21.5 | –12.1 |
| **To Year 11** | | |
| Indigenous | 47.2 | 61.4 |
| Non-Indigenous | 84.3 | 89.5 |
| Difference (percentage points) | –37.1 | –28.1 |
| **To Year 12** | | |
| Indigenous | 29.2 | 39.5 |
| Non-Indigenous | 72.4 | 76.8 |
| Difference (percentage points) | –43.2 | –37.3 |

*Source: ABS 2004h and 2005b*

*Literacy and numeracy*

In 1997, all Australian states and territories agreed to implement standardised benchmark testing in order to provide nationally comparable data on the literacy and numeracy of Australian children. As the benchmarks represent a minimum level of competence for literacy and numeracy at various grade levels, non-achievement of the benchmark indicates that the student will have difficulty progressing satisfactorily at school (MCEETYA 2005). It is important to note that students from low socioeconomic backgrounds and those who speak English as a second language are likely to be at a disadvantage during these standardised assessments (DEST 2003).

In 2002, more than three-quarters of Indigenous Year 3 students who took part in the testing achieved the reading benchmark (77%), the writing benchmark (77%) and the numeracy benchmark (78%). In Year 5, these rates were 68%, 76% and 66% respectively.

In 2002, fewer Indigenous students achieved the Year 3 and Year 5 benchmarks in reading, writing and numeracy compared with all students (table 3.4). The largest differences between Indigenous students and all students occurred at the Year 5 level in numeracy and reading.

## 3.4 YEAR 3 AND YEAR 5 STUDENTS, Proportion achieving benchmarks—2002

| | YEAR 3 | | YEAR 5 | |
|---|---|---|---|---|
| | *Indigenous* | *All students* | *Indigenous* | *All students* |
| | % | % | % | % |
| Reading | 76.7 | 92.3 | 68.0 | 89.3 |
| Writing | 77.1 | 93.6 | 76.4 | 93.6 |
| Numeracy | 77.6 | 92.8 | 65.6 | 90.0 |

*Source: MCEETYA, 2005*

## PARTICIPATION IN NON-SCHOOL STUDY

### *Vocational education and training*

The National Centre for Vocational Education Research (NCVER) reports that in 2003, approximately 58,000 Indigenous students were enrolled in VET courses, representing about 3% of the total student population. Indigenous males slightly outnumbered Indigenous females in 2003 (53% and 47% respectively). Over one-quarter (27%) of Indigenous VET students had a postal address in a remote region, compared with 3% of non-Indigenous VET students.

Indigenous VET enrolments increased between 1997 and 2002, before declining slightly in 2003 (table 3.5). The proportion of Indigenous students within the total VET population also increased over this time period.

**3.5** VOCATIONAL EDUCATION AND TRAINING ENROLMENTS, Indigenous and all students—1997–2003

| | | *1997* | *1998* | *1999* | *2000* | *2001* | *2002* | *2003* |
|---|---|---|---|---|---|---|---|---|
| Indigenous | '000 | 38.5 | 44.1 | 50.3 | 50.7 | 56.1 | 59.7 | 58.1 |
| Non-Indigenous | '000 | 1 093.2 | 1 145.6 | 1 281.3 | 1 296.5 | 1 323.7 | 1 284.3 | 1 326.7 |
| Unknown | '000 | 317.4 | 320.2 | 283.0 | 360.7 | 299.3 | 338.9 | 333.0 |
| **Total** | '000 | **1 449.1** | **1 509.8** | **1 614.6** | **1 707.9** | **1 679.1** | **1 682.9** | **1 717.8** |
| Indigenous proportion of all students | % | 2.7 | 2.9 | 3.1 | 3.0 | 3.3 | 3.5 | 3.4 |

*Source: National Centre for Vocational Education Research. Data available on request.*

Success in VET is ultimately dependent upon successful completion of modules. In 2003, the rate of VET module completions for Indigenous students was 65%, compared with 78% of the total VET student population.

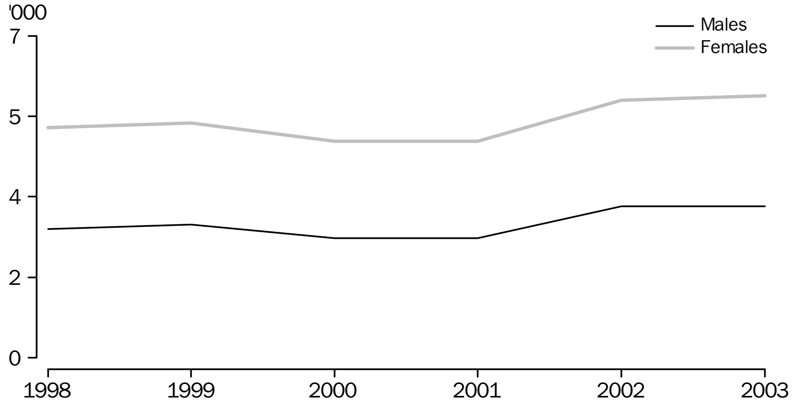
### *Higher education*

Unlike the VET sector, Indigenous students are under-represented in the higher education sector. Data from the Higher Education Statistics Collection show that Indigenous Australians comprised 1% of the total higher education population in 2003, with 9,000 students. This was the highest number of Indigenous higher education enrolments recorded between 1997 and 2003. However, the proportion of Indigenous students within the higher education population remained largely unchanged over this time period (at around 1%).

There was a notable gender imbalance among Indigenous higher education students in 2003, with females accounting for approximately two-thirds (63%) of all Indigenous students. As shown in graph 3.6, the gap between male and female enrolments has remained relatively unchanged since 1998.

*Higher education continued*

**3.6** INDIGENOUS HIGHER EDUCATION STUDENTS—1998–2003



*Source: DEST, Higher Education Statistics Collection*

## NON-SCHOOL QUALIFICATIONS

Results from the 1994 National Aboriginal and Torres Strait Islander Survey (NATSIS) and the 2002 NATSISS show that the proportion of Indigenous people aged 25–64 years who had a non-school qualification increased from 20% in 1994 to 32% in 2002. For those who reported their level of qualification, there was an increase in the proportion who had completed a Certificate or Diploma (13% in 1994 compared with 24% in 2002) and a Bachelor degree or above (1% in 1994 compared with 5% in 2002).

There was little difference in the proportion of males and females who had a non-school qualification in 2002 (33% for males and 31% for females). Reflecting the location of tertiary institutions and the availability of jobs that utilise tertiary qualifications, the likelihood of having a non-school qualification decreased with increasing geographic remoteness. Overall, 36% of Indigenous people aged 25–64 years in non-remote areas had a non-school qualification compared with 23% of people in remote areas.

Of those who had a non-school qualification in 2002, 70% had obtained a Certificate (of which 34% had a Certificate level III/IV and 31% had a Certificate level I/II), 11% an Advanced Diploma or Diploma and 14% a Bachelor degree or above. The majority of Indigenous people with a Diploma or above were female. Indigenous women were twice as likely as men to have an Advanced Diploma or Diploma and one and a half times as likely to have a Bachelor degree or above.

Management and Commerce was the most common main field of study among those who had a non-school qualification in 2002 (20%), followed by Engineering and Related Technologies (18%), Society and Culture (13%), and Health (10%). Indigenous men and women varied in their choice of field. Men were more likely than women to have a qualification in the fields of Engineering and Related Technologies, and Architecture and Building, whereas women were more likely than men to have a qualification in the fields of Management and Commerce, Health, and Education.

Although there have been significant improvements in the educational participation and 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 nearly twice as likely as Indigenous people to have a non-school qualification in 2002 (57% compared with 32% respectively). Non-Indigenous

## NON-SCHOOL QUALIFICATIONS *continued*

people were about four and a half times as likely to have a Bachelor degree or above and approximately twice as likely to have a Certificate level III/IV or Diploma (Chapter 2).

## THE LINKS BETWEEN EDUCATION AND HEALTH

International research has clearly established that higher levels of educational attainment are associated with better health outcomes. Strong positive correlations have been found between parental education, particularly that of the mother, and child health (Ewald & Boughton 2002). For example, studies on health transition in developing countries have shown that with the addition of one extra year of parental schooling, the infant mortality rate drops between 7% and 10%. There is also evidence of a clear relationship between an adult's level of education and their risk of heart disease, stroke and diet-related illnesses (MCEETYA 2001).

There has been little investigation, however, into how educational attainment affects health in the Indigenous population (Boughton 2000; Lowell, Maypilama & Biritjalawuy 2003). The few statistically based studies that have been undertaken in Australia do not point to a straightforward association between schooling and Indigenous health (Gray & Boughton 2001).

The ways in which health affects Indigenous educational attainment, however, have received more attention. 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 (MCEETYA 2001). The National Indigenous English Literacy and Numeracy Strategy (NIELNS) recognises the importance of improving the health of Indigenous children in order to enable them to increase their educational participation and attainment and consequently, their opportunities for a prosperous and healthy lifestyle (DEST 2000). The following discussion focuses on the two health conditions commonly identified as being the most detrimental to Indigenous educational outcomes: hearing loss and poor nutrition (SEWRSBEC 2000).

### *Hearing loss*

Aboriginal and Torres Strait Islander school students are much more likely than their non-Indigenous peers to experience ear disease and hearing problems. There is a high rate of otitis media (middle ear infection) among Indigenous children, particularly in remote areas (DEST 2000). The prevalence of otitis media has been found to range from 40% to 70% in Indigenous communities compared with only 5% in more advantaged populations around the world (McRae et al. 2000). In Western Australia, the rates of otitis media among Aboriginal children aged 5–9 months has been found to be as high as 72% (Zubrick et al. 2004).

Chronic suppurative otitis media (CSOM) or 'runny ears' is the chronic condition that results from recurrent episodes of otitis media. It is typically characterised by a ruptured eardrum and discharge from the middle ear, which causes fluctuating and sometimes permanent hearing loss, as well as other complications associated with infection (NACCHO 2003a). The World Health Organization (2003) recognises that a prevalence of CSOM greater than 4% in a given population is indicative of a major public health problem. In Australia, CSOM can affect up to 40% or more of Indigenous children living in remote areas (NACCHO 2003a). For more information on ear and hearing problems in the Indigenous population, refer to chapters 5 and 7 in this report.

*Hearing loss continued*

Hearing loss as a result of CSOM has been associated with poor school achievement for Indigenous students (McRae et al. 2000). Indigenous children who are unable to hear correctly in the classroom are placed at a significant disadvantage, particularly in reading and language acquisition. These problems are magnified for those students learning English as a second language (Collins 1999; McRae et al. 2000). However, there remains a lack of solid quantitative evidence to show the effects of this condition on Indigenous educational outcomes (Mellor & Corrigan 2004).

There is evidence to suggest that Indigenous children with CSOM attend school less frequently than other children. The National Aboriginal Community Controlled Health Organisation's (NACCHO) Ear Trial and School Attendance Project found that during the trial period, children with CSOM attended school only 69% of the days available compared with 88% of other children in the same schools (NACCHO 2003b). Furthermore, a study in the Northern Territory showed that Indigenous children who had low attendance rates were more likely than those with high attendance rates to have ear disease and associated hearing loss (Collins 1999).

Common school-based strategies to help prevent and combat the effects of ear disease include regular health screenings and ear examinations in schools, as well as installing amplification systems in classrooms to create an enhanced listening environment (Collins 1999). Access to salt water or chlorinated swimming pools (due to the anti-bacterial properties of salt water and chlorine) also helps reduce the number of ear infections among Indigenous children (Lehmann 2003).

*Poor nutrition*

Poor nutrition is another significant health issue affecting many Indigenous school students. Children who lack regular meals or have inadequate access to fresh, nutritious food tend to be tired, underweight and prone to other illnesses (SEWRSBEC 2000). Reports by the Northern Territory Health Services show that 13% to 22% of Indigenous children aged five years or younger in non-urban areas of the Northern Territory are clinically underweight (Collins 1999). Moreover, school screening in the Northern Territory in 1993 revealed that 39% of Indigenous children living in remote communities were anaemic and 22% were malnourished (Paterson, Ruben & Nossar 1998).

Poor nutrition severely limits a child's capacity to concentrate and learn at school. Children with poor diets are often lethargic or disruptive in the classroom and are more likely to be absent from school (SEWRSBEC 2000). In recognition of this issue, NIELNS emphasises the value of school-based nutrition programs in improving school performance and attendance. As well as distributing healthy meals to students at school, these programs provide an opportunity to convey health and nutrition information to the students and their families (see box 3.7). For more information on Indigenous nutrition, refer to Chapters 6 and 8 in this report.

*Poor nutrition continued*

### 3.7 THE NATIONAL CHILD NUTRITION PROGRAM

The National Child Nutrition Program was a budget funded community grants program aimed at improving the nutrition and long-term eating patterns of children aged 0–12 years and pregnant women in high need environments. The objectives of the National Child Nutrition Program were to improve: nutrition-related knowledge and skills of children and their parents; the capacity of communities to promote better nutritional health; and access to and availability of nutritious foods.

A total of 109 projects across Australia were funded under the Program during 1999–2005. A high priority was given to projects in rural and remote communities, Aboriginal and Torres Strait Islander communities and communities with poor socioeconomic circumstances. Around 30% of total funding was provided to projects specifically targeting Aboriginal and Torres Strait Islander communities.

Of the two rounds offered as part of the Program, the second round of funding had a specific focus on high need Indigenous communities and included 22 community-based projects across Australia. The Indigenous-specific projects also included an education focus in support of the National Indigenous English Literacy and Numeracy Strategy. This strategy identifies poor nutrition as a primary cause of a child's reduced capacity to concentrate and learn in the classroom setting.

An evaluation of a number of Indigenous nutrition projects funded under the National Child Nutrition Program in Western Australia shows that projects in Aboriginal communities achieved significant impacts on nutrition awareness and attitudes, access to nutritious foods at school, school attendance and attention in class, and Aboriginal development. Successful school-based strategies included: providing healthy breakfasts and/or lunches for free or at minimal cost; the inclusion of education on nutrition within the school curriculum; and parental and community involvement throughout all stages of the project.

*Source: Australian Government Department of Health and Ageing.*

*Health and education correlations from the NATSISS*

Results from the 2002 NATSISS show that education was positively correlated with self-assessed health status. Table 3.8 shows that Indigenous persons 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 (63% compared with 45%). They were also less likely to rate their health as fair or poor (9% compared with 16%). The causal pathways that underlie this interaction are complex and difficult to measure, therefore it is not known whether higher levels of educational attainment lead to better health, or better health leads to higher educational attainment.

There was also an association between highest level of schooling and whether a person had a disability or long-term health condition. About one-third (35%) of people aged 18–34 years who had left school at Year 9 or below had a disability in 2002, compared with 18% of those who had completed Year 12. Among the former group, the most common type of disability reported was a physical disability, followed by a sight, hearing or speech disability. However, because the NATSISS did not collect information about the age of disability onset, it is not known whether the person's disability was present while they were at school or whether it occurred later in life.

*Health and education correlations from the NATSISS continued*

Finally, the likelihood of engaging in health risk behaviours decreased with higher levels of schooling. While this was particularly evident for smoking, there was only a marginal decline in the proportion of people aged 18–34 years who consumed alcohol at risky or high risk levels with each additional year of school completed (table 3.8).

A similar pattern of association between higher educational attainment and improved health outcomes can be observed for Indigenous people aged 35 years or over. Age is also a contributing factor in this case, as the relatively small proportion of people aged 35 years or over who have completed school to Year 12 (11%) were younger (median age 41 years) than those who had not progressed to this level of schooling (median age 47 years).

### 3.8 HEALTH CHARACTERISTICS OF INDIGENOUS PERSONS, by highest year of school completed(a)—2002

| | | 18–34 YEARS | | | 35 YEARS OR OVER | | |
|---|---|---|---|---|---|---|---|
| | | *Year 9 or below*(b) | *Year 10/11* | *Year 12* | *Year 9 or below*(b) | *Year 10/11* | *Year 12* |
| Self-assessed health status(c) | | | | | | | |
| Excellent/very good | % | 44.5 | 51.1 | 62.7 | 23.5 | 41.4 | 42.4 |
| Fair/poor | % | 15.8 | 13.9 | 9.1 | 45.4 | 26.0 | 25.8 |
| Has a disability or long-term health condition | % | 34.6 | 26.4 | 18.2 | 59.0 | 39.2 | 32.5 |
| Risk/behaviour characteristics | | | | | | | |
| Current daily smoker | % | 69.8 | 55.7 | 38.5 | 48.3 | 48.5 | 41.9 |
| Risky/high risk alcohol consumption in last 12 months | % | 17.5 | 15.5 | 13.9 | 17.7 | 17.5 | 14.6 |
| **Indigenous persons** | no. | **30 700** | **58 600** | **32 400** | **71 400** | **43 200** | **13 700** |

(a) Excludes persons still at secondary school.
(b) Includes persons who never attended school.
(c) 'Good' category not shown.

*Source: ABS, 2002 NATSISS*

### 3.9 THE LINKS BETWEEN EDUCATION AND HEALTH IN GALIWINKU

Many Aboriginal and Torres Strait Islander people have a holistic concept of health and wellbeing, which is based on a sense of balance among people, land and spirit (MCEETYA, 2001). Health in this context extends beyond physical illness and encompasses spiritual, cultural, emotional and social aspects as well.

A study by Lowell and colleagues (2003) explored the links between education and health within an Indigenous context. Set in Galiwinku, a remote Island community of about 1,400 Yolgnu (Indigenous) people, the project provided the community with an opportunity to express their views on the connections between education and health.

Participants stressed the importance of Yolgnu knowledge, systems and practices in influencing health and wellbeing. The increase in health problems within the community was overwhelmingly believed to be the result of a loss of this knowledge and changes in lifestyle as a result of Western influence. Yolgnu health-related education both at home and at school, as well as strengthening Yolgnu knowledge and practices within the community were widely regarded as the key to achieving better health outcomes. Consequently, the researchers emphasised the need for a greater level of Indigenous input and control over health and education programs in order to increase their relevance and benefit to the community.

*Source: Lowell, Maypilama & Biritjalawuy 2003.*

## SUMMARY

There have been significant improvements in the educational participation and attainment of Indigenous Australians in recent years. Between 1996 and 2004, there were steady increases in Indigenous primary and secondary school enrolments and in Indigenous apparent retention rates. Indigenous participation in vocational education and training also increased, with Indigenous students comprising 3% of the total VET student population in 2003. Indigenous students continue to be under-represented in the higher education sector, accounting for only 1% of the total higher education population in 2003.

The 1994 NATSIS and the 2002 NATSISS showed that the proportion of Indigenous people aged 25–64 years who had a non-school qualification increased from 20% in 1994 to 32% in 2002. However, Indigenous people were about half as likely as non-Indigenous people to have a non-school qualification in 2002 (32% compared with 57%).

While international research has clearly established that higher levels of educational attainment are associated with better health outcomes, there has been little investigation into whether this relationship applies to Indigenous Australians. The ways in which health impacts on educational attainment, however, is better understood. Hearing loss as the result of chronic ear infection, and poor nutrition are the two health issues that are commonly identified as being the most detrimental to Indigenous educational outcomes. Research has shown that both of these conditions are associated with poor school attendance and achievement.

# CHAPTER 4 HOUSING CIRCUMSTANCES

## INTRODUCTION

Housing has been identified as a major factor affecting the health of Aboriginal and Torres Strait Islander people. Indigenous households are over-represented in social housing and have below average rates of home ownership. The poor quality of some housing can impact on the health and wellbeing of Aboriginal and Torres Strait Islander people. Overcrowding, poor dwelling condition and inadequate basic utilities can pose serious health risks. Indigenous people are also vulnerable to homelessness because of their social and economic disadvantage.

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 social housing 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.

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, dwelling condition and housing-related infrastructure. 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 national Supported Accommodation Assistance Program (SAAP) data collection.

## INDIGENOUS HOUSEHOLDS

For the purposes of data analysis, Indigenous households can be defined in two different ways:

- a household where the reference person or their spouse is Indigenous
- a household containing one or more Indigenous people.

In this chapter the second definition of an Indigenous household is used, that is, a household containing one or more Indigenous people. This is the definition used in the National Housing Assistance Data Dictionary.

Indigenous households may include non-Indigenous as well as Indigenous people. In the 2001 Census there were a total of 494,000 people living in the 144,700 households identified as having at least one Indigenous person; of whom 75% (371,600 people) were identified as Indigenous and 25% (122,400 people) were either non-Indigenous or whose Indigenous status was unknown. The 2002 National Aboriginal and Torres Strait Islander Social Survey (NATSISS) estimated that 480,500 Indigenous people (of all ages) were

## INDIGENOUS HOUSEHOLDS *continued*

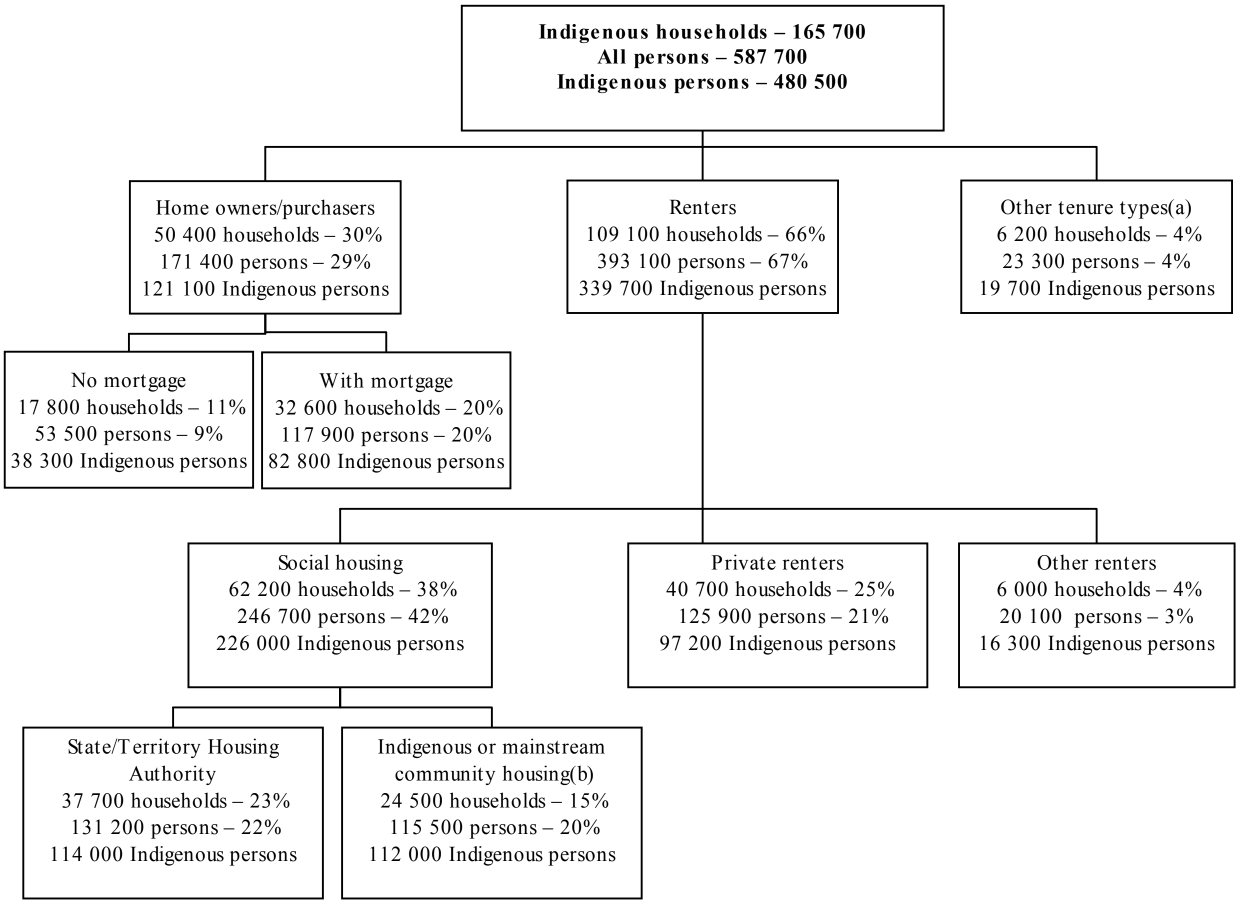
living in 165,700 Indigenous households. Indigenous people comprised 82% of all residents in Indigenous households, with half of Indigenous households having only Indigenous residents.

## HOUSING TENURE AND HOUSING ASSISTANCE

Among the estimated 165,700 Indigenous households in 2002, 30% were home owners or purchasers, 38% were renters of some form of social housing and 28% were private or other renters (figure 4.1). This can be compared with all Australian households where 70% were home owners or purchasers, 6% were renters of social housing and 21% were private or other renters (ABS 2002 General Social Survey (GSS)).

Home ownership provides a relatively secure form of housing tenure but there are much lower rates of home ownership among Indigenous households. This is indicative of the lower socioeconomic status of many Indigenous households, and the small proportion of owner/purchaser households in very remote areas reflects, among other things, the types of tenure available on traditional Aboriginal and Torres Strait Islander lands (ABS 2003c). In 2002, 11% of Indigenous households owned their homes outright and 20% were purchasing their homes.

**4.1** INDIGENOUS HOUSEHOLDS AND PERSONS, BY TENURE TYPE — 2002



(a) Includes households and persons in rent/buy schemes, living rent-free or under a life tenure scheme.
(b) Indigenous community housing managed by Indigenous community housing organisations and community housing within mainstream programs. See also box 4.5.

*Source: ABS, 2002 NATSISS*

## HOUSING TENURE AND HOUSING ASSISTANCE *continued*

The majority of Indigenous households (66%) lived in some form of rental accommodation. The largest group were renters in social housing, which included households renting from state or territory housing authorities (23%) and households renting from Indigenous or mainstream community housing organisations (15%). One-quarter of Indigenous households were in the private rental market.

The distribution of Indigenous people by the tenure type of the household in which they live is similar to the distribution of Indigenous households by tenure type (figure 4.1). The major difference occurs for Indigenous or mainstream community housing. Reflecting the generally large size of these households relative to households with other tenure types, the proportion of people in Indigenous or mainstream community housing (23%) is higher than the proportion of households with this tenure type (15%). Information on the distribution of Indigenous persons, in addition to Indigenous households, is shown in selected tables in this chapter.

### *Trends in housing tenure*

Between 1994 and 2002 the proportion of Indigenous home owner households increased from 26% to 30%. This change was due to an increase in home purchaser households (from 13% to 20%). The proportion of renter households fell slightly from 69% to 66%. Declines in the proportion renting from state/territory housing authorities (from 35% to 23%) were mostly offset by increases in households renting privately (from 23% to 28%) and in those renting from Indigenous or mainstream community housing organisations (from 11% to 15%; table 4.2).

**4.2** INDIGENOUS HOUSEHOLDS AND INDIGENOUS PERSONS(a), by tenure type—1994 and 2002

| | | PERSONS | | HOUSEHOLDS | |
|---|---|---|---|---|---|
| | | *1994* | *2002* | *1994* | *2002* |
| Fully owned | % | 10.9 | 9.7 | 12.7 | 10.8 |
| Being purchased | % | 10.8 | 16.8 | 12.8 | 19.7 |
| Renter state/territory housing authority | % | 33.3 | 22.1 | 34.7 | 22.7 |
| Renter Indigenous/mainstream community housing | % | 16.6 | 24.0 | 11.0 | 14.8 |
| Private and other renter | % | 20.9 | 23.6 | 23.0 | 28.2 |
| Other tenure(b) | % | 5.1 | 3.8 | 3.9 | 3.7 |
| Total(c) | % | 100.0 | 100.0 | 100.0 | 100.0 |
| **Total** | no. | **214 600** | **282 200** | **108 500** | **165 700** |

(a) Aged 15 years or over.
(b) Includes persons living under life tenure schemes, those living rent-free, and participants in rent/buy schemes.
(c) Includes renters whose landlord was not stated.
*Source: ABS, 1994 NATSIS and 2002 NATSISS*

### *Tenure by location*

STATES AND TERRITORIES

The housing tenure of Indigenous households varies by location. The Northern Territory had the lowest proportion of Indigenous households who were home owners (13%) and the highest proportion living in Indigenous or mainstream community housing (48%) (table 4.3).

The proportion of home owners was highest in the eastern states of Victoria (36%), New South Wales (32%) and Queensland (30%). The proportion of private and other renters was also highest in New South Wales (32%), Queensland (31%) and Victoria (30%).

*Tenure by location continued*

STATES AND TERRITORIES *continued*

Western Australia (32%) and South Australia (27%) had a relatively high proportion of households renting from the state housing authority.

**4.3** INDIGENOUS HOUSEHOLDS AND PERSONS(a), by tenure type and state or territory—2002

| | | *NSW* | *Vic.* | *Qld* | *SA* | *WA* | *NT* | *Australia*(b) |
|---|---|---|---|---|---|---|---|---|
| PERSONS | | | | | | | | |
| Home owner/purchaser | % | 32.2 | 34.5 | 26.6 | 27.6 | 18.4 | 7.6 | 26.5 |
| Renter state/territory housing authority | % | 22.2 | 22.5 | 21.8 | 25.8 | 31.7 | 10.9 | 22.1 |
| Renter Indigenous/mainstream community housing | % | 12.3 | 9.6 | 23.2 | 26.6 | 22.6 | 67.8 | 24.0 |
| Private and other renter | % | 28.8 | 30.1 | 26.4 | 18.0 | 22.3 | *7.4 | 23.6 |
| Other tenure | % | *4.3 | *3.3 | *2.0 | *1.5 | *5.0 | *6.3 | 3.8 |
| **Total** | no. | **83 800** | **17 400** | **76 000** | **15 800** | **39 600** | **36 200** | **282 200** |
| HOUSEHOLDS | | | | | | | | |
| Home owner/purchaser | % | 32.0 | 36.6 | 30.3 | 29.2 | 23.4 | *13.5 | 30.4 |
| Renter state/territory housing authority | % | 22.4 | 21.1 | 20.6 | 27.1 | 31.6 | *17.5 | 22.8 |
| Renter Indigenous/mainstream community housing | % | 9.5 | 8.9 | 15.6 | 19.8 | 13.9 | 48.4 | 14.8 |
| Private and other renter | % | 31.8 | 30.1 | 31.4 | 21.9 | 24.9 | *15.1 | 28.2 |
| Other tenure | % | *4.1 | *3.3 | *2.0 | *2.1 | 6.2 | *5.6 | 3.7 |
| **Total** | no. | **55 900** | **12 300** | **44 200** | **9 600** | **20 900** | **12 600** | **165 700** |

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

(a) Aged 15 years or over.

(b) Includes persons and households in Tasmania and the Australian Capital Territory.

Note: Numbers are rounded to the nearest hundred.

*Source: ABS, 2002 NATSISS*

## GEOGRAPHIC AREA

According to the 2002 NATSISS, 29,200 Indigenous households were in remote areas of Australia and 136,500 were in non-remote areas. Tenure type varied by remoteness, reflecting the availability of different housing options for Indigenous people and the lower socioeconomic status of those in remote areas.

Among Indigenous households living in remote areas of Australia, one-half (50%) were renters of Indigenous or mainstream community housing, 17% were renters of state or territory housing and 14% were home owners. Among Indigenous households in non-remote areas, the highest proportion were home owners (34%) followed by private or other renters (32%) and renters of state and territory housing (24%) (graph 4.4).

Tenure by location *continued*

GEOGRAPHIC AREA *continued*

**4.4** INDIGENOUS HOUSEHOLDS, by tenure type and remoteness—2002

*Source: ABS, 2002 NATSISS*

HOUSING ASSISTANCE

A large proportion of Indigenous households receive housing assistance of some kind (box 4.5). The following analysis is based on Commonwealth-State Housing Agreement (CSHA) and the National Reporting Framework (NRF) administrative data collections. Data on households by tenure type in these administrative collections differ from data based on the 2002 NATSISS. This is due to a number of factors including the under-identification of Indigenous households in both the public and mainstream community housing data collections. The administrative collections and surveys are also based on different reference periods and use different collection methodologies.

HOUSING ASSISTANCE *continued*

## 4.5 MAJOR HOUSING ASSISTANCE PROGRAMS AND ADMINISTRATIVE DATA COLLECTIONS

**Indigenous-specific programs**

**State 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.

**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 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.

**Administrative data collections**

The AIHW collects the national administrative data on programs funded under the CSHA. This includes data on the mainstream programs public rental housing and community housing. 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.

In 2003–04 for the first time the AIHW collected data on Indigenous community housing from the Australian Government and the states and territories in the National Reporting Framework (NRF) data collection. This data collection is in the early stages of development and both the quality of the data and the amount of information collected will improve over time.

At 30 June 2004 these administrative collections recorded around 55,000 Indigenous households receiving assistance under the social housing programs—21,717 in Indigenous community housing, 19,787 in public rental housing, 12,219 households in State owned and managed Indigenous housing (SOMIH), and 1,316 in mainstream community housing (table 4.6). Indigenous households in public rental housing represented approximately 6% of the total number of households receiving public housing assistance (AIHW 2005f).

## HOUSING ASSISTANCE *continued*

The proportion of households in the different housing assistance programs varied across jurisdictions, related to the available housing options. The highest proportion of Indigenous households in Indigenous community housing was in the Northern Territory (30%) followed by Queensland (28%). New South Wales had the highest proportion of households accessing both SOMIH and mainstream community housing followed by Queensland. The highest proportion of Indigenous income units in the Commonwealth Rent Assistance program were in New South Wales (36%) and Queensland (36%). (See Glossary for more information on CRA income units).

### 4.6 INDIGENOUS HOUSEHOLDS IN MAJOR HOUSING ASSISTANCE PROGRAMS—30 June 2004

| | *NSW* | *Vic.* | *Qld* | *SA* | *WA* | *Tas.* | *NT* | *ACT* | *Australia* |
|---|---|---|---|---|---|---|---|---|---|
| **NUMBER (no.)** | | | | | | | | | |
| Indigenous community housing(a) | 4 616 | 476 | 6 079 | 1 093 | 2 837 | 128 | 6 456 | 32 | 21 717 |
| SOMIH | 4 007 | 1 219 | 2 720 | 1 751 | 2 187 | 335 | . . | . . | 12 219 |
| Public housing | (b)8 700 | 1 078 | 2 633 | 1 171 | 4 041 | 494 | 1 498 | 172 | 19 787 |
| Community housing | 588 | 12 | 419 | 65 | 212 | 4 | na | 16 | 1 316 |
| Commonwealth Rent Assistance(c) | 9 006 | 1 611 | 8 997 | 1 214 | 2 387 | 744 | 1 032 | na | 25 102 |
| **PROPORTION (%)** | | | | | | | | | |
| Indigenous community housing(a) | 21.2 | 2.2 | 28.0 | 5.0 | 13.1 | 0.6 | 29.7 | 0.1 | 100.0 |
| SOMIH | 32.7 | 10.0 | 22.3 | 14.3 | 17.9 | 2.7 | . . | . . | 100.0 |
| Public housing | (b)44.0 | 5.4 | 13.3 | 5.9 | 20.4 | 2.5 | 7.6 | 0.9 | 100.0 |
| Community housing | 44.7 | 0.9 | 31.8 | 4.9 | 16.1 | 0.3 | na | 1.2 | 100.0 |
| Commonwealth Rent Assistance(c) | 35.9 | 6.4 | 35.8 | 4.8 | 9.5 | 2.6 | 4.1 | na | 100.0 |

. . not applicable

na not available

(a) Estimated number based on number of dwellings at 30 June 2004.

(b) Estimate based on the 2001 Census of Population and Housing, adjusted for undercounting of public housing households.

(c) Income units receiving CRA at 11 June 2004. Income units are single persons or family units comprising parents and dependent children. Not all income units are eligible for CRA.

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

SOMIH is provided across all geographic regions, with 34% of SOMIH households in major cities, 48% in regional areas and 17% in remote or very remote areas. Indigenous households in public housing were also located across urban, rural and remote locations, though there was a lower proportion located in very remote areas compared with SOMIH households (table 4.7). At 30 June 2001 most Indigenous income units receiving Commonwealth Rent Assistance were located in major cities or inner regional areas (65%), with only 3% in very remote areas (ABS & AIHW 2003).

## HOUSING ASSISTANCE *continued*

### 4.7 INDIGENOUS HOUSEHOLDS RENTING FROM STATE OR TERRITORY HOUSING AUTHORITY, by program type—2004

| | *SOMIH* | | *Public housing*(a) | | *Total* | |
|---|---|---|---|---|---|---|
| | no. | % | no. | % | no. | % |
| Major cities | 4 190 | 34.3 | 3 450 | 31.1 | 7 640 | 32.8 |
| Inner regional | 2 713 | 22.2 | 1 535 | 13.9 | 4 248 | 18.2 |
| Outer regional | 3 184 | 26.1 | 3 426 | 30.9 | 6 610 | 28.4 |
| Remote | 1 054 | 8.6 | 1 949 | 17.6 | 3 003 | 12.9 |
| Very remote | 1 072 | 8.7 | 724 | 6.5 | 1 796 | 7.7 |
| **Total** | **12 213** | **100.0** | **11 085** | **100.0** | **23 298** | **100.0** |

(a) The total for public housing differs from that provided in Table 4.6 because of the under-reporting of Indigenous households from New South Wales in the public housing national minimum dataset.

*Source: AIHW analysis of CSHA data repository.*

## HOUSEHOLD TYPES AND SIZE

In 2002, survey data show that over three-quarters (76%) of the 165,700 Indigenous households were one-family households, while 13% were one-person households. There were another 7% of households that were multi-family households (that is with two or more families in the household) and 3% that were group households (that consist of unrelated adults) (ABS 2002 NATSISS).

Indigenous households tend to be larger than non-Indigenous households with an average household size of 3.5 people (Indigenous and non-Indigenous) compared with 2.6 for all Australian households (table 4.8 & ABS 2002 GSS). One-quarter of Indigenous households had five or more people, 19% had four, 18% had three, 24% had two people and 13% had one person.

Average Indigenous household size varied by tenure type with an average of 4.7 people in Indigenous or mainstream community housing compared with 3.1 for private and other renters. More than half (59%) of households in Indigenous or community housing had four or more people. Average household size also varied by location with an average of 3.3 people per household in non-remote areas compared with 4.6 people per household in remote areas (ABS 2002 NATSISS).

### 4.8 INDIGENOUS HOUSEHOLDS, tenure type by number of persons(a)—2002

| | *Home owners* | *State or Territory housing authority* | *Renter Indigenous/ mainstream community housing* | *Private and other renter* | *Other tenure types* | *Total* |
|---|---|---|---|---|---|---|
| | | | NUMBER | | | |
| One person | 3 300 | 6 900 | 2 600 | 7 900 | *1 300 | 22 000 |
| Two people | 14 600 | 8 100 | 4 200 | 12 500 | *1 200 | 40 500 |
| Three people | 10 300 | 6 200 | 3 300 | 8 900 | *800 | 29 600 |
| Four people | 11 400 | 6 700 | 3 700 | 8 700 | *1 100 | 31 700 |
| Five or more people | 10 800 | 9 600 | 10 700 | 8 900 | 1 800 | 41 800 |
| Total | 50 400 | 37 700 | 24 500 | 46 800 | 6 200 | 165 700 |
| Average number per household | 3.4 | 3.5 | 4.7 | 3.1 | 3.8 | 3.5 |
| | | | PROPORTION | | | |
| One person | 6.6 | 18.4 | 10.4 | 16.9 | *21.7 | 13.3 |
| Two people | 28.9 | 21.6 | 17.0 | 26.6 | *18.8 | 24.5 |
| Three people | 20.4 | 16.6 | 13.6 | 18.9 | *12.7 | 17.9 |
| Four people | 22.7 | 17.9 | 15.2 | 18.6 | *17.4 | 19.1 |
| Five or more people | 21.4 | 25.6 | 43.8 | 19.0 | 29.4 | 25.3 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

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

(a) Household size is based on all household residents.

*Source: ABS, 2002 NATSISS*

## 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 were highest for home purchasers whose median weekly payment was $174 per week, followed by private renters whose median weekly rent was $140. However, many of these private renters would have received Commonwealth Rent Assistance (CRA). In June 2004 there were 25,102 income units receiving CRA that were identified as Indigenous income units (table 4.6). It is therefore likely that over half of all Indigenous households renting privately are supported by CRA.

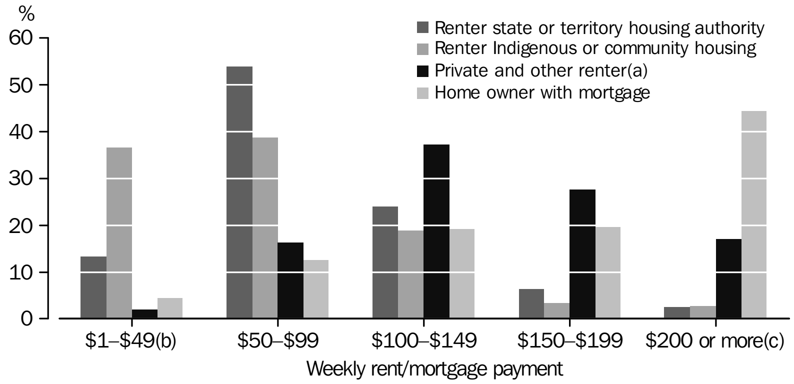
Many Indigenous households renting from state or territory housing authorities or Indigenous or mainstream community housing providers pay rents that are related to income (in some cases, subsidised rents), and therefore have lower housing costs than those renting in the private market (although the latter group have additional income support through CRA payments to, in part, offset the higher rents paid). In 2002 the median weekly rent for Indigenous households renting from state or territory housing authorities was $80 per week and for those renting from Indigenous or mainstream community housing organisations it was $61 per week. The lower median rent paid by those in Indigenous community housing is also related to the poor condition of many of the dwellings and their more remote location.

The distribution of weekly housing costs is shown in graph 4.9. Some 44% of home purchasers paid $200 or more per week in mortgage payments. There were 17% of private and other renters who paid $200 or more per week in rent, compared with 2% of households renting from state or territory housing authorities. Over half (54%) of renters of state or territory housing paid between $50 and $99 per week, with 24% paying

## HOUSING COSTS *continued*

from$100 to $149 per week. Three-quarters (75%) of renters of Indigenous or community housing paid less than $100 per week in rent.

**4.9** INDIGENOUS HOUSEHOLDS PAYING RENT OR MORTGAGES, weekly amount paid by tenure type—2002



(a) Without adjustment for Commonwealth Rent Assistance.
(b) Estimate for Private and other renters paying $1–$49 in weekly rent has a relative standard error of 25% to 50% and should be used with caution.
(c) Estimates for Renters state or territory housing authority and Renters Indigenous or community housing paying $200 or more in weekly rent have a relative standard error of 25% to 50% and should be used with caution.
*Source: ABS, 2002 NATSISS*

### *Affordability*

'Housing affordability' relates to the capacity of households to meet housing costs while maintaining the ability to meet other basic costs of living (AHURI 2004). It takes into account the income of households in relation to their housing costs and is generally focused on households with lower incomes. The following data relate to those people living in households in the lowest 40% of equivalised incomes for Australian households and defines those with 'affordability stress' as households paying more than 30% of gross household income in housing costs.

Among those who were renting in 2001, 80% of people in Indigenous households and 54% of people in other households were living in households in the lowest 40% of the income distribution as defined above. People renting in Indigenous households with lower incomes were less likely to be experiencing affordability stress (19%) than people renting in other households with lower incomes (43%) (ABS & AIHW 2003). These differences reflect the higher proportions of Indigenous households who live in social housing, where rents are subsidised, as well as the higher proportion living in remote areas where rents are lower. It also includes overcrowded households who have higher total household incomes but live in overcrowded conditions because of a lack of housing options in remote areas, and as a means of reducing housing costs in urban areas. Note also that the comparison of the housing affordability stress has not been adjusted to take account of the CRA income received by some private renters. For comparison with public renters and community housing renters, the CRA income should be deducted from the income and housing costs of these private renters.

*Affordability continued*

Among residents in dwellings that were being purchased, 43% of people in Indigenous households and 29% of people in other households were living in low income households. Within low-income Indigenous households, 34% of people reported paying more than 30% of their income in housing costs, compared with 41% of people in other low-income households (ABS & AIHW 2003).

*Financial stress*

A significant proportion of Indigenous households experience some form of financial stress. In 2002, 30% of Indigenous households reported days without money in the last two weeks and 43% had days without money in the last 12 months. Nearly one-half of all Indigenous households (49%) reported that they could not raise funds in an emergency (i.e. $2000 within a week) (table 4.10). This compares with 15% of all Australian households who said that they could not raise $2000 within a week (ABS, 2002 GSS).

**4.10** INDIGENOUS HOUSEHOLDS AND PERSONS EXPERIENCING FINANCIAL STRESS(a)(b), by tenure type—2002

| | | *Home owner* | *Renter state or territory housing authority* | *Renter Indigenous/ mainstream community housing* | *Private and other renter* | *Other tenure* | *Total* |
|---|---|---|---|---|---|---|---|
| PERSONS | | | | | | | |
| Had days without money in last 12 months | % | 26.7 | 61.9 | 45.6 | 46.0 | *30.1 | 43.7 |
| Had days without money in last 2 weeks | % | 18.3 | 46.2 | 36.8 | 29.7 | *24.1 | 31.8 |
| Could not raise $2,000 within a week | % | 20.2 | 72.2 | 79.1 | 50.8 | 28.8 | 54.3 |
| Total | % | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| **Total** | no. | **74 800** | **62 200** | **67 700** | **66 600** | **3 400** | **282 200** |
| HOUSEHOLDS | | | | | | | |
| Had days without money in last 12 months | % | 26.0 | 59.0 | 46.4 | 48.3 | 35.2 | 42.7 |
| Had days without money in last 2 weeks | % | 17.0 | 44.0 | 36.5 | 30.0 | 23.8 | 29.8 |
| Could not raise $2,000 within a week | % | 19.6 | 71.4 | 75.7 | 51.8 | 44.3 | 49.4 |
| Total | % | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| **Total** | no. | **50 400** | **37 700** | **24 500** | **40 700** | **12 200** | **165 700** |

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

(a) Persons aged 15 years or over

(b) Information provided by a nominated spokesperson on behalf of all household members.

Note: Numbers are rounded to the nearest hundred.

*Source: ABS, 2002 NATSISS*

## HOUSING AND HEALTH

Research on housing and health shows a relationship between inadequate housing and housing related infrastructure and poor health outcomes (Howden-Chapman & Wilson 2000, Waters 2001). Overcrowding, poor dwelling condition and inadequate basic utilities such as facilities for washing clothes, sewerage systems or safe drinking water have all been associated with higher rates of infectious and parasitic diseases. These include skin infections and infestations, respiratory infections, eye and ear infections, diarrhoeal diseases and rheumatic fever (Menzies School of Health Research 2000).

In May 2001, housing ministers endorsed a 10-year statement on directions for Indigenous housing reform to provide better housing for Indigenous Australians (HMC 2001). This statement addressed the 1997 ministers' reform agenda the focus of which was to:

## HOUSING AND HEALTH *continued*

- identify and address outstanding need
- improve the viability of Indigenous community housing organisations
- establish safe, healthy and sustainable housing for Indigenous Australians, especially in rural and remote communities
- establish a national framework for the development and delivery of improved housing outcomes for Indigenous Australians by state, territory and community housing providers.

The national framework for the design, construction and maintenance of Indigenous housing was developed by a working group of state and territory housing ministers to improve Indigenous housing by raising the standard of housing to the level of that enjoyed by most non-Indigenous Australians. One of the major areas addressed in the framework relates to those housing components essential for good health that were termed ‘health hardware’ (Commonwealth State and Territory Housing Ministers' Working Group 1999).

The framework states that houses should be designed, constructed and maintained to support healthy living practices that were identified as being essential for good health. One of these principles relates to reducing overcrowding and the potential for the spread of infectious diseases. Some principles specify that houses must have the facilities required for washing people, washing clothes and bedding, storing and preparing food. In addition dwellings must be in good physical condition and connected to basic services to support healthy living.

### *Overcrowding*

A higher proportion of Aboriginal and Torres Strait Islanders live in overcrowded conditions than other Australians and this can adversely affect their health. 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 and 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).

Various measures can be used to assess the extent of overcrowding in dwellings. The nationally accepted definition of overcrowding used in relation to housing assistance is the Proxy Occupancy Standard, which is a measure of the appropriateness of housing related to the household size and composition (AIHW 2004k). The standard specifies the following bedroom requirements for different household types:

- single adult—1 bedroom
- single adult group—1 bedroom per adult
- couple with no children—2 bedrooms
- sole parent or couple with 1 child—2 bedrooms
- sole parent or couple with 2 or 3 children—3 bedrooms
- sole parent or couple with 4 or more children—4 bedrooms.

Households that require two or more additional bedrooms to meet the standard are considered to be overcrowded.

*Overcrowding continued*

In 2001, some 10% of Indigenous households in Australia (13,380 dwellings) were overcrowded according to the Proxy Occupancy Standard. In other words, 22% of Indigenous people living in private dwellings (80,370 people) were living in overcrowded accommodation. Overcrowding varied significantly by tenure type, with the lowest rates among owner/purchaser households and the highest among households in Indigenous or mainstream community housing. About one-third (34%) of Indigenous households and over one-half of Indigenous people (57%) renting from Indigenous or mainstream community housing organisations were living in overcrowded conditions (table 4.11).

### 4.11 INDIGENOUS HOUSEHOLDS AND INDIGENOUS PERSONS IN OVERCROWDED CONDITIONS, by tenure type—2001

| | Persons(a) | | Households(a) | |
|---|---|---|---|---|
| | no. | % | no. | % |
| Home owner/purchaser | 8 110 | 8.3 | 2 160 | 4.7 |
| Renter state/territory housing authority | 14 500 | 17.5 | 2 660 | 9.1 |
| Renter Indigenous/mainstream community housing | 44 040 | 57.3 | 5 320 | 34.0 |
| Private and other renter | 11 330 | 11.6 | 2 840 | 6.1 |
| Total(b) | 80 370 | 22.2 | 13 380 | 9.5 |

(a) Excludes dwellings where the number of bedrooms was not stated.
(b) Includes other tenure types and not stated tenure type.
*Source: ABS, 2001 Census of Population and Housing*

Overcrowding varied by state and territory. The very high proportion of overcowded households in the Northern Territory (32%) reflects the high number of Indigenous households in Indigenous or mainstream community housing, and the large proportion of these (55%) that were overcrowded (table 4.12).

### 4.12 OVERCROWDED INDIGENOUS HOUSEHOLDS, by state and territory—2001

| | NSW | Vic. | Qld | SA | WA | Tas. | NT | ACT | Australia |
|---|---|---|---|---|---|---|---|---|---|
| **NUMBER (no.)** | | | | | | | | | |
| Home owner/purchaser | 810 | 190 | 580 | 110 | 250 | 100 | 110 | 20 | 2 160 |
| Renter state/territory housing authority | 660 | 160 | 690 | 210 | 630 | 50 | 240 | 30 | 2 660 |
| Renter Indigenous/mainstream community housing | 380 | 30 | 1 260 | 240 | 870 | — | 2 530 | — | 5 320 |
| Private and other renter | 890 | 180 | 1 110 | 110 | 270 | 60 | 190 | 20 | 2 840 |
| Total(a) | 2 810 | 580 | 3 740 | 690 | 2 110 | 220 | 3 160 | 60 | 13 380 |
| **PROPORTION(b) (%)** | | | | | | | | | |
| Home owner/purchaser | 4.8 | 4.0 | 5.2 | 4.1 | 5.2 | 2.5 | 7.0 | 2.6 | 4.7 |
| Renter state/territory housing authority | 6.4 | 7.0 | 11.3 | 7.9 | 13.1 | 4.4 | 14.5 | 6.2 | 9.1 |
| Renter Indigenous/mainstream community housing | 12.5 | 8.5 | 27.7 | 31.2 | 39.4 | — | 55.2 | — | 34.0 |
| Private and other renter | 5.5 | 4.9 | 7.1 | 4.8 | 6.1 | 3.3 | 11.6 | 3.4 | 6.1 |
| Total(a) | 5.9 | 5.1 | 9.8 | 8.2 | 12.6 | 3.1 | 32.4 | 4.0 | 9.5 |

— nil or rounded to zero (including null cells)
(a) Includes other tenure type and tenure type not stated.
(b) Excludes dwellings with number of bedrooms not stated.

Note: Overcrowding was measured according to the Proxy Occupancy Standard.
*Source: ABS, 2001 Census of Population and Housing.*

*Household facilities*

Across Australia, a high proportion of Indigenous households were living in dwellings with the facilities required to support healthy living practices. In 2002, some 99% of Indigenous households reported having working facilities for washing people, 98% had working facilities for washing clothes and bedding, and 95% had working facilities for storing and preparing food.

There were, however, a number of households which did not have these working facilities. For example, 1,700 Indigenous households reported that they did not have working facilities for washing people, 3,500 did not have working facilities for washing clothes or bedding, 8,300 did not have working facilities for storing or preparing food and 1,900 did not have working sewerage facilities.

Renters of Indigenous or community housing were less likely to have working sewerage facilities, working facilities for washing people or working facilities for food preparation and storage, than those with other kinds of housing tenure. For example, 85% of households renting Indigenous or community housing had working facilities for storing and preparing food compared with 99% of owner/purchaser households.

**4.13** FUNCTIONALITY OF BASIC FACILITIES, Indigenous households by tenure type—2002

| | *Home owner/ purchaser* | *Renter State or Territory housing authority* | *Renter Indigenous/ mainstream community housing* | *Private and other renter* | *Other tenure* | *Total* |
|---|---|---|---|---|---|---|
| NUMBER (no.) | | | | | | |
| Has working facilities for washing people | 50 300 | 37 400 | 24 000 | 46 500 | 5 700 | 164 000 |
| Has working facilities for washing clothes/bedding | 50 100 | 36 900 | 24 000 | 45 500 | 5 600 | 162 200 |
| Has working facilities for storing/preparing food | 49 700 | 36 100 | 20 800 | 45 300 | 5 300 | 157 300 |
| Has a working telephone | 48 000 | 27 400 | 11 800 | 37 100 | 4 200 | 128 500 |
| Total households | 50 400 | 37 700 | 24 500 | 46 700 | 6 200 | 165 700 |
| PROPORTION (%) | | | | | | |
| Has working facilities for washing people | 99.8 | 99.2 | 98.0 | 99.3 | 91.7 | 99.0 |
| Has working facilities for washing clothes/bedding | 99.2 | 98.0 | 97.9 | 97.2 | 91.7 | 97.9 |
| Has working facilities for storing/preparing food | 98.6 | 95.9 | 85.1 | 96.7 | 85.3 | 95.0 |
| Has a working telephone | 95.2 | 72.7 | 48.0 | 79.2 | 67.8 | 77.6 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Note: Numbers are rounded to the nearest hundred.

*Source: ABS, 2002 NATSISS*

Some 78% of all Indigenous households had a working telephone but this proportion varied significantly by tenure type, ranging from 48% for renters of Indigenous/ community housing to 95% of home owners.

*Dwelling condition*

The physical condition of a dwelling is important for reducing the negative impact of dust, controlling the temperature of the living environment and reducing the potential for trauma (or minor injury) around the house and living environment. The 2002 NATSISS asked households whether the dwelling in which they lived had structural problems. This included rising damp, major cracks in floors or walls, sinking or moving foundations, sagging floors, walls and windows out of plumb, wood rot/termite damage, major electrical problems, major plumbing problems, and major roof defects.

*Dwelling condition continued*

There were 58,100 Indigenous households, or 35%, that reported that their dwelling had structural problems of some kind in 2002 (table 4.14). The highest proportion of households that lived in dwellings with structural problems were renters of Indigenous or mainstream community housing (55%), followed by renters of state or territory housing (42%).

### 4.14 DWELLING CONDITION, by tenure type—2002

| | Home owner/ purchaser | Renter State or Territory housing authority | Renter Indigenous/ mainstream community housing | Private and other renter | Other tenure | Total |
|---|---|---|---|---|---|---|
| NUMBER (no.) | | | | | | |
| Has structural problems | 11 300 | 15 700 | 13 400 | 15 600 | 2 000 | 58 100 |
| Repairs and maintenance have been carried out | 34 800 | 24 300 | 14 100 | 28 700 | 3 200 | 105 100 |
| Total households | 50 400 | 37 700 | 24 500 | 46 800 | 6 200 | 165 700 |
| PROPORTION (%) | | | | | | |
| Has structural problems | 22.0 | 42.0 | 55.0 | 33.0 | 33.0 | 35.0 |
| Repairs and maintenance have been carried out | 69.0 | 65.0 | 58.0 | 61.0 | 52.0 | 63.0 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Note: Numbers rounded to the nearest hundred.

*Source: ABS, 2002 NATSISS*

Repairs and maintenance had been carried out in the last 12 months in the dwellings of 63% of households overall. Home owners (69%) were the most likely to have had repairs and maintenance carried out, followed by renters in state or territory housing (65%).

### INDIGENOUS COMMUNITY HOUSING

The 2001 Community Housing and Infrastructure Needs Survey (CHINS) collected data on dwelling condition for permanent dwellings in discrete Indigenous communities that were managed by Indigenous housing organisations. The majority of these dwellings were located in the Northern Territory (6,498), Queensland (3,740) and Western Australia (2,725). The data on dwelling condition were categorised according to the cost of repairs required to the dwelling.

*Dwelling condition continued*

INDIGENOUS COMMUNITY HOUSING *continued*

### 4.15 CONDITION OF PERMANENT DWELLINGS IN DISCRETE INDIGENOUS COMMUNITIES, by state and territory —2001

| | Minor or no repair | | Major repair | | Replacement | | Total | |
|---|---|---|---|---|---|---|---|---|
| | no. | % | no. | % | no. | % | no. | % |
| New South Wales | 865 | 69.9 | 336 | 27.2 | 36 | 2.9 | 1 237 | 100.0 |
| Queensland | 2 239 | 59.9 | 1 068 | 28.6 | 432 | 11.6 | 3 740 | 100.0 |
| South Australia | 680 | 70.2 | 180 | 18.6 | 109 | 11.2 | 969 | 100.0 |
| Western Australia | 1 790 | 65.7 | 552 | 20.3 | 383 | 14.1 | 2 725 | 100.0 |
| Northern Territory | 4 829 | 74.3 | 1 024 | 15.8 | 631 | 9.7 | 6 498 | 100.0 |
| **Australia** | **10 433** | **68.5** | **3 179** | **20.9** | **1 601** | **10.5** | **15 228** | **100.0** |

Note: Data only includes permanent dwellings managed by Indigenous Housing Organisations. Victoria and Tasmania included in Australia for confidentiality reasons.
*Source: ABS, 2001 CHINS*

Most permanent dwellings in discrete Indigenous communities required minor or no repairs or maintenance (69%), but there were 21% requiring major repairs and 11% requiring replacement. Dwellings in Queensland and Western Australia were in the poorest condition with 40% of permanent dwellings in Queensland and 34% in Western Australia requiring major repairs or replacement.

*Connection to services*

Most Indigenous households in Australia live in dwellings that are connected to water, sewerage and electricity. For example 99% of Indigenous households reported that they had working sewerage facilities (ABS 2002 NATSISS). Connection to services is primarily an issue for those households who live in Indigenous community housing where there are a number of dwellings not connected to an organised supply of water, sewerage or electricity.

INDIGENOUS COMMUNITY HOUSING

The CHINS data on main source of water, sewerage and electricity were collected at the community level for all discrete communities. While the data show services for all communities with permanent dwellings, and the number of permanent dwellings in these communities, some dwellings may not have had access to a service that was available at the community level. Data at the dwelling level can only be reported separately for each service so that the number of dwellings not connected to more than one service is unknown. However, of those communities that had permanent dwellings, 5 communities (with 13 dwellings) had no organised water supply; 35 communities (with 80 dwellings) had no organised electricity supply; and 51 communities (with 153 dwellings) had no organised sewerage system (table 4.16). There were 73 communities (with 208 dwellings) that had two organised services, and 9 communities (with 19 dwellings) that had only one organised service (ABS, 2001 CHINS).

Of the 16,966 permanent dwellings in discrete communities, the majority (10,429 or 61%) were in communities where the main source of drinking water was bore water. There were another 3,064 dwellings (18%) in communities connected to a town supply and 2,422 (14%) in communities where the main source of water was a river or reservoir.

*Connection to services continued*

INDIGENOUS COMMUNITY HOUSING *continued*

In addition, there were 214 permanent dwellings in communities where the main source of water was a well or spring and 13 permanent dwellings in communities that had no organised water supply (table 4.16).

In relation to sewerage, the majority of permanent dwellings (7,093 or 42%) were in communities with community water-borne systems. There were another 6,479 dwellings (38%) with some type of septic system and 2,580 dwellings (15%) connected to a town supply. In addition, there were 596 permanent dwellings in communities whose main type of sewerage system was pit toilets, and 15 dwellings in communities whose main type of sewerage system was pan toilets. There were also 153 permanent dwellings in communities with no organised sewerage supply (table 4.16).

The majority of permanent dwellings (9,790 or 58%) were in communities where the main source of electricity was community generators. There were also 5,954 dwellings (35%) in communities connected to the state grid, 727 dwellings (4%) with some form of solar supply and 296 dwellings (2%) where the main source of electricity was domestic generators. In addition, there were 80 permanent dwellings in communities with no organised electricity supply (table 4.16).

The NRF data collection includes data on connection to essential services. These data are still being developed but they will provide annual data on the number of dwellings connected to essential services.

*Connection to services continued*

INDIGENOUS COMMUNITY HOUSING *continued*

### 4.16 TYPES OF CONNECTION TO WATER, SEWERAGE AND ELECTRICITY IN DISCRETE INDIGENOUS COMMUNITIES—2001

| | *Number of communities with permanent dwelling(s)* | *Number of permanent dwellings(a)* | *Proportion of dwellings* |
|---|---|---|---|
| | no. | no. | % |
| **Main source of drinking water** | | | |
| Connected to town supply | 182 | 3 064 | 18.1 |
| Bore water | 708 | 10 429 | 61.5 |
| Rain water tank(s) | 50 | 794 | 4.7 |
| River or reservoir | 71 | 2 422 | 14.3 |
| Well or spring | 36 | 214 | 1.3 |
| Other organised water supply | 11 | 30 | 0.2 |
| No organised water supply | 5 | 13 | 0.1 |
| **Total** | **1 063** | **16 966** | **100.0** |
| **Main type of sewerage system** | | | |
| Connected to town system | 87 | 2 580 | 15.2 |
| Community water-borne system | 95 | 7 093 | 41.8 |
| Septic tanks with common effluent disposal | 101 | 2 573 | 15.2 |
| Septic tanks with leach drain | 551 | 3 906 | 23.0 |
| Pit toilets | 171 | 596 | 3.5 |
| Pan toilets | 2 | 15 | 0.1 |
| Other organised sewerage system | 5 | 50 | 0.3 |
| No organised sewerage system | 51 | 153 | 0.9 |
| **Total** | **1 063** | **16 966** | **100.0** |
| **Main type of electricity supply** | | | |
| State grid/transmitted supply | 257 | 5 954 | 35.1 |
| Community generators | 425 | 9 790 | 57.7 |
| Domestic generators | 119 | 296 | 1.7 |
| Solar | 88 | 290 | 1.7 |
| Solar hybrid | 125 | 437 | 2.6 |
| Other organised electricity supply | 14 | 119 | 0.7 |
| No organised electricity supply | 35 | 80 | 0.5 |
| **Total** | **1 063** | **16 966** | **100.0** |

(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.

*Source: ABS, 2001 CHINS*

## HOMELESSNESS

Homeless people are the most disadvantaged in relation to housing. 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 higher levels of mobility among Indigenous people due to the need for many to leave their home to access services or to observe cultural obligations, and the absence of adequate temporary accommodation, can also contribute to homelessness among Indigenous people (Keys Young 1998). Measuring the extent of homelessness, however, can be difficult and depends on the definition 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 homelessness*

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

The definition of homelessness however, can 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 meaning for Indigenous Australians (AIHW 2003a).

That some Indigenous people view homelessness differently from other Australians can be illustrated by the significant number of Indigenous people who do not live in walled and roofed dwellings but who argue that they are both 'placed' and 'homed'. They call themselves 'parkies', 'long grassers' or 'river campers'. Memmott, Long and Chambers (2003) suggest that the term 'homeless' should not be used for these people but that they should be referred to as 'public place dwellers'. He proposed five categories of public place dwellers: those living in public places; those occasionally spending time in public places; spiritual forms of homelessness; crowding where it causes considerable stress to families and communities; and individuals escaping unsafe or unstable family circumstances. However, these definitions are not captured by any of the existing data sources.

*Defining homelessness continued*

### 4.17 ITINERANTS PROGRAM, DARWIN AND PALMERSTON

The project began in 1999, when community groups met to discuss the 'itinerant' issues. In 2000, the Darwin office of ATSIC and the Northern Territory Government commenced a jointly funded Policy Research Project to consider the issues surrounding Indigenous 'itinerants' in the Darwin/Palmerston area.

The project developed an Action Plan, which was endorsed by the Northern Territory Government in March 2002. In its totality it reflects the multiple and complex needs of public place dwelling Indigenous people. The rationale behind the Project is to 'encourage "itinerants" in Darwin and Palmerston to find pathways away from the destructive cycle of alcohol and substance abuse, which characterises the lifestyle of many of the client group, towards either a return to home or a more productive lifestyle with appropriate accommodation in town' (Project Coordinator, personal communication).

This plan incorporates accommodation, patrolling, education and alcohol responses, as well as responses to regional issues specific to remote communities. The accommodation component involves a range of strategies, from basic camping facilities, to managed and supported accommodation options, through to conventional housing. Fifty different organisations and agencies are involved in the four main working parties. The project incorporates cultural protocols developed by the Larrakia, the traditional owners of the region, which call on mutual understanding and respect between visitors and the Larrakia nation.

*Source:* ABS & AIHW 2003.

*Estimating the number of homeless Indigenous people*

### COMMUNITY STANDARDS APPROACH

A widely accepted method to estimate the number of homeless people was developed by Chamberlain and MacKenzie who used the community standard definition to define three levels of homelessness:

- Primary homelessness—includes all people without conventional accommodation such as people living on the streets, in the parks, in derelict buildings etc. It is operationalised using the census category 'improvised homes, tents and sleepers out'.
- Secondary homelessness—includes people who move frequently from one form of temporary shelter to another. This includes people accommodated in SAAP establishments on Census night from the SAAP data collection, as well as people residing temporarily with other households because they have no accommodation of their own. The starting point for identifying people in this group is the Census category 'hostels for the homeless, night shelters and refuges'. This category also includes people staying in boarding houses on a short-term basis (i.e. for 12 weeks or less).
- 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.

*Estimating the number of homeless Indigenous people continued*

### COMMUNITY STANDARDS APPROACH *continued*

According to this definition there were 7,526 homeless Indigenous persons at the time of the 2001 Census. This included 2,657 with no conventional accommodation, 1,566 in SAAP accommodation, 1,660 staying with friends and relatives and 1,643 living in boarding houses (table 4.18).

**4.18** NUMBER OF INDIGENOUS PEOPLE WHO ARE HOMELESS—2001

| | *NSW* | *Vic.* | *Qld* | *SA* | *WA* | *Tas.* | *NT* | *ACT* | *Aust.* |
|---|---|---|---|---|---|---|---|---|---|
| Primary homelessness | | | | | | | | | |
| No conventional accommodation | 227 | 62 | 486 | 162 | 442 | 16 | 1 257 | 5 | 2 657 |
| Secondary homelessness | | | | | | | | | |
| SAAP accommodation | 391 | 260 | 395 | 158 | 210 | 27 | 97 | 28 | 1 566 |
| Friends/relatives | 518 | 127 | 406 | 171 | 249 | 91 | 82 | 16 | 1 660 |
| Tertiary homelessness | | | | | | | | | |
| Boarding house | 240 | 115 | 631 | 53 | 153 | 17 | 428 | 6 | 1 643 |
| **Total** | **1 376** | **564** | **1 918** | **544** | **1 054** | **151** | **1 864** | **55** | **7 526** |

*Source: Chamberlain & MacKenzie 2004a, 2004b, 2004c, 2004d, 2004e, 2004f, 2004g, 2004h*

The Census is likely to undercount the number of homeless people because of the difficulties in locating them, particularly those with no conventional accommodation such as people who live in improvised dwellings. For example, the Census estimated that there were 2,657 Indigenous people with no conventional accommodation while the 2001 CHINS recorded 5,602 people living in improvised dwellings in discrete Indigenous communities.

The national rate of Indigenous homelessness was 176 per 10,000, but the rate varied significantly across jurisdictions (table 4.19). The highest rates of Indigenous homelessness were found in the Northern Territory (344 per 10,000) and South Australia (226 per 10,000), while Tasmania had the lowest rate (92 per 10,000).

Across Australia, the rate of homelessness for Indigenous Australians was 3.5 times higher than the rate for non-Indigenous Australians. Victoria had the largest difference between Indigenous and non-Indigenous rates, with the rate of Indigenous homelessness more than five times the rate for non-Indigenous people.

**4.19** INDIGENOUS AND NON-INDIGENOUS HOMELESSNESS ON CENSUS NIGHT(a)—2001

| | | *NSW* | *Vic.* | *Qld* | *SA* | *WA* | *Tas.* | *NT* | *ACT* | *Australia* |
|---|---|---|---|---|---|---|---|---|---|---|
| Indigenous | rate | 110 | 217 | 164 | 226 | 170 | 92 | 344 | 151 | 176 |
| Non-Indigenous | rate | 40 | 42 | 66 | 48 | 60 | 50 | 266 | 38 | 50 |
| **Total** | rate | **42** | **43** | **70** | **51** | **64** | **52** | **288** | **39** | **53** |
| Rate ratio | % | 2.7 | 5.1 | 2.5 | 4.7 | 2.8 | 1.8 | 1.3 | 4.0 | 3.5 |

(a) Per 10,000 population.

*Source: Chamberlain & MacKenzie 2004a, 2004b, 2004c, 2004d, 2004e, 2004f, 2004g, 2004h*

### SERVICE DELIVERY APPROACH

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

*Estimating the number of homeless Indigenous people continued*

SERVICE DELIVERY APPROACH *continued*

- Supported Accommodation Assistance Program (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 governments with services delivered largely by non-government agencies with some local government participation; and the
- Crisis Accommodation Program (CAP) which is funded under the CSHA and provides emergency accommodation for homeless people. Funds are used for the purchase, lease and maintenance of dwellings.

An alternative approach to measuring homelessness is to use a service delivery definition where the homeless are measured as the population who are eligible for assistance from programs supporting the homeless. Rather than a cultural definition of homelessness, for example, SAAP bases its service delivery on a definition of homelessness provided by the *SAAP Act 1994* (section 4). The Act defines a person as homeless if, and only if, he or she has 'inadequate access to safe and secure housing' (FaCS 1999:19). This is often paraphrased as 'considered not to have access to safe, secure and adequate housing'.

The Act then goes on to refer to what this might mean, citing 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 living in SAAP or other emergency accommodation. There were 15,400 Indigenous people who received SAAP assistance in the 2003–04 financial year (table 4.20).

Those using SAAP services represent a subset of homeless people 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 through SAAP, there are also some data collected on those who seek accommodation but whose request for accommodation could not be met.

*Homeless people in the Supported Accommodation Assistance Program*

In the year 2003–04, Aboriginal and Torres Strait Islander people made up 16% of all clients aged 15 years or over assisted by SAAP. The number of Indigenous clients of SAAP services constitutes a substantial over-representation of this population group, which was about 2% of the total Australian adult population during this period (table 4.20). This over-representation was evident in every state and territory. For example, in Victoria, Indigenous clients comprised 5% of SAAP clients but only 0.5% of the general Victorian population. In the case of the Northern Territory, around one-quarter (26%) of the population are Indigenous while just over 57% of all SAAP clients identified as Indigenous.

*Homeless people in the Supported Accommodation Assistance Program continued*

### 4.20 INDIGENOUS SAAP CLIENTS AGED 15 YEARS OR OVER(a), by state and territory—2003–04

| | *Indigenous clients*(b) | *Indigenous clients as a proportion of all SAAP clients aged 15 years or over* | *Total Indigenous population aged 15 years or over*(b) | *Indigenous persons aged 15 years or over as a proportion of the total Australian population aged 15 years or over* |
|---|---|---|---|---|
| | no. | % | no. | % |
| New South Wales | 4 000 | 17.1 | 85 100 | 1.6 |
| Victoria | 1 500 | 4.5 | 18 200 | 0.5 |
| Queensland | 3 700 | 22.3 | 79 700 | 2.6 |
| South Australia | 1 500 | 16.3 | 16 700 | 1.3 |
| Western Australia | 3 100 | 38.4 | 42 700 | 2.8 |
| Tasmania | 400 | 9.2 | 11 000 | 2.9 |
| Northern Territory | 1 800 | 57.1 | 38 100 | 25.7 |
| Australian Capital Territory | 200 | 12.5 | 2 600 | 1.0 |
| **Australia** | **15 400** | **16.2** | **294 300** | **1.9** |

(a) Number of clients within a state or territory who received assistance during the year 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 data do not sum to the national figure.

(b) Numbers have been rounded to the nearest hundred.

*Source: AIHW, SAAP database and ABS 2004e*

The age and sex profile of Indigenous and non-Indigenous SAAP clients, and the Indigenous population is shown in table 4.21. There were significant differences between Indigenous and non-Indigenous clients in relation to sex, with females over-represented among Indigenous clients. Nearly three-quarters (72%) of Indigenous SAAP clients were female compared with only 56% of non-Indigenous SAAP clients.

There was not much difference in the age distribution of Indigenous and non-Indigenous SAAP clients. The largest difference between Indigenous and non-Indigenous clients was among males aged 15–19 years. This age group represented 18% of all Indigenous male SAAP clients compared with 15% of non-Indigenous male SAAP clients. Children aged under 15 years are only considered clients in their own right if they attend an agency without a parent or guardian and so the proportion of SAAP clients in this age group is relatively low.

*Homeless people in the Supported Accommodation Assistance Program continued*

## 4.21 SAAP CLIENTS, by Indigenous status, age and sex—2003–04

| | | INDIGENOUS SAAP CLIENTS | | NON-INDIGENOUS SAAP CLIENTS | | INDIGENOUS POPULATION | |
|---|---|---|---|---|---|---|---|
| *Age (years)* | | *Males* | *Females* | *Males* | *Females* | *Males* | *Females* |
| Less than 15 | % | 3.6 | 2.2 | 1.6 | 1.8 | 39.4 | 36.8 |
| 15–19 | % | 18.2 | 16.8 | 15.3 | 18.1 | 10.9 | 10.4 |
| 20–24 | % | 13.5 | 17.7 | 13.5 | 15.6 | 8.5 | 8.4 |
| 25–29 | % | 10.3 | 16.3 | 12.1 | 13.3 | 7.4 | 7.7 |
| 30–34 | % | 14.5 | 16.8 | 13.5 | 14.8 | 7.5 | 8.1 |
| 35–39 | % | 13.9 | 12.3 | 11.7 | 12.7 | 6.3 | 6.9 |
| 40–44 | % | 10.7 | 8.3 | 10.5 | 9.4 | 5.6 | 6.0 |
| 45–49 | % | 7.0 | 4.7 | 7.6 | 5.7 | 4.4 | 4.6 |
| 50–54 | % | 3.9 | 2.4 | 5.3 | 3.4 | 3.5 | 3.7 |
| 55–59 | % | 2.0 | 1.2 | 3.6 | 2.0 | 2.4 | 2.5 |
| 60–64 | % | 1.1 | 0.7 | 2.2 | 1.2 | 1.6 | 1.8 |
| 65 or over | % | 1.2 | 0.6 | 3.2 | 2.1 | 2.4 | 3.1 |
| Total | % | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| **Total**(a) | no. | **4 400** | **11 400** | **35 700** | **45 200** | **235 900** | **239 500** |

(a) Numbers have been rounded to the nearest hundred.

*Source: AIHW, SAAP database*

### REASONS FOR SEEKING SUPPORT

The higher proportion of Indigenous female clients is reflected in data on the main reasons for seeking SAAP assistance. In 2003–04, the most common main reason for seeking assistance for Indigenous clients was domestic violence (27% of support periods). The comparable figure for the non-Indigenous population was 19%. For non-Indigenous clients the most common main reason for seeking assistance was accommodation difficulties (23% of support periods). The comparable figure for Indigenous clients was 19% (table 4.22). Non-Indigenous clients were also more likely than Indigenous clients to seek assistance because of financial difficulties (15% and 6%, respectively).

Proportions for the other main reasons given for seeking assistance did not differ greatly. Many clients, both Indigenous and non-Indigenous, reported relationship and family breakdown as a common main reason for seeking assistance (in 19% of support periods for Indigenous clients and 17% for non-Indigenous clients). A higher proportion of Indigenous clients, compared to non-Indigenous clients, sought assistance because of sexual, physical or emotional abuse (6% of support periods for Indigenous clients compared to 3% for non-Indigenous clients) and because of drug, alcohol or substance abuse (6% and 4%, respectively).

## 4.22 MAIN REASON FOR SEEKING SAAP ASSISTANCE, by Indigenous status—2003–04

| | Indigenous | Non-Indigenous | Total | Number |
|---|---|---|---|---|
| | % | % | % | no. |
| Accommodation difficulties(a) | 18.5 | 23.0 | 22.3 | 33 700 |
| Relationship/family breakdown(b) | 19.0 | 17.3 | 17.5 | 26 400 |
| Sexual/physical/emotional abuse | 5.9 | 3.3 | 3.7 | 5 600 |
| Domestic violence | 27.0 | 18.6 | 20.0 | 30 200 |
| Financial difficulty | 6.2 | 15.1 | 13.6 | 20 600 |
| Gambling | 0.1 | 0.2 | 0.2 | 300 |
| Drug/alcohol/substance abuse | 5.7 | 3.9 | 4.2 | 6 400 |
| Recently left institution | 1.4 | 1.6 | 1.6 | 2 400 |
| Psychiatric illness | 0.6 | 1.7 | 1.5 | 2 300 |
| Recent arrival in area with no means of support | 5.4 | 5.0 | 5.1 | 7 600 |
| Itinerant | 2.7 | 2.4 | 2.4 | 3 600 |
| Other | 7.8 | 7.8 | 7.8 | 11 700 |
| ***Total*** | ***100.0*** | ***100.0*** | ***100.0*** | . . |
| **Total support periods (no.)**(c) | **25 300** | **125 700** | . . | **151 000** |

. . not applicable

(a) Usual accommodation unavailable; eviction/previous accommodation ended; and emergency accommodation ended.

(b) Time out from family/other situation and interpersonal conflict.

(c) Numbers have been rounded to the nearest hundred.

*Source: AIHW, SAAP database*

*SAAP clients before and after support*

SAAP aims to help clients re-establish 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' living arrangements and income source both before and after their use of SAAP services. The data presented in tables 4.23 and 4.24 relate only to support periods for which either both before and after information on clients' living arrangements (table 4.23) or before and after information on income source (table 4.24) were provided. Instances where only before or after information was provided, or neither, have been excluded. Caution should be exercised in assessing the data because they do not necessarily represent a complete picture of the population. The demographic data on excluded clients indicate that they were more likely to be a specific group of clients who received brief crisis assistance. In general, these clients were more likely to be older and to be male.

For Indigenous clients there were only small changes after assistance in the proportions in different types of accommodation. The main change occurred in the proportion of clients living in an institutionalised setting, which decreased from 11% before assistance to 8% after assistance. There was also an increase in the proportion of Indigenous clients in public or community housing, from 30% before assistance to 32% after assistance (table 4.23). Among non-Indigenous clients there was an increase in the proportion of clients in public or community housing (from 10% before assistance to 14% after) and some increase in the proportion in private rental accommodation (from 18% to 20%).

*SAAP clients before and after support continued*

## 4.23 TYPE OF HOUSING BEFORE AND AFTER SAAP SUPPORT(a), by Indigenous status—2003–04

| | | INDIGENOUS | | NON-INDIGENOUS | |
|---|---|---|---|---|---|
| | | *Before support* | *After support* | *Before support* | *After support* |
| SAAP or other emergency housing | % | 15.1 | 15.0 | 14.6 | 16.5 |
| Living rent-free in house or flat | % | 12.3 | 11.3 | 11.7 | 8.9 |
| Private rental | % | 7.5 | 8.5 | 18.4 | 20.0 |
| Public or community housing | % | 29.8 | 31.8 | 10.1 | 13.8 |
| Rooming house/hostel/hotel/caravan | % | 4.7 | 5.7 | 11.4 | 12.0 |
| Boarding in a private home | % | 13.4 | 12.1 | 10.8 | 9.3 |
| Living in a car/tent/park/street/squat | % | 2.4 | 2.6 | 7.6 | 6.7 |
| Institutional | % | 10.5 | 7.9 | 11.7 | 9.1 |
| Other | % | 4.3 | 4.9 | 3.8 | 3.5 |
| Total | % | 100.0 | 100.0 | 100.0 | 100.0 |
| **Total support periods**(a)(b) | no. | **16 500** | **16 500** | **87 400** | **87 400** |

(a) Support periods with reported living arrangements. Excludes records where both before and after support information on living arrangements have not been provided.
(b) Numbers have been rounded to the nearest hundred.
*Source: AIHW, SAAP database*

As to source of income for Indigenous clients, there were also only small changes in the proportions of the various sources of income before and after assistance. The proportion of Indigenous clients on pension or benefit, for example, increased from 90% before assistance to 91% after assistance, and the proportion with no income decreased from 6% to 5% (table 4.24). For non-Indigenous clients, the changes were greater, with the proportion on Government pension or benefit increasing from 85% before assistance to 87% after assistance, and the proportion with no income decreasing from 7% to 5%.

## 4.24 SOURCE OF INCOME BEFORE AND AFTER SAAP SUPPORT(a), by Indigenous status—2003–04

| | | INDIGENOUS | | NON-INDIGENOUS | |
|---|---|---|---|---|---|
| *Source of income* | | *Before support* | *After support* | *Before support* | *After support* |
| No income | % | 6.2 | 4.8 | 7.2 | 4.9 |
| No income, awaiting pension/benefit | % | 0.7 | 0.6 | 1.1 | 0.8 |
| Government pension/benefit | % | 90.1 | 91.3 | 85.1 | 87.0 |
| Other | % | 3.0 | 3.3 | 6.7 | 7.3 |
| Total | % | 100.0 | 100.0 | 100.0 | 100.0 |
| **Total support periods**(a)(b) | no. | **19 800** | **19 800** | **101 200** | **101 200** |

(a) Support periods with reported income source. Excludes records where both before and after support income sources have not been provided.
(b) Numbers have been rounded to the nearest hundred.
*Source: AIHW, SAAP database*

*Unmet need for SAAP*

The Demand for Accommodation Collection attempts to count unmet requests for SAAP accommodation in two separate weeks during the year. This collection counts adults and children who were seeking accommodation but whose request for accommodation could not be met. The identification of Indigenous status in this data collection is incomplete and the Indigenous status of over one-third of people who were turned away is unknown.

*Unmet need for SAAP continued*

In addition to those clients who were provided with assistance, in December 2002 and May 2003 there were an average of 56 Indigenous people per day with valid unmet requests for immediate accommodation. There were more Indigenous females (33) with unmet requests for assistance than Indigenous males (23) (table 4.25). It is not possible to extrapolate these unmet demand figures to annual figures because of seasonal factors and because people can have several unmet requests in a year.

### 4.25 AVERAGE NO. OF INDIGENOUS PERSONS WITH UNMET REQUESTS FOR IMMEDIATE SAAP ACCOMMODATION(a)—2003–04

| | *NSW* | *Vic.* | *Qld* | *SA* | *WA* | *Tas.* | *NT* | *ACT* | *Australia* |
|---|---|---|---|---|---|---|---|---|---|
| | no. | no. | no. | no. | no. | no. | no. | no. | no. |
| Males | 3.9 | 1.8 | 6.5 | 3.9 | 5.6 | 0.1 | 0.9 | 0.6 | 23.2 |
| Females | 6.7 | 1.6 | 9.0 | 5.2 | 7.8 | — | 1.9 | 0.6 | 32.9 |
| **Persons** | **10.6** | **3.4** | **15.5** | **9.1** | **13.3** | **0.1** | **2.7** | **1.2** | **56.1** |

— nil or rounded to zero (including null cells)

(a) Data are the average number of unmet requests per day, over a two week period.

*Source: AIHW, SAAP database*

## SUMMARY

The tenure type of Indigenous households differs from that of other Australian households. Indigenous households are much less likely to be owner/purchaser households and much more likely to live in some form of social housing such as state or territory owned housing or Indigenous or mainstream community housing. The proportion of Indigenous households who are purchasing their own home, however, is increasing. The proportion of Indigenous people who lived in households in which someone was purchasing their home rose from 11% in 1994 to 17% in 2002.

The housing tenure of Indigenous households varies by remoteness reflecting, in part, the availability of different tenure options for Indigenous people. Among Indigenous households in non-remote areas, 34% were home owners, 32% were private or other renters and 24% were renting from state or territory housing authorities. One-half of Indigenous households in remote areas were renting from Indigenous or mainstream community housing providers and only 14% were home owners.

Some Indigenous households, especially those in remote areas, live in conditions that do not support good health. Some 9% of Indigenous households in Australia were living in overcrowded conditions, which can contribute to the spread of infectious diseases and put stress on basic household facilities. The highest rate of overcrowding occurred in households that were renting from Indigenous or mainstream community housing providers (34%).

Dwelling condition and connection to essential services are also important issues in relation to Indigenous community housing. There were 1,882 temporary or improvised dwellings in discrete Indigenous communities. Among permanent dwellings in these communities, 31% required major repair or replacement and 153 had no organised sewerage supply.

SUMMARY *continued*

There were 7,526 Indigenous people who were homeless in 2001. The rate of Indigenous homelessness was 3.5 times the rate of non-Indigenous homelessness. Indigenous people were also more likely to use SAAP services, especially Indigenous women who made up nearly three-quarters of Indigenous SAAP clients.

# CHAPTER 5 DISABILITY AND AGEING

## INTRODUCTION

It could be expected that, because of their higher rate of disabling conditions, such as injury, respiratory and circulatory diseases, rates of disability among Aboriginal and Torres Strait Islander people would be higher than those of the general population. While this expectation has been supported by the limited data previously available, including some studies of service use by Aboriginal and Torres Strait Islander people, the 2002 National Aboriginal and Torres Strait Islander Social Survey (NATSISS) provided, for the first time, information on the prevalence of disability among Indigenous Australians.

The 2002 NATSISS included a short set of questions relating to disability. These questions asked people about problems that they have seeing, hearing and speaking among other things. People were also asked about everyday limitations related to these impairments. These questions are comparable with those asked in the 2002 General Social Survey (GSS) for the Australian population, although there may be differences in interpretations of questions about health problems and the need for assistance.

This chapter provides information on the prevalence of disability in the Indigenous population and examines the relationships between disability and a number of life areas, including health and housing, education and economic participation, families, and social participation. Where possible, the impact of patterns of disability at different ages for Indigenous people are discussed. Information on use of disability and aged care services can be found in Chapter 11.

## ESTABLISHING DISABILITY

The 2002 NATSISS includes people aged 15 years or over. There are a number of questions used to establish disability status and disability type. A person was regarded as having a disability or long-term health condition if they had one or more of a number of conditions, which had lasted, or were likely to last, for six months or more and which limited or restricted that person's ability to perform everyday activities. People identified as having a disability or long-term health condition were then asked further questions to establish their level of limitation in one or more 'core activities' of daily living (self-care, mobility and communication; see Appendices 3 and 4 for further details).

### *Differences in the survey between remote and non-remote areas*

In order to take account of language differences and life circumstances, the questions used in remote areas differed slightly from those used in non-remote areas. While some common criteria were used for both areas, some additional questions were used to identify people with a disability in non-remote areas. This slightly larger set of questions has been termed the 'broader' or 'additional' criteria (see Appendix 3 for details). Respondents in remote areas were not asked about conditions that restrict physical activity or work (e.g. back problems, migraines); disfigurement/deformity; mental illness requiring help or supervision; or restrictions due to a nervous or emotional condition(s). The omission of the first two questions may have resulted in an underestimate of Indigenous people with a physical disability in remote areas, while the omission of the

*Differences in the survey between remote and non-remote areas continued*

second two questions means that the 2002 NATSISS did not explicitly identify persons in remote areas with a psychological disability. Some people in remote areas with a psychological disability will have been correctly identified as having a disability (and therefore included in the total of people with a disability) if they reported that they were receiving medical treatment or taking medication for a restricting health condition, but the type of disability cannot be determined from this information alone.

In order to include all respondents from the 2002 NATSISS (from remote and non-remote areas), the majority of tables in this chapter are based on the disability populations identified using the common criteria i.e. the more restrictive criteria used in remote areas (see Appendix 3 for details of criteria used).

In this chapter, where the common (more restrictive) criteria relating to measurements in remote areas have been used, whether for remote areas, non-remote areas or in total, the restricted scope of the measures should be kept in mind. In those sections of the chapter that examine the relationships between disability and various life areas, the patterns found would not differ substantially for the non-remote areas if the broader criteria were used instead of the common criteria.

The broader criteria are used in making comparisons with the non-Indigenous population (from the 2002 GSS), and in two sections that examine disability status for Indigenous people in non-remote areas in more detail.

## PREVALENCE OF DISABILITY

In 2002, 102,900 (36%) of Indigenous people aged 15 years or over had a disability or a long-term health condition according to the common criteria (table 5.1). Of these, 21,800 or 8% of the population aged 15 years or over had a profound or severe core activity limitation, meaning that they always or sometimes needed assistance with at least one activity of everyday living (self-care, mobility or communication).

Overall, the prevalence rate, or proportion of people with a disability or long-term health condition was similar in males (37%) and females (36%) (table 5.1). This rate increased with age for both sexes. The rates for people aged 15–44 years were similar for the two sexes, while the rates recorded for males were higher than females for people aged 45 years or over (the difference was not statistically significant). Almost three-quarters (72%) of people aged 65 years or over had a disability or long-term health condition.

The overall prevalence of profound or severe core activity limitation was similar for males and females, and generally increased with age. It was very high for people aged 65 years or over, with one-quarter (25%) of people in this age group having a profound or severe core activity limitation. Caution should be exercised when using the detailed information presented in table 5.1 to make specific comparisons, as many of the differences are not statistically significant.

PREVALENCE OF DISABILITY *continued*

## 5.1 DISABILITY STATUS BY SEX BY AGE, Indigenous persons aged 15 years or over—2002

| Age (years) | Profound or severe core activity limitation |  | Disability/ limitation not further defined |  | Total with a disability or long-term health condition |  | No disability or long-term health condition |  | Total |  |
|---|---|---|---|---|---|---|---|---|---|---|
|  | no. | % | no. | % | no. | % | no. | % | no. | % |
| MALES |  |  |  |  |  |  |  |  |  |  |
| 15–24 | *1 600 | 4.0 | 7 200 | 17.6 | 8 900 | 21.6 | 32 300 | 78.4 | 41 200 | 100.0 |
| 25–34 | 2 300 | 6.9 | 7 700 | 22.9 | 10 000 | 29.8 | 23 500 | 70.2 | 33 400 | 100.0 |
| 35–44 | 1 400 | 5.2 | 8 800 | 32.2 | 10 200 | 37.4 | 17 100 | 62.6 | 27 400 | 100.0 |
| 45–54 | 1 900 | 10.4 | 8 000 | 43.5 | 9 900 | 53.9 | 8 500 | 46.1 | 18 500 | 100.0 |
| 55–64 | 1 100 | 12.0 | 5 200 | 59.1 | 6 300 | 71.1 | 2 600 | 28.9 | 8 900 | 100.0 |
| 65 or over | 1 700 | 28.7 | 2 800 | 48.0 | 4 500 | 76.7 | 1 400 | 23.3 | 5 900 | 100.0 |
| *Total* | *10 000* | *7.4* | *39 800* | *29.5* | *49 800* | *36.9* | *85 400* | *63.1* | *135 200* | *100.0* |
| FEMALES |  |  |  |  |  |  |  |  |  |  |
| 15–24 | *1 500 | 3.6 | 8 400 | 20.3 | 9 900 | 23.9 | 31 600 | 76.1 | 41 500 | 100.0 |
| 25–34 | 1 900 | 5.0 | 8 700 | 23.2 | 10 600 | 28.2 | 27 000 | 71.8 | 37 700 | 100.0 |
| 35–44 | 2 700 | 8.9 | 9 100 | 29.9 | 11 800 | 38.9 | 18 600 | 61.1 | 30 400 | 100.0 |
| 45–54 | 2 800 | 14.1 | 6 300 | 31.5 | 9 100 | 45.6 | 10 800 | 54.4 | 19 900 | 100.0 |
| 55–64 | 1 300 | 12.7 | 5 500 | 52.6 | 6 800 | 65.3 | 3 600 | 34.7 | 10 400 | 100.0 |
| 65 or over | 1 600 | 22.3 | 3 300 | 46.6 | 4 800 | 68.8 | 2 200 | 31.2 | 7 000 | 100.0 |
| *Total* | *11 800* | *8.0* | *41 300* | *28.1* | *53 100* | *36.1* | *93 900* | *63.9* | *147 000* | *100.0* |
| PERSONS |  |  |  |  |  |  |  |  |  |  |
| 15–24 | 3 100 | 3.8 | 15 700 | 19.0 | 18 800 | 22.7 | 63 900 | 77.3 | 82 700 | 100.0 |
| 25–34 | 4 200 | 5.9 | 16 400 | 23.1 | 20 600 | 29.0 | 50 500 | 71.0 | 71 100 | 100.0 |
| 35–44 | 4 100 | 7.2 | 17 900 | 31.0 | 22 000 | 38.2 | 35 700 | 61.8 | 57 800 | 100.0 |
| 45–54 | 4 700 | 12.3 | 14 300 | 37.3 | 19 000 | 49.6 | 19 400 | 50.4 | 38 400 | 100.0 |
| 55–64 | 2 400 | 12.4 | 10 700 | 55.6 | 13 100 | 68.0 | 6 200 | 32.0 | 19 300 | 100.0 |
| 65 or over | 3 200 | 25.2 | 6 100 | 47.2 | 9 300 | 72.4 | 3 600 | 27.6 | 12 900 | 100.0 |
| *Total* | *21 800* | *7.7* | *81 100* | *28.7* | *102 900* | *36.5* | *179 300* | *63.5* | *282 200* | *100.0* |

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

*Source: ABS, 2002 NATSISS*

While the difference between rates of profound or severe core activity limitation for total Indigenous females living in remote areas and non-remote areas is not significant (table 5.2), the difference for females aged 65 years or over (33% in remote areas and 17% in non-remote areas) is statistically significant. For males the difference between remote (39%) and non-remote areas (24%) for the same age group was not statistically significant (ABS, 2002 NATSISS).

## 5.2 DISABILITY STATUS BY SEX BY REMOTENESS, Indigenous persons aged 15 years or over—2002

| | PROFOUND OR SEVERE CORE ACTIVITY LIMITATION | | | | | | TOTAL WITH A DISABILITY OR LONG-TERM HEALTH CONDITION(a) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Males* | | *Females* | | *Persons* | | *Males* | | *Females* | | *Persons* | |
| | no. | % | no. | % | no. | % | no. | % | no. | % | no. | % |
| Remote(b) | 2 900 | 7.6 | 4 000 | 10.2 | 6 900 | 8.9 | 12 700 | 33.9 | 14 600 | 36.9 | 27 300 | 35.4 |
| Non-remote(b) | 7 200 | 7.3 | 7 800 | 7.2 | 14 900 | 7.3 | 37 100 | 38.0 | 38 500 | 35.8 | 75 600 | 36.9 |
| **Total** | **10 000** | **7.4** | **11 800** | **8.0** | **21 800** | **7.7** | **49 800** | **36.9** | **53 100** | **36.1** | **102 900** | **36.5** |

(a) Includes persons with a profound or severe core activity limitation.

(b) Differences between data for remote areas and non-remote areas are not statistically significant.

*Source: ABS, 2002 NATSISS*

PREVALENCE OF DISABILITY *continued*

Using the common criteria, disabilities and long-term health conditions have been grouped into broad disability types: physical, sensory/speech (sight, hearing or speech) and intellectual. These disability types are derived from the screening questions used to establish disability (see Appendix 5) and so cannot be related to specific disabling conditions. Also people with a psychological disability cannot be separately identified using the common criteria. A person may have more than one type of disability.

Looking at people with different disability types as a proportion of the population, 24% of Indigenous people had a physical disability or long-term health condition, 14% had a sensory/speech disability and 7% had an intellectual disability (table 5.3). This order of frequency was the same in each of the three broad age groups and for males and females, with the distribution of the three disability types being generally similar for both sexes. One in six Indigenous people (16%) had an unspecified long-term health condition (requiring treatment) which could not be coded to a disability type. The proportions of people with a physical or sensory/speech disability were higher in the older age groups.

PREVALENCE OF DISABILITY *continued*

## 5.3 DISABILITY TYPE, Indigenous persons aged 15 years or over—2002

| | 15–44 years | | 45–64 years | | 65 years or over | | Total | |
|---|---|---|---|---|---|---|---|---|
| | no. | % | no. | % | no. | % | no. | % |
| **MALES** | | | | | | | | |
| Sight, hearing, speech | 11 000 | 10.8 | 6 200 | 22.7 | 2 700 | 45.8 | 19 900 | 14.7 |
| Physical | 16 000 | 15.7 | 11 400 | 41.9 | 2 900 | 50.1 | 30 400 | 22.5 |
| Intellectual | 8 900 | 8.7 | 1 700 | 6.1 | **600 | 10.4 | 11 100 | 8.2 |
| Type not specified | 10 000 | 9.8 | 9 900 | 36.3 | 2 300 | 39.0 | 22 200 | 16.4 |
| *Total with a disability or long-term health condition* | *29 100* | *28.5* | *16 300* | *59.5* | *4 500* | *76.7* | *49 800* | *36.9* |
| **FEMALES** | | | | | | | | |
| Sight, hearing, speech | 10 500 | 9.5 | 5 800 | 19.0 | 2 500 | 35.0 | 18 700 | 12.7 |
| Physical | 20 700 | 18.9 | 11 700 | 38.5 | 3 700 | 52.9 | 36 100 | 24.6 |
| Intellectual | 5 800 | 5.3 | 1 900 | 6.2 | *800 | 11.7 | 8 500 | 5.8 |
| Type not specified | 11 700 | 10.7 | 9 000 | 29.5 | 3 100 | 44.5 | 23 800 | 16.2 |
| *Total with a disability or long-term health condition* | *32 400* | *29.5* | *15 900* | *52.4* | *4 800* | *68.8* | *53 100* | *36.1* |
| **PERSONS** | | | | | | | | |
| Sight, hearing, speech | 21 500 | 10.2 | 12 000 | 20.7 | 5 100 | 39.9 | 38 600 | 13.7 |
| Physical | 36 800 | 17.4 | 23 100 | 40.1 | 6 600 | 51.6 | 66 600 | 23.6 |
| Intellectual | 14 600 | 6.9 | 3 500 | 6.1 | *1 400 | 11.1 | 19 600 | 7.0 |
| Type not specified | 21 700 | 10.3 | 18 900 | 32.7 | 5 400 | 42.0 | 46 000 | 16.3 |
| *Total with a disability or long-term health condition* | *61 500* | *29.0* | *32 200* | *55.7* | *9 300* | *72.4* | *102 900* | *36.5* |

* 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

*Source: ABS, 2002 NATSISS*

Table 5.4 illustrates the statistical effect of using different criteria (common and broader) to determine the numbers of Indigenous people in non-remote areas with a disability. The total number of people in non-remote areas who reported a disability or long-term health condition using the broader criteria was 96,900 (or 47%), compared with 75,600 (or 37%) using the common criteria, an increase of 21,300 or 10% of the Indigenous population in non-remote areas. The corresponding numbers for people with a profound or severe core activity limitation were 15,700 (or 8%) compared with 14,900 (or 7%), an increase of 800 people or 1% of the non-remote population.

PREVALENCE OF DISABILITY *continued*

### 5.4 COMMON AND BROADER DISABILITY CRITERIA, Indigenous persons aged 15 years or over in non-remote areas—2002

| Disability criteria | Profound or severe core activity limitation | | Disability/ limitation not further defined | | Total with a disability or long-term health condition | | No disability or long-term health condition | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| | no. | % | no. | % | no. | % | no. | % | no. | % |
| Common | 14 900 | 7.3 | 60 700 | 29.6 | 75 600 | 36.9 | 129 500 | 63.1 | 205 100 | 100.0 |
| Broader | 15 700 | 7.7 | 81 100 | 39.6 | 96 900 | 47.2 | 108 200 | 52.8 | 205 100 | 100.0 |

*Source: ABS, 2002 NATSISS*

Thus some of the people categorised as having no disability or long-term condition, under the common criteria, did have a disability or long-term health condition under the broader criteria (and, in a small number of cases, had a profound or severe core activity limitation).

In non-remote areas, the inclusion of the two questions relating to psychological disability resulted in 18,700 Indigenous people reporting this disability type, 9% of the non-remote Indigenous population aged 15 years or over. The inclusion of the extra two questions relating to physical disability resulted in an additional 20,500 people reporting this disability type than under the common criteria. Since people may have disabilities of more than one type, some of the people in the above two groups may have already been identified under the common criteria as having a disability or long-term health condition of another type.

## DISABILITY IN NON-REMOTE AREAS

As noted above, the broader criteria that could be used to estimate psychological or physical disability in non-remote areas increased the number of people identified with a disability in those areas from 75,600 (using the common criteria) to 96,900 (using the broader criteria)—that is, the common criteria underestimated physical and psychological disability. Relatively few additional (less than 1,000) people were identified as having a profound or severe core activity limitation using the broader criteria. Therefore, overall, a smaller proportion (16%) of all people with a disability or long-term health condition in non-remote areas had a profound or severe core activity limitation using the broader criteria. A further 17% had a moderate or mild core activity limitation and 22% had a schooling or employment restriction only (table 5.5).

Among people in non-remote areas with a psychological disability, males were more likely to have a core activity limitation (93%) than females (76%) (table 5.5).

DISABILITY IN NON-REMOTE AREAS *continued*

## 5.5 DISABILITY TYPE BY DISABILITY STATUS(a), Indigenous persons aged 15 years or over in non-remote areas—2002

| Disability type | Profound or severe core activity limitation | Moderate or mild core activity limitation | Schooling or employment restriction only | No specific limitation or restriction | Total with a disability or long-term health condition | |
|---|---|---|---|---|---|---|
| | % | % | % | % | % | no. |
| MALES | | | | | | |
| Sight, hearing, speech | 26.7 | 14.4 | 17.7 | 41.3 | 100.0 | 14 300 |
| Physical | 20.0 | 16.7 | 29.8 | 33.5 | 100.0 | 31 000 |
| Intellectual | 35.5 | *16.6 | 30.4 | *17.5 | 100.0 | 9 100 |
| Psychological | 31.5 | 24.7 | 37.3 | *6.6 | 100.0 | 8 400 |
| Type not specified | 23.9 | 15.6 | 28.8 | 31.7 | 100.0 | 24 300 |
| *Total*(b) | *16.2* | *14.0* | *27.9* | *41.9* | *100.0* | *45 000* |
| FEMALES | | | | | | |
| Sight, hearing, speech | 19.8 | 19.6 | 16.4 | 44.1 | 100.0 | 13 400 |
| Physical | 20.0 | 20.9 | 18.2 | 40.9 | 100.0 | 37 500 |
| Intellectual | 32.5 | 18.4 | 24.2 | 25.0 | 100.0 | 6 700 |
| Psychological | 28.1 | 27.3 | 20.8 | 23.9 | 100.0 | 10 400 |
| Type not specified | 26.3 | 20.0 | 16.8 | 36.9 | 100.0 | 26 400 |
| *Total*(b) | *16.3* | *18.8* | *17.1* | *47.7* | *100.0* | *51 800* |
| PERSONS | | | | | | |
| Sight, hearing, speech | 23.3 | 16.9 | 17.1 | 42.7 | 100.0 | 27 700 |
| Physical | 20.0 | 19.0 | 23.4 | 37.6 | 100.0 | 68 500 |
| Intellectual | 34.2 | 17.4 | 27.7 | 20.7 | 100.0 | 15 800 |
| Psychological | 29.6 | 26.1 | 28.2 | 16.1 | 100.0 | 18 700 |
| Type not specified | 25.1 | 17.9 | 22.6 | 34.4 | 100.0 | 50 700 |
| *Total*(b) | *16.2* | *16.6* | *22.1* | *45.0* | *100.0* | *96 900* |

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

(a) Broader criteria used to identify persons with a disability in non-remote areas only.

(b) Components exceed total as a person may have more than one type of disability.

*Source: ABS, 2002 NATSISS*

The prevalence of psychological disability in the non-remote Indigenous population was 9% and was highest in the 45–64 year age group (15% for males and 14% for females). Some 5,500 (or 30%) of Indigenous people with a psychological disability had a profound or severe core activity limitation.

## COMPARISONS WITH THE NON-INDIGENOUS POPULATION

### General

The disability status of Indigenous people can be compared, using the broader criteria, to that of the non-Indigenous population aged 18 years or over in non-remote areas only. The Indigenous to non-Indigenous age standardised rate ratio for people in non-remote areas with a profound or severe core activity limitation was 2.1. This means that, if the Indigenous and non-Indigenous populations had the same size and age structure as the total Australian population, the number of Indigenous people in non-remote areas with a profound or severe core activity limitation would be 2.1 times the corresponding number of non-Indigenous people.

*General continued*

The rate ratio for non-remote areas may be an underestimate for the total Indigenous to non-Indigenous comparison. If the rate of profound or severe core activity restriction in remote areas for Indigenous people had been measured using the broader criteria and was higher than that recorded in non-remote areas, and if a measure was also available for non-Indigenous people in remote areas, then the rate ratios would have probably been higher.

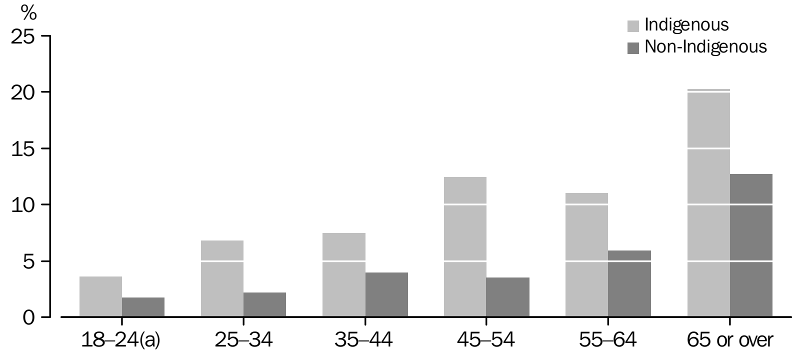
*Different age patterns of disability*

Table 5.7 shows age standardised rate ratios for non-remote areas for different levels of limitation by sex and age. Among people aged 18 years and over, the rate ratios for both males and females were generally greater than 1.0. Thus, Indigenous people had higher rates of disability at the different levels of limitation than non-Indigenous people. Among those with a profound or severe core activity limitation, the rate ratio was 2.5 for males and 1.8 for females.

Indigenous people had a higher rate of profound or severe core activity limitation than non-Indigenous people in all age groups. The rate ratio for profound or severe core activity limitation peaked for people aged 45–54 years (3.5), with a secondary peak for those aged 25–34 years (3.1).

The prevalence rates for profound and severe core activity limitation in the Indigenous and non-Indigenous populations which underlie the trends in the rate ratios are shown in graph 5.6. The prevalence rates for profound and severe core activity limitation are significantly higher for Indigenous than non-Indigenous people in the middle age groups of 25–34 years, 35–44 years, 45–54 years and 55–64 years. The prevalence of profound and severe core activity limitation among Indigenous people aged 45–54 years was as high as that among non-Indigenous people aged 65 years or over. This suggests that there is a relatively higher need for service provision for Indigenous people with a disability at younger ages than for non-Indigenous people.

**5.6** AGE-SPECIFIC RATES OF PROFOUND OR SEVERE CORE ACTIVITY LIMITATION, Persons aged 18 years or over—2002



(a) Estimates for Indigenous and non-Indigenous persons aged 18–24 years have relative standard errors of 25% to 50% and should be used with caution.

*Source: ABS, 2002 NATSISS and 2002 GSS.*

In non-remote areas, the age standardised rate ratios for all people with a disability or long-term health condition for both males (1.4) and females (1.4) were lower than those for people with a profound or severe core activity limitation (table 5.7). These results reflect that among all people with a disability or long-term health condition, a higher

*Different age patterns of disability continued*

proportion of Indigenous than non-Indigenous people have a profound or severe core activity limitation. It may be the case that Indigenous people are generally less likely to report a condition if it is not associated with a profound or severe core activity limitation.

**5.7** INDIGENOUS TO NON-INDIGENOUS RATE RATIOS FOR DISABILITY STATUS(a)(b), Persons aged 18 years or over in non-remote areas—2002

| | Profound or severe core activity limitation | Moderate or mild core activity limitation | Schooling or employment restriction only | No specific limitation or restriction | Total exluding profound or severe | Total with a disability or long term health condition | No disability or long-term health condition |
|---|---|---|---|---|---|---|---|
| **MALES** | | | | | | | |
| Total (age standardised) | 2.5 | 1.2 | 2.4 | 1.0 | 1.3 | 1.4 | 0.7 |
| **FEMALES** | | | | | | | |
| Total (age standardised) | 1.8 | 1.6 | 1.4 | 1.3 | 1.4 | 1.4 | 0.7 |
| **PERSONS** | | | | | | | |
| 18–24 | *2.0 | 1.7 | 1.8 | 1.3 | 1.4 | 1.5 | 0.9 |
| 25–34 | 3.1 | 1.8 | 1.7 | 1.3 | 1.5 | 1.6 | 0.8 |
| 35–44 | 1.9 | 1.9 | 1.8 | 1.5 | 1.6 | 1.7 | 0.7 |
| 45–54 | 3.5 | 1.4 | 1.8 | 1.1 | 1.3 | 1.5 | 0.7 |
| 55–64 | 1.9 | 1.2 | 2.5 | 1.1 | 1.4 | 1.4 | 0.5 |
| 65 or over | 1.6 | 1.2 | — | 1.0 | 1.0 | 1.1 | *0.7 |
| Total (age standardised) | 2.1 | 1.4 | 1.9 | 1.2 | 1.3 | 1.4 | 0.7 |

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

— nil or rounded to zero (including null cells)

(a) 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.

(b) Broader criteria used to identify people with a disability in non-remote areas only.

*Source: ABS, 2002 NATSISS*

*Different age patterns of disability continued*

There was little variation with age in the rate ratio for all disabilities and long-term health conditions (table 5.7). This was because the overall rate of disability or long-term health condition showed a general increase with age for both the Indigenous and non-Indigenous populations.

Australia's national research and policy goals include the promotion of good health and wellbeing for all Australians throughout life. In particular, the specific goal of 'ageing well, ageing productively' is intended to stimulate efforts to improve the mental and physical capacities of ageing people. Achieving this goal for Indigenous people will be especially challenging.

*Disability type*

Indigenous people were more likely to have disabilities of all types than non-Indigenous people. In non-remote areas in 2002, age standardised rate ratios for disability types were similar for males and females, and for both sexes the disability type with the highest rate ratio was intellectual (4.0 for males and 3.7 for females; table 5.8). For each disability type the association with age differed for males and females.

## 5.8 INDIGENOUS TO NON-INDIGENOUS RATE RATIOS FOR EACH DISABILITY TYPE(a)(b), Persons aged 18 years or over in non-remote areas—2002

| *Age (years)* | *Sight, hearing, speech* | *Physical* | *Intellectual* | *Psychological* | *Type not specified* | *Total with a disability or long-term health condition(c)* |
|---|---|---|---|---|---|---|
| | | | MALES | | | |
| 18–44 | 1.5 | 1.4 | 4.2 | 2.0 | 1.7 | 1.4 |
| 45–64 | 1.1 | 1.8 | 5.2 | 2.7 | 1.9 | 1.5 |
| 65 or over | 1.1 | 1.5 | **2.8 | **0.9 | 1.3 | 1.1 |
| *Total (age standardised)* | *1.3* | *1.6* | *4.0* | *2.1* | *1.7* | *1.4* |
| | | | FEMALES | | | |
| 18–44 | 2.3 | 1.9 | 4.6 | 2.1 | 1.7 | 1.7 |
| 45–64 | 1.8 | 1.6 | 2.9 | 2.0 | 1.4 | 1.4 |
| 65 or over | 1.0 | 1.2 | **3.2 | *1.3 | 1.2 | 1.1 |
| *Total (age standardised)* | *1.5* | *1.6* | *3.7* | *1.9* | *1.5* | *1.4* |
| | | | PERSONS | | | |
| 18–44 | 1.8 | 1.7 | 4.3 | 2.1 | 1.7 | 1.6 |
| 45–64 | 1.4 | 1.7 | 3.7 | 2.3 | 1.6 | 1.4 |
| 65 or over | 1.1 | 1.3 | *3.0 | *1.1 | 1.3 | 1.1 |
| *Total (age standardised)* | *1.4* | *1.6* | *3.8* | *2.0* | *1.6* | *1.4* |

* 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) 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.

(b) Broader criteria used to identify persons with a disability in non-remote areas only.

(c) A person may have more than one type of disability.

*Source: ABS, 2002 NATSISS*

### Disability type *continued*

For females, the difference in prevalence between Indigenous and non-Indigenous people was greatest for younger people. The rate ratios for all disability types were generally higher for females aged 18–44 years, than for those in the older age groups. For males the rate ratio for sight, hearing and speech disabilities was highest for those aged 18–44 years while for the other disability types the rate ratio peaked at the middle age group of 45–64 years.

Indigenous people were more likely to have two or more disability types than non-Indigenous people. As a result, the disability rate ratio for the total number of people with a disability is generally lower than the rate ratios for each disability type separately.

For all disability types Indigenous people with a disability or long-term health condition were more likely to have a specific limitation of some kind than non-Indigenous people with a disability or long-term health condition. Therefore, the age standardised rate ratio for people who had a disability or long-term health condition but no specific limitation was less than 1.0 regardless of disability type (table 5.9).

*Disability type continued*

For all disability types except intellectual, Indigenous males were more likely than non-Indigenous males to have a profound or severe core activity limitation (table 5.9). The rate ratio was highest for sight, hearing and speech (2.4). Indigenous females were more likely than non-Indigenous females to have a profound or severe core activity limitation associated with a physical disability (1.2), psychological disability (1.3), or an unspecified disability (1.5).

## 5.9 INDIGENOUS TO NON-INDIGENOUS RATE RATIOS, DISABILITY TYPE BY DISABILITY STATUS(a)(b), Persons aged 18 years or over in non-remote areas—2002

| *Disability status* | *Sight, hearing, speech* | *Physical* | *Intellectual* | *Psychological* | *Type not specified* | *Total with a disability or long-term health condition*(c) |
|---|---|---|---|---|---|---|
| MALES | | | | | | |
| Profound or severe core activity limitation | 2.4 | 1.6 | 0.9 | 1.3 | 1.5 | 1.8 |
| Moderate or mild core activity limitation | 1.0 | 0.8 | *1.2 | 1.1 | 0.9 | 0.8 |
| Schooling/employment restriction only | 1.4 | 1.5 | 1.2 | *1.6 | 1.9 | 1.7 |
| No specific limitation or restriction | 0.7 | 0.7 | *0.8 | *0.3 | 0.7 | 0.7 |
| FEMALES | | | | | | |
| Profound or severe core activity limitation | 1.0 | 1.2 | 1.0 | 1.3 | 1.5 | 1.3 |
| Moderate or mild core activity limitation | 1.1 | 1.0 | 0.9 | 1.7 | 1.0 | 1.1 |
| Schooling/employment restriction only | 2.1 | 0.9 | 1.7 | 0.6 | 1.0 | 1.0 |
| No specific limitation or restriction | 0.9 | 0.9 | 0.8 | 0.7 | 0.8 | 0.9 |

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

(a) 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.

(b) Broader criteria to identify persons with a disability in non-remote areas only.

(c) A person may have more than one type of disability.

*Source: ABS, 2002 NATSISS*

*Health status*

For all disability types, as well as for people with no disability or long-term health condition, the proportion reporting fair or poor health was much higher among people in older age groups (45 years or over) than at younger ages. In non-remote areas, 50% of Indigenous people with a disability or long-term health condition reported that their health was fair or poor compared to 10% of Indigenous people without a disability (table 5.10). The proportions for remote areas were 43% and 7% respectively.

### 5.10 DISABILITY TYPE BY AGE AND REMOTENESS, Indigenous persons aged 15 years or over with fair or poor self-assessed health—2002

| | | 15–44 YEARS | | 45–64 YEARS | | 65 YEARS OR OVER | | TOTAL | |
|---|---|---|---|---|---|---|---|---|---|
| *Disability type* | | *Non-remote* | *Remote* | *Non-remote* | *Remote* | *Non-remote* | *Remote* | *Non-remote* | *Remote* |
| Sight, hearing, speech | % | 34.1 | 31.5 | 66.0 | 54.0 | 67.1 | *75.8 | 47.9 | 46.2 |
| Physical | % | 44.7 | 33.3 | 73.8 | 61.6 | 76.2 | 77.6 | 57.6 | 49.0 |
| Intellectual | % | 42.2 | *32.7 | 82.7 | *52.9 | *86.6 | **87.8 | 51.6 | 45.9 |
| Type not specified | % | 62.3 | 40.6 | 80.6 | 58.2 | 75.9 | *73.3 | 71.1 | 53.2 |
| ***Total with a disability or long-term health condition*** | % | ***37.9*** | ***31.4*** | ***69.5*** | ***53.4*** | ***69.9*** | ***69.4*** | ***50.1*** | ***43.1*** |
| No disability or long-term health condition | % | 8.3 | 6.1 | 15.0 | 13.8 | *22.6 | *18.4 | 9.6 | 7.4 |
| **Total** | no. | **26 500** | **7 400** | **18 900** | **5 700** | **4 900** | **2 400** | **50 300** | **15 400** |

* 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

*Source: ABS, 2002 NATSISS*

## DISABILITY, EDUCATION AND ECONOMIC PARTICIPATION

### *Level of education*

Among Indigenous people aged 18 years or over, those with a disability or long-term health condition had completed fewer years of education, on average, than people without a disability. In non-remote areas, 52% of people with a disability or long-term health condition had only completed Year 9 or below, compared with 28% of people without a disability or long-term health condition. In remote areas the corresponding proportions were 64% and 43% (table 5.11).

Indigenous people with a profound or severe core activity limitation in remote areas were the least likely to have progressed beyond Year 9, with 70% completing school education to this level or below.

### 5.11 HIGHEST YEAR OF SCHOOL COMPLETED BY DISABILITY STATUS, Indigenous persons aged 18 years or over(a)—2002

| | | NON-REMOTE | | | | REMOTE | | | |
|---|---|---|---|---|---|---|---|---|---|
| *Educational attainment* | | *Profound or severe core activity limitation* | *Total with a disability or long-term health condition* | *No disability or long-term health condition* | *Total* | *Profound or severe core activity limitation* | *Total with a disability or long-term health condition* | *No disability or long-term health condition* | *Total* |
| Year 12 | % | *12.1 | 11.8 | 25.6 | 20.3 | *6.2 | 8.3 | 17.0 | 13.7 |
| Year 10 or 11 | % | 33.4 | 36.0 | 46.9 | 42.8 | *23.3 | 28.2 | 39.7 | 35.3 |
| Year 9 or below(b) | % | 54.5 | 52.2 | 27.5 | 37.0 | 70.5 | 63.5 | 43.3 | 50.9 |
| Total | % | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| **Total**(a) | no. | **14 000** | **69 300** | **111 600** | **180 900** | **6 700** | **26 100** | **42 900** | **69 100** |

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

(a) Excludes persons who were still at school.

(b) Includes persons who never attended school.

*Source: ABS, 2002 NATSISS*

A greater proportion of Indigenous people aged 25–64 years with a disability or long-term health condition in non-remote areas had a non-school qualification (36%) than those in remote areas (23%). In remote areas, only 15% of people with a profound or severe core activity limitation had a non-school qualification. In non-remote areas the

*Level of education continued*

proportion of people with a non-school qualification was less strongly associated with disability status (ABS, 2002 NATSISS).

*Employment*

Disability status was strongly associated with employment status for Indigenous people aged 18–64 years (table 5.12). People with a disability or long-term health condition were much less likely to be employed, especially full-time, and less likely to be in the labour force, than people without a disability or long-term health condition. This was true for both males and females.

People with a profound or severe core activity limitation were the least likely to be employed, with only 30% of males and 23% of females being employed either full-time or part-time, compared with 70% of males and 49% of females with no disability or long-term health condition. Most people with a profound or severe core activity limitation were not in the labour force: 56% of males and 72% of females.

### 5.12 LABOUR FORCE STATUS BY DISABILITY STATUS, Indigenous persons aged 18–64 years—2002

| | | MALES | | | | FEMALES | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | *Profound or severe core activity limitation* | *Total with a disability or long-term health condition* | *No disability or long-term health condition* | *Total* | *Profound or severe core activity limitation* | *Total with a disability or long-term health condition* | *No disability or long-term health condition* | *Total* |
| Employed full-time | % | *10.8 | 25.0 | 45.9 | 38.2 | *4.2 | 12.6 | 21.9 | 18.5 |
| Employed part-time | % | *19.0 | 19.3 | 23.8 | 22.2 | 18.2 | 18.8 | 27.5 | 24.4 |
| ***Total employed*** | % | ***29.8*** | ***44.4*** | ***69.8*** | ***60.5*** | ***22.5*** | ***31.5*** | ***49.4*** | ***43.0*** |
| Total unemployed | % | *14.3 | 15.5 | 16.3 | 16.0 | *5.5 | 10.2 | 10.4 | 10.3 |
| Not in the labour force | % | 56.0 | 40.1 | 13.9 | 23.5 | 72.0 | 58.3 | 40.2 | 46.7 |
| **Total** | % | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** |
| **Total** | no. | **7 700** | **41 600** | **71 700** | **113 400** | **9 800** | **44 900** | **80 300** | **125 200** |

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

*Source: ABS, 2002 NATSISS*

*Income and financial stress*

Disability status for Indigenous people has a strong association with their principal source of income, amount of household income and indicators of financial stress.

Overall, about 65% of Indigenous people with a disability or long-term health condition, including three-quarters (76%) of Indigenous people with a profound or severe core activity limitation, were receiving a government pension or allowance as their principal source of income, compared with 42% of people without a disability or long-term health condition (table 5.13). Indigenous people without a disability or long-term health condition were correspondingly more likely to have 'other wages and salary', or to a lesser extent, Community Development Employment Projects scheme (CDEP) payments as their principal source of income.

*Income and financial stress continued*

## 5.13 PRINCIPAL SOURCE OF PERSONAL INCOME, Indigenous persons aged 15 years or over—2002

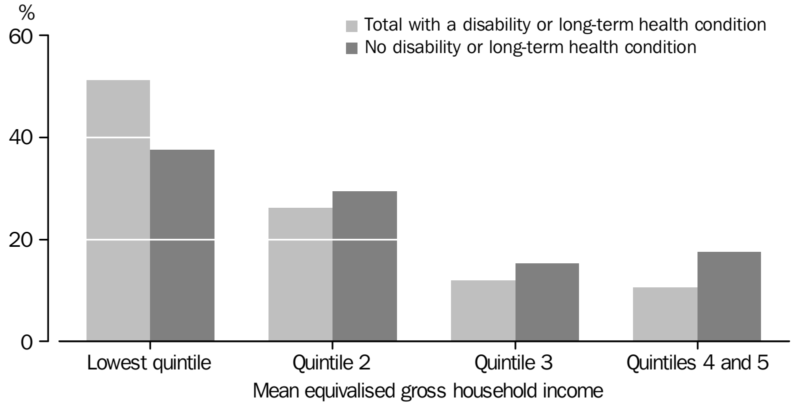
| | | *Profound or severe core activity limitation* | *Total with a disability or long-term health condition* | *No disability or long-term health condition* | *Total* |
|---|---|---|---|---|---|
| Received personal income | | | | | |
| CDEP | % | 4.8 | 8.3 | 11.5 | 10.3 |
| Other wages or salary | % | 10.4 | 18.1 | 35.3 | 29.0 |
| Government cash pensions and allowances | % | 76.4 | 64.6 | 42.0 | 50.2 |
| Other sources of income | % | *3.6 | 3.4 | 2.9 | 3.1 |
| ***Total who received income*** | % | ***95.6*** | ***95.2*** | ***92.3*** | ***93.3*** |
| Did not receive personal income | % | *4.4 | 4.8 | 7.7 | 6.7 |
| **Total** | % | **100.0** | **100.0** | **100.0** | **100.0** |
| **Total** | no. | **21 800** | **102 900** | **179 300** | **282 200** |

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

*Source:* ABS, 2002 NATSISS

Indigenous people with a disability or long-term health condition had household incomes lower than those without a disability or long-term health condition (graph 5.14).

## 5.14 HOUSEHOLD INCOME QUINTILE BY DISABILITY STATUS, Indigenous persons aged 15 years or over—2002



*Source: ABS, 2002 NATSISS*

Indigenous people with a disability or long-term health condition were more likely to experience financial stress than Indigenous people without a disability (table 5.15).

Indigenous people with a disability or long-term health condition were more likely than those without a disability to be living in a household that: was unable to raise $2,000 within a week for something important; had experienced days without money in the last 12 months; or had days without money in the last two weeks.

## 5.15 INDICATORS OF FINANCIAL STRESS(a), Indigenous persons aged 15 years or over—2002

| | | NON-REMOTE | | | REMOTE | | |
|---|---|---|---|---|---|---|---|
| | | *Profound or severe core activity limitation* | *Total with a disability or long-term health condition* | *No disability or long-term health condition* | *Profound or severe core activity limitation* | *Total with a disability or long-term health condition* | *No disability or long-term health condition* |
| Unable to raise $2,000 within a week for something important | % | 58.7 | 57.0 | 41.7 | 81.3 | 77.2 | 70.7 |
| Had days without money in last 12 months | % | 60.6 | 52.2 | 40.1 | 49.5 | 49.3 | 37.2 |
| Had days without money in last 2 weeks | % | 47.7 | 38.7 | 27.3 | 41.2 | 39.8 | 28.7 |
| **Total** | no. | **14 900** | **75 600** | **129 500** | **6 900** | **27 300** | **49 800** |

(a) Information provided by a household spokesperson on behalf of all household members.

*Source: ABS, 2002 NATSISS*

DISABILITY AND FAMILIES

*Care of children*

Some 26,600 Indigenous people (32%) who had main caring responsibility for children aged 12 years or less had a disability or long-term health condition, and around one in six (4,500 or 17%) of them had a profound or severe core activity limitation. Looking at this from another perspective, in remote areas one-half (50%) of females with a disability or long-term health condition were carers of children aged 12 years or less compared with 36% in non-remote areas (table 5.16).

## 5.16 INDIGENOUS PERSONS AGED 15 YEARS OR OVER WITH MAIN CARING RESPONSIBILITY(a), by disability status, remoteness and sex—2002

| | | PROFOUND OR SEVERE CORE ACTIVITY LIMITATION | | | TOTAL WITH A DISABILITY OR LONG-TERM HEALTH CONDITION | | | NO DISABILITY OR LONG-TERM HEALTH CONDITION | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | *Males* | *Females* | *Persons* | *Males* | *Females* | *Persons* | *Males* | *Females* | *Persons* |
| Non-remote | % | *7.2 | 27.3 | 17.6 | 12.4 | 36.1 | 24.5 | 12.1 | 48.6 | 31.6 |
| Remote | % | *5.8 | 42.2 | 27.1 | 6.5 | 49.7 | 29.5 | 10.3 | 55.4 | 32.9 |
| Total | % | *6.8 | 32.4 | 20.6 | 10.9 | 39.8 | 25.8 | 11.6 | 50.4 | 31.9 |
| **Number of carers** | no. | **700** | **3 800** | **4 500** | **5 400** | **21 100** | **26 600** | **9 900** | **47 400** | **57 300** |
| **Total** | no. | **10 000** | **11 800** | **21 800** | **49 800** | **53 100** | **102 900** | **85 400** | **93 900** | **179 300** |

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

(a) For children aged 12 years or less within their household.

*Source: ABS, 2002 NATSISS*

*Removal from natural family*

Indigenous people who had been removed from their natural family, were more likely than Indigenous people overall to have a disability or long-term health condition, and were more likely to have a profound or severe core activity limitation (table 5.17). Of Indigenous people who had been removed from their natural family, 54% had a disability or long-term health condition, including 14% with a profound or severe core activity limitation (table 5.17) compared with 36% and 8% of all Indigenous people (table 5.1).

Indigenous people aged 35 years or over, who had been removed from their natural family, had higher rates of profound or severe core activity limitation (19%) than younger people (7% of those aged 15–34 years). Rates of removal themselves varied with age group because of a large decrease in the rate of removal during the 1970s (HREOC 1997).

*Removal from natural family continued*

People with a disability or long-term health condition in both non-remote and remote areas were also more likely than other Indigenous people to have had relatives removed from their natural family (42% and 36% respectively for non-remote areas, 33% and 25% respectively for remote areas) (ABS, 2002 NATSISS).

**5.17** PERSONS WHO WERE REMOVED FROM THEIR NATURAL FAMILY, Indigenous persons aged 15 years or over—2002

| Age (years) | Profound or severe core activity limitation % | Total with a disability or long-term health condition % | No disability or long-term health condition % | Total removed % | Total removed no. | Total population no. |
|---|---|---|---|---|---|---|
| NON-REMOTE | | | | | | |
| 15–34 | *7.2 | 44.1 | 55.9 | 100.0 | 9 500 | 111 700 |
| 35 or over | 21.5 | 62.4 | 37.6 | 100.0 | 9 700 | 93 400 |
| Total | 14.4 | 53.4 | 46.6 | 100.0 | 19 200 | 205 100 |
| REMOTE | | | | | | |
| 15–34 | **7.5 | 33.4 | 66.6 | 100.0 | 1 300 | 42 200 |
| 35 or over | *11.8 | 62.2 | 37.8 | 100.0 | 3 300 | 35 000 |
| Total | *10.6 | 54.2 | 45.8 | 100.0 | 4 600 | 77 100 |
| TOTAL | | | | | | |
| 15–34 | *7.3 | 42.8 | 57.2 | 100.0 | 10 800 | 153 900 |
| 35 or over | 19.0 | 62.4 | 37.6 | 100.0 | 13 000 | 128 400 |
| Total | 13.7 | 53.5 | 46.5 | 100.0 | 23 800 | 282 200 |

* 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

*Source: ABS, 2002 NATSISS*

## DISABILITY AND SOCIAL PARTICIPATION

*Participation in cultural events and social activities*

Overall 61% of Indigenous people aged 15 years or over in non-remote areas and 87% in remote areas had attended a cultural event in the last 12 months. There was almost no difference in rates of attendance by disability status.

Overall 90% of Indigenous people aged 15 years or over had been involved in social activities within the last three months. There was very little difference in these rates of participation between remote and non-remote areas, and for people with different levels of disability. This result differs from findings for the general Australian population, in which people with a profound core activity limitation generally have lower community participation than other people (ABS, 2002 NATSISS and 2002 GSS).

Nearly one-quarter (23%) of Indigenous people with a profound or severe core activity limitation stated that they either could not get to, or often had difficulty getting to, the places they needed to go, compared with 14% of those whose disability or limitation was not further defined, and only 9% of Indigenous people with no disability or long-term health condition. Among people in non-remote areas who had a profound or severe core activity limitation, 28% of those aged 15–34 years and 34% of those aged 55 years or over

*Participation in cultural events and social activities continued*

stated that they either could not get to, or often had difficulty getting to, the places they needed to go.

*Identification with Indigenous group and recognition of traditional country*

The proportion of Indigenous people aged 15 years or over who identified with a clan, tribal or language group, or who recognised an area as homelands or traditional country varied between remote and non-remote areas (table 5.18). The differences by disability status were not statistically significant.

**5.18** CULTURAL ATTACHMENT BY DISABILITY STATUS, Indigenous persons aged 15 years or over—2002

| | | PROFOUND OR SEVERE CORE ACTIVITY LIMITATION(a) | | TOTAL WITH A DISABILITY OR LONG-TERM HEALTH CONDITION(a)(b) | | NO DISABILITY OR LONG-TERM HEALTH CONDITION(a) | |
|---|---|---|---|---|---|---|---|
| | | *Non-remote* | *Remote* | *Non-remote* | *Remote* | *Non-remote* | *Remote* |
| Identifies with a clan, tribal or language group | % | 39.7 | 81.8 | 45.7 | 78.3 | 45.7 | 75.7 |
| Recognises area as homelands or traditional country | % | 61.6 | 88.2 | 65.8 | 87.4 | 62.1 | 85.0 |
| Speaks an Indigenous language | % | 11.9 | 61.6 | 10.3 | 53.9 | 7.6 | 54.4 |
| **Indigenous persons aged 15 years or over** | no. | **14 900** | **6 900** | **75 600** | **27 300** | **129 500** | **49 800** |

(a) Differences by disability status are not statistically significant.
(b) Includes profound or severe core activity limitation.

*Source: ABS, 2002 NATSISS*

*Language*

In the 2002 NATSISS, there was a substantial difference in the proportion of people in non-remote and remote areas for whom English was the main language spoken at home (98% and 55% respectively). However, there was no difference in English language use between people with a disability or long-term health condition and those without a disability within either non-remote or remote areas.

## SUMMARY

The 2002 NATSISS provides, for the first time, information on the prevalence of disability in the Aboriginal and Torres Strait Islander population. In 2002, 36% of Indigenous people aged 15 years or over had a disability or long-term health condition, including 8% with a profound or severe core activity limitation, meaning that they always or sometimes needed assistance with core activities of daily living (self-care, mobility and communication). Although these estimates are not strictly comparable with those for the general population, it is clear that disability and profound or severe core activity limitations are much more prevalent among Indigenous people than non-Indigenous people. It is estimated that Indigenous people were at least twice as likely to have a profound or severe core activity limitation as non-Indigenous people.

The prevalence of disability among Indigenous people is higher at all ages. In 2002, over two-thirds of people aged 55–64 years, and one-half of people aged 45–54 years had a disability or long-term health condition. The earlier onset of disability or long-term health condition with a profound or severe core activity limitation indicates the comparatively higher need for service provision for Indigenous people with a disability at younger ages.

SUMMARY *continued*

While Indigenous people are generally disadvantaged when compared with non-Indigenous people, those with disabilities were likely to experience a further degree of social and economic disadvantage. On average they had completed fewer years of formal education, were much less likely to be in the labour force or to be employed, had lower levels of income, and were more likely to be living in households that had experienced financial stress. The rate of profound or severe core activity limitation for Indigenous people who had been removed from their natural family was nearly twice that for all Indigenous people. Attendance at cultural events and involvement in social activities did not appear to be affected by a person's disability status.

# CHAPTER 6 MOTHERS AND CHILDREN

## INTRODUCTION

The overwhelming majority of pregnancies in Australia do not result in severe illness or death. However, pregnancy, childbirth and infancy remain a time of vulnerability especially for Aboriginal and Torres Strait Islander mothers and children.

Many factors which affect the health of infants and children have their origin in the womb and are associated with the health-related behaviours of the mother. Smoking and excessive alcohol consumption during pregnancy can result in foetal death, premature birth and/or low birthweight. Premature and low birthweight infants are more at risk of developing conditions such as coronary heart disease and stroke when older. Poor nutrition during pregnancy and in the early years of life can affect child development and growth and may also lead to chronic disease later in life (WHO 1999).

The age of the mother can also affect the development of the foetus, with the risk of foetal complications increasing with pregnancies that occur in the teenage years and after about 35 years of age (Fraser et al. 1995; Fretts et al. 1995). Maternal age is also associated with perinatal health, with adverse outcomes more likely among younger and older mothers (Laws & Sullivan 2004).

This Chapter provides information on Indigenous mothers and their children. Maternal factors covered include fertility, maternal age, maternal mortality and risk factors during pregnancy. Factors related to infants and children include health status, hospitalisation and mortality.

## MATERNAL FACTORS

### *Mothers*

During 2000–02, Indigenous mothers comprised 3.5% of all mothers who gave birth in Australia (table 6.1). The proportion of Indigenous mothers ranged from less than 1% in Victoria to 39% in the Northern Territory. The reported number of Indigenous mothers was highest in Queensland (8,212), followed by New South Wales (6,370), Western Australia (4,631) and the Northern Territory (4,242).

*Mothers continued*

## 6.1 INDIGENOUS MOTHERS, by state and territory—2000–02

| | INDIGENOUS MOTHERS | |
|---|---|---|
| | *no.* | %(a) |
| New South Wales | 6 370 | 2.5 |
| Victoria | 1 208 | 0.7 |
| Queensland | 8 212 | 5.6 |
| South Australia | 1 288 | 2.5 |
| Western Australia(b) | 4 631 | 6.3 |
| Tasmania | na | na |
| Northern Territory | 4 242 | 38.5 |
| Australian Capital Territory(c) | 177 | 1.3 |
| **Australia** | **26 128** | **3.5** |

na not available

(a) The proportion of Indigenous mothers in each jurisdiction.

(b) Data may differ from those published by the Department of Health, Government of Western Australia.

(c) Includes ACT and non-ACT residents who gave birth in the ACT. Among the 177 Indigenous mothers who gave birth, 128 were ACT residents.

*Source: AIHW, National Perinatal Data Collection.*

*Fertility rate*

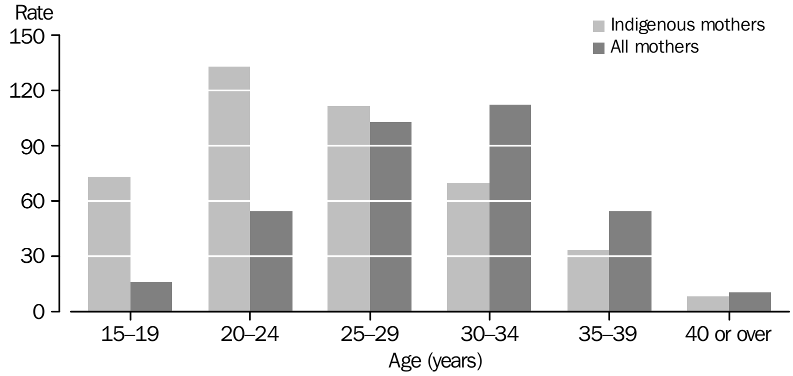
The total fertility rate (TFR) provides an estimate of the average number of children that a woman would have throughout her reproductive life if she were to experience the age-specific birth rate in a particular year. In 2003, the TFR for Indigenous women was estimated to be 2.15 babies, compared with 1.76 babies in the total Australian female population (ABS 2004a). Indigenous TFRs vary across the states and territories. The highest Indigenous fertility rate in 2003 occurred in the Northern Territory (2.83 babies), followed by Western Australia (2.32) and Queensland (2.21).

However, the fertility of Indigenous women may be underestimated because of the incomplete identification of Indigenous status in birth registrations. It should also be noted that because a considerable number of Indigenous babies are born to non-Indigenous women, measures of the fertility of Indigenous women inevitably underestimate the impact of these births on the growth of the Indigenous population.

High fertility at younger ages contributes to the relatively high fertility of Indigenous women. Teenage births are more common among Indigenous women than among other women (Sullivan & Lancaster 1999). In 2003, the teenage (15–19 years) birth rate among Indigenous women was more than four times the overall Australian teenage birth rate. Teenage pregnancies are associated with a number of adverse reproductive outcomes such as foetal complications and low birthweight (Fraser et al. 1995). The peak age group for births to Indigenous women was 20–24 years (133 babies per 1,000), compared with 30–34 years for all women (113 babies per 1,000) (graph 6.2).

*Fertility rate continued*

**6.2** AGE-SPECIFIC BIRTH RATES(a), by Indigenous status of the mother—2003



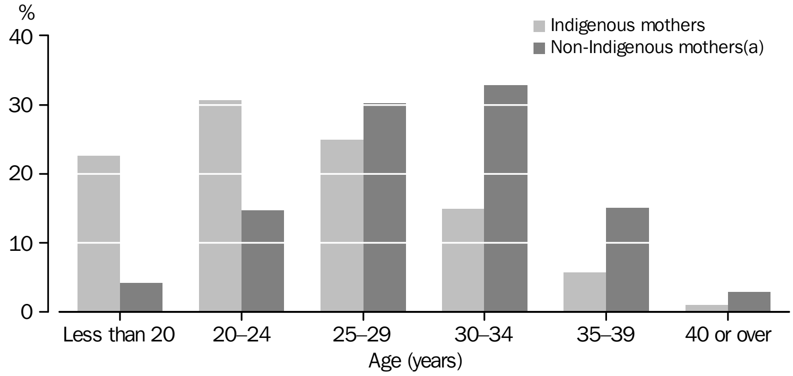
(a) Briths per 1,000 females
*Source: ABS 2004a*

*Maternal age*

The age of the mother can affect the development of the foetus, with the risk of foetal complications increasing in pregnancies that occur in the teenage years and for mothers over the age of about 35 years (Fraser et al. 1995; Fretts et al. 1995). Maternal age is also associated with perinatal health, with adverse outcomes more likely among younger and older mothers (Laws & Sullivan 2004). The mean age of Indigenous mothers in 2003 was 25 years compared with 31 years for all women (ABS 2004a).

In the National Perinatal Data Collection, 78% of Indigenous mothers who gave birth during the period 2000–02 were under 30 years of age, compared with 49% of non-Indigenous mothers (graph 6.3). The proportion of Indigenous mothers aged less than 20 years was highest in the Northern Territory (31%), followed by Western Australia (23%) and New South Wales (22%) (table 6.4). This compared with only 5% of non-Indigenous mothers in the Northern Territory, 5% in Western Australia and 4% in New South Wales.

**6.3** MATERNAL AGE, by Indigenous status of the mother—2000–02



(a) Excludes mothers for whom Indigenous status was not stated.
*Source: AIHW, National Perinatal Data Collection*

*Maternal age continued*

### 6.4 BIRTHS, by maternal age and Indigenous status of the mother—2000–02

| | Under 20 years | | 20–34 years | | 35 years or over | | Total(a) | |
|---|---|---|---|---|---|---|---|---|
| | no. | % | no. | % | no. | % | no. | % |
| **New South Wales** | | | | | | | | |
| Indigenous | 1 379 | 21.6 | 4 530 | 71.1 | 453 | 7.1 | 6 370 | 100.0 |
| Non-Indigenous | 9 916 | 4.0 | 192 901 | 77.5 | 45 973 | 18.5 | 248 913 | 100.0 |
| **Victoria** | | | | | | | | |
| Indigenous | 258 | 21.4 | 844 | 69.9 | 105 | 8.7 | 1 208 | 100.0 |
| Non-Indigenous | 5 652 | 3.1 | 141 524 | 77.1 | 36 306 | 19.8 | 183 495 | 100.0 |
| **Queensland** | | | | | | | | |
| Indigenous | 1 587 | 19.3 | 6 009 | 73.2 | 616 | 7.5 | 8 212 | 100.0 |
| Non-Indigenous | 7 818 | 5.7 | 108 209 | 78.7 | 21 482 | 15.6 | 137 509 | 100.0 |
| **South Australia** | | | | | | | | |
| Indigenous | 265 | 20.6 | 918 | 71.3 | 105 | 8.2 | 1 288 | 100.0 |
| Non-Indigenous | 2 557 | 5.0 | 39 973 | 78.2 | 8 608 | 16.8 | 51 138 | 100.0 |
| **Western Australia**(b) | | | | | | | | |
| Indigenous | 1 082 | 23.4 | 3 271 | 70.6 | 278 | 6.0 | 4 631 | 100.0 |
| Non-Indigenous | 3 257 | 4.7 | 53 977 | 78.1 | 11 843 | 17.1 | 69 077 | 100.0 |
| **Northern Territory** | | | | | | | | |
| Indigenous | 1 304 | 30.7 | 2 712 | 63.9 | 218 | 5.1 | 4 242 | 100.0 |
| Non-Indigenous | 361 | 5.4 | 5 274 | 78.3 | 1 091 | 16.2 | 6 734 | 100.0 |
| **Australian Capital Territory**(c) | | | | | | | | |
| Indigenous | 33 | 18.6 | 131 | 74.0 | 13 | 7.3 | 177 | 100.0 |
| Non-Indigenous | 444 | 3.3 | 10 433 | 76.8 | 2 710 | 19.9 | 13 588 | 100.0 |
| **Australia**(d) | | | | | | | | |
| Indigenous | 5 908 | 22.6 | 18 415 | 70.5 | 1 788 | 6.8 | 26 128 | 100.0 |
| Non-Indigenous | 30 005 | 4.2 | 552 291 | 77.7 | 128 013 | 18.0 | 710 454 | 100.0 |

(a) Includes births where the mother's age was not stated. Excludes births to mothers whose Indigenous status was not stated.

(b) Data may differ from those published by the Department of Health, Government of Western Australia.

(c) Includes ACT and non-ACT residents who gave birth in the ACT. Among ACT resident Indigenous mothers who gave birth in the ACT, 18.0% were under 20 years, 73.4% were aged 20–34 years and 8.6% were aged 35 years or over.

(d) Excludes data for Tasmania.

*Source: AIHW, National Perinatal Data Collection.*

*Risk factors during pregnancy*

Among the risk factors for poor perinatal and child health are alcohol use, tobacco and drug use during pregnancy.

#### SMOKING

Smoking during pregnancy can have a number of detrimental effects on the foetus including low birthweight and spontaneous abortion. Smoking during pregnancy can also have a detrimental effect on the newborn including sudden infant death syndrome, asthma, lower respiratory tract infections, middle ear diseases and stillbirth (Zubrick et al. 2004).

In 2002, data were available from five states and territories: New South Wales, Western Australia, South Australia, the Australian Capital Territory and the Northern Territory. Aboriginal and Torres Strait Islander mothers accounted for 11% of mothers who smoked during pregnancy in these five jurisdictions (Laws & Sullivan 2004).

*Risk factors during pregnancy continued*

### SMOKING *continued*

According to the NSW Midwives data collection, in 2003, 57% of Indigenous mothers in New South Wales reported smoking at some point during pregnancy, compared with 14% of other mothers (NSW Health Department, Centre for Epidemiology and Research 2005).

In the Western Australian Aboriginal Child Health Survey (WAACHS), approximately 49% of mothers of Aboriginal children in Western Australia had smoked or chewed tobacco during pregnancy (table 6.5).

### 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 (Zubrick et al. 2004). The Bibbulung Gnareep Solid Kid Study, which involved 274 Aboriginal families from the Perth area, looked at a range of factors influencing poor birth outcomes and poor health in the first 12 months of life. The study found that among other factors, maternal consumption of excess alcohol, namely spirits, during pregnancy was associated with poorer birth outcomes (Eades 2004).

In the WAACHS, the mothers of an estimated 23% of Aboriginal children in Western Australia reported they had consumed alcohol at some point during their pregnancy and an estimated 17% had both smoked and consumed alcohol while pregnant.

### MARIJUANA AND OTHER DRUG USE

In the WAACHS, mothers of 9% of Western Australian Aboriginal children had used marijuana during pregnancy. Marijuana usage declined with increasing remoteness, from 11% in metropolitan areas to 2% in areas of extreme (geographic) isolation. Other drugs such as amphetamines and cocaine were reported for less than 1% of mothers.

### EFFECT OF SUBSTANCE USE DURING PREGNANCY ON BIRTHWEIGHT

The WAACHS estimated the effects of tobacco, alcohol and marijuana use during pregnancy on birthweight by linking survey data to birth records on the Maternal and Child Health Research Data Base (MCHRDB). Mothers who used both alcohol and tobacco during pregnancy were almost twice as likely to have had a low birthweight baby as mothers who did not smoke or drink during pregnancy (15% compared with 8%) (table 6.5).

Overall, tobacco use during pregnancy was associated with a 200 gram reduction in mean birthweight of Aboriginal infants, and tobacco and alcohol use combined was associated with a 250 gram reduction in average birthweight. The effects of low birthweight are discussed in the following section on babies and children.

*Risk factors during pregnancy continued*

## EFFECT OF SUBSTANCE USE DURING PREGNANCY ON BIRTHWEIGHT *continued*

### 6.5 LOW BIRTHWEIGHT ABORIGINAL BABIES(a), by maternal substance use during pregnancy—2001–02

| | | *Alcohol, no tobacco* | *Tobacco, no alcohol* | *Both alcohol and tobacco* | *No alcohol or tobacco* | ***Total*** | *Babies (no.)*(b) |
|---|---|---|---|---|---|---|---|
| Mean birthweight | grams | 3 270 | 3 110 | 3 060 | 3 310 | **3 200** | . . |
| Low birthweight | % | 10.2 | 11.0 | 15.4 | 7.8 | **10.3** | 2 180 |
| Proportion of babies | % | 6.0 | 32.1 | 17.3 | 44.6 | **100.0** | 21 200 |

. . not applicable

(a) Whose primary carer was their mother.

(b) Data are weighted estimates and have been derived by weighting the survey sample to reflect the Western Australian Aboriginal population.

*Source: Zubrick et al. 2004.*

*Maternal mortality*

Between 1997 and 1999, Indigenous status was recorded for 75 (83%) of the 90 maternal deaths during childbirth. Seven deaths were of Aboriginal and Torres Strait Islander mothers, accounting for 9% of the deaths where Indigenous status was known (Slaytor et al 2004). The maternal mortality ratio for Aboriginal and Torres Strait Islander women was approximately 24 per 100,000 confinements in 1997–99 and is more than three times as high as the maternal mortality ratio for other women (7 per 100,000 confinements). These rates must be interpreted with caution due to the very small number of Indigenous maternal deaths.

## BABIES AND CHILDREN

*Births*

Information on births is published annually by the ABS from birth registration data and through the National Perinatal Data Collection (Midwives collections) held by the AIHW National Perinatal Statistics Unit (NPSU). The latest available data from the National Perinatal Data Collection are for 2002 and from ABS birth registrations are for 2003. The number of Indigenous births in both data collections is likely to be an underestimate as Indigenous status is not always recorded.

In 2003, there was a total of 11,740 registered births in Australia where at least one parent was of Indigenous origin, accounting for around 5% of total births (ABS 2004a). Of these Indigenous babies, around one-third (31%) had an Indigenous mother and an Indigenous father, and 43% had an Indigenous mother and a non-Indigenous father — a total of 8,567 births (73%) to Indigenous mothers. The remaining 27% of Indigenous babies had non-Indigenous mothers and Indigenous fathers.

In the National Perinatal Data Collection, which collects information on births to Indigenous mothers, there were 8,929 births to Aboriginal and Torres Strait Islander mothers in 2002 (8,827 live births and 102 foetal deaths). This represented 4% of the births where Indigenous status was known (249,266 births) in Australia. The differences between ABS birth registration data and the Perinatal Data Collection are thought to reflect differences in the level of Indigenous identification in the two data collections and delays or failure to register the birth of a child (ABS 2004a).

*Gestational age*

Gestational age is the length of the pregnancy in completed weeks. The gestational age for term pregnancies is between 37 and 41 weeks; for preterm births it is less than 37 weeks. In 2000–02, 13% of births to Indigenous mothers were preterm. Indigenous mothers had twice the rate of preterm births as non-Indigenous mothers. Almost one in four (24%) preterm births occurred at a gestational age of less than 32 weeks.

*Birthweight*

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, a combination of the two, or other factors such as socioeconomic disadvantage, the age of the mother, the number of babies previously born, the mother's nutritional status, smoking and other risk behaviours, and illness during pregnancy (Horter et al. 1997; Kramer 1998). Low birthweight babies are at greater risk of poor health and death. They may require longer periods of hospitalisation after birth, and are more likely to develop significant disabilities (Leeson et al. 2001; Mick et al. 2002).

**6.6** BIRTHWEIGHT OF LIVE-BORN BABIES, by Indigenous status of the mother(a)—2000–02

| | *Low birthweight*(b) | | *Normal or high birthweight*(c) | | *Total*(d) | | *Mean birthweight* |
|---|---|---|---|---|---|---|---|
| | no. | % | no. | % | no. | % | grams |
| **New South Wales** | | | | | | | |
| Indigenous | 765 | 12.0 | 5 601 | 87.9 | 6 371 | 100.0 | 3 203 |
| Non-Indigenous | 14 686 | 5.8 | 236 850 | 94.1 | 251 617 | 100.0 | 3 389 |
| **Victoria** | | | | | | | |
| Indigenous | 157 | 13.1 | 1 046 | 86.9 | 1 203 | 100.0 | 3 176 |
| Non-Indigenous | 11 607 | 6.3 | 173 691 | 93.7 | 185 316 | 100.0 | 3 368 |
| **Queensland** | | | | | | | |
| Indigenous | 950 | 11.6 | 7 256 | 88.4 | 8 209 | 100.0 | 3 210 |
| Non-Indigenous | 8 650 | 6.2 | 130 254 | 93.8 | 138 912 | 100.0 | 3 396 |
| **South Australia** | | | | | | | |
| Indigenous | 226 | 17.7 | 1 052 | 82.3 | 1 278 | 100.0 | 3 069 |
| Non-Indigenous | 3 258 | 6.3 | 48 435 | 93.7 | 51 695 | 100.0 | 3 371 |
| **Western Australia**(e) | | | | | | | |
| Indigenous | 669 | 14.5 | 3 959 | 85.5 | 4 629 | 100.0 | 3 118 |
| Non-Indigenous | 4 073 | 5.8 | 65 699 | 94.2 | 69 776 | 100.0 | 3 368 |
| **Northern Territory** | | | | | | | |
| Indigenous | 550 | 13.0 | 3 675 | 86.8 | 4 235 | 100.0 | 3 126 |
| Non-Indigenous | 406 | 6.0 | 6 360 | 93.8 | 6 779 | 100.0 | 3 364 |
| **Australian Capital Territory**(f) | | | | | | | |
| Indigenous | 39 | 21.8 | 140 | 78.2 | 179 | 100.0 | 3 037 |
| Non-Indigenous | 927 | 6.7 | 12 832 | 93.2 | 13 763 | 100.0 | 3 396 |
| **Australia**(g) | | | | | | | |
| Indigenous | 3 356 | 12.9 | 22 729 | 87.1 | 26 104 | 100.0 | 3 169 |
| Non-Indigenous | 43 607 | 6.1 | 674 121 | 93.9 | 717 858 | 100.0 | 3 382 |

(a) Excludes births to mothers whose Indigenous status was not stated.
(b) Less than 2,500 grams.
(c) 2,500 grams or more.
(d) Includes births where birthweight was not stated. Excludes foetal deaths.
(e) Data may differ from those published by the department of Health, Government of Western Australia.
(f) Includes ACT and non-ACT residents who gave birth in the ACT. Among live-born babies of ACT resident Indigenous mothers who gave birth in the ACT, 10.9% weighed less than 2,500 grams.
(g) Excludes data for Tasmania.

*Source: AIHW, National Perinatal Data Collection.*

*Birthweight continued*

In the period 2000–02, babies of Indigenous mothers were twice as likely to be of low birthweight as babies born to non-Indigenous mothers (13% compared to 6%) (table 6.6). Since 1991, there appears to have been little change in both the proportion of low birthweight babies born to Indigenous mothers and their mean birthweight (Plunkett et al. 1996; ABS & AIHW 1999, 2003).

*Perinatal mortality*

Perinatal deaths include both foetal deaths (stillbirths where birthweight is at least 400 grams or the gestational age is 20 weeks or over) and neonatal deaths (deaths within the first 28 days of life). Perinatal deaths may be underestimated because the number of neonatal deaths may not be accurately recorded, particularly deaths of babies who are transferred, readmitted to hospital, or who die at home. This is because some states and territories do not link records of registered perinatal deaths and the birth records of these babies in the National Perinatal Data Collection (Nassar et al. 2000). In recent years, a number of states and territories have linked their perinatal data collections to the registered perinatal deaths of their respective Registries of Births, Deaths and Marriages, in an effort to improve the extent to which neonatal deaths are recorded. This has led to improved information about perinatal deaths in those states and territories, and the reporting of higher numbers of neonatal deaths. Valid comparisons between the neonatal data and states and territories are therefore not always possible because not all states and territories have linked the two relevant data sets in order to improve the identification of neonatal deaths. In addition, differences in perinatal death rates may, in part, reflect the extent to which regional differences in the identification of babies of Indigenous mothers affect the overall level of identification within each jurisdiction.

For the period 1998–2002, the perinatal mortality rate for babies born to Indigenous women in Queensland, Western Australia, South Australia and the Northern Territory was twice that for babies born to non-Indigenous women in these jurisdictions (table 6.7). Foetal deaths accounted for the highest proportion of perinatal deaths (around 61% of Indigenous perinatal deaths and 68% of non-Indigenous perinatal deaths). In South Australia, the reported perinatal mortality rate for babies born to Indigenous women was three times the rate for babies born to non-Indigenous mothers (26 deaths per 1,000 compared with 9 deaths per 1,000).

*Perinatal mortality continued*

### 6.7 PERINATAL MORTALITY, by Indigenous status of the mother—1998–2002

| | FOETAL DEATHS | | NEONATAL DEATHS(a) | | TOTAL DEATHS(b) | |
|---|---|---|---|---|---|---|
| | *no.* | *rate*(c) | *no.* | *rate*(c) | *no.* | *rate*(c) |
| **Indigenous** | | | | | | |
| Queensland | 172 | 12.3 | 108 | 7.8 | 280 | 20.1 |
| South Australia | 39 | 18.0 | 18 | 8.5 | 57 | 26.3 |
| Western Australia(d) | 100 | 12.9 | 65 | 8.5 | 165 | 21.2 |
| Northern Territory(e) | 91 | 13.3 | 66 | 9.8 | 157 | 22.9 |
| *Total* | *402* | *13.1* | *257* | *8.4* | *659* | *21.4* |
| **Non-Indigenous** | | | | | | |
| Queensland | 1 561 | 6.8 | 831 | 3.6 | 2 392 | 10.3 |
| South Australia | 545 | 6.2 | 241 | 2.7 | 786 | 8.9 |
| Western Australia(d) | 790 | 6.7 | 239 | 2.0 | 1 029 | 8.7 |
| Northern Territory(e) | 74 | 6.5 | 47 | 4.2 | 121 | 10.6 |
| *Total* | *2 970* | *6.6* | *1 358* | *3.0* | *4 328* | *9.6* |

(a) Data may exclude neonatal deaths within 28 days of birth for babies transferred or readmitted to hospital and those dying at home, for some states and territories.
(b) Excludes deaths of babies born to mothers whose Indigenous status was not stated.
(c) Per 1,000 perinatal deaths.
(d) Data may differ from those published by the Department of Health, Government of Western Australia.
(e) Neonatal deaths data for 2000–02 from Stewart & Li 2005.
*Source: AIHW, National Perinatal Data Collection*

## HEALTHY CHILD DEVELOPMENT

### *Breastfeeding*

Breastfeeding has many positive effects on the survival chances, 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 (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 et al.1988).

The 2001 National Health Survey, which included an Indigenous supplement, collected information from 3,681 Aboriginal and Torres Strait Islander Australians, comprising 1,853 adults and 1,828 children. The survey estimated that in 2001, of all Indigenous women aged 18–64 years who had had children and whose breastfeeding status was known, 85% had breastfed their children. Indigenous women living in remote areas were more likely to have breastfed their children than those in non-remote areas (95% compared with 83%). A total of 75% of non-Indigenous mothers had breastfed their children.

Similar results were reported in the WAACHS, where 88% of Aboriginal children aged 0–17 years in Western Australia were reported, by carers, to have been breastfed. The proportion of Aboriginal children who had ever been breastfed increased with level of relative isolation, from 82% in the Perth metropolitan area to 96% in areas of extreme isolation (table 6.8). An estimated 35% of Aboriginal children aged 0–17 years had been breastfed for 12 months or more, and an estimated 10% of Aboriginal children aged 0–3 years were breastfed exclusively (i.e. were not given other types of milk).

## 6.8 DURATION OF BREASTFEEDING AMONG INDIGENOUS CHILDREN(a), by level of relative isolation, Western Australia—2001–02

| | | LEVEL OF RELATIVE ISOLATION | | | | | |
|---|---|---|---|---|---|---|---|
| | | *None* | *Low* | *Moderate* | *High* | *Extreme* | *Total* |
| **Children never breastfed** | % | **18.5** | **12.3** | **6.7** | **4.7** | **3.7** | **12.0** |
| Children ever breastfed | | | | | | | |
| Less than 3 months | % | 20.2 | 19.0 | 7.6 | 6.8 | 3.4 | 14.7 |
| 3 months to less than 6 months | % | 13.5 | 13.1 | 10.3 | 4.9 | 9.4 | 11.6 |
| 6 months to less than 9 months | % | 8.0 | 7.2 | 10.6 | 6.2 | 5.8 | 8.0 |
| 9 months to less than 12 months | % | 8.4 | 11.6 | 14.8 | 16.0 | 12.1 | 11.5 |
| 12 months or more | % | 26.8 | 30.6 | 39.7 | 51.0 | 48.7 | 34.5 |
| Still being breastfed | % | 4.8 | 6.1 | 10.3 | 10.4 | 16.9 | 7.8 |
| **Total ever breastfed** | % | **81.5** | **87.7** | **93.3** | **95.3** | **96.3** | **88.0** |
| **Children**(b) | no. | **8 780** | **6 050** | **4 920** | **2 240** | **1 970** | **24 000** |

(a) Data are for children aged 0–17 years whose primary carer is their birth mother.

(b) Data are weighted estimates and have been derived by weighting the survey sample to reflect the Western Australian Aboriginal population.

*Source: Zubrick et al. 2004*

### *Diet and nutrition*

Diet and nutrition are particularly important to Aboriginal and Torres Strait Islander people for a number of reasons. The change in their diet, following European settlement, from a traditional Aboriginal diet high in protein and fibre, to a diet high in carbohydrates and saturated fats, is associated with the present high levels of obesity, Type II diabetes and renal disease among Indigenous Australians (NHMRC 2000c). Aboriginal and Torres Strait Islander families living in isolated areas face particular challenges in providing their children with affordable, healthy food on a regular basis. Poor nutrition in the early years of life can affect childhood development, growth and health. Inadequate vitamin and nutrition intake, especially in the preschool years, can affect immune function and increase susceptibility to illness, disease and infection (Tomkins 2001).

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. The guidelines for vegetable intake recommend an average of two serves of vegetables each day for children aged 4–7 years and three serves per day for older children (NHMRC 2003). The fruit intake guidelines recommend an average of one serve of fruit each day for children aged 4–11 years and two serves per day for older children.

The WAACHS provides data on the dietary intake of Aboriginal children. Four indicators of dietary quality were used: water usually being drunk when thirsty, some form of unsweetened and unflavoured cow or soy milk being regularly consumed, fresh fruit usually being consumed on six or seven days of the week and at least half a cup of at least three vegetables, other than potato, usually being consumed on six or seven days of the week (Zubrick et al. 2004).

When asked which drink was usually consumed when thirsty, 68% of Aboriginal children aged 4–17 years reported water, 15% cordial, 10% soft drinks, 4% fruit juice, and 3% other drinks (table 6.9). Children living in areas of high or extreme isolation were more likely to drink water than children living in metropolitan areas.

*Diet and nutrition continued*

Around two-thirds of Aboriginal children aged 4–11 years (67%) and three-quarters of those aged 12–17 years (76%) were reported to usually eat fresh fruit daily. Younger children were more likely to have adequate vegetable intake (41%) than children in the 12–17 year age group (28%). Of the children who usually ate vegetables, half (50%) of 4–11 year olds ate five or more different vegetables (other than potato), and 27% of children aged 12–17 years ate five or more different vegetables.

Only one in five children met all four indicators of dietary quality. A greater proportion of children aged 4–11 years met all four indicators (21%) than did children aged 12–17 years (15%).

### 6.9 DIETARY INDICATORS AMONG INDIGENOUS CHILDREN, by age group, Western Australia—2001–02

| | | AGE (YEARS) | | |
|---|---|---|---|---|
| | | *4–11* | *12–17* | *Total* |
| Drinks water usually when thirsty | % | 67.1 | 69.4 | 68.0 |
| Drinks unsweetened and unflavoured cow or soy milk regularly | % | 94.2 | 90.5 | 92.7 |
| Eats fresh fruit usually on six or seven days of the week | % | 66.8 | 75.6 | 70.3 |
| Eats adequate vegetables(a) | % | 41.3 | 27.8 | 35.9 |
| **All four indicators are met** | % | **21.0** | **15.3** | **18.7** |
| Children(b) | no. | 13 800 | 9 100 | 22 900 |

(a) Eats at least half a cup of at least three vegetables, other than potato, usually on six or seven days of the week.

(b) Data are weighted estimates and have been derived by weighting the survey sample to reflect the Western Australian Aboriginal population.

*Source: Zubrick et al. 2004*

*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 Indigenous 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, therefore coverage estimates should be interpreted with caution.

In 2003, vaccination coverage for Indigenous children aged 12 months was lower than for other children for each single vaccine (table 6.10). However, at two years of age, a greater proportion of Indigenous children were fully vaccinated against hepatitis B, diptheria, tetanus and pertussis (DTP), polio (OPV), and measles, mumps and rubella (MMR).

Aboriginal and Torres Strait Islander children had lower coverage for all vaccines at 12 months of age (82% compared with 91%), while at two years of age, they had vaccination coverage comparable with other children (91%). This suggests that there is a delay in the receipt of vaccines for Indigenous children in that significant numbers of Indigenous children are not vaccinated with the primary schedule of vaccines by

*Immunisation continued*

12 months of age but receive doses later (by two years of age). Schedules of vaccines may be delayed for a number of reasons including illness during infancy. The reported coverage estimates at two years of age also suggest that, while a greater proportion of Indigenous children at two years of age have been vaccinated for some diseases, they have not all been fully vaccinated.

For information on adult vaccination coverage refer to Chapter 7.

**6.10** CHILDREN FULLY VACCINATED, COVERAGE ESTIMATES AT ONE AND TWO YEARS OF AGE(a)(b)—31 December 2003

| | ONE YEAR OLD | | TWO YEARS OLD | |
|---|---|---|---|---|
| | *Indigenous* | *Other* | *Indigenous* | *Other* |
| | % | % | % | % |
| Hepatitis B | 94.0 | 94.8 | 97.9 | 95.5 |
| DTP (diphtheria, tetanus and pertussis vaccine) | 84.8 | 92.7 | 96.7 | 95.7 |
| OPV (oral polio vaccine) | 84.1 | 92.6 | 95.2 | 94.5 |
| Hib (Haemophilus influenzae type b) | 93.0 | 94.4 | 92.9 | 92.9 |
| MMR (measles, mumps and rubella vaccine) | . . | . . | 94.2 | 93.1 |
| **All vaccines** | **82.2** | **91.2** | **90.9** | **91.3** |

. . not applicable

(a) Three month cohorts, age at 30 September 2003, calculated at 31 December 2003. Coverage assessment date was 12 or 24 months after the last birth date of each cohort.

(b) Includes data from New South Wales, Victoria, South Australia, Western Australia and the Northern Territory only. These jurisdictions have been assessed as having adequate completeness of data on Indigenous status by the states/territories.

*Source: Menzies et al. 2004*

## HEALTH STATUS OF CHILDREN

### *Disability*

The most recent data relating to disability in Indigenous children comes from the WAACHS. An estimated 2% of children aged 4–17 years in Western Australia needed help with activities of daily living such as eating, dressing, bathing and going to the toilet. Limitations in vigorous activity were experienced by 4% of children of the same age. Approximately 8% of Indigenous children did not have normal vision in both eyes, and 7% did not have normal hearing in both ears.

### *Social and emotional wellbeing*

A variety of health conditions, social circumstances and behaviours experienced by individuals, their carers and families may have an impact on the social and emotional wellbeing of Aboriginal children (Zubrick et al. 2005). Information on the social and emotional wellbeing of Aboriginal children living in Western Australia is available from the WAACHS.

Approximately 24% of Indigenous children aged 4–17 years were assessed from questionnaires completed by their carers (a version of the Strengths and Difficulties Questionnaire) as being at high risk of clinically significant emotional or behavioural difficulties, compared with 15% of other children (Zubrick et al. 2005). Indigenous boys were twice as likely as Indigenous girls to be at high risk of clinically significant emotional or behavioural difficulties, and those living in areas of extreme isolation were less at risk than those living in urban areas.

Social and emotional wellbeing *continued*

FAMILY AND HOUSEHOLD FACTORS

A number of family and household factors were found to be associated with high risk of clinically significant emotional or behavioural difficulties in children. These include: the number of stress events experienced by the family in the 12 months before the survey, quality of parenting, family functioning, and family care arrangements. Household occupancy level, the physical health of the child (speech, hearing and vision problems), the physical health of the carer and the carer's use of mental health services were also associated with increased risk of clinically significant emotional or behavioural difficulties in children.

For example, around 22% of children aged 4–17 years in Western Australia were living in families where seven or more life stress events (e.g. illness, hospitalisation, death of a close family member, family break-up, arrests, job loss, financial difficulties) had occurred over the preceding 12 months. These children were more than five times as likely to be at high risk of clinically significant emotional or behavioural difficulties as children in families where two or fewer life stress events had occurred. Children in the primary care of a person with a long-term health condition were more than three times as likely to be at high risk of emotional and behavioural difficulties as children whose primary carer had no long-term medical condition (Zubrick et al. 2005).

The children of Aboriginal carers who had been forcibly separated from their natural family by the government, welfare or a mission were twice as likely to be at high risk of clinically significant emotional or behavioural difficulties as children whose primary carer had not been forcibly separated from their natural family. These children also had higher rates of conduct and hyperactivity problems.

HEALTH RISK FACTORS

A number of health risk factors were also found to be associated with a high risk of clinically significant emotional and behavioural difficulties. An estimated 18% of Western Australian Aboriginal young people aged 12–17 years who smoked regularly were at high risk of emotional and behavioural difficulties compared with 7% of non-smokers. Around one in three (29%) of young people who used marijuana daily were at risk of clinically significant emotional or behavioural difficulties compared with 9% of young people who had never used marijuana. Young people who did not participate in organised sport were twice as likely to be at high risk of emotional and behaviour difficulties compared with young people who did participate in sport (16% and 8% respectively). Those who had been subjected to racism in the past six months were more than twice as likely to be at high risk of emotional and behavioural difficulties as those who had not experienced racism.

SUICIDAL BEHAVIOUR

An additional survey was administered to Aboriginal young people aged 12–17 years to measure rates of suicidal thoughts and suicide attempts. Around one in six (16%) of Western Australian Aboriginal young people reported having had suicidal thoughts in the 12 months prior to the survey. A higher proportion of Aboriginal girls (20%) reported that they had seriously thought about ending their own life than Aboriginal boys (12%). Of those who reported having had suicidal thoughts in the 12 months prior to the survey, 39% also reported having attempted suicide in the same period. Aboriginal young

*Social and emotional wellbeing continued*

SUICIDAL BEHAVIOUR *continued*

people who had been exposed to family violence were more than twice as likely to have thought about ending their own life (22%) as those who had not been exposed to family violence (9%). A much higher proportion of Aboriginal boys with low self-esteem (21%) had thought about ending their own life than those with high self-esteem (5%).

*Other health conditions*

Of the health conditions reported in the WAACHS, respiratory conditions (e.g. asthma) and recurring infections (e.g. ear infections) were the most prevalent.

The prevalence of asthma reported in the 2001 NHS was 15% for Aboriginal and Torres Strait Islander children aged 0–14 years and 13% for non-Indigenous children of the same age. In the WAACHS, the occurrence of asthma was reported to be 23% for Aboriginal children aged 0–17 years in Western Australia. The prevalence of asthma varied by level of relative isolation, with asthma being four times as common among Aboriginal children aged 0–17 years living in Perth metropolitan areas as among those living in extremely isolated areas of the state.

Recurring infections (infections which repeatedly return after remission), are associated with the occurrence of other acute and chronic illnesses and are a particular problem for Aboriginal and Torres Strait Islander children. Results from the WAACHS indicate that an estimated 18% of Aboriginal children had a recurring ear infection, 12% had a recurring chest infection, 9% had a recurring skin infection and 6% had a recurring gastrointestinal infection. The prevalence of these infections was less at older ages (table 6.11).

**6.11** RECURRING INFECTIONS AMONG ABORIGINAL CHILDREN, by age group, Western Australia—2001–02

| | | AGE (YEARS) | | | |
|---|---|---|---|---|---|
| | | *0–3 years* | *4–11 years* | *12–17 years* | *Total* |
| Chest infection | % | 19.4 | 11.5 | 8.0 | 12.3 |
| Gastrointestinal infection | % | 7.2 | 6.1 | 3.5 | 5.6 |
| Skin infection | % | 8.0 | 10.3 | 6.1 | 8.5 |
| Ear infection | % | 20.4 | 19.9 | 13.6 | 18.1 |
| **Children**(a) | no. | **6 900** | **13 800** | **9 100** | **29 800** |

(a) Data are weighted estimates and have been derived by weighting the survey sample to reflect the Western Australian Aboriginal population.

*Source: Zubrick et al. 2004*

Around two-thirds of children (69%) reported none of the four types of recurring infections in table 6.11, with 22% reporting one type and 10% reporting more than one type of recurring infection.

*Infant and child hospitalisations*

In 2003–04, Aboriginal and Torres Strait Islander infants (aged less than one year) were hospitalised at a rate 1.3 times that of other infants. Diseases of the respiratory system were the leading cause of hospitalisation of Indigenous children, followed by conditions originating in the perinatal period, and infectious and parasitic diseases. For skin diseases, diseases of the respiratory system and infectious and parasitic diseases, *Infant and child hospitalisations continued*

Aboriginal and Torres Strait Islander infants were hospitalised at around three times the rate of other infants (table 6.12).

## 6.12 REASONS FOR HOSPITALISATION OF INFANTS, by Indigenous status—2003–04

| | INDIGENOUS | | OTHER(a) | | |
|---|---|---|---|---|---|
| | *no.* | *rate*(c) | *no.* | *rate*(c) | *Rate ratio*(b) |
| Diseases of the respiratory system (J00–J99) | 2 902 | 238.0 | 16 902 | 71.1 | 3.3 |
| Conditions originating in the perinatal period (P00–P96) | 2 341 | 192.0 | 48 957 | 206.1 | 0.9 |
| Infectious and parasitic diseases (A00–B99) | 1 208 | 99.1 | 8 146 | 34.3 | 2.9 |
| Contact with health services (Z00–Z99) | 714 | 58.5 | 17 333 | 73.0 | 0.8 |
| Symptoms not elsewhere classified (R00–R99) | 511 | 41.9 | 11 961 | 50.3 | 0.8 |
| Congenital malformations (Q00–Q99) | 355 | 29.1 | 8 394 | 35.3 | 0.8 |
| Injury and poisoning (S00–T98) | 224 | 18.4 | 2 470 | 10.4 | 1.8 |
| Diseases of the skin (L00–L99) | 175 | 14.4 | 1 200 | 5.1 | 2.8 |
| ***Subtotal*** | ***8 430*** | ***691.3*** | ***115 363*** | ***485.6*** | ***1.4*** |
| All other causes | 610 | 50.0 | 18 413 | 77.5 | 0.6 |
| **Total**(d) | **9 056** | **742.6** | **133 875** | **563.5** | **1.3** |

(a) Includes infants whose Indigenous status was not stated.
(b) Rate for Indigenous Australians divided by the rate for other Australians.
(c) Per 1,000 population aged less than one year.
(d) Includes hospitalisations for which no principal diagnosis was recorded.

*Source: AIHW, National Hospital Morbidity Database.*

In 2003–04, Aboriginal and Torres Strait Islander children aged 1–14 years were hospitalised at similar rates to other children of the same age for most conditions. Aboriginal and Torres Strait Islander children were hospitalised for skin diseases, diseases of the respiratory system, and infectious and parasitic diseases at higher rates than for other children (table 6.13).

## 6.13 REASONS FOR HOSPITALISATION OF CHILDREN AGED 1–14 YEARS, by Indigenous status—2003–04

| | INDIGENOUS | | OTHER(a) | | |
|---|---|---|---|---|---|
| | *no.* | *rate*(c) | *no.* | *rate*(c) | *Rate ratio*(b) |
| Diseases of the respiratory system (J00–J99) | 4 748 | 28.0 | 73 250 | 20.6 | 1.4 |
| Injury and poisoning (S00–T98) | 3 479 | 20.5 | 61 090 | 17.2 | 1.2 |
| Infectious and parasitic diseases (A00–B99) | 2 078 | 12.3 | 29 070 | 8.2 | 1.5 |
| Diseases of the digestive system (K00–K93) | 1 787 | 10.5 | 46 156 | 13.0 | 0.8 |
| Diseases of the skin (L00–L99) | 1 359 | 8.0 | 9 845 | 2.8 | 2.9 |
| Diseases of the ear and mastoid process (H60–H95) | 1 292 | 7.6 | 27 978 | 7.9 | 1.0 |
| Symptoms n.e.c. (R00–R99) | 1 276 | 7.5 | 23 344 | 6.6 | 1.1 |
| Contact with health services (Z00–Z99) | 958 | 5.7 | 23 087 | 6.5 | 0.9 |
| ***Subtotal*** | ***16 977*** | ***100.2*** | ***293 820*** | ***82.5*** | ***1.2*** |
| All other causes | 4 570 | 27.0 | 109 926 | 30.9 | 0.9 |
| **Total**(d) | **20 610** | **121.7** | **380 812** | **106.9** | **1.1** |

(a) Includes children whose Indigenous status was not stated.
(b) Rate for Indigenous Australians divided by the rate for other Australians.
(c) Per 1,000 population aged 1–14 years.
(d) Includes hospitalisations for which no principal diagnosis was recorded.

*Source: AIHW, National Hospital Morbidity Database.*

*Infant and child mortality*

INFANT MORTALITY

Infant deaths are deaths of live-born children before the age of one. For the period 1999–2003, the mortality rate for Aboriginal and Torres Strait Islander infants living in Western Australia, South Australia, Queensland and the Northern Territory was almost three times that of non-Indigenous infants (table 6.14). The leading causes of death for Indigenous infants were conditions originating in the perinatal period (mainly foetus and newborn affected by complications of placenta, cord and membrane, and foetus and newborn affected by maternal complications of pregnancy), symptoms, signs and ill-defined conditions (mainly sudden infant death syndrome), congenital malformations (such as other congenital malformations of brain, congenital malformations of musculoskeletal system not elsewhere classified and congenital malformations of lung), 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, who died at ten and eight times the rates of non-Indigenous infants.

**6.14** CAUSES OF INFANT DEATHS, by Indigenous status—1999–2003(a)

| | INDIGENOUS | | NON-INDIGENOUS | | |
|---|---|---|---|---|---|
| | *no.* | *rate*(c) | *no.* | *rate*(c) | *Rate ratio*(b) |
| Conditions originating in the perinatal period (P00–P96) | 209 | 581.0 | 922 | 212.6 | 2.7 |
| Symptoms, signs and ill-defined conditions (R00–R99) | 89 | 247.0 | 221 | 51.0 | 4.9 |
| Congenital malformations (Q00–Q99) | 76 | 211.0 | 501 | 115.5 | 1.8 |
| Diseases of the respiratory system (J00–J99) | 29 | 81.0 | 35 | 8.1 | 10.0 |
| External causes (V01–Y98) | 22 | 61.0 | 76 | 17.5 | 3.5 |
| Infectious and parasitic diseases (A00–B99) | 19 | 53.0 | 29 | 6.7 | 7.9 |
| All other causes | 24 | 67.0 | 122 | 28.1 | 2.4 |
| **Total**(d) | **469** | **1 304.0** | **1 931** | **445.3** | **2.9** |

(a) Data from Queensland, South Australia, Western Australia and the Northern Territory. Based on state/territory of usual residence, year of occurrence of death for 1999–2002 and year of registration of death for 2003. Excludes a total of 48 deaths for which Indigenous status was not stated.

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

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

(d) Includes deaths for which no cause of death was recorded.

*Source: AIHW, National Mortality Database*

CHILD MORTALITY

In the period 1999–2003, the death rate for Aboriginal and Torres Strait Islander children aged 1–14 years in Western Australia, South Australia, Queensland and the Northern Territory was more than twice that of non-Indigenous children in these jurisdictions (table 6.15).

External causes (such as transport accidents, assault and intentional self-harm) were the leading causes of death of Aboriginal and Torres Strait Islander children. Aboriginal and Torres Strait Islander children died from infectious and parasitic diseases, diseases of the respiratory system and circulatory diseases at around four to five times the rate of non-Indigenous children.

## 6.15 CAUSES OF DEATH FOR CHILDREN AGED 1–14 YEARS, by Indigenous status—1999–2003(a)

| | INDIGENOUS | | NON-INDIGENOUS | | |
|---|---|---|---|---|---|
| | *no.* | *rate*(c) | *no.* | *rate*(c) | *Rate ratio*(b) |
| External causes (V01–Y98) | 91 | 18.5 | 481 | 7.3 | 2.5 |
| Diseases of the nervous system (G00–G99) | 20 | 4.1 | 106 | 1.6 | 2.5 |
| Neoplasms (C00–D48) | 14 | 2.8 | 185 | 2.8 | 1.0 |
| Infectious and parasitic diseases (A00–B99) | 13 | 2.6 | 35 | 0.5 | 5.0 |
| Congenital malformations (Q00–Q99) | 13 | 2.6 | 74 | 1.1 | 2.4 |
| Diseases of the circulatory system (I00–I99) | 12 | 2.4 | 42 | 0.6 | 3.8 |
| Diseases of the respiratory system (J00–J99) | 10 | 2.0 | 31 | 0.5 | 4.3 |
| Symptoms, signs and abnormal findings (R00–R99) | 10 | 2.0 | 38 | 0.6 | 3.5 |
| All other causes | 9 | 1.8 | 73 | 1.1 | 1.7 |
| **Total** | **192** | **39.0** | **1 065** | **16.1** | **2.4** |

(a) Data from Queensland, South Australia, Western Australia and the Northern Territory. Based on state/territory of usual residence, year of occurrence of death for 1999–2002 and year of registration of death for 2003. Excludes a total of 37 deaths for which Indigenous status was not stated.

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

(c) Per 100,000 population aged 1–14 years.

*Source: AIHW, National Mortality Database.*

## SUMMARY

Indigenous mothers are more likely to have their babies at younger ages than other mothers. The average age of Indigenous mothers who gave birth in 2003 was 25 years, compared with an average age of 31 years for all Australian mothers. For the period 2000–02, 78% of Indigenous mothers who gave birth were aged under 30 years, compared with 49% of non-Indigenous mothers. In 2003, the TFR for Indigenous women was estimated to be 2.15 babies, compared with 1.76 babies for the total Australian population.

Among the risk factors for poor perinatal and child health outcomes are alcohol use, tobacco use and other drug use during pregnancy. The WAACHS reported that during pregnancy, an estimated 49% of mothers of Aboriginal children in Western Australia had smoked, 23% had consumed alcohol, and 9% had used marijuana.

Babies weighing less than 2,500 grams at birth are classified as being of low birthweight. Babies with an Indigenous mother were twice as likely to be of low birthweight (13% of births) as babies with a non-Indigenous mother (6%). The perinatal mortality rate for babies with an Indigenous mother in Queensland, South Australia, Western Australia and the Northern Territory was about twice that for babies with a non-Indigenous mother.

Breastfeeding and effective vaccination have many positive effects on the survival chances, growth, development and health of infants. In 2001, a high proportion of Indigenous mothers living in remote areas (95%) and non-remote areas (83%) had breastfed their children. In 2003, Aboriginal and Torres Strait Islander children had lower vaccination coverage than other children at 12 months of age (82% compared with 91%), but by two years of age, they had comparable vaccination coverage (91%).

In 2003–04, Indigenous infants were more likely to be hospitalised than other infants, while Indigenous and other children aged 1–14 years were hospitalised at similar rates. In the period 1999–2003, the mortality rate for Indigenous infants in Western Australia, South Australia, Queensland and the Northern Territory was almost three times that for

SUMMARY *continued*

non-Indigenous infants. The death rate of Aboriginal and Torres Strait Islander children aged 1–14 years was more than twice that of non-Indigenous children of the same age in these jurisdictions.

# CHAPTER 7 HEALTH STATUS

## INTRODUCTION

Aboriginal and Torres Strait Islander people suffer greater ill-health, are more likely to experience disability and reduced quality of life and to die at younger ages, than other Australians (AIHW 2002c). In the period 1996–2001, the life expectancy at birth was estimated at 59 years for Indigenous males and 65 years for Indigenous females, well below the 77 years for all Australian males and 82 years for all Australian females in 1998–2000 (ABS 2002b).

The Indigenous population is disadvantaged across a range of socioeconomic conditions that affect health outcomes, such as income, employment, educational outcomes and housing (see Chapters 2, 3 and 4). In addition, risks to health such as smoking, obesity (based on Body Mass Index (BMI)), alcohol misuse and exposure to violence are important determinants of health among Aboriginal and Torres Strait Islander people (see Chapter 8).

This chapter draws on information from a number of data collections and provides an overview of the health status of Aboriginal and Torres Strait Islander people. Information is included for a range of conditions that cause significant morbidity and mortality among Indigenous Australians. While some information is available on each of these conditions, the quality and completeness of the data are often unknown and may vary between jurisdictions and between different data sources. Many of the rates of illness reported in this Chapter are likely to be underestimates of the true rates of illness in the Indigenous population because of the under-identification of Aboriginal and Torres Strait Islander people in these data collections.

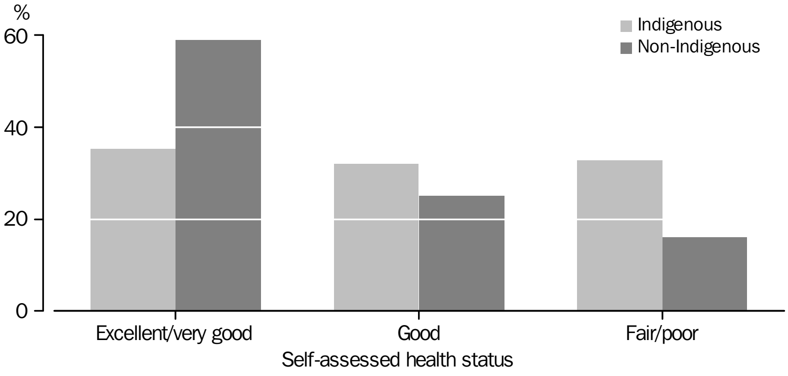
## SELF-ASSESSED HEALTH

Self-assessed health status provides an indicator of overall health; it reflects an individual's perception of his or her own health. As this measure is dependent on an individual's awareness and expectations regarding their health, it may be influenced by factors such as access to health services and health information. Cunningham and colleagues (1997) examined the robustness of this measure and found that factors such as language spoken and employment status can have an effect on how individuals describe their health.

In the 2002 National Aboriginal and Torres Strait Islander Social Survey (NATSISS) around 42% of Indigenous people aged 18 years or over reported their health as very good or excellent, 33% reported their health as good and 25% reported their health as fair or poor. After adjusting for differences in age structure, Indigenous Australians were twice as likely to report their health as fair or poor than non-Indigenous Australians (graph 7.1) (ABS 2004f). This was similar to estimates from the 2001 National Health Survey (NHS) which showed that, after adjusting for different age structures in the Indigenous and non-Indigenous populations, Indigenous Australians aged 15 years or over were almost twice as likely to report fair or poor health as non-Indigenous Australians (ABS 2002b).

SELF-ASSESSED HEALTH *continued*

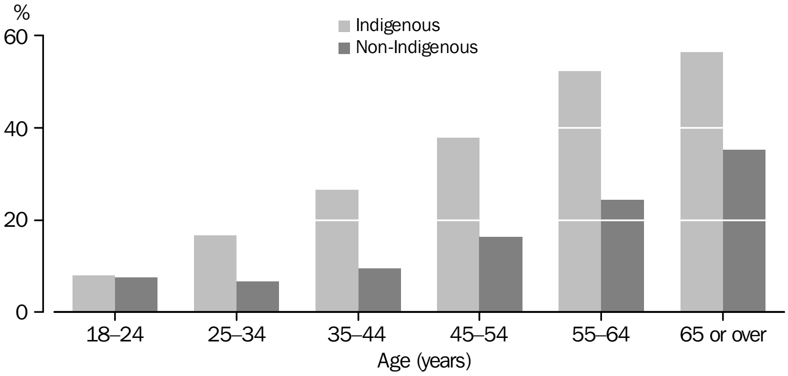
**7.1** SELF-ASSESSED HEALTH STATUS(a), Persons aged 18 years or over—2002



(a) Data have been age standardised.
*Source: ABS, 2002 NATSISS and 2002 GSS*

Indigenous people were more likely to report fair or poor health than non-Indigenous people at all ages, with the exception of those aged 18–24 years (graph 7.2). The proportion of Indigenous people reporting fair or poor health increased with age, from 8% of people aged 18–24 years to 56% of people aged 65 years or over. Indigenous Australians living in remote areas were less likely to report fair or poor health (22%) than those in non-remote areas (27%).

**7.2** PERSONS(a) WITH FAIR OR POOR SELF-ASSESSED HEALTH, by Indigenous status—2002



(a) Aged 18 years or over
*Source: ABS, 2002 NATSISS and 2002 GSS*

*Changes in self-assessed health status between 1994 and 2002*

There has been no significant change between 1994 and 2002 in the proportion of Indigenous Australians who reported their health as excellent or very good. There has, however, been a decrease in reported good health overall, and an increase in reported fair or poor health between 1994 and 2002 for both males and females (table 7.3).

*Changes in self-assessed health status between 1994 and 2002 continued*

**7.3** SELF-ASSESSED HEALTH STATUS, Indigenous persons aged 15 years or over—1994 and 2002

| | | 1994 | | | 2002 | | |
|---|---|---|---|---|---|---|---|
| | | *Males* | *Females* | *Persons* | *Males* | *Females* | *Persons* |
| Excellent/very good | % | (a)48.8 | (a)42.1 | (a)45.3 | (a)47.1 | (a)41.3 | (a)44.1 |
| Good | % | (a)32.8 | 40.9 | 37.1 | (a)30.1 | 34.6 | 32.4 |
| Fair/poor | % | 18.1 | 16.8 | 17.5 | 22.5 | 24.0 | 23.3 |
| **Total**(b) | no. | **102 200** | **112 400** | **214 600** | **135 200** | **147 000** | **282 200** |

(a) Differences between 1994 and 2002 are not statistically significant.
(b) Includes persons who did not report their health status.
*Source: ABS, 1994 NATSIS and 2002 NATSISS*

The proportion of Indigenous Australians who reported fair or poor health was higher in 2002 (23%) than in 1994 (18%). The Australian Capital Territory had the largest increase in the proportion of people reporting fair or poor health between 1994 and 2002 (6% to 18%), followed by Western Australia (16% to 24%) and Queensland (17% to 24%).

*Self-assessed health and socioeconomic factors*

Indigenous Australians living in the poorest households (those in the lowest quintile for mean equivalised gross household income per week) were more likely to report fair or poor health than those in households receiving the highest incomes. Indigenous males and females who had completed Year 12 were less likely to report fair or poor health (15% of males and 14% of females) than those who had only completed Year 9 or below (36% of males and 37% of females).

Indigenous males and females who had completed Year 12 or equivalent were twice as likely to report fair or poor health as their non-Indigenous counterparts. However, Indigenous males and females who had only completed Year 9 or below and those in the poorest households (lowest quintile of equivalised gross household income per week) reported only slightly higher levels of fair or poor health than non-Indigenous males and females (table 7.4).

*Self-assessed health and socioeconomic factors continued*

## 7.4 SOCIOECONOMIC CHARACTERISTICS, Indigenous persons aged 18 years or over—2002

| | PROPORTION WITH FAIR/POOR HEALTH | | | RATE RATIO(a) | | |
|---|---|---|---|---|---|---|
| | *Males* | *Females* | *Persons* | *Males* | *Females* | *Persons* |
| | % | % | % | rate | rate | rate |
| **Equivalised gross household income**(b) | | | | | | |
| Lowest quintile | 31.4 | 32.9 | 32.3 | 1.0 | 1.3 | 1.2 |
| Second quintile | 26.1 | 24.6 | 25.3 | 1.4 | 1.5 | 1.5 |
| Third quintile | 12.4 | 22.7 | 17.7 | 1.4 | 2.7 | 2.1 |
| Fourth quintile | *15.1 | 10.0 | 12.8 | 2.1 | 1.6 | 1.9 |
| Fifth quintile | *9.9 | *15.9 | *13.1 | 1.8 | 3.3 | 2.5 |
| **Highest year of school completed**(c) | | | | | | |
| Year 9 or below(d) | 35.7 | 37.3 | 36.5 | 1.3 | 1.4 | 1.3 |
| Year 10 or 11 | 17.4 | 20.3 | 19.0 | 1.3 | 1.7 | 1.5 |
| Year 12 or equivalent | 14.5 | 13.7 | 14.1 | 2.0 | 1.8 | 1.9 |

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

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

(b) The equivalised gross household weekly income quintile boundaries are based on the equivalised gross household income per week for the total population of Australia (see Glossary).

(c) Excludes persons still at school.

(d) Includes persons who never attended school.

*Source: ABS, 2002 NATSISS and 2002 GSS*

In 2002, Indigenous males and females who were not in the labour force were more likely to report fair or poor health (48% and 32% respectively) than those who were unemployed (20% of males and 25% of females) or employed (15% of males and 14% of females).

Indigenous people who were unemployed were almost twice as likely to report fair or poor health as non-Indigenous people who were unemployed, while Indigenous people who were employed were more than twice as likely to do so (table 7.5).

## 7.5 LABOUR FORCE STATUS, Indigenous persons aged 18–64 years—2002

| | PROPORTION WITH FAIR/POOR HEALTH | | | RATE RATIO(a) | | |
|---|---|---|---|---|---|---|
| | *Males* | *Females* | *Persons* | *Males* | *Females* | *Persons* |
| *Labour force status* | % | % | % | rate | rate | rate |
| Employed | *14.9 | 14.2 | 14.6 | 2.3 | 2.6 | 2.4 |
| Unemployed | 20.4 | 24.6 | 22.2 | 1.5 | 1.9 | 1.7 |
| Not in the labour force | 47.5 | 31.7 | 36.7 | 1.2 | 1.6 | 1.4 |

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

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

*Source: ABS, 2002 NATSISS*

*Self-assessed health status and family and cultural factors*

Indigenous males and females who said they had been removed, as children, from their natural families were more likely to report fair or poor health (39% of males and 41% of females) than those who had not been removed (21% of males and 22% of females). Males and females who said they spoke English as their main language at home were more likely to report fair or poor health (24% of males and 25% of females) than those who spoke an Aboriginal or Torres Strait Islander language at home (13% and 15% of males and females respectively; table 7.6).

**7.6** FAMILY AND CULTURAL CHARACTERISTICS, Indigenous persons aged 15 years or over—2002

| | PROPORTION WITH FAIR OR POOR HEALTH | | |
|---|---|---|---|
| | *Males* | *Females* | *Persons* |
| NUMBER *(no.)* | | | |
| **Removal of person from natural family** | | | |
| Has been removed from natural family | 4 200 | 5 300 | 9 500 |
| Has not been removed from natural family | 25 400 | 28 100 | 53 600 |
| **Recognition of homelands** | | | |
| Recognises homelands | 22 400 | 25 500 | 47 900 |
| Does not recognise homelands | 8 100 | 9 800 | 17 900 |
| **Identification with clan, tribal or language group** | | | |
| Identifies with clan, tribal/language group | 16 900 | 18 500 | 35 400 |
| Does not identify with clan, tribal/language group | 12 800 | 16 200 | 29 000 |
| **Main language spoken at home** | | | |
| English | 27 900 | 32 000 | 59 800 |
| Indigenous language | 2 100 | 2 700 | 4 800 |
| PROPORTION *(%)* | | | |
| **Removal of person from natural family** | | | |
| Has been removed from natural family | 38.6 | 41.1 | 40.0 |
| Has not been removed from natural family | 21.4 | 22.1 | 21.8 |
| **Recognition of homelands** | | | |
| Recognises homelands | 23.8 | 25.0 | 24.4 |
| Does not recognise homelands | 19.7 | 21.9 | 20.8 |
| **Identification with clan, tribal or language group** | | | |
| Identifies with clan, tribal/language group | 22.0 | 24.3 | 23.2 |
| Does not identify with clan, tribal/language group | 22.9 | 24.0 | 23.5 |
| **Main language spoken at home** | | | |
| English | 23.9 | 25.4 | 24.7 |
| Indigenous language | 13.4 | 14.7 | 14.1 |

*Source: ABS, 2002 NATSISS*

## CAUSES OF ILL-HEALTH

This section provides an overview of Indigenous people's experience of various illnesses and health conditions using prevalence data, visits to general practitioners (GPs) and admissions to hospitals. Specific causes of ill-health are then discussed in more detail in the following section. Information on prevalence of disability is presented in Chapter 5.

*Prevalence*

Information about the self-reported prevalence of various conditions is available from the 2001NHS. In 2001, eye/sight problems, musculoskeletal problems, diseases of the respiratory and circulatory systems, and ear/hearing problems were the most commonly reported conditions among Indigenous people. After adjusting for age, Indigenous

*Prevalence continued*

people had a higher prevalence of most types of health conditions than non-Indigenous people (table 7.7).

### 7.7 AGE-STANDARDISED PREVALENCE OF SELECTED CONDITIONS(a)(b)(c)—2001

| | *Indigenous* | *Non-Indigenous* |
|---|---|---|
| *Condition* | % | % |
| Eye/sight problems | 46 | 51 |
| Musculoskeletal diseases | 35 | 32 |
| Arthritis | 16 | 7 |
| Diseases of the respiratory system | 33 | 30 |
| Asthma | 17 | 12 |
| Circulatory problems/diseases | 19 | 17 |
| Ear/hearing problems | 18 | 14 |
| Endocrine, nutritional and metabolic diseases | 15 | 9 |
| Diabetes mellitus | 11 | 3 |
| Diseases of the nervous system | 10 | 8 |
| Digestive diseases | 7 | 7 |

(a) Proportions have been age standardised using the 2001 estimated resident population of Australia.
(b) Total numbers have been weighted using ABS population estimates.
(c) Sum of components may exceed 100% as persons may have reported more than one type of condition.
*Source: ABS, 2001 National Health Survey*

*Consultations with General Practitioners*

Information about GP consultations is available from the 'Bettering the Evaluation and Care of Health' (BEACH) survey. Information is collected from a random sample of approximately 1,000 GPs from across Australia each year. A sample of 100 consecutive consultations is collected from each GP. Over the period 1998–99 to 2002–03, there were 5,476 GP consultations with Aboriginal and Torres Strait Islander patients recorded in the survey, representing 1.1% of total GP consultations. Respiratory conditions (mainly upper respiratory tract infections and asthma) were the problems most commonly managed at consultations with Indigenous patients (23 per 100 consultations), followed by skin problems (16 per 100), musculoskeletal conditions (14 per 100), psychological problems (13 per 100), circulatory problems (mainly hypertension) and endocrine and metabolic diseases (mainly diabetes) (both at a rate of 13 per 100) (table 7.8).

The number of Indigenous patients in the BEACH survey is likely to be underestimated. This is because some GPs do not ask about Indigenous status, or the patient may choose not to identify (AIHW 2002b). Therefore, the rate of GP consultations for Indigenous Australians presented in table 7.8. is likely to be an underestimate of the true level of consultation with GPs. It should also be noted that the estimates are derived from a relatively small sample of GP consultations involving Indigenous Australians.

*Consultations with General Practitioners continued*

## 7.8 GENERAL PRACTITIONER CONSULTATIONS, selected problems managed—1998–99 to 2002–03

| | NUMBER | | RATE PER 100 CONSULTATIONS | |
|---|---|---|---|---|
| *Type of problem* | *Indigenous* | *Total* | *Indigenous* | *Total* |
| Respiratory | 1 235 | 108 865 | 22.5 | 21.7 |
| Skin | 891 | 83 469 | 16.3 | 16.6 |
| Musculoskeletal | 747 | 87 092 | 13.6 | 17.4 |
| Psychological | 734 | 56 950 | 13.4 | 11.3 |
| Circulatory | 712 | 83 461 | 13.0 | 16.6 |
| Endocrine and metabolic | 712 | 49 906 | 13.0 | 9.9 |
| Diabetes | 389 | 14 019 | 7.1 | 2.8 |
| Digestive | 571 | 50 412 | 10.4 | 10.0 |
| Pregnancy, family planning | 359 | 21 757 | 6.6 | 4.3 |
| Ear | 325 | 21 611 | 5.9 | 4.3 |
| Other | 1 411 | 166 083 | 25.9 | 33.2 |
| **Total problems**(a) | **8 086** | **743 625** | **147.7** | **148.1** |

(a) Components may not add to total as more than one problem can be managed at each consultation.

*Source: Britt et al. 2003*

*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. A number of qualifications need to be made about hospitalisations data with regard to Indigenous identification (box 7.9). The identification of Aboriginal and Torres Strait Islander patients in hospital records is incomplete and is considered to be in need of improvement in some jurisdictions (New South Wales, Victoria, Queensland, Tasmania and the Australian Capital Territory) (AIHW 2005b). Therefore, true hospitalisation rates for Aboriginal and Torres Strait Islander people are likely to be higher than those reported in this chapter.

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 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.

*Hospitalisations continued*

## 7.9 IDENTIFICATION OF INDIGENOUS PEOPLE IN HOSPITAL RECORDS

Information concerning the number of Indigenous hospitalisations is limited by the accuracy with which Indigenous patients are identified in hospital records. Problems associated with identification will result in an underestimation of hospitalisations for Aboriginal and Torres Strait Islander people.

Uncertainties regarding the accuracy of methods used to gather information about Indigenous persons also make it difficult to draw conclusions about changes over time. Improvements in the identification of Indigenous patients can lead to higher apparent rates of hospitalisation. 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.

The level of completeness of Indigenous identification in hospital data is assessed by each state and territory and this information is provided annually to the Australian Institute of Health and Welfare. In 2003–04, only South Australia, Western Australia and the Northern Territory reported that the quality of Indigenous status is acceptable (AIHW 2005b).

There are no national estimates of the level of completeness of coverage of Indigenous identification in hospital morbidity collections. However, a number of studies indicate that Indigenous people are under-identified in hospital records or that the rate at which hospitals correctly record Indigenous status varies across jurisdictions (Shannon et al. 1997; Lynch & Lewis 1997; ATSIHWIU 1999; Young 2001; Condon et al. 1998).

In this publication, hospital separations (hospitalisations) for 2003–04 are presented for all states and territories for public and most private hospitals and have not been adjusted for Indigenous under-identification. 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, therefore, when hospitalisations are referred to as being for a condition it means that this condition is the principal diagnosis. Disease categories are based on the *International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification* (ICD-10-AM) (NCCH 2000).

Hospitalisations for which Indigenous status was not reported are included with hospitalisations data for non-Indigenous people under the ‘Other’ category. This is because a preliminary analysis of the data indicated that the demographic profile of patients recorded as ‘non-Indigenous’ was similar to that for patients for whom Indigenous status was ‘not stated’. In 2003–04, there were approximately 246,000 hospitalisations for which Indigenous status was not reported, compared to approximately 216,000 hospitalisations recorded for Indigenous people. The proportion of records where Indigenous status was not reported declined from approximately 12% of hospitalisations in 1997–98 (AIHW 1999) to 3.6% of hospitalisations in 2003–04.

In 2003–04, the most common diagnosis for Indigenous Australians was 'care involving dialysis' which is used in the treatment of kidney failure. Indigenous Australians were also commonly hospitalised for injury (e.g. assault and suicide), pregnancy and childbirth (e.g. complications associated with labour and delivery), respiratory diseases (e.g. influenza and pneumonia), digestive diseases (e.g. diseases of the liver, intestines and oral cavity), and mental and behavioural disorders (e.g. schizophrenia and psychoactive substance use). ‘Symptoms, signs and abnormal clinical and laboratory findings' was also a common diagnosis for Indigenous Australians and includes

*Hospitalisations continued*

conditions such as convulsions, fever of unknown origin, pain in throat and chest and abdominal and pelvic pain.

Hospitalisation rates for Indigenous Australians were higher than for other Australians for many diagnoses (table 7.10). Indigenous Australians were hospitalised for care involving dialysis at 12 times the rate, and for endocrine, nutritional and metabolic diseases (including diabetes), at three times the rate for other Australians.

**7.10** HOSPITALISATIONS OF INDIGENOUS PERSONS, by principal diagnosis—2003–04

| *Principal diagnosis (ICD-10-AM chapter)* | *Observed hospitalisations* | *Expected hospitalisations* | *Ratio*(a) |
|---|---|---|---|
| Factors influencing health status and contact with health services | 89 710 | 17 828 | 5.0 |
| Care involving dialysis (Z49) | 81 983 | 6 816 | 12.0 |
| Other (Z00–Z99)(b) | 7 727 | 11 012 | 0.7 |
| Injury, poisoning and certain other consequences of external causes (S00–T98) | 17 318 | 9 234 | 1.9 |
| Complications of pregnancy, childbirth and the puerperium (O00–O99) | 16 783 | 11 535 | 1.5 |
| Diseases of the respiratory system (J00–J99) | 16 041 | 7 218 | 2.2 |
| Diseases of the digestive system (K00–K93) | 11 604 | 13 236 | 0.9 |
| Mental and behavioural disorders (F00–F99) | 9 558 | 5 475 | 1.7 |
| Symptoms, signs and abnormal clinical and laboratory findings, n.e.c. (R00–R99) | 9 317 | 6 380 | 1.5 |
| Diseases of the circulatory system (I00–I99) | 7 260 | 3 864 | 1.9 |
| Diseases of the genitourinary system (N00–N99) | 5 949 | 5 724 | 1.0 |
| Diseases of the skin and subcutaneous tissue (L00–L99) | 5 230 | 2 103 | 2.5 |
| Certain infectious and parasitic diseases (A00–B99) | 5 069 | 2 633 | 1.9 |
| Endocrine, nutritional and metabolic diseases (E00–E90) | 4 291 | 1 455 | 2.9 |
| Other | 27 129 | 27 839 | 0.8 |
| **Total** | **216 142** | **108 206** | **2.0** |

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

(b) Excludes care involving dialysis.

*Source: AIHW, National Hospital Morbidity Database.*

## SPECIFIC CAUSES OF ILL-HEALTH

The following section covers prevalence and hospitalisations for conditions such as circulatory diseases, diabetes, kidney disease, cancer, injury, respiratory diseases, and communicable diseases.

### *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 disease 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 SYSTEM DISEASES

The NHS estimated that in 2001, 11% of Indigenous Australians reported a long-term health condition associated with the circulatory system. The age-standardised prevalence of circulatory system diseases among Indigenous Australians was not significantly different from the prevalence experienced by non-Indigenous Australians (ABS 2002b). The most commonly reported condition of the circulatory system among Indigenous Australians was hypertension. Prevalence of hypertension increased with age for both Indigenous and non-Indigenous Australians. Among people aged 25 years or over, *Circulatory system diseases continued*

### PREVALENCE OF CIRCULATORY SYSTEM DISEASES *continued*

prevalence levels for Aboriginal and Torres Strait Islander people are similar to those experienced by non-Indigenous Australians who are 10 years older.

A disease of the circulatory system that affects mainly Indigenous Australians is rheumatic heart disease. Rheumatic heart disease is caused by the long-term damage done to the heart muscle or heart valves by 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 social and economic disadvantage. Limited access to medical care for adequate diagnosis and ongoing treatment of these diseases for some population subgroups contributes to their occurrence and recurrence (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. In 2002 there were 696 people diagnosed with rheumatic heart disease in the Top End of the Northern Territory, 92% of whom were Aboriginal and Torres Strait Islander people (643 cases). About two-thirds (65%) of these cases were Indigenous women. In Central Australia, there was a total of 283 cases of rheumatic heart disease. Of these, 267 cases (94%) were reported for Aboriginal and Torres Strait Islander people. In Central Australia the prevalence rate was around 13 per 1,000 among Indigenous Australians compared with less than one per 1,000 among other Australians (Field 2004).

In 2002, 58 people were diagnosed with acute rheumatic fever in the Top End of the Northern Territory, with a further 27 cases in Central Australia, all of whom were Indigenous Australians. The highest incidence rates were found among Aboriginal and Torres Strait Islander children aged 5–14 years, at 346 per 100,000 in the Top End and 365 per 100,000 in Central Australia.

### HOSPITALISATIONS FOR CIRCULATORY SYSTEM DISEASES

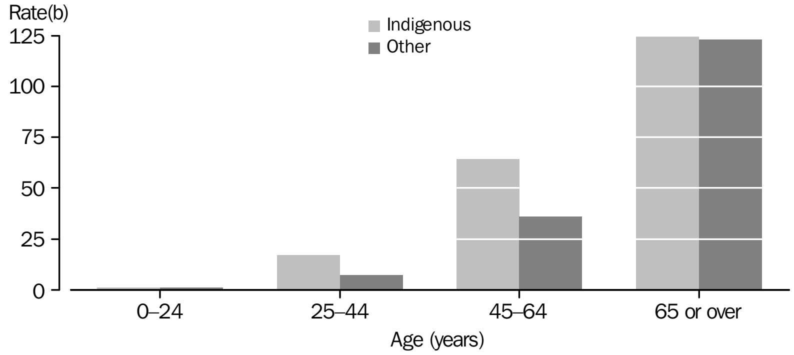
In 2003–04, diseases of the circulatory system were the main reason for 3,845 hospitalisations of Indigenous males and represented 4% of overall hospitalisations of Indigenous males. For Indigenous females, the comparative figures were 3,415 hospitalisations, representing 3% of overall hospitalisations for Indigenous females.

Indigenous Australians had higher hospitalisation rates for diseases of the circulatory system than other Australians across all age groups. The differences were most marked among people aged 45–64 years, where Indigenous male and female hospitalisation rates were 2–3 times the rates for other males and females (graphs 7.11 and 7.12).

*Circulatory system diseases continued*

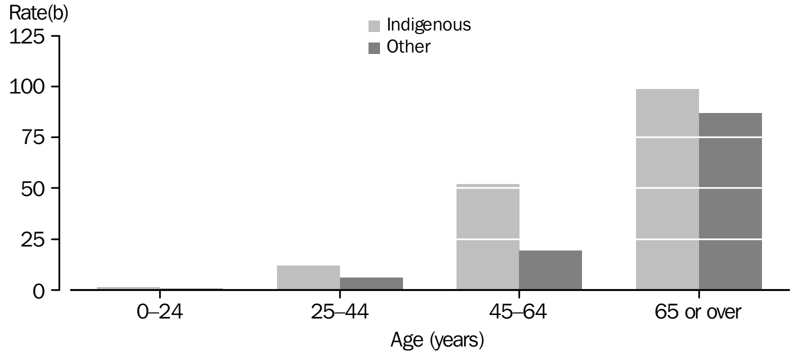
HOSPITALISATIONS FOR CIRCULATORY SYSTEM DISEASES *continued*

**7.11** MALE RATES OF HOSPITALISATION FOR DISEASES OF THE CIRCULATORY SYSTEM(a), by Indigenous status—2003–04



(a) Based on the principal diagnosis.
(b) Rates are per 1,000 population.
*Source: AIHW, National Hospital Morbidity Database*

**7.12** FEMALE RATES OF HOSPITALISATION FOR DISEASES OF THE CIRCULATORY SYSTEM(a), by Indigenous status—2003–04



(a) Based on the principal diagnosis.
(b) Rates are per 1,000 population.
*Source: AIHW, National Hospital Morbidity Database*

Indigenous Australians were hospitalised at higher rates for most types of circulatory system diseases than other Australians (table 7.13). For the most common type of circulatory system disease (ischaemic heart disease), there were approximately twice as many hospitalisations for Indigenous males and almost four times as many hospitalisations for Indigenous females as for other Australian males and females respectively. Hospitalisations for hypertensive disease were also substantially higher in the Indigenous population than among other Australians. Most notably, hospitalisations for rheumatic heart disease were 13 and 16 times higher for Indigenous males and females respectively. These large differences are to some extent determined by the very low numbers of hospitalisations in the non-Indigenous population.

## 7.13 HOSPITALISATIONS FOR DISEASES OF THE CIRCULATORY SYSTEM(a), Indigenous persons—2003–04

| | MALES | | | FEMALES | | |
|---|---|---|---|---|---|---|
| | *Observed* | *Expected* | *Ratio*(b) | *Observed* | *Expected* | *Ratio*(b) |
| Ischaemic heart disease (I20–I25) | 1 876 | 847 | 2.2 | 1 450 | 384 | 3.8 |
| Other heart disease (I26–I28, I30–I52) | 1 066 | 543 | 2.0 | 905 | 421 | 2.1 |
| Cerebrovascular disease (I60–I69) | 294 | 142 | 2.1 | 278 | 132 | 2.1 |
| Hypertensive disease (I10–I15) | 116 | 29 | 4.1 | 186 | 38 | 4.9 |
| Rheumatic heart disease (I00–I02, I05–I09) | 103 | 8 | 12.9 | 199 | 12 | 16.2 |
| Other diseases of the circulatory system (I70–I99) | 390 | 626 | 0.6 | 397 | 644 | 0.6 |
| **Total (I00–I99)** | **3 845** | **2 194** | **1.8** | **3 415** | **1 633** | **2.1** |

(a) Based on the principal diagnosis.
(b) Ratio is observed hospitalisations divided by expected hospitalisations. Expected hospitalisations are based on the age, sex and cause-specific rates for 'Other' Australians.
*Source: AIHW, National Hospital Morbidity Database*

### *Diabetes*

Diabetes is a significant health problem for Indigenous Australians. There are three main types of diabetes: Type I, Type II and gestational diabetes. Type I diabetes is caused by a total lack, or near total lack, of insulin, while Type II diabetes is marked by a reduced level of insulin and/or an inability to use insulin properly (i.e. insulin resistance) (AIHW 2002e). 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 2002e).

The majority (an estimated 98–99%) of cases of diabetes among Indigenous Australians are Type II, with only 1–2% being Type I (de Courten et al. 1998). There are limited national data available to accurately measure the extent of gestational diabetes among Indigenous women; however the incidence rate may be as high as 20% (Colagiuri et al. 1998).

#### PREVALENCE OF DIABETES

In 2001, approximately 5% of Indigenous Australians of all ages reported diabetes as a long-term health condition. Indigenous Australians from remote areas were more likely to report having diabetes than those from non-remote areas (7% compared with 5%).

From age 25 years, diabetes was more prevalent among Indigenous Australians than among non-Indigenous Australians. While in both populations prevalence was progressively higher in older age groups, the prevalence among Indigenous Australians aged 35–44 years was almost as high as among non-Indigenous Australians aged 55 years or over.

The age-standardised prevalence of self-reported diabetes among Indigenous Australians was almost four times the prevalence among non-Indigenous Australians (ABS 2002b).

#### HOSPITALISATIONS DUE TO DIABETES

In 2003–04, diabetes was responsible for 3,049 hospitalisations of Indigenous Australians and represented 1% of all Indigenous hospitalisations (of which 49% were for males and 51% were for females). Despite a relatively low population prevalence of Type I diabetes, 17% of hospitalisations for diabetes were for Type I diabetes. Hospitalisation rates for

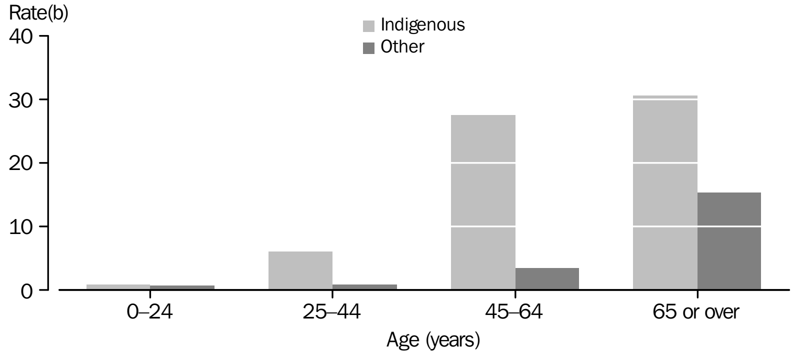
*Diabetes continued*

### HOSPITALISATIONS DUE TO DIABETES *continued*

diabetes increased from around 6 per 1,000 population for those aged 25–44 years to 30.6 and 37.7 hospitalisations per 1,000 population for males and females, respectively, aged 65 years or over (graphs 7.14 and 7.15). Among people aged 25 years or over, hospitalisation rates for Indigenous males and females were considerably higher than for other Australian males and females.

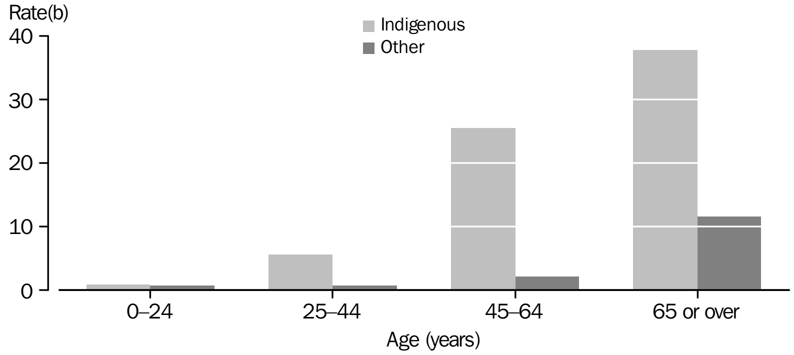
After adjusting for differences in age structure, hospitalisation rates for diabetes for Indigenous males and females were five times those for other Australian males and females. Hospitalisation rates for Type II diabetes for Indigenous males and females were eight and ten times those for other Australian males and females.

**7.14** MALE RATES OF HOSPITALISATION FOR DIABETES(a), by Indigenous status—2003–04



(a) Based on the principal diagnosis.
(b) Rates are per 1,000 population.
*Source: AIHW, National Hospital Morbidity Database*

**7.15** FEMALE RATES OF HOSPITALISATION FOR DIABETES(a), by Indigenous status—2003–04



(a) Based on the principal diagnosis.
(b) Rates are per 1,000 population.
*Source: AIHW, National Hospital Morbidity Database*

The data reported here are for diabetes as the principal diagnosis only. However diabetes is more frequently reported as an additional diagnosis (i.e. as a comorbidity) than as the principal diagnosis. In 2003–04, diabetes was recorded as an additional diagnosis for 26,049 hospitalisations of Indigenous Australians (excluding

Diabetes *continued*

HOSPITALISATIONS DUE TO DIABETES *continued*

hospitalisations with a principal diagnosis of diabetes). The most common diagnosis for Indigenous Australians with diabetes as an additional diagnosis was care involving dialysis. Diseases of the circulatory and respiratory systems were also common reasons for hospitalisations for which diabetes was an additional diagnosis (AIHW 2002e).

The extent and contribution of diabetes to hospitalisations for other conditions varied. For example, 69% of hospitalisations of Indigenous Australians for other bacterial diseases had diabetes as an additional diagnosis compared with only 17% of hospitalisations of other Australians. Similarly, 44% of hospitalisations of Indigenous Australians for ischaemic heart disease had diabetes as an additional diagnosis while among other Australians the proportion was 21%. Corresponding proportions for hypertensive diseases were 34% for Indigenous Australians and 14% for other Australians (table 7.16).

### 7.16 HOSPITALISATIONS WITH DIABETES AS AN ADDITIONAL DIAGNOSIS(a)—2003–04

| | *Indigenous*(b) | *Other*(b) |
|---|---|---|
| | % | % |
| Bacterial diseases (A30–A49)(c) | 68.8 | 17.4 |
| Metabolic disorders (E70–E89) | 59.8 | 9.4 |
| Complications of surgical and medical care n.e.c. (T80–T88) | 56.8 | 11.0 |
| Other forms of heart disease (I30–I52) | 49.0 | 17.9 |
| Cerebrovascular diseases (I60–I69) | 45.6 | 18.4 |
| Ischaemic heart diseases (I20–I25) | 44.3 | 20.8 |
| Nutritional anaemias (D50–D53) | 38.1 | 13.0 |
| Hypertensive diseases (I10–I15) | 34.1 | 14.0 |

(a) Excludes hospitalisations with a principal diagnosis of diabetes.
(b) Indirectly standardised proportion of hospitalisations for other conditions with diabetes as an additional diagnosis, based on the age and cause-specific rates for 'Other' Australians.
(c) Excludes intestinal infectious diseases, tuberculosis and certain zoonotic bacterial diseases.
*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). 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 all 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. 2001; Cass et al. 2004). Cass et al. (2004) illustrated a number of pathways linking disadvantage and

*Kidney disease continued*

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 Australian and New Zealand Dialysis and Transplant Registry (ANZDATA), and from hospitalisation data.

### CHRONIC KIDNEY DISEASE

Chronic kidney disease includes diabetic nephropathy, hypertensive renal disease, glomerular disease, chronic renal failure and end-stage renal disease (ESRD). ESRD results when about 95% of kidney function has been lost (Catford et al. 1997). 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 the ANZDATA. In Australia, persons 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 persons treated for ESRD. It compiles data on incidence and prevalence, renal complications, comorbidities and patient deaths. Indigenous identification in the ANZDATA registry is based on 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 will therefore be on ESRD.

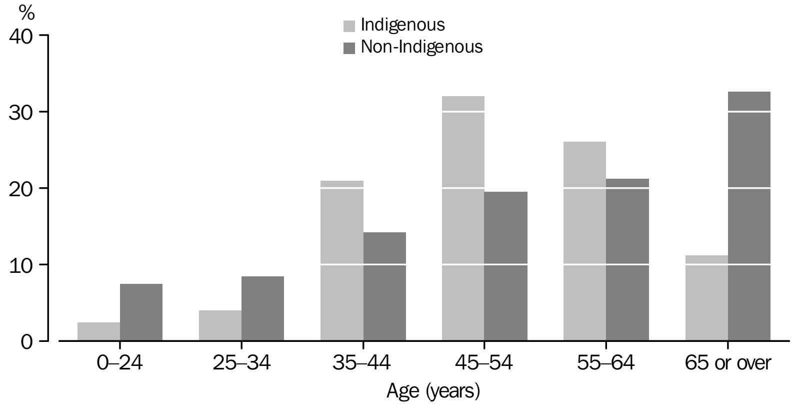
### PREVALENCE AND INCIDENCE OF END-STAGE RENAL DISEASE

In 2003, 6.5% (882) of the 13,625 persons registered with ANZDATA were identified as Indigenous Australians. This is a much higher proportion than the 2.4% Indigenous representation in the total population. Indigenous people commencing ESRD treatment were substantially younger than non-Indigenous Australians commencing ESRD treatment. About two-thirds (63%) of Aboriginal and Torres Strait Islander people registered with ANZDATA were aged less than 55 years, whereas less than half (46%) of non-Indigenous Australians registered were below that age (graph 7.17).

*Kidney disease continued*

## PREVALENCE AND INCIDENCE OF END-STAGE RENAL DISEASE *continued*

### 7.17 END-STAGE RENAL DISEASE PATIENTS, by Indigenous status—2003



*Source: Excell & McDonald 2004*

The numbers of patients starting ESRD treatment have more than doubled in the last 10 years, with the rate for Indigenous people increasing faster than the rate for non-Indigenous patients (Russ 2002). The incidence rate of dialysis among Indigenous people increased from 17 per 100,000 in 1992 to 35 per 100,000 in 2003 (table 7.18). In 2003, 1,953 new dialysis patients were registered in Australia, of whom 168 (8.6%) were identified as being of Aboriginal or Torres Strait Islander origin.

### 7.18 NEW DIALYSIS PATIENTS, by Indigenous status—1992–2003

| | TOTAL | INDIGENOUS | | |
|---|---|---|---|---|
| | *Number* | *Number* | *Proportion of total* | *Incidence rate*(a) |
| | no. | no. | % | rate |
| 1992 | 1 086 | 64 | 5.9 | 17.0 |
| 1993 | 1 159 | 91 | 7.9 | 23.6 |
| 1994 | 1 314 | 111 | 8.4 | 28.1 |
| 1995 | 1 383 | 126 | 9.1 | 31.1 |
| 1996 | 1 405 | 100 | 7.1 | 24.1 |
| 1997 | 1 484 | 152 | 10.2 | 35.9 |
| 1998 | 1 609 | 137 | 8.5 | 31.7 |
| 1999 | 1 745 | 157 | 9.0 | 35.6 |
| 2000 | 1 755 | 150 | 8.5 | 33.3 |
| 2001 | 1 911 | 175 | 9.2 | 38.2 |
| 2002 | 1 898 | 171 | 9.0 | 36.6 |
| 2003 | 1 953 | 168 | 8.6 | 35.3 |

(a) New dialysis patients per 100,000 population
*Source: Excell & McDonald 2004*

*Kidney disease continued*

### PREVALENCE AND INCIDENCE OF END-STAGE RENAL DISEASE *continued*

In all states and territories, Indigenous Australians accounted for a disproportionate number of new cases. Indigenous patients accounted for 85% of all newly registered dialysis patients in the Northern Territory, 20% in Western Australia and 12% in Queensland. In remote regions, standardised ESRD incidence among Indigenous Australians has been shown to be up to 30 times the national incidence for all Australians, with the variation in incidence strongly associated with markers of socioeconomic disadvantage (Cass et al. 2001). In addition to this higher incidence, patients living in remote areas have reduced access to treatment.

### COMORBIDITIES AND RISK FACTORS FOR END-STAGE RENAL DISEASE

A number of health conditions are associated with renal disease including cerebrovascular disease, lung disease, peripheral vascular disease, coronary artery disease, smoking and diabetes. In 2003, most of these conditions were reported in similar proportions for Aboriginal and Torres Strait Islander and non-Indigenous patients beginning ESRD treatment. Diabetes however was much more likely to be reported for Aboriginal and Torres Strait Islander patients than for non-Indigenous patients (70% and 27% 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 2003, diabetes was attributed as the primary cause of ESRD for more than 55% of Indigenous dialysis patients compared with 18% of non-Indigenous dialysis patients (Excell & McDonald 2004).

A number of other factors have been associated with renal disease, including low birthweight, reduced renal volume in childhood, occurrence of childhood post streptococcal glomerulonephritis, obesity, alcohol use, repeated bacterial infections and hypertension. These have all been implicated as factors contributing to the higher incidence rates of ESRD among Indigenous Australians (McDonald & Russ 2003).

### 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 non-Indigenous patients. This may be affected by the extent and pattern of comorbidities in the two populations. In 2003, of all Indigenous ESRD patients registered, 86% were reliant on dialysis and only 14% had received a kidney transplant. In comparison, around half (54%) of non-Indigenous Australians living with ESRD were reliant on dialysis and 46% had received a kidney transplant (table 7.19).

Once dialysis treatment has commenced, Indigenous people are less likely to be placed on the active transplant waiting list and less likely to move from the waiting list to transplantation (Cass et al. 2003; McDonald & Russ 2003). Factors which may contribute to these disparities include miscommunication between Indigenous patients and health professionals, a lack of understanding on the part of Indigenous patients about their illness and its treatments, and lower rates of well-matched kidney donors for Indigenous patients than for non-Indigenous patients (Cass et al. 2003; McDonald & Russ 2003).

*Kidney disease continued*

## MANAGEMENT OF KIDNEY DISEASE *continued*

### 7.19 END-STAGE RENAL DISEASE PATIENTS, by treatment type—1999–2003

| | | *1999* | *2000* | *2001* | *2002* | *2003* |
|---|---|---|---|---|---|---|
| INDIGENOUS PATIENTS | | | | | | |
| Dialysis | % | 81.9 | 82.9 | 84.3 | 85.5 | 86.4 |
| Functioning transplant(a) | % | 18.1 | 17.1 | 15.7 | 14.5 | 13.6 |
| ***Total*** | % | ***100.0*** | ***100.0*** | ***100.0*** | ***100.0*** | ***100.0*** |
| **Total** | no. | **648** | **697** | **763** | **829** | **882** |
| NON-INDIGENOUS PATIENTS | | | | | | |
| Dialysis | % | 52.6 | 53.1 | 53.7 | 53.8 | 54.2 |
| Functioning transplant(a) | % | 47.4 | 46.9 | 46.3 | 46.2 | 45.8 |
| ***Total*** | % | ***100.0*** | ***100.0*** | ***100.0*** | ***100.0*** | ***100.0*** |
| **Total** | no. | **10 440** | **10 977** | **11 556** | **12 177** | **12 763** |

(a) Data includes patients who underwent transplants in New Zealand but were resident in Australia and patients who underwent transplants in Australia but were resident in New Zealand.

*Source: Excell & McDonald 2004*

In 2003–04, there were around 83,000 hospitalisations of Indigenous Australians for chronic kidney disease and its sequelae, 43% of which were hospitalisations of Indigenous males and 57% of which were hospitalisations of Indigenous females. There were nearly nine times as many hospitalisations for Indigenous males and 16 times as many hospitalisations for Indigenous females as for other Australian males and females respectively. The greatest difference between observed and expected hospitalisations for Indigenous males and females were for diabetic nephropathy (11 and 24 times as high) and for care involving dialysis (9 and 17 times as high). Of all hospitalisations for chronic kidney disease and its sequelae, the majority (81,983 or 98%) were for care involving dialysis (table 7.20).

## 7.20 HOSPITALISATIONS FOR CHRONIC KIDNEY DISEASE AND ITS SEQUELAE(a), Indigenous persons—2003–04

| | MALES | | | FEMALES | | |
|---|---|---|---|---|---|---|
| | *Observed* | *Expected* | *Ratio*(b) | *Observed* | *Expected* | *Ratio*(b) |
| Chronic renal failure (N18–N19) | 187 | 33 | 5.7 | 172 | 23 | 7.4 |
| Diabetic nephropathy (E102, E112, E132, E142) | 173 | 16 | 11.1 | 293 | 12 | 23.8 |
| Renal tubulo-interstitial diseases (N11–N12, N14–N16) | 43 | 18 | 2.5 | 348 | 118 | 3.0 |
| Glomerular diseases (N00–N08) | 68 | 29 | 2.3 | 70 | 30 | 2.3 |
| Hypertensive renal disease (I12–I13, I150–I151) | 5 | 4 | 1.3 | 8 | 3 | 2.9 |
| Other chronic kidney disease (N25–N28, N391–N392, Q60–Q63, T824, T861, Z940) | 55 | 43 | 1.3 | 69 | 36 | 1.9 |
| Care involving dialysis (Z49) | 35 560 | 4 015 | 8.9 | 46 423 | 2 731 | 17.0 |
| **Total** | **36 091** | **4 157** | **8.7** | **47 383** | **2 954** | **16.0** |

(a) Based on the principal diagnosis.
(b) Ratio is observed hospitalisations divided by expected hospitalisations. Expected hospitalisations are based on the age, sex and cause-specific rates for 'Other' Australians.

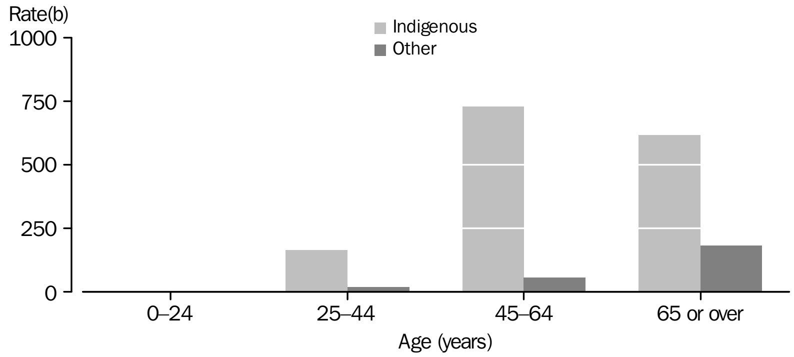
*Source: AIHW, National Hospital Morbidity Database*

Kidney disease *continued*

### MANAGEMENT OF KIDNEY DISEASE *continued*

Hospitalisation rates for care involving dialysis were markedly higher in older age groups, peaking for males aged 45–64 years and for females aged 65 years or over (graphs 7.21 and 7.22). In contrast, the rates for other Australians peaked at 65 years or over for both males and females, and at much lower levels. It should be noted that the rates of dialysis are the outcome of some individuals accessing services many times, for example an individual reliant on treatment may undergo dialysis 2 or 3 times a week.

## 7.21 MALE RATES OF HOSPITALISATION FOR CARE INVOLVING DIALYSIS(a), by Indigenous status—2003–04

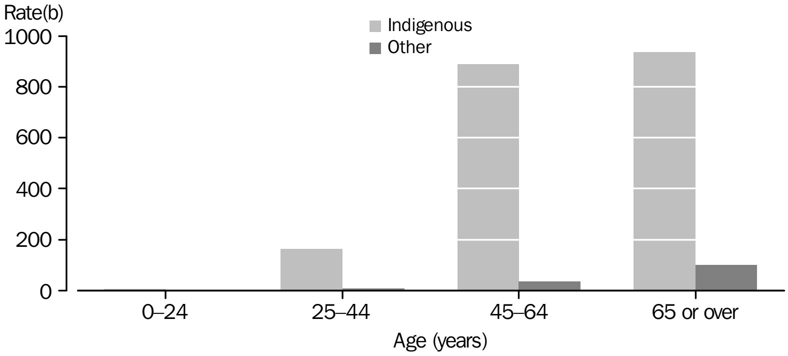


(a) Based on the principal diagnosis.
(b) Rates are per 1,000 population.
*Source: AIHW, National Hospital Morbidity Database*

*Kidney disease continued*

MANAGEMENT OF KIDNEY DISEASE *continued*

**7.22** FEMALE RATES OF HOSPITALISATION FOR CARE INVOLVING DIALYSIS(a), by Indigenous status—2003–04



(a) Based on the principal diagnosis.
(b) Rates are per 1,000 population.
*Source: AIHW, National Hospital Morbidity Database*

In 2003–04, the overall Indigenous male and female hospitalisation rates for care involving dialysis were 1.2 and 1.3 times higher than in 2000–01.

*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. They may 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.

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 inherited genes (for example, prostate and breast cancer are more common among people with a family history of these cancers). 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.

The risk of death due to particular cancers may be reduced through monitoring of individuals at high risk, reducing external risk factors, detecting and treating cancers early in their development, and treating them in accordance with the best available clinical evidence.

Information on cancer presented here comes from state and territory cancer registries, and cancer screening, hospitalisation and mortality data.

Cancer *continued*

### INCIDENCE OF CANCER

Ascertainment of cancer cases is almost complete for all state and territory cancer registries, but Indigenous identification (the identification of Indigenous people among the registered cancer cases) is not complete for any cancer registry. The South Australian and Northern Territory registries have undertaken specific projects to identify all Indigenous cases in their registers, but only the Northern Territory registry has reported the completeness of Indigenous identification; after attempting to identify all Indigenous cases, it was estimated that approximately 18% of Indigenous cases remained incorrectly recorded as non-Indigenous. Incidence rates will therefore underestimate the actual cancer incidence in the Northern Territory's Indigenous population by approximately 18%. Identification of Indigenous cases is also believed to be reasonably complete in the Western Australian and Queensland registries, but this has not been formally assessed.

In the Northern Territory, which has the highest levels of ascertainment (proportion of all cases notified to the cancer registry), the average annual number of new cases of cancer per 100,000 people for 1997–2001 was 445 for Indigenous males, compared with 518 for other males. Indigenous females had almost the same incidence rate as other females (365 compared with 369 per 100,000 per year) (table 7.23). Incidence rates for Indigenous males and females are lower than for other males and females in Queensland, Western Australia and South Australia; however, the level of Indigenous under-identification is not known.

### 7.23 INCIDENCE OF CANCER, by Indigenous status—1997–2001

| | MALES | | FEMALES | |
|---|---|---|---|---|
| *State/territory*(a) | *New cases* | *Average annual rate*(b) | *New cases* | *Average annual rate*(b) |
| Queensland | | | | |
| Indigenous | 407 | 453.7 | 447 | 370.1 |
| Other(c) | 43 114 | 576.5 | 35 624 | 420.3 |
| South Australia | | | | |
| Indigenous | 49 | 238.9 | 54 | 213.7 |
| Other(c) | 20 126 | 553.4 | 16 899 | 394.6 |
| Western Australia | | | | |
| Indigenous | 168 | 296.0 | 173 | 261.4 |
| Other(c) | 19 024 | 513.0 | 16 110 | 371.4 |
| Northern Territory | | | | |
| Indigenous | 207 | 445.4 | 216 | 365.1 |
| Other(c) | 998 | 517.8 | 665 | 369.0 |
| **Australia**(d) | **47 820** | **541.4** | **40 578** | **393.3** |

(a) State of usual residence.
(b) Rate per 100,000 persons. Directly age-standardised to the 2001 Australian population.
(c) Includes people for whom Indigenous status was not known.
(d) All new cases of cancer in Australia in 2001.
*Source: AIHW, National Cancer Statistics Clearning House*

Cancer *continued*

INCIDENCE OF CANCER *continued*

The most common cancer in Aboriginal and Torres Strait Islander people is lung cancer. Lung cancer has a low five-year survival rate compared with other cancers, at 11% for males and 14% for females, in the general population in 1992–97 (AIHW & AACR 2001). For Aboriginal and Torres Strait Islander males, it was the most frequently diagnosed new cancer from 1997–2001, followed by prostate cancer, colorectal cancer, cancer of unknown primary site and liver cancer. For females, breast cancer was the most frequently occurring new cancer, followed by lung cancer, cervical cancer, colorectal cancer and cancer of the uterus. The lung cancer incidence rate for males was almost twice the rate for females (table 7.24).

In the Northern Territory and South Australia the incidence rates for cancers of the lung, liver, and cervix were higher for Aboriginal and Torres Strait Islander people than for non-Indigenous Australians (Condon et al. 2003). For cancers of the breast, prostate, lymphoma, colon and rectum, and melanoma of the skin, the incidence rates for Indigenous Australians were lower than for non-Indigenous Australians.

**7.24** NEW CASES OF MOST COMMON CANCERS REPORTED FOR INDIGENOUS PERSONS(a)—1997–2001

| | *Number* | *Annual rate*(b) |
|---|---|---|
| **Males** | | |
| Lung | 190 | 29.1 |
| Prostate | 73 | 11.2 |
| Colorectal | 70 | 10.7 |
| Unknown primary site | 54 | 8.3 |
| Liver | 43 | 6.6 |
| **Females** | | |
| Breast | 185 | 27.7 |
| Lung | 101 | 15.1 |
| Cervix | 80 | 12.0 |
| Colorectal | 60 | 9.0 |
| Corpus uteri | 58 | 8.7 |

(a) Data for Queensland, South Australia, Western Australia and the Northern Territory.
(b) Rate per 100,000 persons.
*Source: AIHW, National Cancer Statistics Clearing House*

CANCER SURVIVAL

An analysis by the Northern Territory Cancer Registry of five-year relative survival for Northern Territory Indigenous people diagnosed with cancer between 1991 and 1999 found lower survival rates for Indigenous Australians than for other Australians for almost all of the most common cancers (Condon 2004). The differences were statistically significant for cancer of the thyroid, breast, cervix and bowel, and large and close to statistical significance for prostate cancer and leukaemia. Examples of the five-year survival differences were:

- thyroid cancer: 60% for Northern Territory Indigenous people, compared with over 90% for all Australian cases
- female breast cancer: 42% for Northern Territory Indigenous people, compared with over 80% for all Australian cases.

Cancer *continued*

### CANCER SURVIVAL *continued*

Condon et al. (2004a) concluded that cancer is an important and increasing health problem for Indigenous Australians, and that the cancers affecting Indigenous Australians are largely preventable, through smoking cessation for lung cancer, Pap smear screening for cervical cancer, and hepatitis B vaccination for liver cancer. Indigenous women might also achieve the high breast cancer survival rates experienced in the general female population if they had earlier detection and improved access to effective treatment.

Data on participation by Indigenous women in the BreastScreen Australia screening program are collected by the state programs and published by the AIHW in the annual Breastscreen Australia monitoring report. In the BreastScreen Australia Program in 2001–02 there were 11,542 women aged 40 years or over who identified themselves as Indigenous. Participation in the program by women in the 50–69 years target age group was estimated at 35%, much lower than the 57% participation for the total Australian female population in this age group (AIHW 2005c).

An outcome of this is that a higher proportion of Northern Territory Indigenous women than non-Indigenous women are diagnosed with advanced breast cancer. A higher proportion were also diagnosed in 1991–2000 with advanced disease for cancer of the bowel, cervix and lymphoma, but not for cancer of the lung. Indigenous people also have lower survival at every stage at diagnosis for each of these cancers (Condon et al. 2005).

### CANCER RISK FACTORS

Several factors may at least partly explain differences between cancer incidence and mortality rates for the Indigenous and non-Indigenous populations. These factors include very high prevalence of tobacco smoking and hepatitis B carriage, low Pap test rates, early onset of child bearing, high numbers of pregnancies and births, and a different diet from other Australians (Condon et al. 2003).

In 2001, approximately 54% of Indigenous adults smoked tobacco. After adjusting for the different age structures in the Indigenous and non-Indigenous populations, the proportion of Indigenous Australians who were current smokers was more than double the proportion in the non-Indigenous population (ABS, 2002b); this contributes to high incidence and mortality rates for smoking-related cancers. For liver cancer, the major risk factor for Indigenous people is chronic hepatitis B infection, which may be exacerbated by excessive alcohol consumption. For cervical cancer, data on Indigenous participation in cervical screening is patchy but suggests that participation is relatively low in at least some areas, in part due to cultural barriers and a lack of female doctors.

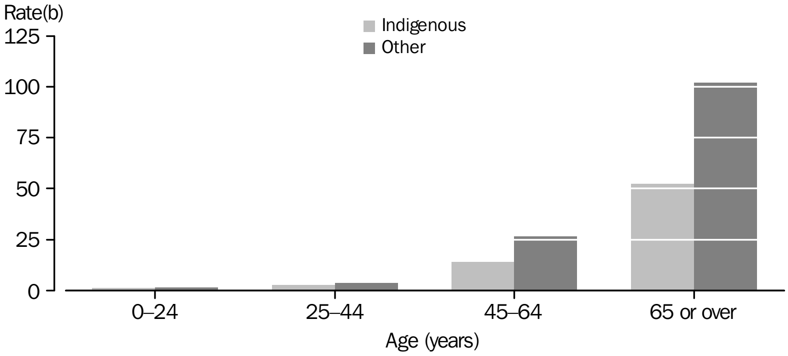
The lower incidence of breast cancer among Indigenous Australians than among other Australians can be partially explained by the early average age of first childbirth, high number of pregnancies and possibly longer duration of breastfeeding, all of which have protective effects for breast cancer. The high level of melanin pigmentation in the skin of many Indigenous people is a protective factor against melanoma of the skin and may explain the lower incidence of this cancer in Indigenous people (Condon 2004).

*Cancer continued*

HOSPITALISATIONS FOR CANCERS

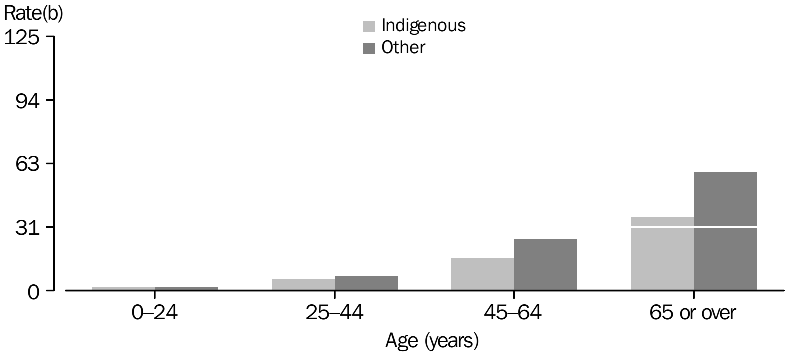
In 2003–04, cancer was responsible for 1,070 hospitalisations of Indigenous males and 1,344 hospitalisations of Indigenous females, 1.1% of both Indigenous male and female hospitalisations. Hospitalisation rates for cancer for both Indigenous and other Australian patients were higher for people aged 25 years or over but were considerably lower for Indigenous than for other Australians in each age group (graphs 7.25 and 7.26).

**7.25** MALE RATES OF HOSPITALISATION FOR CANCER(a), by Indigenous status—2003–04



(a) Based on the principal diagnosis.
(b) Rates are per 1,000 population.
*Source: AIHW, National Hospital Morbidity Database*

**7.26** FEMALE RATES OF HOSPITALISATION FOR CANCER(a), by Indigenous status—2003–04



(a) Based on the principal diagnosis.
(a) Rates are per 1,000 population.
*Source: AIHW, National Hospital Morbidity Database*

*Injury and poisoning*

Injury and poisoning are large contributors to morbidity, especially in the first half of the life span (AIHW 2004b). A variety of factors affect a person's risk of being injured, including age, sex, alcohol use and socioeconomic status. The effects of injury on one's health can be looked at through the damage sustained to the body (e.g. broken bones, head injuries), or through the external cause of the injury (e.g. falls, poisoning and drowning), both of which are recorded by hospitals.

*Injury and poisoning continued*

### HOSPITALISATIONS DUE TO INJURY OR POISONING

In 2003–04, injury or poisoning was the principal diagnosis recorded in over 17,000 hospitalisations of Indigenous patients (table 7.27). Over half (56%) of these hospital episodes were for Indigenous males. Hospitalisations due to injury or poisoning represented 10% of all hospitalisations for Indigenous males and 6% for Indigenous females. The hospitalisation rate for injury and poisoning for Indigenous males and females was around twice that for non-Indigenous Australian males and females.

### 7.27 HOSPITALISATIONS FOR INJURY AND POISONING(a), Indigenous persons—2003–04

| | MALES | | | FEMALES | | |
|---|---|---|---|---|---|---|
| | *Observed* | *Expected* | *Ratio*(b) | *Observed* | *Expected* | *Ratio*(b) |
| Injuries (S00–T19) | 7 615 | 4 663 | 1.6 | 5 439 | 2 221 | 2.4 |
| Complications of surgical and medical care, n.e.c. (T80–T88) | 819 | 491 | 1.7 | 904 | 506 | 1.8 |
| Poisoning (T36–T50) | 396 | 267 | 1.5 | 723 | 465 | 1.6 |
| Other effects of external causes, early complications of trauma (T66–T79 and T89) | 297 | 113 | 2.6 | 282 | 82 | 3.5 |
| Burns and frostbite (T20–T35) | 278 | 139 | 2.0 | 177 | 67 | 2.6 |
| Toxic effects (T51–T65) | 227 | 107 | 2.1 | 160 | 70 | 2.3 |
| **Total**(c) | **9 633** | **5 780** | **1.7** | **7 685** | **3 410** | **2.3** |

(a) Based on the principal diagnosis.

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

(c) Includes sequelae of injuries, poisoning, external causes.

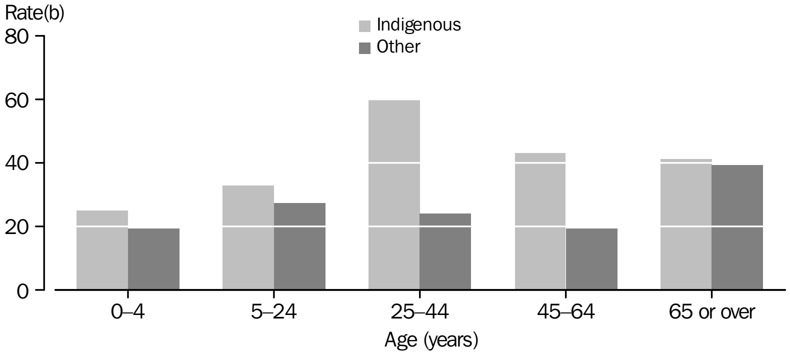
*Source: AIHW, National Hospital Morbidity Database*

Rates of hospitalisation due to injury or poisoning varied with age (graphs 7.28 and 7.29). For Indigenous people, rates were highest among those aged 25–44 years, while for other Australians, rates were highest among those aged 65 years or over. Indigenous males less than 65 years of age were more likely to be hospitalised for injury and poisoning than were Indigenous females.

*Injury and poisoning continued*

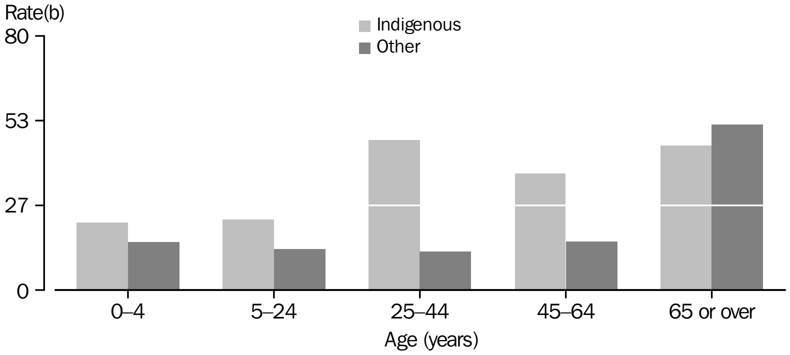
## HOSPITALISATIONS DUE TO INJURY OR POISONING *continued*

### 7.28 MALE RATES OF HOSPITALISATION FOR INJURY OR POISONING(a), by Indigenous status—2003–04



(a) Based on the principal diagnosis.
(b) Rates are per 1,000 population.
*Source: AIHW, National Hospital Morbidity Database*

### 7.29 FEMALE RATES OF HOSPITALISATION FOR INJURY OR POISONING(a), by Indigenous status—2003–04



(a) Based on the principal diagnosis.
(b) Rates are per 1,000 population.
*Source: AIHW, National Hospital Morbidity Database*

### EXTERNAL CAUSES OF INJURY RESULTING IN HOSPITALISATION

In 2003–04, as in previous years, the most commonly recorded external causes for injury resulting in hospitalisation were assault (females 28%; males 20%), accidental falls (males 18%; females 16%), transport-related injuries (males 11%; females 7%), and complications of medical or surgical care (females 9%; males 7%).

Indigenous males and females were hospitalised more often than other Australians for most external causes of injury (table 7.30). Hospitalisations recorded for injury due to assault were seven and 31 times higher for Indigenous males and females respectively.

## 7.30 HOSPITALISATIONS FOR EXTERNAL CAUSES OF INJURY AND POISONING(a), Indigenous persons—2003–04

| | MALES | | | FEMALES | | |
|---|---|---|---|---|---|---|
| | *Observed* | *Expected* | *Ratio*(b) | *Observed* | *Expected* | *Ratio*(b) |
| Assault (X85–Y09)(c) | 1 954 | 292 | 6.7 | 2 173 | 71 | 30.8 |
| Accidental falls (W00–W19) | 1 699 | 1 320 | 1.3 | 1 203 | 956 | 1.3 |
| Exposure to inanimate mechanical forces (W20–W49) | 1 422 | 1 048 | 1.4 | 661 | 353 | 1.9 |
| Transport accidents (V01–V99) | 1 044 | 979 | 1.1 | 531 | 420 | 1.3 |
| Complications of medical and surgical care (Y40–Y84) | 674 | 452 | 1.5 | 707 | 471 | 1.5 |
| Other accidental exposures (X50–X59) | 747 | 713 | 1.0 | 397 | 305 | 1.3 |
| Intentional self-harm (X60–X84) | 475 | 198 | 2.4 | 681 | 368 | 1.9 |
| Exposure to animate mechanical forces (W50–W64) | 410 | 253 | 1.6 | 188 | 95 | 2.0 |
| Exposure to electric current/smoke/fire/animals/nature (W85–X39) | 403 | 199 | 2.0 | 260 | 102 | 2.6 |
| Accidental poisoning (X40–X49) | 240 | 153 | 1.6 | 244 | 143 | 1.7 |
| Other external causes | 150 | 63 | 2.4 | 128 | 59 | 2.2 |
| **Total**(d) | **9 633** | **5 780** | **1.7** | **7 685** | **3 410** | **2.3** |

(a) Based on the principal diagnosis.
(b) Ratio is the observed hospitalisations divided by expected hospitalisations. Expected hospitalisations are based on the age, sex and cause-specific rates for 'Other' Australians.
(c) These data should be interpreted with caution as injuries purposely inflicted by others may be under-reported.
(d) 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. 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 leading causes of illness resulting in a high use of health services, pneumonia and COPD are leading causes of death.

### PREVALENCE OF RESPIRATORY DISEASES

According to the 2001 NHS, 29% of Aboriginal and Torres Strait Islander people reported having a respiratory disease. Among these, 17% reported having asthma. The age standardised prevalence of a long-term condition associated with the respiratory system was similar for Indigenous Australians (33%) and non-Indigenous Australians (30%) (ABS 2002b). However, after adjusting for age, Indigenous Australians were almost one and a half times more likely to have asthma than non-Indigenous Australians. The higher prevalence of asthma in Indigenous Australians occurred across all age groups.

### HOSPITALISATIONS FOR RESPIRATORY DISEASES

About 16,000 hospitalisations of Indigenous people for respiratory diseases occurred in 2003–04, representing about 7% of all Indigenous hospitalisations. Hospitalisations for respiratory diseases were about twice as high in the Indigenous population as among other Australians.

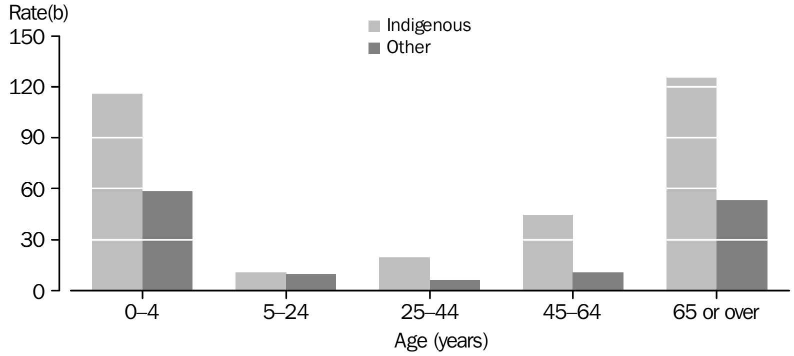
For both Indigenous people and other Australians, hospitalisations for respiratory disease are most common among the very young and the old (graphs 7.31 and 7.32). In 2003–04 the hospitalisation rates for respiratory diseases among Indigenous children aged 0–4 years were twice the rate for other Australian 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 about three times the rates for other Australian infants. For Indigenous males and females, hospitalisation rates were

*Respiratory diseases continued*

HOSPITALISATIONS FOR RESPIRATORY DISEASES *continued*

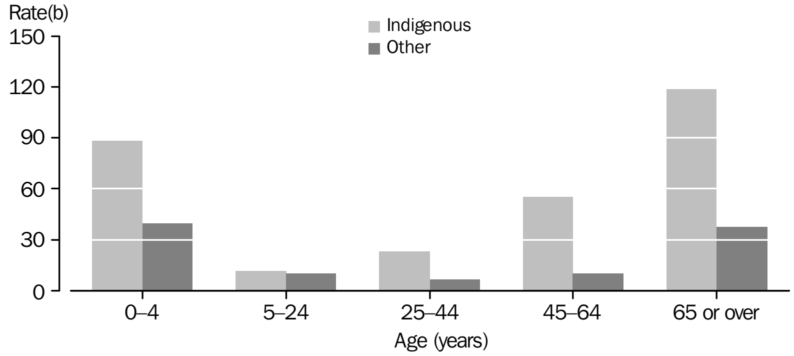
higher from 25 years of age, while for other Australians higher rates did not occur until around 55 years of age.

**7.31** MALE RATES OF HOSPITALISATION FOR DISEASES OF THE RESPIRATORY SYSTEM(a), by Indigenous status—2003–04



(a) Based on the principal diagnosis.
(b) Rates are per 1,000 population.
*Source: AIHW, National Hospital Morbidity Database*

**7.32** FEMALE RATES OF HOSPITALISATION FOR DISEASES OF THE RESPIRATORY SYSTEM(a), by Indigenous status—2003–04



(a) Based on the principal diagnosis.
(b) Rates are per 1,000 population.
*Source: AIHW, National Hospital Morbidity Database*

Indigenous Australians were hospitalised at higher rates for most types of respiratory system diseases than other Australians (table 7.33). In 2003–04, hospitalisations of Indigenous males and females for influenza and pneumonia (combined) were around four times as high, for COPD around five to seven times as high and for asthma up to two times as high the rates for other Australians.

## 7.33 HOSPITALISATIONS FOR DISEASES OF THE RESPIRATORY SYSTEM(a), Indigenous persons—2003–04

| | MALES | | | FEMALES | | |
|---|---|---|---|---|---|---|
| | *Observed* | *Expected* | *Ratio*(b) | *Observed* | *Expected* | *Ratio*(b) |
| Influenza and pneumonia (J10–J18) | 2 298 | 575 | 4.0 | 2 115 | 503 | 4.2 |
| Other acute lower respiratory infections (J20–J22) | 1 910 | 493 | 3.9 | 1 700 | 373 | 4.6 |
| Acute upper respiratory infections (J00–J06) | 1 078 | 686 | 1.6 | 970 | 522 | 1.9 |
| Asthma (J45–J46) | 863 | 692 | 1.2 | 1 169 | 552 | 2.1 |
| Chronic obstructive pulmonary disease (J41–J44) | 859 | 167 | 5.1 | 1 111 | 151 | 7.4 |
| All other respiratory diseases | 997 | 1 306 | 0.8 | 970 | 1 193 | 0.8 |
| **Total** | **8 005** | **3 919** | **2.0** | **8 035** | **3 293** | **2.4** |

(a) Based on the principal diagnosis.

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

*Source: AIHW, National Hospital Mobidity Database*

*Respiratory diseases continued*

### IMMUNISATION

Communicable respiratory illnesses are a major cause of illness in Aboriginal and Torres Strait Islander people. A serious complication of these illnesses is pneumonia, especially in persons with pre-existing heart or lung disease (NHMRC 2000b). The National Indigenous Pneumococcal and Influenza Immunisation Program provides free vaccines to Indigenous people to protect them from communicable respiratory illnesses, pneumococcal disease and influenza.

A recent report from the National Centre for Immunisation Research and Surveillance of Vaccine Preventable Diseases (NCIRS) showed that there are gaps in vaccination coverage for Indigenous adults. Nevertheless, among adults aged 50–64 years, vaccination coverage was higher for Indigenous Australians than for other Australians (47% compared with 26% for influenza vaccine and 20% compared with 3% for pneumococcal vaccine) (Menzies, McIntyre & Beard 2004). Indigenous adults in remote areas had higher vaccination coverage rates than in non-remote areas for both of these vaccines. Coverage levels for influenza and pneumococcal vaccinations are likely to be higher for Indigenous adults than other adults as these vaccines have been funded for Indigenous people since 1999.

For information on childhood vaccination rates, refer to Chapter 6.

*Communicable diseases including HIV/AIDS*

While much of the burden of communicable diseases comes from respiratory infections such as influenza and pneumonia, 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.

*Communicable diseases including HIV/AIDS continued*

### 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, GPs and diagnostic laboratories. While each Australian state and territory has its own set of notifiable diseases, a set of 56 diseases and conditions is 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.

In South Australia, Western Australia and the Northern Territory the reporting of Indigenous status has been relatively complete for most diseases reported to the NNDSS (Menzies, McIntyre & Beard 2004).

Notification rates among Indigenous Australians are higher than among other Australians for many notifiable diseases including intestinal diseases (e.g. salmonellosis) and STIs. Rates of STIs were higher among Indigenous people than among other Australians, with the rates for syphilis and gonococcal infection among Indigenous people 93 and 43 times the rates among other Australians (table 7.34). Rates of Hepatitis A, B and C infections were also higher in Indigenous Australians than in other Australians. The substantially higher levels of chlamydia, gonococcal infection and syphilis infection among Indigenous Australians compared to other Australians may also facilitate human immunodeficiency virus (HIV) transmission in the Indigenous population (Grosskurth et al. 1995).

*Communicable diseases including HIV/AIDS continued*

NOTIFICATIONS *continued*

### 7.34 NOTIFICATION OF SELECTED DISEASES, by Indigenous status—2003

| | INDIGENOUS | | OTHER | |
|---|---|---|---|---|
| | *Observed* | *Expected* | *Observed* | *Ratio*(a) |
| Gonococcal infection | 2 152 | 50 | 998 | 43 |
| Chlamydial infection | 2 050 | 298 | 5 308 | 7 |
| Syphilis(b) | 377 | 4 | 100 | 93 |
| Salmonellosis | 255 | 70 | 1 165 | 4 |
| Hepatitis A | 37 | 5 | 102 | 8 |
| Hepatitis C | 37 | 9 | 180 | 4 |
| Tuberculosis | 25 | 4 | 117 | 7 |
| Ross River virus infection | 22 | 26 | 793 | 1 |
| Meningococcal infection | 16 | 5 | 73 | 3 |
| Pertussis | 13 | 23 | 481 | 1 |
| Donovanosis(c) | 7 | — | — | — |
| Hepatitis B | 7 | 3 | 63 | 3 |
| *Haemophilus influenzae type b* | 2 | — | 3 | 10 |
| Mumps | 1 | 1 | 24 | 1 |
| Measles | — | 2 | 25 | — |
| Rubella | — | — | 4 | — |
| Leprosy | — | — | 1 | — |

— nil or rounded to zero (including null cells)

(a) Ratio is observed Indigenous notifications divided by expected Indigenous notifications. Expected notifications are based on the age and disease-specific rates for 'Other' Australians.

(b) Includes cases of more than two years or unknown duration.

(c) Donovanosis is not notifiable in South Australia.

Note: Data for South Australia, Western Australia and the Northern Territory. Adequate levels of Indigenous identification are defined as at least 60% for a substantial majority of the diseases analysed.

*Source: Department of Health and Ageing, National Notifiable Disease Surveillance System*

Notifications of HIV infections are forwarded to the National Centre in HIV Epidemiology and Clinical Research (NCHECR). Recording of Indigenous status in all jurisdictions is considered reliable. Between 2000–02, 53 notifications of newly diagnosed HIV infection were recorded in the Indigenous population. In this period the incidence rate of HIV was similar for Indigenous males and non-Indigenous males. However, the incidence rate of HIV infection was three times as high for Indigenous females as for non-Indigenous females.

The annual NCHECR surveillance report on HIV/AIDS, viral infections and STIs shows that, while the incidence rate of AIDS diagnosis in both the Indigenous and non-Indigenous populations has declined from a peak in 1994, the rate of decline in AIDS diagnoses in the Indigenous population is significantly slower than among non-Indigenous Australians. Differences in the rate of decline in AIDS diagnoses between Indigenous and non-Indigenous Australians may be due to changes in Indigenous identification over time and to differences in access to treatment and the uptake or effectiveness of antiretroviral treatment for HIV infection (NCHECR 2002).

*Communicable diseases including HIV/AIDS continued*

### NOTIFICATIONS *continued*

In the period 2000–02, HIV in males was most commonly contracted through male homosexual or bisexual contact (53% of Indigenous cases and 71% of non-Indigenous male cases). The large majority of female HIV infections were contracted through heterosexual contact (74% of Indigenous cases and 89% of non-Indigenous cases). A much larger proportion of Indigenous males and females who contracted HIV were exposed to HIV through injecting drug use (24% and 21% respectively), than were non-Indigenous males and females (3% and 4% respectively).

### PREVALENCE OF BLOOD-BORNE VIRUS AMONG PRISON ENTRANTS

The National Prison Entrants' Blood-borne Virus Study was the first national survey of prisoners conducted in Australia. Approximately 602 prisoners entering the criminal justice system were surveyed in 2004, 17% of whom were Indigenous. The survey collected information on Hepatitis C, Hepatitis B, HIV, drug-injecting status and risk behaviours (e.g. tattooing and sexual activity) among prison entrants. The study found that 64% of Indigenous prisoners surveyed (64 of 100 prisoners) reported that they injected drugs, compared with 58% of other prisoners (285 of 494 prisoners). Similar rates of Hepatitis C antibody were found in Indigenous prisoners (38% or 29 out of 77) and other prisoners (34% or 124 out of 366). Only 2% of non-Indigenous respondents and none of the Indigenous respondents had received treatment for Hepatitis C. Indigenous respondents were more likely to have been exposed to Hepatitis B (antibody positive) than other respondents (29% compared with 18%).

### HOSPITALISATIONS DUE TO INFECTIOUS AND PARASITIC DISEASES

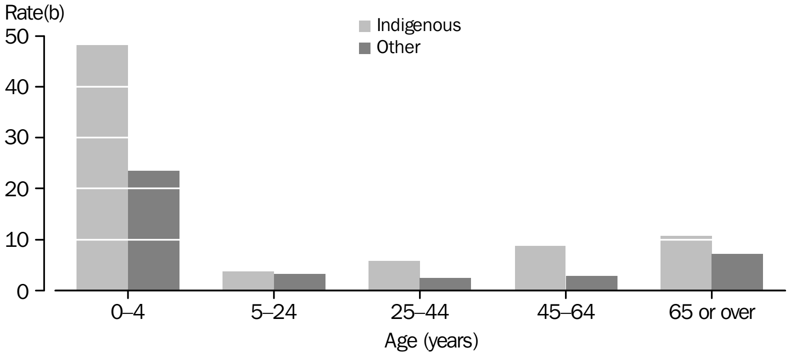
In 2003–04, infectious and parasitic diseases, which include illnesses such as STIs, intestinal infectious diseases, viral infections and fevers, tuberculosis, mycoses and other bacterial infections, were responsible for 2,581 hospitalisations of Indigenous males, representing 3% of all hospitalisations of Indigenous males. For Indigenous females, the comparative figure was 2,488 hospitalisations, representing 2% of all hospitalisations of Indigenous females.

Indigenous males and females were hospitalised for infectious and parasitic diseases twice as often as other Australian males and females. The highest rates of hospitalisation for infectious and parasitic diseases occurred in Indigenous children aged 0–4 years. Most of the hospitalisations in this age group were of Indigenous infants (less than one year old) who were hospitalised at rates of 103 and 95 per 1,000 population for males and females respectively. Indigenous infants were hospitalised at three times the rate of other infants. Indigenous males and females aged 0–4 years and 25–44 years were hospitalised at around twice the rate, and Indigenous males and females aged 45–64 years at around three times the rate, of other males and females respectively (graphs 7.35 and 7.36).

*Communicable diseases including HIV/AIDS continued*

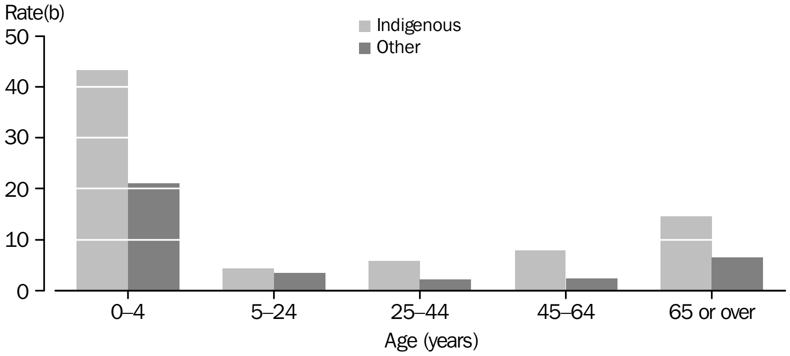
## HOSPITALISATIONS DUE TO INFECTIOUS AND PARASITIC DISEASES *continued*

**7.35** MALE RATES OF HOSPITALISATION FOR INFECTIOUS AND PARASITIC DISEASES(a), by Indigenous status—2003–04



(a) Based on the principal diagnosis.
(b) Rates are per 1,000 population.
*Source: AIHW, National Hospital Morbidity Database*

**7.36** FEMALE RATES OF HOSPITALISATION FOR INFECTIOUS AND PARASITIC DISEASES(a), by Indigenous status—2003–04



(a) Based on the principal diagnosis.
(b) Rates are per 1,000 population.
*Source: AIHW, National Hospital Morbidity Database*

Sexually transmitted infections caused Indigenous males to be hospitalised at four times the rate and Indigenous females at six times the rate of other Australian males and females (table 7.37). Intestinal infectious diseases were responsible for 1% of all hospitalisations of Indigenous males and females, and Indigenous people were hospitalised twice as often as expected, based on the hospitalisation rate for other Australians.

## 7.37 HOSPITALISATIONS FOR INFECTIOUS AND PARASITIC DISEASES(a), Indigenous persons—2003–04

| | MALES | | | FEMALES | | |
|---|---|---|---|---|---|---|
| | *Observed* | *Expected* | *Ratio*(b) | *Observed* | *Expected* | *Ratio*(b) |
| Intestinal infectious diseases (A00–A09) | 1 332 | 667 | 2.0 | 1 210 | 643 | 1.9 |
| Tuberculosis (A15–A19) | 42 | 8 | 5.1 | 27 | 6 | 4.4 |
| Other bacterial diseases (A30–A49) | 357 | 124 | 2.9 | 415 | 104 | 4.0 |
| Septicaemia (A40–A41) | 284 | 79 | 3.6 | 349 | 66 | 5.3 |
| Pneumococcal septicaemia (A40.3) | 25 | 6 | 3.8 | 16 | 5 | 3.0 |
| Infections, sexual transmission (A50–B64) | 44 | 10 | 4.3 | 138 | 21 | 6.5 |
| Viral infections (A80–B19) | 191 | 145 | 1.3 | 190 | 128 | 1.5 |
| Viral hepatitis (B15–B19) | 42 | 37 | 1.1 | 40 | 22 | 1.8 |
| All other infectious and parasitic diseases | 615 | 415 | 1.5 | 508 | 361 | 1.4 |
| **Total** | **2 581** | **1 369** | **1.9** | **2 488** | **1 263** | **2.0** |

(a) Based on the principal diagnosis.

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

*Source: AIHW, National Hospital Mobidity Database*

### *Musculoskeletal conditions*

Musculoskeletal conditions, including arthritis, are a major cause of pain and disability in Australia's ageing population. 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. Although arthritis and musculoskeletal conditions are not usually immediately life-threatening, they are a major cause of disability.

During 2001, about 23% of Aboriginal and Torres Strait Islander people reported a long-term musculoskeletal condition. Indigenous Australians living in non-remote areas were more likely to report a long-term musculoskeletal condition (26%) than those living in remote areas (17%). Higher prevalence was reported among Indigenous Australians than among non-Indigenous Australians for all age groups, except those aged 55 years or over.

The age-standardised prevalence of musculoskeletal conditions among Indigenous Australians is similar to that among non-Indigenous Australians. However, after adjusting for age, Indigenous Australians were more than twice as likely to report some form of arthritis than non-Indigenous Australians.

In 2003–04, diseases of the musculoskeletal system and connective tissue were responsible for 3,858 hospitalisations of Aboriginal and Torres Strait Islander people (53% were for males and 47% were for females), representing around 2% of all Indigenous hospitalisations. Hospitalisation rates for musculoskeletal diseases were about 5 per 1,000 for people aged 15–24 years and 27 and 37 per 1,000 population for males and females aged 75 years or over. Among people aged 15 years or over, hospitalisation rates for Indigenous males and females were lower than for other males and females.

Of all musculoskeletal diseases, arthritis was the most common cause of hospitalisation for Indigenous Australians. Indigenous Australians were hospitalised for arthritis at twice the rate of other Australians.

*Eye and vision problems*

There are few data sources about vision problems among Indigenous Australians. Self-reported data on the prevalence of blindness and visual impairment are available from the NHS. In 2001, the prevalence of eye and vision problems (including long and short sightedness, total or partial loss of vision, cataract and other diseases of the eye) among Indigenous Australians was 29%. Within the Indigenous population, those living in non-remote areas were more likely to report eye and sight problems (33%) than those living in remote areas (20%). The prevalence of eye and vision problems increased with age, to 88% and 96% respectively, for Indigenous and non-Indigenous Australians aged 55 years or over.

The age-standardised prevalence of eye and vision problems among Indigenous Australians of all ages was less than that among non-Indigenous Australians. This pattern was consistent across all age groups (ABS 2002b).

More serious eye diseases and conditions include partial or total vision loss, cataract and, among Indigenous Australians, trachoma. The age-standardised prevalence rate of total or partial loss of vision is 4% among Indigenous Australians and 3% among non-Indigenous Australians. There are no authoritative data for the prevalence of cataracts, trachoma, age-related macular degeneration (AMD) and glaucoma among older Indigenous Australians.

### CATARACTS

A cataract is a clouding of the eye's naturally clear lens that causes vision to become poor, as if looking through a frosty window. Cataracts have a greater impact on the vision of Indigenous Australians as they occur more frequently, and presentation for cataract surgery usually occurs at a more advanced stage than for other Australians (Holden 2000; Taylor 1997). This is due in part to later diagnosis, and concerns about moving away from the community for surgery.

There are no data on the prevalence of cataract for Indigenous Australians based on ophthalmic examination. The age-standardised prevalence of cataract based on self-reporting is 3% among Indigenous Australians, compared with 2% among non-Indigenous Australians (ABS 2002b). Cataracts are more commonly reported by Indigenous men (5%) than women (2%).

In 2003–04 there were 1,032 cataract procedures performed in Australian hospitals on Aboriginal and Torres Strait Islander people. The overall cataract procedure rate among Indigenous Australians was similar to the rate among other Australians.

### DIABETIC RETINOPATHY

Diabetic retinopathy is likely to be a significant vision-threatening condition among Indigenous Australians because of the high rate of Type II diabetes in some communities. Limited data are available on the prevalence of diabetic retinopathy among Indigenous Australians. Two studies conducted in the Katherine region of the Northern Territory in 1993 and 1996 reported prevalence rates of 18% and 21% respectively for diabetic retinopathy among Indigenous Australians with diabetes (Jaross, Ryan & Newland 2003). A non-random study in the Pilbara region, Western Australia estimated the prevalence to be 23% (Diamond et al. 1998). These studies are not designed to support ready comparisons with rates for other Australians. However, since the

*Eye and vision problems continued*

### DIABETIC RETINOPATHY *continued*

prevalence rate of diabetes is higher among Indigenous Australians, the data suggest that the rate of diabetic retinopathy in Indigenous Australians will also be higher.

### TRACHOMA AND TRICHIASIS

Trachoma is a conjunctivitis caused by infection with the bacterium Chlamydia trachomatis. It is an acute inflammatory condition which usually occurs in childhood. Repeated infections can lead to scarring of the tissues of the eyelid over time. High prevalence rates of trachoma have been associated with poor environmental health conditions, inadequate hygiene, overcrowding, low socioeconomic status and an arid environment (Ewald et al. 2003; Taylor et al. 2003). While there is evidence of high prevalence of trachoma in some areas of Western Australia, South Australia and the Northern Territory, where rates as high as 60% were reported among children (OATSIH 2001), there are no data available for New South Wales, Victoria, Queensland and Tasmania (Taylor et al. 2003). A study of trachoma in a large remote Central Australian Aboriginal community during 1998–2000 found the prevalence of trachoma among children aged less than 13 years to be 40% at the start of the study period. This changed little over the following 21 months (Ewald et al. 2003).

Trichiasis is a sight-threatening complication of trachoma which affects mainly older Aboriginal and Torres Strait Islander people. In people with the condition, the margin of eyelid and eyelashes turn inwards and the rubbing of the eyelashes on the cornea leads to corneal damage and blindness in later life. Prevalence data for trichiasis are limited. A 1998 study of trichiasis among people aged 50 years or over in the Kimberley found an overall prevalence rate of 3%. The rate was 11% in the Halls Creek Shire, which is also the area of highest trachoma prevalence in the Kimberley (Mak & Plant 2001).

### HOSPITALISATIONS FOR EYE AND VISION PROBLEMS

In 2003–04 there were 1,443 hospitalisations of Indigenous people due to eye and vision problems, representing about 1% of all hospitalisations of Indigenous people. The overall rates of hospitalisations for diseases of the 'eye and adnexa' (appendages of the eyeball which include the eyelids, muscles and soft tissue) among Indigenous Australians were similar to those for other Australians. Rates of hospitalisation due to diseases of the eye were 36 and 40 per 1,000 for Indigenous males and females aged 65 years or over, and 49 and 58 per 1,000 for other males and females.

*Ear and hearing problems*

Long-term ear and hearing problems were commonly reported by Australians in 2001 (ABS 2002c). The prevalence of ear and hearing problems in the Indigenous population was 15%. Prevalence increased with age from 11% of Indigenous people aged 0–14 years to 29% of those aged 55 years or over. After adjusting for age differences in the populations, the prevalence of ear and hearing problems and of total or partial hearing loss in the Indigenous population was 1.3 times the rate in the non-Indigenous population.

Aboriginal and Torres Strait Islander children are twice as likely to be recorded as having ear and hearing problems as other Australian children. This is due in part to high rates of otitis media (middle ear infection) among children in many Indigenous communities(Couzos, Metcalf & Murray 2001). Otitis media, a common childhood

*Ear and hearing problems continued*

disease, is often the result of a pneumococcal invasion of the nasopharynx. Recurrence of chronic otitis media is often characterised by a perforated eardrum, which can lead to hearing loss, deafness and further complications such as learning difficulties (Chapter 3). The World Health Organization (2003) recognises that the prevalence of otitis media greater than 4% in a population is indicative of a public health problem. Otitis media affects up to ten times this proportion of children in many Indigenous communities (up to 40%) (Coates et al. 2002).

### HOSPITALISATIONS FOR EAR AND HEARING PROBLEMS

In 2003–04, there was a total of 1,807 hospitalisations of Indigenous people for 'diseases of the ear and mastoid process' (temporal bone behind the ear), representing 1% of all hospitalisations of Indigenous people. Hospitalisation rates for ear and hearing problems among Indigenous Australians were similar to those of other Australians.

In 2003–04, 64% of all hospitalisations for ear and hearing problems among Indigenous people were due to otitis media, compared with 55% of hospitalisations of other Australians. Chronic ear and hearing problems were also more common among Indigenous children than among other Australian children. Indigenous children and young adults experience an average of 32 weeks of middle ear infection between the ages of two and 20 years, compared with an average of two weeks for non-Indigenous people (Coates 2002).

### 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 (AIHW 2000).

In 2003–04 there were approximately 2,000 hospitalisations of Indigenous people 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 (16%) and embedded and impacted teeth (9%).

### CHILD DENTAL HEALTH

Data on the dental health of Australians is collected by the Dental Statistics and Research Unit (DSRU), a collaborating unit of the AIHW. The Child Dental Health Survey is a national survey which monitors the dental health of children enrolled in school dental services operated by health departments in all states and territories. In 2001, Indigenous status was recorded reliably and for sufficient numbers of children in New South Wales, South Australia and the Northern Territory. Data from those jurisdictions are used in this section.

Oral health outcomes are usually measured in terms of dental health, which is measured in terms of the number of decayed, missing or filled baby (deciduous) and adult (permanent) teeth. Another measure of good oral health is the proportion of children with no tooth decay. Dental decay is expressed as the number of teeth currently decayed, teeth extracted due to decay, and teeth with fillings (dmft and DMFT scores;

*Ear and hearing problems continued*

## CHILD DENTAL HEALTH *continued*

AIHW 2000). The dmft score measures decay experience in deciduous teeth, while the DMFT score measures decay experience in permanent teeth.

In New South Wales, South Australia and the Northern Territory, the mean dmft for Indigenous children aged 4–10 years was higher than for non-Indigenous children (table 7.38). The difference in the mean dmft score among Indigenous and non-Indigenous children was particularly high among those aged less than seven years. In general, mean dmft scores were highest for Indigenous children at about five years of age, compared with an age of about 7–8 years for non-Indigenous children.

Mean DMFT in Indigenous children aged 6–15 years was also greater than for non-Indigenous children in all three jurisdictions (table 7.38). Among 12-year-olds, the DMFT was approximately 60% higher for Indigenous than for non-Indigenous children in all three jurisdictions.

It appears that children in New South Wales have lower scores than those in South Australia and the Northern Territory. One possible explanation is the level of fluoride consumption. Fluoride has a well recognised role in the prevention of dental decay. The concentration of fluoride in public water supplies differs by location, with Sydney having a higher level (0.9–1.1 ppm), Adelaide a slightly lower level (0.8–1.0ppm) and Darwin the lowest level of the three cities (0.6–0.65) (Ahokas et al. 1999). However, as the amount of fluoride intake depends on water consumption, the concentration is meant to be higher in cooler climates and lower in warmer climates (University of Adelaide 1997).

*Ear and hearing problems continued*

CHILD DENTAL HEALTH *continued*

### 7.38 MEAN NUMBER OF DECAYED, MISSING AND FILLED TEETH, children aged 4–15 years—2001

| | NEW SOUTH WALES | | SOUTH AUSTRALIA | | NORTHERN TERRITORY | |
|---|---|---|---|---|---|---|
| *Age (years)* | *Indigenous* | *Non-Indigenous* | *Indigenous* | *Non-Indigenous* | *Indigenous* | *Non-Indigenous* |
| | | | dmft(a) | | | |
| Four | 2.4 | 1.0 | 3.4 | 1.3 | 3.4 | 1.1 |
| Five | 2.3 | 0.9 | 3.6 | 1.5 | 4.1 | 1.4 |
| Six | 2.1 | 1.0 | 4.0 | 1.9 | 3.9 | 1.7 |
| Seven | 1.7 | 1.1 | 3.2 | 2.0 | 3.7 | 1.7 |
| Eight | 1.8 | 1.1 | 3.3 | 2.0 | 3.0 | 1.8 |
| Nine | 1.4 | 1.0 | 3.0 | 2.0 | 2.4 | 1.7 |
| Ten | 1.0 | 0.8 | 1.9 | 1.9 | 1.7 | 1.1 |
| | | | DMFT(b) | | | |
| Six | 0.1 | — | 0.2 | 0.1 | 0.1 | 0.1 |
| Seven | 0.2 | 0.2 | 0.4 | 0.2 | 0.3 | 0.2 |
| Eight | 0.4 | 0.2 | 0.5 | 0.3 | 0.5 | 0.2 |
| Nine | 0.4 | 0.3 | 0.9 | 0.5 | 0.6 | 0.3 |
| Ten | 0.6 | 0.3 | 1.1 | 0.6 | 0.9 | 0.4 |
| Eleven | 0.6 | 0.4 | 1.1 | 0.7 | 1.0 | 0.5 |
| Twelve | 0.9 | 0.5 | 1.3 | 0.8 | 1.1 | 0.7 |
| Thirteen | 1.0 | 0.7 | 1.8 | 1.1 | 1.9 | 0.8 |
| Fourteen | 1.4 | 0.8 | 2.4 | 1.3 | 1.9 | 1.5 |
| Fifteen | na | na | 2.8 | 1.7 | 1.6 | 0.9 |

— nil or rounded to zero (including null cells)
na not available
(a) Decayed, missing and filled deciduous teeth for children aged 4–10 years
(b) Decayed, missing and filled permanent teeth for children aged 6–15 years
*Source: AIHW, Dental Statistics Research Unit*

The Western Australian Aboriginal Child Health Survey (WAACHS) conducted during 2001 and 2002 collected information on tooth cavities, tooth extraction and sore/bleeding gums in Aboriginal children. Overall, 38% of children had experienced tooth decay, tooth removals or fillings. Almost half of children aged 4–17 years had at least one dental problem (Zubrick et al. 2004).

An estimated 19% of Aboriginal children were reported by their carers to have holes in their teeth. The prevalence of cavities was highest for children aged 4–7 years at 31%. Almost one in ten Aboriginal children aged 0–17 years were reported to have ever had a tooth removed. An estimated 28% of children had had at least one tooth filled, the highest proportion being among children aged 8–11 years. Sore or bleeding gums were experienced by 6% of all children surveyed. The prevalence of sore or bleeding gums was highest among Aboriginal children aged 12–17 years (8%).

*Ear and hearing problems continued*

### ADULT DENTAL HEALTH

The Adult Dental Programs Survey takes place every five years and monitors the oral health of adults who receive public-funded dental care. The 2000–01 survey collected data on 5,243 patients, 3% of which were Indigenous. Another survey which contains information on adult oral health is the National Dental Telephone Interview Survey. This survey involves periodic telephone interviews every two-and-a-half years of a general population sample of people aged five years or over. It collects data on access to dental care, self-assessed dental health status, present dental health needs, use of dental services and preventive behaviours, satisfaction with dental services, and experience of and attitudes to dentistry. An investigation of data collected over the period 1994–96 focused on migrants, Indigenous Australians, and rural and remote dwellers. These reports identified a less favourable level of dental health and access to dental care for these subgroups in Australia.

In 1999–2000, after adjusting for age, cumulative history of dental decay among Aboriginal Dental Clinic (ADC) patients in remote communities in South Australia was approximately 50% lower than for each of the other three groups studied in non-remote areas—ADC patients in Adelaide, Aboriginal patients of public dental clinics in non-remote South Australia and New South Wales, and Aboriginal patients in regional New South Wales.

Untreated decay was responsible for the majority of dental problems experienced in people aged 18–24 years while missing teeth was the predominant dental problem for people in the oldest age group. In remote areas, almost 75% of dental problems in the oldest age group were caused by missing teeth.

### *Mental health and social and emotional wellbeing*

Mental health for Indigenous Australians cannot be separated from their overall social and emotional wellbeing. Social and emotional wellbeing is a holistic concept and is dependent on individual, family and community experience. It can influence not only a person's physical health but also the health of their family and community relationships. Among Indigenous Australians, social and economic disadvantage contributes to high rates of physical and mental health problems, and factors such as high adult mortality, suicide rates, child removals and incarceration rates contribute to higher rates of grief, loss and trauma (Social Health Reference Group 2003).

There are no national data yet on the prevalence of mental illness and the social and emotional wellbeing of Aboriginal and Torres Strait Islander people. The 2004–05 ABS National Aboriginal and Torres Strait Islander Health Survey included for the first time a component on social and emotional wellbeing. Results are expected to be available in 2006. The second volume of the WAACHS, published in April 2005, focuses on the social and emotional wellbeing of Aboriginal children and young people. Information from this survey is presented in Chapter 6. Information related to the mental health of Indigenous people presented here includes hospitalisations for mental and behavioural disorders, and deaths in custody.

*Mental health and social and emotional wellbeing continued*

In 2003–04 there were 4,954 hospitalisations of Indigenous males and 4,604 hospitalisations of Indigenous females for mental and behavioural disorders. This represented 5% and 4% of all hospitalisations of Indigenous males and females respectively. Indigenous males and females were up to twice as likely to be hospitalised for mental and behavioural disorders as other Australians.

There were more hospitalisations of Indigenous Australians than other Australians for most types of mental and behavioural disorders (table 7.39). In particular, hospitalisations for 'mental and behavioural disorders due to psychoactive substance use' were around four and three times the rate for Indigenous males and females respectively.

Hospitalisation rates for mental and behavioural disorders were highest among people aged 25–44 years, where rates for Indigenous males were three times those for other males, and rates for Indigenous females were twice those for other females.

## 7.39 HOSPITALISATIONS FOR MENTAL AND BEHAVIOURAL DISORDERS(a), Indigenous persons—2003–04

| | MALES | | | FEMALES | | |
|---|---|---|---|---|---|---|
| | *Observed* | *Expected* | *Ratio*(b) | *Observed* | *Expected* | *Ratio*(b) |
| Mental disorders due to psychoactive substance use (F10–F19) | 2 305 | 525 | 4.4 | 1 208 | 368 | 3.3 |
| Mood and neurotic disorders (F30–F48) | 973 | 950 | 1.0 | 2 035 | 1 807 | 1.1 |
| Schizophrenia, schizotypal and delusional disorders (F20–F29) | 1 398 | 609 | 2.3 | 1 033 | 421 | 2.5 |
| Organic mental disorders (F00–F09) | 63 | 35 | 1.8 | 64 | 34 | 1.9 |
| All other mental disorders | 215 | 283 | 0.8 | 264 | 462 | 0.6 |
| **Total** | **4 954** | **2 402** | **2.1** | **4 604** | **3 091** | **1.5** |

(a) Based on the principal diagnosis.

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

*Source: AIHW, National Hospital Morbidity Database*

Hospitalisation rates for injury, such as assault or intentional self-harm, may also be indicative of mental illness and distress. In 2003–04 Indigenous Australians were more likely to be hospitalised as a result of assault than were other Australians (around seven times as likely for Indigenous males and 31 times as likely for Indigenous females). Indigenous Australians also had a higher rate of hospitalisation for intentional self-harm than other Australians (twice as high for both Indigenous males and Indigenous females) (see table 7.30).

Mental illness and/or emotional distress may not only cause Indigenous Australians to come into contact with the criminal justice system, but incarceration may be a risk factor for mental illness (HREOC 1993). Incarceration separates Indigenous people from their communities and culture. Indigenous prisoners frequently experience depressive symptoms associated with unresolved anger which can result in suicide attempts. The number of Indigenous deaths in custody was also relatively high. Of the 68 deaths in custody in 2003, 17 (25%) were Indigenous people (McCall 2004).

## SUMMARY

In 2002, after adjusting for age differences between the populations, Indigenous Australians were twice as likely to report their health as fair or poor as non-Indigenous Australians. There has been a decrease in reported good health and an increase in reported fair or poor health by Indigenous Australians between 1994 and 2002. Levels of reported fair or poor health were higher for those in the lowest income quintile for equivalised household income, for those who were unemployed or not in the labour force, and for those whose highest year of school completed was Year 9 or below.

An examination of data from different sources provides a picture of the conditions responsible for the ill-health among Indigenous Australians. These conditions include circulatory diseases, diabetes, respiratory diseases, musculoskeletal conditions, kidney disease, eye and ear problems and mental and behavioural disorders. These conditions account for most of the consultations with GPs, and are the main reasons for hospitalisation of Indigenous Australians.

Indigenous Australians experience an earlier onset of most chronic diseases, have more GP consultations for the management of certain diseases and are more likely to be hospitalised than other Australians. For example, the prevalence of diabetes among Indigenous Australians was nearly four times the prevalence reported by non-Indigenous Australians; diabetes was managed at a rate of 7 per 100 encounters with Indigenous Australians compared to 3 per 100 encounters with all Australians and Indigenous Australians were hospitalised for diabetes at five times the rate of other Australians.

Hospitalisation rates for a number of other conditions were also higher for Indigenous Australians than for other Australians. For example, the hospitalisation rates for Indigenous Australians for care involving dialysis was 12 times that for other Australians and for respiratory diseases and injury rates were twice those for other Australians.

# 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 (AIHW 2002d), including the fact that the major chronic diseases share common risk factors (AIHW 2004b). Environmental factors from cultural, socioeconomic and physical domains have also been shown to have a strong association with both disease and ill-health.

Socioeconomic status is a significant determinant of the likelihood that individuals and populations are exposed to health risk factors (Blakely, Hales & Woodward 2004). As outlined in other chapters in this report, Aboriginal and Torres Strait Islander people experience widespread disadvantage across a range of socioeconomic indicators including income, education, employment and housing conditions. These factors may all contribute to the high rates of environmental and behavioural risk factors reported by Indigenous Australians in 2002.

Understanding risk factors facilitates early intervention and management strategies to prevent or ameliorate disease and so achieve health gains for individuals and populations (NPHP 2001). The World Health Organization (2000) states that:

> 'Much is known about the prevention of non communicable diseases. Experience clearly shows that they are to a great extent preventable through interventions against the major risk factors and their environmental, economic, social and behavioural determinants in the population'.

The health risk factors presented in this chapter focus on behavioural risk factors, including smoking, alcohol, illicit substance use and physical inactivity, as well as selected environmental risk factors, such as stress, exposure to violence and removal from natural family. Associations between risk factors and other health indicators are also presented. However, in some cases it is not known whether the risk factor leads to poor health or whether poor health leads to increased exposure to that risk factor. A brief section on nutrition and body weight is included at the end of the chapter.

The 2002 National Aboriginal and Torres Strait Islander Social Survey (NATSISS) provides the most recent data for the majority of risk factors presented in this Chapter. Where possible, information from the 2002 General Social Survey (GSS) has also been included in order to provide comparisons between the Indigenous and non-Indigenous populations. Data from various other sources, such as the 2001 National Health Survey (NHS), the 2001 National Drug Strategy Household Survey (NDSHS) and the National Hospital Morbidity Database (NHMD) are also included (see the Data Sources for further details).

## RISK FACTORS AND SOCIOECONOMIC STATUS

It is widely accepted that health risk factors are strongly associated with socioeconomic status (AIHW 2004b). The 2002 NATSISS showed that in general, high rates of both behavioural and environmental risk factors were reported among Indigenous people aged 15 years or over who had low levels of educational attainment, who were unemployed or who had below-average incomes (table 8.1). For example, unemployed people were more likely than employed people to smoke on a daily basis, to have used illicit substances in the last 12 months, to be physically inactive, to have experienced at least one stressor in the last 12 months, to have been a victim of physical or threatened violence and to have been removed from their natural family.

**8.1** HEALTH RISK FACTORS, by selected socioeconomic variables—Indigenous persons aged 15 years or over—2002

| | | HIGHEST YEAR OF SCHOOL COMPLETED(a) | | LABOUR FORCE STATUS(b) | | EQUIVALISED GROSS HOUSEHOLD INCOME(c) | | |
|---|---|---|---|---|---|---|---|---|
| | | *Completed Year 9 or below*(d) | *Completed Year 10 or above* | *Total unemployed* | *Total employed* | *2nd or 3rd decile* | *4th decile or over* | *Indigenous persons aged 15 years or over* |
| Health risk factors | | | | | | | | |
| Current daily smoker | % | 55.5 | 48.2 | 63.0 | 43.4 | 53.1 | 39.0 | 48.6 |
| Risky/high risk alcohol consumption(e) | % | (f)17.4 | (f)15.2 | (f)17.3 | (f)16.9 | (f)13.8 | (f)14.6 | 15.1 |
| Used substances(e)(g) | % | (f)22.4 | (f)25.2 | 34.3 | 21.4 | (f)25.2 | (f)20.9 | 23.5 |
| Did not participate in sport/physical activity(e) | % | 66.7 | 44.5 | 46.2 | 39.8 | 57.7 | 40.6 | 50.7 |
| Experienced at least one stressor(e) | % | (f)82.3 | (f)83.2 | 89.2 | 80.4 | 84.0 | 79.3 | 82.3 |
| Victim of physical or threatened violence(e) | % | 21.6 | 26.1 | 37.9 | 20.6 | 26.5 | 19.1 | 24.3 |
| Has been removed from natural family | % | 11.2 | 6.6 | 13.3 | 6.0 | (f)8.7 | (f)6.7 | 8.4 |
| **Indigenous persons aged 15 years or over** | no. | **108 100** | **154 900** | **130 400** | **38 800** | **88 600** | **96 100** | **282 200** |

(a) Excludes persons still at secondary school.
(b) Excludes persons not in the labour force.
(c) See the Glossary for more information on equivalised gross household income.
(d) Includes persons who never attended school.
(e) In the last 12 months.
(f) Differences are not statistically significant.
(g) Persons in non-remote areas only.

*Source: ABS, 2002 NATSISS*

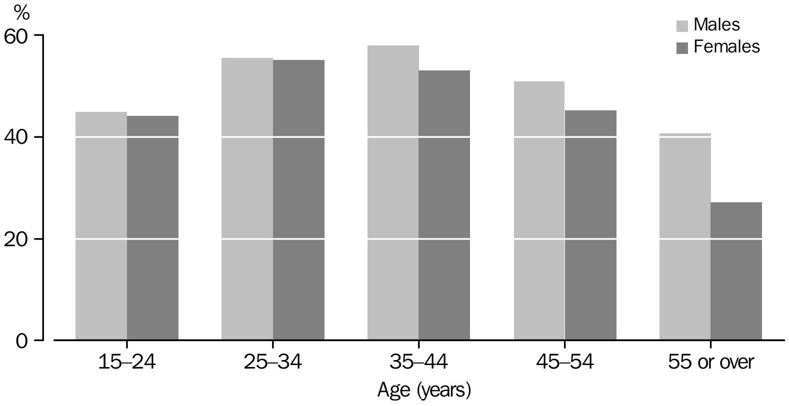
## SMOKING

Smoking tobacco increases the risk of coronary heart disease, stroke, peripheral vascular disease, numerous cancers and a variety of other diseases and conditions. As a single risk factor, it causes the greatest burden of disease for the total Australian population, accounting for 12% of the burden of injury and disease in males and 7% in females (Mathers, Vos & Stevenson 1999). As chapters 7 and 9 show, Aboriginal and Torres Strait Islander people are at greater risk than non-Indigenous Australians of hospitalisation and/or death from these conditions.

In 2002, just over half (51%) of the Indigenous population aged 15 years or over were cigarette smokers (49% current daily smokers and 2% occasional smokers), consistent with the rate reported in 1994 (52%). Similar proportions of men (51%) and women (47%) were current daily (or regular) smokers, and the highest rates were reported by those aged 25–44 years (graph 8.2). 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 (56% compared with 48%).

SMOKING *continued*

**8.2** CURRENT DAILY SMOKERS, Indigenous persons aged 15 years or over—2002



*Source: ABS, 2002 NATSISS*

Smoking was associated with poorer health outcomes among Aboriginal and Torres Strait Islander people in 2002. For example, regular smokers were more likely than those who did not smoke to report being in fair or poor health (26% compared with 21%) and were less likely to report being in excellent or very good health (40% compared with 48%). Current daily smokers were also more likely than non-smokers to have a disability or long-term health condition (39% compared with 34%).

Indigenous smokers also reported higher rates of other substance use. In 2002, those who regularly smoked were more than twice as likely as those who did not smoke to usually consume risky or high risk amounts of alcohol (21% compared with 10%) (see the Glossary for further details on alcohol consumption risk levels). Moreover, regular smokers in non-remote areas were two and a half times as likely as non-smokers to have recently used illicit substances (34% compared with 14%). This was particularly the case for marijuana use, where 29% of regular smokers had used marijuana in the last 12 months, compared with 9% of non-smokers.

Results from the 2001 NHS indicate that smoking is more prevalent among Indigenous Australians than non-Indigenous Australians. After adjusting for age differences, Indigenous people aged 18 years or over were twice as likely as non-Indigenous people to be current smokers.

## ALCOHOL

Several surveys have shown that, while Aboriginal and Torres Strait Islander people are less likely than non-Indigenous Australians to consume alcohol, those who do so are more likely to drink at hazardous levels (ABS 2002c; AIHW 2003a). Excessive alcohol consumption is associated with a variety of adverse health and social consequences. It is a major risk factor for conditions such as liver disease, pancreatitis, diabetes and some types of cancer. Alcohol is also a frequent contributor to motor vehicle accidents, falls, burns and suicide (AIHW 2004b) and has the potential to evoke anti-social behaviour, domestic violence and family breakdown. Excessive alcohol consumption was associated with 3.4% of all deaths in Australia in 1996 and 4.8% of the total burden of disease (Mathers, Vos & Stevenson 1999).

ALCOHOL *continued*

Two measures of alcohol consumption risk level were derived from the 2002 NATSISS. The first measure was designed to capture long-term risk and was based on a person's reported usual daily consumption of alcohol and the frequency of consumption in the previous 12 months. The second measure was designed to capture short-term risk, or binge drinking, and was based on the largest quantity of alcohol consumed in a single day during the fortnight prior to interview. Alcohol consumption risk levels were based on the National Health and Medical Research Council's (NHMRC) Australian Drinking Guidelines (box 8.3). See the Glossary for further details.

### 8.3 SUMMARY OF AUSTRALIAN ALCOHOL GUIDELINES FOR SHORT-TERM AND LONG-TERM PATTERNS OF DRINKING

Men who consume no more than four standard drinks a day on average or no more than 28 drinks in a week avoid the long-term risk of ill-health and death related to alcohol, and maximise the potential long-term health benefits.

The equivalent amounts for women are two standard drinks per day on average and 14 over a week (because of their lower average body mass and the different way their bodies process alcohol).

Men who consume more than six standard drinks in any one day significantly increase the short-term risk of health and social problems, including (but not only) the risk of injury or death from accident, assault and self-harm.

For women the equivalent limit is four standard drinks.

*Source: NHMRC 2001 (AIHW 2004).*

*Chronic alcohol consumption*

In 2002, approximately one in six Indigenous people (15%) aged 15 years or over reported risky/high risk alcohol consumption in the last 12 months. The rate of risky/high risk consumption was higher for Indigenous males than for females (table 8.4) and peaked among those aged 35–44 years (20%).

### 8.4 CHRONIC ALCOHOL CONSUMPTION, Indigenous persons aged 15 years or over—2002

| | | *Males* | *Females* | *Persons* |
|---|---|---|---|---|
| Drank alcohol in last 12 months | | | | |
| Low risk | % | 52.7 | 40.0 | 46.1 |
| Risky/high risk | % | 17.1 | 13.4 | 15.1 |
| Total(a)(b) | % | 75.6 | 63.6 | 69.4 |
| Did not drink alcohol in last 12 months | % | 24.4 | 36.4 | 30.6 |
| Total | % | 100.0 | 100.0 | 100.0 |
| **Indigenous persons aged 15 years or over** | no. | **135 200** | **147 000** | **282 200** |

(a) Includes persons who consumed alcohol on one day or less in the last 12 months and whose risk level was not determined.

(b) Includes persons who consumed alcohol in the last 12 months but did not state their alcohol consumption level.

*Source: ABS, 2002 NATSISS*

*Chronic alcohol consumption continued*

Excessive alcohol consumption in the long term was associated with higher rates of poor health and disability among Indigenous Australians in 2002. Those who drank alcohol at risky/high risk levels were more likely to report being in fair or poor health(27% compared with 20%) and were less likely to report being in excellent or very good health (40% compared with 48%) than those who drank at low risk levels. They were also more likely to report having a disability or long-term health condition (40% compared with 32%).

Like smoking, harmful consumption of alcohol was associated with higher rates of other health risk behaviours. In 2002, Indigenous people who had consumed alcohol at risky/high risk levels in the last 12 months were more likely than those who had consumed alcohol at low risk levels to regularly smoke (67% compared with 50%), to have been physically inactive (59% compared with 45%) and, for those in non-remote areas, to have used illicit substances in the last 12 months (41% compared with 25%).

The NHMRC also states that heavy drinkers are more likely to be both offenders and victims of alcohol-related violence (NHMRC 2000a). The 2002 NATSISS showed that those who usually consumed alcohol at risky or high risk levels were one and a half times as likely as those who drank at low risk levels to report being a victim of physical or threatened violence in the last 12 months (36% compared with 24%).

Results from the 2001 NHS indicate that when age differences were taken into account, Indigenous adults were less likely than non-Indigenous adults to have consumed alcohol in the week prior to interview (ABS 2002c). However, among those who did drink alcohol, Indigenous Australians were more than one and a half times as likely as non-Indigenous Australians to consume alcohol at risky or high risk levels.

### *Binge drinking*

Over one-third (35%) of Indigenous people aged 15 years or over reported consuming risky or high risk amounts of alcohol in the two weeks prior to interview. Males were nearly twice as likely as females to drink at risky/high risk levels (45% compared with 26%). Indigenous Australians who had consumed harmful amounts of alcohol in the last two weeks did not report higher rates of poor health or disability compared with those who drank at low risk levels. However, risky/high risk binge drinking was associated with higher rates of smoking (61% compared with 43%), victimisation (32% compared with 19%) and substance use in the last 12 months (35% compared with 19% in non-remote areas).

## ILLICIT SUBSTANCE USE

The term 'illicit drugs' 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, inhalation of petrol) (AIHW 2004b). The use of illicit drugs is linked to various medical conditions for individuals. Injecting drug users, for example, have an increased risk of blood-borne viruses such as hepatitis or HIV. For communities, there is increased potential for social disruption, such as that caused by domestic violence, crime and assaults (Gray et al. 2002; McAllister & Makkai 2001).

ILLICIT SUBSTANCE USE *continued*

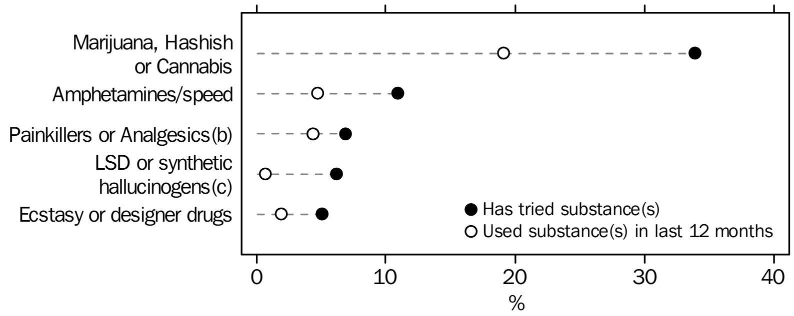
The 2002 NATSISS provides the most recent information on illicit substance use within the Indigenous population. However, due to data quality concerns associated with the method used to collect substance use data from respondents in remote areas, the statistics presented in this chapter are limited to Indigenous people living in non-remote areas.

The 2002 NATSISS shows that one-quarter (24%) of Indigenous people aged 15 years or over in non-remote areas reported having recently used an illicit substance (that is, they had used a substance in the 12 months prior to interview) and 40% reported having tried at least one illicit substance in their lifetime. Information on frequency of substance use was not collected.

Substance use was more prevalent among Indigenous males, of whom 43% had tried illicit drugs (compared with 37% of females) and 27% had used at least one substance in the last 12 months (compared with 21% of females). Indigenous people aged 25–34 years were the most likely to have ever tried substances (55%), whereas recent substance use peaked among those aged 15–24 years (30%).

As shown in graph 8.5, marijuana was the most commonly reported illicit drug used by Aboriginal and Torres Strait Islander people in 2002. One-third (34%) reported having tried marijuana and 19% had used it in the last 12 months. Amphetamines/speed and painkillers or analgesics (for non-medical use) were the next most frequently reported substances either experimented with or recently used by Indigenous Australians.

**8.5** ILLICIT SUBSTANCE USE, Indigenous persons aged 15 years or over(a) – 2002



(a) In non-remote areas only
(b) For non-medical use
(c) Estimate for LSD or synthetic hallucinogens in the last 12 months has a relative standard error of 25% to 50% and should be used with caution.
*Source: ABS, 2002 NATSISS*

Substance use alone was not directly associated with poorer self-assessed health in 2002. Similar rates of excellent or very good health (41% compared with 43%) and fair or poor health (24% compared with 25%) were reported among those who had recently used substances and those who had never used substances.

However, substance use was associated with other health risk factors. For example, Indigenous people who had used substances in the last 12 months were more likely than those who had never used substances to regularly smoke (69% compared with 39%) and to usually consume alcohol at risky or high risk levels (25% compared with 9%). They

ILLICIT SUBSTANCE USE *continued*

were also more than twice as likely to have been a victim of physical or threatened violence in the last 12 months (41% compared with 18%).

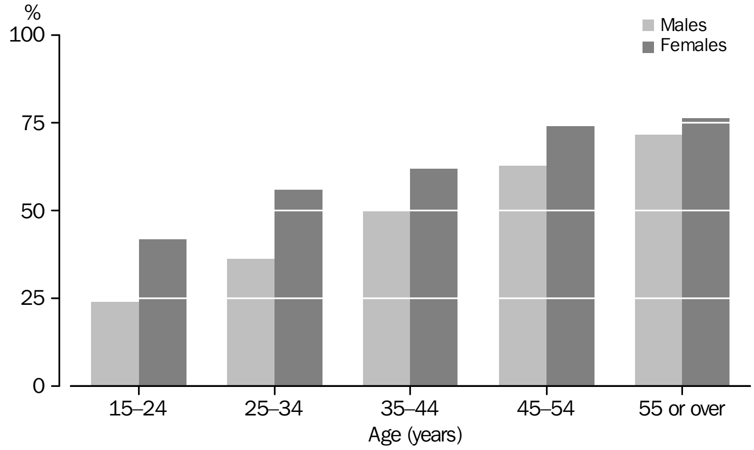
Although no direct comparisons can be made between Indigenous and non-Indigenous people in 2002, the 2001 NDSHS showed that Indigenous respondents aged 14 years or over were one and a half times as likely as non-Indigenous respondents to have tried illicit substances and were nearly twice as likely to have used them in the last 12 months (AIHW 2003a).

## PHYSICAL INACTIVITY

Physical inactivity is second only to tobacco use as a contributor to population ill-health (accounting for 7% of the total burden of disease and injury in Australia in 1996) and is the leading contributor to preventable illness and morbidity among women (Mathers, Vos & Stevenson 1999). A sedentary lifestyle doubles the risk of cardiovascular disease, Type II diabetes and obesity. It also increases the risks of colon and breast cancer, high blood pressure, lipid disorders, osteoporosis, depression and anxiety (WHO 2002a).

In 2002, just over half (51%) of Indigenous people aged 15 years or over had not played sport or participated in physical recreation activities in the last 12 months. Women (58%) were more likely than men (43%) to have been physically inactive and rates of inactivity increased with age (graph 8.6).

**8.6** NON-PARTICIPATION IN SPORT/PHYSICAL RECREATION ACTIVITIES(a), Indigenous persons aged 15 years or over – 2002



(a) In the last 12 months
*Source: ABS, 2002 NATSISS*

Physical inactivity was strongly associated with self-assessed health status. One-third (33%) of people who did not participate in sport or physical recreation activities rated their health as fair or poor, compared with 14% of people who did participate. Moreover, 34% of people who were not physically active rated their health as excellent or very good compared with more than one-half (55%) of people who were physically active.

Those who did not play sport or participate in physical activities were also more likely to regularly smoke (54% compared with 43%) and to usually consume alcohol at risky or high risk levels (18% compared with 13%).

PHYSICAL INACTIVITY *continued*

When age differences between the Indigenous and non-Indigenous populations are taken into account, Indigenous people aged 18 years or over were one and a half times as likely as non-Indigenous people to have been physically inactive in 2002. Both Indigenous and non-Indigenous females were less likely than their male counterparts to have participated in sport or physical recreation activities in the last 12 months.

### **8.7** PREVALENCE OF HEALTH RISK FACTORS AMONG YOUNG ABORIGINAL PEOPLE IN WESTERN AUSTRALIA

The Western Australian Aboriginal Child Health Survey (WAACHS) collected information on the health and wellbeing of over 5,000 Aboriginal children and young people in Western Australia between 2000–02. As part of this process, young people aged 12–17 years were asked to complete a questionnaire about their activities and behaviours including whether they smoked, used alcohol or other drugs or engaged in physical exercise. The main findings were:

- Over one-third of all young Aboriginal people aged 12–17 years (35%) and more than half of those aged 17 years (58%) regularly smoked cigarettes.
- More than one-quarter of young people (27%) reported drinking alcohol. Rates of alcohol use were particularly high among 17 year olds, of whom 61% of males and 43% of females drank alcohol.
- Approximately one-third (30%) of Aboriginal young people have used marijuana at some time in their lives.
- More than one-quarter (28%) of young people had not undertaken strenuous exercise in the week before the survey.
- Three-quarters of young people (75%) who drank alcohol and regularly smoked cigarettes also used marijuana, compared with only 8% of young people who neither drank alcohol nor smoked cigarettes.

*Source: Zubrick et al. 2005.*

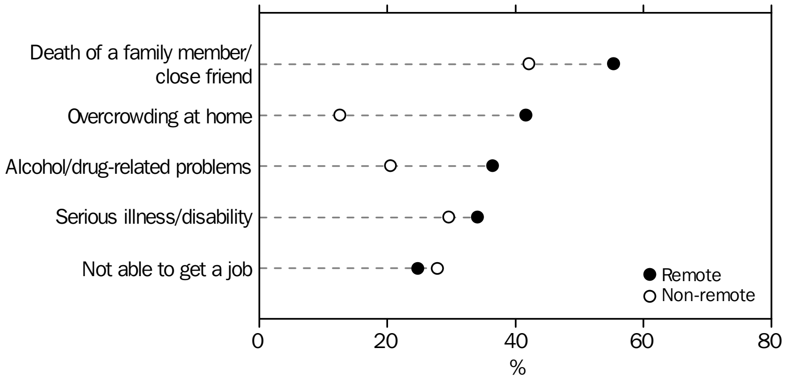
STRESS

Major life changes that alter a person’s social roles and relationships, such as divorce, serious illness, or the death of a loved one, can increase susceptibility to stress, especially when several of these changes occur within a brief time period (Bryce 2001). Chronic life stress is detrimental to a person's health as it elevates the risk of developing depression, diabetes, high cholesterol and high blood pressure (Wilkinson & Marmot 2003).

In 2002, 82% of Indigenous people aged 15 years or over reported experiencing at least one life stressor in the last 12 months. The most common types of stressors reported were the death of a family member or close friend (46%), serious illness or disability (31%) and inability to get a job (27%). However, for those living in remote areas the most frequently reported stressors were death of a family member or close friend (55%), overcrowding at home (42%) and alcohol and drug-related problems (37%) (graph 8.8).

STRESS *continued*

**8.8** SELECTED PERSONAL STRESSORS(a) IN THE LAST 12 MONTHS, Indigenous persons aged 15 years or over – 2002



(a) Respondents may have reported more than one stressor.
*Source: ABS, 2002 NATSISS*

High rates of multiple life stressors were reported by Aboriginal and Torres Strait Islander people in 2002. Just under one-half (44%) reported experiencing at least three life stressors in the last 12 months and one in eight (12%) reported experiencing at least seven life stressors during this time period. Multiple stressors were particularly prevalent among those living in remote areas, who were twice as likely as those living in non-remote areas to have experienced seven or more stressors in the last year (20% compared with 9%).

Exposure to life stressors was associated with poorer self-assessed health and higher rates of health risk behaviour. Indigenous people who had reported experiencing at least one stressor in the last 12 months were more likely than those who had not experienced a stressor to report being in fair or poor health (25% compared with 17%) and were less likely to report being in excellent or very good health (42% compared with 54%). They were also more likely to have a disability or long-term health condition (38% compared with 29%), to regularly smoke (50% compared with 41%), to have recently used illicit substances (24% compared with 14% in non-remote areas) and to have been a victim of physical or threatened violence in the last 12 months (28% compared with 8%).

When age differences between the Indigenous and non-Indigenous populations were taken into account, Indigenous people aged 18 years or over were almost one and a half times as likely as non-Indigenous people to report having experienced at least one stressor in 2002. However the types of stressors experienced by both Indigenous and non-Indigenous people were similar, with serious illness or disability, death and inability to get a job being the three most frequently reported stressors by non-Indigenous people in 2002.

## EXPOSURE TO VIOLENCE

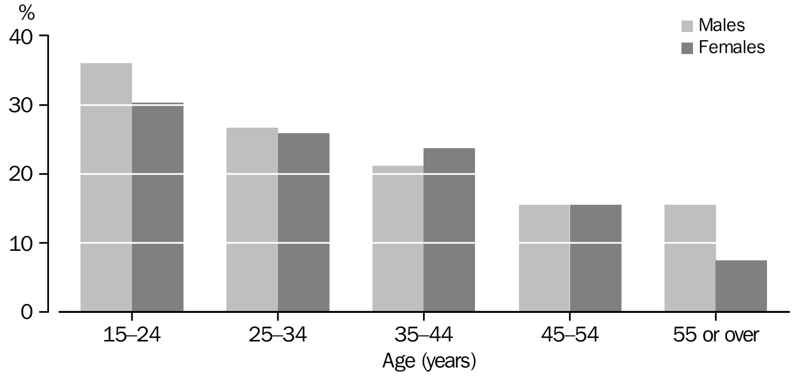
Exposure to violence is a health risk factor that is at times overlooked, despite its potential to result in permanent disability, psychological trauma and even death. The World Health Organization (2002b) reports that in addition to direct physical injury, victims of violence are at greater risk of a wide variety of psychological and behavioural problems including depression, anxiety, suicidal behaviour, and alcohol and substance misuse. Victims of sexual violence are also at increased risk of developing reproductive health problems and contracting sexually transmitted diseases (WHO 2002b).

EXPOSURE TO VIOLENCE *continued*

In 2002, 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%). However, some of this increase may reflect the different wording of victimisation questions used in the 1994 and 2002 surveys.

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%) (graph 8.9).

**8.9** VICTIMS OF PHYSICAL OR THREATENED VIOLENCE(a), Indigenous persons aged 15 years or over – 2002



(a) In the last 12 months.
*Source: ABS, 2002 NATSISS*

Those who were victims of physical or threatened violence in 2002 reported higher rates of fair or poor health (28% compared with 22%) and lower rates of excellent or very good health (38% compared with 46%) than those who had not been victimised. Moreover, people who had been victimised were more likely to report having a disability or long-term health condition (43% compared with 34%). They were also more likely to regularly smoke (61% compared with 45%), to usually consume alcohol at risky or high risk levels (22% compared with 13%) and to have used at least one illicit substance in the last 12 months (38% compared with 19% of persons in non-remote areas).

When age differences between the Indigenous and non-Indigenous populations are taken into account, Indigenous people aged 18 years or over experienced double the victimisation rate of non-Indigenous people in 2002. These data are consistent with the very much higher rates in the Indigenous population of hospitalisation due to assault. As shown in Chapter 7, hospital separations for assault-based injuries were seven times higher for Indigenous males and 31 times higher for Indigenous females in 2003–04 (AIHW National Hospital Morbidity Database).

## REMOVAL FROM NATURAL FAMILY

In 1997, the Human Rights and Equal Opportunity Commission published *Bringing them Home: Report of the National Inquiry into the Separation of Aboriginal and Torres Strait Islander Children from their Families.* This report highlighted the very damaging effects that forced separation and institutionalisation have had, and continue to have, on Indigenous Australians. Evidence to the Inquiry clearly established that people who were

REMOVAL FROM NATURAL FAMILY *continued*

separated from their families experience more health problems than those who were not separated. They suffer higher rates of emotional distress, depression, anxiety, heart disease and diabetes. There is also evidence to suggest that they are more likely to smoke (Ivers 2001) and to misuse alcohol and other substances. These problems are thought to be linked to the high levels of emotional distress and trauma surrounding removal from one's family, as well as early disruption in social and cultural attachment(HREOC 1997).

In 2002, around one in twelve (8%) of Indigenous Australians aged 15 years or over reported having been personally removed from their natural family. A further 29% reported having relatives who were removed from their family when they were children. The most frequently reported relatives removed were grandparents (15%), aunts or uncles (11%) and parents (9%).

Consistent with the findings of the Inquiry, the 2002 NATSISS showed that Indigenous people who were personally removed from their natural families reported poorer health outcomes. In comparison with those who were not removed from their families, those who had been taken away were more likely to report being in fair or poor health (40% compared with 22%) and were less likely to report being in excellent or very good health (33% compared with 46%). They were also more likely to regularly smoke cigarettes (65% compared with 47%) and to have a disability or long-term health condition (54% compared with 35%).

Removal was also associated with increased risk of mental health problems in 2002. The NATSISS did not explicitly identify persons in remote areas with a psychological disability. However in non-remote areas, rates of psychological disability were two and a half times higher among those who had been separated from their families compared with those who had not been separated (20% and 8% respectively).

### **8.10** EFFECTS OF FORCED SEPARATION ON THE SOCIAL AND EMOTIONAL WELLBEING OF ABORIGINAL CARERS AND THEIR CHILDREN

The Western Australian Aboriginal Child Health Survey (WAACHS) obtained information about the effects of forced separations on the social and emotional wellbeing of Aboriginal carers and their children. An estimated 2,760 Aboriginal children (12%) aged 4–17 years in Western Australia had a primary carer who had been forcibly separated from his/her family. The WAACHS showed that those carers who were forcibly separated from their natural family were more likely to live in households where there were problems caused by gambling or overuse of alcohol. They were also one-and-a-half times as likely to have had contact with WA Mental Health Services and were almost twice as likely to have been arrested or charged by police at some point in their lifetime.

The children of Aboriginal carers who had been forcibly removed were more than twice as likely to be at high risk of clinically significant emotional or behavioural difficulties after adjusting for age, sex, remoteness and whether the primary carer was the birth mother of the child. They were also approximately twice as likely to use alcohol and other drugs compared to children whose Aboriginal primary carer had not been forcibly separated from his/her family.

*Source: Zubrick et al. 2005.*

## NUTRITION

Nutrition-related health conditions such as heart disease, Type II diabetes, obesity and renal disease are principal causes of ill-health among Aboriginal and Torres Strait Islander people (NHMRC 2000b; SIGNAL 2001). While the relationship between health and nutrition is widely accepted, less well understood are the complex interrelationships between nutrition and health risk factors. For example, diet-related illnesses may be associated with environmental, behavioural, biological and genetic factors, making it difficult to determine the extent to which diet contributes to the disease (AIHW 2004b). The diets of many Indigenous people have undergone rapid change from a fibre-rich, high protein, low saturated fat 'traditional' diet, to one in which refined carbohydrates predominated (NHMRC 2000b). In addition, external factors such as the physical environment, dispossession of land, socioeconomic status, historical and cultural issues, and access to fresh food in remote areas all affect the choices Indigenous Australians have in terms of nutrition and diet.

The 2002 NATSISS did not collect information about diet or nutrition. However, results from the 2001 NHS show that while similar proportions of Indigenous and non-Indigenous people aged 15 years or over in non-remote areas reported a medium to high vegetable intake (two or more serves a day), Indigenous people were less likely than non-Indigenous people to report a medium to high intake of fruit. They were also more likely to consume whole (full cream) milk rather than reduced fat alternatives, and to add salt to food after cooking. For more information on nutrition, see chapters 3 and 6.

## BODY WEIGHT

Relative body weight is important both as an indicator of past and current health and as a predictor of future health. Being underweight may reflect poor nutrition or illness, and under-nutrition is still a significant health problem, particularly for children in some Indigenous communities (NHMRC 2000c). Obesity, on the other hand, is a risk factor for kidney disease, Type II diabetes, cardiovascular disease and other chronic health conditions (AIHW 2004b).

Calculations of body weight in the 2001 NHS were based on reported measurements of height and weight. After adjusting for age differences between the Indigenous and non-Indigenous populations and survey non-response, Indigenous people aged 15 years or over were 1.3 times as likely as non-Indigenous people to be overweight. For both males and females, a higher proportion of Indigenous than non-Indigenous Australians were classified as obese in every 10-year age group from 15–24 years to 55 years or over. The proportion of both Indigenous and non-Indigenous people aged 18 years or over who were classified as obese increased between 1995 and 2001.

For more information on nutrition and body weight, see Chapter 8 in the 2003 edition of this report. New data will be available from the 2004–05 National Aboriginal and Torres Strait Islander Health Survey, due for release in 2006 (see Data Sources for further details).

## MULTIPLE RISK FACTORS

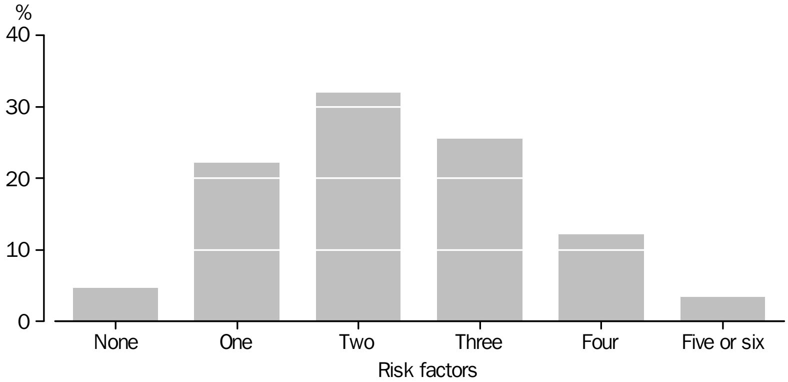
In this chapter, risk factors such as smoking, alcohol consumption and stress have been assessed largely in isolation from one another. However, the level of risk of a particular factor may depend on whether other factors are also present, as risk factors tend to coexist and be interactive in their effects (AIHW 2002c). For example, for smokers who are physically inactive, the risks associated with smoking may combine with those of

MULTIPLE RISK FACTORS *continued*

physical inactivity so that the health consequences are greater than would be expected from one of these factors alone. This analysis does not include nutrition or body weight.

The NATSISS shows that, on average, Indigenous people aged 15 years or over were exposed to 2.3 health risk factors in 2002. Approximately 5% reported no health risk factors and 16% reported at least four risk factors (graph 8.11). The most common combinations of multiple risk factors included stress, regular smoking and physical inactivity.

**8.11** NUMBER OF RISK FACTORS REPORTED(a), Indigenous persons aged 15 years or over – 2002



(a) Risk factors include regular cigarette smoking, risky/high risk alcohol consumption in the last 12 months, non-participation in sport/physical activity in the last 12 months, experience of at least one stressor in the last 12 months, being a victim of physical or threatened violence in the last 12 months, and having been removed from natural family.

*Source: ABS, 2002 NATSISS*

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 behavioural and environmental health risk factors.

In 2002, about half (49%) of the Indigenous population aged 15 years or over smoked on a daily basis. One in six (15%) reported consuming alcohol at risky or high risk levels in the last 12 months and just over half (51%) had not participated in sport or physical recreation activities during this period. One-quarter (24%) of Indigenous people living in non-remote areas reported having used illicit substances in the 12 months prior to interview and 40% reported having tried at least one illicit drug in their lifetime. With the exception of substance use, these behavioural risk factors were associated with poorer self-assessed health among Indigenous people in 2002.

In 2002, about eight in ten (82%) Indigenous people reported experiencing at least one life stressor in the last 12 months and nearly one-quarter (24%) reported being a victim of physical or threatened violence during this period. Higher rates of fair or poor health and health risk behaviour were reported among Indigenous people who had been exposed to these environmental risk factors. Indigenous people who had been removed from their natural families as children also reported poorer health outcomes in comparison with those who were not removed from their families.

# 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. In 1999–2003, for Queensland, South Australia, Western Australia and the Northern Territory, where approximately 60% of the Indigenous population reside, the overall rates of mortality for Indigenous males and females were almost three times those for non-Indigenous males and females. Indigenous Australians also had higher rates of mortality from all major causes of death. While the difference 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 Aboriginal and Torres Strait Islander status on death records. This limitation restricts precise analysis of the data and presents difficulties for the monitoring of mortality trends over time. However, 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.

This chapter examines the mortality of the Aboriginal and Torres Strait Islander population. In the main, the analyses are based on data for the period 1999–2003. Mortality data for Queensland, South Australia, Western Australia and the Northern Territory have been used. These jurisdictions are considered to have the most complete coverage of Indigenous deaths for that period.

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 outcomes, may underestimate the actual mortality experience of Indigenous people in Australia.

## 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 Aboriginal and Torres Strait Islander population.

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. These jurisdictions are Queensland, South Australia, Western Australia and the Northern Territory, and their data have been combined for 1999–2003 for an analysis of Indigenous mortality. Longer term mortality trends discussed in this Chapter are based on an analysis of data from three jurisdictions—South Australia, Western Australia and the Northern Territory—being the only jurisdictions with 12 years of reasonable coverage of Indigenous deaths registrations.

## DATA QUALITY AND AVAILABILITY *continued*

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. Delays in registration can occur when deaths are subject to the findings of a coroner or when deaths occur in remote areas. Late deaths registrations are more common for Indigenous people than non-Indigenous people, and therefore have a greater impact on mortality statistics.

For example, 95% of deaths of non-Indigenous Australians that occurred in 2002 were registered in that year while 5% were registered in 2003. For Indigenous deaths, the corresponding figures were 86% in 2002 and 14% in 2003. The analyses of deaths reported in this chapter are based on year of occurrence of death for the period 1999–2002—the latest year for which year of occurrence data are available—augmented by year of registration of death for 2003—the latest year for which such data are available.

Causes of death statistics provided 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 'low series' ABS experimental population projections of the Indigenous population based on the 2001 Census.

## LIFE EXPECTANCY

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 2004b). 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, 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.

In the period 1996–2001, using the Bhat method (ABS 2004c), the life expectancy at birth for Indigenous Australians was estimated to be 59.4 years for males and 64.8 years for females, compared with 76.6 years for all males and 82.0 years for all females for the period 1998–2000; a difference of approximately 17 years for both males and females. The Bhat method offers improvement over other indirect methods used earlier by the ABS to estimate life expectancy from incomplete data such as the Preston Hill method (Preston & Hill 1980). While the Bhat method allows for an adjustment for changes in identification to be taken into account in the estimation of life expectancy, it remains experimental and therefore more work needs to be done on such estimates as more robust methods become available.

## DEATHS 1999–2003

For the period 1999–2003, there were 7,387 registered deaths identified as Indigenous (4,222 males and 3,165 females) for persons reported to have been usual residents of Queensland, South Australia, Western Australia and the Northern Territory. These deaths accounted for 3.2% of all deaths of usual residents in these four jurisdictions, and 71% of all identified Aboriginal and Torres Strait Islander deaths in Australia.

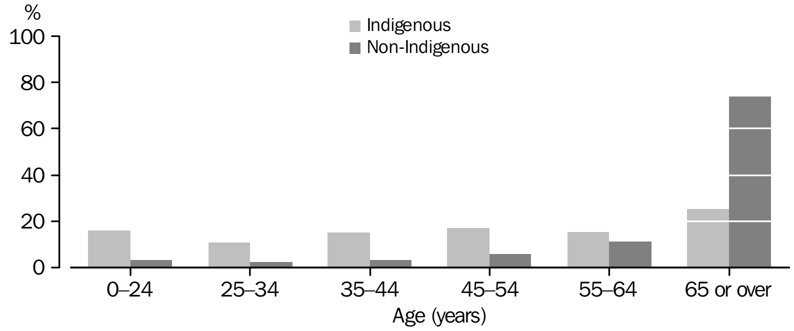
### *Age at death*

In Queensland, South Australia, Western Australia and the Northern Territory, 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 who died were aged less than 65 years (graphs 9.1 and 9.2).

Infant deaths (deaths under one year) contribute to the younger age at death of the Indigenous population. For the period 1999–2003, Indigenous infant deaths represented 6.2% of total Indigenous male deaths and 6.5% 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 15% of total Indigenous male deaths compared with only 3% of total non-Indigenous male deaths, while the 45–54 year age group accounted for 16% of Indigenous female deaths compared with 4% of total non-Indigenous female deaths.

**9.1** MALE DEATHS, by Indigenous status and age—1999–2003(a)

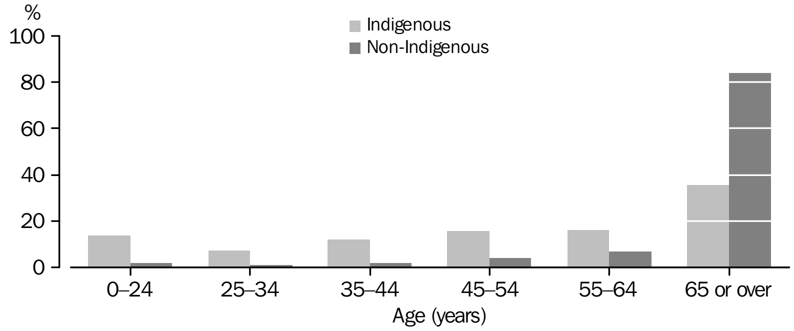


(a) Data are for Queensland, South Australia, Western Australia and the Northern Territory combined. Deaths are based on year of occurrence of death for 1999–2002 and year of registration of death for 2003.

*Source: AIHW, National Mortality Database*

*Age at death continued*

**9.2** FEMALE DEATHS, by Indigenous status and age—1999–2003(a)



(a) Data are for Queensland, South Australia, Western Australia and the Northern Territory combined. Deaths are based on year of occurrence of death for 1999–2002 and year of registration of death for 2003.

*Source: AIHW, National Mortality Database*

Indigenous Australians were over-represented in almost every age group. Table 9.3 shows Indigenous deaths as a proportion of total deaths by age group in 1999–2003 and their respective proportions of the total population for the same period.

**9.3** DEATHS OF INDIGENOUS PERSONS IN QLD, SA, WA AND NT(a)—1999–2003

| | NUMBER OF INDIGENOUS DEATHS *(no.)* | | INDIGENOUS DEATHS AS A PROPORTION OF TOTAL DEATHS (%) | | INDIGENOUS PERSONS AS A PROPORTION OF TOTAL POPULATION (%)(b) | |
|---|---|---|---|---|---|---|
| *Age (years)* | *Males* | *Females* | *Males* | *Females* | *Males* | *Females* |
| Less than 1 | 263 | 206 | 19.0 | 19.3 | 7.6 | 7.7 |
| 1–4 | 48 | 45 | 13.7 | 19.6 | 7.3 | 7.5 |
| 5–14 | 56 | 43 | 13.8 | 14.2 | 6.8 | 6.7 |
| 15–24 | 306 | 133 | 12.1 | 14.9 | 4.9 | 5.2 |
| 25–34 | 462 | 226 | 13.2 | 16.6 | 4.0 | 4.4 |
| 35–44 | 636 | 380 | 13.7 | 14.3 | 2.9 | 3.1 |
| 45–54 | 723 | 490 | 9.1 | 9.9 | 2.0 | 2.2 |
| 55–64 | 651 | 509 | 4.7 | 6.5 | 1.4 | 1.7 |
| 65 or over | 1 058 | 1 118 | 1.2 | 1.4 | 0.9 | 0.9 |
| **Total**(c) | **4 222** | **3 165** | **4.3** | **3.6** | **3.7** | **3.8** |

(a) Data for Queensland, South Australia, Western Australia and the Northern Territory combined. Deaths are based on year of occurrence of death for 1999–2002 and year of registration of death for 2003.
(b) Estimates of the Indigenous population for 1999–2003 are based on the 2001 Census.
(c) Includes deaths where age was not stated.

*Source: AIHW, National Mortality Database*

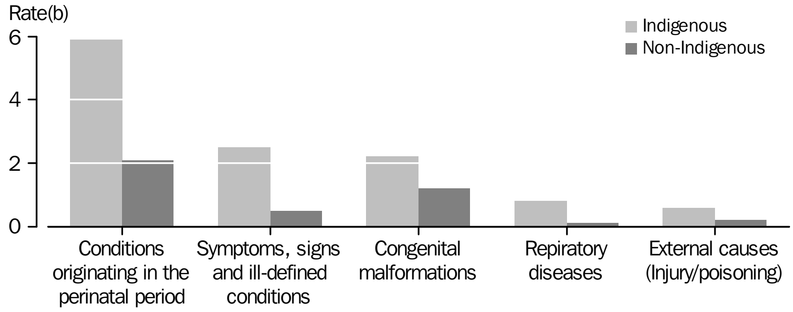
*Infant deaths–main causes*

Infant deaths are deaths of live-born children which occur before they reach their first birthday. In 1999–2003, for Indigenous infants, the mortality rate was three times that of non-Indigenous infants (table 9.5). Almost half (45%) 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 19% of

### *Infant deaths–main causes continued*

infant deaths and congenital malformations accounted for 16%. For respiratory diseases(6%) and external causes (mainly accidents) (5%), the mortality rates for Indigenous infants were ten and four times, respectively, those of non-Indigenous infants (graph 9.4).

## 9.4 INFANT DEATHS, MAIN CAUSES(a), by Indigenous status—1999–2003



(a) Data are for Queensland, South Australia, Western Australia and the Northern Territory combined. Based on year of occurrence of death for 1999–2002 and year of registration of death for 2003.
(b) Per 1,000 live births.

*Source: AIHW, National Mortality Database*

### *Age-specific death rates*

In Queensland, South Australia, Western Australia and the Northern Territory, age-specific death rates for Indigenous males and females across almost all age groups were higher than the rates for non-Indigenous males and females in these jurisdictions. For all age groups below 65 years, the age-specific death rates for Indigenous Australians were at least twice those experienced by the non-Indigenous population. 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 times those recorded for non-Indigenous males and females (table 9.5).

## 9.5 AGE-SPECIFIC DEATH RATES(a), by sex and Indigenous status—1999–2003

| | MALES | | | FEMALES | | |
|---|---|---|---|---|---|---|
| *Age (years)* | *Indigenous rate*(b) | *Non-Indigenous rate*(b) | *Rate ratio*(c) | *Indigenous rate*(b) | *Non-Indigenous rate*(b) | *Rate ratio*(c) |
| Less than 1(d) | 15 | 5 | 3.0 | 12 | 4 | 3.0 |
| 1–4 | 66 | 31 | 2.1 | 64 | 20 | 3.2 |
| 5–14 | 31 | 14 | 2.2 | 25 | 11 | 2.3 |
| 15–24 | 239 | 87 | 2.7 | 103 | 31 | 3.3 |
| 25–34 | 432 | 115 | 3.8 | 195 | 44 | 4.4 |
| 35–44 | 791 | 146 | 5.4 | 436 | 82 | 5.3 |
| 45–54 | 1 443 | 288 | 5.0 | 907 | 179 | 5.1 |
| 55–64 | 2 667 | 760 | 3.5 | 1 784 | 438 | 4.1 |
| 65 or over | 6 273 | 4 534 | 1.4 | 5 093 | 3 763 | 1.4 |

(a) Data for Queensland, South Australia, Western Australia and the Northern Territory 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*

*Age-specific death rates 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 intentional self-harm are major causes of death (table 9.6). Indigenous males and females aged 35–54 years died from diabetes at 21 and 37 times the rates, and from influenza and pneumonia at 20 and 17 times the rates, of non-Indigenous males and females of the same age for these conditions. While some of these rates have been derived from a relatively small number of deaths—for example deaths caused by mental and behavioural disorders due to psychoactive substance use totalled only 11 deaths among Indigenous females over the five year period 1999–2003—differences between the two population groups are still striking.

### 9.6 AGE-SPECIFIC DEATH RATES BY MAJOR CAUSES(a)(b)—persons aged 35–54 years—1999–2003

| | INDIGENOUS | | NON-INDIGENOUS | | RATE RATIO(c) | |
|---|---|---|---|---|---|---|
| | *Males* | *Females* | *Males* | *Females* | *Males* | *Females* |
| Ischaemic heart disease (I20–I25) | 237.5 | 102.7 | 33.1 | 6.2 | 7.2 | 16.6 |
| Diabetes (E10–E14) | 73.6 | 56.7 | 3.5 | 1.5 | 21.2 | 37.3 |
| Disease of liver (K70–K77) | 69.0 | 45.3 | 8.3 | 3.1 | 8.3 | 14.7 |
| Other forms of heart disease (I30–I52) | 45.2 | 18.4 | 5.4 | 2.3 | 8.3 | 8.2 |
| Intentional self harm (X60–X84) | 45.2 | 7.8 | 27.6 | 7.9 | 1.6 | 1.0 |
| Mental and behavioural disorders due to psychoactive substance use (F10–F19) | 40.6 | 7.8 | 3.0 | 0.7 | 13.7 | 11.1 |
| Malignant neoplasm of digestive organs (C15–C26) | 36.8 | 15.6 | 19.2 | 12.5 | 1.9 | 1.2 |
| Chronic lower respiratory disease (J40–J47) | 35.2 | 26.2 | 2.5 | 2.7 | 13.9 | 9.7 |
| Influenza and pneumonia (J10–J18) | 32.2 | 12.0 | 1.6 | 0.7 | 19.9 | 16.7 |
| Assault (X85–Y09) | 31.4 | 12.7 | 1.9 | 1.0 | 17.0 | 12.4 |
| Cerebrovascular disease (I60–I69) | 30.6 | 27.6 | 5.8 | 5.1 | 5.3 | 5.4 |
| Malignant neoplasm of respiratory and intrathoracic organs (C30–C39) | 30.6 | 19.1 | 13.1 | 8.6 | 2.3 | 2.2 |
| Ill-defined and unknown causes of mortality (R95–R99) | 26.1 | 10.6 | 3.1 | 1.2 | 8.5 | 8.8 |
| Car occupant injured in transport accident (V40–V49) | 25.3 | 11.3 | 5.9 | 3.3 | 4.3 | 3.5 |
| Pedestrian injured in transport accident (V01–V09) | 20.7 | 12.0 | 1.6 | 0.3 | 13.0 | 38.7 |

(a) Per 100,000 population.

(b) Data for Queensland, South Australia, Western Australia and the Northern Territory combined. Deaths are based on year of occurrence of death for 1999–2002 and year of registration of death for 2003. Disease groupings are based on three-digit groupings of ICD–10.

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

*Source: AIHW, National Mortality Database*

## CAUSES OF DEATH

In 1999–2003, the three leading causes of death for Aboriginal and Torres Strait Islander peoples resident in Queensland, South Australia, Western Australia and the Northern Territory were diseases of the circulatory system, external causes of morbidity and mortality (predominantly accidents, intentional self-harm and assault) and neoplasms (cancer). Deaths due to these causes accounted for 58% of all Indigenous deaths (table 9.7) compared with 74% of deaths in the non-Indigenous population.

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.

CAUSES OF DEATH *continued*

While the overall undercoverage of the Indigenous deaths in the four jurisdictions used for this analysis will understate SMRs for all causes and for all persons, differential undercoverage by sex, and by cause, will affect detailed analysis of SMRs.

In 1999–2003, 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 7 and 11 times, respectively, the rates for non-Indigenous males and females (table 9.7).

### 9.7 INDIGENOUS DEATHS, MAIN CAUSES(a)—1999–2003

| | MALES | | | FEMALES | | |
|---|---|---|---|---|---|---|
| | *Observed deaths* | *Expected deaths* | *SMR*(b) | *Observed deaths* | *Expected deaths* | *SMR*(b) |
| | no. | no. | rate | no. | no. | rate |
| Diseases of the circulatory system (I00–I99) | 1 134 | 388 | 2.9 | 882 | 347 | 2.5 |
| External causes (V01–Y98) | 842 | 306 | 2.7 | 356 | 111 | 3.2 |
| Neoplasms (C00–D48) | 592 | 407 | 1.5 | 502 | 345 | 1.5 |
| Endocrine, nutritional and metabolic diseases (E00–E90) | 303 | 41 | 7.5 | 372 | 35 | 10.5 |
| Diseases of the respiratory system (J00–J99) | 368 | 92 | 4.0 | 269 | 76 | 3.5 |
| Diseases of the digestive system (K00–K93) | 208 | 42 | 4.9 | 152 | 36 | 4.3 |
| Diseases of the genitourinary system (N00–N99) | 87 | 16 | 5.3 | 139 | 19 | 7.3 |
| Symptoms, signs and ill-defined conditions (R00–R99) | 136 | 24 | 5.8 | 88 | 15 | 5.7 |
| Certain conditions originating in the perinatal period (P00–P96) | 124 | 43 | 2.9 | 88 | 35 | 2.5 |
| Diseases of the nervous system and sense organs (G00–G99) | 111 | 41 | 2.7 | 70 | 41 | 1.7 |
| Certain infectious and parasitic diseases (A00–B99) | 97 | 20 | 5.0 | 80 | 14 | 5.8 |
| Mental and behavioural disorders (F00–F99) | 122 | 22 | 5.5 | 52 | 24 | 2.2 |
| **All causes** | **4 222** | **1 485** | **2.8** | **3 165** | **1 143** | **2.8** |

(a) Data for Queensland, South Australia, Western Australia and the Northern Territory combined. Deaths are based on year of occurrence of death for 1999–2002 and year of registration of death for 2003.

(b) Standardised mortality rate is the observed Indigenous deaths divided by expected Indigenous deaths, based on the age, sex and cause-specific rates for non-Indigenous Australians.

*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. Diseases of the circulatory system accounted for the highest proportion of excess deaths. Other major causes of excess deaths were external causes, diseases of the respiratory system and endocrine, nutritional and metabolic diseases. Deaths due to these causes were responsible for around two-thirds of excess deaths among Indigenous males and females (table 9.8).

*Excess deaths continued*

## 9.8 MAIN CAUSES OF EXCESS INDIGENOUS DEATHS(a)(b)—1999–2003

| | *Indigenous males* | *Indigenous females* |
|---|---|---|
| | % | % |
| Diseases of the circulatory system (I00–I99) | 27.3 | 26.5 |
| External causes (V01–Y98) | 19.6 | 12.1 |
| Endocrine, nutritional and metabolic diseases (E00–E90) | 9.6 | 16.6 |
| Diseases of the respiratory system (J00–J99) | 10.1 | 9.5 |
| Neoplasms (C00–D48) | 6.8 | 7.8 |
| Diseases of the digestive system (K00–K93) | 6.1 | 5.8 |
| Diseases of the genitourinary system (N00–N99) | 2.6 | 5.9 |
| Symptoms, signs and ill-defined conditions (R00–R99) | 4.1 | 3.6 |
| Certain infectious and parasitic diseases (A00–B99) | 2.8 | 3.3 |
| Certain conditions originating in the perinatal period (P00–P96) | 3.0 | 2.6 |
| Mental and behavioural disorders (F00–F99) | 3.6 | 1.4 |
| All other causes | 4.5 | 4.9 |
| **All causes** | **100.0** | **100.0** |

(a) Data for Queensland, South Australia, Western Australia and the Northern Territory combined. Deaths are based on year of occurrence of death for 1999–2002 and year of registration of death for 2003.

(b) 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 Australians).

*Source: AIHW, National Mortality Database*

*Main causes of Indigenous deaths*

The following disease-specific analysis highlights the different patterns of mortality experienced by the Indigenous and non-Indigenous populations. The proportion of deaths due to any one disease or disease group is affected by the overall pattern of deaths within a given population. Therefore it is important to analyse the overall pattern of deaths when interpreting comparisons that are made of proportions due to one cause or a group of causes of deaths.

The diseases covered below, which include circulatory system diseases, diabetes, chronic kidney diseases, injuries, neoplasms and respiratory diseases, accounted for 77% and 86% of all deaths among Indigenous and non-Indigenous Australians respectively (table 9.9).

### Main causes of Indigenous deaths *continued*

**9.9** MAIN CAUSES OF DEATHS(a), by Indigenous status—1999–2003

| | NUMBER OF DEATHS (*no.*) | | PROPORTION OF TOTAL DEATHS (%) | |
|---|---|---|---|---|
| | *Indigenous* | *Non-Indigenous* | *Indigenous* | *Non-Indigenous* |
| Diseases of the circulatory system | 2 016 | 85 339 | 27.3 | 38.2 |
| External causes of mortality | 1 198 | 14 480 | 16.2 | 6.5 |
| Neoplasms | 1 094 | 65 354 | 14.8 | 29.3 |
| Respiratory diseases | 637 | 19 011 | 8.6 | 8.5 |
| Diabetes | 603 | 5 012 | 8.2 | 2.2 |
| Chronic kidney disease | 277 | 3 729 | 3.7 | 1.7 |
| ***Subtotal***(b) | ***5 707*** | ***192 044*** | ***77.3*** | ***86.0*** |
| **Total** | **7 387** | **223 384** | **100.0** | **100.0** |

(a) Data for Queensland, South Australia, Western Australia and the Northern Territory combined. Deaths are based on year of occurrence of death for 1999–2002 and year of registration of death for 2003. Disease groupings are based on ICD–10 chapter.

(b) Subtotal does not equal the sum of the separate diseases as chronic kidney disease overlaps other categories such as diseases of the circulatory system and diabetes.

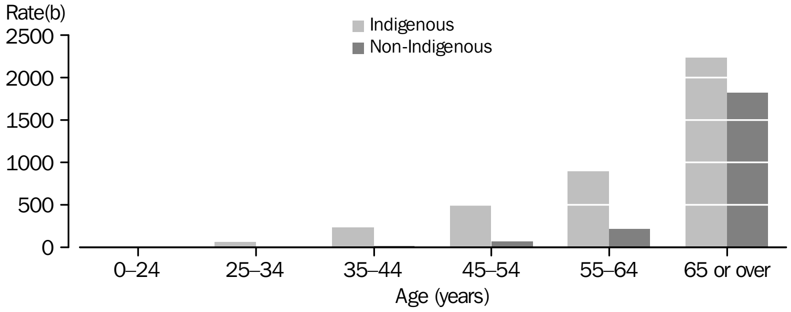
*Source: AIHW National Mortality Database*

### Circulatory diseases

Diseases of the circulatory system were responsible for 27% and 28% of total Indigenous male and female deaths, respectively, for the period 1999–2003. These rates were less than for non-Indigenous Australians, where these diseases accounted for 35% of male deaths and 41% of female deaths. Within circulatory system diseases, ischaemic heart diseases (heart attack, angina) were responsible for 63% of Indigenous male deaths and 50% of Indigenous female deaths, while cerebrovascular disease (stroke) accounted for 15% of male deaths and 20% of female deaths.

Compared to 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 10 times the rate for non-Indigenous males. Indigenous females recorded rates 12 to 13 times the rates for non-Indigenous females for the 35–44 and 45–54 year age groups (graphs 9.10 and 9.11).

**9.10** MALE DEATH RATES, CIRCULATORY DISEASES, by Indigenous status and age—1999–2003(a)

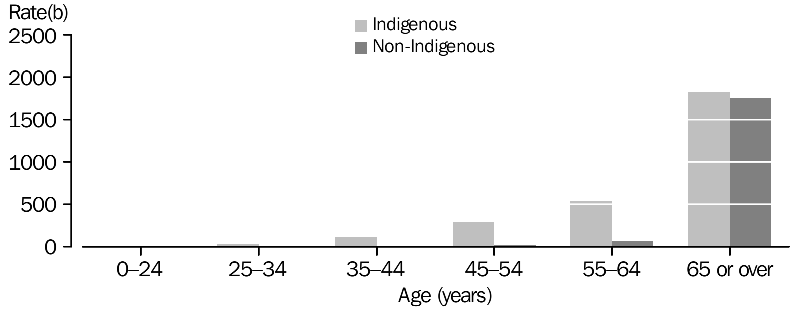


(a) Data for Queensland, South Australia, Western Australia and the Northern Territory combined. Deaths are based on year of occurrence of death for 1999–2002 and year of registration of death for 2003.
(b) Per 100,000 population.

*Source: AIHW, National Mortality Database*

*Circulatory diseases continued*

**9.11** FEMALE DEATH RATES, CIRCULATORY DISEASES, by Indigenous status—1999–2003(a)



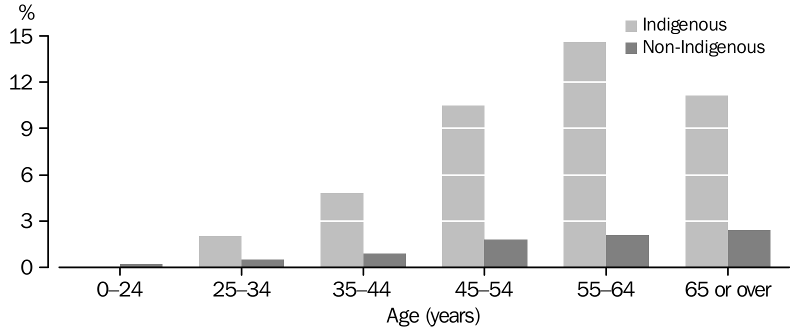
(a) Data are for Queensland, South Australia, Western Australia and the Northern Territory combined. Deaths are based on year of occurrence of death for 1999–2002 and year of registration of death for 2003.
(b) Per 100,000 population.

*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 1999–2003, 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 around 2% for all age groups from 45–54 years and over. For Indigenous Australians, diabetes was responsible for 10% of deaths in the 45–54 years age group and for 15% of total Indigenous deaths in the 55–64 year age group (graph 9.12).

**9.12** DIABETES DEATHS AS A PROPORTION OF TOTAL DEATHS, by Indigenous status and age—1999–2003(a)



(a) Data are for Queensland, South Australia, Western Australia and the Northern Territory combined. Deaths are based on year of occurrence of death for 1999–2002 and year of registration of death for 2003.

*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 1999–2003, Indigenous males in the 35–44 and 45–54 years age groups experienced age-specific death rates 23 and 25 times, respectively, the corresponding rates for non-Indigenous males (graph 9.13). For the same age groups, the rates experienced by Indigenous females were 37 and 43 times the corresponding non-Indigenous female rates (graph 9.14). The markedly higher death rates from diabetes in the Indigenous population are partly a reflection of the

## Diabetes *continued*

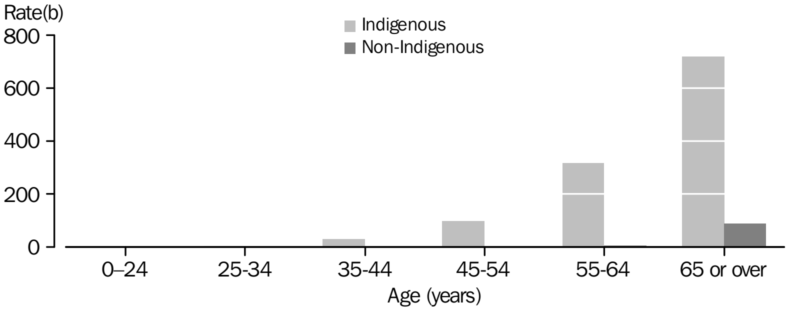
earlier onset of diabetes in the Indigenous population compared to the non-Indigenous population, combined with a high prevalence of some of the risk factors associated with diabetes such as smoking, hypertension and obesity. Higher death rates from diabetes may also reflect poorer management of diabetes among Indigenous people, particularly those living in rural and remote areas (Wood & Patterson 1999).

**9.13** MALE DEATH RATES, DIABETES, by Indigenous status and age—1999–2003(a)

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

*Source: AIHW, National Mortality Database*

**9.14** FEMALE DEATH RATES, DIABETES, by Indigenous status and age—1999–2003(a)



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

*Source: AIHW, National Mortality Database*

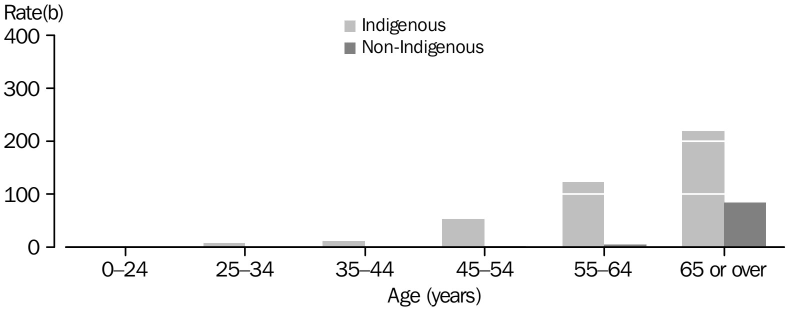
## Chronic kidney disease

Chronic kidney disease was responsible for 3% and 5% of Indigenous male and female deaths, respectively, for the period 1999–2003. The overall death rates from chronic kidney disease were 7 and 10 times as high as the rates for non-Indigenous males and females. Among Indigenous deaths from chronic kidney diseases, chronic renal failure accounted for 43% of male deaths and 40% of female deaths, while diabetic nephropathy accounted for 23% (males) and 29% (females) respectively.

*Chronic kidney disease continued*

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 25–34 and 45–54 years age groups with Indigenous males recording rates 38 and 31 times the rates for non-Indigenous males (graph 9.15). Indigenous females recorded rates 57 and 48 times the rates for non-Indigenous females in the 45–54 and 55–64 years age groups (graph 9.16).

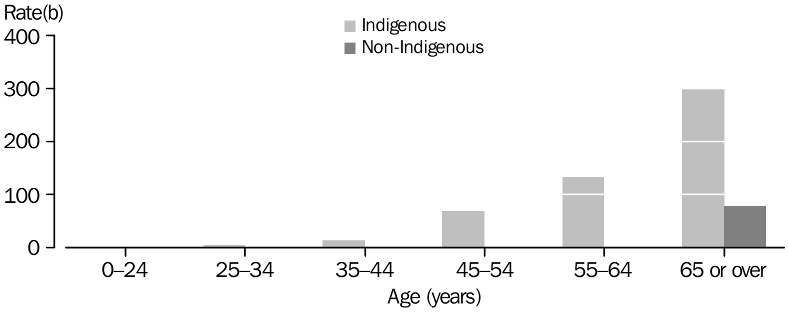
**9.15** MALE DEATH RATES, CHRONIC KIDNEY DISEASE, by Indigenous status and age—1999–2003(a)



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

*Source: AIHW, National Mortality Database*

**9.16** FEMALE DEATH RATES, CHRONIC KIDNEY DISEASE, by Indigenous status and age—1999–2003(a)



(a) Data for Queensland, South Australia, Western Australia and the Northern Territory 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.

*Source: AIHW, National Mortality Database*

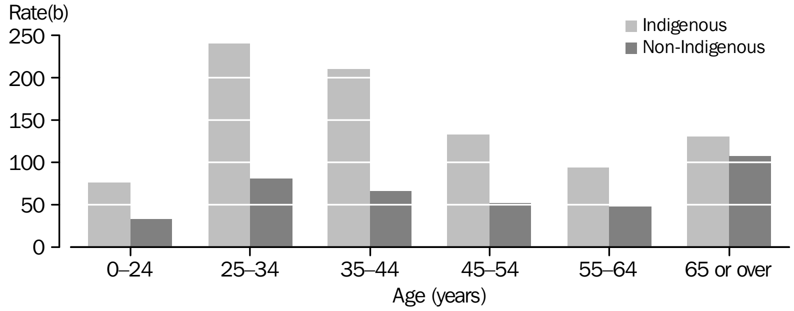
*External causes of mortality*

For the period 1999–2003, 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 (34%), transport accidents (27%) and assault (11%), while for Indigenous females the leading causes were transport accidents (31%), assault (19%) and intentional self-harm (17%).

*External causes of mortality continued*

Over the period 1999–2003, 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 9.17). 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 four times that of non-Indigenous females (graph 9.18).

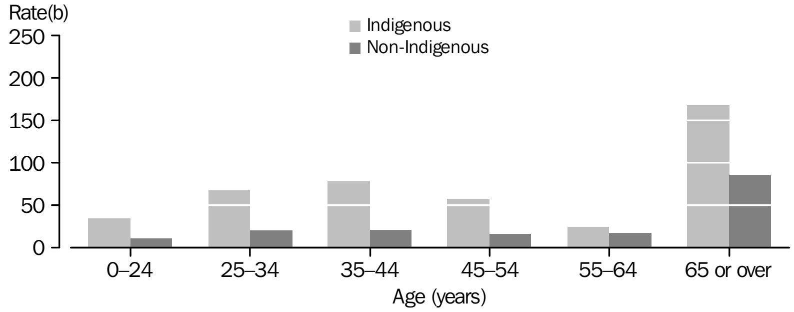
**9.17** MALE DEATH RATES, EXTERNAL CAUSES OF MORBIDITY AND MORTALITY, by Indigenous status and age—1999–2003(a)



(a) Data for Queensland, South Australia, Western Australia and the Northern Territory 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.

*Source: AIHW, National Mortality Database*

**9.18** FEMALE DEATH RATES, EXTERNAL CAUSES OF MORBIDITY AND MORTALITY, by Indigenous status and age—1999–2003(a)



(a) Data for Queensland, South Australia, Western Australia and the Northern Territory 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.

*Source: AIHW, National Mortality Database*

### INTENTIONAL SELF-HARM (INCLUDING SUICIDE)

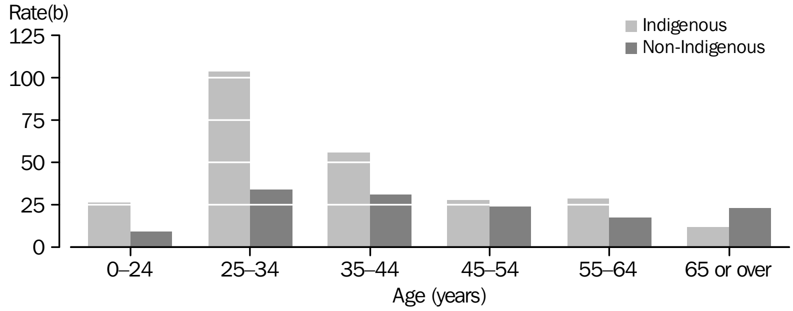
Intentional self-harm was the leading external cause of death for Indigenous males for the 1999–2003 period. The suicide rate was more than twice that for non-Indigenous males, with the major differences occurring in younger age groups. For Indigenous males aged 0–24 years and 25–34 years, the age-specific rates were three times the corresponding age-specific rates for non-Indigenous males (graph 9.19).

*External causes of mortality continued*

## INTENTIONAL SELF-HARM (INCLUDING SUICIDE) *continued*

The suicide rate for Indigenous females aged 0–24 years was five times the corresponding age-specific rate for non-Indigenous females. For age groups 35–44 and over, age-specific rates for Indigenous females were similar to, or lower than, the corresponding rates for non-Indigenous females (graph 9.20).

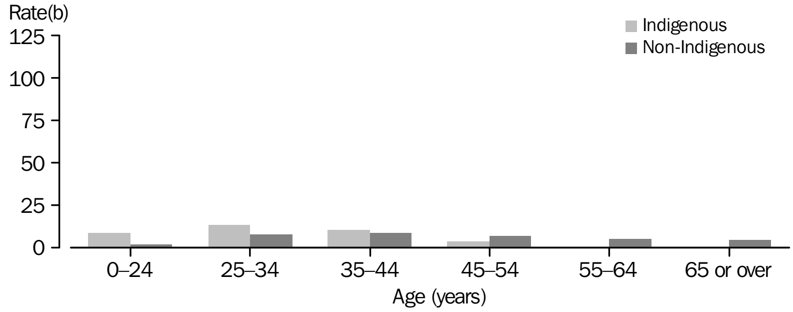
**9.19** MALE DEATH RATES, INTENTIONAL SELF-HARM, by Indigenous status and age—1999–2003(a)



(a) Data for Queensland, South Australia, Western Australia and the Northern Territory 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.

*Source: AIHW, National Mortality Database*

**9.20** FEMALE DEATH RATES, INTENTIONAL SELF-HARM, by Indigenous status and age—1999–2003(a)



(a) Data for Queensland, South Australia, Western Australia and the Northern Territory 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.

*Source: AIHW, National Mortality Database*

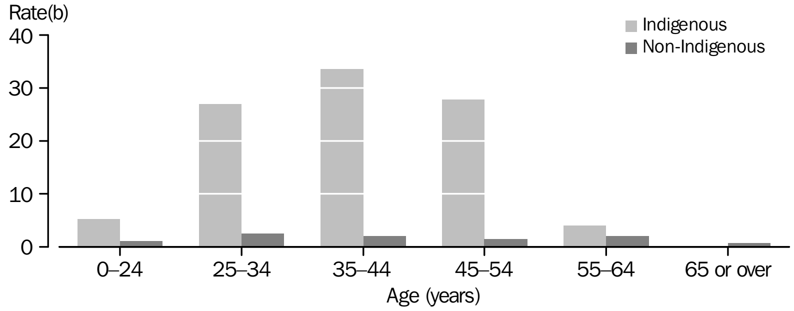
## ASSAULT

Assault is a significant cause of death for both Indigenous males and females. Over the period 1999–2003, the Indigenous male age-specific death rates for ten-year age groups from 25 to 54 were between 10 and 18 times the corresponding age-specific rates for non-Indigenous males, while for females the rates ranged between 6 and 16 times the equivalent age-specific rates for non-Indigenous females (graphs 9.21 and 9.22).

*External causes of mortality continued*

ASSAULT *continued*

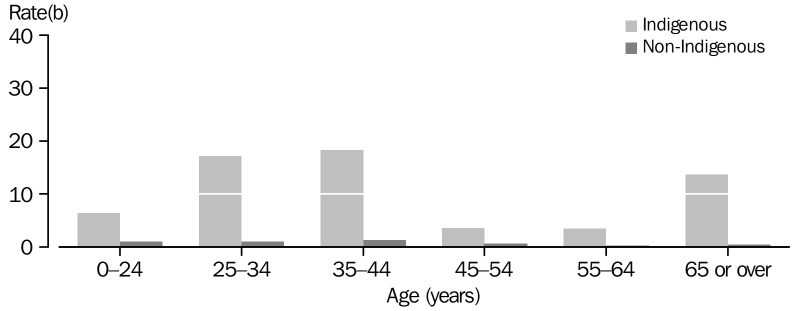
**9.21** MALE DEATH RATES, ASSAULT, by Indigenous status and age—1999–2003(a)



(a) Data for Queensland, South Australia, Western Australia and the Northern Territory 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.

*Source: AIHW, National Mortality Database*

**9.22** FEMALE DEATH RATES, ASSAULT, by Indigenous status and age—1999–2003(a)



(a) Data for Queensland, South Australia, Western Australia and the Northern Territory 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.

*Source: AIHW, National Mortality Database*

*Neoplasms (cancers)*

Neoplasms were responsible for 15% of total Indigenous deaths compared with 29% of total non-Indigenous deaths for the period 1999–2003. Indigenous people are over-represented in deaths from cancer compared with non-Indigenous Australians (the SMR for both males and females is 1.5), and more markedly so for some types of cancer. This apparent contradiction is due to very high death rates from other causes rather than low death rates from cancer. The major causes of cancer deaths for Indigenous males were malignant neoplasms of the respiratory and intrathoracic organs (32% of total), malignant neoplasms of the digestive organs (29%), and malignant neoplasms of lip, oral cavity and pharynx (7%). For Indigenous females the major causes were malignant neoplasms of the respiratory and intrathoracic organs (21% of total), malignant neoplasms of the digestive organs (19%), and malignant neoplasms of the female genital organs (16%).

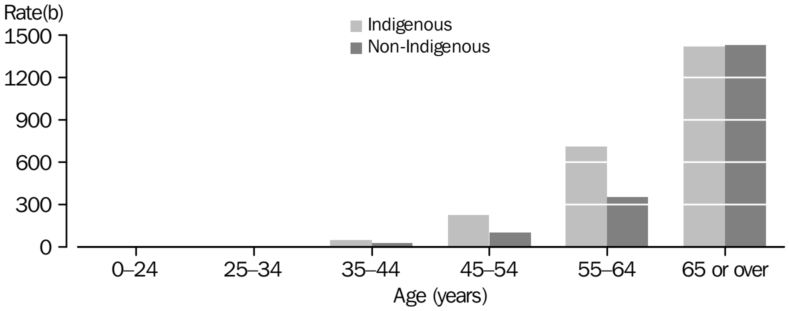
*Neoplasms (cancers) continued*

Indigenous persons were over-represented in a number of cancer groups, including malignant neoplasms of lip, oral cavity and pharynx (6% of total Indigenous cancer deaths compared with 2% of non-Indigenous cancer deaths), malignant neoplasms of the respiratory and intrathoracic organs (27% Indigenous; 20% non-Indigenous) and malignant neoplasms of female genital organs (16% total Indigenous females; 9% non-Indigenous females).

Indigenous persons 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 (6% total Indigenous males, 13% non-Indigenous males).

The 1999–2003 age-specific death rates for neoplasms indicate that for age groups up to 25–34 years the rates for Indigenous males and females were closer to those for non-Indigenous males and females than for the older age groups 35–44, 45–54 and 55–64 years, where the rates for Indigenous males and females were up to twice the non-Indigenous rates (graphs 9.23 and 9.24).

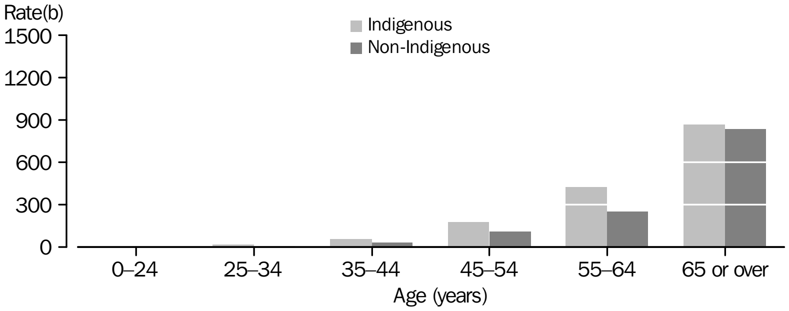
**9.23** MALE DEATH RATES, NEOPLASMS, by Indigenous status and age—1999–2003(a)



(a) Data for Queensland, South Australia, Western Australia and the Northern Territory 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.

*Source: AIHW, National Mortality Database*

**9.24** FEMALE DEATH RATES, NEOPLASMS, by Indigenous status and age—1999–2003(a)



(a) Data for Queensland, South Australia, Western Australia and the Northern Territory 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.

*Source: AIHW, National Mortality Database*

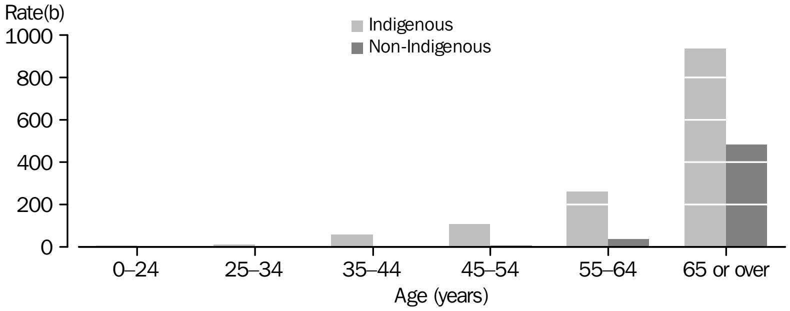
*Neoplasms (cancers) continued*

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.

*Respiratory diseases*

Respiratory diseases, which include influenza, pneumonia and chronic lower respiratory diseases (including asthma, bronchitis and emphysema), were responsible for 9% of total Indigenous deaths for the period 1999–2003. Like diabetes, respiratory diseases affect the Indigenous population at younger ages 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 1999–2003, Indigenous males in the 35–44 year age group experienced age-specific death rates almost 18 times higher than the corresponding rate for non-Indigenous males, while the rate for Indigenous females in this age group was 14 times higher than the corresponding rate for non-Indigenous females (graphs 9.25 and 9.26).

**9.25** MALE DEATH RATES, RESPIRATORY DISEASES, by Indigenous status and age—1999–2003(a)

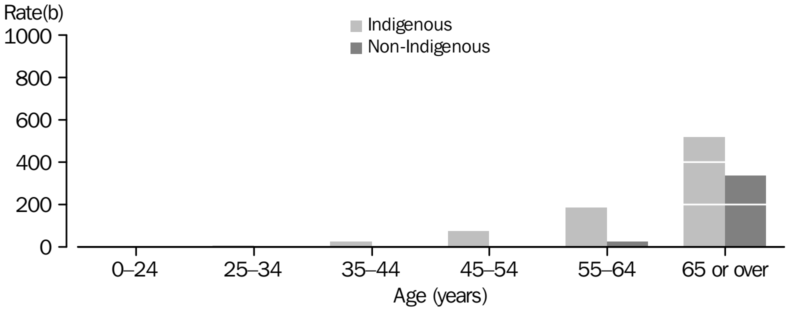


(a) Data for Queensland, South Australia, Western Australia and the Northern Territory combined. Deaths are based on year of occurrence of death for 1999–2002 and year of registration of death for 2003.
(b) Per 100,000 population.

*Source: AIHW, National Mortality Database*

*Respiratory diseases continued*

**9.26** FEMALE DEATH RATES, RESPIRATORY DISEASES, by Indigenous status and age—1999–2003(a)



(a) Data for Queensland, South Australia, Western Australia and the Northern Territory 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.

*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 the circumstances of injury and the nature of injury, as well as any other conditions reported on the death certificate.

For the 7,387 Indigenous deaths in 1999–2003 in Queensland, South Australia, Western Australia and the Northern Territory, there were a total of 22,747 causes reported, an average of three causes per death. Deaths where only a single cause was reported occurred in 16% of total Indigenous male deaths and 15% of total Indigenous female deaths, less than for non-Indigenous males (23%) and females (24%) (table 9.27). Deaths where multiple causes were reported were more common among Indigenous people. For example, 19% of deaths among Indigenous males and 21% of deaths among Indigenous females recorded five or more causes of death, compared with 14% and 13% of non-Indigenous male and female deaths respectively.

*Multiple causes of death continued*

## 9.27 DEATHS BY NUMBER OF CAUSES REPORTED(a), by Indigenous status—1999–2003

| | NUMBER OF DEATHS | | PROPORTION OF DEATHS(b) | |
|---|---|---|---|---|
| | *Males* | *Females* | *Males* | *Females* |
| Number of causes | no. | no. | % | % |
| INDIGENOUS | | | | |
| One | 695 | 508 | 16.3 | 14.8 |
| Two | 1 265 | 785 | 25.9 | 23.7 |
| Three | 958 | 685 | 24.4 | 23.5 |
| Four | 577 | 544 | 15.5 | 18.5 |
| Five or more | 727 | 643 | 19.3 | 21.4 |
| **Total**(c) | **4 222** | **3 165** | **100.0** | **100.0** |
| NON-INDIGENOUS | | | | |
| One | 26 632 | 25 708 | 22.6 | 24.3 |
| Two | 32 585 | 28 397 | 27.7 | 26.9 |
| Three | 26 220 | 23 607 | 22.3 | 22.4 |
| Four | 16 236 | 14 321 | 13.8 | 13.6 |
| Five or more | 16 095 | 13 577 | 13.7 | 12.9 |
| **Total**(c) | **117 774** | **105 610** | **100.0** | **100.0** |

(a) Data for Queensland, South Australia, Western Australia and the Northern Territory combined. Deaths are 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-and-sex-specific rates 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 9.28 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*

## 9.28 UNDERLYING CAUSES OF DEATH(a), by selected associated causes—1999–2003

| | INDIGENOUS(b)(c) | | NON-INDIGENOUS(b)(c) | |
|---|---|---|---|---|
| | *Males* | *Females* | *Males* | *Females* |
| | % | % | % | % |
| **Neoplasms (C00–D48)** | | | | |
| Reported alone | 30.0 | 27.8 | 40.0 | 44.0 |
| Reported with: | | | | |
| Septicaemia | 4.4 | 5.8 | 3.5 | 3.3 |
| Diabetes mellitus | 9.5 | 14.6 | 4.3 | 3.6 |
| Ischaemic heart disease | 5.8 | 9.3 | 8.1 | 5.4 |
| Cerebrovascular diseases | 3.1 | 3.3 | 3.5 | 3.5 |
| Influenza and pneumonia | 11.5 | 8.2 | 8.2 | 6.2 |
| Renal failure | 6.8 | 9.2 | 5.6 | 4.2 |
| Chronic lower respiratory diseases | 11.0 | 8.7 | 7.1 | 4.0 |
| **Diabetes mellitus (E10–E14)** | | | | |
| Reported alone | 0.4 | 0.8 | 1.7 | 1.4 |
| Reported with: | | | | |
| Septicaemia | 13.9 | 12.8 | 7.4 | 8.1 |
| Ischaemic heart disease | 50.8 | 43.6 | 58.3 | 50.5 |
| Cerebrovascular diseases | 14.3 | 17.9 | 20.7 | 24.1 |
| Influenza and pneumonia | 7.1 | 9.3 | 9.8 | 7.7 |
| Renal failure | 39.8 | 42.1 | 22.8 | 23.2 |
| Chronic lower respiratory diseases | 6.0 | 5.5 | 7.1 | 5.0 |
| **Ischaemic heart disease (I20–I25)** | | | | |
| Reported alone | 19.5 | 13.2 | 15.8 | 14.0 |
| Reported with: | | | | |
| Diabetes mellitus | 17.0 | 25.7 | 9.9 | 8.9 |
| Cerebrovascular diseases | 3.9 | 9.3 | 7.3 | 9.7 |
| Influenza and pneumonia | 4.1 | 4.2 | 4.6 | 5.1 |
| Renal failure | 7.3 | 17.7 | 9.9 | 9.1 |
| Chronic lower respiratory diseases | 9.8 | 12.6 | 11.5 | 7.5 |
| Neoplasms | 3.0 | 4.4 | 7.5 | 4.6 |
| **Renal failure (N17–N19)** | | | | |
| Reported alone | 7.8 | 12.3 | 7.4 | 11.0 |
| Reported with: | | | | |
| Septicaemia | 23.5 | 19.2 | 10.1 | 8.3 |
| Diabetes mellitus | 19.6 | 12.6 | 7.1 | 6.7 |
| Ischaemic heart disease | 31.4 | 15.5 | 30.7 | 23.8 |
| Cerebrovascular diseases | 5.9 | 5.6 | 6.8 | 6.6 |
| Influenza and pneumonia | 11.8 | 12.9 | 13.0 | 12.4 |
| Chronic lower respiratory diseases | 3.9 | 9.4 | 8.0 | 4.3 |

(a) Data are for Queensland, South Australia, Western Australia and the Northern Territory 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 Australians.

(c) Sum of components may exceed 100% as more than one associated cause can be recorded for each death.

*Source: AIHW, National Mortality Database*

Table 9.29 uses the recording of multiple causes of death to align the type and extent of injuries sustained by Indigenous people whose deaths were due to external causes. For the period 1999–2003, of all deaths from transport accidents, 40% involved injuries to multiple body parts, 36% involved injuries to the head and 20% involved injuries to the chest. For deaths from accidents other than transport accidents, 39% were for 'other and

### Multiple causes of death *continued*

unspecified effect', while injuries to the head and poisoning were each involved in 16% of the deaths from these accidents. Most deaths from intentional self-harm were for'other and unspecified effects' (82%), while deaths from assault most commonly involved injuries to the head (33%) or chest (31%).

**9.29** DEATHS DUE TO EXTERNAL CAUSES BY NATURE OF INJURY(a), Indigenous Australians—1999–2003

| *Nature of injury* | | *Transport accidents (V01–V99)* | *Other accidents (W00–X59)* | *Intentional self-harm (X60–X84)* | *Assault (X85–Y09)* | *Total (V01–Y98)* |
|---|---|---|---|---|---|---|
| Injuries to the head (S00–S09) | % | 36.2 | 16.3 | 4.0 | 33.1 | 20.0 |
| Injuries to the neck (S10–S19) | % | 7.7 | 3.8 | 9.2 | 10.0 | 7.2 |
| Injuries to the thorax (chest) (S20–S29) | % | 20.2 | 1.9 | 1.4 | 31.3 | 11.0 |
| Injuries to the abdomen, lower back, lumbar spine, pelvis, hip and thigh (S30–S39, S70–S79) | % | 11.0 | 8.0 | 2.0 | 17.5 | 8.1 |
| Injuries involving multiple body parts (T00–T07) | % | 40.4 | 1.0 | 1.2 | 9.4 | 13.4 |
| Injuries to unspecified part of trunk, limb or body region (T08–T14) | % | 7.4 | 2.2 | 0.3 | 11.3 | 4.3 |
| Effects of foreign body entering through natural orifice (T15–T19) | % | 1.2 | 7.7 | 0.3 | 1.3 | 2.7 |
| Burns and corrosions (T20–T32) | % | 0.6 | 5.8 | 0.6 | — | 1.8 |
| Poisoning by drugs, medicaments and biological substances (T36–T50) | % | — | 16.3 | 3.8 | — | 5.6 |
| Toxic effects of substances chiefly non-medicinal as to source (T51–T65) | % | 3.9 | 14.1 | 8.4 | 4.4 | 7.8 |
| Other and unspecified effects of external causes (T66–T78) | % | 3.6 | 39.3 | 82.1 | 3.8 | 36.0 |
| Other | % | 4.5 | 6.4 | 1.4 | 8.1 | 6.5 |
| **Total deaths (V01–Y98)**(b) | no. | **337** | **313** | **346** | **160** | **1 198** |

— nil or rounded to zero (including null cells)

(a) Data for Queensland, South Australia, Western Australia and the Northern Territory combined. Deaths are based on year of occurrence of death for 1999-2002 and year of registration of death for 2003.

(b) Sum of components may exceed 100% as more than one injury can be recorded for each death.

*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 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. The following sections of this chapter examine 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 each section.

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 Indigenous populations in other countries (Ring & Brown, 2003). However, the potential for analysis of long-term

TRENDS IN MORTALITY *continued*

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, South Australia, Western 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 1991–2002 have been used for the analyses of Indigenous mortality in this chapter. Data for 2003 have not been used because they are still incomplete, owing to late registration of some deaths. Due to changes in the coding of cause of death in 1997, the analyses of cause-specific mortality have been based on two time periods—1991–1996 and 1997–2002.

It would be possible to undertake analyses of trends using data for each jurisdiction separately or for all three jurisdictions combined. An analysis based on data combined from the three jurisdictions has the benefit of being based on larger numbers of observations. On balance, however, because of differences between jurisdictions—different administrative procedures that generate deaths data, different rates of Indigenous coverage, different degrees of period-to-period variation in coverage and different mortality rates—the preferred method has been to analyse mortality trends in the jurisdictions separately. Analyses undertaken during the preparation of this report were based on both separate and combined datasets. The pattern derived from the combined analyses was dominated by the larger jurisdictions, with the patterns of the smaller jurisdictions being masked. While it is possible that there are differences in mortality patterns within each jurisdiction (as well as between jurisdictions), the data currently available do not support analyses of this type.

It is important to note, however, that in 2001 the combined Indigenous populations of Western Australia, South Australia and the Northern Territory 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 2002, annual deaths for South Australia, Western Australia and the Northern Territory averaged 120, 369 and 407 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 by examining the rate of change between the beginning and end years, 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 years, whereas the trends modelling takes account of all the

TRENDS IN MORTALITY *continued*

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'; when it has a p-value of between 0.05 and 0.10, it is characterised as 'of borderline significance'.

The mortality trends analyses presented in the following sections of this chapter have not used age-standardised data. Testing with both the Indigenous and the total Australian reference populations showed that age standardisation made no systematic difference to the findings regarding mortality trends. There is an ongoing debate as to whether standardisation is necessary or even appropriate for this type of analysis because trends may not be the same in all age groups. Moreover, the age composition of the Indigenous population has changed very little over the relatively short time period examined (e.g. 3% of the population in both 1991 and 2002 were aged 65 years or over in the three jurisdictions). It is therefore appropriate to use crude mortality rates as the trends would be affected very little, if at all, by changes in age composition.

While information on changes in mortality among Indigenous Australians is important in its own right, and can inform the design and evaluation of policy and interventions, it is also important to develop an understanding of how this compares with changes in mortality among the non-Indigenous population. The current data analyses do not allow a definitive answer about the relative rates of improvement for the two populations but any discussion of trends in Indigenous mortality should be read in the context of changes in non-Indigenous mortality over the same period. It is well known that most gains in non-Indigenous adult and infant mortality have occurred earlier, so that during the 1990s only small gains were observed. For example, the mortality rates of non-Indigenous infants in South Australia, Western Australia and the Northern Territory declined from 5.0, 5.6 and 9.8 deaths per 1,000 live births in 1991 to 4.3, 3.2 and 7.8 deaths per 1,000 live births in 2002 in these jurisdictions respectively. The crude death rates for the non-Indigenous population in these three jurisdictions remained fairly stable over the same period. In 1991, crude death rates were 773, 563 and 318 deaths per 100,000 population in South Australia, Western Australia and the Northern Territory, respectively, while in 2002 the corresponding rates were 773, 576 and 312 deaths per 100,000 population.

*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 coverage'.

In the period 1991–2002, there were significant declines in recorded mortality rates in Western Australia for both males and females (table 9.30). For males, the fitted trend for the crude death rate implies an average yearly decline in recorded deaths of around 17 deaths per 100,000 population—this is equivalent to a reduction in the crude death rate of around one-quarter during the period of analyses. For females, the fitted trend for the crude death rate implies an average yearly decline in recorded deaths of around 15 deaths per 100,000 population—this is equivalent to a decline in the crude death rate of around one-quarter over the same period.

*All-cause mortality continued*

During the same period, the fitted trend for crude death rates in South Australia (males, females and persons) and the Northern Territory (females and persons) showed declines in recorded deaths but they were not statistically significant.

Graph 9.31 may suggest some differences between the levels of mortality between the three jurisdictions. It should be noted, however, that these differences may be partly an artefact of differences in coverage estimates. If, for example, the death rates for the most recent years were adjusted based on the ABS coverage estimate for 1999–2003 (South Australia (66%), Western Australia (72%) and the Northern Territory (95%)), then the death rates converge appreciably and the differences in death rates between jurisdictions are not statistically significant.

**9.30** INDIGENOUS CRUDE DEATH RATES(a)(b), WA, SA and NT—1991–2002

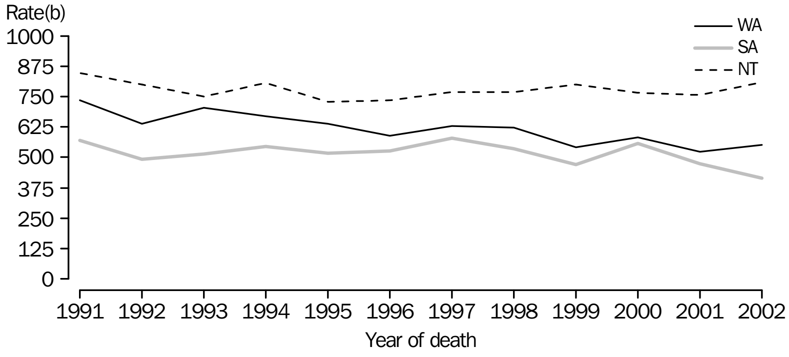
| | *1991* | *1992* | *1993* | *1994* | *1995* | *1996* | *1997* | *1998* | *1999* | *2000* | *2001* | *2002* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Western Australia** | | | | | | | | | | | | |
| Males | 797 | 741 | 791 | 745 | 746 | 696 | 732 | 772 | 633 | 681 | 614 | 565 |
| Females | 670 | 534 | 611 | 589 | 527 | 481 | 524 | 474 | 448 | 482 | 430 | 537 |
| Persons | 734 | 638 | 702 | 668 | 637 | 589 | 628 | 623 | 541 | 581 | 522 | 551 |
| **South Australia** | | | | | | | | | | | | |
| Males | 688 | 529 | 600 | 622 | 609 | 632 | 799 | 626 | 500 | 644 | 547 | 420 |
| Females | 449 | 455 | 426 | 469 | 423 | 422 | 362 | 445 | 443 | 473 | 402 | 409 |
| Persons | 569 | 493 | 513 | 546 | 516 | 526 | 579 | 535 | 471 | 558 | 474 | 415 |
| **Northern Territory** | | | | | | | | | | | | |
| Males | 854 | 890 | 842 | 895 | 849 | 834 | 808 | 844 | 907 | 844 | 877 | 927 |
| Females | 837 | 710 | 655 | 714 | 604 | 634 | 732 | 694 | 689 | 686 | 634 | 694 |
| Persons | 846 | 800 | 749 | 805 | 727 | 735 | 770 | 769 | 798 | 765 | 756 | 810 |

(a) Deaths per 100,000 population.

(b) Deaths are based on year of occurrence of death and state of usual residence.

*Source: AIHW, National Mortality Database*

**9.31** INDIGENOUS CRUDE DEATH RATES(a), WA, SA and NT—1991–2002



(a) Deaths are based on year of occurrence of death and state of usual residence.
(b) Deaths per 100,000 population.

*Source: AIHW, National Mortality Database*

*Infant mortality rates*

As with the 'all-cause mortality' analysis above, 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. However, Indigenous status on infant death registrations has generally been more comprehensively recorded than for deaths at older ages. See the later section 'The sensitivity of mortality trends to changes in coverage'.

There was a significant decline in recorded infant mortality in all three jurisdictions during the period 1991–2002 (table 9.32). In Western Australia, the fitted trend for the infant mortality rate implies an average yearly decline of around 0.6 deaths per 1,000 live births—this is equivalent to a reduction in the infant mortality rate of around one-third during the period of analysis. In South Australia, the fitted trend for the recorded infant mortality rate implies an average decline of around 0.9 deaths per 1,000 live births—this is equivalent to a decline in the infant mortality rate of around five-eighths during the same period. In the Northern Territory, the fitted trend line implies an average yearly decline of 0.9 deaths per 1,000 live births—this is equivalent to a decline in the infant mortality rate of two-fifths during the period 1991–2002.

**9.32** INDIGENOUS INFANT MORTALITY RATES(a)(b), WA, SA and NT—1991–2002

| | *1991* | *1992* | *1993* | *1994* | *1995* | *1996* | *1997* | *1998* | *1999* | *2000* | *2001* | *2002* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Western Australia(c) | 20.8 | 22.8 | 16.3 | 20.3 | 22.1 | 18.9 | 19.0 | 17.0 | 16.7 | 13.9 | 16.9 | 15.5 |
| South Australia | 16.9 | 25.0 | 13.5 | 7.5 | 16.2 | 14.4 | 8.5 | 4.5 | 6.3 | 11.1 | 8.2 | 11.8 |
| Northern Territory | 25.5 | 28.1 | 25.8 | 21.7 | 17.0 | 24.6 | 23.8 | 21.0 | 28.2 | 17.0 | 16.0 | 13.0 |

(a) Deaths are based on year of occurrence of death and state of usual residence. Births are based on year of registration.
(b) Infant deaths per 1,000 live births.
(c) The average of births over 1993–1995 in Western Australia was used 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.
*Source: AIHW, National Mortality Database, ABS 1999, 2004a*

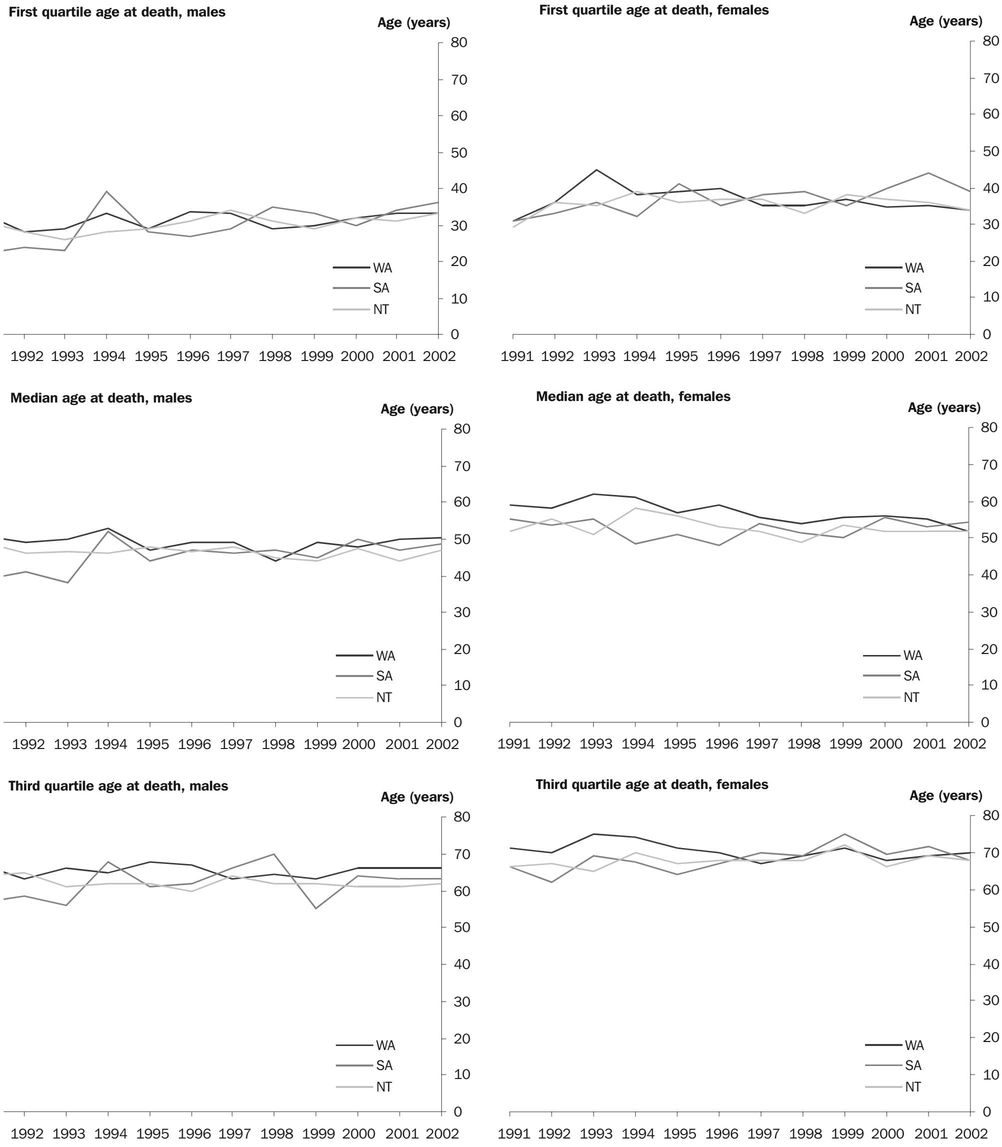
*Quartiles of age at death*

Another approach to the assessment of mortality trends, which was used in the 2003 edition of this report, is to examine changes in the age distribution of deaths. Total deaths can be partitioned into quartiles by age at death (the first quartile is the age below which 25% of all deaths occur, the median is the age below which 50% of all deaths occur, and the third quartile is the age below which 75% of all deaths occur). An analysis of this kind can reveal changes in patterns of mortality over time, such as an increase in the proportion of deaths occurring at older ages and a corresponding decrease in the proportion occurring at younger ages.

But any such changes must be interpreted with care before any inferences can be drawn regarding an improvement or deterioration in the mortality of Indigenous Australians. Moreover, the quartiles are affected by changes in the age distribution of the population resulting, for example, from changes in fertility—and therefore they support comparisons only if fertility rates remain constant over the period being analysed.

Nevertheless, the graphs at 9.33 suggest that, between 1991 to 2002, there has been some increase in the age at death for the first quartile in all jurisdictions. This is broadly consistent with other evidence such as the declines observed in infant mortality.

**9.33** QUARTILES OF AGE AT DEATH FOR INDIGENOUS PEOPLE IN WA, SA AND NT—1999–2002



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 is 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—neoplasms; endocrine, nutritional and metabolic diseases; diseases of the circulatory system; diseases of the respiratory system; and external causes. Second, there have been changes in the classification and coding of causes of death over the period of the analyses from ICD-9 (1991 to 1996) to ICD-10(1997 to 2002), and this affects the comparability of the data. Therefore, the

*Cause-specific mortality continued*

analyses reported here have been done for two time periods—1991–1996 and 1997–2002. Third, when analysing five causes of death for three jurisdictions, for three population groups (persons, males and females) and for two periods, some individually statistically significant changes may arise by chance—so attention should be paid to those causes that show some consistency of pattern, not to individual differences or changes.

As for the analysis 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 later section 'The sensitivity of mortality trends to changes in coverage'.

Of the five causes examined, only diseases of the circulatory system showed somewhat consistent significant trends in recorded mortality.

In Western Australia, recorded mortality from diseases of the circulatory system showed declines during both time periods studied (tables 9.34 and 9.35). During 1991–1996, there was a decline of borderline significance for persons (with the fitted trend implying that the mortality rate at the end of the period was around three-quarters the rate at the beginning); this reflected a significant decline for females (to around three-fifths the mortality rate at the beginning of the period) and a smaller decline, not attaining statistical significance, for males.

### 9.34 INDIGENOUS CRUDE DEATH RATES, CIRCULATORY DISEASES(a)(b), Western Australia—1991–1996

| | *1991* | *1992* | *1993* | *1994* | *1995* | *1996* |
|---|---|---|---|---|---|---|
| **Western Australia** | | | | | | |
| Females | 221 | 215 | 163 | 191 | 138 | 131 |
| Persons | 240 | 203 | 184 | 220 | 173 | 164 |

(a) Deaths per 100,000 population.

(b) Deaths are based on year of occurrence of death and state of usual residence.

*Source: AIHW National Mortality Database*

During 1997–2002, there was a significant decline for persons in Western Australia (to around three-quarters the mortality rate at the beginning of the period). Broadly equivalent declines were implied by the fitted trends for males (of borderline significance) and for females (not attaining statistical significance).

In South Australia, recorded mortality from diseases of the circulatory system showed declines during the second period (1997–2002). The fitted trends implied significant declines for persons and males (to around three-quarters and two-fifths the mortality rates at the beginning of the period, respectively).

*Cause-specific mortality continued*

In the Northern Territory too, recorded mortality from diseases of the circulatory system showed declines during the second period (1997–2002). The fitted trend implied a decline of borderline significance for persons to four-fifths the mortality rate at the beginning of the period; the recorded decline for males was significant, and that for females was not significant.

### 9.35 INDIGENOUS CRUDE DEATH RATES, CIRCULATORY DISEASES (a)(b), WA, SA and NT—1997–2002

| | *1997* | *1998* | *1999* | *2000* | *2001* | *2002* |
|---|---|---|---|---|---|---|
| **Western Australia** | | | | | | |
| Males | 220 | 209 | 170 | 142 | 182 | 155 |
| Persons | 173 | 172 | 150 | 150 | 133 | 130 |
| **South Australia** | | | | | | |
| Males | 195 | 184 | 164 | 145 | 111 | 86 |
| Persons | 152 | 153 | 146 | 131 | 121 | 115 |
| **Northern Territory** | | | | | | |
| Males | 274 | 274 | 237 | 247 | 228 | 228 |
| Persons | 249 | 229 | 199 | 208 | 181 | 206 |

(a) Deaths per 100,000 population.

(b) Deaths are based on year of occurrence of death and state of usual residence.

*Source:* AIHW, National Mortality Database

*The sensitivity of mortality trends to changes in coverage*

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.

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 1999–2003).
- Under the increasing coverage scenario, deaths were adjusted by linearly increasing the coverage through the period under study—from 64% in 1991 to 71% in 2002 for Western Australia; from 60% to 66% for South Australia; and from 90% to 95% for the Northern Territory.
- Under the decreasing coverage scenario, deaths were adjusted by linearly decreasing the coverage—from 80% in 1991 to 73% for Western Australia; from 72% to 67% for South Australia; and from 100% to 95% for the Northern Territory.

*The sensitivity of mortality trends to changes in coverage continued*

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 all-cause mortality for males and persons in Western Australia during the period 1991–2002 remained significant under all three scenarios. For females, the significant decline became of borderline significance under the decreasing coverage scenario.

The declines in infant mortality during 1991–2002 in Western Australia and the Northern Territory remained significant under all three scenarios. For South Australia, the significant decline became of borderline significance under the decreasing coverage scenario.

The declines in mortality from diseases of the circulatory system—during 1991–96, for females in Western Australia; and during 1997–2002, for persons in Western Australia, for males and persons in South Australia, and for males in the Northern Territory—remained significant under all three scenarios.

*Comparisons with other research*

Condon et al. (2004b) have undertaken one of the most thorough analyses of Indigenous mortality in Australia. This work examined mortality for the Northern Territory only, but over a much longer period (1967–2000) than has been used in this Chapter.

Condon et al. (2004b) reported that Indigenous all-cause mortality rates in the Northern Territory declined overall and for all age groups that they examined. Declines were greater for females than males, and greater in younger and older age groups than in the early and middle adult years (25–64 years). They based their analyses on three broad disease groups—'communicable diseases' (defined to also include maternal, perinatal and nutritional conditions), 'non-communicable diseases' and injuries. As to cause-specific mortality, they reported declines for two disease groups—communicable diseases and injury—but no statistically significant trend for non-communicable diseases.

The analyses described by Condon et al. (2004b) have been replicated using the mortality data on which this chapter is based. The replicated analyses differ from Condon et al. in several ways—they are based on three jurisdictions (adding Western Australia and South Australia to the Northern Territory); the data refer to a much shorter time period (1991–2002); and using all ages for overall and cause-specific mortality (whereas Condon et al. used ages five years and over).

Mortality trends have been examined for Western Australia, South Australia and the Northern Territory and for the same age groupings as were reported by Condon et al. The trends that were statistically significant are listed below:

- For Western Australia during 1991–2002, there were significant declines in Indigenous mortality rates in some age groupings. For persons, there were declines for ages 0–4 years, 45–64 years and 65 years and over. For males, there were declines for ages 0–4 years and 45–64 years. For females, there were declines for ages 45–64 years and 65 years and over.

*Comparisons with other research continued*

- For South Australia, there was a decline for persons aged 45–64 years.
- For the Northern Territory, there were declines in age-specific mortality for both persons and for females aged 45–64 years.

Trends in crude death rates have also been examined using the same broad cause-of-death groups as are reported by Condon et al. (2004b). Some of the results of these analyses are shown in table 9.36. In summary, the only statistically significant trends were:

- For Western Australia during 1991–2002, there were significant declines among persons, males and females for death from non-communicable diseases. There were also significant declines among males for death from communicable diseases. There were no significant trends for injury.
- For South Australia, there was one significant trend—a decline among males for death from communicable diseases.
- For the Northern Territory, there were significant declines for persons, males and females for death from communicable diseases. There was a significant increase for males for death from non-communicable diseases. For injury, there were no significant trends.

In summary, there is some agreement between the results of the shorter-period, three-jurisdiction analyses discussed above and those reported by Condon et al. (2004b) regarding the Northern Territory. It is not surprising that the analyses by Condon et al. (2004b), spanning a much longer time period back to the 1960s, showed a larger number of significant trends. With a much longer period of data for the analyses, there is greater chance for any systematic movement in mortality rates to dominate or emerge from the variable year-to-year data. There may also be real differences in the mortality trends experienced in the three jurisdictions studied. It may also be that the differing coverage rates in the three jurisdictions studied (with much higher coverage in the Northern Territory) mask similarities and differences in Indigenous mortality across these jurisdictions.

### 9.36 INDIGENOUS CRUDE DEATH RATES, CAUSE-SPECIFIC MORTALITY(a)(b), WA, SA and NT—1991–2002

| | *1991* | *1992* | *1993* | *1994* | *1995* | *1996* | *1997* | *1998* | *1999* | *2000* | *2001* | *2002* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| COMMUNICABLE, MATERNAL, PERINATAL AND NUTRITIONAL CONDITIONS | | | | | | | | | | | | |
| Western Australia | | | | | | | | | | | | |
| Males | 105 | 81 | 107 | 49 | 92 | 87 | 56 | 48 | 41 | 62 | 61 | 66 |
| South Australia | | | | | | | | | | | | |
| Males | 78 | 104 | 74 | 36 | 35 | 35 | 68 | 25 | 33 | 32 | 56 | 16 |
| Northern Territory | | | | | | | | | | | | |
| Males | 145 | 171 | 106 | 148 | 86 | 115 | 64 | 100 | 120 | 68 | 98 | 52 |
| Females | 137 | 118 | 66 | 121 | 99 | 77 | 72 | 78 | 81 | 83 | 49 | 59 |
| Persons | 141 | 145 | 86 | 135 | 92 | 96 | 68 | 89 | 100 | 75 | 74 | 55 |
| NON-COMMUNICABLE DISEASES | | | | | | | | | | | | |
| Western Australia | | | | | | | | | | | | |
| Males | 537 | 477 | 483 | 511 | 465 | 442 | 541 | 479 | 407 | 433 | 411 | 392 |
| Females | 502 | 415 | 474 | 441 | 382 | 400 | 369 | 368 | 344 | 355 | 324 | 359 |
| Persons | 520 | 446 | 479 | 476 | 424 | 421 | 455 | 423 | 375 | 394 | 367 | 375 |
| Northern Territory | | | | | | | | | | | | |
| Males | 521 | 510 | 499 | 587 | 587 | 517 | 597 | 552 | 608 | 583 | 576 | 612 |

(a) Deaths per 100,000 population.
(b) Deaths are based on year of occurrence of death and state of usual residence.

*Source: AIHW, National Mortality Database*

*Comparisons with other research continued*

### 9.37 MORTALITY TRENDS IN NEW SOUTH WALES AND QUEENSLAND

The short time series available for data from New South Wales and Queensland and the current coverage of data don't allow one to detect with confidence the kind of trends in mortality that have been detected in the other three jurisdictions. Preliminary analysis of mortality in New South Wales and Queensland did not contradict the findings in the three jurisdictions with better coverage. Therefore in a few years time, as the series with higher rates of coverage lengthens, it will be possible to draw conclusions on trends in mortality in these two additional jurisdictions.

## SUMMARY

In the period 1996–2001, the life expectancy at birth for Indigenous Australians was estimated to be 59.4 years for males and 64.8 years for females, compared with 76.6 years for all males and 82.0 years for all females for the period 1998–2000, a difference of approximately 17 years for both males and females.

For the period 1999–2003, in Queensland, South Australia, Western Australia and the Northern Territory, 75% of recorded Indigenous male deaths and 65% of Indigenous female deaths occurred before the age of 65 years. This compared with 26% and 16%, respectively, of deaths of non-Indigenous males and females. For all age groups below 65 years, the age-specific death rates for persons identified as Indigenous in the selected jurisdictions were at least twice those for other Australians. The largest differences occurred at ages 35–44 and 45–54 years where the death rates for Indigenous Australians were five times those recorded for non-Indigenous Australians.

SUMMARY *continued*

Based on 1999–2002 year of occurrence of death and 2003 year of registration of death, the three leading causes of death for Aboriginal and Torres Strait Islander peoples in the four jurisdictions were diseases of the circulatory system, injury (predominantly accidents, intentional self-harm and assault) and cancer.

Over the period 1999–2003, Indigenous males and females died at almost three times the rate of non-Indigenous males and females. Indigenous Australians also had higher rates of mortality from all major causes of death. For example, mortality rates for Indigenous males and females for endocrine, nutritional and metabolic diseases (including diabetes) were around seven and 11 times, respectively, those for non-Indigenous males and females.

Deaths where multiple causes were reported were more common among Indigenous males and females. For example, 19% of deaths among Indigenous males and 21% of deaths among Indigenous females recorded five or more causes of death, compared with 14% and 13% of non-Indigenous male and female deaths respectively.

An analysis of trends in mortality showed that between 1991 and 2002 there were significant declines in recorded mortality in Western Australia for both males and females. There was also a significant decline in recorded infant mortality in Western Australia, South Australia and the Northern Territory over the same period. This is supported by an observed increase in the age at death in the first quartile in these jurisdictions. Of the five main causes of death examined—neoplasms; endocrine, nutritional and metabolic diseases; diseases of the circulatory system; diseases of the respiratory system; and injury—only mortality from diseases of the circulatory system showed a consistently significant decline.

While the analyses in this chapter support a conclusion that Indigenous mortality has declined, it is important to note that estimates of the magnitude of the trend could also reflect changes in reporting Indigenous status in deaths registrations.

# CHAPTER 10

# HEALTH SERVICES PROVISION, ACCESS AND USE

## INTRODUCTION

Information on Indigenous people's access to and use of health services is important because of the link between health services and health outcomes. Lack of access to services can adversely impact on health outcomes and there is some evidence that Indigenous people do not have the same level of access to many health services as other Australians.

Health services include primary care services such as those provided by general 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. These services may be provided in a range of settings including community health centres and clinics, doctors' rooms and hospitals.

There are a number of difficulties in quantifying the provision of, access to, and use of health services by Aboriginal and Torres Strait Islander peoples. The quality of administrative data sources is affected by the accuracy with which Indigenous people are identified in health service records. Administrative data are collected by providers of health services including the Australian, state, territory and local governments, community organisations and some private sector providers. For these reasons, it is difficult to accurately quantify the impact of access to services, or lack thereof, on the overall health status of people living in non-remote and remote areas.

This chapter draws on information from a number of data collections. Health expenditure patterns are used to examine health service provision by governments and utilisation of services by clients. Other aspects of access to health services include the distances clients must travel to services and facilities, financial barriers, cultural factors, such as language and communication issues, and the participation of Indigenous people in the health and welfare workforce. The chapter also provides 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, community mental health services and hospital services.

Further information on service utilisation is presented in chapters 4, 7 and 11.

## PROVISION OF HEALTH SERVICES

### *Expenditure on goods and services*

Examining expenditure on health goods and services is one way of understanding the ways in which health resources are delivered and utilised. Expenditures reflect needs on which resources have been spent, rather than met needs or overall needs, but they can cast some light on the differing ways in which the health needs of Indigenous and other Australians are met (through, say, a different mix of primary care and other health services). Expenditures can also provide some broad insights into the utilisation of health services. But any such interpretation must be undertaken with care, because the amount of expenditure incurred for a given level of utilisation can also be affected by

*Expenditure on goods and services continued*

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 and types of services that are presented in this and other chapters.

In 2001–02 estimated expenditure on health goods and services for Aboriginal and Torres Strait Islander people was $1,788.6 million (table 10.1) or 2.8% of total health expenditure. Almost three-quarters of this (72%) related to two major program areas—services provided in hospitals ($849.5 million) and community health services ($439.9 million). The expenditure on community health services included $186.3 million on Aboriginal Community Controlled Health Services that were funded by the Australian Government.

On a per person basis, average expenditure on health goods and services for Aboriginal and Torres Strait Islander people was $3,901, which was 18% higher than the expenditure for non-Indigenous Australians ($3,308). There has been little change in this relative position since the previous estimates for 1998–99.

**10.1** EXPENDITURE ON HEALTH GOODS AND SERVICES, by area of expenditure, current prices, Australia—2001–02

| | TOTAL EXPENDITURE($M) | | AVERAGE PER PERSON EXPENDITURE($) | | |
|---|---|---|---|---|---|
| *Health goods and services type* | *Indigenous* | *Non-Indigenous* | *Indigenous* | *Non-Indigenous* | *Ratio*(a) |
| Hospitals | 849.5 | 21 456.9 | 1 853 | 1 132 | 1.6 |
| Total admitted patient services | 682.5 | 17 927.4 | 1 488 | 946 | 1.6 |
| Non-admitted patient services | 142.4 | 3 116.5 | 311 | 164 | 1.9 |
| Public hospitals | 24.7 | 413.0 | 54 | 22 | 2.5 |
| Medical services | 99.6 | 11 112.5 | 217 | 586 | 0.4 |
| Dental services(b) | 21.8 | 3 734.2 | 48 | 197 | 0.2 |
| Pharmaceuticals | 66.2 | 9 011.6 | 144 | 475 | 0.3 |
| Public health | 72.5 | 1 029.9 | 158 | 54 | 2.9 |
| Community health services(c) | 439.9 | 2 810.5 | 959 | 148 | 6.5 |
| High-level residential aged care | 49.9 | 4 591.6 | 109 | 242 | 0.5 |
| Other health services(d) | 189.2 | 8 961.7 | 413 | 473 | 0.9 |
| **Total** | **1 788.6** | **62 708.9** | **3 901** | **3 308** | **1.2** |

(a) Average per person expenditure on Indigenous Australians divided by the average per person expenditure on non-Indigenous Australians.

(b) Excludes state and territory government expenditure on dental services.

(c) Community health services includes state and territory government expenditure on dental services.

(d) Includes, health administration n.e.c., patient transport, aids and appliances, other professional services and other health services n.e.c.

*Source: AIHW 2005j*

In four major program areas, average expenditure on services for Indigenous people was greater than that for non-Indigenous Australians. These were community health services, which had an Indigenous to non-Indigenous person ratio of 6:1, public health (which includes services such as alcohol and drug treatment services, cancer screening and environmental health) with a ratio of 3:1 and admitted and non-admitted patient services in acute-care hospitals, with a ratio of 2:1 (table 10.1).

### *Expenditure on goods and services continued*

In contrast, average expenditure on goods and services provided outside public hospitals was much lower for Indigenous people than for non-Indigenous people. For example, average expenditure on high level residential aged care, medical services, pharmaceuticals, and dental services were, on average, less than half that for non-Indigenous Australians.

## ACCESS TO HEALTH SERVICES

Aboriginal and Torres Strait Islander people have low levels of access to, and use of, health services such as Medicare, the Pharmaceutical Benefits Scheme (PBS) and private GPs (Bell et al. 2000; Keys Young 1997). They face a number of barriers to accessing services including distance from services, lack of transport (particularly in remote areas), financial difficulties and proximity of culturally appropriate services. The relatively low proportion of Indigenous people involved in health-related professions can also affect use of health services by Aboriginal and Torres Strait Islander people.

### *Availability of health professionals, services and facilities*

The supply of medical professionals per head of population decreased with increasing geographic remoteness. In 2002, there were about twice as many medical practitioners per person in major cities as in the most remote areas, however, the supply of nurses was similar across remoteness categories. The supply of medical specialists per person in capital cities was more than ten times that in remote areas (table 10.2). This limits access to health professionals for people in rural and remote areas, where a high proportion of Indigenous Australians live. They therefore are more likely to have to move or travel substantial distances in order to get access to specialists, or may be forced to visit specialists less regularly than other Australians.

**10.2** HEALTH PROFESSIONALS PER 100,000 PERSONS(a)—2001 and 2002

| *Medical practitioners (2002)* | *Major cities* | *Inner regional* | *Outer regional* | *Remote* | *Very remote* | *Australia*(b) |
|---|---|---|---|---|---|---|
| Clinicians | 288 | 169 | 138 | 130 | 134 | 254 |
| Primary care | 105 | 90 | 80 | 86 | 93 | 111 |
| Hospital non-specialist | 29 | 14 | 15 | 19 | 28 | 25 |
| Specialist | 114 | 55 | 35 | 19 | 10 | 90 |
| Specialist in training | 40 | 10 | 8 | 6 | 3 | 28 |
| Non-clinician | 24 | 78 | 8 | 10 | 7 | 21 |
| **Total** | **312** | **176** | **146** | **140** | **141** | **275** |
| Nurses (2001) | 1 059 | 1 109 | 1 058 | 1 034 | 959 | 1 176 |

(a) Based on full-time equivalent (FTE) rate.
(b) Includes medical practitioners who did not report the regions in which they worked.
Note: The geographical classification used to present data has changed since the previous edition of this publication. The 2003 edition used the Rural, Remote and Metropolitan Areas (RRMA) classification to differentiate between regions.
*Source: AIHW 2004d, 2003c*

The availability of health professionals, health promotion programs and health training courses can be a challenge to Aboriginal and Torres Strait Islander communities. Detailed information about the availability of health services for people living in discrete Indigenous communities is collected in the Community Housing and Infrastructure Needs Survey (CHINS). The 2001 CHINS collected data on a total of 1,216 discrete

### Availability of health professionals, services and facilities *continued*

communities with a combined population of approximately 109,000 (ABS 2002a). Approximately 85% of these people lived in very remote areas of Australia.

### Distance to health services

Indigenous Australians are more likely to live outside urban areas, and are therefore more likely to live further from health services, than are other Australians. Aboriginal Community Controlled Health Services, operating in many parts of the country, including remote areas, go some way to addressing the gaps in health service provision for a more geographically dispersed population.

In 2001, more than three-quarters of all discrete Indigenous communities (943 communities or 78%) were located 50km or more from the nearest hospital. These represented 62% (67,131) of the reported population living in discrete Indigenous communities. The Northern Territory, Western Australia and South Australia had the highest proportion of communities located 50km or more from the nearest hospital.

One-half of all discrete Indigenous communities (606 communities with a combined population of 11,581 people) were located 25km or more from the nearest community health centre and 10km or more from the nearest hospital (table 10.3). States and territories with the highest proportion of Indigenous communities located 25km or more from the nearest community health centre were the Northern Territory (54%), Queensland (51%) and Western Australia (49%).

**10.3** DISTANCE TO NEAREST HOSPITAL AND COMMUNITY HEALTH CENTRE—2001

| | | *NSW* | *Qld* | *SA* | *WA* | *NT* | *Australia* |
|---|---|---|---|---|---|---|---|
| Discrete communities located less than 10km from nearest hospital | no. | 33 | 22 | 11 | 27 | 34 | 127 |
| Discrete communities located 10km or more from nearest hospital | | | | | | | |
| Distance to nearest community health centre | | | | | | | |
| Less than 25km | no. | 17 | 48 | 43 | 117 | 254 | 481 |
| 25km or more | no. | 10 | 72 | 42 | 139 | 342 | 606 |
| Total | no. | 27 | 120 | 85 | 256 | 596 | 1 087 |
| **Total number of communities**(a) | no. | **60** | **142** | **96** | **283** | **632** | **1 216** |
| **Total population**(a) | no. | **7 771** | **30 961** | **5 226** | **16 558** | **47 233** | **108 085** |
| Proportion 10km or more from nearest hospital and 25km or more from nearest community health centre | | | | | | | |
| Communities | % | 16.7 | 50.7 | 43.8 | 49.1 | 54.1 | 49.8 |
| Population | % | 9.9 | 3.0 | 14.7 | 17.4 | 12.7 | 10.7 |

(a) There are no discrete Indigenous communities in the ACT. Tasmania and Victoria are included in the total.

*Source: ABS, 2001 CHINS*

Of the 109,000 Indigenous people ( in 1,216 communities) that were surveyed, 3,255 people (174 communities) were located 100km away from either a hospital or a community health centre.

### Transport

While distance to various health services provides one measure of access, lack of transport can often mean that even comparatively short distances are an impediment to service use. Data are available from the 2001 Census on the number of vehicles per household and from the 2002 National Aboriginal and Torres Strait Islander Social

*Transport continued*

Survey(NATSISS)—a survey of 9,400 Indigenous people aged 15 years or over—on access to motor vehicles and difficulties with transport.

The Census shows that households with Indigenous person(s) were more likely than other households to be without a vehicle in 2001. The proportion of households with Indigenous person(s) without a vehicle was 23%, compared with 10% for other households. Households with Indigenous person(s) in the remote and very remote regions were most likely to report having no vehicle.

Data from the 2002 NATSISS reveal that around 60% of Indigenous people aged 18 years or over had access to a motor vehicle to drive compared to 85% of non-Indigenous people (table 10.4). Around 12% of Indigenous Australians reported that they could not or often had difficulty getting to places needed, compared with only 4% of non-Indigenous Australians.

### 10.4 TRANSPORT ACCESS, Persons aged 18 years or over—2002

| | | INDIGENOUS | | | NON-INDIGENOUS |
|---|---|---|---|---|---|
| | | *Remote* | *Non-remote* | *Total* | *Total* |
| Transport access | | | | | |
| Has access to motor vehicles to drive | % | 47.5 | 64.4 | 59.7 | 85.2 |
| Difficulty with transport(a) | | | | | |
| Can easily get to places needed | % | 65.2 | 73.5 | 71.2 | 84.4 |
| Cannot get to places needed | % | 16.4 | 9.8 | 11.6 | 3.6 |
| **Persons aged 18 years or over** | no. | **69 300** | **182 100** | **251 400** | **14 353 800** |

(a) Not all categories are shown for this data item.

*Source: ABS, 2002 NATSISS and 2002 GSS.*

Indigenous Australians in every state and territory were less likely to report having access to a motor vehicle(s), and more likely to report having difficulty getting to places needed, than non-Indigenous Australians. Indigenous people living in the Northern Territory were five times as likely, and in Western Australia four times as likely, to be without access to a motor vehicle as non-Indigenous people in these states and territories (ABS, 2002 NATSISS).

The data on vehicles per household and per person suggest that non-Indigenous people generally have better access to personal transport than Indigenous people and would therefore be more readily able to reach a health facility or service. Public transportation may compensate for the lack of personal transport, and clinics may provide a transport service for their patients, but these services are not available everywhere.

*Other factors affecting access*

In this section, information is presented about some of the economic and cultural factors which can affect one's access to services, including affordability, having private health insurance, proficiency in English, communication with service providers and possession of a working telephone.

*Other factors affecting access continued*

### AFFORDABILITY

Many health services provided outside of public hospitals involve direct out-of-pocket payments by patients. These impact more on people with limited economic means and, given the generally poorer economic position of Aboriginal and Torres Strait Islander peoples (Chapter 2), the effect is likely to be greater on Indigenous people than on other Australians. Examples of this are services provided by dentists, physiotherapists and other health professionals not covered by Medicare, and pharmaceuticals not covered by the PBS. These do not attract subsidies from governments and, therefore, patients meet out-of-pocket fees when these services are accessed.

If medical services subsidised under Medicare are not bulk-billed, patients can face co-payments. In the September quarter 2004, 69% of medical services were bulk-billed (DoHA 2004). Bulk-billing rates are generally lower in rural and remote areas than in capital cities or other metropolitan centres (SCRGSP 2003). Patients who are not bulk-billed are usually required to pay the full fee at the time of service and can then seek a refund from Medicare. This, however, means that they must first be able to pay for the service. This difficulty is further exacerbated by the fact that some practitioners charge fees above the Medicare Benefits Schedule fee, requiring larger gap payments, which are generally borne by the patients. Aboriginal Community Controlled Health Services are covered by Medicare and patients using these services are bulk-billed.

People for whom drugs are prescribed under the PBS are also required to make out-of-pocket co-payments. The amount that a patient needs to find 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 2001 National Health Survey (NHS), non-Indigenous people aged 18 years or over living in non-remote areas were three times more likely to report having private health insurance (including hospital and/or ancillary cover) than Indigenous people in non-remote areas (51% compared with 17%). The large gap between the Indigenous and non-Indigenous populations is due, at least in part, to the relative economic disadvantage of Indigenous Australians, as discussed in Chapter 2.

### CULTURAL BARRIERS

Measurement of the accessibility of health services involves factors other than the distance people must travel and the financial costs incurred (Ivers et al. 1997). Many Indigenous people or communities do not have adequate access to either culturally appropriate services or to other suitable arrangements, and where culturally appropriate services exist they are often under-resourced or unable to meet community needs (Bell et al. 2000). The perception of cultural barriers may cause Aboriginal and Torres Strait Islander people to travel substantial distances in order to access health services delivered in a more appropriate manner than those available locally (Ivers et al. 1997). The willingness of Indigenous peoples to access health services may be affected by such

*Other factors affecting access continued*

CULTURAL BARRIERS *continued*

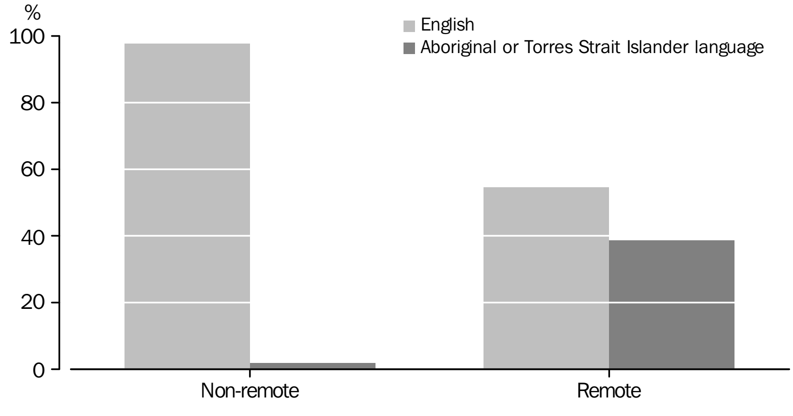
factors as community control of the service, the gender of health service staff, and the availability of Aboriginal and Torres Strait Islander staff, particularly where the patient's proficiency in spoken and written English is limited (Ivers et al. 1997). Some Indigenous people do not feel comfortable attending services such as a private general practice because of educational, cultural, linguistic and lifestyle factors, and will do so only when there is no alternative or their health problem has worsened (Bell et al. 2000).

### LANGUAGE

Not being able to speak, read and write English proficiently can mean that some Indigenous Australians find it difficult to approach health and welfare services. They may therefore miss out on important information and entitlements and may have difficulty reading and completing forms (House of Representatives Standing Committee on Aboriginal and Torres Strait Islander Affairs 1993).

In the 2002 NATSISS, about 14% of Indigenous people aged 15 years or over reported that they spoke a language other than English as their main language at home. This figure includes 12% who said they spoke an Indigenous language at home (Chapter 2) and 2% who said they spoke another language or for whom the language was not adequately described. Indigenous people living in remote areas of Australia were much more likely to report speaking an Aboriginal or Torres Strait Islander language as their main language at home (39%) than those living in non-remote areas (2%) (graph 10.5).

**10.5** MAIN LANGUAGE SPOKEN AT HOME, Indigenous persons aged 15 years and over—2002



*Source: ABS, 2002 NATSISS*

### COMMUNICATING WITH SERVICE PROVIDERS

The 2002 NATSISS collected information on whether Indigenous Australians had difficulty communicating with service providers. Approximately 11% of males and females aged 18 years or over reported that they had difficulty understanding and/or being understood by service providers (table 10.6). Indigenous people living in remote areas were more likely to report experiencing difficulty (19%) than those in non-remote areas of Australia (8%). Indigenous Australians aged 55 years or over had the most difficulty understanding and/or being understood by services providers (14%) (ABS, 2002 NATSISS).

## 10.6 COMMUNICATION WITH SERVICE PROVIDERS, Indigenous persons aged 18 years or over—2002

| | | NON-REMOTE | | REMOTE | | TOTAL | |
|---|---|---|---|---|---|---|---|
| | | *Males* | *Females* | *Males* | *Females* | *Males* | *Females* |
| Has difficulty understanding service providers | % | 2.6 | 3.7 | 3.9 | 4.2 | 3.0 | 3.8 |
| Has difficulty being understood by service providers | % | 3.0 | 1.8 | 4.6 | *3.8 | 3.5 | 2.4 |
| Has difficulty understanding and being understood by service providers | % | 2.2 | 2.3 | 9.7 | 11.3 | 4.3 | 4.8 |
| ***Total experiencing difficulty*** | % | ***7.8*** | ***7.8*** | ***18.2*** | ***19.3*** | ***10.7*** | ***10.9*** |
| No difficulties | % | 92.2 | 92.2 | 81.5 | 80.1 | 89.2 | 88.9 |
| Total(a) | % | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| **Indigenous persons aged 18 years or over** | no. | **85 800** | **96 200** | **33 400** | **35 900** | **119 200** | **132 200** |

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

(a) Includes not stated responses.

*Source: ABS, 2002 NATSISS*

*Other factors affecting access continued*

### COMMUNICATING WITH SERVICE PROVIDERS *continued*

The proportion of Indigenous Australians who reported difficulty communicating with services providers varied by state and territory. Indigenous people in Western Australia (18%), South Australia (17%) and the Northern Territory (15%) were approximately twice as likely to experience difficulty communicating with service providers as those in New South Wales (8%), Victoria (9%) and Queensland (9%) (ABS, 2002 NATSISS).

### TELEPHONE ACCESS

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 urgent medical help when required.

In 2002, 71% of Indigenous Australians aged 18 years or over reported having a working telephone in the home. Those living in non-remote areas were more likely to have a working telephone (82%) than those living in remote areas (43%).

The proportion who had a working telephone varied by state and territory. The Northern Territory had the lowest proportion of Indigenous Australians with a working telephone (37%), which reflects the high proportion of Indigenous people in the Northern Territory who live in remote areas. Approximately 61% of people in Western Australia and 71% in South Australia were without a working telephone (ABS, 2002 NATSISS).

## INDIGENOUS HEALTH AND WELFARE SERVICES WORKFORCE

The numbers and availability of Aboriginal and Torres Strait Islander staff is an important factor in whether or not Indigenous peoples are able to effectively access health services (Ivers et al. 1997; Kowanko et al. 2003).

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 Census, the Australian Government Department of Education, Science and Training's Student Statistics Collection, the AIHW Medical and Nursing Labour Force Surveys and the Australian Government Department of Health and Ageing's Service Activity Report (SAR). However these sources vary in coverage and not all of these data sources have accurate and consistent recording of Indigenous status. For

INDIGENOUS HEALTH AND WELFARE SERVICES WORKFORCE *continued*

example, Queensland is the only state to use the standard ABS question on Indigenous status in the Medical Labour Force Survey, whereas all other jurisdictions use a simpler version of the question (yes/no response). There has also not been consistency in the recording of Indigenous status across jurisdictions in the Nursing Labour Force Survey until the 2003 survey, for which data are not yet available. Because of issues surrounding the data, information from these two AIHW surveys is not presented here. Data in this section therefore comes from the Census, SAR and the Higher Education Student Statistics Collection.

*The health workforce*

At the time of the 2001 Census, Indigenous people comprised 2% of the Australian population aged 20 years or over and accounted for around 1% of all people employed in selected health-related occupations (table 10.7). Aboriginal and Torres Strait Islander people comprised 0.8% of all nursing workers, 0.6% of dental workers, 0.5% of allied health workers, 0.3% of medical workers, and 0.1% of pharmacists.

**10.7** INDIGENOUS PERSONS AGED 20 YEARS OR OVER, employment in selected health related occupations—2001

| | *Indigenous* | *All persons* | *Proportion who were Indigenous* |
|---|---|---|---|
| | no. | no. | % |
| Aboriginal and Torres Strait Islander Health Workers | 838.0 | 900 | 93.1 |
| Medical workers | | | |
| Health Services Managers | 73 | 6 538 | 1.1 |
| Medical practitioners | 88 | 48 180 | 0.2 |
| Medical Imaging Professionals | 17 | 8 319 | 0.2 |
| ***Total*** | ***178*** | ***63 037*** | ***0.3*** |
| Dental workers | | | |
| Dental Practitioners | 12 | 8 189 | 0.1 |
| Dental Associate Professionals | 17 | 4 517 | 0.4 |
| Dental Assistants | 107 | 11 602 | 0.9 |
| ***Total*** | ***136*** | ***24 308*** | ***0.6*** |
| Nursing workers | | | |
| Nurse Managers | 29 | 7 389 | 0.4 |
| Registered Nurses | 782 | 141 855 | 0.6 |
| Personal Care and Nursing Assistants | 776 | 49 511 | 1.6 |
| Enrolled Nurses | 200 | 19 337 | 1.0 |
| Other nurses | 94 | 22 009 | 0.4 |
| ***Total*** | ***1 881*** | ***240 101*** | ***0.8*** |
| Pharmacists | 8 | 13 742 | 0.1 |
| Allied health workers | | | |
| Ambulance Officers and Paramedics | 83 | 6 708 | 1.2 |
| Physiotherapists | 29 | 10 235 | 0.3 |
| Psychologists | 22 | 9 330 | 0.2 |
| Dietitians | 17 | 1 996 | 0.9 |
| Other | 22 | 9 972 | 0.2 |
| ***Total*** | ***173*** | ***38 241*** | ***0.5*** |
| **Total** | **3 214** | **380 329** | **0.8** |

*Source: ABS, Census of Population and Housing*

*The health workforce continued*

In 2001, there were 88 Indigenous people working as medical practitioners and 1,881 Indigenous people working as nurses, 982 of whom were registered or enrolled nurses. After nursing, Indigenous people were most commonly employed as Aboriginal and Torres Strait Islander health workers (838 people). Aboriginal and Torres Strait Islander health workers may be employed as specialists in such areas as alcohol, 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.

In 2002–03, 64% of the 'full time equivalent' positions paid by Australian Government funded Aboriginal and Torres Strait Islander primary health care Services were held by Aboriginal or Torres Strait Islander people. All traditional healers and most Aboriginal and Torres Strait Islander Health Workers (97%), drivers/field officers (96%) and environmental health workers (83%) were Indigenous people. Most doctors (98%), dentists (92%), allied health professionals (86%), and nurses (79%) were non-Indigenous people (DoHA, 2002–03 SAR).

*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 industries (AIHW 2003b).

In 2001, Indigenous people were more likely to have been employed in selected welfare and community service-related occupations than in health-related occupations. About 3% of people employed in community and welfare service-related occupations were Indigenous (table 10.8). Within this sector, Aboriginal and Torres Strait Islander people accounted for 5.5% of all welfare and community workers, 4.5% of welfare associate professionals, 2.6% of counsellors, 2.1% of special care workers and 2.0% of all child care workers (table 10.8).

### 10.8 EMPLOYMENT IN SELECTED WELFARE AND COMMUNITY SERVICE-RELATED OCCUPATIONS, Indigenous persons aged 20 years or over—2001

| | *Indigenous* | *All persons* | *Proportion who were Indigenous* |
|---|---|---|---|
| | no. | no. | % |
| Child care coordinators | 70 | 6 401 | 1.1 |
| Children's care workers | 1 217 | 60 754 | 2.0 |
| Welfare and community workers | 1 444 | 26 304 | 5.5 |
| Welfare associate professionals | 813 | 18 038 | 4.5 |
| Counsellors | 311 | 11 997 | 2.6 |
| Social workers | 166 | 9 116 | 1.8 |
| Special care workers | 1 182 | 56 143 | 2.1 |
| Other | 534 | 35 978 | 1.5 |
| **Total** | **5 737** | **224 731** | **2.6** |

*Source: ABS, 2001 Census of Population and Housing*

*Undergraduate studies in health, welfare and community service-related courses*

The future involvement of Indigenous people in health and welfare services will be influenced by their current participation in health and welfare-related education. In 2003, Indigenous students made up a larger proportion of all undergraduate students enrolled in welfare-related courses (2.5%) than of those enrolled in health-related courses (1.5%)

*Undergraduate studies in health, welfare and community service-related courses continued*

(table 10.9). In the health-related field, most Indigenous enrolments were in nursing(29%) and public health (e.g. environmental health and Indigenous health) (23%). Most enrolments of Indigenous students in welfare-related courses were in the fields of early childhood education (36%), social work (32%) and behavioural studies (17%), which includes psychology.

Overall in 2003, 167 Indigenous students completed health-related undergraduate courses, and 105 completed welfare-related courses, representing 1.0% and 1.5% of all students completing undergraduate courses in these fields respectively. In 2003, 10 Indigenous students completed a degree in medicine, 61 in nursing and 40 in public health.

The numbers of Indigenous students completing health and welfare-related courses in 2003 had increased slightly since 2000; but enrolments had decreased. It is difficult to determine if this is a real increase and decrease in numbers or if it is due to a change in classification from 'field of study' to 'field of education'.

### 10.9 HEALTH AND WELFARE-RELATED COURSES, Undergraduate students—2003

| | ENROLLED | | | COMPLETED | | |
|---|---|---|---|---|---|---|
| | *Indigenous* | *Total* | *Indigenous as a proportion of total* | *Indigenous* | *Total* | *Indigenous as a proportion of total* |
| | no. | no. | % | no. | no. | % |
| **Health** | | | | | | |
| Medical Studies | 27 | 2 016 | 1.3 | 10 | 1 726 | 0.6 |
| Nursing | 117 | 10 594 | 1.1 | 61 | 7 496 | 0.8 |
| Pharmacy | . . | 1 114 | . . | 1 | 769 | 0.1 |
| Dental studies | 2 | 387 | 0.5 | 2 | 306 | 0.7 |
| Optical science | . . | 141 | . . | 2 | 120 | 1.7 |
| Public health(a) | 94 | 1 130 | 8.3 | 40 | 648 | 6.2 |
| Radiography | 3 | 707 | 0.4 | . . | 468 | . . |
| Rehabilitation therapies | 9 | 3 070 | 0.3 | 12 | 2 187 | 0.5 |
| Complementary therapies(b) | 4 | 717 | 0.6 | . . | 408 | . . |
| Other health(c) | 148 | 3 944 | 3.8 | 39 | 1 955 | 2.0 |
| **Total health** | **404** | **23 820** | **1.7** | **167** | **16 083** | **1.0** |
| **Welfare** | | | | | | |
| Early childhood education | 103 | 2 746 | 3.8 | 45 | 1 971 | 2.3 |
| Special education | . . | 230 | . . | 3 | 253 | 1.2 |
| Social work | 62 | 2 192 | 2.8 | 19 | 1 213 | 1.6 |
| Counselling | 20 | 264 | 7.6 | 4 | 146 | 2.7 |
| Behavioural science(d) | 48 | 4 944 | 1.0 | 24 | 3 048 | 0.8 |
| Other welfare(e) | 52 | 846 | 6.1 | 10 | 445 | 2.2 |
| **Total welfare** | **285** | **11 222** | **2.5** | **105** | **7 076** | **1.5** |

. . not applicable

(a) Includes occupational health and safety, environmental health, Indigenous health, health promotion, community health, epidemiology and public health n.e.c.

(b) Includes naturopathy, acupuncture, traditional Chinese medicine, complementary therapies n.e.c.

(c) Includes nutrition and dietetics, human movement, paramedical studies, first aid and health n.e.c.

(d) Includes psychology and behavioural science n.e.c.

(e) 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, Science and Training data, Higher Education Student Statistics Collection*

## USE OF HEALTH SERVICES

Self-reported information on the use of health services is available from the 2001 NHS, including information for Indigenous people from the NHS Indigenous component (NHS(I)) (ABS 2002b, 2002c). After adjusting for age differences, in 2001 Indigenous people were more likely to have taken at least one health-related action (53%) than non-Indigenous people (47%). For both Indigenous and non-Indigenous Australians, the most commonly reported recent health action was a consultation with a doctor. Indigenous people were more likely than non-Indigenous people to consult with a health professional other than a doctor or dentist, to attend hospital (either as admitted patients or outpatients), or to seek emergency or day clinic services.

Indigenous people in remote areas were more likely to have been admitted to hospital (21%) or to have visited an emergency or outpatients department (9%) than Indigenous people in non-remote areas (19% and 5% respectively).

The Western Australian Aboriginal Child Health Survey (WAACHS), a large-scale survey of the health of 5,289 Western Australian Aboriginal children aged 0–17 years in 2001 and 2002, collected information on the use of health services. About 49% of Aboriginal children had visited a doctor in the six months prior to the survey, 25% had visited a nurse and 21% had visited a dentist. Indigenous children with a non-Indigenous primary carer were more likely to have visited a doctor, dentist, specialist and hospital emergency than were children with an Indigenous primary carer. On the other hand, a higher proportion of children with an Indigenous carer had seen an Aboriginal Health Worker and visited an Aboriginal Medical Service than children with a non-Indigenous carer.

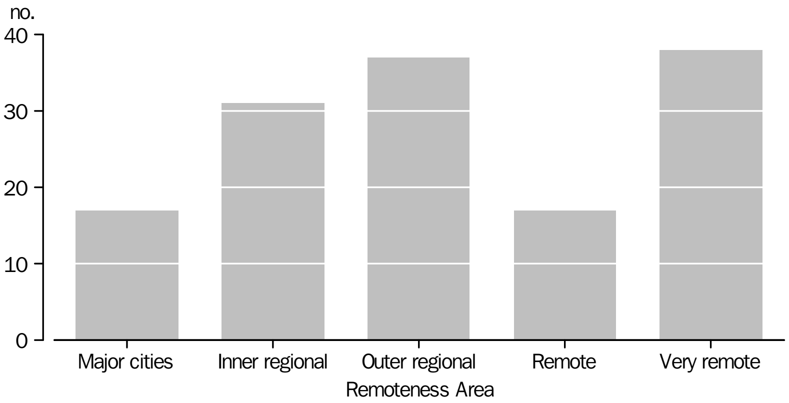
### *Community controlled primary health services*

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 peoples by providing holistic and culturally appropriate care. A review of the Australian Government's Aboriginal and Torres Strait Islander Primary Health Care Program (Primary Health Care Review, undertaken through an inter-departmental committee) was completed in 2003–04. The Review found that access to comprehensive primary health care is an essential component of action to improve health status and that the Australian Government had made significant progress in increasing the provision of such services. It found that in areas where these services were adequately developed, more Aboriginal and Torres Strait Islander people were having disease detected and treated as well as taking part in programs to improve health. In these areas, reductions in communicable disease such as pneumococcal disease, improved detection and management of chronic disease such as diabetes, and better child and maternal health outcomes including reductions in preterm births and increases in birthweight were evident (Dwyer et al. 2004).

In 2003–04, the Office for Aboriginal and Torres Strait Islander Health (OATSIH) in the Australian Government Department of Health and Ageing funded 140 services to provide or facilitate access to primary health care for Aboriginal and Torres Strait Islander people. Two-thirds of these services (92) were in outer regional, remote or very remote locations (graph 10.10).

*Community controlled primary health services continued*

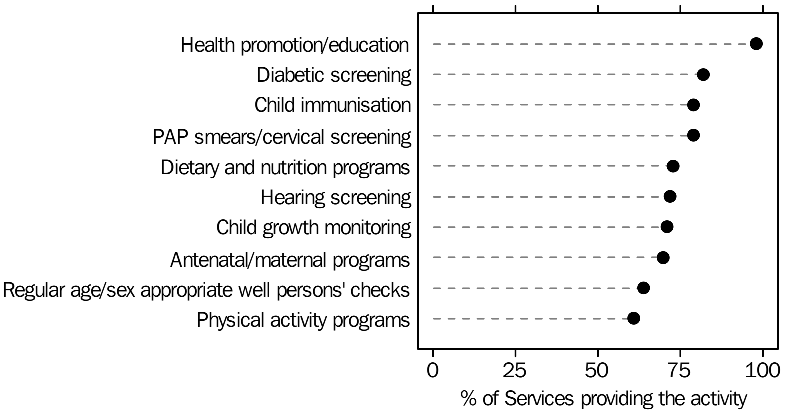
**10.10** AUSTRALIAN GOVERNMENT-FUNDED ABORIGINAL AND TORRES STRAIT ISLANDER PRIMARY HEALTH CARE SERVICES—2003–04



*Source: Department of Health and Ageing, 2003–04 SAR. Data available on request*

Aboriginal and Torres Strait Islander primary health care services offer clinical care, screening programs, and a wide range of preventative health care activities, and health-related and community support activities. Health promotion and education, diabetic screening and child immunisation were among the common activities undertaken or facilitated by these services in 2003–04 (graph 10.11). In addition to these roles and activities, Aboriginal and Torres Strait Islander primary health care services provide social and emotional wellbeing support, substance use treatment, counselling and health-related community support roles, such as men's and women's support groups, transport to medical appointments, and school-based activities.

**10.11** AUSTRALIAN GOVERNMENT FUNDED ABORIGINAL AND TORRES STRAIT ISLANDER PRIMARY HEALTH CARE SERVICES, Selected health-related activities undertaken/facilitated—2003–04



*Source: Department of Health and Ageing, 2003–04 SAR. Data available on request*

In 2003–04, an estimated 1,600,000 episodes of health care were provided by Australian Government funded Aboriginal and Torres Strait Islander primary health care services, 87% of which were to Indigenous clients. Approximately 40% of all episodes of care were provided to males and around 60% to females.

*General practice*

In addition to access to community controlled health services, Indigenous Australians also consult with private GPs. Information about the extent to which GPs are used by both Indigenous and other Australians is available from the survey of general practice activity in Australia known as the Bettering the Evaluation And Care of Health (BEACH) survey. The results of the consultations between Indigenous people and GPs for the period 1998–99 to 2002–03 are presented in Chapter 7 (table 7.8). The most commonly managed problems at GP consultations with Indigenous patients were respiratory conditions, skin problems, musculoskeletal problems, psychological problems, circulatory problems and endocrine, metabolic and nutritional diseases (including diabetes).

Over the five-year period 1998–99 to 2002–03, there were 5,476 GP consultations with Aboriginal and Torres Strait Islander patients, representing 1.1% of total GP consultations. This rate of consultation is low, relative to the proportion of Indigenous peoples in the total population (2.4% at 30 June 2001). 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 peoples where other services such as Aboriginal primary health care services exist; Indigenous peoples' lower use of hospital emergency departments or pharmacists, especially in remote areas; failure by GPs to record the Indigenous status of patients; or reluctance of patients to identify as Indigenous. Supplementary surveys in recent years, together with investigations of the means for better ascertaining the Indigenous status of patients in the BEACH survey, have suggested ways for improving such data in the future.

Other reasons for the relatively low proportion of total consultations with Aboriginal Torres Strait Islander patients may also include or Indigenous peoples using other services such as hospital emergency departments or pharmacists, especially in remote areas.

*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 the Alcohol and Other Drug Treatment Services National Minimum Data Set (AODTS-NMDS). The information collected by the AODTS-NMDS is a nationally agreed set of common data items collected by government-funded services for alcohol and other drug treatments (AIHW 2005a). Data for 2003–04, the fourth year of collection, are presented here.

There were 13,238 (10%) closed treatment episodes involving clients who identified themselves as being of Aboriginal and/or Torres Strait Islander origin in the 2003–04 collection (table 10.12). This is higher than the overall proportion of Indigenous people in the total Australian population. For a number of reasons the data on Aboriginal and Torres Strait Islander clients in the AODTS treatment population should be interpreted with caution. The identification of Indigenous users of these services may not be complete. Further, the majority of dedicated substance use services for Aboriginal and Torres Strait Islander people are not included in the AODTS-NMDS collection.

*Alcohol and other drug treatment services continued*

## 10.12 CLOSED TREATMENT EPISODES, by Indigenous status—2003–04

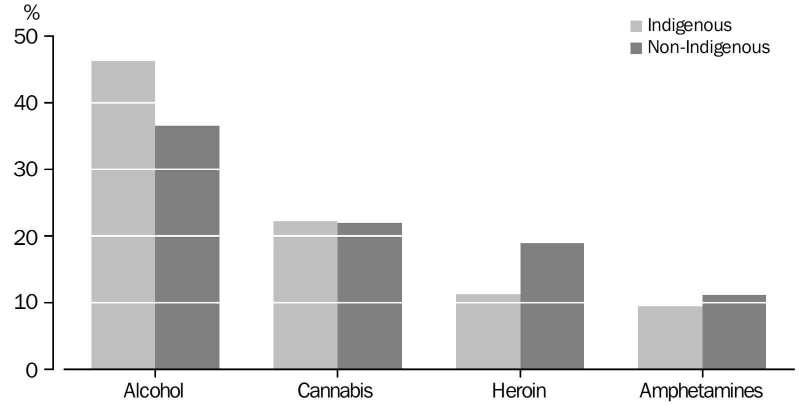
| | Indigenous | | Other(a) | | Total | |
|---|---|---|---|---|---|---|
| Age (years) | no. | % | no. | % | no. | % |
| 10–19 | 2 625 | 1.9 | 14 434 | 10.5 | 17 059 | 12.5 |
| 20–29 | 4 124 | 3.0 | 40 560 | 29.6 | 44 684 | 32.6 |
| 30–39 | 3 963 | 2.9 | 34 203 | 25.0 | 38 166 | 27.9 |
| 40–49 | 1 859 | 1.4 | 21 705 | 15.9 | 23 564 | 17.2 |
| 50–59 | 445 | 0.3 | 8 662 | 6.3 | 9 107 | 6.7 |
| 60 or over | 89 | 0.1 | 3 051 | 2.2 | 3 140 | 2.3 |
| Not stated | 133 | 0.1 | 1 016 | 0.7 | 1 149 | 0.8 |
| **Total episodes** | **13 238** | **9.7** | **123 631** | **90.3** | **136 869** | **100.0** |

(a) Includes closed treatment episodes for clients for whom Indigenous status was not stated.

*Source: AIHW 2005a*

Overall, closed treatment episodes involving Aboriginal and Torres Strait Islander clients were most likely to involve alcohol (46%), cannabis (22%), heroin (11%) and amphetamines (9%)—that is, the same four principal drugs of concern as for other Australians—but with alcohol much more likely to be nominated (46%, compared with 37%) and heroin less so (11%, compared with 19% (graph 10.13).

## 10.13 CLOSED TREATMENT EPISODES, by selected principal drug of concern—2003–04



*Source: AIHW 2005a*

Reported numbers in the 2003–04 annual report on the AODTS-NMDS do not include the majority of Australian Government funded Aboriginal and Torres Strait Islander substance use-specific services or Aboriginal and Torres Strait Islander primary health care services. These services are generally not under the jurisdiction of the state or territory health authority and are not included in the specific program under which the Australian Government currently reports AODTS–NMDS data. Data are collected in relation to these services from the Drug and Alcohol Service Report (DASR) and the SAR collections.

*Alcohol and other drug treatment services continued*

The Drug and Alcohol Service Report (DASR) is coordinated by OATSIH. The DASR collects information from all Australian Government-funded Aboriginal and Torres Strait Islander substance use specific services. In 2003–04, 41 services (98% of funded services) provided DASR data. Of these, 29 were classified as residential substance use services and 12 were classified as non-residential.

Some data from this collection are presented below to provide a broader picture of the types of treatments being accessed by the Indigenous population for drug and alcohol problems. It should be noted that the DASR and AODTS-NMDS have different collection purposes, scope and counting rules. For example, the DASR collect service-level estimates for client numbers and episodes of care while the AODTS-NMDS collects unit records for closed treatment episodes (and some data on client registrations).

In 2003–04, an estimated 24,864 clients were seen by Australian Government funded Aboriginal and Torres Strait Islander substance use-specific services, some 21,242 or 85% of whom were Indigenous clients. Residential treatment/rehabilitation was the most common treatment type for both Indigenous males and females (table 10.14). Approximately 84% of clients receiving residential treatment or rehabilitation were Indigenous and 95% of clients receiving sobering-up or residential respite care were Indigenous. A greater number of males were seen by Australian Government funded Aboriginal and Torres Strait Islander substance use specific services than females across all treatment types.

For the same period, Australian Government funded Indigenous substance use-specific services provided 4,013 episodes of care for residential treatment/rehabilitation and 6,554 episodes of care for sobering up/residential respite care, of which 83% and 98% were for Indigenous clients. Around two-thirds (65%) of all episodes of care involving Indigenous clients for these two treatment types were for Indigenous males.

In addition, there were 34,986 episodes of care for counselling and therapy, after-care follow-up and preventative care, all of which are not residential based. Of these, 83% were episodes of care for Indigenous clients.

*Alcohol and other drug treatment services continued*

## 10.14 USE OF GOVERNMENT-FUNDED ABORIGINAL AND TORRES STRAIT ISLANDER SUBSTANCE-USE SERVICES, by Indigenous status—2003–04

| | NUMBER OF CLIENTS | | | PROPORTION OF CLIENTS WITHIN EACH TREATMENT TYPE | | |
|---|---|---|---|---|---|---|
| | *Male* | *Female* | *Persons* | *Male* | *Female* | *Persons* |
| *Treatment type* | no. | no. | no. | % | % | % |
| RESIDENTIAL TREATMENT/REHABILITATION (N=29)(a) | | | | | | |
| Indigenous | 1 947 | 919 | 2 866 | 81.0 | 89.3 | 83.5 |
| Non-Indigenous | 456 | 110 | 566 | 19.0 | 10.7 | 16.5 |
| Total | 2 403 | 1 029 | 3 432 | 100.0 | 100.0 | 100.0 |
| SOBERING-UP/RESIDENTIAL RESPITE (N=10)(b) | | | | | | |
| Indigenous | 1 931 | 782 | 2 713 | 94.6 | 97.1 | 95.3 |
| Non-Indigenous | 110 | 23 | 133 | 5.4 | 2.9 | 4.7 |
| Total | 2 041 | 805 | 2 846 | 100.0 | 100.0 | 100.0 |
| OTHER CARE (N=38)(c) | | | | | | |
| Indigenous | 7 279 | 1 993 | 9 272 | 61.5 | 66.9 | 62.6 |
| Non-Indigenous | 4 550 | 985 | 5 535 | 38.5 | 33.1 | 37.4 |
| Total | 11 829 | 2 978 | 14 807 | 100.0 | 100.0 | 100.0 |
| TOTAL (N=40)(d) | | | | | | |
| Indigenous | 13 429 | 7 813 | 21 242 | 84.2 | 87.6 | 85.4 |
| Non-Indigenous | 2 519 | 1 103 | 3 622 | 15.8 | 12.4 | 14.6 |
| Total | 15 948 | 8 916 | 24 864 | 100.0 | 100.0 | 100.0 |

(a) Includes people who were officially clients of the service, that is, people who received treatment/rehabilitation in a residential setting and had their own file/record.

(b) Sobering-up clients are in residential care overnight to sober-up and do not receive formal rehabilitation. Respite clients spend one to seven days in residential care for the purpose of respite and do not receive formal rehabilitation.

(c) Clients receiving 'other care' received non-residential care (e.g. counselling, assessment, treatment, education, support, home visits, and/or Mobile Assistance Patrol/Night Patrol) or follow-up from residential services after discharge.

(d) 'Total' refers to the number of clients of a Service. It does not always equate to total number of clients in all programs as some clients may be in multiple programs. The total number of services reported (40) does not include one service which closed during the 2003–2004 financial year.

Note: 1. In 2003–04, a small number of agencies in in the DASR and SAR data collections (three DASR, six SAR) were also included in the AODTS–NMDS.

2. N = number of services.

*Source: DASR, Department of Health and Ageing, unpublished data*

In 2003–04, all Australian Government-funded Aboriginal and Torres Strait Islander substance use specific services provided treatment or assistance for alcohol use and 88% of services indicated that alcohol was the one substance/drug that affected the largest number of their clients. In the same period, 93% of services provided assistance or treatment for cannabis use, 78% for multiple drug use, 66% for amphetamine use, 56% for tobacco use and 54% for heroin use. Less than half of all services provided treatment

*Alcohol and other drug treatment services continued*

or assistance for the use of other drugs such as benzodiazepines, inhalants, petrol and barbiturates.

Aboriginal and Torres Strait Islander primary health care services also provide support in relation to substance use issues. In 2003–04, 98% of Australian Government funded Aboriginal and Torres Strait Islander primary health care services (SAR) provided one or more substance use services. It is not possible to estimate the number of clients that attended Aboriginal and Torres Strait Islander primary health care services and received alcohol or other drug treatment. Similarly, it is not possible to estimate the number of reported episodes of care that related solely or partially to alcohol or other drug treatment.

*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). The information collected in the database is a nationally agreed set of common data elements. Data for 2002–03 are presented here.

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, support that is not provided by specialised mental health care services, care provided by non-government organisations, and residential care.

In 2002–03, there were 147,531 service contacts (3%) for clients who identified themselves as being of Aboriginal and/or Torres Strait Islander origin (table 10.15). After adjusting for age, the rate at which community mental health services were accessed by Aboriginal and Torres Strait Islander peoples was 1.4 times that of other Australians (342 and 236 service contacts per 1,000 population respectively).

These rates should be interpreted with caution, however, as there is likely to be an under-estimate of the actual number of service contacts for Indigenous clients. 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 (8%). In addition, some of the data reported for the ‘Both Aboriginal and Torres Strait Islander’ category are suspected to be affected by misinterpretation of this category to include non-Aboriginal and Torres Strait Islander peoples (e.g. Maoris and South Sea Islanders). All state and territory health authorities, excluding Tasmania, provided information on the quality of 2002–03 NCMHCD data. With the exception of the Northern Territory, the quality of Indigenous status data was considered to be in need of improvement in all states and territories (AIHW 2004e).

Aboriginal and Torres Strait Islander peoples had higher proportions of service contacts for the younger age groups than did other Australians, and lower proportions in the older age groups, reflecting differences in the age structure of these populations. For example, 24% of service contacts for Indigenous Australian males were for clients aged 15–24 years compared with 16% of service contacts for other Australian males (table 10.15). Proportions of service contacts for females showed a similar pattern (21% and 16% respectively).

Community mental health services *continued*

### 10.15 COMMUNITY MENTAL HEALTH SERVICE CONTACTS(a)—2002–03

| | Indigenous | | Other(b) | | Total | |
|---|---|---|---|---|---|---|
| | no. | % | no. | % | no. | % |
| **Males** | | | | | | |
| Less than 15 years | 10 647 | 13.8 | 256 792 | 11.1 | 267 439 | 11.2 |
| 15–24 years | 18 539 | 24.1 | 373 800 | 16.2 | 392 339 | 16.5 |
| 25–34 years | 26 396 | 34.3 | 551 115 | 23.9 | 577 511 | 24.2 |
| 35–44 years | 12 380 | 16.1 | 482 709 | 20.9 | 495 089 | 20.8 |
| 45–54 years | 5 609 | 7.3 | 312 105 | 13.5 | 317 714 | 13.3 |
| 55–64 years | 1 849 | 2.4 | 148 984 | 6.5 | 150 833 | 6.3 |
| 65 years or over | 1 315 | 1.7 | 179 279 | 7.8 | 180 594 | 7.6 |
| Total(c) | 76 951 | 100.0 | 2 306 864 | 100.0 | 2 383 815 | 100.0 |
| **Females** | | | | | | |
| Less than 15 years | 5 184 | 7.4 | 150 183 | 6.9 | 155 367 | 6.9 |
| 15–24 years | 15 098 | 21.4 | 356 391 | 16.3 | 371 489 | 16.5 |
| 25–34 years | 20 534 | 29.1 | 401 079 | 18.4 | 421 613 | 18.7 |
| 35–44 years | 17 038 | 24.2 | 417 366 | 19.1 | 434 | 404.0 |
| 45–54 years | 7 246 | 10.3 | 334 253 | 15.3 | 341 499 | 15.2 |
| 55–64 years | 3 432 | 4.9 | 197 948 | 9.1 | 201 380 | 8.9 |
| 65 years or over | 1 889 | 2.7 | 321 973 | 14.8 | 323 862 | 14.4 |
| Total(c) | 70 453 | 100.0 | 2 181 529 | 100.0 | 2 251 982 | 100.0 |
| **All contacts**(c) | **147 531** | . . | **4 524 892** | . . | **4 672 423** | . . |

. . not applicable

(a) These data should be interpreted with caution due to likely under-identification of Indigenous Australians.

(b) Includes service contacts for clients for whom Indigenous status was not stated.

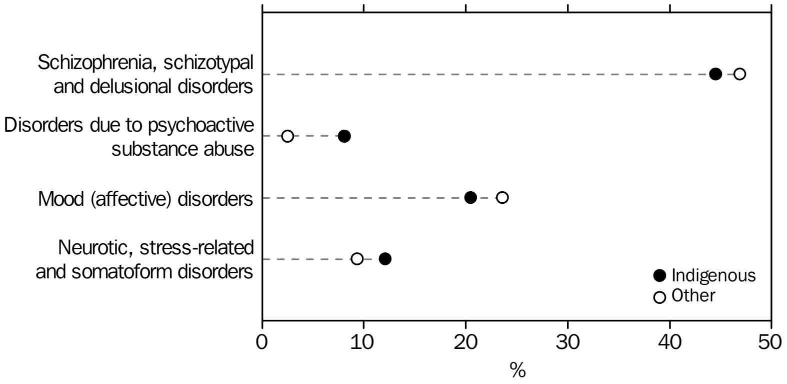
(c) Includes service contacts for clients for whom age or sex was not stated.

*Source: AIHW 2004e*

There were differences in the principal diagnoses most commonly reported for Aboriginal and Torres Strait Islander people and those for other Australians. A smaller proportion of Indigenous people had principal diagnoses of 'schizophrenia, schizotypal and delusional disorders' (45%) and 'mood (affective) disorders' (21%), than did other Australians (47% and 24% respectively) (graph 10.16). However, Indigenous people were more likely to have a principal diagnosis of disorders due to psychoactive substance use (8%) than other Australians (3%).

Community mental health services *continued*

### 10.16 SERVICE CONTACTS FOR WHICH A SPECIFIC PRINCIPAL DIAGNOSIS WAS REPORTED, by selected principal diagnosis—2002–03



Note: Specific principal diagnosis was not reported for more than 35% of service contacts.

*Source: AIHW 2004e*

*Hospital services*

Hospital services are a major component of expenditure on health services for Aboriginal and Torres Strait Islander people.

While information on hospitalisation can provide insights into the health of the population they represent, 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. Hospitalisation statistics are limited to information about the conditions for which people are admitted to hospital, thereby excluding information regarding those who have made use of other health services, such as GPs and community health clinics, and those who have not accessed health care at all. The number and pattern of hospital admissions can also be affected by the variation between hospitals in decisions about whether to admit patients or to treat them as non-admitted patients; information concerning non-admitted patients is not routinely reported. Other factors, such as the availability of, and access to, other medical services, may influence hospital utilisation. A rising rate of hospitalisation, for example, could mean that health status has deteriorated, or that access to hospitals has improved, or both.

### HOSPITALISATIONS

Measures of hospitalisation among the Indigenous population are influenced by the quality of the data on Indigenous status, which is likely to vary between the states and territories (see Chapter 7, box 7.9 for more detail). They are also influenced by variation among the jurisdictions in the health status of Indigenous people and in their access to hospital services (AIHW 2005b). The identification of Aboriginal and Torres Strait Islander patients in hospital records is considered to be in need of improvement in New South Wales, Victoria, Queensland, Tasmania and the Australian Capital Territory (AIHW 2005b) and thus true hospitalisation rates for Aboriginal and Torres Strait Islander people are likely to be higher than those reported in this chapter.

In Australia during 2003–04, there were 6.8 million hospitalisations recorded. Of these, 216,142 or 3% were recorded as Indigenous. The same patient may have been hospitalised more than once during this period. After adjusting for age, Indigenous males and females were about twice as likely to be hospitalised as other males and females.

In 2003–04, about 94% of hospitalisations involving Indigenous patients were recorded in public hospitals, compared with 60% for other Australians. While Indigenous patients are probably not usually identified well in private hospitals compared to public hospitals, the much lower proportion of hospitalisations of Indigenous patients in private hospitals probably largely reflects lower attendance at private hospitals by Indigenous patients.

In 2003–04 and for many diagnoses, the hospitalisation rates for Indigenous patients were higher than for other patients (table 10.17). Hospitalisation rates for a diagnosis of care involving dialysis were around nine times as high for Indigenous males and 17 times as high for Indigenous females. Similarly, Indigenous males and females were around three times as likely as other males and females to be hospitalised for endocrine, nutritional and metabolic diseases, which includes diabetes.

*Hospital services continued*

## HOSPITALISATIONS *continued*

Hospitalisation rates for some diagnoses such as diseases of the digestive system were lower among Indigenous Australians than other Australians. At present it is not possible to ascertain the extent to which this is due to under-identification of Indigenous patients or to genuinely lower rates of hospital use for these conditions.

### 10.17 HOSPITALISATIONS OF INDIGENOUS PERSONS, by principal diagnosis—2003–04

| | HOSPITALISATIONS OF INDIGENOUS PERSONS | | PROPORTION OF HOSPITALISATIONS INVOLVING INDIGENOUS PERSONS | | RATIO(a) | |
|---|---|---|---|---|---|---|
| | *Males* | *Females* | *Males* | *Females* | *Males* | *Females* |
| | no. | no. | % | % | | |
| Injury poisoning and certain other consequences of external causes (S00–T98) | 9 633 | 7 685 | 10.3 | 6.2 | 1.7 | 2.3 |
| Pregnancy, childbirth and the puerperium (O00–O99) | . . | 16 783 | . . | 13.6 | . . | 1.4 |
| Diseases of the respiratory system (J00–J99) | 8 005 | 8 035 | 8.6 | 6.5 | 2.0 | 2.4 |
| Diseases of the digestive system (K00–K93) | 5 775 | 5 829 | 6.2 | 4.7 | 0.9 | 0.8 |
| Mental and behavioural disorders (F00–F99) | 4 954 | 4 604 | 5.3 | 3.7 | 2.1 | 1.5 |
| Symptoms, signs and abnormal clinical and laboratory findings, n.e.c. (R00–R99) | 4 199 | 5 118 | 4.5 | 4.2 | 1.5 | 1.4 |
| Factors influencing health status and contact with health services (Z00–Z99) | 3 302 | 4 425 | 3.5 | 3.6 | 0.7 | 0.7 |
| Diseases of the circulatory system (I00–I99) | 3 845 | 3 415 | 4.1 | 2.8 | 1.8 | 2.1 |
| Diseases of the genitourinary system (N00–N99) | 1 475 | 4 474 | 1.6 | 3.6 | 0.9 | 1.1 |
| Diseases of the skin and subcutaneous tissue (L00–L99) | 2 731 | 2 499 | 2.9 | 2.0 | 2.4 | 2.7 |
| Certain infectious and parasitic diseases (A00–B99) | 2 581 | 2 488 | 2.8 | 2.0 | 1.9 | 2.0 |
| Endocrine, nutritional and metabolic diseases (E00–E90) | 2 003 | 2 288 | 2.2 | 1.9 | 3.1 | 2.8 |
| Other | 8 949 | 8 863 | 9.6 | 7.2 | 1.0 | 0.8 |
| ***Total excluding care involving dialysis*** | ***57 562*** | ***76 596*** | ***61.8*** | ***62.3*** | ***1.3*** | ***1.3*** |
| Care involving dialysis (Z49) | 35 560 | 46 423 | 38.2 | 37.7 | 8.9 | 17.0 |
| **Total**(b) | **93 122** | **123 019** | **100.0** | **100.0** | **1.9** | **2.0** |

. . not applicable

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

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

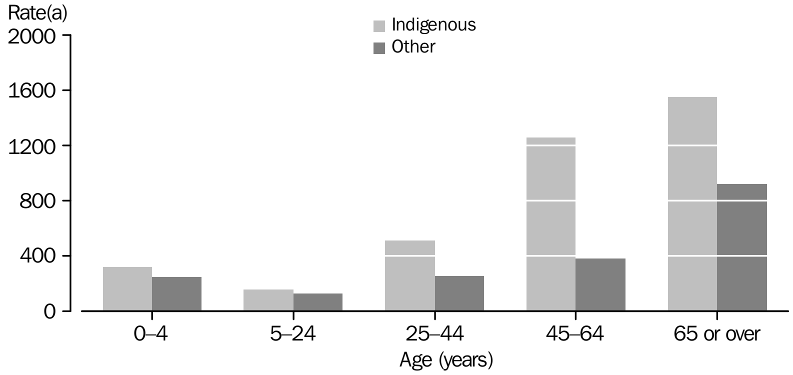
*Source: AIHW, National Hospital Morbidity Database*

Age-specific hospitalisation rates are shown in graph 10.18. Overall, higher hospitalisation rates were recorded for Indigenous patients than for other patients in all age groups. The highest difference in rates occurred in the age groups between 25 and 64 years.

*Hospital services continued*

HOSPITALISATIONS *continued*

**10.18** AGE-SPECIFIC HOSPITALISATION RATES, by Indigenous status—2003–04



(a) Per 1,000 population.
*Source: AIHW, National Hospital Morbidity Database*

POTENTIALLY PREVENTABLE HOSPITALISATIONS

In 2003–04, care involving dialysis, was recorded for 38% of hospitalisations for Indigenous patients and 10% of hospitalisations for other patients. In addition to dialysis, a number of conditions contribute to hospitalisations which are potentially preventable if people have adequate access to a primary health care services (table 10.19). These potentially preventable chronic conditions include diabetes complications, chronic obstructive pulmonary diseases, angina, congestive cardiac failure and asthma.

Overall, Indigenous Australians were seven times as likely as other Australians to be hospitalised for potentially preventable chronic conditions. Of these chronic conditions, diabetes complications had the highest hospitalisation rate, with Indigenous Australians almost fourteen times as likely as other Australians to be hospitalised as a result of this condition. Indigenous Australians were hospitalised for chronic obstructive pulmonary diseases at six times the rate, and for hypertension, at five times the rate, of other Australians.

*Hospital services continued*

POTENTIALLY PREVENTABLE HOSPITALISATIONS *continued*

### 10.19 HOSPITALISATIONS FOR POTENTIALLY PREVENTABLE CHRONIC DISEASES—2003–04

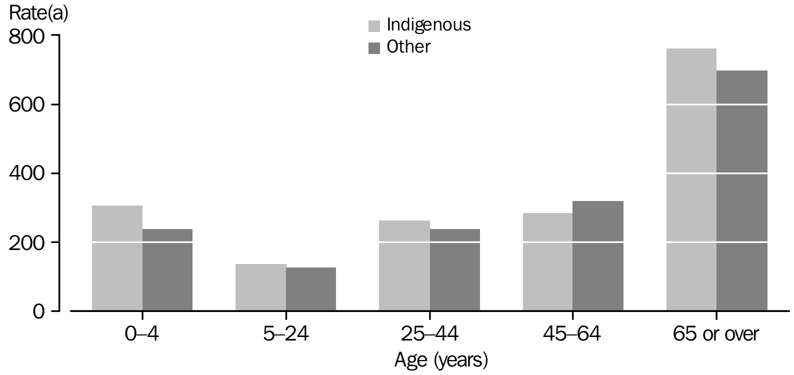
| | INDIGENOUS | | OTHER(a) | |
|---|---|---|---|---|
| | *Observed* | *Expected* | *Observed* | *Ratio*(b) |
| | no. | no. | no. | % |
| Diabetes complications | 20 547 | 1 494 | 173 589 | 13.8 |
| Chronic obstructive pulmonary diseases | 2 260 | 353 | 55 655 | 6.4 |
| Asthma | 2 032 | 1 241 | 35 957 | 1.6 |
| Angina | 1 300 | 330 | 44 334 | 3.9 |
| Congestive cardiac failure | 997 | 211 | 41 895 | 4.7 |
| Iron deficiency anaemia | 334 | 192 | 18 990 | 1.7 |
| Hypertension | 285 | 58 | 6 348 | 4.9 |
| Nutritional deficiencies(c) | 24 | 3 | 119 | 8.3 |
| **Total chronic diseases**(d) | **26 971** | **3 802** | **364 190** | **7.1** |

(a) Includes hospitalisations of non-Indigenous people and hospitalisations of people for whom Indigenous status was not stated.
(b) Ratio is observed hospitalisations divided by expected hospitalisations. Expected hospitalisations are calculated based on the age, and cause-specific rates of other Australians.
(c) The Indigenous nutritional deficiencies standardised rate is based on only 20 separations and should be used with caution.
(d) The total is not the sum of the individual conditions because diabetes complications may be treated in conjunction with other conditions based on the principal diagnosis.
*Source: AIHW, National Hospital Morbidity Database*

Indigenous Australians were more likely to be hospitalised for potentially preventable chronic diseases than other Australians. In the age group where chronic conditions are usually most prevalent (45–64 years), the hospitalisation rate for Indigenous Australians for potentially preventable chronic conditions was 16 times that for other Australians. Much of the difference in hospitalisation rates between Indigenous and other Australians is due to hospitalisations from dialysis and other potentially preventable chronic diseases (graph 10.20). Dialysis and other potentially preventable conditions represented approximately 72% of all hospitalisations of Indigenous people aged 45 years or over compared with 21% of hospitalisations for other Australians of the same age.

POTENTIALLY PREVENTABLE HOSPITALISATIONS *continued*

**10.20** HOSPITALISATION RATES FOR ALL CONDITIONS EXCLUDING DIALYSIS AND OTHER POTENTIALLY PREVENTABLE CHRONIC DISEASES, by Indigenous status—2003–04



(a) Per 1,000 population.
*Source: AIHW, National Hospital Morbidity Database*

### HOSPITALISATIONS WITH A PROCEDURE RECORDED

There were 5.5 million hospitalisations with a procedure recorded in 2003–04, of which 2.7% (149,874) were for Indigenous patients. Over one-half of all hospitalisations involved more than one procedure being performed, totalling about 13.2 million procedures.

While Indigenous Australians were more likely to be hospitalised than other Australians, they were less likely to undergo a procedure while in hospital. In 2003–04, 72% of hospitalisation episodes involving Indigenous patients included the performance of a procedure, compared with 81% of other hospitalisation episodes. When care involving dialysis was excluded, 54% of Indigenous hospitalisation episodes included a procedure being performed compared with 79% of other hospitalisation episodes.

In 2003–04, the proportion of hospitalisations with a procedure recorded, excluding care involving dialysis, was highest for Indigenous patients aged 55–64 years (table 10.21). Patients who lived in remote areas were less likely to undergo a procedure (43% of Indigenous and 55% of other patients) than those living in major cities (68% and 72% for Indigenous and other patients respectively).

Hospital services *continued*

## HOSPITALISATIONS WITH A PROCEDURE RECORDED *continued*

### 10.21 HOSPITALISATIONS WITH A PROCEDURE RECORDED(a), Australian public hospitals—2003–04

| | *Indigenous*(b) | *Other*(b) |
|---|---|---|
| | % | % |
| Overall | 54.1 | 69.7 |
| Sex | | |
| Males | 53.5 | 69.5 |
| Females | 54.6 | 69.9 |
| Age (years) | | |
| Less than 1 | 40.1 | 45.7 |
| 1–14 | 47.2 | 56.7 |
| 15–34 | 49.3 | 64.0 |
| 35–54 | 50.6 | 72.1 |
| 55–64 | 56.7 | 76.6 |
| 65 or over | 55.0 | 75.2 |
| Place of residence(c) | | |
| Major cities | 69.9 | 72.2 |
| Regional | 53.4 | 66.5 |
| Remote | 43.9 | 55.3 |
| Unknown | 56.1 | 56.6 |
| Same-day admission | | |
| Yes | 58.0 | 73.6 |
| No | 53.0 | 67.0 |
| Patient accommodation | | |
| Private | 64.9 | 74.8 |
| Public | 54.3 | 68.9 |

(a) Hospitalisations with a principal diagnosis of care involving dialysis (Z49) have been excluded.

(b) All proportions have been indirectly age-standardised using the age-specific rates for other Australians.

(c) Differences in Indigenous identification by place of residence will affect the estimated rates.

*Source: AIHW, National Hospital Morbidity Database*

Some of the differences in the overall procedure rate could be due to different diagnosis patterns between the two population groups. Nevertheless, for almost all principal diagnoses, Indigenous patients were less likely than other patients to have one or more procedure recorded (table 10.22). Principal diagnoses of certain infectious and parasitic diseases, certain conditions originating in the perinatal period and factors influencing health status and contact with health services were the only exceptions to this.

## 10.22 HOSPITALISATIONS WITH A PROCEDURE RECORDED, by principal diagnosis—2003–04

| | PROPORTION WITH A PROCEDURE(a) | |
|---|---|---|
| | *Indigenous* | *Other* |
| | % | % |
| Factors influencing health status and contact with health services (Z00–Z99) | 96.1 | 95.0 |
| Congenital malformations deformations and chromosomal abnormalities (Q00–Q99) | 89.0 | 91.7 |
| Neoplasms (C00–D48) | 86.8 | 95.5 |
| Diseases of the eye and adnexa (H00–H59) | 85.3 | 98.2 |
| Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism (D50–D89) | 84.1 | 93.2 |
| Diseases of the ear and mastoid process (H60–H95) | 73.2 | 86.0 |
| Certain conditions originating in the perinatal period (P00–P96) | 71.0 | 67.0 |
| Diseases of the musculoskeletal system and connective tissue (M00–M99) | 66.5 | 91.2 |
| Diseases of the digestive system (K00–K93) | 61.5 | 88.6 |
| Pregnancy childbirth and the puerperium (O00–O99) | 60.7 | 74.9 |
| Endocrine, nutritional and metabolic diseases (E00–E90) | 60.4 | 78.3 |
| Diseases of the genitourinary system (N00–N99) | 60.2 | 85.4 |
| Injury poisoning and certain other consequences of external causes (S00–T98) | 57.0 | 70.1 |
| Diseases of the skin and subcutaneous tissue (L00–L99) | 55.8 | 73.7 |
| Diseases of the circulatory system (I00–I99) | 48.0 | 72.0 |
| Diseases of the nervous system (G00–G99) | 41.7 | 78.5 |
| Certain infectious and parasitic diseases (A00–B99) | 37.6 | 37.7 |
| Diseases of the respiratory system (J00–J99) | 33.2 | 58.2 |
| Mental and behavioural disorders (F00–F99) | 33.1 | 47.2 |
| Symptoms signs and abnormal clinical and laboratory findings n.e.c. (R00–R99) | 30.3 | 55.9 |
| **Total** | **71.5** | **80.9** |

(a) Proportions are indirectly age-standardised using the age and cause-specific rates for other Australians.

*Source: AIHW, National Hospital Morbidity Database*

*Hospital services continued*

### HOSPITALISATIONS WITH A PROCEDURE RECORDED *continued*

Aboriginal and Torres Strait Islander people who are admitted to hospital are less likely to have a procedure recorded for a number of possible reasons. These include communication difficulties due to language, institutional factors such as under-servicing in remote areas which disproportionately affects Indigenous people as they are more likely to live in remote areas, and systematic/discriminatory differences in the treatment of patients identified as Indigenous in terms of access to services, diagnosis, referral and treatment (Cunningham 2002).

A recent 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.

### PROCEDURES

In 2003–04, approximately 2% of all procedures were performed on Indigenous patients (264,169). The most common types of procedures recorded for Indigenous people in 2003–04 were procedures on the urinary system, the majority of which were for haemodialysis (table 10.23). Some 32% of procedures for Indigenous males and females were for haemodialysis, a procedure which artificially performs the work of the kidneys in patients with end-stage renal disease. For more detail on dialysis and end-stage renal disease, see the section in Chapter 7 on chronic kidney disease. Non-invasive, cognitive

*Hospital services continued*

PROCEDURES *continued*

and other interventions, not elsewhere classified, were the second most common type of procedure for both males and females. A large proportion of procedures in this group were for allied health interventions such as physiotherapy and social work and for general anaesthesia and sedation.

For Indigenous males, hospital procedure rates for the urinary system and the respiratory system were higher than for other Australian males (approximately seven and two times as high respectively). For Indigenous females, hospital procedure rates on the respiratory system, cardiovascular system and urinary system were higher than for other females (two, two and 12 times as high respectively).

## 10.23 HOSPITAL PROCEDURES, Indigenous persons—2003–04

| | HOSPITAL PROCEDURES PERFORMED ON INDIGENOUS PERSONS | | PROPORTION OF PROCEDURES PERFORMED ON INDIGENOUS PERSONS | | RATIO(a) | |
|---|---|---|---|---|---|---|
| | *Males* | *Females* | *Males* | *Females* | *Males* | *Females* |
| *ICD-10-AM procedure chapter* | no. | no. | % | % | % | % |
| Non-invasive cognitive and other interventions n.e.c. (1820–1916) | 37 471 | 47 142 | 32.8 | 31.5 | 1.0 | 1.0 |
| Obstetric procedures (1330–1347) | . . | 12 141 | . . | 8.1 | . . | 1.0 |
| Imaging services (1940–2016) | 5 462 | 5 036 | 4.8 | 3.4 | 1.3 | 1.4 |
| Procedures on digestive system (850–1011) | 4 208 | 5 733 | 3.7 | 3.8 | 0.6 | 0.6 |
| Dermatological and plastic procedures (1600–1718) | 5 393 | 4 235 | 4.7 | 2.8 | 1.1 | 1.0 |
| Dental services (450–490) | 4 777 | 4 811 | 4.2 | 3.2 | 0.7 | 0.6 |
| Procedures on musculoskeletal system (1360–1579) | 6 020 | 3 520 | 5.3 | 2.3 | 0.9 | 0.9 |
| Procedures on cardiovascular cystem (600–767) | 4 347 | 3 759 | 3.8 | 2.5 | 1.4 | 1.8 |
| Gynaecological procedures (1240–1299) | . . | 6 659 | . . | 4.4 | . . | 0.6 |
| Procedures on respiratory system (520–569) | 3 014 | 2 342 | 2.6 | 1.6 | 1.7 | 2.0 |
| Procedures on urinary system (1040–1129)(b) | 1 420 | 1 506 | 1.2 | 1.0 | 0.9 | 1.1 |
| Other procedures | 6 072 | 5 621 | 5.3 | 3.8 | 0.6 | 0.6 |
| ***Total excluding haemodialysis*** | ***78 184*** | ***102 505*** | ***68.4*** | ***68.4*** | ***0.9*** | ***0.9*** |
| Haemodialysis (1060) | 36 171 | 47 309 | 31.6 | 31.6 | 8.9 | 17.1 |
| **Total**(c) | **114 355** | **149 814** | **100.0** | **100.0** | **1.3** | **1.3** |

. . not applicable

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

(b) Excludes haemodialysis.

(c) Includes procedures for which no procedure code was recorded. Excludes procedures performed on persons for whom Indigenous status was not stated.

*Source: AIHW, National Hospital Morbidity Database*

SUMMARY

Overall, estimated expenditure on health services provided to Aboriginal and Torres Strait Islander peoples during 2001–02 was $3,901 per head. This was 18% higher (ratio 1.18:1) than the estimated expenditure on services delivered to non-Indigenous Australians. The ratio of per capita expenditure on Indigenous Australians to non-Indigenous Australians varies considerably by type of service. Aboriginal and Torres Strait Islander peoples were more intensive users of community health centres (where the per capita expenditure rate ratio was 6.5, public health (2.9) and admitted and non-admitted patient services within the public hospital system (1.6 and 1.9 respectively) compared with medical services (0.4) and pharmaceuticals (0.3).

SUMMARY *continued*

Access to services is affected by a number of factors including the proximity of the service, availability of transport, affordability, availability of culturally appropriate services and the involvement of Indigenous people in the delivery of health services. Approximately one in five Indigenous people living in remote areas have difficulty understanding and/or being understood by service providers and around one-half do not have a working telephone in the home.

Indigenous participation in the delivery of services is considered an important issue in improving access to services. In 2001, Indigenous people were under-represented in selected health-related occupations, comprising around 1% of Australians employed in this area. Aboriginal and Torres Strait Islander people were somewhat better represented in welfare and community-related occupations, accounting for 2.6% of all people employed in this sector. Indigenous students remained under-represented among those completing graduate courses in health (1.0%) in 2003. However, higher proportions of Indigenous people were commencing health and welfare-related courses in 2003 (1.7% and 2.3% respectively).

Despite likely under-counting of Aboriginal and Torres Strait Islander people in hospital records, in 2003–04, Indigenous males and females were about twice as likely to be hospitalised as other males and females, with the greatest differences in rates being in the age groups 35–44 years, 45–54 years and 55–64 years. Once in hospital, however, Indigenous patients were less likely to undergo a procedure than other patients.

For all age groups, hospitalisation rates for Indigenous Australians were higher than for other Australians. While hospitalisation rates for Indigenous Australians are several times those for other Australians, most of the difference is due to high rates of care involving dialysis and hospitalisations for other potentially preventable chronic conditions. Indigenous males and females were hospitalised for care involving dialysis at nine and 17 times the rate of other Australian males and females, and for potentially preventable chronic conditions they were hospitalised at seven times the rate of other Australians.

# CHAPTER 11 COMMUNITY SERVICES

## INTRODUCTION

Community services, in conjunction with other service sectors such as employment, income support, education and health, are designed to address individual and societal needs. They are provided by Australian Government, state, territory and local government agencies, as well as by non-government not-for-profit and for-profit organisations.

This chapter presents information about delivery of community services to Aboriginal and Torres Strait Islander clients in the areas of child care, child protection, adoptions, juvenile justice, disability services and aged care. Where possible, comparisons with the services delivered to 'other' or 'non-Indigenous' Australians are included.

Most of the data in this chapter come from the administrative databases of community service providers and are compiled by the Australian Institute of Health and Welfare (AIHW). 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.

## CHILD CARE

Child care services provide care and development activities for children generally aged 12 years or 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.

The Australian Government Department of Family and Community Services (FaCS) funds most child care services through the Child Care Support Program (FaCS 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. The Australian Government Department of Education, Science and Training (DEST) provides supplementary funding for Indigenous children enrolled in state and territory funded preschools under the Indigenous Education Strategic Initiatives Programme (IESIP).

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:

CHILD CARE *continued*

- 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.

States and territories also fund culturally specific child care and preschool services for Aboriginal and Torres Strait Islander children. For instance, the Queensland Department of Families, through the Remote Area Aboriginal and Torres Strait Islander Child Care Program, provides funding for the operation of a range of children's services to meet the cultural and community needs in remote area communities. These include long day care centres, children's activity programs and playgroups.

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 is nearing completion. The final report of the development phase and the data specifications are expected to be available in late 2005.

Since most child care services are supported by FaCS, the department's Census of Child Care Services is currently the most comprehensive source of data on Indigenous children attending child care services in Australia.

In 2004, there were a total of 651,044 children using Australian Government supported child care services, of whom 11,971 (or 1.8%) were Indigenous. Non-Indigenous children were supported by these government services at more than twice the rate of Indigenous children, with usage rates of around 19% and 8% respectively. Within each service type, Indigenous-specific services such as Aboriginal Playgroups and Enrichment Services and MACS, had the highest proportions of Indigenous children (88% and 79% respectively), with the proportion of Indigenous children being considerably lower in services dedicated to all children. In 2004, approximately 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.

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 compared with 59%, 25% and 14% of other children respectively (table 11.1).

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 | 0.1 |
| 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 | 0.1 |
| In-home care services | % | 0.2 | 0.5 |
| Total | % | 100.0 | 100.0 |
| **Total** | no. | **11 971** | **639 073** |

— nil or rounded to zero (including null cells)

(a) Includes children for whom Indigenous status was not stated.

*Source: FaCS, 2004 Australian Government Census of Child Care Services*

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 for DEST. In 2003, there were 4,697 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 2003), and there were a further 4,354 Indigenous children enrolled in non-government funded preschools in all states and territories.

## CHILD PROTECTION

Statutory child protection services are the responsibility of the community services departments in each state or territory. Children who come into contact with the community services departments for protective reasons include those:

- who have been abused, neglected or otherwise harmed; and/or
- whose parents cannot provide adequate care or protection.

The community services 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.

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 (professional or member of the community), an organisation, or by the children themselves. These reports are assessed by the child protection agencies, and in cases where there is a risk of harm to the child or evidence of abuse or neglect, are classified as a notification. Most notifications are then investigated and classified as either ‘substantiated’ (that is, child abuse and neglect, or the risk of harm, are confirmed) or ‘not substantiated’, depending on the degree of risk, or actual harm, to the child. A range of services may then be provided to the child and the child’s family.

## CHILD PROTECTION *continued*

In more serious cases, the department may also apply to the relevant court (usually a special children's 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 the temporary or permanent 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 (commonly known as 'respite care') and/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 under 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. This is particularly the case with the data on notifications, investigations and substantiations, where jurisdictions use different definitions and processes (AIHW 2005d). It is also worth noting that the quality of the 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.

### *Substantiation notifications*

The rates of Aboriginal and Torres Strait Islander children entering the child protection system are higher than the rates for other children. In 2003–04, the rate of Indigenous children in substantiations was higher in all states and territories except New South Wales, for which data could not be provided, and Tasmania. In Victoria, the rate was nearly ten times higher, while in Western Australia and South Australia, the rate for Indigenous children was eight times the rate of other children (table 11.2). The reasons behind the over-representation of Indigenous children in child protection substantiations are complex but may include intergenerational effects of previous separations from family and culture, and poor socioeconomic status (HREOC 1997).

## 11.2 CHILDREN WHO WERE THE SUBJECT OF A CHILD PROTECTION SUBSTANTIATION(a), by Indigenous status—2003–04

| | NUMBER OF CHILDREN | | | RATE PER 1,000 CHILDREN(b) | | | |
|---|---|---|---|---|---|---|---|
| | *Indigenous* | *Other*(d) | *Total* | *Indigenous* | *Other*(d) | *Total* | *Rate ratio*(c) |
| New South Wales(e) | na | na | na | na | na | na | na |
| Victoria | 700 | 6 323 | 7 023 | 57.7 | 5.9 | 6.4 | 9.8 |
| Queensland | 1 192 | 11 481 | 12 673 | 20.8 | 13.6 | 14.0 | 1.5 |
| South Australia | 441 | 1 499 | 1 940 | 39.9 | 4.7 | 5.9 | 8.4 |
| Western Australia | 322 | 599 | 921 | 11.2 | 1.4 | 2.0 | 8.0 |
| Tasmania(f) | 12 | 317 | 329 | 1.6 | 3.1 | 3.0 | 0.5 |
| Northern Territory | 375 | 116 | 491 | 16.2 | 3.5 | 8.7 | 4.7 |
| Australian Capital Territory | 44 | 441 | 485 | 25.3 | 6.2 | 6.7 | 4.1 |

na not available
(a) Children 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) No data available due to the ongoing implementation of the data system.
(f) Data should be interpreted with caution since few child protection workers recorded Indigenous status at the time of the substantiation.

*Source: AIHW 2005d*

*Substantiation notifications continued*

Substantiation cases 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. It is not always clear what type of abuse, neglect or harm has occurred, and how a substantiation is classified varies 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 from the pattern for other children. In 2003–04, Indigenous children were much more likely to be the subject of a substantiation of neglect than other children. For example, in Western Australia 43% of Indigenous children in substantiated cases were the subject of a substantiation of neglect, compared with 27% of other children. In the Northern Territory the corresponding percentages were 40% and 26% respectively.

It is important to note that these variations in the distribution of types of abuse or neglect across jurisdictions are likely to be the result of differences in what is classified as a substantiation as well as differences in the types of incidents that are substantiated. In Western Australia a relatively high proportion of substantiations were classified as either ‘physical abuse’ or ‘sexual abuse’, as the child protection data from that state includes only child abuse cases; cases which require a family support response (predominantly neglect and emotional abuse matters) are dealt with and counted separately.

Victoria, on the other hand, had a relatively high proportion of substantiations that were classified as ‘emotional abuse’, probably reflecting that jurisdiction’s greater focus on emotional abuse concerns. Similarly, the high proportion of substantiations classified as ‘neglect’ in Queensland reflects the policies in that state which focus on identifying the protective needs of a child and assessing whether parents have protected the child from harm or risk of harm.

*Care and protection orders*

In jurisdictions for which data were available, the rate of Aboriginal and Torres Strait Islander children being placed under care and protection orders varied considerably by jurisdiction, ranging from 9 per 1,000 children in the Northern Territory to 45 per 1,000 in Victoria (table 11.3). The variations between jurisdictions are likely to reflect the differences in child protection policies and in the types of orders available in each state and territory (AIHW 2005d).

In jurisdictions for which data were available, the rate of Indigenous children under orders was higher than the rate for other children. In Victoria, the rate for Indigenous children was 11 times the rate of other children, and in Western Australia the rate was around eight times that of other children.

**11.3** CHILDREN UNDER CARE AND PROTECTION ORDERS, by Indigenous status and state/territory—30 June 2004

| | NUMBER OF CHILDREN | | RATE PER 1,000 CHILDREN(a) | | |
|---|---|---|---|---|---|
| | *Indigenous* | *Other*(c) | *Indigenous* | *Other*(c) | *Rate ratio*(b) |
| New South Wales(d) | na | na | na | na | na |
| Victoria | 574 | 4 677 | 44.7 | 4.1 | 11.0 |
| Queensland | 1 146 | 3 804 | 18.9 | 4.2 | 4.5 |
| South Australia | 275 | 1 180 | 23.5 | 3.5 | 6.7 |
| Western Australia | 583 | 1 056 | 19.2 | 2.3 | 8.3 |
| Tasmania | 83 | 551 | 10.2 | 5.0 | 2.0 |
| Northern Territory | 230 | 115 | 9.4 | 2.2 | 4.3 |
| Australian Capital Territory | 53 | 300 | 28.7 | 5.2 | 5.5 |

na not available
(a) Based on the ABS 'low series' population projections.
(b) The rate for Indigenous children divided by the rate for other children.
(c) Includes children for whom Indigenous status was not stated.
(d) No data available due to the ongoing implementation of the data system.
*Source: AIHW 2005d*

*Out-of-home care*

At 30 June 2004, there were 5,059 Aboriginal and Torres Strait Islander children in out-of-home care. The rate of Aboriginal and Torres Strait Islander children being placed in out-of-home care was around seven times the rate for other Australian children. In all jurisdictions there were higher rates of Aboriginal and Torres Strait Islander children in out-of-home care than other children (table 11.4). In Victoria, the rate of Indigenous children in out-of-home care was nearly 13 times the rate for other children, and in New South Wales the rate of Indigenous children was nearly nine times that for other children.

*Out-of-home care continued*

## 11.4 CHILDREN IN OUT-OF-HOME CARE, by Indigenous status and state/territory—30 June 2004

| | NUMBER OF CHILDREN | | RATE PER 1,000 CHILDREN(a) | | |
|---|---|---|---|---|---|
| | *Indigenous* | *Other*(c) | *Indigenous* | *Other*(c) | *Rate ratio*(b) |
| New South Wales | 2 459 | 6 686 | 38.7 | 4.4 | 8.9 |
| Victoria | 531 | 3 778 | 41.4 | 3.3 | 12.5 |
| Queensland | 958 | 3 455 | 15.8 | 3.8 | 4.1 |
| South Australia | 236 | 968 | 20.2 | 2.9 | 7.0 |
| Western Australia | 587 | 1 094 | 19.3 | 2.4 | 8.0 |
| Tasmania | 55 | 432 | 6.7 | 3.9 | 1.7 |
| Northern Territory | 175 | 83 | 7.2 | 1.6 | 4.6 |
| Australian Capital Territory | 58 | 240 | 31.4 | 4.2 | 7.5 |
| **Total** | **5 059** | **16 736** | **23.7** | **3.6** | **6.5** |

(a) Based on 'low series' ABS population projections.
(b) The rate for Indigenous children divided by the rate for other children.
(c) Includes children for whom Indigenous status was not stated.
*Source: AIHW 2005d*

*Indigenous status of caregivers*

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 is based on the premise that Aboriginal children are better cared for in Aboriginal families and communities. All jurisdictions have adopted the Aboriginal Child Placement Principle in either legislation or 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; or
- 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 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 2004, for the jurisdictions that provided data, 68% of Indigenous children in out-of-home care in Australia were placed in accordance with the Principle (table 11.6). This proportion ranged from 40% in Tasmania to 81% in Western Australia, which also had the highest proportion (55%) of Indigenous child placements within the child's extended family. These figures should be interpreted with caution due to the small number of Indigenous children in out-of-home care in some jurisdictions.

*Indigenous status of caregivers continued*

### 11.6 INDIGENOUS CHILDREN IN OUT-OF-HOME CARE(a), by relationship to care-giver and placement—30 June 2004

| | *NSW*(b) | *Vic.* | *Qld* | *SA* | *WA* | *Tas.* | *NT* | *ACT* |
|---|---|---|---|---|---|---|---|---|
| NUMBER | | | | | | | | |
| Placed in accordance with the Principle | | | | | | | | |
| Indigenous relative/kin | na | 98 | 326 | 37 | 282 | 3 | 67 | 26 |
| Other Indigenous caregiver | na | 117 | 236 | 131 | 127 | 3 | 53 | 5 |
| Other relative/kin | na | 81 | 42 | 15 | 33 | 13 | na | 3 |
| Indigenous residential care | na | 12 | 3 | — | 28 | — | — | 1 |
| ***Total*** | na | ***308*** | ***607*** | ***183*** | ***470*** | ***19*** | ***120*** | ***35*** |
| Not placed in accordance with the Principle | | | | | | | | |
| Other caregiver | na | 155 | 351 | 51 | 77 | 28 | 55 | 18 |
| Other residential care | na | 36 | — | 2 | 33 | — | — | 5 |
| ***Total*** | na | ***191*** | ***351*** | ***53*** | ***110*** | ***28*** | ***55*** | ***23*** |
| **Total** | na | **499** | **958** | **236** | **580** | **47** | **175** | **58** |
| PROPORTION | | | | | | | | |
| Placed in accordance with the Principle | | | | | | | | |
| Indigenous relative/kin | na | 20 | 34 | 16 | 49 | 6 | 38 | 45 |
| Other Indigenous caregiver | na | 23 | 25 | 56 | 22 | 6 | 30 | 9 |
| Other relative/kin | na | 16 | 4 | 6 | 6 | 28 | na | 5 |
| Indigenous residential care | na | 2 | — | — | 5 | — | — | 2 |
| ***Total*** | na | ***62*** | ***63*** | ***78*** | ***81*** | ***40*** | ***69*** | ***60*** |
| Not placed in accordance with the Principle | | | | | | | | |
| Other caregiver | na | 31 | 37 | 22 | 13 | 60 | 31 | 31 |
| Other residential care | na | 7 | — | 1 | 6 | — | — | 9 |
| ***Total*** | na | ***38*** | ***37*** | ***22*** | ***19*** | ***60*** | ***31*** | ***40*** |
| **Total** | na | **100** | **100** | **100** | **100** | **100** | **100** | **100** |

— nil or rounded to zero (including null cells)

na not available

(a) Excludes Indigenous children who were living independently or whose living arrangements were unknown.

(b) No data available due to issues surrounding the ongoing implementation of the data system.

*Source: AIHW 2004a*

## 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 their community (HREOC 1997). Arrangements of this type are generally preferred, and adoption orders are made only when informal alternatives are judged not to be in the best interests of the child.

Between 1999–2000 and 2003–04 there were only 15 registered adoptions of Aboriginal and Torres Strait Islander children in Australia. Seven 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 eight were ‘placement’ adoptions where there was no pre-existing relationship between the parent and the child.

The Aboriginal Child Placement Principle also covers the adoption of Indigenous children. Of the eight Indigenous placement adoptions recorded between 1999–2000 and 2003–04, four were adoptions by Indigenous parents and four were adoptions by other parents (AIHW 2004a).

## JUVENILE JUSTICE

The juvenile justice system is responsible for dealing with young people who have committed or allegedly committed an offence while considered to be a 'juvenile'. Juvenile justice is a state and territory responsibility and each jurisdiction has its own legislation that dictates policies and practices with regard to juvenile justice. 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
- community safety.

One of the ways in which the legislation varies across states and territories is in the definition of a 'juvenile'. In Queensland, juvenile justice legislation applies to those people who were aged 10–16 years at the time of the offence. In most other jurisdictions, however, those who were aged 10–17 years are included as juveniles. Victoria's juvenile legislation has been similar to Queensland's but from July 2005, Victoria's legislation is also expected to apply to juveniles aged 10–17 years. Victoria also has a sentencing option for adult courts which allows those aged 17–20 years where appropriate, to be sentenced to detention in juvenile justice facilities.

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.

There are only limited national data on young people in the juvenile justice system. The AIHW and all states and territories are currently implementing a national data collection that includes young offenders who are on supervised community-based orders or in detention centres. The first report from the Juvenile Justice National Minimum Data Set is expected to be available in late 2005, and to include data from 2000–01 to 2003–04. 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. It is expected that quality will improve over the next couple of years as standardised methods are implemented.

National data are available on the number of young people held in juvenile justice detention centres, either on remand or after sentencing. Data for the years 1998–99 to 2002–03 are provided in tables 11.7 and 11.8. Few young people have contact with the juvenile justice system, and as indicated in these tables, only a small proportion of these

JUVENILE JUSTICE *continued*

young people are in juvenile detention centres. Many young people 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.

Tables 11.7 and 11.8 show that the rates of incarceration in juvenile detention centres for Indigenous people aged 10–17 years are higher than those for all Australians, in all jurisdictions. The data available for Australia (excluding Tasmania) indicate that between 1998–99 and 2000–01, around 40% of 10–17 year olds in detention centres were Indigenous. This rose during 2001–02 to 44% and during 2002–03 to 48%. It is estimated that less than 4% of the Australian population in that same age group were Indigenous at 30 June 2001.

### 11.7 ESTIMATED AVERAGE NUMBER OF YOUNG PEOPLE IN JUVENILE CORRECTIVE INSTITUTIONS(a), by state/territory—1998–99 to 2002–03(b)

| | *NSW* | *Vic.* | *Qld* | *SA* | *WA* | *Tas.*(c) | *NT* | *ACT* | *Australia* |
|---|---|---|---|---|---|---|---|---|---|
| INDIGENOUS | | | | | | | | | |
| 1998–99 | 96 | 9 | 77 | 14 | 80 | na | 17 | 2 | 295 |
| 1999–00 | 91 | 8 | 60 | 13 | 77 | na | 10 | 2 | 261 |
| 2000–01 | 86 | 7 | 53 | 13 | 71 | na | 12 | 4 | 246 |
| 2001–02 | 92 | 7 | 53 | 19 | 71 | na | 12 | 5 | 259 |
| 2002–03 | 98 | 10 | 54 | 28 | 80 | na | 19 | 4 | 295 |
| TOTAL | | | | | | | | | |
| 1998–99 | 285 | 72 | 133 | 42 | 125 | 29 | 23 | 9 | 716 |
| 1999–00 | 251 | 63 | 112 | 47 | 116 | 31 | 15 | 11 | 647 |
| 2000–01 | 223 | 62 | 87 | 59 | 103 | 43 | 17 | 17 | 611 |
| 2001–02 | 217 | 62 | 89 | 56 | 108 | 27 | 16 | 17 | 590 |
| 2002–03 | 220 | 64 | 96 | 65 | 106 | 25 | 24 | 17 | 616 |

na not available

(a) Based on the population of juvenile corrective institutions on the last day of each quarter of the financial year.

(b) As a result of variations in legislation, and the relatively small number of young people in detention centres in some jurisdictions, care should be taken when comparing the data across jurisdictions and time.

(c) Data for Indigenous children in Tasmania are unavailable due to data quality concerns.

*Source: SCRGSP 2005: tables F2 and F5*

## JUVENILE JUSTICE *continued*

### 11.8 ESTIMATED AVERAGE NUMBER OF YOUNG PEOPLE IN JUVENILE CORRECTIVE INSTITUTIONS(a)(b), per 100,000 population by states/territories—1998–99 to 2002–03

| | *NSW* | *Vic.* | *Qld* | *SA* | *WA* | *Tas.*(c) | *NT* | *ACT* | *Australia* |
|---|---|---|---|---|---|---|---|---|---|
| INDIGENOUS | | | | | | | | | |
| 1998–99 | 393.9 | 201.8 | 347.1 | 314.7 | 677.7 | na | 173.5 | 236.1 | 378.6 |
| 1999–00 | 343.5 | 181.9 | 250.8 | 266.2 | 624.1 | na | 97.6 | 284.1 | 315.1 |
| 2000–01 | 324.9 | 142.4 | 222.2 | 265.9 | 565.4 | na | 121.4 | 524.7 | 294.5 |
| 2001–02 | 351.4 | 135.8 | 221.1 | 388.2 | 555.6 | na | 119.9 | 624.4 | 307.9 |
| 2002–03 | 353.8 | 173.6 | 212.0 | 538.1 | 604.7 | na | 182.6 | 458.6 | 326.6 |
| TOTAL | | | | | | | | | |
| 1998–99 | 40.6 | 14.2 | 32.9 | 25.6 | 57.5 | 51.7 | 92.5 | 24.8 | 34.0 |
| 1999–00 | 35.5 | 12.4 | 27.2 | 29.1 | 52.8 | 45.7 | 61.2 | 30.2 | 30.4 |
| 2000–01 | 31.1 | 12.0 | 21.0 | 36.4 | 46.2 | 61.8 | 68.6 | 46.6 | 28.4 |
| 2001–02 | 30.0 | 11.9 | 20.9 | 34.1 | 47.9 | 48.6 | 63.0 | 47.4 | 27.2 |
| 2002–03 | 30.3 | 12.1 | 22.3 | 40.2 | 47.0 | 45.1 | 94.0 | 45.9 | 28.1 |

na not available

(a) Based on the average population of juvenile corrective institutions on the last day of each quarter of the financial year.

(b) As a result of variations in legislation, and the relatively small number of young people in detention centres in some jurisdictions, care should be taken when comparing the data across jurisdictions and time.

(c) Data for children in Tasmania are not available due to data quality concerns.

*Source: SCRGSP 2005: tables F3 and F6*

The data also show that the national detention rate for Indigenous young people has fluctuated over the five-year period, from a high of 379 per 100,000 in 1998–99 to a low of 295 per 100,000 in 2000–01, before rising again to 327 per 100,000 in 2002–03. While the overall rate of detention for those aged 10–17 years has generally declined, from 34 per 100,000 in 1998–99 to 28 per 100,000 in 2002–03, Indigenous young people are still detained at more than ten times the rate of all young people.

The over-representation of Indigenous people in the justice system is not confined to young people. At 30 June 2004, Indigenous Australians constituted 21% of all people incarcerated in Australian prisons (ABS 2004g).

## 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 a disability and services that provide the support needed to enable a person with a 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 a disability to gain and use their abilities to enjoy their full potential for social independence.

DISABILITY SERVICES *continued*

- respite—services that provide a short-term break for families and other voluntary caregivers of people with disabilities, while providing a positive experience for the person with a disability.

Advocacy, print disability and information services are considered shared responsibilities of the Australian Government and the states and territories.

Information about disability services provided to the Aboriginal and Torres Strait Islander population can be obtained from the National Minimum Data Set (NMDS) collected by agencies funded under the CSTDA. This data set, which contains the standard question about Indigenous status, is collected by all jurisdictions and reported to the AIHW annually. Up until 2002, the CSTDA National Minimum Data Set was based on data collected on a single 'snapshot' day; however, data are now collected on an ongoing, financial year basis, with the 2003–04 data set being the first full year of data available. Thus the data presented below are not directly comparable to the 2002 snapshot data described in the last report of this series (ABS & AIHW 2003).

During 2003–04, an estimated 187,806 people (referred to as 'service users') were provided with CSTDA-funded services. Of these service users, 3.5% (6,524 service users) reported that they were of Aboriginal or Torres Strait Islander origin compared with their 2.7% share of people aged less than 65 years in the Australian population. The Indigenous status of 17,882 service users (10%) was not known.

The proportion of Indigenous people who received CSTDA-funded services varied by service type (table 11.9).

Respite (5%), community support (5%) and accommodation (4%) services had an above-average proportion of Indigenous service users. On the other hand, service users of employment (3%) and community access (3%) services had a smaller Indigenous representation than in the overall CSTDA service population.

### 11.9 USERS OF CSTDA-FUNDED SERVICES, by Indigenous status and service(s) used—2003–04(a)

| | *Indigenous* | | *Other*(b) | | *Total* | |
|---|---|---|---|---|---|---|
| | no. | % | no. | % | no. | % |
| Accommodation support | 1 257 | 3.8 | 31 918 | 96.2 | 33 175 | 100.0 |
| Community support | 3 597 | 4.6 | 75 250 | 95.4 | 78 847 | 100.0 |
| Community access | 1 325 | 2.8 | 46 311 | 97.2 | 47 636 | 100.0 |
| Respite | 1 064 | 5.2 | 19 483 | 94.8 | 20 547 | 100.0 |
| Employment | 1 677 | 2.6 | 62 604 | 97.4 | 64 281 | 100.0 |
| **All service groups**(c) | **6 524** | **3.5** | **181 282** | **96.5** | **187 806** | **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 12 months from 1 July 2003 to 30 June 2004.

(b) Includes 17,882 service users whose Indigenous status was not stated.

(c) Components do not add to total since persons may have accessed more than one service during the 12 month period.

*Source: AIHW 2005i*

Data on the support needs of CSTDA service users relating to nine life areas were collected. These areas were grouped into three main categories as follows:

DISABILITY SERVICES *continued*

- Activities of daily living (ADLs)—including self-care; mobility; and communication.
- Activities of independent living (AILs)—including interpersonal interactions and relationships; learning, applying knowledge and general tasks and demands; and domestic life.
- Activities of work, education and community living (AWECs)—including education; community (civic) and economic life; and working. This category is analysed for service users aged five years or over, as service users under five years of age are allowed to respond 'not applicable due to age' for all three of these life areas.

Aboriginal and Torres Strait Islander service users reported a somewhat more frequent need for support than other service users in all three of the support categories (table 11.10).

### 11.10 USERS OF CSTDA-FUNDED SERVICES, by Indigenous status and support needed—2003–04(a)

| *Frequency of support needed* | *Indigenous* | | *Other*(b) | | *Total* | |
|---|---|---|---|---|---|---|
| | no. | % | no. | % | no. | % |
| **ACTIVITIES OF DAILY LIVING(c)** | | | | | | |
| Always or unable to do | 1 889 | 34.9 | 36 917 | 27.8 | 38 806 | 28.1 |
| Sometimes | 2 473 | 45.7 | 60 963 | 45.9 | 63 436 | 45.9 |
| None, but uses aid(s) | 174 | 3.2 | 5 930 | 4.5 | 6 104 | 4.4 |
| None | 871 | 16.1 | 28 933 | 21.8 | 29 804 | 21.6 |
| *Total* | *5 407* | *100.0* | *132 743* | *100.0* | *138 150* | *100.0* |
| **ACTIVITIES OF INDEPENDENT LIVING(d)** | | | | | | |
| Always or unable to do | 2 281 | 42.3 | 44 567 | 33.9 | 46 848 | 34.2 |
| Sometimes | 2 625 | 48.7 | 71 020 | 54.0 | 73 645 | 53.8 |
| None, but uses aid(s) | 114 | 2.1 | 3 303 | 2.5 | 3 417 | 2.5 |
| None | 372 | 6.9 | 12 727 | 9.7 | 13 099 | 9.6 |
| *Total* | *5 392* | *100.0* | *131 617* | *100.0* | *137 009* | *100.0* |
| **ACTIVITIES OF WORK, EDUCATION AND COMMUNITY LIVING(e)** | | | | | | |
| Always or unable to do | 2 586 | 49.9 | 53 544 | 41.9 | 56 130 | 42.2 |
| Sometimes | 2 206 | 42.6 | 62 395 | 48.8 | 64 601 | 48.6 |
| None, but uses aid(s) | 115 | 2.2 | 3 655 | 2.9 | 3 770 | 2.8 |
| None | 274 | 5.3 | 8 228 | 6.4 | 8 502 | 6.4 |
| *Total* | *5 181* | *100.0* | *127 822* | *100.0* | *133 003* | *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 12 months from 1 July 2003 to 30 June 2004.

(b) Includes 17,882 service users whose Indigenous status was not stated.

(c) Self-care; mobility; and communication. Excludes 49,656 service users whose support needs were not stated.

(d) Interpersonal interactions and relationships; learning, applying knowledge and general tasks and demands; domestic life. Excludes 50,797 service users whose support needs were not applicable or not stated.

(e) Education; community (civic) and economic life; working for people aged five years or over. Excludes 38,147 service users whose support needs were not applicable or not stated.

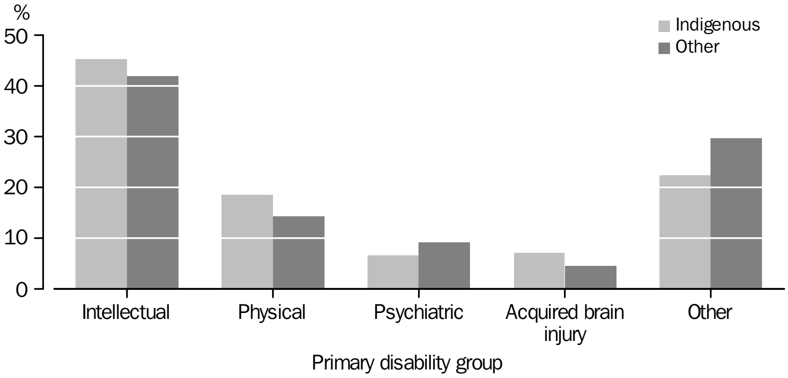
*Source: AIHW 2005i*

DISABILITY SERVICES *continued*

For activities of daily living, 35% of Indigenous service users reported always needing help and a further 46% reported sometimes needing help. Nearly all Indigenous service users reported always or sometimes needing support with activities of independent living and activities of work, education and community living (91% and 93% respectively). Indigenous service users were more likely to report always needing help with, or being unable to do, activities of daily living (35%), independent living (42%) and work, education and community living (50%) than other service users (28%, 34% and 42% respectively).

The most common primary disability group reported among Indigenous service users was intellectual disability (45% of Indigenous service users), followed by physical disability (19%), acquired brain injury (7%), and psychiatric disability (7%) (graph 11.11). Other primary disabilities included neurological, sensory and speech disabilities, specific learning/attention deficit disorder and autism. A higher proportion of Indigenous service users had an intellectual disability, physical disability or an acquired brain injury compared with other service users. Other service users were more likely to report one of the other disability groupings than Indigenous service users (30% compared with 22%).

**11.11** USERS OF CSTDA-FUNDED SERVICES(a), primary disability group by Indigenous status—2003–04

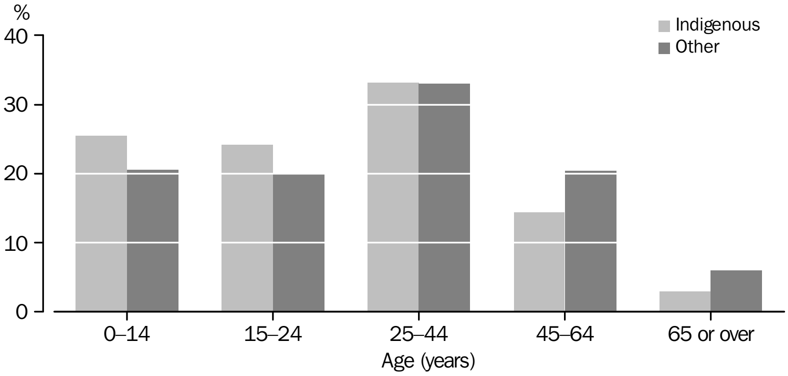


(a) Excludes 17,587 service users whose primary disability was not stated.
*Source: AIHW 2005i*

Indigenous service users of CSTDA services were younger, on average, than other service users (graph 11.12). Nearly one-quarter (24%) of Indigenous service users were aged 15–24 years, and 83% were aged under 45 years. The median age for Indigenous service users was 25 years compared with 31 years for other service users (AIHW 2005i). This may reflect the earlier onset of chronic health conditions and lower life expectancy in the Indigenous population (Chapter 9).

DISABILITY SERVICES *continued*

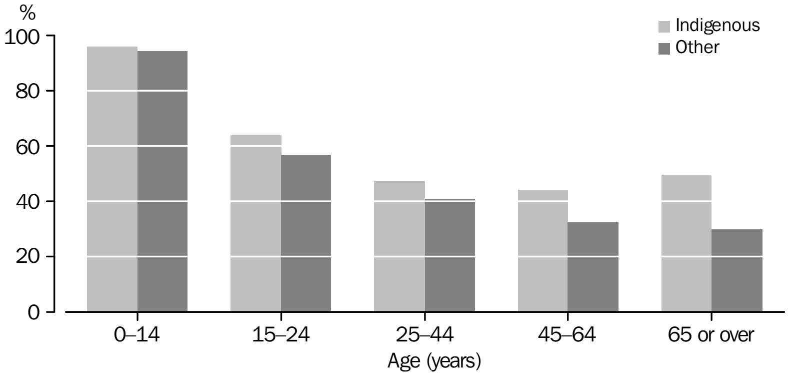
**11.12** USERS OF CSTDA-FUNDED SERVICES(a), by Indigenous status and age—2003–04



(a) Excludes 2,854 service users for whom age was not stated.
*Source: AIHW 2005i*

Considering valid (non-missing) responses only, Indigenous service users were more likely to report the presence of an informal carer than were other service users across all age groups (graph 11.13). The most marked difference was found in the oldest age group (65 years or over), where 50% of Indigenous service users reported having a carer, compared with 30% of other service users. A large difference was also found in the proportion of service users reporting the presence of a carer in the 45–64 year age group (44% of Indigenous service users compared to 32% of others). The relationship of a carer to service user varied somewhat between Indigenous and other service users. While mothers were by far the most common carer reported, they provided care to 58% of Indigenous service users compared to 69% of other service users. Indigenous service users were more likely to report 'other female relative' as their main carer (14%, compared to 4% for non-Indigenous) (AIHW 2005i). This is probably a reflection of the extended kinship patterns evident in many Aboriginal and Torres Strait Islander families that are different to mainstream care arrangements established around the nuclear family (Zubrick et al. 2004).

**11.13** USERS OF CSTDA-FUNDED SERVICES(a), presence of an informal carer by Indigenous status and age—2003–04



(a) Excludes 37,308 service users for whom the presence of an informal carer was not stated.
*Source: AIHW 2005i*

## AGED CARE

This section provides information on government services that provide care and support to older people who are living in the community or who are in formal residential aged care.

Residential aged care is funded by the Australian Government and provides accommodation and other support services, such as domestic assistance, personal care and nursing care. Community Aged Care Packages are also Australian Government funded, and support people who prefer to remain at home but who require care equivalent to low level residential care. The Home and Community Care Program (HACC) is jointly funded by Australian and state and territory governments. It provides community-based support services, such as home nursing, personal care, respite care, domestic help, meals and transport to people who can be appropriately cared for in the community and can therefore remain at home.

Although these services are commonly associated with older people, a proportion of younger people also utilise such services. This occurs relatively more often among Indigenous Australians because of the higher prevalence of chronic diseases. For example, Type II diabetes, cardiovascular diseases and kidney disease often have earlier onset among Indigenous people, resulting in a relatively high proportion of Indigenous people needing care at a younger age. Also, a higher proportion of Indigenous Australians die at younger ages, with the life expectancy at birth about 18 years less than that of all Australians. The Commonwealth's *Aged Care Act 1997* recognises the implications of these differences in health status and life expectancy between the two population groups. When planning services for older people, the Australian Government uses population estimates for the general population aged 70 years or over, compared with 50 years or over for Indigenous Australians (DHAC 2001).

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 Australians. The Aboriginal and Torres Strait Islander Aged Care Strategy was developed in 1994 after consultation with Indigenous communities and organisations involved in 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.

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.

### *Residential aged care services*

At 30 June 2004, there were 29 residential services operating under the Aboriginal and Torres Strait Islander Aged Care Strategy, providing 336 places for Indigenous residents (AIHW 2005l). No demographic data are available for clients of these services.

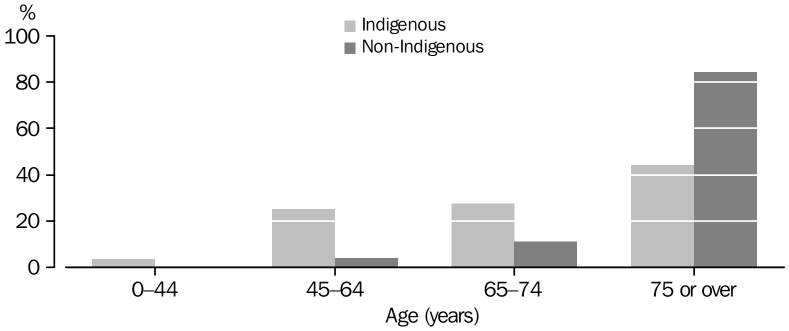
Residential aged care services *continued*

There were 154,487 places in mainstream residential aged care services as at 30 June 2004. Of these, 809 permanent residents (0.6% of all permanent residents) and 19 people in respite care (0.7% 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 (7%) of all residents (AIHW 2005l).

### AGE PROFILE

Of those who were admitted to permanent or respite care during 2003–04, proportionately more Indigenous people were in the younger age groups (graph 11.14). Almost 29% of Indigenous people were under 65 years of age on admission to residential aged care, compared with fewer than 5% of non-Indigenous Australians. About 44% of Indigenous Australians were aged 75 years or over on admission, compared with 84% of non-Indigenous Australians.

**11.14** AGE PROFILE OF RESIDENTIAL AGED CARE ADMISSIONS(a), by Indigenous status—1 July 2003 to 30 June 2004



(a) There were 4,373 residents whose Indigenous status was not stated. Within age groups, these residents have been distributed between the 'Indigenous' and 'non-Indigenous' categories according to the proportion that occurred for residents with a known Indigenous status.

*Source: AIHW analysis of the DoHA Aged and Community Care Management System database*

### USAGE RATES

Age-specific usage rates show that Indigenous Australians make higher use of residential aged care services at relatively younger ages (table 11.15). At 30 June 2004, 9 per 1,000 Indigenous people aged 50–74 years were in residential aged care, compared with 4 per 1,000 non-Indigenous Australians. Among people aged 75 or over, 103 per 1,000 Indigenous people and 104 per 1,000 non-Indigenous people were in residential care.

*Residential aged care services continued*

USAGE RATES *continued*

### 11.15 RESIDENTIAL AGED CARE USE(a), by Indigenous status and age(b)—30 June 2004

| | RESIDENTS | | | AGE-SPECIFIC USAGE RATE PER 1,000(c) | | |
|---|---|---|---|---|---|---|
| *Age (years)* | *Indigenous* | *Non-Indigenous* | *Total* | *Indigenous* | *Non-Indigenous* | *Total* |
| Less than 50 | 71 | 951 | 1 022 | 0.2 | 0.1 | 0.1 |
| 50–74 | 425 | 18 380 | 18 805 | 8.9 | 3.9 | 3.9 |
| 75 or over | 408 | 127 405 | 127 813 | 102.8 | 103.6 | 103.6 |
| **Total** | **904** | **146 736** | **147 640** | . . | . . | . . |

. . not applicable

(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) Includes 10,967 residents whose Indigenous status was not stated. Within age groups, these residents have been distributed between the 'Indigenous' and 'non-Indigenous' categories in accordance with the proportion that occurred for residents with a known Indigenous status.

(c) Based on the ABS 'low series' population projections.

*Source: AIHW analysis of the DoHA Aged and Community Care Management Information System database.*

*Community Aged Care Packages*

At 30 June 2004, there were 29 Community Aged Care Packages services operating under the Aboriginal and Torres Strait Islander Aged Care Strategy, providing 243 packages to Indigenous clients (AIHW 2005h). No demographic data are available for clients of these services.

Out of a total of 27,657 people receiving mainstream Community Aged Care Packages at 30 June 2004, 1,113 (4%) identified as being of Aboriginal or Torres Strait Islander origin. Indigenous status was not known for 1.3% of care recipients.

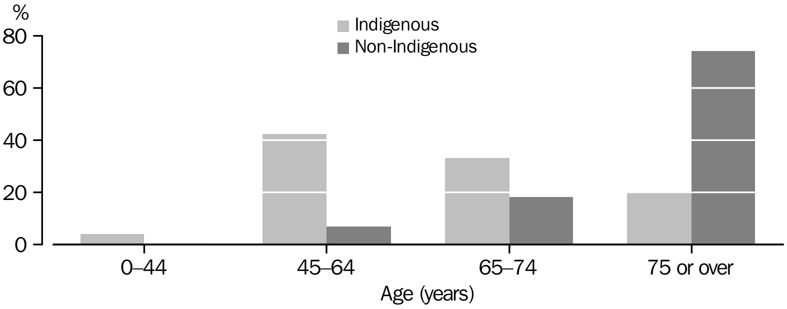
AGE PROFILE

Of people receiving assistance, proportionately more Indigenous recipients were in the younger age groups (graph 11.16). About 46% of Indigenous care recipients were under 65 years of age, compared with fewer than 8% of non-Indigenous care recipients. About 20% of Indigenous care recipients were aged 75 years or over, compared with 74% of non-Indigenous care recipients.

*Community Aged Care Packages continued*

AGE PROFILE *continued*

### 11.16 AGE PROFILE OF COMMUNITY AGED CARE PACKAGE RECIPIENTS(a), by Indigenous status—30 June 2004



(a) Includes 235 recipients whose Indigenous status was not stated. Within age groups, these recipients have been distributed between the 'Indigenous' and 'non-Indigenous' categories in accordance with the proportion that occurred for recipients 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 among Indigenous Australians than non-Indigenous Australians in all age categories examined. At 30 June 2004, there were 16 per 1,000 Indigenous clients aged 50–74 years, compared with 1 per 1,000 non-Indigenous Australian clients in the same age group (table 11.17). There were 71 per 1,000 Indigenous Australians aged 75 years or over and over using Community Aged Care Packages, compared with 17 per 1,000 non-Indigenous Australians.

### 11.17 COMMUNITY AGED CARE PACKAGE RECIPIENTS(a), by Indigenous status and age(b)—30 June 2004

| | RESIDENTS | | | AGE-SPECIFIC USAGE RATE PER 1,000(c) | | |
|---|---|---|---|---|---|---|
| *Age (years)* | *Indigenous* | *Non-Indigenous* | *Total* | *Indigenous* | *Non-Indigenous* | *Total* |
| Less than 50 | 70 | 171 | 241 | 0.2 | — | — |
| 50–74 | 760 | 5 171 | 5 931 | 15.9 | 1.1 | 1.2 |
| 75 or over | 283 | 21 202 | 21 485 | 71.1 | 17.2 | 17.4 |
| **Total** | **1 113** | **26 544** | **27 657** | . . | . . | . . |

. . not applicable

— nil or rounded to zero (including null cells)

(a) Recipients provided packages 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) Includes 235 recipients whose Indigenous status was not stated. Within age groups, these recipients have been distributed between the 'Indigenous' and 'Non-Indigenous' categories in accordance with the proportion that occurred for recipients with a known Indigenous status.

(c) Based on the ABS 'low series' population projections.

*Source: AIHW analysis of the DoHA Aged and Community Care Management Information System database.*

## Home and Community Care Program

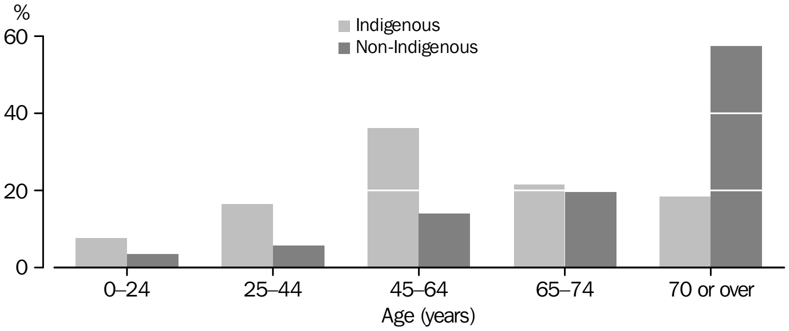
The HACC Minimum Data Set (MDS) collects data on the Indigenous status of its clients. Since implementation of the collection in January 2001, improvements have been made in the quality and comprehensiveness of the HACC MDS data.

During 2003–04 approximately 3,500 organisations provided HACC-funded services to clients across Australia, of which about 83% submitted data. Among participating agencies, HACC services were provided to about 707,200 clients of all ages (table 11.19). Of these, just over 2.4% (about 17,000) were reported to be Indigenous clients, ranging from over 42% in the Northern Territory to 1% in Victoria. Indigenous status was not recorded or not known for 11% of HACC clients.

### AGE PROFILE

Analysis of HACC MDS data suggests that Indigenous HACC clients had a younger age profile than non-Indigenous clients (graph 11.18). About 60% of Indigenous clients were under 65 years of age, compared with 23% of non-Indigenous clients. About 18% of Indigenous clients were aged 75 years or over, compared with 57% of non-Indigenous clients.

**11.18** AGE PROFILE OF HOME AND COMMUNITY CARE PROGRAM CLIENTS(a), by Indigenous status—2003–2004



(a) Includes 75,822 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 proportion that occurred for clients with a known Indigenous status.

*Source: AIHW analysis of Home and Community Care Program data*

### USAGE RATES

The HACC program was used by a higher proportion of Indigenous Australians than non-Indigenous Australians in all age groups examined. At 30 June 2004, there were 184 per 1,000 Indigenous clients aged 50–74 years, compared with 45 per 1,000 non-Indigenous clients in the same age group (table 11.19). There were 773 per 1,000 Indigenous clients aged 75 years or over using HACC services, compared with 321 per 1,000 non-Indigenous clients.

The high usage rate of HACC services among the Indigenous population aged 75 years or over (table 11.19), reported at 773 per 1,000 Indigenous clients, should be treated with some caution. For some age groups in a couple of states and territories, the number of HACC clients identified as Indigenous were close to, or greater than, the ABS estimates of the corresponding Indigenous population. This suggests that Indigenous status was not well recorded in the HACC MDS in those states and territories. This could occur if repeat clients provided different name or birth date information to different HACC

*Home and Community Care Program continued*

USAGE RATES *continued*

agencies, resulting in their being counted more than once. In addition, 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.

**11.19** HOME AND COMMUNITY CARE PROGRAM CLIENTS(a), by Indigenous status and age—2003–04

| | CLIENTS | | | AGE-SPECIFIC USAGE RATE PER 1,000(b) | | |
|---|---|---|---|---|---|---|
| *Age (years)* | *Indigenous* | *Non-Indigenous* | *Total* | *Indigenous* | *Non-Indigenous* | *Total* |
| Less than 50 | 5 200 | 79 600 | 84 900 | 12.1 | 5.8 | 6.0 |
| 50–74 | 8 800 | 215 700 | 224 500 | 184.3 | 45.4 | 46.8 |
| 75 or over | 3 100 | 394 800 | 397 800 | 772.6 | 321.1 | 322.5 |
| **Total**(c) | **17 100** | **690 100** | **707 200** | . . | . . | . . |

. . not applicable

(a) Data include 10.9% of 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 proportion that occurred for clients with a known Indigenous status.

(b) Based on the ABS 'low series' population projections. This method results in slightly different numbers from those published in the Home and Community Care Minimum Data Set 2003–04 Annual Bulletin.

(c) Not all HACC agencies submitted data to the HACC MDS. For 2003–04, the proportion of HACC-funded agencies that submitted HACC MDS data differed across jurisdictions (ranging from 77% to 99%). Actual client numbers will therefore be higher than those reported here. Because of this incomplete coverage, and because of cases with missing age and Indigenous status, numbers have been rounded to the nearest hundred.

*Source: AIHW analysis of Home and Community Care Program data*

*Home and Community Care Program continued*

USAGE RATES *continued*

### 11.20 INDIGENOUS IDENTIFICATION IN COMMUNITY SERVICES COLLECTIONS

The quality of identification of Indigenous clients in seven community services data collections has been examined since the 2003 edition of this report. The analyses focused on the extent to which Indigenous status was missing or not stated in each data collection and the relationship between missing or not stated data and age and sex of clients, service type and location of service. Variation in data quality over time was also analysed. The seven 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
- Alcohol and Other Drug Treatment Services National Minimum Data Set
- National Child Protection Data Collection, incorporating three data collections:
    1. Children who are the subject of notifications, investigations and substantiations;
    2. Children under care and protection orders; and
    3. Children in out-of-home care.

The preparedness of clients to identify as Indigenous is likely to be influenced by a range of factors including the type of service, the nature of contact with the service, and the purpose of the service. The willingness to provide information on Indigenous status, the quality of the information provided, and the perceived relevance of the information by both service provider and client will vary to a considerable extent for each collection.

The extent to which the Indigenous identifier was missing or not stated varied greatly between the data sets. In 2002, lower rates of missing/not stated Indigenous status were seen in the Commonwealth/State Disability Agreement Minimum Data Set, the Supported Accommodation Assistance Program National Data Collection, and in the data collection for children under care and protection orders. Comparatively high rates were observed in the remaining data collections.

The rate of missing or not stated Indigenous status was also influenced by a number of factors not associated with service type. These include the proportion of agency clients who were Indigenous and the proportion of services from different geographic areas supplying data to the data collections. Variations were also observed among the data collections in the analyses of Indigenous identification by age, sex and geographic area, including both state/territory and remoteness measures. There were also differences in patterns across collections over time. However, one consistent pattern was seen in several data collections. Records with a missing/not stated Indigenous identifier were often missing other demographic data. In those instances, efforts to strengthen the collection of basic demographic information are likely to have a positive effect on the overall Indigenous identification rate (AIHW 2004c).

## SUMMARY

In 2004, the proportion of Aboriginal and Torres Strait Islander children using Australian Government supported child care services was 2%. Non-Indigenous children were supported by these government services at more than twice the rate of Indigenous children. 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. Of all other children, the proportions 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 ratios of 10:1 in Victoria and 8:1 in Western Australia and South Australia. The rate of Indigenous children being placed under care and protection orders and in out-of-home care was higher than the rate for other children in all jurisdictions. Just over two-thirds of children in out-of-home care were placed with Indigenous relatives/kin (38%) or with other Indigenous caregivers (30%). These are the preferred placements under the Aboriginal Child Placement Principle that has been adopted by all jurisdictions.

Despite the limitations of available data, rates of incarceration in juvenile detention centres for Indigenous Australians aged 10–17 years are much higher than those for other young Australians in all jurisdictions. In 2002–03, 48% of those aged 10–17 years in detention centres in Australia were Indigenous.

In 2003–04, 6,524 people, 3.5% of those receiving Commonwealth/State Disability Agreement funded services identified as Indigenous. The proportion of people who received CSTDA-funded services who were of Aboriginal or Torres Strait Islander origin varied by service type. Respite (5%), community support (5%) and accommodation (4%) services had an above-average proportion of Indigenous service users. On the other hand, service users of employment (3%) and community access (3%) services had a smaller Indigenous representation than in the overall CSTDA service population.

Aboriginal and Torres Strait Islander people utilise aged care services at a younger age, consistent with poorer health status and lower life expectancy. Of those admitted to permanent or respite residential care during 2003–04, almost 29% were under 65 years of age, compared with fewer than 5% of other Australians. Of all Indigenous Australians receiving Community Aged Care Packages at 30 June 2004, 46% were aged below 65 years compared with 8% among other Australians. Of all clients receiving home and community care, 18% of Indigenous clients were aged 75 years or over compared with 57% of other clients.

# CHAPTER 12 TORRES STRAIT ISLANDER PEOPLES

## INTRODUCTION

Torres Strait Islander people are a culturally distinct group within the Indigenous population. They comprise 11% of the total Indigenous population in Australia and 26% of the Indigenous population in Queensland. Most people of Torres Strait Islander origin do not live in the Torres Strait Area. Those Torres Strait Islander people who do live in the Torres Strait Area often have different characteristics to those who live in other parts of Australia, whose characteristics are more like the total Australian Indigenous population.

This chapter draws on information from the 2001 Census of Population and Housing, the Australian Bureau of Statistics' (ABS) vital statistics collection (births and deaths), the 2002 National Aboriginal and Torres Strait Islander Social Survey (NATSISS), the 2002 General Social Survey (GSS), the Australian Institute of Health and Welfare's (AIHW) National Hospital Morbidity Database (NHMD), the AIHW National Mortality Database and the 2002 AIHW National Perinatal Statistics data collection.

Where possible, comparisons are made between all persons of Torres Strait Islander origin living in the Torres Strait Area and those living in other parts of Australia. Comparisons are also made with people of Aboriginal origin only and with the non-Indigenous population. People who were identified as being of Torres Strait Islander origin or both Torres Strait Islander and Aboriginal origin have been included in the Torres Strait Islander population.

At present the national health and welfare data on Torres Strait Islander people are incomplete. The ABS, through its national surveys, continues to work towards providing reliable estimates of the health, welfare and social characteristics of Aboriginal and Torres Strait Islander peoples using extended Indigenous sampling design. The 2002 NATSISS provides results for Torres Strait Islander people, while the 2004–05 National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) has sufficient sample size to be able to report separately for Torres Strait Islander people. Improvements in Indigenous identification within administrative health data sets are also being pursued and collection improvements implemented on an ongoing basis.

## DEMOGRAPHIC CHARACTERISTICS

### *Estimated Indigenous resident population*

To arrive at an estimate of the size of the Aboriginal and Torres Strait Islander population using the Census count (on a usual residence basis), allowance is made for net undercount and for instances in which Indigenous status is unknown. In addition, population estimates for dates other than the Census date also take account of births, deaths and migration in the intervening period. The experimental estimated resident population (ERP) for all persons of Torres Strait Islander origin at 30 June 2001 was 48,800 or 11% of the total Indigenous population.

*Estimated Indigenous resident population continued*

Overall, more than half (59%) of all Torres Strait Islander people live in Queensland (including the Torres Strait Area), with a further 18% in New South Wales (table 12.1). The Torres Strait Area is home to around 14% of the Torres Strait Islander population of Australia (table 12.2).

**12.1** EXPERIMENTAL INDIGENOUS ESTIMATED RESIDENT POPULATION, by state or territory of usual residence—June 2001

| *State/territory* | | *Torres Strait Islander(a)* | *Aboriginal only* | *Indigenous* |
|---|---|---|---|---|
| New South Wales | % | 17.7 | 30.8 | 29.4 |
| Victoria | % | 6.3 | 6.0 | 6.1 |
| Queensland | % | 58.7 | 23.7 | 27.5 |
| South Australia | % | 2.9 | 5.9 | 5.6 |
| Western Australia | % | 5.0 | 15.5 | 14.4 |
| Tasmania | % | 4.8 | 3.7 | 3.8 |
| Northern Territory | % | 3.9 | 13.4 | 12.4 |
| Australian Capital Territory | % | 0.6 | 0.9 | 0.9 |
| Australia | % | 100.0 | 100.0 | 100.0 |
| **Population estimate** | no. | **48 800** | **409 700** | **458 500** |

(a) Includes people who are of both Torres Strait Islander and Aboriginal origin.
*Source: ABS 2004e*

The Torres Strait Islander population has a young age structure. In 2001, an estimated 73% of Torres Strait Islander people were under 35 years of age compared with 48% of the non-Indigenous population. Only 8% of Torres Strait Islander people were aged 55 years or over compared with 22% of the non-Indigenous population (7% of Aboriginal people were aged 55 years or over) (table 12.2).

**12.2** EXPERIMENTAL INDIGENOUS ESTIMATED RESIDENT POPULATION, by age—June 2001

| | | TORRES STRAIT ISLANDER(a) | | | | | |
|---|---|---|---|---|---|---|---|
| *Age (years)* | | *Torres Strait Area* | *Balance of Australia* | *Total* | *Aboriginal only* | *Indigenous* | *Non-Indigenous* |
| 0–14 | % | 40.0 | 39.6 | 39.6 | 38.9 | 39.0 | 20.1 |
| 15–34 | % | 32.1 | 33.0 | 32.9 | 34.2 | 34.1 | 28.3 |
| 35–54 | % | 19.5 | 19.4 | 19.4 | 20.2 | 20.1 | 29.2 |
| 55 or over | % | 8.4 | 8.0 | 8.1 | 6.7 | 6.8 | 22.3 |
| Total | % | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| **Population estimate** | no. | **6 900** | **41 900** | **48 800** | **409 700** | **458 500** | **18 954 700** |

(a) Includes people who are of both Torres Strait Islander and Aboriginal origin.

*Source: ABS 2004e*

*Births*

A birth is recorded as a Torres Strait Islander birth where at least one parent is identified as being of Torres Strait Islander origin (or of both Torres Strait Islander and Aboriginal origin). While the identification of Indigenous births (including Torres Strait Islander births) is incomplete, identification for the period 2001–03 is estimated to be 91% for Australia and 94% for Queensland (ABS 2004a). Separate identification ratios for each of Aboriginal and Torres Strait Islander births are not available.

*Births continued*

In addition to the under-identification of Indigenous births generally, the distinction between Aboriginal and Torres Strait Islander births is not always made when a birth is registered. 2001–03 births data for Torres Strait Islander people should therefore be viewed as indicative only.

In the period 2001–03, there were 3,738 births registered as Torres Strait Islander, of which two-thirds (2,432 births) were to Torres Strait Islander mothers. The remainder (1,306 babies) had a Torres Strait Islander father, but not a Torres Strait Islander mother. The median age of Torres Strait Islander mothers was 25 years (table 12.3).

## 12.3 CHARACTERISTICS OF PARENTS—2001–03

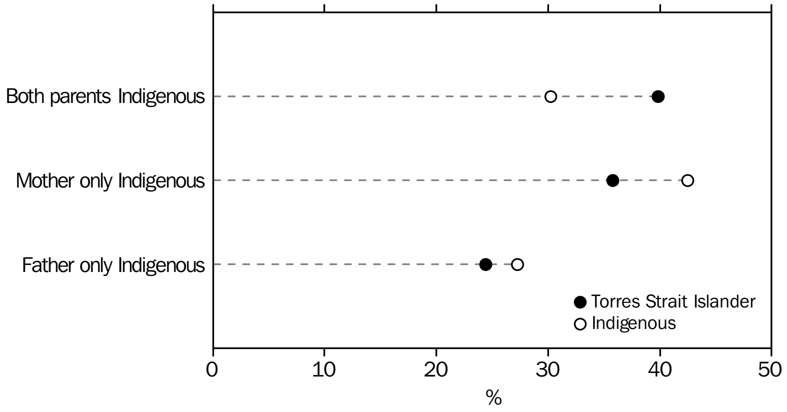
| | | *Torres Strait Islander mothers*(a) | *Indigenous mothers* |
|---|---|---|---|
| Age of mother (years) | | | |
| Less than 20 | % | 16.5 | 21.1 |
| 20–24 | % | 32.6 | 30.4 |
| 25–29 | % | 26.5 | 24.9 |
| 30–34 | % | 15.9 | 16.0 |
| 35–39 | % | 6.5 | 6.2 |
| 40 or over | % | 2.0 | 1.2 |
| Total | % | 100.0 | 100.0 |
| Median age of mother | years | 25.1 | 24.7 |
| Median age of father | years | 28.0 | 27.9 |
| **All registered births** | no. | **2 432** | **23 553** |

(a) Includes mothers who are of both Torres Strait Islander and Aboriginal origin.

*Source: ABS, Births Registration Database*

Two in five babies registered as Torres Strait Islander in origin (40%) had two Indigenous parents, compared with 30% of Indigenous babies overall (graph 12.4).

## 12.4 INDIGENOUS STATUS OF PARENTS — 2001–03, Torres Strait Islander and Indigenous registered births



*Source: ABS, Births Registration Database*

*Births continued*

Torres Strait Islander births accounted for 11% of all registered Indigenous births and 0.5% of all registered births in Australia in 2001–03 (ABS 2004a). Over this period, the number of births registered as Torres Strait islander averaged around 1,250 annually (table 12.5).

## 12.5 TORRES STRAIT ISLANDER REGISTERED BIRTHS—2001–03

| | Torres Strait Islander births | Indigenous births | Torres Strait Islander births as a proportion of Indigenous births |
|---|---|---|---|
| | no. | no. | % |
| 2001 | 1 280 | 11 405 | 11.2 |
| 2002 | 1 172 | 11 488 | 10.2 |
| **2003** | **1 286** | **11 740** | **11.0** |
| Queensland | 877 | 3 408 | 25.7 |
| Balance of Australia | 409 | 8 332 | 4.9 |
| Males | 651 | 5 959 | 10.9 |
| Females | 635 | 5 781 | 11.0 |

*Source: ABS, Births Registration Database*

*Babies*

The AIHW National Perinatal Data Collection recorded 548 babies born to Torres Strait Islander mothers in 2002. Of these babies, 52 were low birthweight babies (less than 2,500 grams at birth). Torres Strait Islander mothers (9%) were less likely to have low birthweight babies than Aboriginal mothers (14%) but more likely to have low birthweight babies than non-Indigenous mothers (7%).

In 2002, the perinatal death rate was 16 per 1,000 births to Torres Strait Islander mothers — lower than the perinatal death rate for births to Aboriginal mothers (17 per 1,000 births) but higher than that for babies with non-Indigenous mothers (9 per 1,000 births). Low birthweight was a contributing factor in all the perinatal deaths of babies with a Torres Strait Islander mother in 2002 (AIHW National Perinatal Data Collection).

*Deaths*

It is likely that most deaths of Torres Strait Islander and Aboriginal people are registered, but not all are correctly identified, resulting in some under-counting of Indigenous deaths. While there is incomplete coverage of Indigenous deaths in all state and territory registration systems, data from Queensland, South Australia, Western Australia and the Northern Territory have been assessed by the ABS as having a sufficient level of coverage to enable statistics on Aboriginal and Torres Strait Islander mortality to be produced. Data for these four jurisdictions have been combined for the 1999–2003 period and are presented in tables 12.6 and 12.7. Deaths data for Torres Strait Islander people should be regarded as indicative only.

Over the 1999–2003 period, the median age at death for Torres Strait Islander men was 56 years and for women it was 61 years (table 12.6).

*Deaths continued*

### 12.6 INDIGENOUS DEATHS, by sex—1999–2003(a)

| | | *Torres Strait Islander*(b) | *Indigenous* |
|---|---|---|---|
| **Median age at death** | | | |
| Males | years | 55.5 | 49.0 |
| Females | years | 60.5 | 56.0 |
| *Persons* | years | *58.0* | *51.0* |
| **Deaths** | | | |
| Males | no. | 244 | 4 222 |
| Females | no. | 174 | 3 165 |
| *Persons* | no. | *418* | *7 387* |

(a) Data for Queensland, South Australia, Western Australia and the Northern Territory combined. Deaths are based on year of occurrence of death for 1999–2002 and year of registration of death for 2003.
(b) Includes persons who were of both Torres Starit Islander and Aboriginal origin.
*Source: AIHW, National Mortality Database*

*Cause of death*

An examination of Torres Strait Islander deaths for the 1999–2003 period by underlying cause (in major ICD-10 groupings) shows that diseases of the circulatory system (essentially heart diseases) remain the most commonly recorded cause of death among both Torres Strait Islander people and Indigenous people overall (27%). Torres Strait Islander people were more likely than Aboriginal people to die from cancer (malignant neoplasms), and less likely to die as a result of external causes (including injury) (table 12.7).

### 12.7 UNDERLYING CAUSES OF DEATH—1999–2003(a)

| | *Torres Strait Islander*(b) | | *Indigenous* | |
|---|---|---|---|---|
| | no. | % | no. | % |
| Neoplasms (C00–D48) | 84 | 20.1 | 1 094 | 14.8 |
| Endocrine, nutritional and metabolic diseases (E00–E90) | 47 | 11.2 | 675 | 9.1 |
| Diseases of the circulatory system I00–I99) | 113 | 27.0 | 2 016 | 27.3 |
| Diseases of the respiratory system (J00–J99) | 32 | 7.7 | 637 | 8.6 |
| Diseases of the digestive system (K00–K93) | 19 | 4.5 | 360 | 4.9 |
| External causes of morbidity and mortality (V01–Y98) | 56 | 13.4 | 1 198 | 16.2 |
| **All causes** | **418** | **100.0** | **7 387** | **100.0** |

(a) Data for Queensland, South Australia, Western Australia and the Northern Territory combined. Deaths are based on year of occurrence of death for 1999–2002 and year of registration for death for 2003.
(b) Includes persons who were of both Torres Strait Islander and Aboriginal origin.
*Source: AIHW, National Mortality Database*

## ECONOMIC AND SOCIAL CHARACTERISTICS

Results from the 2002 NATSISS and 2001 Census indicate that the educational, economic and social circumstances of Torres Strait Islanders are similar to those of Indigenous people overall, with some differences between the circumstances of Torres Strait Islander people living in the Torres Strait Area and those who live in other parts of Australia.

*Language spoken at home*

The preservation of language through everyday use is an important element in the maintenance of culture, and proficiency in spoken English improves access to services and mainstream educational and employment opportunities.

Results from the 2001 Census show that a majority (82%) of Torres Strait Islander people aged 15 years or over in the Torres Strait Area spoke a language other than English at home. Just over half (52%) spoke an Oceanian Pidgin or Creole (e.g. Tok Pisin) and 29% spoke an Australian Indigenous language (e.g. Torres Strait Creole). Five out of six Torres Strait Islander people in the Torres Strait Area (84%) who spoke a language other than English at home also assessed themselves as competent English speakers (Appendix 6).

In 2002, three-quarters (75%) of Torres Strait Islander people aged 15 years or over spoke English as their main language at home. A further 11% spoke an Aboriginal or Torres Strait Islander language and 14% spoke another language—most likely an Oceanian Pidgin or Creole (e.g. Tok Pisin). One in ten Torres Strait Islander people reported difficulty understanding and/or being understood by service providers where English was the only language spoken (table 12.8).

## 12.8 MAIN LANGUAGE SPOKEN AT HOME AND DIFFICULTY COMMUNICATING WITH SERVICE PROVIDER(S)—2002

| | | *Torres Strait Islander*(a) | *Indigenous* |
|---|---|---|---|
| Main language spoken at home | | | |
| English only | % | (b)74.7 | (b)85.9 |
| Aboriginal or Torres Strait Islander language | % | 11.4 | 12.0 |
| Other language(c) | % | (b)13.9 | (b)2.0 |
| Has difficulty communicating with service provider(s)(d) | % | 10.0 | 10.3 |
| **Indigenous persons aged 15 years or over** | no. | **29 800** | **282 200** |

(a) Includes people who are of both Torres Strait Islander and Aboriginal origin.
(b) Difference between Torres Strait Islander and Indigenous data is statistically significant.
(c) Includes Oceanian Pidgins and Creoles.
(d) Refers to services or offices where only English is spoken. Asked of all persons, including those whose main language was English.
*Source: ABS, 2002 NATSISS*

*Highest year of school completed*

In 2001, the Year 12 completion rate for Torres Strait Islander people aged 18 years or over in the Torres Strait Area (33%) was higher than that for both Torres Strait Islander people in other parts of Australia (27%) and for Indigenous people overall (20%) (Appendix 6). This is due, in part, to relatively high Year 12 completion rates among Indigenous people in Queensland, when compared with Indigenous people living in all other states and the Northern Territory.

Results from the 2002 NATSISS and 2002 GSS show that Torres Strait Islander people (26%) and Indigenous people overall (18%) were less likely to have completed Year 12 than non-Indigenous people aged 18 years or over (44%) (table 12.9)

## 12.9 HIGHEST YEAR OF SCHOOL COMPLETED(a)—2002

| | | *Torres Strait Islander*(b)(c) | *Indigenous*(d) | *Non-Indigenous*(c)(d) |
|---|---|---|---|---|
| **Highest year of school completed**(e) | | | | |
| Year 12 | % | (f)26.2 | (f)18.5 | 43.5 |
| Year 10 or Year 11 | % | 45.2 | 40.7 | 35.5 |
| Year 9 or below(g) | % | (f)28.6 | (f)40.8 | 21.0 |
| **Total** | % | 100.0 | 100.0 | 100.0 |
| **Persons aged 18 years or over who were not still at school** | no. | **26 900** | **249 900** | **14 292 100** |

(a) Items in this table are comparable between the 2002 NATSISS and 2002 GSS. Data have not been age standardised.

(b) Includes people who are of both Torres Strait Islander and Aboriginal origin.

(c) All differences between Torres Strait Islander and non-Indigenous data are statistically significant.

(d) All differences between Indigenous and non-Indigenous data are statistically significant.

(e) Includes people with a non-school qualification. Excludes people still at school.

(f) Differences between Torres Strait Islander data and Indigenous data are statistically significant.

(g) Includes people who never attended school.

*Source: ABS, 2002 NATSISS and 2002 GSS*

*Highest non-school qualification*

In 2001, Torres Strait Islander people aged 25–64 years in the Torres Strait Area (23%) were less likely to have a non-school qualification than those in other parts of Australia (28%) (Appendix 6). In the 2002 NATSISS, around one-third of Torres Strait Islander people (33%) and Indigenous people overall (32%) reported a non-school qualification, compared with 57% of non-Indigenous people (table 12.10).

## 12.10 HIGHEST NON-SCHOOL QUALIFICATION(a)—2002

| | | *Torres Strait Islander*(b)(c) | *Indigenous*(d) | *Non-Indigenous*(c)(d) |
|---|---|---|---|---|
| Highest non-school qualification | | | | |
| Bachelor degree or higher | % | **4.2 | 4.6 | 20.6 |
| Certificate or diploma | | | | |
| Certificate III or above(e) | % | 15.1 | 14.4 | 26.3 |
| Certificate I/II | % | 11.0 | 9.8 | 8.5 |
| Total with a non-school qualification(f) | % | 33.0 | 32.1 | 56.9 |
| No non-school qualification | % | 67.0 | 67.9 | 43.1 |
| Total | % | 100.0 | 100.0 | 100.0 |
| **Persons aged 25–64 years who were not still at school** | no. | **19 900** | **186 400** | **10 258 000** |

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

(a) Items in this table are comparable between the 2002 NATSISS and 2002 GSS. Data have not been age standardised.

(b) Includes people who are of both Torres Strait Islander and Aboriginal origin.

(c) Apart from Certificate I/II, differences between Torres Strait Islander and non-Indigenous data are statistically significant.

(d) Apart from Certificate I/II, differences between Indigenous and non-Indigenous data are statistically significant.

(e) Includes people with a Diploma or Advanced Diploma.

(f) Includes level of non-school qualification not determined.

*Source: ABS, 2002 NATSISS and 2002 GSS*

*Labour force status*

In 2002, the labour force participation rate for Torres Strait Islander people aged 18–64 years was 70%. The participation rate for Torres Strait Islander men (80%) was higher than that for women (60%) (table 12.11).

*Labour force status continued*

Just over half (55%) of Torres Strait Islander people aged 18–64 years were employed in 2002, including 15% who were participating in the Community Development Employment Projects (CDEP) scheme (table 12.11). Results from the 2001 Census show that CDEP work comprised almost half (48%) of all employment for Torres Strait Islander people aged 18–64 years in the Torres Strait Area whereas a majority (95%) of employed Torres Strait Islander people living in other parts of Australia were in mainstream jobs (Appendix 7).

The unemployment rate for Torres Strait Islander people aged 18–64 years was 22% in 2002, similar to that for Indigenous people overall (20%) (table 12.11).

## 12.11 LABOUR FORCE CHARACTERISTICS(a)—2002

| | | *Torres Strait Islander*(b)(c) | *Indigenous*(d) | *Non-Indigenous*(d)(c) |
|---|---|---|---|---|
| Labour force status | | | | |
| Employed | | | | |
| Employed—CDEP | % | *14.6 | 13.5 | . . |
| Employed—Other | % | 40.1 | 37.8 | 74.4 |
| Total | % | 54.7 | 51.3 | 74.4 |
| Unemployed | % | 15.0 | 13.0 | 4.6 |
| Not in the labour force | % | 30.3 | 35.7 | 21.1 |
| Total | % | 100.0 | 100.0 | 100.0 |
| Labour force participation rate | | | | |
| Males | % | 80.4 | 76.5 | 86.9 |
| Females | % | 60.3 | 53.3 | 70.8 |
| Persons | % | 69.7 | 64.3 | 78.9 |
| Employment to population ratio | | | | |
| Males | % | 62.7 | 60.5 | 82.0 |
| Females | % | 47.6 | 43.0 | 66.6 |
| Persons | % | 54.7 | 51.3 | 74.4 |
| Unemployment rate | | | | |
| Males | % | 22.0 | 20.9 | 5.6 |
| Females | % | 21.1 | 19.4 | 6.0 |
| Persons | % | 21.6 | 20.3 | 5.8 |
| **Persons aged 18–64 years** | no. | **26 100** | **238 500** | **12 131 600** |

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

. . not applicable

(a) Items in this table are comparable between the 2002 NATSISS and 2002 GSS. Data have not been age standardised.

(b) Includes people who are of both Torres Strait Islander and Aboriginal origin.

(c) All differences between Torres Strait Islander and non-Indigenous data are statistically significant.

(d) All differences between Indigenous data and non-Indigenous data are statistically significant.

*Source: ABS, 2002 NATSISS and 2002 GSS*

*Income*

An equivalence scale developed for the Organization for Economic Cooperation and Development (OECD) has been used to adjust the actual incomes of households so that the relative wellbeing of people in households of different size and composition can be compared. This adjusted income is called equivalised gross household income and amounts are presented on a per person per week basis. For more information on the calculation of equivalised gross household income, refer to the Glossary.

*Income continued*

In 2002, the mean equivalised income of all Torres Strait Islander people aged 18 years or over ($377 per week) was lower than for Indigenous people overall ($394 per week), and equal to 57% of the mean equivalised gross household income for non-Indigenous adults ($665 per week) (table 12.12).

People with low incomes can be defined as those with mean equivalised gross household income in the second and third deciles (see Glossary for more information). While 20% of the non-Indigenous population had incomes in the second or third income deciles, 46% of Torres Strait Islander people were in this low income group in 2002 (table 12.12).

### 12.12 SELECTED HOUSEHOLD CHARACTERISTICS(a)—2002

| | | *Torres Strait Islander*(b)(c) | *Indigenous*(d) | *Non-Indigenous*(c)(d) |
|---|---|---|---|---|
| Income | | | | |
| Mean equivalised gross household income per week(e) | $ | (f)377 | (f)394 | 665 |
| Second and third income deciles | % | (f)46.3 | (f)37.5 | 19.8 |
| Housing tenure | | | | |
| Owner | | | | |
| Without a mortgage | % | 11.0 | 10.0 | 38.5 |
| With a mortgage | % | *19.9 | 16.5 | 34.6 |
| ***Total owner/purchasers*** | % | ***30.9*** | ***26.5*** | ***73.1*** |
| Renter | | | | |
| State or Territory housing authority | % | *16.6 | 21.2 | 3.8 |
| Indigenous Housing Organisation/Community housing | % | *22.0 | 24.5 | 0.4 |
| Private and other renters | % | 27.9 | 24.2 | 20.1 |
| ***Total renters*** | % | ***66.6*** | ***69.6*** | ***24.3*** |
| Total(g) | % | 100.0 | 100.0 | 100.0 |
| State of repair of dwelling | | | | |
| Dwelling has major structural problems | % | 34.4 | 39.3 | . . |
| No repairs or maintenance in last 12 months | % | 32.0 | 35.4 | . . |
| **Persons aged 18 years or over** | no. | **27 000** | **251 400** | **14 353 800** |

* estimate has a relative standard error of 25% to 50% and should be used with caution
. . not applicable
(a) Items in this table are comparable between the 2002 NATSISS and 2002 GSS. Data have not been age standardised.
(b) Includes people who are of both Torres Strait Islander and Aboriginal origin.
(c) Apart from Private and other renters, differences between Torres Strait Islander and non-Indigenous data are statistically significant.
(d) All differences between Indigenous and non-Indigenous data are statistically significant.
(e) Derived from gross household income in occupied private dwellings, where all incomes were reported.
(f) Difference between Torres Strait Islander and Indigenous data is statistically significant.
(g) Includes people in dwellings being purchased under a rent/buy scheme or occupied rent-free or under a life tenure scheme.

*Source: ABS, 2002 NATSISS and 2002 GSS*

*Housing*

The relationship between adequate housing and the general health and wellbeing of Indigenous people has been discussed in Chapter 4 of this report. In addition to home ownership, community and cooperative housing can offer people secure tenure. In 2001, a relatively high proportion of Torres Strait Islander people aged 18 years or over in the Torres Strait Area (58%) were living in community or cooperative housing, compared with 7% of Torres Strait Islander people living elsewhere (Appendix 7). In 2002, 31% of Torres Strait Islander people aged 18 years or over were living in houses that were owned or being purchased (table 12.12).

*Housing continued*

Results from the 2002 NATSISS indicate that around one-third of Torres Strait Islander people aged 18 years or over were living in dwellings that had major structural problems(34%) and/or in dwellings where no maintenance or repairs had been carried out in the preceding year (32%) (table 12.12).

*Information technology*

In 2002, around one in five (22%) of Torres Strait Islander people aged 15 years or over did not have a working telephone in their home. In the preceding year, 58% of the Torres Strait Islander population had used a computer and 42% had accessed the Internet, most commonly at home (table 12.13).

### 12.13 ACCESS TO COMMUNICATION AND INFORMATION TECHNOLOGY—2002

| | | *Torres Strait Islander*(a) | *Indigenous* |
|---|---|---|---|
| Does not have a working telephone at home | % | (b)21.5 | (b)28.7 |
| Used a computer in last 12 months | | | |
| at home | % | 31.2 | 31.7 |
| elsewhere(c) | % | 47.3 | 46.6 |
| ***Total***(d) | % | ***58.0*** | ***55.5*** |
| Accessed the Internet in last 12 months | | | |
| at home | % | 20.3 | 20.2 |
| elsewhere(c) | % | 34.4 | 34.4 |
| ***Total***(d) | % | ***41.6*** | ***41.0*** |
| **Indigenous persons aged 15 years or over** | no. | **29 800** | **282 200** |

(a) Includes people who are of both Torres Strait Islander and Aboriginal origin.
(b) Difference between Torres Strait Islander and Indigenous data is statistically significant.
(c) Includes work, school, public libraries and other peoples' homes.
(d) Components do not add to total as people may have provided more than one response.
*Source: ABS, 2002 NATSISS*

### 12.14 THE ISLAND WATCH (LAGAW ASMER) PROJECT

As part of the Australian Government's Networking the Nation program, the $5.5 million Island Watch project has been established to provide enhanced and affordable telecommunications to people living in the Torres Strait. It is anticipated that the installation of video-conferencing facilities in 15 locations will be beneficial in enabling doctors to make remote diagnoses and conduct pre-admission consultations with patients. As well as video-conferencing facilities, the Island Watch project will also provide many households with the opportunity, for the first time, to have a phone in their home or to access the mobile phone network (with a proposed pre-paid billing product). Local businesses, government agencies and community members throughout the Torres Strait will also gain Internet and email access. Improved access to phones (for personal safety) and video-conferencing facilities (to assist with the delivery of training, education and medical services) should have a positive impact on the health and wellbeing of Torres Strait Islanders.

*Source: Namalata Thusi, Issue 25, 3rd quarter 2004 and Office of Government ICT, Queensland Government Department of Public Works.*

*Cultural attachment*

In 2002, seven out of ten Torres Strait Islander people aged 15 years or over had attended a cultural event in the preceding year. Commonly reported activities included attendance at festivals involving art, craft music and dance (38%), and sports carnivals and ceremonies (both 33%). Although one in six Torres Strait Islander people (16%) reported living in traditional country, 67% recognised their homelands and 44% said they identified with a clan, tribal group or language group (table 12.15).

### 12.15 CULTURAL ATTACHMENT—2002

| | | *Torres Strait Islander*(a) | *Indigenous* |
|---|---|---|---|
| Identifies with clan, tribal/language group | % | (b) 44.3 | (b) 54.1 |
| Recognises homelands | % | 67.2 | 69.6 |
| Currently lives in homelands/traditional country | % | (b) 16.4 | (b) 21.9 |
| Attended cultural event(s) in last 12 months | | | |
| Attended funeral | % | 46.7 | 46.6 |
| Attended ceremony | % | (b) 32.5 | (b) 23.5 |
| Attended sports carnival | % | 33.3 | 29.8 |
| Attended festival/carnival involving arts, craft, music or dance | % | 38.1 | 35.7 |
| Involved with Aboriginal/Torres Strait Islander organisation | % | 27.0 | 26.1 |
| ***Total reporting at least one cultural event***(c) | % | ***70.4*** | ***68.1*** |
| **Indigenous persons aged 15 years or over** | no. | **29 800** | **282 200** |

(a) Includes people who are of both Torres Strait Islander and Aboriginal origin.

(b) Differences between Torres Strait Islander and Indigenous data are statistically significant.

(c) Components do not add to total as people may have provided more than one response.

*Source: ABS, 2002 NATSISS*

*Social participation*

The 2002 NATSISS and 2002 GSS collected information on a range of social characteristics such as participation in community activities, support in times of crisis, and personal and financial stressors.

Most Torres Strait Islander people reported an active involvement in community life in 2002. In the three months prior to interview, 89% of Torres Strait Islander people aged 18 years or over had been involved in social activities. In the preceding year, 51% had participated in sport or physical recreation activities and 29% in voluntary work (table 12.16).

## 12.16 SELECTED SOCIAL CHARACTERISTICS(a)—2002

| | | *Torres Strait Islander*(b) | *Indigenous*(c) | *Non-Indigenous*(c) |
|---|---|---|---|---|
| Family and culture | | | | |
| Involved in social activities in last 3 months | % | 89.0 | 89.5 | 92.2 |
| Participated in sport or physical recreation activities in last 12 months | % | (d)51.1 | 45.6 | (d)64.2 |
| Had undertaken voluntary work in last 12 months | % | 29.3 | 27.6 | 34.4 |
| Able to get support in time of crisis from someone outside household | % | 90.5 | 90.5 | 94.0 |
| At least one stressor experienced in last 12 months | % | (d)82.6 | 82.6 | (d)57.3 |
| Financial stress | | | | |
| Unable to raise $2,000 within a week for something important | % | (d)54.2 | 54.3 | (d)13.6 |
| Had at least one cash flow problem in last 12 months(e) | % | (d)44.0 | 44.7 | (d)19.3 |
| **Persons aged 18 years or over** | no. | **27 000** | **251 400** | **14 353 800** |

(a) Items in this table are comparable between the 2002 NATSISS and 2002 GSS. Data have not been age standardised.
(b) Includes people who are of both Torres Strait Islander and Aboriginal origin.
(c) Differences between Indigenous and non-Indigenous data are statistically significant.
(d) Differences between Torres Strait Islander and non-Indigenous data are statistically significant.
(e) Data collected in non-remote areas only.

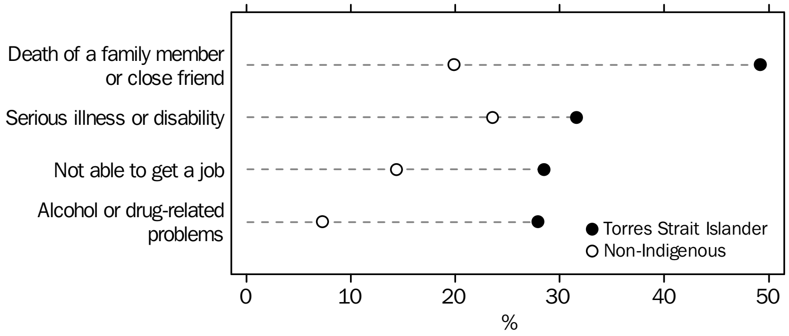
*Source: ABS, 2002 NATSISS and 2002 GSS*

*Stressors*

In 2002, five out of six Torres Strait Islander people aged 18 years or over (83%) had experienced at least one personal stressor in the previous year and 44% of those in non-remote areas were in households where cash flow problems had been experienced. Nevertheless, 90% of Torres Strait Islander people reported that they were able to get support from someone outside their household in times of crisis (table 12.16 above).

The most commonly reported personal stressor among Torres Strait Islander people and non-Indigenous people aged 18 years or over was the death of a family member or friend (49% and 20%, respectively). More than one-quarter of Torres Strait Islander people reported serious illness or disability (32%), inability to find work (28%), and/or alcohol or drug-related problems (28%) (graph 12.17). One-quarter (25%) of Torres Strait Islander people reported stress as a result of overcrowding at home.

## 12.17 SELECTED PERSONAL STRESSORS(a)(b) — 2002, Persons aged 18 years or over



(a) Data have not been age standardised. All differences between Torres Strait Islander and non-Indigenous data are statistically significant.
(b) People may have reported more than one of these stressors.

*Source: ABS, 2002 NATSISS and 2002 GSS*

### *Neighbourhood problems*

Serious neighbourhood problems are often associated with poor socioeconomic circumstances rather than Indigenous status alone. Torres Strait Islander people, along with Indigenous people generally, often report high levels of theft, vandalism and violence in their immediate environment. In 2002, around three-quarters (73%) of Torres Strait Islander people aged 15 years or over reported at least one problem in their neighbourhood or community. 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%) (table 12.18).

### 12.18 SELECTED NEIGHBOURHOOD PROBLEMS—2002

| | | *Torres Strait Islander*(a)(b) | *Indigenous*(b) |
|---|---|---|---|
| Neighbourhood/community problems reported(c) | | | |
| Theft including burglaries, theft from homes, motor vehicle theft | % | 42.0 | 43.0 |
| Problems involving youths, such as youth gangs/lack of youth activity | % | 32.1 | 32.3 |
| Vandalism/graffiti/damage to property | % | 32.9 | 32.9 |
| Alcohol | % | 35.6 | 33.5 |
| Illegal drugs | % | 34.8 | 32.3 |
| Family violence | % | 26.5 | 21.2 |
| Assault including sexual assault | % | 25.7 | 21.0 |
| Levels of neighbourhood conflict | % | 23.2 | 14.9 |
| ***Total reporting at least one neighbourhood problem***(d) | % | ***73.4*** | ***73.6*** |
| No neighbourhood/community problems reported | % | 24.9 | 25.3 |
| **Indigenous persons aged 15 years or over** | no. | **29 800** | **282 200** |

(a) Includes people who are of both Torres Strait Islander and Aboriginal origin.
(b) Differences between Torres Strait Islander and Indigenous data are not statistically significant.
(c) Not all reported problems are shown in this table.
(d) Components do not add to total as people may have provided more than one response.

*Source: ABS, 2002 NATSISS*

## HEALTH INDICATORS

Administrative data on hospital separations and results from the 2002 NATSISS provide a range of insights into the health and wellbeing of Torres Strait Islander people and Indigenous people more generally.

### *Self-assessed health and disability*

In 2002, using the three broad self-assessed health status categories, Torres Strait Islander people rated their health similarly to Indigenous people overall. Over one-third (35%) of Torres Strait Islander people aged 15 years or over had a disability or long-term health condition (table 12.19). For information on criteria used to ascertain disability status in the 2002 NATSISS, see Chapter 5 of this report.

*Self-assessed health and disability continued*

## 12.19 SELECTED HEALTH AND WELLBEING INDICATORS—2002

| | | *Torres Strait Islander*(a)(b) | *Indigenous*(b) |
|---|---|---|---|
| Self-assessed health status | | | |
| Excellent/very good | % | 44.9 | 44.1 |
| Good | % | 32.3 | 32.4 |
| Fair/poor | % | 22.8 | 23.3 |
| Has a disability or long-term health condition | | | |
| Sight, hearing, speech | % | 12.6 | 13.7 |
| Physical | % | 22.1 | 23.6 |
| Intellectual | % | 5.0 | 7.0 |
| Type not specified | % | 14.5 | 16.3 |
| Total(c) | % | 34.8 | 36.5 |
| No disability or long-term health condition | % | 65.2 | 63.5 |
| **Indigenous persons aged 15 years or over** | no. | **29 800** | **282 200** |

(a) Includes people who are of both Torres Strait Islander and Aboriginal origin.
(b) Differences between Torres Strait Islander and Indigenous data are not statistically significant.
(c) Components do not add to total as people may have provided more than one response.
*Source: ABS, 2002 NATSISS*

*Risk factors*

In 2002, just under one-half (44%) of Torres Strait Islander people aged 15 years or over were regular smokers i.e. they smoked at least one cigarette a day. In non-remote areas, 25% of Torres Strait Islander people reported having used an illicit substance in the last 12 months, with a further 19% reporting use of an illicit substance prior to that (table 12.20).

The 2002 NATSISS collected two measures of alcohol consumption using National Health and Medical Research Council (NHMRC) guidelines, one on long-term use (usual consumption patterns) and the other on recent, most heavy use (binge drinking). For more information on the NHMRC guidelines and their use in the 2002 NATSISS, refer to Chapter 8 of this report.

In 2002, around one in five Torres Strait Islander people aged 15 years or over (22%) reported risky or high risk alcohol consumption over the long term (i.e. during the preceding 12 months). The proportion of Torres Strait Islander people who reported risky or high risk alcohol consumption over the short term (previous two weeks) was 39% (table 12.20). While a higher proportion of Torres Strait Islander people than Indigenous people overall reported risky or high risk alcohol consumption in the 2002 NATSISS, these differences are not statistically significant.

In 2002, one-quarter (25%) of Torres Strait Islander people aged 15 years or over reported that they or a relative of theirs had been removed from their natural family, compared with 38% of Indigenous people overall. A similar proportion of Torres Strait Islander people (26%) reported that they had been a victim of physical or threatened violence in the 12 months prior to interview (table 12.20).

*Risk factors continued*

## 12.20 SELECTED RISK FACTORS—2002

| | | Torres Strait Islander(a) | Indigenous |
|---|---|---|---|
| Law and justice | | | |
| Victim of physical or threatened violence in last 12 months | % | 25.9 | 24.3 |
| Arrested by police in last 5 years | % | 12.8 | 16.4 |
| Incarcerated in last 5 years | % | (b)4.6 | (b)7.1 |
| Family | | | |
| Person or relative removed from natural family | % | 25.1 | 37.6 |
| Risk factors | | | |
| Current daily smoker | % | 44.4 | 48.6 |
| Risky/high risk alcohol consumption in last 12 months | % | 21.9 | 15.1 |
| Risky/high risk alcohol consumption in last 2 weeks | % | 38.8 | 34.9 |
| **Indigenous persons aged 15 years or over** | no. | **29 800** | **282 200** |
| Illicit substance use(c) | | | |
| Has used illicit substance(s) | | | |
| in last 12 months | % | 25.5 | 23.5 |
| not in last 12 months | % | 19.1 | 16.1 |
| ***Total*(d)** | % | ***44.9*** | ***40.2*** |
| Has never used illicit substance(s) | % | 49.3 | 51.4 |
| Indigenous persons aged 15 years or over in non-remote areas | no. | 22 400 | 205 100 |

(a) Includes people who are of both Torres Strait Islander and Aboriginal origin.
(b) Difference between Torres Strait Islander and Indigenous data is statistically significant.
(c) Data only available for people in non-remote areas.
(d) Includes people whose use of substance(s) in the last 12 months was not stated.
*Source: ABS, 2002 NATSISS*

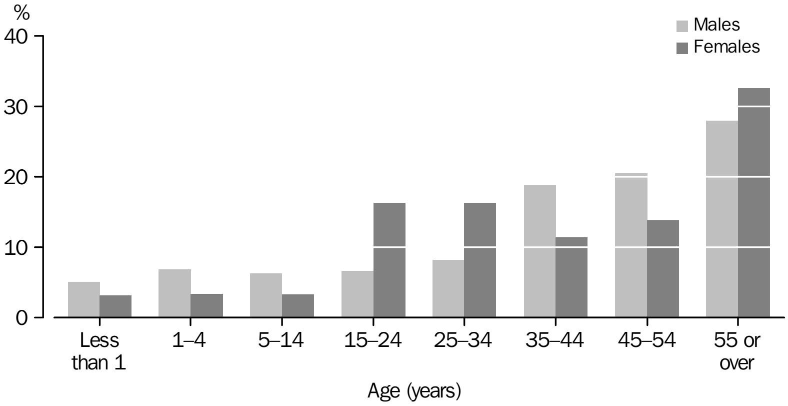
*Hospital separations*

In 2003–04 there were 15,401 hospitalisations involving Torres Strait Islander people, accounting for 7% of all Indigenous hospitalisations. Women comprised around 56% of both Torres Strait Islander and Indigenous patients overall.

Among Torres Strait Islander patients, there were considerable differences in the distribution of males and females according to age. The number of hospitalisations in 2003–04 was high for women of child-bearing age (i.e. aged 15–34 years) and then peaked again for older women (aged 55 years or over). Hospitalisation rates were relatively constant for Torres Strait Islander men under 35 years of age (comprising one-third (33%) of all male hospitalisations) before rising quite rapidly for men aged 35 years or over (graph 12.21).

*Hospital separations continued*

**12.21** HOSPITALISATIONS BY AGE AND SEX—2003–04, Torres Strait Islander people



*Source: AIHW, National Hospital Morbidity Database*

Table 12.22 shows hospitalisations for Torres Strait Islander and Indigenous patients, by principal diagnosis in ICD-10-AM chapter groupings for 2003–04. Care involving dialysis (for kidney disease) was the most commonly recorded principal diagnosis, accounting for 31% of all Torres Strait Islander hospitalisations. Men were more likely than women to be receiving dialysis at a young age. Over one-half of hospitalisations involving Torres Strait Islander men aged 35 years or over (51%) and women aged 55 years or over (59%) were for care involving dialysis (AIHW 2005b).

## 12.22 HOSPITALISATIONS OF TORRES STRAIT ISLANDER PERSONS AND ALL INDIGENOUS PERSONS, by principal diagnosis—2003–04

| | *Torres Strait Islander*(a) | | *Indigenous* | |
|---|---|---|---|---|
| | no. | % | no. | % |
| Certain infectious and parasitic diseases (A00–B99) | 323 | 2.1 | 5 069 | 2.3 |
| Neoplasms (C00–D48) | 429 | 2.8 | 3 279 | 1.5 |
| Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism (D50–D89) | 82 | 0.5 | 1 034 | 0.5 |
| Endocrine, nutritional and metabolic diseases (E00–E90) | 384 | 2.5 | 4 291 | 2.0 |
| Mental and behavioural disorders (F00–F99) | 662 | 4.3 | 9 558 | 4.4 |
| Diseases of the nervous system (G00–G99) | 185 | 1.2 | 3 191 | 1.5 |
| Diseases of the eye and adnexa (H00–H59) | 232 | 1.5 | 1 443 | 0.7 |
| Diseases of the ear and mastoid process (H60–H95) | 159 | 1.0 | 1 807 | 0.8 |
| Diseases of the circulatory system (I00–I99) | 552 | 3.6 | 7 260 | 3.4 |
| Diseases of the respiratory system (J00–J99) | 896 | 5.8 | 16 041 | 7.4 |
| Diseases of the digestive system (K00–K93) | 872 | 5.7 | 11 604 | 5.4 |
| Diseases of the skin and subcutaneous tissue (L00–L99) | 367 | 2.4 | 5 230 | 2.4 |
| Diseases of the musculoskeletal system and connective tissue (M00–M99) | 407 | 2.6 | 3 858 | 1.8 |
| Diseases of the genitourinary system (N00–N99) | 538 | 3.5 | 5 949 | 2.8 |
| Pregnancy, childbirth and the puerperium (O00–O99) | 1 640 | 10.6 | 16 783 | 7.8 |
| Certain conditions originating in the perinatal period (P00–P96) | 195 | 1.3 | 2 349 | 1.1 |
| Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99) | 104 | 0.7 | 851 | 0.4 |
| Symptoms, signs and abnormal clinical and laboratory findings, n.e.c. (R00–R99) | 578 | 3.8 | 9 317 | 4.3 |
| Injury, poisoning and certain other consequences of external causes (S00–T98) | 1 156 | 7.5 | 17 318 | 8.0 |
| Factors influencing health status and contact with health services (Z00–Z99) | 795 | 5.2 | 7 727 | 3.6 |
| ***Total excluding care involving dialysis*** | ***10 560*** | ***68.6*** | ***134 159*** | ***62.1*** |
| Care involving dialysis (Z49) | 4 841 | 31.4 | 81 983 | 37.9 |
| **Total**(b) | **15 401** | **100.0** | **216 142** | **100.0** |

(a) Includes patients who were of both Torres Strait Islander and Aboriginal origin.

(b) Includes a small number of patients for whom no principal diagnosis was recorded.

*Source: AIHW, National Hospital Morbidity Database*

## SUMMARY

While Torres Strait Islander people have their own distinctive cultural identity, they share many of the characteristics of Indigenous Australians generally. They are a relatively young population, with a higher birth rate and lower life expectancy than the non-Indigenous population. Like other Indigenous Australians, Torres Strait Islander people are actively involved in community life. Furthermore, various measures of educational attainment, labour force participation and associated economic status indicate that Torres Strait Islander people experience similar levels of disadvantage as other Indigenous Australians.

# 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 most relevant surveys conducted by the ABS and some of the other data sources 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 listed 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.

**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. Results from the 2001 Census are presented in this publication.

**5** The Census is a count of the whole population at a given point in time, and provides a reliable basis for making future estimates of the population of each state, territory and local government area. These population estimates are used for the distribution of government funds, and to determine the number of seats per state and territory in the Commonwealth Parliament. In addition, the knowledge of the characteristics of the population gained through the Census 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 2001 CHINS collected data about Aboriginal and Torres Strait Islander housing organisations and discrete Aboriginal and Torres Straight Islander communities in Australia.

**7** The survey was conducted throughout Australia between March and June 2001, and was the second in a series of surveys conducted by the ABS on behalf of, and with full funding from, the then Aboriginal and Torres Strait Islander Commission (ATSIC). The 2006 CHINS will be funded by the Australian Government Department of Family and Community Services.

**8** The 2001 CHINS was administered in conjunction with field preparations for the 2001 Census. Although called a survey, the 2001 CHINS was designed as an enumeration of all 1,216 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 616

## COMMUNITY HOUSING AND INFRASTRUCTURE NEEDS SURVEY (CHINS) *continued*

Indigenous Housing Organisations managing housing for Aboriginal and Torres Strait Islander people.

**9** More information on the survey is available in ABS 2002a.

## GENERAL SOCIAL SURVEY (GSS)

**10** The 2002 GSS collected information regarding health, housing, education, work, income, financial stress, assets and liabilities, transport, family and community, and crime.

**11** The 2002 GSS was conducted throughout Australia from March to July 2002 by the ABS. It collected information from 15,500 people aged 18 years and over resident in private dwellings in both urban and rural areas in all states and territories, except for very remote areas of Australia.

**12** In this publication, non-Indigenous data from the GSS is used to provide comparisons with the Indigenous population for 2002. 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. 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.

**13** For more information on the GSS, see ABS 2003b. A full list of the data items from the 2002 GSS is contained in the *2002 General Social Survey: Data Reference Package* (cat. no. 4159.0.55.001) available free of charge on the ABS web site <www.abs.gov.au>

## NATIONAL ABORIGINAL AND TORRES STRAIT ISLANDER HEALTH SURVEY (NATSIHS)

**14** The NATSIHS collected information relating to Indigenous health including health status, health actions taken, and lifestyle factors which may influence health.

**15** The survey was conducted between August 2004 and July 2005 and information will be released in early 2006. Building on the 2001 National Health survey, the NATSIHS is a separate six-yearly survey that will be timed to coincide with every second (three-yearly) NHS.

**16** While in 2001 information was collected from about 3,700 Indigenous persons, the sample size for the 2004–05 NATSIHS was approximately 11,000 persons. As in 2001, information was collected from both remote and non-remote areas throughout Australia.

**17** The survey covers content similar to the NHS including: health service use; health risk factors; long-term conditions; and basic demographic information. In addition, the NATSIHS collected other information considered to be of high relevance to the Aboriginal and Torres Strait Islander population, including: social and emotional well-being; discrimination; unmet need (in relation to service access); oral health; and men's health activities. The survey has been field tested in urban, rural and remote areas of Australia with the cooperation of hundreds of Aboriginal and Torres Strait Islander Australians, their community councils and community-controlled health services.

## NATIONAL ABORIGINAL AND TORRES STRAIT ISLANDER SOCIAL SURVEY (NATSISS)

**18** 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.

**19** 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). It is planned that the survey will be repeated at six-yearly intervals.

### NATIONAL ABORIGINAL AND TORRES STRAIT ISLANDER SOCIAL SURVEY (NATSISS) *continued*

**20** 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.

**21** The survey was designed to provide reliable estimates at the national level and for each state and territory. The sample was therefore spread across the states and territories in order to produce estimates that have a relative standard error (RSE) of no greater than 20% for characteristics that are relatively common in the Indigenous population, say that at least 10% of the population would possess. In addition, the Torres Strait Islander population was over-sampled in order to produce data for the Torres Strait Area and the remainder of Queensland.

**22** For more information on the NATSISS, see ABS 2004f. In addition, the *National Aboriginal and Torres Strait Islander Social Survey: Data Reference Package, 2002* (cat. no. 4714.0.55.002) is available free of charge on the ABS web site <www.abs.gov.au>. This package contains a complete listing of the data items collected in the survey, definitional material and sample copies of the questionnaires used in remote and non-remote areas.

### NATIONAL ABORIGINAL AND TORRES STRAIT ISLANDER SURVEY (NATSIS)

**23** The NATSIS was the first national survey of Australia's Indigenous people and was part of the government response to a recommendation by the Royal Commission into Aboriginal Deaths in Custody. It was primarily designed to provide information at the national level on the social, demographic, economic and health status of Indigenous people.

**24** Prior to, and during the development stages of the survey, there was widespread consultation with Indigenous people and organisations to ensure that the information collected was relevant to Indigenous people and was collected in a culturally appropriate manner.

**25** The 1994 NATSIS questionnaire covered the areas of family and culture, health, housing, education and training, employment and income, and law and justice.

**26** The survey was based on personal interviews with a sample of 15,700 Indigenous people within the 35 Aboriginal and Torres Strait Islander Commission (ATSIC) regions and the Torres Strait Area.

**27** More information on the survey is available in ABS 1995.

### NATIONAL DRUG STRATEGY HOUSEHOLD SURVEY (NDSHS)

**28** The NDSHS was managed by the Australian Institute of Health and Welfare (AIHW) on behalf of the Australian Government Department of Health and Ageing, and collected information from households on individual's drug use patterns, attitudes and behaviours.

**29** The 2001 NDSHS represented the seventh in the National Drug Strategy series since the program's inception in 1985, and surveyed 27,000 persons aged 14 years or over. Of these, 415 persons identified as either Aboriginal, Torres Strait Islander, or both. The relatively small Indigenous sample limits the confidence with which analysis can take place.

**30** More information on the survey is available in AIHW 2002a.

### NATIONAL HEALTH SURVEY (NHS)

**31** The NHS collected information relating to health and included topics such as long-term illnesses experienced, mental wellbeing, injuries, consultations with doctors and other health professionals, and health risk factors including alcohol consumption, smoking, exercise, body mass and dietary practices.

NATIONAL HEALTH SURVEY (NHS) *continued*

**32** The 2001 NHS was conducted by the ABS from February to November 2001. This was the fifth in the series of health surveys conducted by the ABS; previous surveys were conducted in 1977–78, 1983, 1989–90 and 1995.

**33** The 2001 NHS sample covered usual residents of private dwellings only. Usual residents of 'special' dwellings such as hotels, motels, hostels, hospitals and prisons were not included in the survey.

**34** Approximately 26,900 people from all states and territories and across all age groups were included in the 2001 survey, including 483 Indigenous persons. To enhance the reliability of estimates for the Indigenous population, a supplementary sample of 3,200 Indigenous respondents was obtained for the survey. This was conducted throughout Australia from June to November 2001. The Indigenous results included in this publication are based on the total sample (known as the NHS(I)) of 3,700 Indigenous Australians comprising 1,853 adults and 1,828 children.

**35** For more information of the 2001 NHS, see ABS 2002b and 2002c. In addition, the *National Health Survey: User's Guide* (cat. no. 4363.0.55.001) is available free of charge from the ABS website <http://www.abs.gov.au>.

NATIONAL HOSPITAL MORBIDITY DATABASE (NHMD)

**36** The NHMD is a national collection of de-identified hospital separation records (discharges, transfers, deaths or changes in type of episode of care) 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 detail regarding the NHMD is available from the AIHW 2005b.

NATIONAL MORTALITY DATABASE (NMD)

**37** The National Mortality Database (NMD) is a national collection of de-identified information for all deaths in Australia. This Database, maintained by the AIHW, includes deaths registered in Australia from 1964 to the present. 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 is updated each calendar year, towards the end of the year, with the previous calendar year's data.

WESTERN AUSTRALIAN ABORIGINAL CHILD HEALTH SURVEY (WAACHS)

**38** The WAACHS collected information on child and youth development, health and wellbeing, functional impairment and disability, use and access to health, education and social services, and diet and nutrition. The survey was conducted by the Telethon Institute for Child Health Research in conjunction with the Kulunga Research Network.

**39** The survey was administered between May 2000 and June 2002. It collected information from 5,300 Western Australian and Torres Strait Islander children aged between 0 and 17 years who lived in metropolitan, rural and remote regions of Western Australia.

**40** For more information on the WAACHS, see Zubrick et al. 2004 and 2005, or the Institute's website <www.ichr.uwa.edu.au>.

# ABBREVIATIONS

| | |
|---|---|
| **AACR** | Australasian Association of Cancer Registries |
| **ABS** | Australian Bureau of Statistics |
| **ACIR** | Australian Childhood Immunisation Register |
| **ACRS** | Aboriginal Child Rearing Strategy |
| **ACT** | Australian Capital Territory |
| **ADC** | Aboriginal Dental Clinic |
| **ADL** | activities of daily living |
| **AHURI** | Australian Housing and Urban Research Institute |
| **AIDS** | Acquired Immune Deficiency Syndrome |
| **AIHW** | Australian Institute of Health and Welfare |
| **AIL** | activities of independent living |
| **AMD** | age-related macular degeneration |
| **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 |
| **ASCED** | Australian Standard Classification of Education |
| **ASCO** | Australian Standard Classification of Occupations |
| **ASGC** | Australian Standard Geographical Classification |
| **ATSIC** | Aboriginal and Torres Strait Islander Commission |
| **ATSIHWIU** | Aboriginal and Torres Strait Islander Health and Welfare Information Unit |
| **Aust.** | Australia |
| **AWEC** | activities of work, education and community living |
| **BEACH** | Bettering the Evaluation and Care of Health |
| **cat. no.** | Catalogue number |
| **CAP** | Crisis Accommodation Program |
| **CDEP** | Community Development Employment Projects |
| **CHINS** | Community Housing and Infrastructure Needs Survey |
| **COPD** | chronic obstructive pulmonary disease |
| **CRA** | Commonwealth Rent Assistance |
| **CSHA** | Commonwealth–State Housing Agreement |
| **CSOM** | chronic suppurative otitis media |
| **CSTDA** | Commonwealth State/Territory Disability Agreement |
| **dmft** | decayed, missing and filled (deciduous) teeth |
| **DASR** | Drug and Alcohol Service Report |
| **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 |
| **DSP** | Disability Support Pension |
| **DSRU** | Dental Statistics and Research Unit |

| | |
|---|---|
| **DTP** | diphtheria, tetanus and pertussis vaccine |
| **ERP** | estimated resident population |
| **ESRD** | end-stage renal disease |
| **FaCS** | Australian Government Department of Family and Community Services |
| **FTE** | full-time equivalent |
| **GP** | General Medical Practitioner |
| **GSS** | General Social Survey |
| **HACC** | Home and Community Care |
| **Hib** | Haemophilus influenza type B |
| **HIV** | Human Immunodeficiency Virus |
| **HMC** | Housing Ministers’ Conference |
| **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 |
| **ICD-9** | International Classification of Diseases, 9th Revision |
| **ICH** | Indigenous community housing |
| **ICT** | information and communication technology |
| **IESIP** | Indigenous Education Strategic Initiatives Programme |
| **km** | kilometre |
| **m** | million |
| **MACS** | Multifunctional Aboriginal Children's Services |
| **MCEETYA** | Ministerial Council on Education, Employment, Training and Youth Affairs |
| **MCHRDB** | Maternal and Child Health Research Data Base |
| **MDS** | minimum data set |
| **MMR** | measles, mumps and rubella |
| **n.e.c.** | not elsewhere classified |
| **no.** | number |
| **NACCHO** | National Aboriginal Community Controlled Health Organisation |
| **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** | The National Centre for Immunisation Research and Surveillance |
| **NCMHCD** | National Community Mental Health Care Database |
| **NCVER** | National Centre for Vocational Education Research |
| **NDSHS** | National Drug Strategy Household Survey |
| **NHMD** | National Hospital Morbidity Database |
| **NHMRC** | National Health and Medical Research Council |
| **NHS** | National Health Survey |
| **NHS(I)** | National Health Survey (Indigenous) |
| **NIELNS** | National Indigenous English Literacy and Numeracy Strategy |
| **NMDS** | National Minimum Data Set |
| **NNDSS** | National Notifiable Diseases Surveillance System |
| **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 |
| **OPV** | Oral Polio Vaccine |
| **ppm** | parts per million |
| **PBS** | Pharmaceutical Benefits Scheme |
| **Qld** | Queensland |
| **RRMAC** | Rural, Remote and Metropolitan Areas Classification |
| **SA** | South Australia |
| **SAAP** | Supported Accommodation Assistance Program |
| **SAR** | Service Activity Reporting |
| **SCRGSP** | Steering Committee for the Review of Government Service Provision |
| **SIDS** | Sudden Infant Death Syndrome |
| **SIGNAL** | Strategic Inter-Governmental Nutrition Alliance |
| **SMR** | standardised mortality ratio |
| **SOMIH** | state and territory owned and managed Indigenous housing |
| **STI** | sexually transmissible infection |
| **Tas.** | Tasmania |
| **TFR** | total fertility rate |
| **UWA** | University of Western Australia |
| **VET** | vocational education and training |
| **Vic.** | Victoria |
| **WA** | Western Australia |
| **WAACHS** | Western Australian Aboriginal Child Health Survey |
| **WHO** | World Health Organization |

## APPENDIX 1

# EXPERIMENTAL INDIGENOUS ESTIMATED RESIDENT POPULATION, 30 JUNE 2001

| | *Aboriginal only*(a) | *Torres Strait Islander only*(a) | *Both Aboriginal and Torres Strait Islander* | ***Total Indigenous*** |
|---|---|---|---|---|
| | | MALES | | |
| 0–4 | 27 063 | 1 890 | 1 598 | **30 551** |
| 5–9 | 28 580 | 1 934 | 1 551 | **32 065** |
| 10–14 | 26 111 | 1 782 | 1 259 | **29 152** |
| 15–19 | 21 049 | 1 494 | 983 | **23 526** |
| 20–24 | 16 557 | 1 295 | 748 | **18 600** |
| 25–29 | 16 190 | 1 184 | 695 | **18 069** |
| 30–34 | 14 936 | 1 032 | 598 | **16 566** |
| 35–39 | 13 181 | 887 | 544 | **14 612** |
| 40–44 | 11 140 | 797 | 534 | **12 471** |
| 45–49 | 8 854 | 706 | 373 | **9 933** |
| 50–54 | 6 731 | 562 | 318 | **7 611** |
| 55–59 | 4 500 | 365 | 224 | **5 089** |
| 60–64 | 3 191 | 292 | 140 | **3 623** |
| 65–69 | 2 143 | 248 | 98 | **2 489** |
| 70–74 | 1 277 | 142 | 54 | **1 473** |
| 75 or over | 1 436 | 188 | 72 | **1 696** |
| Total | 202 939 | 14 798 | 9 789 | **227 526** |
| | | FEMALES | | |
| 0–4 | 26 359 | 1 752 | 1 542 | **29 653** |
| 5–9 | 26 789 | 1 796 | 1 382 | **29 967** |
| 10–14 | 24 448 | 1 593 | 1 263 | **27 304** |
| 15–19 | 20 671 | 1 399 | 983 | **23 053** |
| 20–24 | 16 826 | 1 241 | 742 | **18 809** |
| 25–29 | 17 409 | 1 207 | 733 | **19 349** |
| 30–34 | 16 572 | 1 032 | 692 | **18 296** |
| 35–39 | 14 561 | 883 | 621 | **16 065** |
| 40–44 | 11 885 | 773 | 456 | **13 114** |
| 45–49 | 9 307 | 737 | 381 | **10 425** |
| 50–54 | 7 128 | 574 | 316 | **8 018** |
| 55–59 | 4 799 | 353 | 211 | **5 363** |
| 60–64 | 3 685 | 344 | 156 | **4 185** |
| 65–69 | 2 498 | 248 | 113 | **2 859** |
| 70–74 | 1 692 | 223 | 66 | **1 981** |
| 75 or over | 2 161 | 286 | 106 | **2 553** |
| Total | 206 790 | 14 441 | 9 763 | **230 994** |

(a) Excludes people of both Aboriginal and Torres Strait Islander origin.

*Source:* ABS, Experimental Estimates and Projections, Indigenous Australians (cat. no. 3238.0)

## APPENDIX 2

# ESTIMATES AND PROJECTIONS OF THE INDIGENOUS POPULATION, 1991 TO 2009

| | *New South Wales* | *Victoria* | *Queensland* | *South Australia* | *Western Australia* | *Tasmania* | *Northern Territory* | *Australian Capital Territory* | *Australia*(a) |
|---|---|---|---|---|---|---|---|---|---|
| EXPERIMENTAL ESTIMATED RESIDENT POPULATION | | | | | | | | | |
| 1991 | 107 329 | 22 283 | 100 219 | 20 558 | 52 887 | 13 907 | 46 707 | 2 870 | 366 943 |
| 1992 | 110 115 | 22 885 | 102 867 | 21 116 | 54 211 | 14 263 | 47 722 | 2 966 | 376 331 |
| 1993 | 112 974 | 23 485 | 105 568 | 21 651 | 55 575 | 14 651 | 48 756 | 3 072 | 385 923 |
| 1994 | 115 793 | 24 049 | 108 216 | 22 176 | 56 905 | 15 021 | 49 804 | 3 183 | 395 343 |
| 1995 | 118 679 | 24 655 | 110 887 | 22 685 | 58 264 | 15 419 | 50 894 | 3 298 | 404 984 |
| 1996 | 121 533 | 25 196 | 113 552 | 23 183 | 59 611 | 15 727 | 51 978 | 3 405 | 414 390 |
| 1997 | 124 284 | 25 753 | 116 159 | 23 646 | 60 837 | 16 056 | 52 979 | 3 499 | 423 424 |
| 1998 | 127 022 | 26 317 | 118 605 | 24 124 | 62 117 | 16 381 | 53 820 | 3 606 | 432 207 |
| 1999 | 129 680 | 26 892 | 121 039 | 24 625 | 63 441 | 16 726 | 54 752 | 3 715 | 441 092 |
| 2000 | 132 304 | 27 380 | 123 493 | 25 105 | 64 704 | 17 063 | 55 784 | 3 807 | 449 868 |
| 2001 | 134 888 | 27 846 | 125 910 | 25 544 | 65 931 | 17 384 | 56 875 | 3 909 | 458 520 |
| Median age (years) | 20.1 | 20.8 | 20.1 | 20.8 | 20.6 | 19.5 | 21.8 | 20.7 | 20.5 |
| PROJECTED POPULATION—LOW SERIES | | | | | | | | | |
| 2001 | 134 888 | 27 846 | 125 910 | 25 544 | 65 931 | 17 384 | 56 875 | 3 909 | 458 520 |
| 2002 | 137 061 | 28 435 | 128 606 | 26 046 | 67 162 | 17 614 | 57 758 | 4 008 | 466 925 |
| 2003 | 139 280 | 29 050 | 131 302 | 26 551 | 68 403 | 17 848 | 58 634 | 4 107 | 475 412 |
| 2004 | 141 533 | 29 683 | 134 013 | 27 060 | 69 665 | 18 087 | 59 508 | 4 204 | 483 992 |
| 2005 | 143 824 | 30 329 | 136 754 | 27 578 | 70 945 | 18 333 | 60 373 | 4 300 | 492 677 |
| 2006 | 146 159 | 30 988 | 139 527 | 28 105 | 72 243 | 18 586 | 61 232 | 4 396 | 501 479 |
| 2007 | 148 542 | 31 660 | 142 333 | 28 641 | 73 563 | 18 846 | 62 085 | 4 490 | 510 405 |
| 2008 | 150 971 | 32 345 | 145 174 | 29 185 | 74 903 | 19 115 | 62 932 | 4 586 | 519 459 |
| 2009 | 153 454 | 33 045 | 148 055 | 29 736 | 76 264 | 19 387 | 63 775 | 4 680 | 528 645 |
| PROJECTED POPULATION—HIGH SERIES | | | | | | | | | |
| 2001 | 134 888 | 27 846 | 125 910 | 25 544 | 65 931 | 17 384 | 56 875 | 3 909 | 458 520 |
| 2002 | 140 108 | 29 152 | 130 823 | 26 313 | 68 051 | 17 689 | 57 888 | 4 133 | 474 392 |
| 2003 | 145 539 | 30 529 | 135 855 | 27 095 | 70 224 | 17 999 | 58 895 | 4 366 | 490 739 |
| 2004 | 151 182 | 31 969 | 141 023 | 27 893 | 72 457 | 18 317 | 59 899 | 4 607 | 507 586 |
| 2005 | 157 046 | 33 469 | 146 344 | 28 710 | 74 753 | 18 644 | 60 896 | 4 856 | 524 959 |
| 2006 | 163 141 | 35 031 | 151 825 | 29 550 | 77 113 | 18 982 | 61 886 | 5 115 | 542 886 |
| 2007 | 169 479 | 36 660 | 157 467 | 30 410 | 79 541 | 19 329 | 62 870 | 5 385 | 561 387 |
| 2008 | 176 072 | 38 360 | 163 282 | 31 290 | 82 039 | 19 683 | 63 848 | 5 664 | 580 486 |
| 2009 | 182 932 | 40 134 | 169 277 | 32 189 | 84 602 | 20 045 | 64 820 | 5 953 | 600 201 |

(a) Includes Jervis Bay.

*Source: ABS, 2004e*

# APPENDIX 3 DISABILITY OR LONG-TERM HEALTH CONDITION

| *Criteria used in non-remote areas (Computer-assisted interview)* | *Criteria use in remote areas (Pen and paper interview)* |
|---|---|
| COMMON CRITERIA | |
| Sight problems not corrected by glasses or contact lenses | Problems with your sight or seeing things and cannot see normally wearing glasses or contact lenses |
| Hearing problems | Problems hearing |
| Speech problems | Problems speaking |
| Blackouts, fits or loss of consciousness | Blackouts or fits |
| Difficulty learning or understanding things | Problems learning or understanding things |
| Limited use of arms or fingers | Problems using your arms and fingers |
| Difficulty gripping things | Problems holding things or picking things up |
| Limited use of legs or feet | Problems using your legs and feet |
| Shortness of breath, or difficulty breathing | Trouble breathing that makes doing things difficult |
| Chronic or recurring pain | Pain that makes doing things difficult |
| Long term effects as a result of a head injury, stroke or other brain damage | Problems doing things now because of a knock to the head or a stroke |
| A long term condition that requires treatment or medication | Going to the doctor or clinic or taking any medicine for any other health problems |
| Any other long term condition such as arthritis, asthma, heart disease, Alzheimer's disease, dementia etc. | Going to the doctor/clinic or taking medicine, but still having problems because of these/this health condition |
| BROADER CRITERIA | |
| Any condition that restricts physical activity or physical work (e.g. back problems, migraines) | |
| Any disfigurement or deformity | |
| Any mental illness for which help or supervision is required | |
| Restricted in everyday activities due to a nervous or emotional condition | |

# LIMITATIONS AND RESTRICTIONS

**Specific limitations and restrictions are:**

- Core activity limitations; and/or
- Schooling or employment restrictions (non-remote only)

**Core activities are:**

- Self care–bathing or showering, dressing, eating, using the toilet and managing incontinence;
- Mobility–moving around at home and away from home, getting into or out of a bed or chair; and using public transport;
- Communication–understanding and being understood by others: strangers, family and friends.

**Core activity limitation may be:**

- Non-remote and remote
  - Profound–unable to perform a core activity, or always needing assistance;
  - Severe–sometimes needing assistance to perform a core activity.
- Non-remote only
  - Moderate–not needing assistance, but having difficulty performing a core activity;
  - Mild–having no difficulty performing a core activity, but using aids or equipment because of disability.

# DISABILITY TYPE

## DISABILITY TYPE

*In the 2002 NATSISS, people identified as having a disability or long-term health condition were further categorised as having one or more types of disability. Disability types were determined using the following criteria.*

**Sight, hearing or speech**

Sight problems not corrected by glasses or contact lenses; hearing problems; or speech problems.

**Physical**

Blackouts, fits, loss of consciousness; limited use of arms or fingers; difficulty gripping things; limited use of legs or feet; restricted in everyday activities due to shortness of breath or difficulty breathing; restricted in everyday activities due to chronic or recurring pain; or restricted in everyday activities as a result of head injury, stroke or other brain damage.

People (excluding those living in very remote communities) were also asked about: any condition that restricts physical activity or physical work (e.g. back problems, migraines); or any disfigurement or deformity.

**Intellectual**

Difficulty learning or understanding things.

**Psychological (excludes those living in very remote commmunities)**

Any mental illness for which help or supervision is required; or the person is restricted in everyday activities due to a nervous or emotional condition.

**Disability type not specified**

Restricted in everyday activities due to a long-term condition that requires treatment or medication; or restricted in everyday activities due to any other long-term condition such as arthritis, asthma, heart disease, Alzheimer's disease, dementia etc.

# APPENDIX 6 LANGUAGE AND EDUCATIONAL CHARACTERISTICS, TORRES STRAIT ISLANDER PEOPLES, 2001

| | | TORRES STRAIT ISLANDER(a) | | | | |
|---|---|---|---|---|---|---|
| | | *Torres Strait Area* | *Balance of Australia* | *Total* | *Indigenous* | *Non-Indigenous* |
| Census counts(b) | | | | | | |
| 15 years or over | no. | 3 626 | 22 598 | 26 224 | 249 073 | 14 006 987 |
| 18 years or over | no. | 3 337 | 20 124 | 23 461 | 222 361 | 13 261 409 |
| 25–64 years | no. | 2 310 | 14 329 | 16 639 | 162 416 | 9 414 910 |
| Language spoken at home(c) | | | | | | |
| English only | % | 17.9 | 86.5 | 76.8 | 83.2 | 83.4 |
| Oceanian Pidgin or Creole | % | 52.1 | 4.6 | 11.3 | 1.3 | — |
| Australian Indigenous language | % | 28.5 | 5.7 | 8.9 | 14.5 | — |
| Other language | % | 1.5 | 3.2 | 3.0 | 0.9 | 16.6 |
| Proficiency in English(d) | | | | | | |
| Speaks English well or very well | % | 83.6 | 86.9 | 85.4 | 83.6 | 81.8 |
| Does not speak English well or at all | % | 16.4 | 13.1 | 14.6 | 16.4 | 18.2 |
| Highest year of school completed(e)(f) | | | | | | |
| Year 12 | % | 32.6 | 27.3 | 28.0 | 20.3 | 43.6 |
| Year 10 or Year 11 | % | 37.1 | 43.2 | 42.3 | 41.0 | 36.8 |
| Year 9 or below(g) | % | 30.3 | 29.6 | 29.7 | 38.7 | 19.6 |
| Highest non-school qualification(h) | | | | | | |
| Bachelor degree or higher | % | 2.1 | 4.3 | 4.0 | 4.4 | 18.0 |
| Certificate or diploma | | | | | | |
| Certifcate level III or above(i) | % | 11.7 | 17.0 | 16.2 | 14.0 | 24.9 |
| Certificate level I/II | % | 1.9 | 2.3 | 2.3 | 2.0 | 2.7 |
| Level not determined | % | 6.7 | 4.5 | 4.8 | 3.6 | 3.9 |
| *Total with a non-school qualification* | % | *22.5* | *28.2* | *27.3* | *24.0* | *49.5* |
| No non-school qualification | % | 77.5 | 71.8 | 72.7 | 76.0 | 50.5 |
| Total | % | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

— nil or rounded to zero (including null cells)

(a) Includes people who are of both Torres Strait Islander and Aboriginal origin.

(b) 2001 Census counts on a usual residence basis.

(c) Proportions are based on the 15 years or over population, excluding not stated responses.

(d) Proportions are of people aged 15 years or over who spoke a language other than English at home, excluding not stated responses.

(e) Proportions are based on the 18 years or over population, excluding not stated responses.

(f) Includes people with a non-school qualification. Excludes people who were still at school.

(g) Includes people who never attended school.

(h) Proportions are based on the 25–64 years population, excluding not stated responses.

(i) Includes people with a diploma or advanced diploma.

*Source: ABS, 2001 Census of Population and Housing*

# APPENDIX 7 LABOUR FORCE CHARACTERISTICS AND HOUSEHOLD TENURE TYPE, TORRES STRAIT ISLANDER PEOPLES, 2001

| | | TORRES STRAIT ISLANDER(a) | | | | |
|---|---|---|---|---|---|---|
| | | *Torres Strait Area* | *Balance of Australia* | *Total* | *Indigenous* | *Non-Indigenous* |
| Census counts(b) | | | | | | |
| 18–64 years | | | | | | |
| Males | no. | 1 494 | 9 270 | 10 764 | 102 048 | 5 492 391 |
| Females | no. | 1 563 | 9 480 | 11 043 | 108 876 | 5 573 057 |
| Persons | no. | 3 057 | 18 750 | 21 807 | 210 924 | 11 065 448 |
| 18 years or over in occupied private dwellings | no. | 3 229 | 19 178 | 22 407 | 209 999 | 12 854 941 |
| Labour force status(c) | | | | | | |
| Employed | | | | | | |
| CDEP | % | 32.1 | 2.7 | 6.9 | 8.2 | — |
| Other | % | 35.2 | 48.1 | 46.3 | 38.0 | 70.4 |
| *Total employed* | % | *67.3* | *50.8* | *53.2* | *46.2* | *70.4* |
| Unemployed | % | 3.6 | 12.5 | 11.2 | 11.0 | 5.2 |
| Not in the labour force | % | 29.1 | 36.7 | 35.6 | 42.8 | 24.3 |
| Labour force participation rate(c) | | | | | | |
| Males | % | 83.2 | 73.8 | 75.2 | 66.3 | 84.0 |
| Females | % | 59.0 | 53.0 | 53.9 | 48.7 | 67.4 |
| Persons | % | 70.9 | 63.3 | 64.4 | 57.2 | 75.7 |
| Employment to population ratio(c) | | | | | | |
| Males | % | 78.9 | 58.3 | 61.2 | 52.2 | 77.7 |
| Females | % | 56.1 | 43.5 | 45.3 | 40.5 | 63.3 |
| Persons | % | 67.3 | 50.8 | 53.2 | 46.2 | 70.4 |
| Unemployment rate(c) | | | | | | |
| Males | % | 5.2 | 21.1 | 18.6 | 21.2 | 7.6 |
| Females | % | 4.8 | 17.9 | 15.9 | 16.8 | 6.2 |
| Persons | % | 5.0 | 19.8 | 17.5 | 19.3 | 6.9 |

— nil or rounded to zero (including null cells)

(a) Includes people who are of both Torres Strait Islander and Aboriginal origin.

(b) 2001 Census counts on a usual residence basis.

(c) Proportions are based on the 18–64 years population, excluding not stated responses.

*Source: ABS, 2001 Census of Population and Housing*

| | | TORRES STRAIT ISLANDER(a) | | | | |
|---|---|---|---|---|---|---|
| | | *Torres Strait Area* | *Balance of Australia* | *Total* | *Indigenous* | *Non-Indigenous* |
| Household tenure type(b) | | | | | | |
| Owner/purchaser | | | | | | |
| Fully owned | % | 7.6 | 16.9 | 15.5 | 11.9 | 43.4 |
| Being purchased | % | 1.4 | 16.4 | 14.2 | 15.5 | 29.2 |
| *Total* | % | *9.0* | *33.2* | *29.8* | *27.4* | *72.6* |
| Rented | | | | | | |
| Privately | % | 3.8 | 29.6 | 25.9 | 22.1 | 18.5 |
| State/Territory housing authority | % | 13.8 | 21.3 | 20.2 | 21.0 | 3.5 |
| Community or co-op housing group | % | 58.0 | 7.3 | 14.5 | 21.1 | 0.3 |
| Other | % | 8.2 | 3.1 | 3.8 | 2.9 | 1.4 |
| *Total*(c) | % | *85.2* | *62.4* | 65.6 | *68.0* | *24.1* |
| Other tenure types | % | 5.8 | 4.4 | 4.6 | 4.6 | 3.3 |
| Total(d) | % | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

(a) Includes people who are of both Torres Strait Islander and Aboriginal origin.

(b) Proportions are based on the 18 years or over population living in occupied private dwellings.

(c) Includes people in rented dwellings where landlord was not stated.

(d) Includes people in dwellings being purchased under a rent/buy scheme, or being occupied rent-free or under a life tenure scheme.

*Source: ABS, 2001 Census of Population and Housing*

# GLOSSARY

| | |
|---|---|
| **Ability to raise $2000 within a week** | The household spokesperson's perception of whether they or other members of the household combined could obtain $2000 within a week for something important. |
| **Aboriginal and Torres Strait Islander languages** | Languages in the Australian Indigenous Languages group of the Australian Standard Classification of Languages. Excludes Oceanian Pidgins and Creoles and ‘Aboriginal English’. See also Indigenous language speaker. |
| **Aboriginal people** | People 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. |
| **Access to motor vehicle(s)** | Access that a person has to any motor vehicle to drive. Such motor vehicles include vehicle(s) which they wholly or jointly own, vehicle(s) belonging to another member of the household, and company, work or government vehicle(s) which they or someone else in the household have access to for personal use. This item does not measure the extent of the respondent's access to motor vehicles, only whether access exists or not. Access can be occasional, regular, frequent or only in an emergency. See also Motor vehicle(s). |
| **Administrative data** | Data that are routinely collected in the course of general administration. Includes data from the Registrars of Births, Deaths and Marriages, and hospital morbidity 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. There are two methods of age standardisation: direct and indirect.<br>For direct standardisation, estimates 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 for which would have prevailed if the studied population had the standard age composition.<br>For indirect standardisation, a standardised ratio is calculated by comparing the actual number of events with the number expected if the age-specific rates in the standard population applied to the population of interest. A ratio of greater than one indicates more events than expected, whereas a ratio of less than one indicates fewer events than expected. |
| **Alcohol consumption risk level** | Two measures of alcohol consumption risk were derived from the 2002 National Aboriginal and Torres Strait Islander Social Survey (NATSISS). The first measure was based on a person's reported usual daily consumption of alcohol and the frequency of consumption in the previous 12 months. Chronic risk levels as defined by the National Health and Medical Research Council (NHMRC) are as follows: |

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.

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| **Alcohol consumption risk level** *continued* | The second measure was based on the largest quantity of alcohol consumed in a single day during the fortnight prior to interview. The NHMRC guidelines for acute risk level are: |

RISK OF HARM IN THE SHORT TERM

| *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.

It should be noted that the acute measure of alcohol consumption in the NATSISS did not take into account whether the largest quantity of alcohol consumed in a single day during the previous fortnight was more, less, or the same as usual.

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| **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 in 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. See ABS 2004h for more information. |
| **Attended cultural event(s)** | 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 or Torres Strait Islander organisations. Participation may be for payment or without payment. |
| **Australian Standard Classification of Education (ASCED)** | The ASCED is a national standard classification which includes all sectors of the Australian education system, that is, schools, vocational education and training, and higher education. See *Australian Standard Classification of Education (ASCED), 2001* (ABS cat. no. 1272.0). |
| **Australian Standard Classification of Occupations (ASCO)** | The ASCO is a skill-based classification of occupations which covers all jobs in the Australian workforce. See *Australian Standard Classification of Occupations, Second Edition, 1997* (ABS cat. no. 1220.0). |
| **Before/after school care** | Provides care for school-aged children before and/or after school during the school term. |
| **Body mass index (BMI)** | A measure of body weight relative to height. Calculated from weight (kg) divided by square of height (m). BMI categories are as follows:<br><18.5—underweight<br>18.5–25—healthy weight<br>25–30—overweight<br>>30—obese |
| **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. |
| **Cash flow problems** | Having insufficient funds to meet basic household running costs such as payment for utilities (electricity, gas and telephone) or car registration or insurance, credit card repayments, mortgage or rent payments. The frequency of the occurrence of each event or action was not collected in the 2002 NATSISS. Information on cash flow problems was |

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| **Cash flow problems** *continued* | not collected in very remote communities and represents the cash flow problems of a household, as reported by the household spokesperson. |
| **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 2001. In this publication the word 'Census' indicates the ABS Census of Population and Housing. |
| **Child care** | Both formal and informal care provided for dependent children. In the 2002 NATSISS, questions about child care use were only asked of respondents with primary responsibility for children aged 12 years and under in their household. See also Formal child care and Informal child care. |
| **Clan, tribal or language group** | A group of Aboriginal and/or Torres Strait Islander people who share a common language and/or clan or tribal membership. |
| **Clinically significant emotional or behavioural difficulties** | The Western Australia Aboriginal Child Health Survey administered a version of the Strengths and Difficulties Questionnaire that was specifically modified for Aboriginal children. The responses from the 20 questions about emotional symptoms, conduct problems, hyperactivity and peer problems were combined to produce an overall score ranging from 0–40. The following ranges indicate the risk of clinically significant emotional or behavioural difficulties in Aboriginal children and young people:<br>Low risk—score of 0–13<br>Moderate risk—-score of 14–16<br>High risk—score of 17–40. |
| **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 under 18 years and do not receive social security payments. |
| **Community Development Employment Projects (CDEP) scheme** | The CDEP scheme enables participants (usually members of Aboriginal or 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 program 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 limitation** | A limitation in the performance of one or more core activities such as self-care (eating, washing, dressing, toileting); mobility or communication. In the 2002 NATSISS, a person's overall level of core activity limitation was determined by their highest level of limitation in any one of these activities. Core activity limitation may be profound (always needs help or supervision); severe (sometimes needs help or supervision); moderate (has difficulty but does not need assistance); or mild (uses aid(s) to assist with core activities). See also Disability or long-term health condition. |
| **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 (haemodialysis, peritoneal dialysis)** | A treatment for end-stage renal disease, where the work of the kidneys is performed artificially. In haemodialysis, the patient's blood is passed through a semi-permeable tube where it is cleansed and pumped back into the body. Haemodialysis needs to be performed a few times a week for several hours at a time, either at a hospital/clinic, or at home. In peritoneal dialysis, the patient's abdomen is used instead of the tube. Fluid is |

| | |
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| **Dialysis (haemodialysis, peritoneal dialysis)** *continued* | passed into the abdomen via a semi-permanent catheter. As the patient's blood is cleansed, the fluid is drained and refilled, using gravity. This takes place 4–5 times daily. Continuous ambulatory peritoneal dialysis, where the patient is able to move around, is the most common form of peritoneal dialysis. It can be performed either at home or in a hospital or clinic. |
| **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. |
| **Disability or long-term health condition** | A limitation, restriction, impairment, disease or disorder, which had lasted, or was likely to last for six months or more, and which restricted a person's ability to perform everyday activities. Based on this information, some people were identified as having a schooling or employment restriction only, while others were restricted in the performance of one or more core activities such as self-care, mobility and communication.<br>In order to take into account language use and life circumstances, there were some differences in the collection of disability information in the 2002 NATSISS for people in remote and non-remote areas. See also Core activity limitation, Employment restriction and Schooling restriction. |
| **Discrete Indigenous community** | A geographical location with a physical or legal boundary that is inhabited or intended to be inhabited predominantly (more than 50%) by Indigenous people, with housing and infrastructure that is either owned or managed on a community basis. |
| **dmft (child teeth)** | Used to measure the number of decayed, missing or filled deciduous (child) teeth. It is derived by adding the number of teeth which are decayed, missing or have been filled due to caries (i.e. tooth decay). |
| **DMFT (adult teeth)** | Used to measure the number of decayed, missing or filled permanent (adult) teeth. It is derived by adding the number of teeth which are decayed, missing or have been filled due to caries (i.e. tooth decay). |
| **Dwelling** | In general terms, a dwelling is a structure which is intended to house people. The exact definition of 'dwelling', however, varies slightly between data sources. Within this publication, dwellings are referred to as 'private dwellings', as reported in the Census, and 'permanent dwellings', as reported in the Community Housing and Infrastructure Needs Survey. The term 'occupied private dwelling' is used interchangeably with the term 'private dwelling'.<br>■ A private dwelling is normally a house, flat or even a room occupied by one or more people. It can also be a caravan, houseboat, tent, or a house attached to an office, or rooms above a shop. Houses under construction, derelict houses and vacant tents are not counted, nor are hotels, guest houses, prisons, hospitals or other communal dwellings.<br>■ Permanent dwellings are buildings designed for people to live in, with fixed walls, roof and doors. They usually have kitchen and bathroom facilities, although this is not necessary provided that these facilities could be built into the dwelling. These dwellings are made from regular building materials and are intended for long-term residential use. Dwellings were not considered to be permanent unless they have internal walls dividing the living space into separate rooms. |
| **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 who had a job or business, or who undertook work without pay in a family business, in the week prior to the survey for a minimum of one hour per 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. |
| **Employment restriction** | A person under 65 years of age who has experienced difficulties with employment but has no core activity limitation. See also Core activity limitation and Disability or long-term health condition. |
| **Equivalised gross household income** | Equivalence scales are used to adjust the actual incomes of households in a way that enables the analysis of the relative economic wellbeing of people living in households of different size and composition. For example, it would be expected that a household comprising two people would normally need more income than a lone person household if all of the people in the two households are to enjoy the same material standard of living. Adopting a per capita analysis would address one aspect of household size difference, but would address neither compositional difference (i.e. the numbers of adults compared with the numbers of children) nor the economies derived from living together. When household income is adjusted according to an equivalence scale, the equivalised income can be viewed as an indicator of the economic resources available to a standardised household. For a lone person household, it is equal to income received. For a household comprising more than one person, equivalised income is an indicator of the household income that would be required by a lone person household in order to enjoy the same level of economic wellbeing as the household in question.<br>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 $2100 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 $1000 per week. For more information on the use of equivalence scales, see *Household Income and Income Distribution, Australia, 2003–04* (ABS cat. no. 6523.0). |
| **Equivalised gross household income — deciles** | Groupings of 10% 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 and other persons under the age of 15 years. |
| **Equivalised gross 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 and other persons under the age of 15 years. |
| **Estimated resident population (ERP)** | The official ABS estimate of the Australian population. The ERP is based on results of the Census of Population and Housing and is compiled as at 30 June of 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. Rates are calculated per 1,000 or 100,000 mid-year (30 June) ERP. The Indigenous ERP is considered to be experimental because satisfactory data on births, deaths and migration are not generally available, and because of the volatility of counts of the Indigenous population between censuses. See Chapter 2 for more details. |
| **Family** | A family is defined by the ABS as two or more persons, one of whom is at least 15 years of age, who are related by blood, marriage (registered or de facto), adoption, step or fostering, and who are usually resident in the same household. Some households contain more than one family. Unrelated persons living in the same household are not counted as family members (unless under 15 years of age). |
| **Family day care** | A network of caregivers who provide care for children aged 0–12 years in the carer's own home. |

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| **Financial stress** | Three measures aimed at identifying households that may have been constrained in their activities because of a shortage of money. These measures are the ability to raise 'emergency money'; the existence of cash flow problems; and dissaving actions (e.g. pawning or selling something, or using short-term loans). Information on financial stress represent the problems of a household, as reported by the household spokesperson. See also Ability to raise $2000 within a week and Cash flow problems. |
| **First aid clinic** | A facility where an individual can receive life-saving or pain-relieving primary health care. |
| **Foetal death** | 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. |
| **Formal child care** | Types of formal child care include before and/or after school care, long day care centres, family day care, occasional care programs and preschool/kindergarten. See also Child care and Informal child care. |
| **Gross household income** | See Equivalised gross household income. |
| **Gross personal income** | Refers to regular gross weekly income, which is the income before tax, superannuation, health insurance, or other deductions are made. Gross personal 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. |
| **Health Care Card** | These cards provide for medical and/or related services free of charge or at reduced rates to recipients of Commonwealth government pensions or benefits. |
| **Health status** | See Self-assessed health status. |
| **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, people who were still attending a secondary school were excluded when calculating proportions for this data item. |
| **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 and use a ‘high volume’ client form with a subset of questions from the general client form.<br>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. |
| **Homelands/traditional country** | An area of land with which Aboriginal or Torres Strait Islander people have ancestral and/or cultural links. |
| **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 is 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. |
| **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 provision for his/her own food and other essentials for living, |

| | |
|---|---|
| **Household** *continued* | 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. |
| **Household 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. |
| **Households with Indigenous person(s)** | See Household. |
| **Illicit substance use** | The use of substances for non-medical purposes. Substances include analgesics, tranquillisers, amphetamines, marijuana, heroin, cocaine, hallucinogens (both synthetic and naturally occurring), ecstasy and other designer drugs, petrol and other inhalants, and kava. The 2002 NATSISS collected information on a person's substance use in the 12 months prior to interview and their overall substance use to date. Information on substance use has not been released for persons living in remote areas due to data quality concerns.<br>In the 2001 National Drug Strategy Household Survey, the term 'illicit drugs' included marijuana/cannabis, pain-killers/analgesics, tranquillisers/sleeping pills, steroids, barbiturates, inhalants, heroin, methadone, other opiates, amphetamines, cocaine, hallucinogens, ecstasy/designer drugs, and injected drugs. |
| **Incarceration** | In the 2002 NATSISS, incarceration refers to time spent in jail in the last five years, regardless of the length of time spent in prison. |
| **Incidence** | The number of new cases of a particular illness commencing during a given period in a specified population. See also Prevalence. |
| **Income** | See Gross personal income or Gross household income |
| **Income deciles** | See Equivalised gross household income — deciles. |
| **Income quintiles** | See Equivalised gross household income — quintiles. |
| **Income sources** | See Main current source of personal income. |
| **Independent housing** | Housing which is categorised as owner-occupied, a rooming house, hostel, hotel or private board, public or community housing, private rental, living rent-free or in a car, tent, park, street or squat. |
| **Indigenous household** | An Indigenous household is one that contains one or more Indigenous people. See also 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 — Income unit. |
| **Indigenous language speaker** | A person who speaks an Aboriginal or Torres Strait Islander language well enough to hold a conversation. May exclude some speakers of Oceanian Pidgins or Creoles. See also Aboriginal and Torres Strait Islander languages. |
| **Indigenous people** | People who identified themselves, or were identified by another household member, as being of Aboriginal and/or Torres Strait Islander origin. |
| **Infant mortality rate** | The number of deaths of infants under one year of age (between 0 and 364 days after birth) per 1,000 live births during a given period of time. |

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| **Informal child care** | Includes non-regulated care provided by siblings, a parent who does not live with the child, grandparents, other relatives or unrelated people such as friends, neighbours, nannies or baby-sitters, either within the home or elsewhere. Informal care may be paid or unpaid. See also Child care and Formal child care. |
| **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. See NCCH 2000 for more information. |
| **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. |
| **Labour force participation rate** | 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, Not in the labour force 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. |
| **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-day care centre** | A day care centre that is open for at least eight hours a day and at least 48 weeks a year. Caters mostly for under school-age children whose parents are in the paid workforce, are looking for work, or are in education or training. |
| **Long-term health condition** | See Disability or long-term health condition. |
| **Low birthweight** | Birthweight of less than 2,500 grams. |
| **Low income households** | See Persons in low income households. |
| **Main current source of personal income** | A person's current primary source of income. Sources of income include: cash income received for work in a CDEP scheme; non-CDEP wages or salary; profit or loss from own unincorporated enterprise; property income (rent, interest or dividends); Government cash pensions or allowances; superannuation pensions; and other regular sources (e.g. child support and worker's compensation). If total current income was nil or negative the main source was undefined. |
| **Mainstream employment** | Non-CDEP jobs. See also Community Development Employment Projects scheme. |
| **Major cities** | Geographical areas within the 'Major cities of Australia' category of the Australian Standard Geographical Classification (ASGC) Remoteness Structure. See Remoteness Area. |

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| **Major structural problems** | Refers to the general condition of a dwelling and identifies specific structural problems such as rising damp; major cracks in walls/floors; sinking or moving foundations; sagging floors; walls or windows that are not plumb, wood rot or termite damage; major electrical problems; major plumbing problems; and major roof defects. |
| **Median** | The median is a midpoint of a distribution. Half the values occur above this point and half below. |
| **Median income** | The midpoint of the distribution of income values. |
| **Morbidity** | Any departure, subjective or objective, from a state of physiological or psychological wellbeing. |
| **Motor vehicle(s)** | Includes all cars, station wagons, trucks, utilities, vans, motorbikes, motorised bicycles, mopeds and motor scooters. It does not include caravans, horse floats, boats and trailers. Vehicles being purchased (jointly or alone) are regarded as belonging to the respondent or another household member. See also Access to motor vehicle(s). |
| **Multiple causes of death** | All morbid conditions, diseases and injuries entered on the death certificate. These include those 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. |
| **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-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 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. Non-school qualifications may be attained concurrently with school qualifications. Responses have been coded according to the *ABS Australian Standard Classification of Education (ASCED), 2001.* |
| **Not in the labour force** | Includes 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. |
| **Occasional care** | Provides care mainly for under school-age children. These services cater mainly for families who require short-term care for their children. |
| **Other households** | See Household. |
| **Overcrowding** | See Proxy Occupancy Standard. |
| **Participation in sport and physical recreation activities** | Participation in a sport or physical recreational activity in the last 12 months. Includes persons involved in 'non-playing roles', such as coaches, officials, umpires and administrators. |
| **Perinatal death/mortality** | A foetal or neonatal death. |
| **Perinatal mortality rate** | The number of perinatal deaths per 1,000 total births in the same year. |
| **Permanent dwelling** | See Dwelling. |

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| **Persons in low income households** | The 20% of people with equivalised gross household incomes between the bottom 10% and the bottom 30% of incomes. People with equivalised gross household income in the lowest decile (including those with negative income) have been excluded since they tend to have expenditure patterns more in common with higher income households than with other households at the bottom of the income distribution. For more information on this issue, see *Household Income and Income Distribution, Australia 2003–04* (cat. no. 6523.0) See also Equivalised gross household income and Equivalised gross household income — deciles. |
| **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 dwelling** | See 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 core activity limitation** | See Core activity limitation and Disability or long-term health condition. |
| **Proxy Occupancy Standard** | This standard considers households requiring two or more additional bedrooms to be overcrowded. Standard bedroom requirements for specified households are as follows:<br>■ single adult — 1 bedroom<br>■ single adult (group) — 1 bedroom per adult<br>■ couple with no children — 2 bedrooms<br>■ sole parent or couple with 1 child — 2 bedrooms<br>■ sole parent or couple with 2 or 3 children — 3 bedrooms<br>■ sole parent or couple with 4 or more children — 4 bedrooms. |
| **Public transport** | Modes of transport that travel on fixed routes, at regular times, and which are available to everybody in the area being serviced. Includes buses, trains, trams or light rail, and boat or ferry services. Transport services available on demand (e.g. taxis) are excluded. |
| **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. 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. For example, the age standardised proportion of Indigenous people aged 18 years or over with a disability or long-term health condition in non-remote areas was 56.6% while the comparable proportion for non-Indigenous people was 40.0%. Dividing 56.6% by 40.0% produces an Indigenous to non-Indigenous age standardised rate ratio of 1.4. That is, after taking into account age differences between the populations, the disability rate for Indigenous people is 1.4 times that of non-Indigenous people. |
| **Regional** | Geographical areas within the 'Inner regional Australia' and 'Outer regional Australia' categories of the *Australian Standard Geographical Classification (ASGC) Remoteness Structure*. See 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 Remoteness Area. |

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| **Remoteness Area** | Within a state or territory, each Remoteness Area represents an aggregation of non-contiguous geographical areas which share common characteristics of remoteness, determined in the context of Australia as a whole.<br>The delimitation criteria for Remoteness Areas are based on the Accessibility/Remoteness Index of Australia (ARIA) developed by then Commonwealth Department of Health and Aged Care and the National Key Centre for Social Applications of GIS. 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.<br>There are six Remoteness Areas in this structure:<br>■ Major Cities of Australia: Collection Districts (CDs) with an average ARIA index value of 0 to 0.2<br>■ Inner Regional Australia: CDs with an average ARIA index value greater than 0.2 and less than or equal to 2.4<br>■ Outer Regional Australia: CDs with an average ARIA index value greater than 2.4 and less than or equal to 5.92<br>■ Remote Australia: CDs with an average ARIA index value greater than 5.92 and less than or equal to 10.53<br>■ Very Remote Australia: CDs with an average ARIA index value greater than 10.53<br>■ Migratory: composed on off-shore, shipping and migratory CDs.<br>For more information, see *Statistical Geography Volume 1, Australian Standard Geographical Classification (ASGC), 2001* (ABS cat. no. 1216.0). |
| **Removal from natural family** | A person that has been 'taken away' from their natural family. Includes the removal, as a child, from natural family as part of government policy, and which may have occurred under old welfare policies as well as more recent ones. 'Family' may include extended family members such as aunts, uncles and grandparents. Interviewers were instructed to exclude persons who had been removed from their family for a period of less than six months and those who had been separated from their family for other reasons, such as family dissolution or traditional adoption. |
| **Repairs and maintenance** | Work carried out on a dwelling in order to prevent deterioration or to repair or restore the dwelling to its original condition. Repairs and maintenance work is usually of a lesser value than renovations, alterations or additions. Types of repairs and maintenance include: painting; roof repair and maintenance, tile repair and maintenance, electrical work and plumbing. |
| **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 considered important to prevent. |
| **Schooling restriction** | Difficulty with education of a person aged 18–20 years who otherwise had no core activity limitation. See also Core activity limitation and Disability or long-term health condition. |
| **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. |
| **Separation (hospital)** | See Hospitalisation. |
| **Severe core activity restriction** | See Core activity limitation and Disability or long-term health condition. |
| **Smoker status** | In the 2002 NATSISS, smoker status was collected from persons aged 15 years or over and referred to the extent to which a person was smoking at the time they were interviewed. People were categorised as occasional smokers (less than one smoke per day, on average); regular smokers (at least one smoke per day); ex-smokers; and those who have never smoked. Smoking in this context includes the regular smoking of tobacco (both manufactured (packet) cigarettes and roll-your-own cigarettes), cigars and pipes. Excludes chewing tobacco and non-tobacco products (e.g. marijuana). |

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| **Smoker status** *continued* | In the 2001 National Health Survey, smoking status was collected from adults aged 18 years or over, and referred to regular smoking (at the time of the interview) of tobacco, including manufactured (packet) cigarettes, roll-your-own cigarettes, cigars and pipes, but excluded chewing tobacco and smoking of non-tobacco products. 'Regular smoking' was defined as one or more cigarettes (or pipes or cigars) per day on average as reported by the respondent. |
| **Social housing** | Rental housing provided by state or territory housing authorities, Indigenous Housing Organisations and mainstream community housing organisations. |
| **Source of income** | See Main current source of personal income. |
| **Source(s) of support** | Family members, friends, neighbours, work colleagues and various community, government and professional organisations that a person has nominated as source(s) of support to them in times of crisis. See also Support in time of crisis. |
| **Stressor(s)** | One or more events or circumstances which a person considers to have been a problem for themself or someone close to them in the last 12 months. Personal stressors in the 2002 NATSISS included: serious illness; accident or disability; the death of a family member or close friend; mental illness; divorce or separation; inability to obtain work; involuntary loss of a job; alcohol or 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; pressure to fulfil cultural responsibilities; 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. See also Source(s) of support. |
| **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** | The number of children a woman would bear during her lifetime if she experienced current age-specific fertility rates throughout her reproductive life. |
| **Transport difficulties** | A person's perceived level of difficulty in accessing or using transport to get to places as needed e.g. work; school; the shops; government services; health services and hospitals; or anywhere else the respondent considers they need to go on a regular basis. Temporary difficulties such as a car breaking down are excluded. According to their responses a person may then be categorised as being easily able to get to places as needed; sometimes having difficulty; often having difficulty; or unable to get to places as needed. |
| **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** | Persons who were not employed and actively looking for work in the four weeks prior to the survey, and were available to start work in the week prior to the survey. See also Labour force status. |
| **Unemployment rate** | The unemployment rate is the number of unemployed people expressed as a percentage of the labour force (i.e. employed plus unemployed persons). |
| **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. |

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| **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. |
| **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. |
| **Vocational education and training** | Vocational training delivered by publicly funded training providers (e.g. TAFE, agricultural colleges, and some schools and private providers). |
| **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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