Australian Government
Australian Institute of Health and Welfare

The health and welfare of Australia's Aboriginal and Torres Strait Islander peoples

2015

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Contents

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Abbreviations

AATSIHS	Australian Aboriginal and Torres Strait Islander Health Survey
ABS	Australian Bureau of Statistics
ACT	Australian Capital Territory
AHS	Australian Health Survey
AIDS	acquired immune deficiency syndrome
AIHW	Australian Institute of Health and Welfare
ALT	alanine aminotransferase
ANZDATA	Australia and New Zealand Dialysis and Transplant Registry
ASGS	Australian Statistical Geography Standard
CACP	Community Aged Care Packages
CAEPR	Centre for Aboriginal Economic Policy Research
CDEP	Community Development Employment Projects
COAG	Council of Australian Governments
COPD	chronic obstructive pulmonary disease
CRA	Commonwealth Rent Assistance
EACH	Extended Aged Care at Home
EACHD	Extended Aged Care at Home Dementia
eGFR	estimated glomerular filtration rate
GGT	gamma glutamyl transferase
GP	general practitioner
HbA1c	glycosylated haemoglobin
HDL	high density lipoprotein
HIV	human immunodeficiency virus
ICD-10-AM	International Statistical Classification of Diseases and Related Health Problems, 10th revision, Australian modification
ICF	Indigenous Community Frame
IER	Indigenous expenditure report
LDL	low density lipoprotein
MBS	Medicare Benefits Schedule
MPS	Multi-Purpose Service
NAGATSIHID	National Advisory Group on Aboriginal and Torres Strait Islander Health Information and Data
NAPLAN	National Assessment Program—Literacy and Numeracy
NATSIFACP	National Aboriginal and Torres Strait Islander Flexible Aged Care Program
NATSIHMS	National Aboriginal and Torres Strait Islander Health Measures Survey
NATSIHS	National Aboriginal and Torres Strait Islander Health Survey

NATSINPAS	National Aboriginal and Torres Strait Islander Nutrition and Physical Activity Survey
NHMD	National Hospital Morbidity Database
NHMRC	National Health and Medical Research Council
NMD	National Mortality Database
NSW	New South Wales
NT	Northern Territory
PBS	Pharmaceutical Benefits Scheme
Qld	Queensland
SA	South Australia
SDAC	Survey of Disability, Ageing and Carers
SEWB	social and emotional wellbeing
SIDS	sudden infant death syndrome
SOMIH	state owned and managed Indigenous housing
Tas	Tasmania
Vic	Victoria
WA	Western Australia

Symbols

—	nil or rounded to zero (when used in a table)
. .	not applicable
n.a.	not available

Introduction

1

1.1 Background

Aboriginal and Torres Strait Islander people live in all parts of the nation—from large cities to small country towns, from remote tropical coasts to the fringes of the central deserts. They speak a multitude of languages and belong to hundreds of distinct descent groups. The health and welfare of Indigenous people living in the big cities are different to those living in the Torres Strait, which are different again to those living on the outskirts of Alice Springs or those living in remote communities.

Currently, there are over 700,000 Indigenous people in Australia, accounting for 3% of the Australian population. They are the descendants of people who began to occupy Australia more than 50,000 years ago. At the time of European colonisation, an estimated 320,000 Indigenous people occupied Australia, the majority living in the southeast, and in the Murray River valley and its tributaries (ABS 2002b).

Colonisation severely disrupted Aboriginal society and economy—epidemic disease caused an immediate loss of life, and the occupation of land by settlers and the restriction of Aboriginal people to 'reserves' disrupted their ability to support themselves. Over time, this combination of factors had such an impact that by the 1930s only an estimated 80,000 Indigenous people remained in Australia (Smith 1980).

Although hundreds of Indigenous people served in the Australian armed forces, especially in the Second World War, it was not until 1962 that Indigenous people had the right to vote, and not until 1967 that a national referendum recognised them as 'people of their own country', and included them in the national census. Also, it was not until 1992 that the High Court of Australia declared that the legal concept of *terra nullius* ('land belonging to no-one') was invalid as applied to Australia. The concept essentially assumed that Australia was unoccupied at the time of colonisation and that land could be acquired through occupation (or settlement).

The physical and social environments in which people live play an important role in whether they live a life relatively free of serious illness. This is particularly the case for Indigenous people who still suffer from 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 economic disadvantage, due in part to their lower education and employment levels. All of these factors interact to contribute to poor health in many groups of Indigenous people. The consequent and often substantial difference in almost all measures of health and welfare between Indigenous and non-Indigenous Australians has become known as 'the Gap'.

In 2008, all governments in Australia committed to work towards 'Closing the Gap', with the Council of Australian Governments (COAG) agreeing to 6 specific targets and timelines (COAG 2012a). The targets are set out in the National Indigenous Reform Agreement between the Australian Government and the state and territory governments (COAG 2012b). Box 1.1 outlines the 6 targets as at July 2012; summaries on progress towards meeting these targets are included in relevant sections of this report.

In May 2014, COAG agreed to an additional target to close the gap in school attendance within 5 years (SCRGSP 2014b). Nationally consistent measures for that target were not available at the time of writing.

Box 1.1: COAG Closing the Gap targets for Indigenous disadvantage

- Close the gap in life expectancy within a generation (by 2031).
- Halve the gap in mortality rates for Indigenous children under 5 within a decade (by 2018).
- Ensure all Indigenous children aged 4 in remote communities have access to early childhood education within 5 years (by 2013).
- Halve the gap in reading, writing and numeracy achievements for Indigenous students within a decade (by 2018).
- Halve the gap for Indigenous people aged 20–24 in Year 12 or equivalent attainment rates by 2020.
- Halve the gap in employment outcomes between Indigenous and non-Indigenous Australians within a decade (by 2018).

Source: COAG 2012b.

Central to 'Closing the Gap' is the recognition that good health is not determined solely by the presence or absence of pathogens and the failure of bodily functions (that is, clinical illness); it is more holistic and is also closely associated with the social and behavioural determinants of health, as well as the performance of health systems. Such determinants include:

- socioeconomic factors (for example, education, employment, income and home ownership)
- behaviour (for example, smoking, alcohol consumption, illicit drug use, physical activity, exercise, diet, breastfeeding and unsafe sex)
- environmental factors (for example, housing, overcrowding and passive smoking).

Many determinants are directly or indirectly associated with relative poverty and levels of income.

Another aspect of the 'Gap' between Indigenous and non-Indigenous Australians is the recognition that conditions experienced before birth and during infancy and childhood have critical consequences on health throughout a person's life. Recognition of the consequences in later life of conditions experienced in childhood and youth has led to appreciation of the fact that, in general, the earlier in a person's life that health and welfare interventions occur, the better the outcomes for that person later in life. Hence possibilities for closing the gap are much greater when there is a focus on families, and on maternal and childhood health and welfare, including living conditions.

Much of the data in this report are presented at the national level and, where possible, by remoteness. But the diversity of the Indigenous population must always be kept in mind.

Reports on the health and welfare of Australia's Aboriginal and Torres Strait Islander people frequently make for gloomy reading. While this report shows that significant gaps between Indigenous and non-Indigenous Australians remain, it also highlights the many areas where significant improvements are continuing or emerging. This report will inform all those interested in the health and welfare of Indigenous people and will assist in ongoing efforts to understand and improve their situation.

1.2 Purpose and structure of this report

This is the eighth report in an Australian Institute of Health and Welfare (AIHW) series that covers topics regarded as important for the improvement of the health and welfare of Aboriginal and Torres Strait Islander people. Until 2008, these reports were prepared jointly with the Australian Bureau of Statistics (ABS) (ABS & AIHW 2008). The first report produced solely by the AIHW was released in 2011 (AIHW 2011b).

This report aims to provide a comprehensive picture of the health and welfare of Australia's Indigenous population, presenting the latest information on a range of topics including key demographic and economic characteristics, factors that influence health, main conditions causing ill health and mortality, life expectancy and mortality patterns, service use, and health and welfare expenditure. Some of the links between education, employment and health are also explored, as are links between selected risk factors and health.

The timing of publication of this edition intentionally allowed for the inclusion of information from the 2011 Census of Population and Housing, as well as the 2012–13 Australian Aboriginal and Torres Strait Islander Health Survey (AATSIHS). The report also draws on the most recent information available from a number of administrative data collections held by the AIHW, as well as from a large number of other data sources.

The remainder of the report provides the following information:

- Chapter 2 describes a number of key characteristics of the Indigenous population including demographic characteristics, household composition and cultural identification. Some information about Torres Strait Islander people is also provided.
- Chapter 3 describes the economic participation of Indigenous people, including education, employment and access to economic resources; information about housing and community safety is also provided.
- Chapter 4 looks at various factors that influence the health of Indigenous people including behavioural, biomedical, psychological, and socioeconomic and environmental factors.
- Chapter 5 describes self-assessed health status and the prevalence of major health conditions among Indigenous people, together with information on service use for these conditions; information on the prevalence of disability is also provided.
- Chapter 6 provides details about Indigenous life expectancy and mortality patterns, including trends over time and the main causes of death; trends in mortality for various age groups are also presented.
- Chapter 7 considers the use of health and welfare services by Indigenous people.
- Chapter 8 outlines expenditure on health and welfare, and describes Indigenous participation in the health and community services workforces.

Throughout this report, a particular emphasis is placed on describing differences among Indigenous Australians that are associated with where they live. Although, like the Australian population at large, the majority of Indigenous Australians live in cities located along the east coast, they make up almost half of the total number of people who live in *Very remote* areas. The tendency for Indigenous Australians to live in *Remote* and *Very remote* areas can create particular challenges in a number of areas, including employment, housing, and the delivery of health care and welfare services.

Good quality data are essential to measure and monitor the health and welfare of Australia's population. In recent decades, major improvements have been made to the quality and availability of health- and welfare-related information about Indigenous Australians. Nonetheless, existing data about Indigenous people are subject to some limitations including:

- changes in the propensity of people to identify as Indigenous which affects the comparability of data over time—see Box 1.2
- under-identification and undercounting of Indigenous people.

Box 1.2: Change in Indigenous identification over time

In data collections, Indigenous people are generally identified based on self-reporting—that is, the Indigenous population in a data collection consists of those people who identified themselves, or were identified by another household member, as being of Aboriginal and/or Torres Strait Islander origin.

According to Census counts, the number of Indigenous Australians has increased considerably over the last 2 decades, with a particularly large increase of 21% between 2006 and 2011 (compared with a 9% increase for non-Indigenous people). The majority (70%) of this increase can be explained by population growth (that is, more births than deaths). However, the remaining 30% cannot be explained by demographic factors; instead, improvements in Census coverage, a decrease in the number of records with unknown Indigenous status, and an increased likelihood that individuals identified themselves and their children as Indigenous were considered to contribute to this part of the increase.

The majority of the increase in the 'unexplained' count of Indigenous people between 2006 and 2011 occurred among those living in non-remote areas (90%), and in New South Wales and Queensland (67% collectively). Children accounted for more of the unexplained count than adults.

Changes in the propensity of individuals to identify as Indigenous may affect the comparability of data about Indigenous people over time. Note, however, that we do not know if, and by how much, the changes in Indigenous identification evident in Census data have occurred in other data collections.

New Indigenous population estimates used in this report

In April 2014, the ABS released new Indigenous population estimates based on 2011 Census data. These estimates included backcasts of the Indigenous population, as well as population projections to 2026. The new backcast estimates of the Indigenous population, based on the 2011 Census counts, are considerably larger than those previously published (based on earlier Census counts). For example:

- the estimate of the Indigenous population at 30 June 2001 based on the 2001 Census was 458,500 people
- the revised estimate for 2001 based on the 2011 Census is 534,700 people—17% more than the earlier estimate.

The Indigenous population estimates based on the 2011 Census were used for all new calculations of rates presented in this report. Due to this, some discrepancies may exist between the rates shown in this report and previously published rates that used population estimates based on the 2006 Census.

Sources: ABS 2012b, 2013f, 2013k, 2014h.

For some notes about this report, including some of the terminology used within it, see Box 1.3. Further information on the quality of data about Indigenous people, and details about key data collections used in this report are in Appendix A.

Box 1.3: Notes about this report

The term '**Aboriginal and Torres Strait Islander people**' is preferred in AIHW publications when referring to the separate Indigenous peoples of Australia. However, the term 'Indigenous' is used interchangeably with 'Aboriginal and Torres Strait Islander' in order to assist readability.

Throughout this report, all references to tables that include an 'S' in the table number (for example, Table S2.1) are **supplementary tables**. These tables are available on the AIHW website <www.aihw.gov.au>.

Because of the different age structures of the Indigenous and non-Indigenous populations, **age-standardised rates** are often used in this report when comparing Indigenous to non-Indigenous people—such rates remove the influence of age on the comparisons. As well, **rate differences** and **rate ratios** are frequently provided in order to more readily compare the rates for Indigenous and non-Indigenous people. For an explanation of how to interpret these statistics and for other technical notes, see Appendix B.

Key concepts and terms are explained in the **Glossary**.

The Indigenous population

2

Key points

Population demographics

- There were about 713,600 Aboriginal and Torres Strait Islander people in Australia in 2014, accounting for 3.0% of the total population.
- In 2011, 10% of the Indigenous population identified as being of Torres Strait Islander origin (63,700 people). Almost two-thirds (63%) of the Torres Strait Islander population lived in Queensland.
- The Indigenous population has a relatively young age structure—in 2011, the median age was 21.8 years compared with 37.6 years for the non-Indigenous population, while over one-third (36%) were aged under 15 compared with 18% of non-Indigenous people.
- The birth rate for Indigenous women is relatively high—in 2013, the total fertility rate for Indigenous women was 2.3 babies per woman, compared with 1.9 for all women.
- The average number of children ever born to Indigenous women aged 40–44 fell from 4.55 children in 1981 to 2.63 children in 2011.

Geographical distribution

- Most Indigenous Australians live in non-remote areas—79% in 2011—rather than remote areas (21%). By comparison, 98% of non-Indigenous Australians lived in non-remote areas, and 2% in remote areas.
- Of all people living in remote areas, the proportion who are Indigenous is relatively high—in 2011, 45% of people living in *Very remote* areas and 16% of people living in *Remote* areas were Indigenous.
- Almost one-third (30%) of people living in the Northern Territory were Indigenous in 2014, compared with 5% or less in other jurisdictions.

Household composition

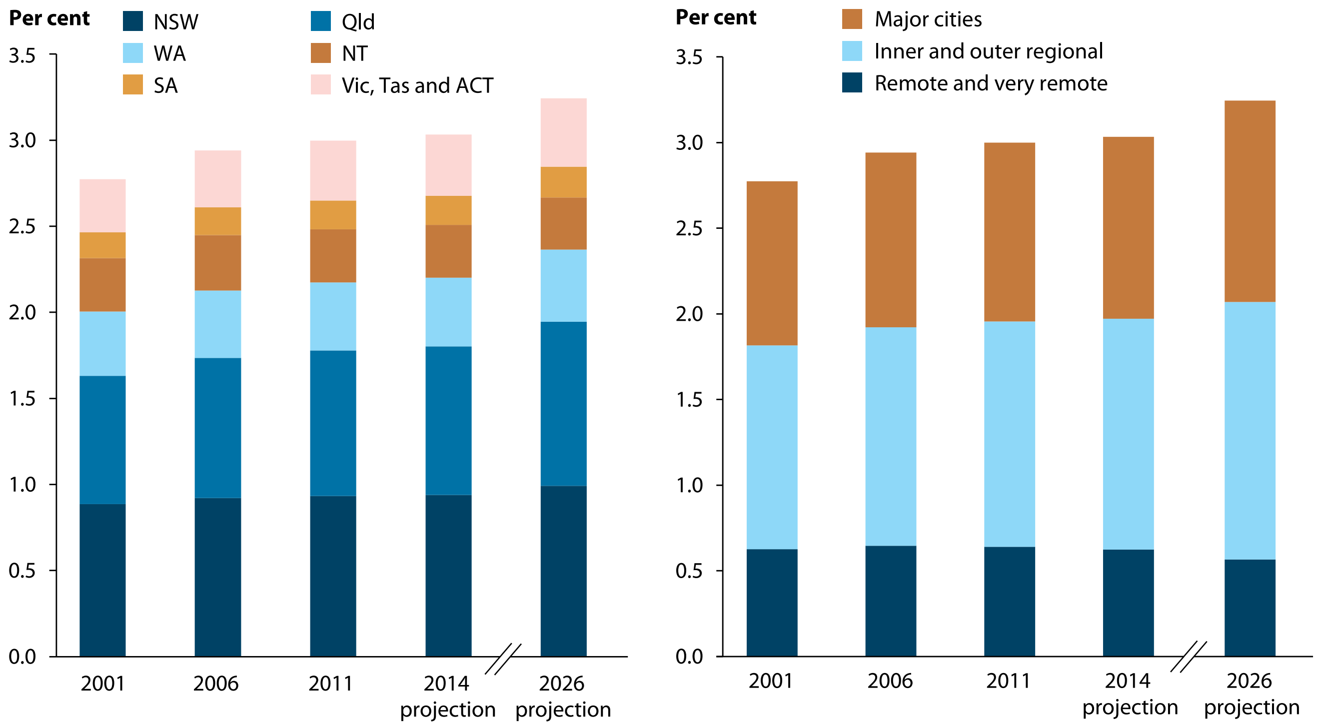
- In 2011, 2.7% of all households were Indigenous households (an estimated 209,000 households). Indigenous households comprised an average of 3.3 people compared with 2.6 people in other households.
- About 1 in 5 Indigenous households (21%) were a one-parent family with dependent children in 2011 compared with 6% of other households.

Culture and language

- Of the more than 250 known Australian Indigenous languages, about 120 were still spoken in 2012. In 2005, 145 Indigenous languages were spoken.
- According to the 2011 Census, 11% of Indigenous people spoke an Indigenous language at home; this was the same proportion as recorded in the 2006 Census.
- Almost 2 in 3 Indigenous adults (63%) identified with a regional group, tribal group, language group, clan or mission in 2012–13. Rates of identification were higher with increasing remoteness.
- In 2012–13, almost 3 in 4 Indigenous adults (73%) recognised an area as their homelands or traditional country; the proportion who did so was highest in *Very remote* areas (91%).
- One in 4 Indigenous adults (25%) lived on their homelands or traditional country in 2012–13, with those in remote areas most likely to do so (36% in *Remote* areas and 52% in *Very remote* areas).

2.1 Population size

There were an estimated 713,600 Indigenous people in Australia in June 2014 (Table S2.1), with slightly more females (357,000) than males (356,600). Indigenous people accounted for 3.0% of the total Australian population of 23.5 million (ABS 2014h). The Indigenous proportion of the Australian population has increased since 2001, when Indigenous people made up 2.8% of the total population (Figure 2.1).



Notes

1. Estimates and projections are for 30 June of each year. Projections are based on ABS medium-level growth assumptions (Series B).
2. Data for this figure are shown in Table S2.1.

Sources: ABS 2013m, 2014h, 2014j.

Figure 2.1: Proportion of the Australian population who is Indigenous, by jurisdiction and remoteness, selected years

Projections by the ABS suggest that by 2026, the Indigenous population will be around 925,000 and will account for 3.2% of the Australian population (Table S2.1). This suggests an average growth rate of 2.2% per year between 2011 and 2026 (ABS 2014h); the comparable growth rate for the non-Indigenous population is 1.6% (AIHW analysis of ABS 2013m, 2014h).

The Indigenous population is projected to increase across all age groups between 2011 and 2026, although at different rates. The number of Indigenous children aged 0 to 14 is projected to increase by 25%, the number aged 15 to 54 by 35%, and the number aged 55 and over is projected to more than double (114%) (AIHW analysis of ABS 2014h).

In terms of geographical distribution, the largest projected population growth between 2011 and 2026 is expected to occur among Indigenous people who:

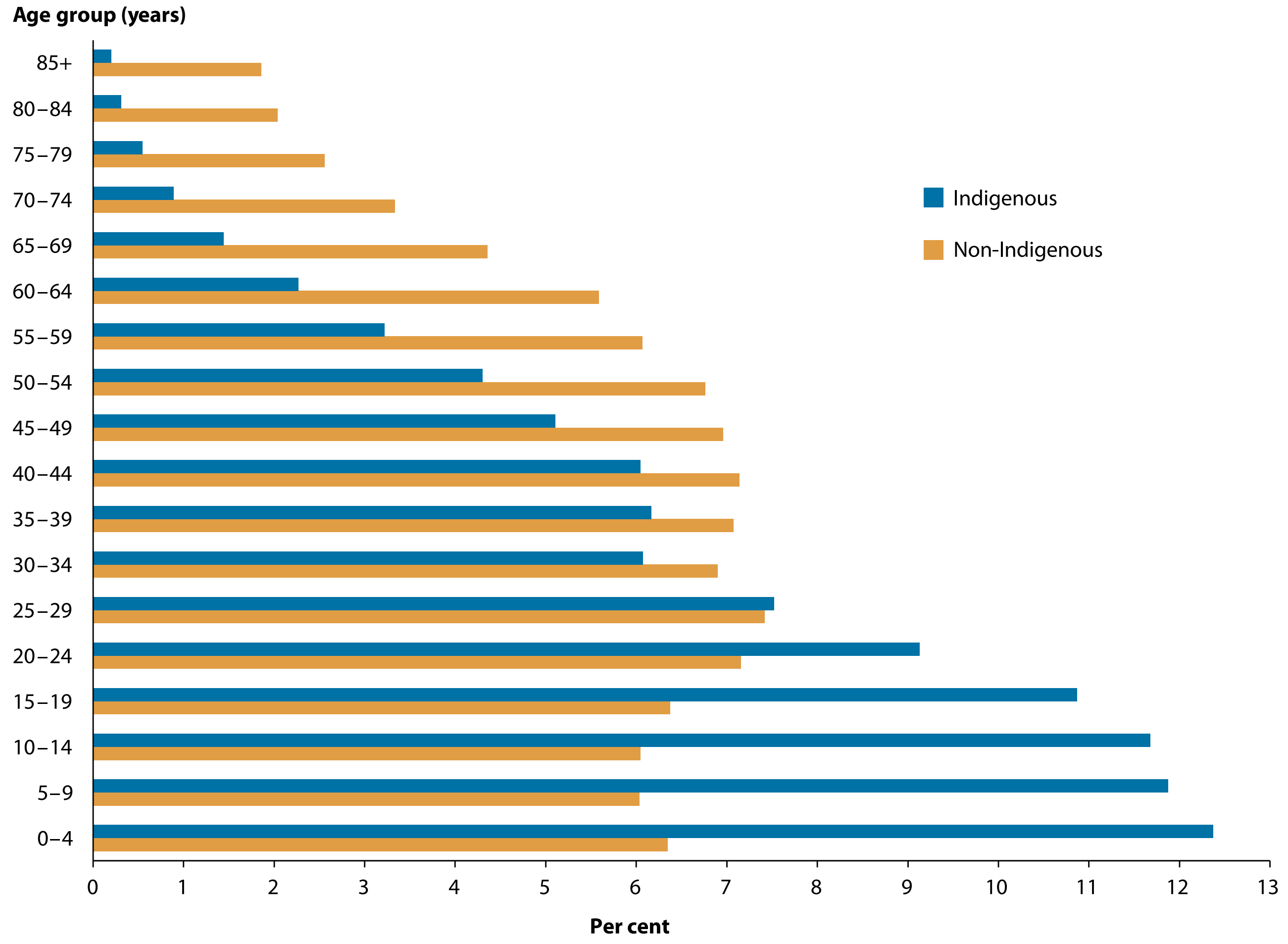
- live in the Australian Capital Territory (54% increase), Victoria (47% increase), Queensland (44% increase) and Tasmania (41% increase)
- live in *Inner and outer regional* areas (46% increase) and *Major cities* (44% increase).

In contrast, the smallest population growth is projected to occur in the Northern Territory (25% increase), and *Remote and very remote* areas (13% increase) (ABS 2014h).

2.2 Age distribution

The Indigenous population has a much younger age structure than the non-Indigenous population, with this difference being due to higher rates of fertility among the Indigenous population, as well as deaths occurring at younger ages. In June 2011:

- the median age of the Indigenous population (the age at which half the population is older and half is younger) was 21.8 years, compared with 37.6 years for the non-Indigenous population
- over one-third (36%) of Indigenous people were aged under 15 compared with 18% of non-Indigenous people
- people aged 65 and over comprised 3.4% of the Indigenous population compared with 14% of the non-Indigenous population (Figure 2.2).

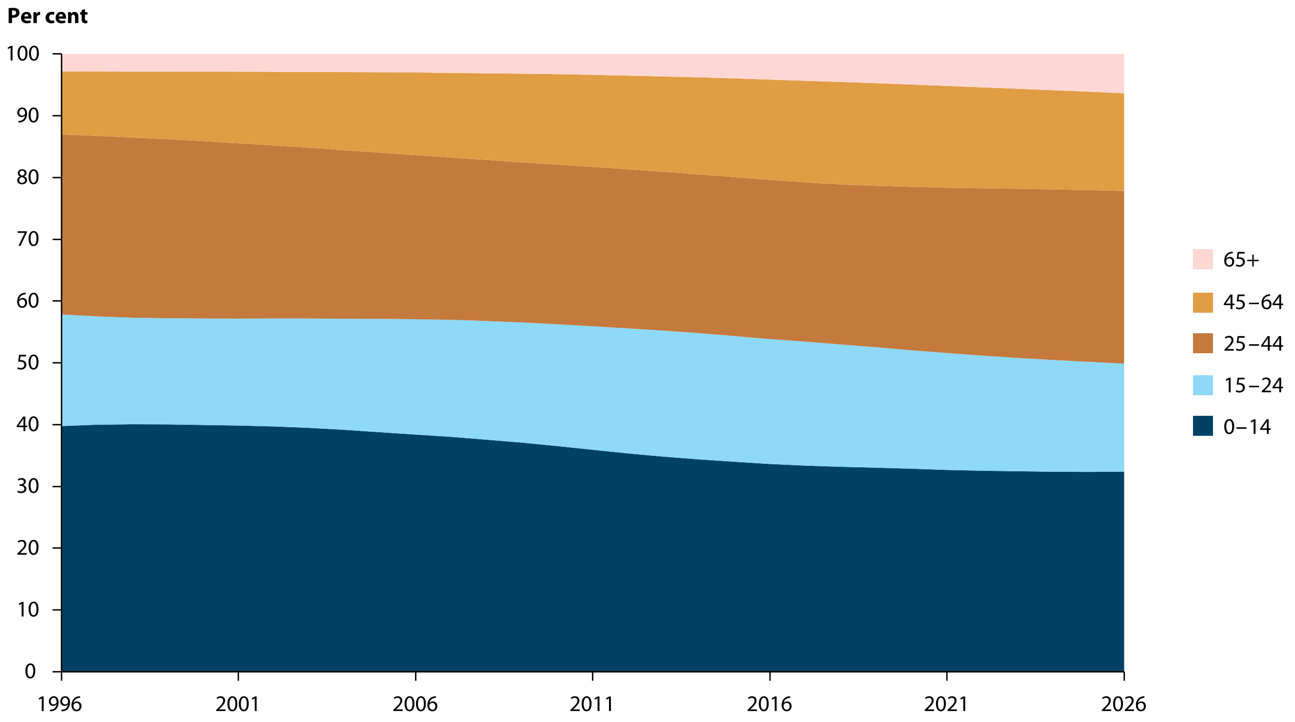


Note: Data for this figure are shown in Table S2.2.

Source: ABS 2013i.

Figure 2.2: Age structure of the Australian population, by Indigenous status, 30 June 2011

Similar to the non-Indigenous population, the Indigenous population is ageing. In 1996, 2.8% of the Indigenous population were aged 65 and over. By 2026, this proportion is predicted to more than double to 6.4% (Figure 2.3). In contrast, the proportion of the Indigenous population aged under 15 is expected to fall from 40% in 1996 to 32% in 2026.



Notes

1. Estimates and projections are for 30 June of each year. Projected population data are shown from 2012 onwards and are based on ABS medium-level growth assumptions (Series B).
2. Data for this figure are shown in Table S2.3.

Source: ABS 2014h.

Figure 2.3: Historical and projected Indigenous population, by age, 1996 to 2026

2.3 Components of population growth

Changes in population size are determined by the level of births, deaths and migration. Since the level of international migration for the Australian Indigenous population is negligible, most of the population increase of Indigenous Australians is due to a larger number of births than deaths (ABS 2013f). Births are considered in this section, while information on deaths is presented in Chapter 6. The propensity of people to identify as being of Aboriginal and/or Torres Strait Islander origin also affects the size of the Indigenous population, as detailed in Box 1.2.

Fertility

In 2013, there were 18,368 births registered in Australia where at least 1 parent identified as being of Aboriginal and/or Torres Strait Islander origin—6.0% of all births in that year (ABS 2014f). In comparison, in 2001, the number of births to at least 1 Indigenous parent was 11,405, accounting for 4.6% of all registered births (ABS 2002a). In 2013, 52% of Indigenous births were male babies—the same proportion as for all births.

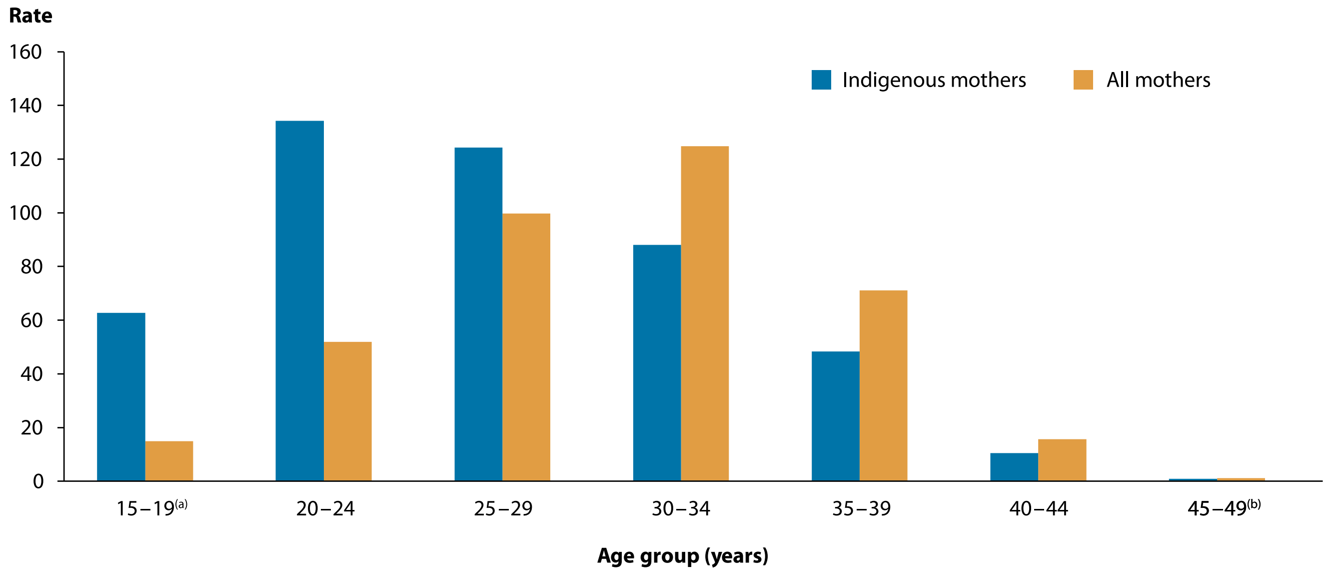
Across Australia, the highest numbers of Indigenous births in 2013 were in:

- New South Wales (5,961 births)
- Queensland (5,206)
- Western Australia (2,735) (ABS 2014f).

The birth rate for Indigenous women is higher than for all Australian women. In 2013, the total fertility rate for Indigenous women was 2.3 babies per woman, compared with 1.9 for all women (ABS 2014f).

Indigenous mothers tend to be younger than other mothers, and Indigenous women have higher fertility rates in the younger age groups (Figure 2.4). In 2013:

- the median age of Indigenous women who registered a birth was 24.9 years—nearly 6 years lower than the median age for all mothers (30.8)
- 50% of births to Indigenous women and 17% of births to all women were to mothers aged under 25
- the teenage fertility rate of Indigenous women (63 births per 1,000 women) was over 4 times the teenage fertility rate of all women (15 births per 1,000 women) (ABS 2014f).



(a) Includes births to mothers aged under 15.
(b) Includes births to mothers aged 50 and over.

Notes

1. Rates are expressed as births per 1,000 women.
2. Data for this figure are shown in Table S2.4.

Source: ABS 2014f.

Figure 2.4: Age-specific fertility rates, by Indigenous status, 2013

Over recent decades, there has been a decline in Indigenous fertility. Based on data from the Census, the average number of children ever born to Indigenous women aged 40–44 (a measure regarded to indicate completed fertility) was 4.55 children in 1981. This was down to an average of 3.10 children in the 1996 Census, and 2.63 children in the 2011 Census (ABS 2014h).

2.4 Geographical distribution

Indigenous Australians are more likely to live in urban and regional areas than remote areas. In June 2011:

- about four-fifths (79%) lived in *Major cities*, *Inner regional* areas or *Outer regional* areas
- about one-fifth (21%) lived in *Remote* or *Very remote* areas (Table 2.1).

For an explanation of these categories and how they are used in this report, see Box 2.1.

Table 2.1: Indigenous and non-Indigenous population, by remoteness, 30 June 2011

	Indigenous		Non-Indigenous	
Remoteness area	**Number**	**Per cent**	**Number**	**Per cent**
Major cities	233,146	34.8	15,451,394	71.3
Inner regional	147,683	22.0	3,963,346	18.3
Outer regional	146,129	21.8	1,880,300	8.7
Remote	51,275	7.7	263,401	1.2
Very remote	91,648	13.7	111,702	0.5
Total	**669,881**	**100.0**	**21,670,143**	**100.0**

Source: AIHW analysis of ABS 2013i.

Box 2.1: Geographical distribution based on remoteness

Australia can be divided into several regions based on their distance from urban centres, where the population size of the urban centre is considered to determine the range and types of services available.

In the ABS Australian Statistical Geography Standard (ASGS), populated localities are classified in each Census year into 1 of 5 'remoteness areas': *Major cities*, *Inner regional*, *Outer regional*, *Remote* or *Very remote* (ABS 2013e). Examples of localities in each remoteness area are:

• ***Major cities:***	Sydney, Geelong, Gold Coast
• ***Inner regional:***	Hobart, Ballarat, Coffs Harbour
• ***Outer regional:***	Darwin, Cairns, Coonabarabran
• ***Remote:***	Alice Springs, Broome, Katherine
• ***Very remote:***	Coober Pedy, Longreach, Exmouth.

Unless otherwise indicated, the ASGS remoteness areas are used in this report.

At times, some of these 5 areas are grouped together:

- when *Remote* and *Very remote* areas are considered together, the term 'remote' is used with the balance referred to as 'non-remote'
- when *Inner regional* and *Outer regional* are grouped together, the term 'regional' is used.

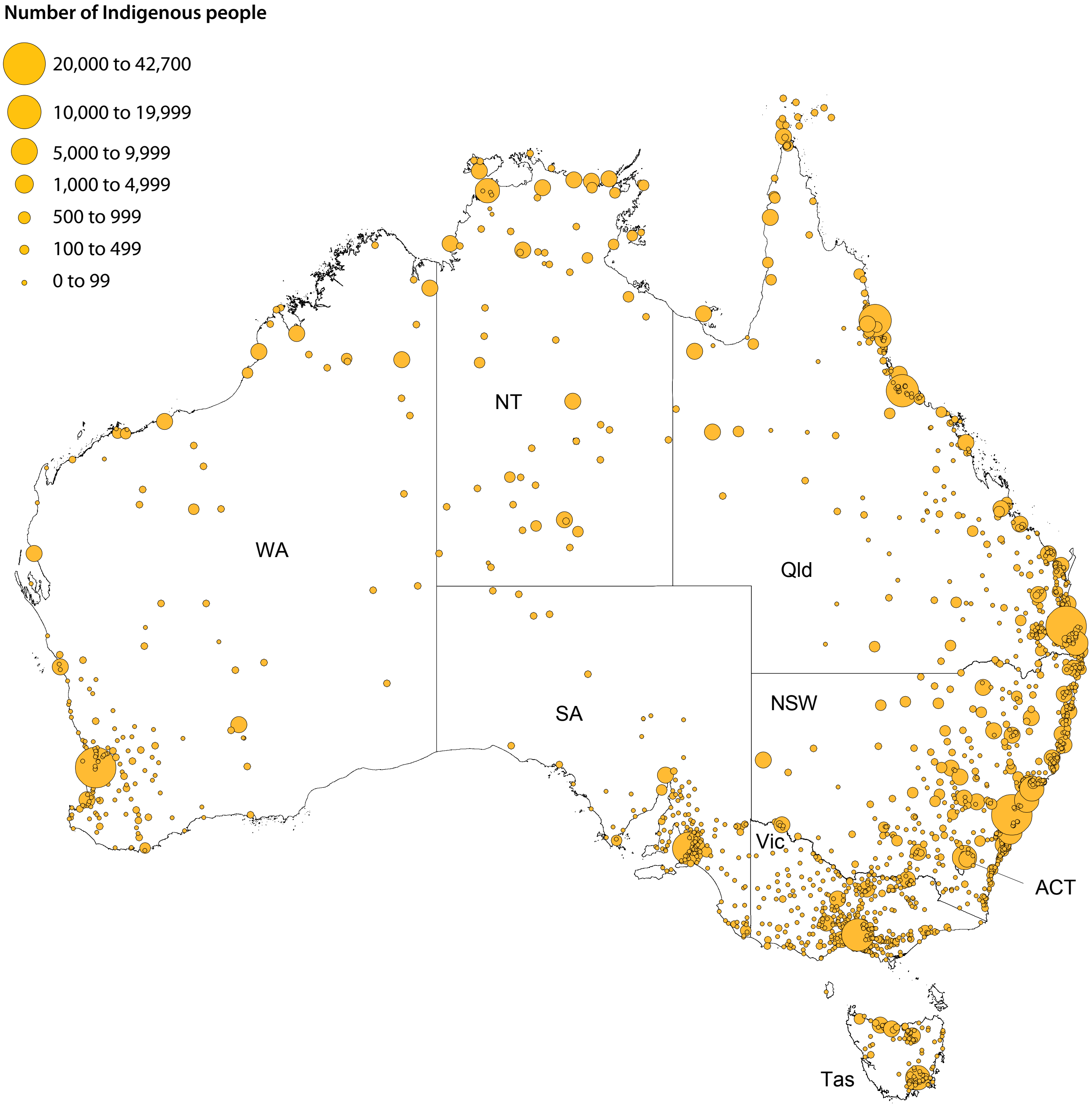
The geographic distribution of the Indigenous population differs from that of the non-Indigenous population (Table 2.1). In 2011, nearly all non-Indigenous people (98%) lived in non-remote areas, with 2% living in remote areas (compared with 79% and 21% of Indigenous people, respectively).

The distribution of the Indigenous population by remoteness remained relatively stable over the decade to 2011. In 2001, 35% of the Indigenous population lived in *Major cities*, 43% in regional areas and 23% in remote areas (ABS 2014h).

Although, in absolute numbers, Indigenous people are more likely to live in non-remote than remote areas, they comprise a high proportion of the total population within remote areas. In 2011, Indigenous Australians comprised:

- almost half (45%) of people living in *Very remote* areas
- 16% of people in *Remote* areas (ABS 2013i).

Figure 2.5 shows that, as is the case for the total Australian population, the distribution of the Indigenous population is more heavily concentrated along the eastern seaboard and that the largest clusters of the Indigenous population are found in Australia's cities.



Note: Population clusters are based on population data for urban centres and localities.

Source: AIHW analysis of ABS 2011 Census (using TableBuilder).

Figure 2.5: Indigenous population clusters, 2011

Table 2.2 shows the proportion of the Indigenous and non-Indigenous populations living in each state and territory. In June 2014:

- New South Wales was home to the largest proportion of Indigenous people (31%), just as it is for non-Indigenous people (32%)
- a relatively high proportion of Indigenous Australians lived in Queensland and the Northern Territory, while a relatively low proportion lived in Victoria.

Meanwhile, the proportion of people within each jurisdiction who were Indigenous varied widely:

- 30% in the Northern Territory
- 5% or less in each of the other jurisdictions, with the lowest proportion (less than 1%) in Victoria (Table 2.2).

Table 2.2: Australian population, by jurisdiction and Indigenous status, 30 June 2014[(a)]

	Number	Per cent		Indigenous proportion of population
State or territory	**Indigenous**	**Indigenous**	**Non-Indigenous**	
New South Wales	220,902	31.0	31.9	2.9
Queensland	203,045	28.5	20.0	4.3
Western Australia	93,778	13.1	11.0	3.6
Northern Territory	72,251	10.1	0.8	29.6
Victoria	50,983	7.1	25.3	0.9
South Australia	39,800	5.6	7.2	2.4
Tasmania	25,845	3.6	2.1	5.0
Australian Capital Territory	6,707	0.9	1.7	1.7
Australia[(b)]	**713,589**	**100.0**	**100.0**	**3.0**

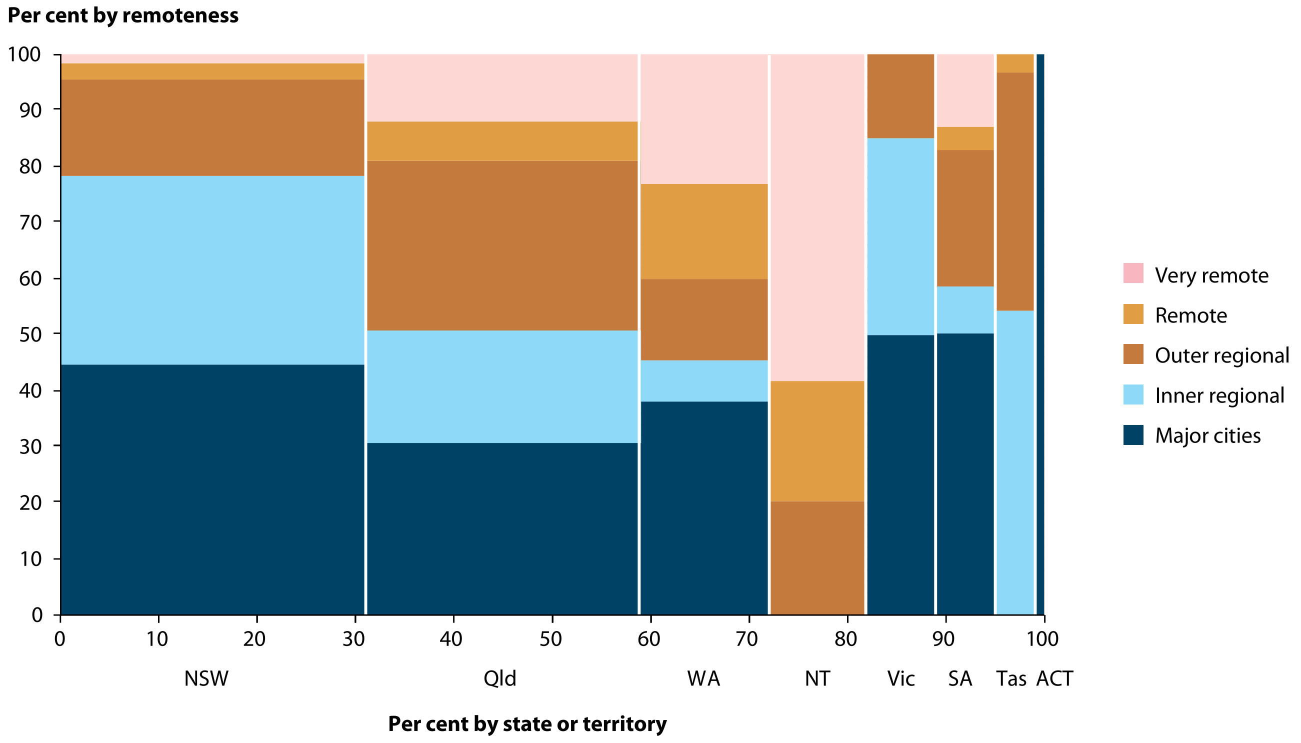
(a) Data are projections based on ABS medium-level growth assumptions (Series B).

(b) Includes 'Other territories' of Australia.

Sources: ABS 2013m, 2014h.

The geographical distribution of Indigenous Australians differs markedly between jurisdictions. As shown in Figure 2.6, in 2011:

- the majority of the Indigenous population resided in either *Major cities* or *Inner regional* areas in 5 jurisdictions—the Australian Capital Territory (100%), Victoria (85%), New South Wales (78%), South Australia (59%) and Queensland (51%)
- just over half (55%) of the Indigenous population in Western Australia lived in *Outer regional*, *Remote* or *Very remote* areas
- most (97%) of the Indigenous population in Tasmania lived in *Inner regional* or *Outer regional* areas
- 4 out of 5 (80%) Indigenous people in the Northern Territory lived in either *Remote* or *Very remote* areas.



Notes

1. Remoteness areas in some of the smaller jurisdictions were combined by the ABS for confidentiality reasons—see Table S2.5 for details.
2. Data for this figure are shown in Table S2.5.

Source: ABS 2013i.

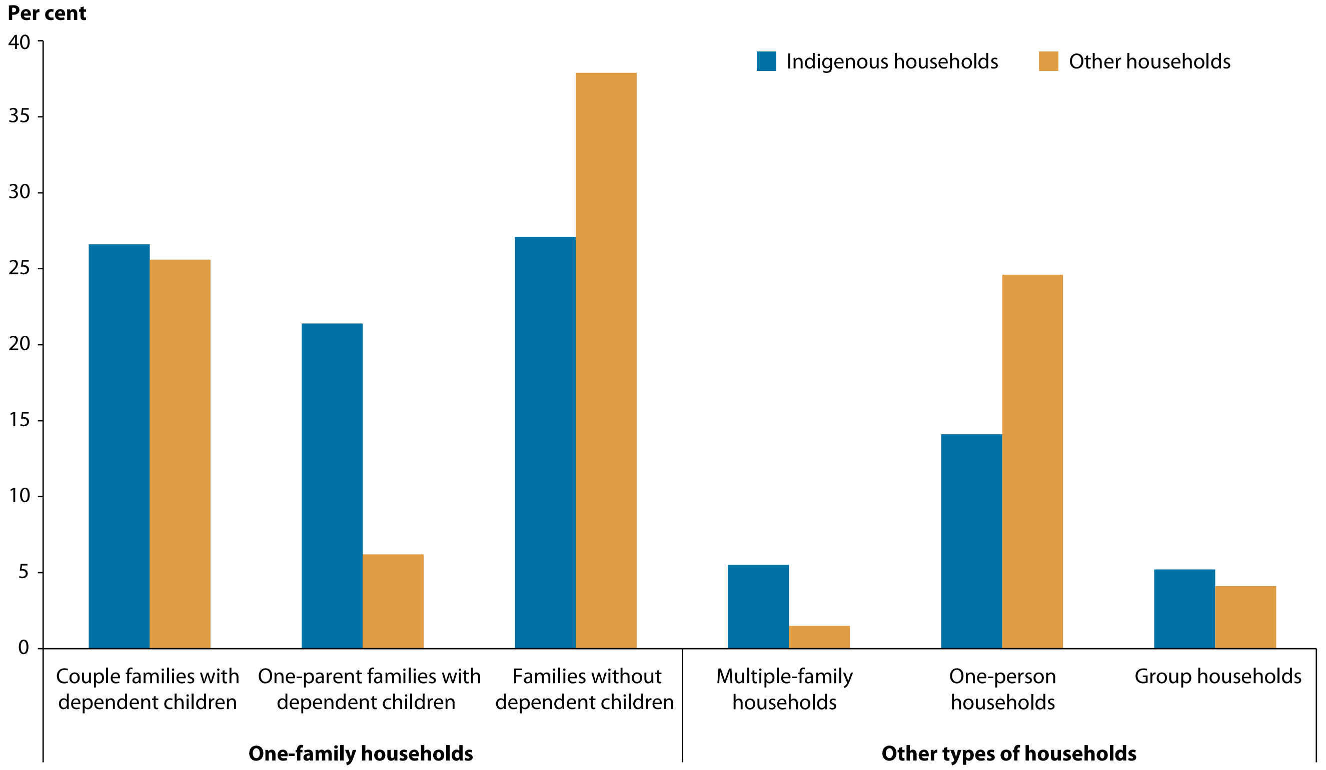
Figure 2.6: Distribution of the Indigenous population, by jurisdiction and remoteness, 30 June 2011

2.5 Household and family composition

According to the 2011 Census, an estimated 209,000 households were Indigenous households—that is, at least 1 Indigenous person lived in 2.7% of Australian households. Indigenous households comprised an average of 3.3 people compared with 2.6 people in other households (ABS 2012b).

As shown in Figure 2.7, a comparison of the composition of Indigenous and other households indicates that in 2011:

- a similar proportion of Indigenous and other households consisted of a couple family with dependent children (27% and 26%, respectively)
- a larger proportion of Indigenous households were a one-parent family with dependent children (21% compared with 6% of other households) and a smaller proportion were a family without dependent children (27% compared with 38%)
- Indigenous households were more than 3 times as likely to be composed of multiple families (5.5% compared with 1.5%)
- a smaller proportion of Indigenous households were one-person households (14% compared with 25%).



Notes

1. Dependent children were defined as children aged under 15, and those aged 15–24 who were full-time students.
2. Data for this figure are shown in Table S2.6.

Source: ABS 2012b.

Figure 2.7: Composition of households, by Indigenous status, 2011

In 2011, there were 140,708 Indigenous families with dependent children. Of these families:

- 38% had 1 child in the family
- 32% had 2 children
- 25% had 3 or 4
- 4% had 5 or more (AIHW analysis of ABS 2012b; Table S2.7).

Indigenous families tended to have a larger number of dependent children than other families—for example, 30% of Indigenous families with dependent children had 3 or more dependent children compared with 20% of other families (Table S2.7).

2.6 Torres Strait Islander people

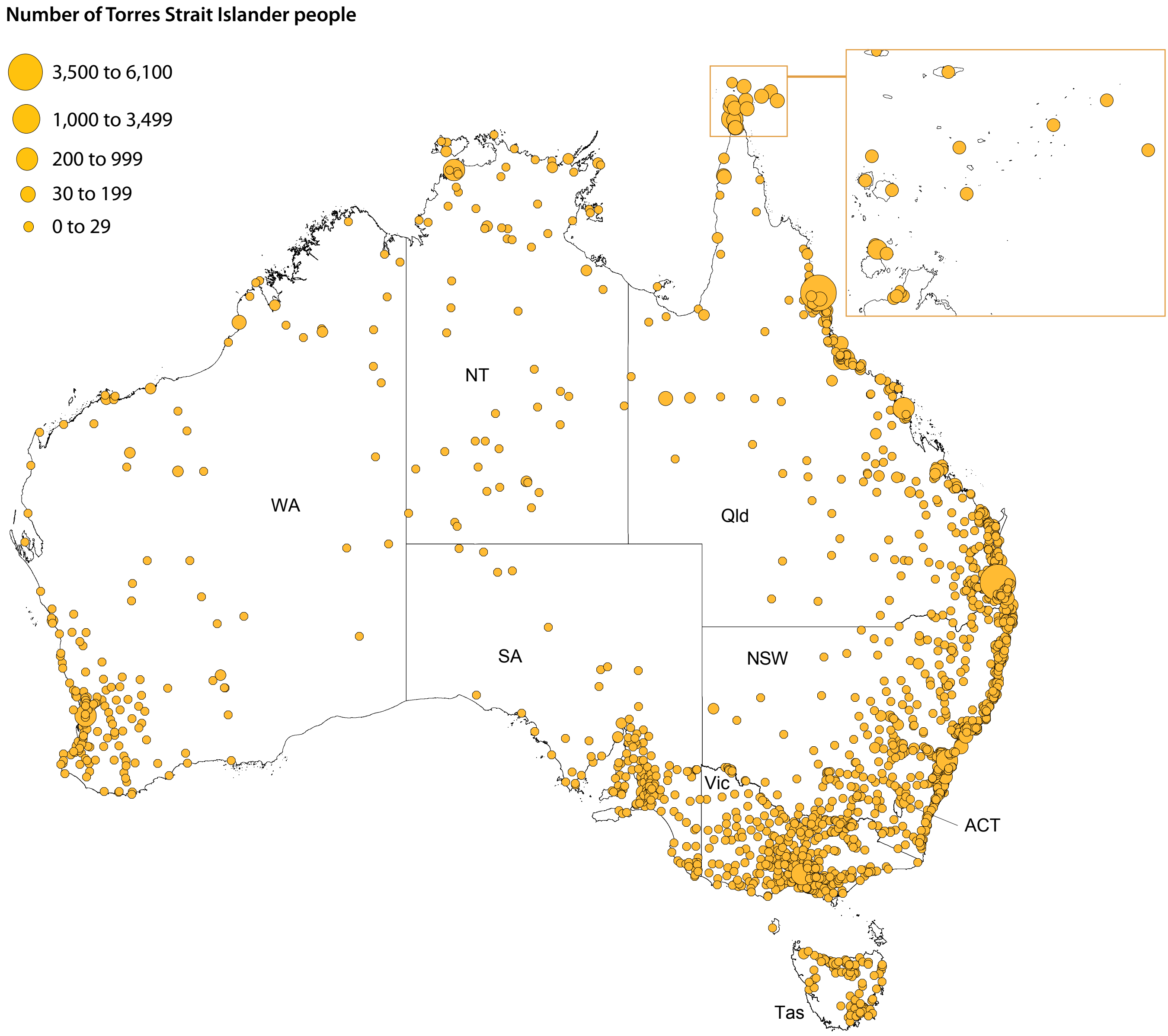
In Australia at 30 June 2011, Torres Strait Islander people comprised:

- 10% (63,700 people) of the total Indigenous population—6% were of Torres Strait Islander origin only (38,100 people) and 4% were of both Torres Strait Islander and Aboriginal origin (25,600 people)
- 0.3% of the total Australian population (ABS 2013i).

In 2011, Torres Strait Islander people were distributed across Australia as follows:

- 11% (6,700 people) resided in the Torres Strait Indigenous Region—this region consists of the following 3 areas of Queensland: the Torres Strait Islands, numerous small islands located in the waterway separating Cape York Peninsula and Papua New Guinea, and a small area of the mainland at the tip of Cape York (ABS 2011a)

- 63% lived in Queensland (including those living in the Torres Strait Indigenous Region)
- 37% lived in jurisdictions other than Queensland (Figure 2.8).



Note: Population clusters are based on population data for urban centres and localities.

Source: AIHW analysis of ABS 2011 Census (using TableBuilder).

Figure 2.8: Torres Strait Islander population clusters, 2011

The age distribution of Torres Strait Islander people was fairly similar to that of the overall Indigenous population. In June 2011:

- 57% were aged under 25 (compared with 56% of all Indigenous Australians)
- 11% were aged 55 and over (compared with 9% of all Indigenous Australians) (Table S2.8; AIHW analysis of ABS 2013i).

2.7 Cultural identification and language

Aboriginal and Torres Strait Islander people are a linguistically and culturally diverse population. They comprise hundreds of cultural groups that have their own languages, histories and traditions.

Language

Of the more than 250 known Australian Indigenous languages, about 120 were still spoken in 2012 according to the Second National Indigenous Languages Survey (Marmion et al. 2014). Of these, 13 were considered strong in the sense that they were spoken by all age groups. By comparison, in 2005, around 145 Australian Indigenous languages were spoken and 18 were considered strong.

According to the ABS 2012–13 Australian Aboriginal and Torres Strait Islander Health Survey, and excluding children who were not yet speaking:

- 1 in 10 Indigenous Australians spoke either an Aboriginal language (8%) or a Torres Strait Islander language (2%) as their main language at home
- the remainder (90%) spoke mainly English at home (AIHW analysis of 2012–13 AATSIHS).

Compared with the national data, the picture is quite different in the Northern Territory, where 60% of Indigenous people spoke mainly an Aboriginal or Torres Strait Islander language at home (AIHW analysis of 2012–13 AATSIHS).

People who identified as being of Torres Strait Islander origin were more likely to speak an Indigenous language at home than people of Aboriginal origin only. Among Torres Strait Islander people in 2012–13:

- 23% mainly spoke a Torres Strait Islander language at home
- 1.9% mainly spoke an Aboriginal language
- 76% mainly spoke English.

In comparison, among people of Aboriginal origin only, 8.6% mainly spoke an Aboriginal language at home and 91% mainly spoke English (AIHW analysis of 2012–13 AATSIHS).

According to Census data:

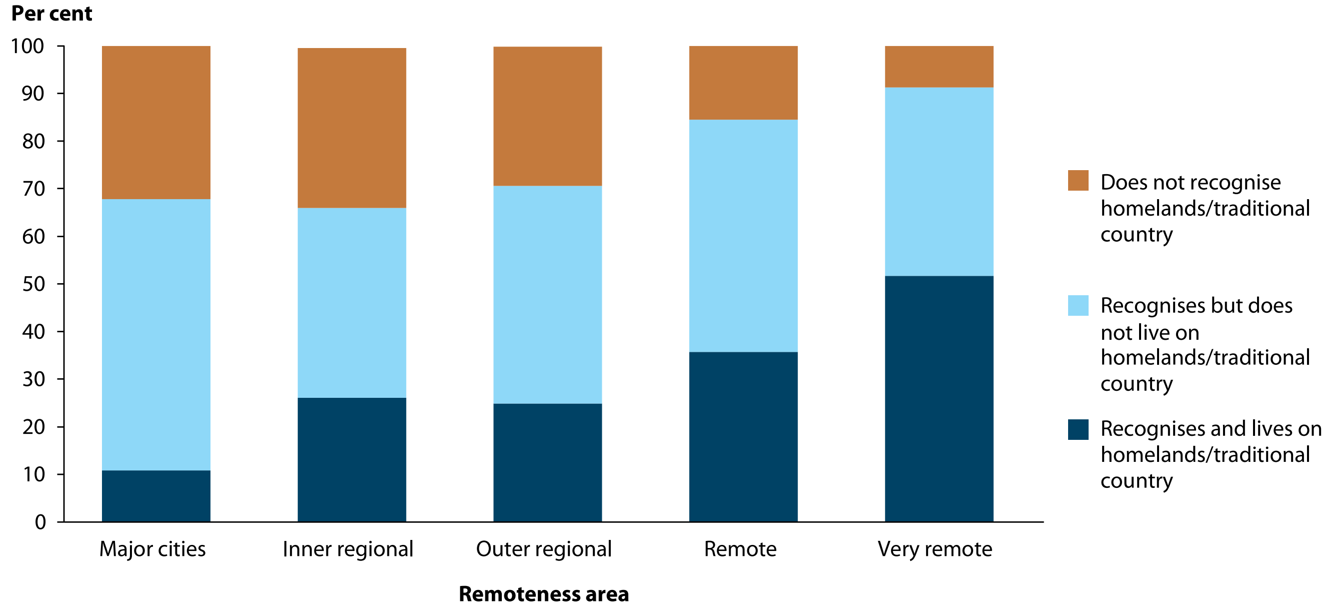
- the proportion of Indigenous people who spoke an Indigenous language at home was the same in 2006 and 2011 (11%)
- among those who spoke an Indigenous language at home, the proportion who reported that they did not speak English well or at all fell from 19% in 2006 to 17% in 2011 (ABS 2012b).

Cultural identity

Almost 2 in 3 Indigenous people aged 18 and over (63%) identified with a regional group, tribal group, language group, clan or mission in 2012–13. Rates of identification were higher with increasing remoteness: 56% in *Major cities*, 57% in *Inner regional* areas, 62% in *Outer regional* areas, 71% in *Remote* areas and 86% in *Very remote* areas (AIHW analysis of 2012–13 AATSIHS).

As shown in Figure 2.9, among Indigenous adults in 2012–13:

- nearly 3 in 4 (73%; an estimated 262,200 adults) recognised an area as their homelands or traditional country, with the proportion who did so highest in *Very remote* areas (91%) and lowest in *Inner regional* areas (66%) and *Major cities* (68%)
- one-quarter (25%) lived on their homelands or traditional country, with those living in remote areas most likely to do so (36% in *Remote* areas and 52% in *Very remote* areas).



Note: Data for this figure are shown in Table S2.9.

Source: AIHW analysis of ABS 2012–13 Australian Aboriginal and Torres Strait Islander Health Survey (using TableBuilder).

Figure 2.9: Indigenous people aged 18 and over who recognise and live on homelands or traditional country, by remoteness, 2012–13

Among Indigenous adults who did not live in an area recognised as their homelands or traditional country:

- the majority (95%) were allowed to visit them
- 1.6% were not allowed to visit them
- 3.1% did not know if they were allowed.

Of those who were allowed to visit, half (50%) visited their homelands or traditional country at least once a year (AIHW analysis of 2012–13 AATSIHS).

Economic participation, housing and community safety

3

Key points

Early childhood development, school achievements and Year 12 attainment

- The majority of Indigenous children in their first year of full-time schooling were developmentally on track (57% in 2012). However, they were more than twice as likely as non-Indigenous children to be developmentally vulnerable in 1 or more areas (43% and 21%, respectively). The proportion of Indigenous children who were developmentally vulnerable in 1 or more areas declined between 2009 and 2012 (from 47% to 43%).
- In 2013, 3 in 4 (74%) Indigenous children were enrolled in preschool in the year before full-time schooling, and 70% were attending preschool.
- The proportion of Indigenous students who achieved at or above the national minimum standard in reading in 2014 across the 4 school years tested (Years 3, 5, 7 and 9) ranged from 70% in Year 5 to 77% in Year 7; in numeracy, the range was from 71% in Year 5 to 80% in Year 7.
- Between 2008 and 2014, there was no significant change in the proportion of Indigenous students who were at or above the national minimum standard in either reading or numeracy for each of the 4 school years tested.
- Most (98%) Indigenous students who had begun secondary education at Year 7/8 in 2010/2011 completed Year 10 in 2013. However, retention rates decreased with each additional year of schooling, with the Year 12 retention rate being 55%.
- Year 12 retention rates for Indigenous students increased substantially over time—from 36% in 2001 to 55% in 2013. However, the Indigenous Year 12 school retention rates in 2013 remained below the rate for other students (83%).
- Year 12 or equivalent attainment rates for Indigenous young people aged 20–24 increased from 41% in 2001 to 47% in 2006 and 54% in 2011. The attainment gap between Indigenous and non-Indigenous young people narrowed by 4 percentage points between 2006 and 2011.

Employment and income

- In 2012–13, 60% of Indigenous people aged 15 to 64 were in the labour force and the unemployment rate was 21%. The unemployment rate for Indigenous people was 4.2 times as high as the rate for non-Indigenous people (based on age-standardised rates).
- Unemployment rates rose for both Indigenous and non-Indigenous people between 2008 and 2012–13; however, the rate for Indigenous people rose more, leading to an increase in the unemployment gap of 4 percentage points.
- A larger proportion of Indigenous workers were employed as professionals in 2011 than in 2006 (14% compared with 12%), while a smaller proportion were employed as labourers (18% in 2011 and 25% in 2006).
- Average disposable income for Indigenous people aged 15 and over increased from $391 per week in 2006 to $488 in 2011 (taking inflation into account); however, the ratio of Indigenous to non-Indigenous average income remained steady at 0.7 over the period.

Housing and homelessness

- Home ownership rates among Indigenous households increased from 32% in 2001 to 36% in 2011.
- More than 1 in 3 (35%) Indigenous households reported living in a dwelling with 1 or more major structural problems and about 1 in 6 (15%) reported living in a dwelling that was lacking working facilities in 2012–13.
- The proportion of Indigenous households living in overcrowded conditions fell from 16% in 2001 to 13% in 2011. There was a narrowing of the gap in overcrowding levels by 3 percentage points over the decade.
- The rate of homelessness among Indigenous people fell by 14% between 2006 and 2011, compared with an increase of 12% among non-Indigenous people. However, the homelessness rate for Indigenous people in 2011 was nearly 14 times the rate for non-Indigenous people. Of Indigenous people who were homeless, 3 in 4 (75%) were considered as such because they were living in severely crowded dwellings.

Community safety

- The age-standardised rate of hospitalisations for assault among Indigenous people was 14 times as high as for non-Indigenous people (1,157 compared with 83 per 100,000 population) in 2012–13.
- In 2013, Indigenous people aged 14 and over were significantly more likely than non-Indigenous people to indicate they had been a victim of an alcohol-related incident (38% and 26%) or an illicit drug-related incident (16% and 8.1%) in the previous year.
- On an average day in 2012–13, 44% of young people aged 10–17 under youth justice supervision were Indigenous. Indigenous young people aged 10–17 were 14 times as likely as non-Indigenous young people to be under supervision. However, the rate of Indigenous young people under youth justice supervision declined between 2008–09 and 2012–13 (from 203 to 188 per 10,000 young people).
- At 30 June 2014, 27% of the total adult prisoner population were Indigenous (9,264 people).
- The age-standardised imprisonment rate of Indigenous people increased between 2000 and 2014 (from 1,100 to 1,857 per 100,000 adults) while the non-Indigenous rate increased only slightly, resulting in an 82% increase in the gap over this period.

Comparison by remoteness

- Preschool attendance in the year before full-time schooling among Indigenous children in 2013 was higher in *Remote and very remote* areas (75%) than in *Major cities* (65%) and regional areas (71%).
- In 2014, the proportion of Indigenous students who met the national minimum standards in each of the 5 areas considered declined with increasing remoteness. For non-Indigenous students, the proportions were more similar across remoteness areas.
- In 2012–13, labour force participation for Indigenous Australians aged 15 to 64 was significantly higher in non-remote areas (61%) than remote areas (55%). However, there was little difference in unemployment rates for Indigenous people across remoteness areas—21% in non-remote areas and 20% in remote areas.
- Dwellings with structural problems were more commonly reported by Indigenous households in remote areas than in non-remote areas in 2012–13 (46% and 33%, respectively), as were dwellings with a lack of working facilities (31% and 12%).
- Indigenous households in remote areas were more likely to live in overcrowded conditions. In 2011, 20% of Indigenous households in *Remote* areas and 39% of those in *Very remote* areas were living in overcrowded conditions, compared with 10% to 12% of those in non-remote areas.

3.1 Introduction

Economic participation refers to an individual's engagement in work and/or education, and their access to economic resources that results from such participation. Since economic participation provides financial, health and social benefits, it is central to the wellbeing of a population. For example, higher levels of education and income are associated with lower prevalence of risk factors to health (such as smoking and lack of exercise), while access to economic resources is positively linked to mental health and wellbeing, and optimal child development (AIHW 2012a; VicHealth 2005).

The extent to which positive health and wellbeing outcomes associated with education and employment are due to direct (rather than indirect) benefits of participation is unclear. Indeed, access to participation may itself be influenced by health and wellbeing—for example, healthy people are better able to remain in the workforce or in formal education. Alternatively, education and employment may provide greater access to economic resources which, along with lower levels of financial stress, may provide much of the direct positive effect on wellbeing.

Housing also plays a critical role in the health and wellbeing of Indigenous Australians. The absence of affordable, secure and appropriate housing can result in a number of negative consequences, including homelessness, poor health, and lower rates of employment and education participation, all of which can lead to social exclusion.

Similarly, safe communities, where people feel protected from harm within their home, workplace and community, are also important for physical and mental wellbeing.

This chapter provides information on education, labour force participation, income, housing and community safety for Indigenous Australians. Information is provided on changes over time and differences compared with non-Indigenous Australians. Data on the relationship between education, employment and health status is presented in Section 4.5.

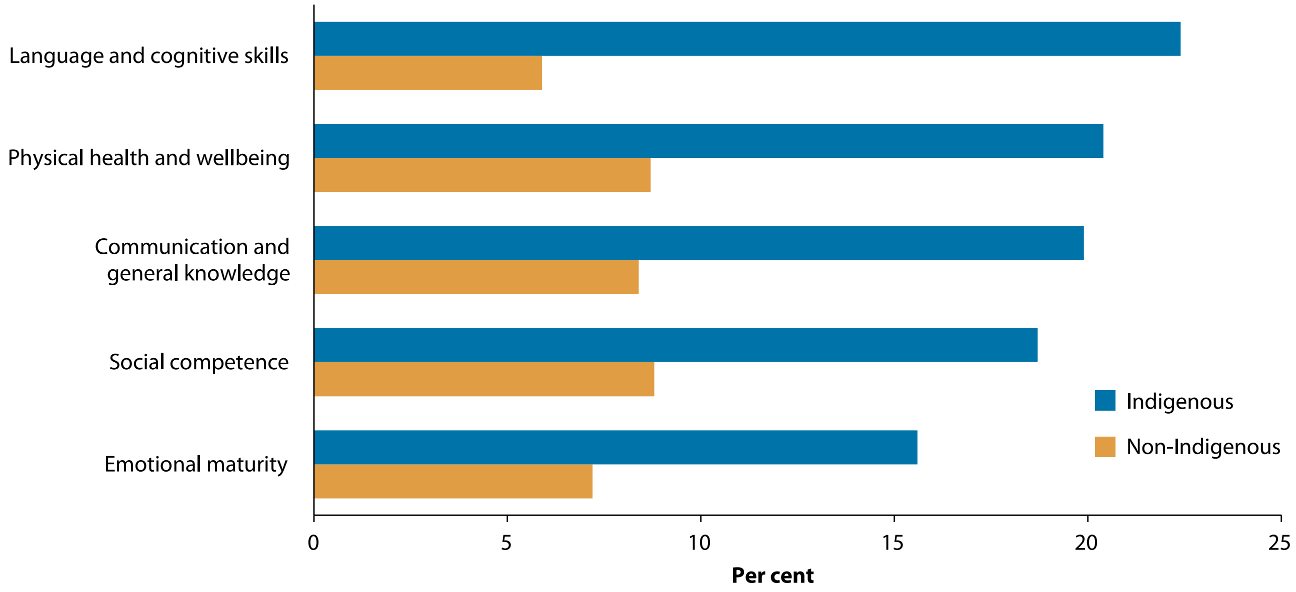
3.2 Education

COAG has highlighted the critical role of education and training in 'increasing the productivity of individual workers and the economy' (COAG 2012c). In 2008, COAG agreed to an education reform agenda, now being implemented across Australian schools. These reforms are directed across a range of areas directly relevant to Indigenous Australians, including improving literacy and numeracy levels, better outcomes for low socioeconomic status school communities, and helping students make the transition from school to further education, training or employment.

Early childhood development

Children entering school with basic skills for life and learning are more likely to experience a successful transition to primary school. According to data from the 2012 Australian Early Development Census, among children in their first year of full-time schooling:

- about 6 in 10 (57%) Indigenous children were developmentally on track in each of the 5 developmental domains considered—namely, physical health and wellbeing, social competence, emotional maturity, language and cognitive skills, and communication skills and general knowledge
- Indigenous children (43%) were twice as likely as non-Indigenous children (21%) to be developmentally vulnerable (that is, their score ranked in the lowest 10%) on 1 or more domains
- Indigenous children were nearly 4 times as likely to be developmentally vulnerable as non-Indigenous children on the language and cognitive skills domain (22.4% and 5.9%, respectively) (Figure 3.1; Department of Education 2013).



(a) Children who scored below the 10th percentile nationally, based on data from the Australian Early Development Census.

Note: Data for this figure are shown in Table S3.1.

Source: Department of Education 2013.

Figure 3.1: Proportion of children in their first year of full-time schooling who were developmentally vulnerable[(a)], by domain and Indigenous status, 2012

The proportion of Indigenous children in their first year of full-time schooling who were developmentally vulnerable on 1 or more domains declined between 2009 and 2012 (from 47% to 43%) (Brinkman et al. 2014).

Preschool plays an important role in early childhood education and preparing children for primary school. In 2013, 74% of Indigenous children were enrolled in an early childhood education program—referred to hereafter as a 'preschool program'—in the year before full-time schooling; this compares with 91% of non-Indigenous children (SCRGSP 2014b).

It is a COAG target to improve access to, and attendance at, early childhood education among Indigenous children living in remote communities—see Box 3.1.

Box 3.1: COAG target for early childhood education

Target: Ensure all Indigenous children aged 4 in remote communities have access to quality early childhood education within 5 years (by 2013)

COAG's target for early childhood education is further defined as ensuring 95% of Indigenous children are enrolled in preschool in the year before formal schooling.

In 2013:

- 74% of Indigenous children were enrolled in preschool in the year before full-time schooling—enrolment was higher in *Remote and very remote* areas (85%) than in *Major cities* (67%) and regional areas (74%)
- 70% of Indigenous children were attending preschool in the year before full-time schooling—attendance was also higher in *Remote and very remote* areas (75%) than in *Major cities* (65%) and regional areas (71%) (SCRGSP 2014b).

Comparable data to monitor trends over time in enrolment and attendance are not available.

School attendance

Regular school attendance is required for students to develop general life skills, as well as specific skills such as literacy and numeracy. Data on Years 1 to 10 attendance are available for each jurisdiction by Indigenous status and school sector (government, independent and Catholic); however, the data cannot be directly compared across jurisdictions or sectors.

The available jurisdictional data suggest that in 2013:

- Indigenous students generally had lower attendance rates than non-Indigenous students; for example, for Year 5 students in government schools, attendance ranged from 72% to 91% across the jurisdictions for Indigenous students, compared with 93% to 95% for non-Indigenous students (Table 3.1)
- attendance rates for both Indigenous and non-Indigenous students were generally higher in Year 5 than Year 10 (Table 3.1)
- attendance rates at government schools for Indigenous students in Year 10 decreased between 2007 and 2013 (6 percentage points or less in each jurisdiction except the Northern Territory, which fell by 13 percentage points); however, there was little change for Indigenous Year 5 students
- there was no clear trend in attendance rates for Indigenous students in Catholic and independent schools over the period 2007 to 2013 (SCRGSP 2014b).

Table 3.1: Student attendance rates, by sector and Indigenous status, Years 5 and 10[(a)], 2013 (range across jurisdictions)

	Indigenous		Non-Indigenous	
Sector	**Year 5**	**Year 10**	**Year 5**	**Year 10**
Government	72% to 91%	56% to 81%	93% to 95%	87% to 90%
Independent	74% to 94%	70% to 89%	94% to 95%	91% to 94%
Catholic	70% to 93%	66% to 89%	93% to 95%	90% to 93%

(a) Years 5 and 10 have been selected to represent the middle (primary) and later (secondary) years of schooling.

Source: SCRGSP 2014b.

A new target to close the gap on school attendance within 5 years was agreed to by COAG in May 2014; however, details on how this target will be measured were not available at the time of writing (SCRGSP 2014b).

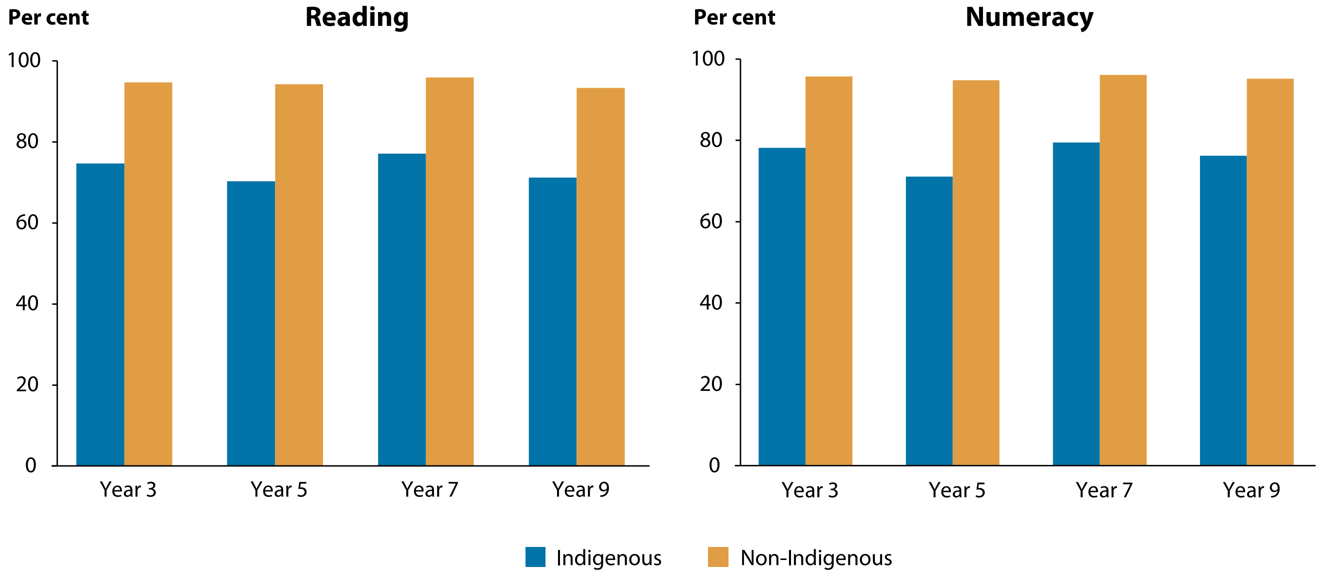
Literacy and numeracy

Literacy and numeracy are essential skills that prepare children for school, higher education and the workforce, as well as life at home and in the community. Students who attain the minimum standards for literacy and numeracy in the early years of schooling are more likely to succeed at school and enter higher education.

Information on student's literary and numeracy levels are assessed in Australia annually through National Assessment Program—Literacy and Numeracy (NAPLAN) tests. These tests are conducted in May for all students in Years 3, 5, 7 and 9 and they cover 5 areas: reading, numeracy, persuasive writing, spelling, and grammar and punctuation (ACARA 2014). In 2014, the proportion of Indigenous students who achieved at or above the national minimum standard in each of these areas was as follows:

- reading: ranged from a high of 77% among Year 7 students to a low of 70% among Year 5 students
- numeracy: ranged from 80% of Year 7 students to 71% of Year 5 students
- persuasive writing: ranged from 76% of Year 3 students to 49% of Year 9 students, with the difference between the Year 3 and Year 9 students (26 percentage points) being the largest of all of the areas tested
- spelling: ranged from 74% of Year 3 students to 70% of Year 9 students
- grammar and punctuation: ranged from 73% of Year 3 students to 63% of Year 9 students (Table S3.2).

For each of the 4 school years tested and for each of the 5 areas, a lower proportion of Indigenous students than non-Indigenous students were at or above the national minimum standards (Table S3.2). This is illustrated in Figure 3.2 for 2 of the areas targeted for improvement by COAG—reading and numeracy.



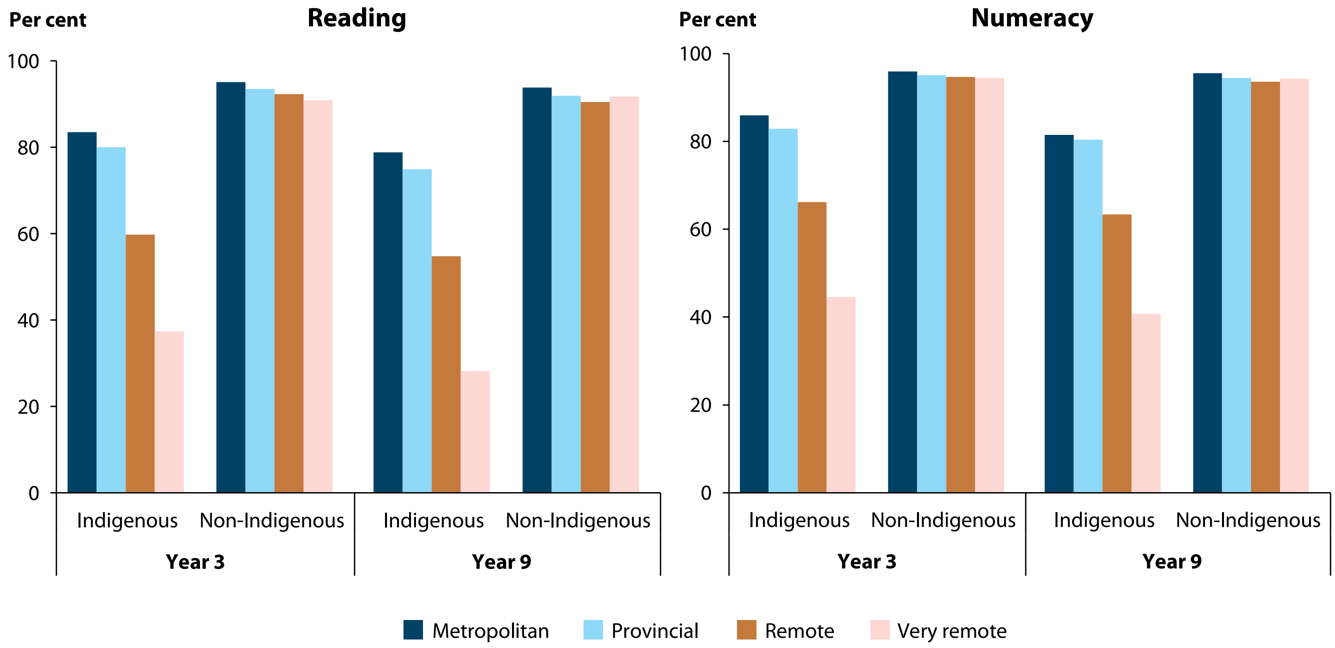
Note: Data for this figure are shown in Table S3.2.

Source: ACARA 2014.

Figure 3.2: Students at or above the national minimum standard for reading and numeracy, by level of schooling and Indigenous status, 2014

The proportion of Indigenous students who met the national minimum standards in each of the 5 areas declined with increasing remoteness. In contrast, for non-Indigenous students, the proportions were more similar across remoteness areas (Figure 3.3). For example, in 2014:

- the proportion of Indigenous Year 3 students who were at or above the national minimum standard for reading ranged from 84% in *Metropolitan* areas to 37% in *Very remote* areas, whereas the corresponding proportions for non-Indigenous Year 3 students were 95% and 91%, respectively
- the proportion of Indigenous Year 9 students who were at or above the national minimum standard for numeracy was higher in *Metropolitan* (82%) than *Very remote* areas (41%), while there was a smaller difference for non-Indigenous Year 9 students (96% and 94%, respectively) (ACARA 2014).



Notes

1. The geolocation categories are based on the Schools Geographic Location Classification System that assigns categories based on a school's proximity to a state or territory's capital city (ACARA 2014).
2. Data for this figure are shown in Table S3.3.

Source: ACARA 2014.

Figure 3.3: Years 3 and 9 students at or above the national minimum standard for reading and numeracy, by geolocation and Indigenous status, 2014

It is a COAG target to reduce the gap for Indigenous students in reading, writing and numeracy within a decade (between 2008 and 2018)—see Box 3.2.

Box 3.2: COAG target for reading, writing and numeracy

Target: Halve the gap in reading, writing and numeracy for Indigenous students within a decade (by 2018)

Between 2008 to 2014, the proportions of Indigenous students who achieved at or above the national minimum standard for reading and numeracy increased somewhat, although the changes were not statistically significant for any of the 4 school years tested. There were also no significant changes in the corresponding proportions for non-Indigenous students (ACARA 2014). Overall, there were no significant changes in the gap in reading or numeracy (AIHW analysis of ACARA 2014).

Due to changes in the writing test in 2011, comparisons over time from 2008 cannot be made (ACARA 2014).

School retention

In 2013, the apparent retention rate for Indigenous students from Year 7/8 to Year 10 was 98%—in other words, most Indigenous students who had begun secondary education at Year 7/8 in 2010/2011 completed Year 10 in 2013. However, apparent retention rates decreased with each additional year of schooling—81% for Year 11 and 55% for Year 12. Retention rates for Indigenous students were lower than those for other students at each Year level (Table 3.2).

Table 3.2: Apparent retention rates[(a)], by Indigenous status, 2013 (per cent)

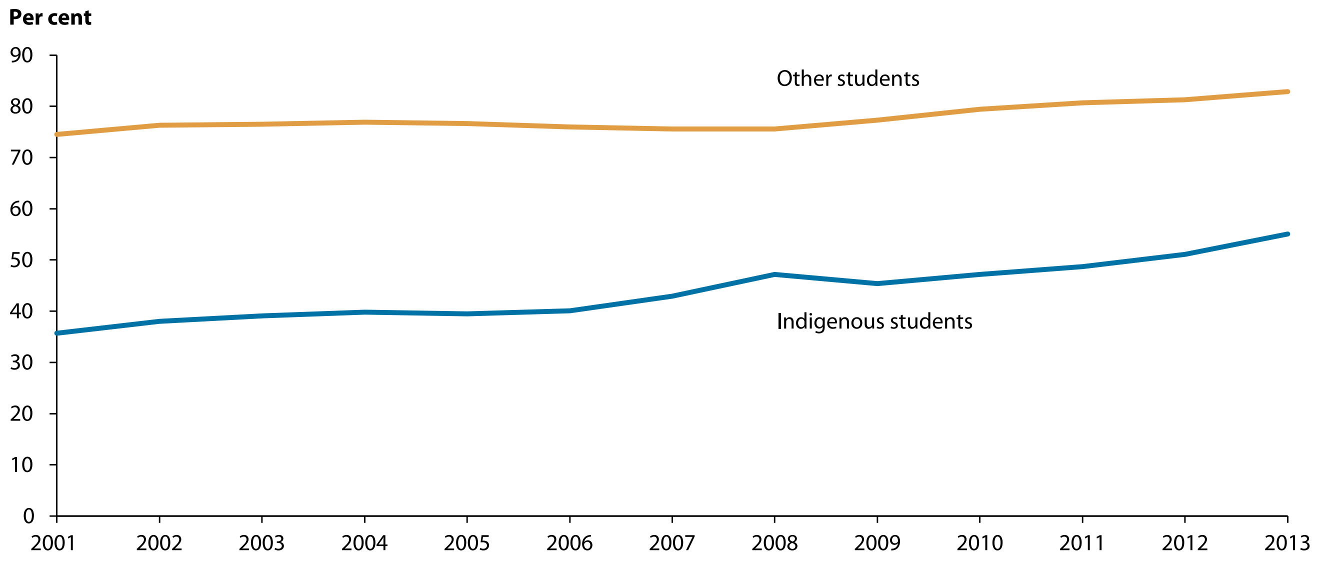
	Indigenous students	Other students[(b)]
Year 7/8 to Year 10	98.1	101.7
Year 7/8 to Year 11	81.3	96.2
Year 7/8 to Year 12	55.1	82.9

(a) Apparent retention rates are the number of Year 10/11/12 enrolments expressed as a percentage of Year 7/8 enrolments 3/4/5 years earlier. For example, the Year 7/8 to Year 12 apparent retention rate is the number of Year 12 enrolments expressed as a percentage of the number of Year 7/8 students enrolled 5 years earlier. These rates are crude approximations of actual retention rates because they do not track individual students, nor do they take into account students repeating Year levels, interstate and overseas migration, transfer of students between schools and returning students.

(b) 'Other students' includes non-Indigenous students and students whose Indigenous status was not stated.

Source: ABS 2014m.

Year 12 retention rates for Indigenous students have increased substantially over time—rising from 36% in 2001 to 55% in 2013 (Figure 3.4). The gap between retention rates for Indigenous students and other students fell by 28% over this period.



Note: Data for this figure are shown in Table S3.4.

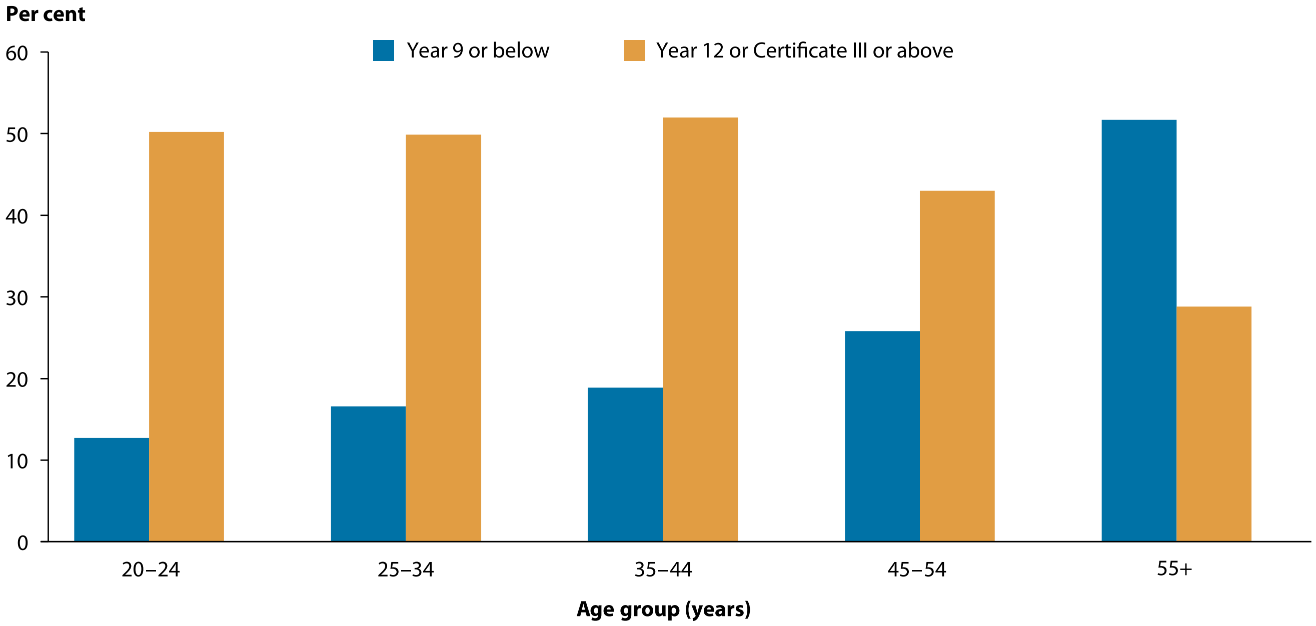
Source: ABS 2014m.

Figure 3.4: Apparent retention rates between Years 7/8 and 12, by Indigenous status, 2001 to 2013

Educational attainment

Nearly 1 in 2 (46%) Indigenous adults aged 20 and over had completed Year 12 or a Certificate III or above according to the 2012–13 AATSIHS (equalling an estimated 155,200 people) (ABS 2014d). Indigenous women were significantly more likely to have attained this level of education than Indigenous men (47% compared with 44%).

In 2012–13, the proportion of Indigenous adults whose highest educational attainment was Year 9 or below increased with age, from 13% of those aged 20–24 to 52% of those aged 55 and over. Around half of Indigenous adults aged 20 to 44 had completed Year 12 or a Certificate III or above, compared with 29% of Indigenous adults aged 55 and over (Figure 3.5).



Note: Data for this figure are shown in Table S3.5.

Source: ABS 2014d.

Figure 3.5: Highest level of educational attainment among Indigenous people aged 20 and over, by age, 2012–13

Educational attainment rates were lower among Indigenous adults than non-Indigenous adults. In 2012–13, Indigenous adults aged 20 and over were significantly less likely than non-Indigenous adults of the same age to have completed Year 12 or a Certificate III or above (age-standardised rates of 43% and 70%, respectively) (ABS 2014d).

It is a COAG target to halve the gap for Indigenous 20–24 year olds in Year 12 or equivalent attainment rates by 2020—see Box 3.3.

Box 3.3: COAG target for educational attainment

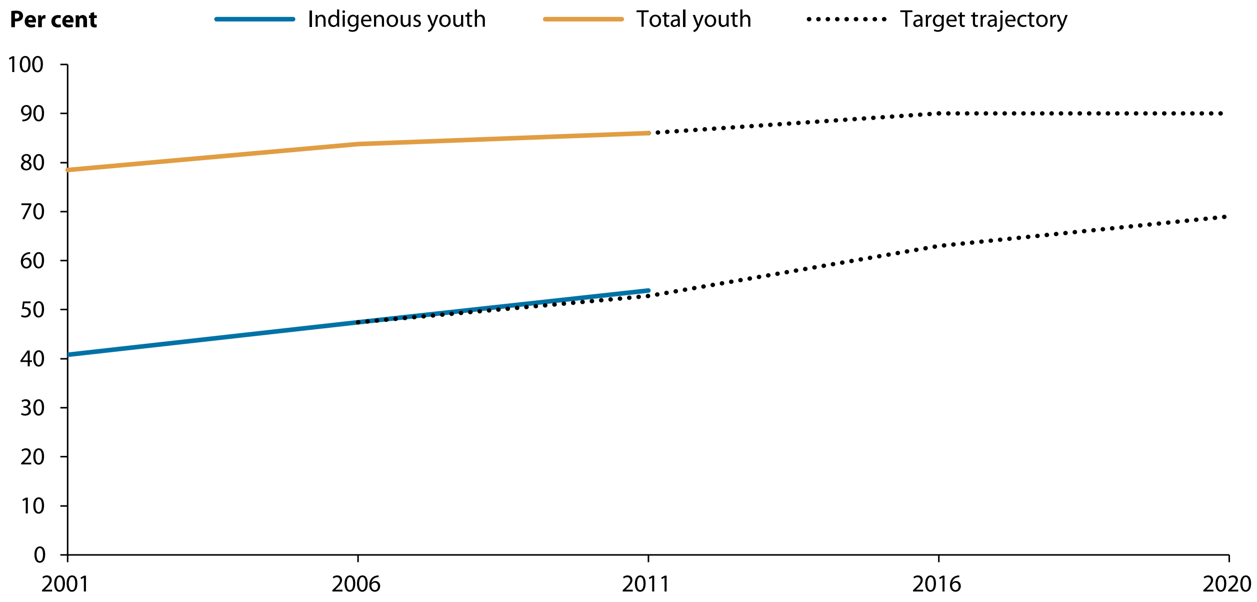
Target: Halve the gap for Indigenous people aged 20–24 in Year 12 or equivalent attainment rates by 2020

Data from the Census show that, in the decade to 2011, there was steady improvement in Year 12 or equivalent attainment for Indigenous people aged 20–24—increasing from 41% in 2001 to 47% in 2006 and 54% in 2011.

Between 2006 and 2011, there was a narrowing of the Year 12 or equivalent attainment gap between Indigenous and non-Indigenous people by 4 percentage points (SCRGSP 2014b).

Year 12 attainment milestones for Indigenous young people were agreed upon for 2016 (namely 63%) and 2020 (69%) (COAG 2012b). The 2011 results are 1 percentage point higher than the trajectory required to meet the 2020 target (Figure 3.6).

While the Census is the main data source for measuring progress towards the educational attainment target, data from the 2012–13 AATSIHS also indicate an increase since 2008 in the proportion of Indigenous people aged 20–24 who had completed Year 12 or Certificate II or above (SCRGSP 2014b). The corresponding attainment rates for non-Indigenous people, as sourced from national health surveys, remained stable over this period, resulting in a narrowing of the gap by 15 percentage points.



Note: Data for this figure are shown in Table S3.6.

Sources: AIHW analyses of ABS 2001, 2006 and 2011 Censuses.

Figure 3.6: Current and required trajectory to meet the COAG target for Year 12 or equivalent attainment, Indigenous and all Australian people aged 20–24, 2001 to 2020 (selected years)

Post-secondary education

Indigenous Australians may be more likely than other Australians to face barriers to participation in higher education and training, such as financial barriers, family responsibilities, and living in areas without access to suitable educational institutions. Box 3.4 outlines barriers reported by Indigenous people wanting to participate in higher education or training.

Box 3.4: Barriers to education or training

In 2008, about 1 in 4 (26%) Indigenous Australians aged 15 and over reported that they had wanted to study in the previous 12 months but were unable to, with those aged in their 20s and 30s the most likely to indicate this. When asked why they had not studied:

- 37% of those aged 15–24 and 27% of those aged 25–49 reported education-related reasons, including course-related reasons, the cost of studying and the lack of availability of courses/educational institutions in the area
- 32% of those aged 15–24 and 35% of those aged 25–49 reported family or personal reasons, including caring responsibilities
- 23% of those aged 15–24 and 31% of those aged 25–49 reported work-related reasons or a lack of time (CAEPR analysis of 2008 National Aboriginal and Torres Strait Islander Social Survey).

In 2013, 13,781 university students identified as being of Aboriginal and/or Torres Strait Islander origin, which represented 1% of all university enrolments. One-third (33%) of Indigenous university students were enrolled in the field of society and culture, followed by 20% in health and 17% in education (Department of Education 2014).

In 2012–13, about 1 in 3 (34%) Indigenous people aged 20 and over had obtained a qualification through either vocational education and training, or tertiary studies at university. Indigenous people aged 20 and over were significantly less likely than their non-Indigenous counterparts to have:

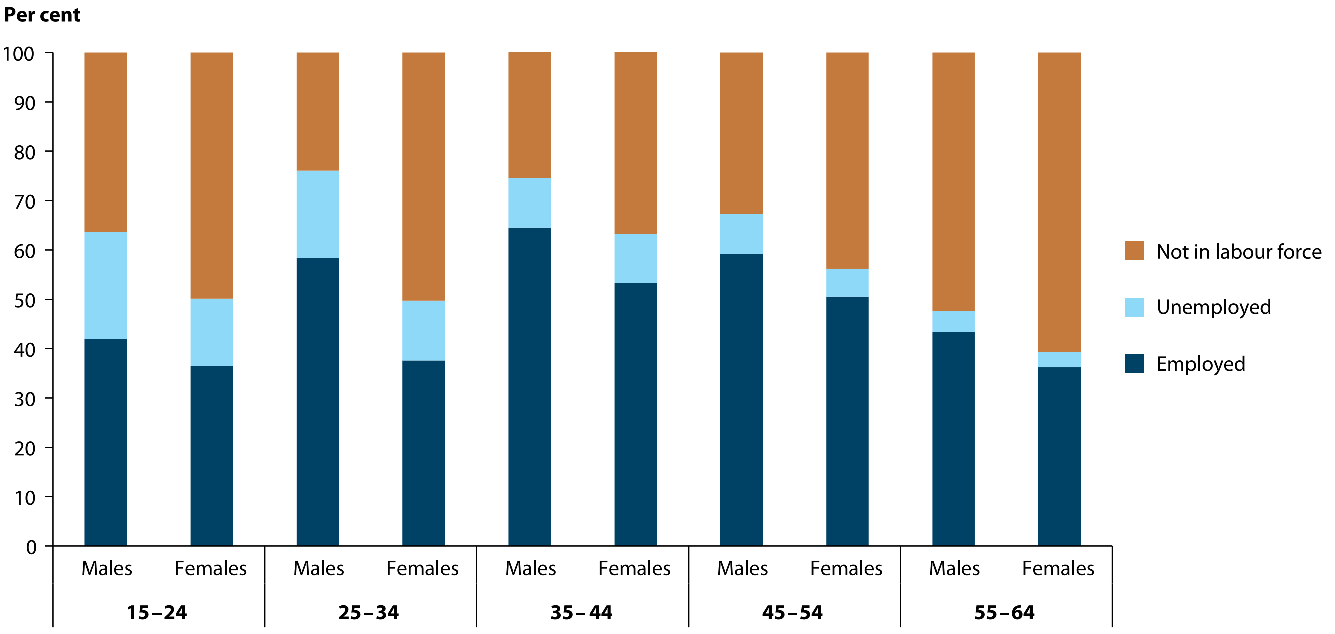
- obtained such a qualification (age-standardised rate of 34% compared with 57%)
- attained a Bachelor degree or above (age-standardised rate of 6% compared with 26%) (ABS 2014d).

3.3 Labour force participation

Indigenous Australians have relatively low levels of employment and relatively high levels of unemployment due to several factors, including education and skill levels, geographic location and labour market conditions (Gray et al. 2012).

In 2012–13, 60% of Indigenous Australians aged 15 to 64 (an estimated 232,700 people) were in the labour force (that is, employed or unemployed) (ABS 2014d). Participation rates were:

- highest among Indigenous people aged 35–44 (69%) and lowest for those aged 55–64 (43%)
- significantly higher among Indigenous men (68%) than Indigenous women (53%) across all age groups (Figure 3.7), but particularly so for those aged 25–34, at least partly reflecting the relatively high proportion of Indigenous women out of the workforce caring for young children
- significantly higher in non-remote areas (61%) than remote areas (55%) (ABS 2014d).

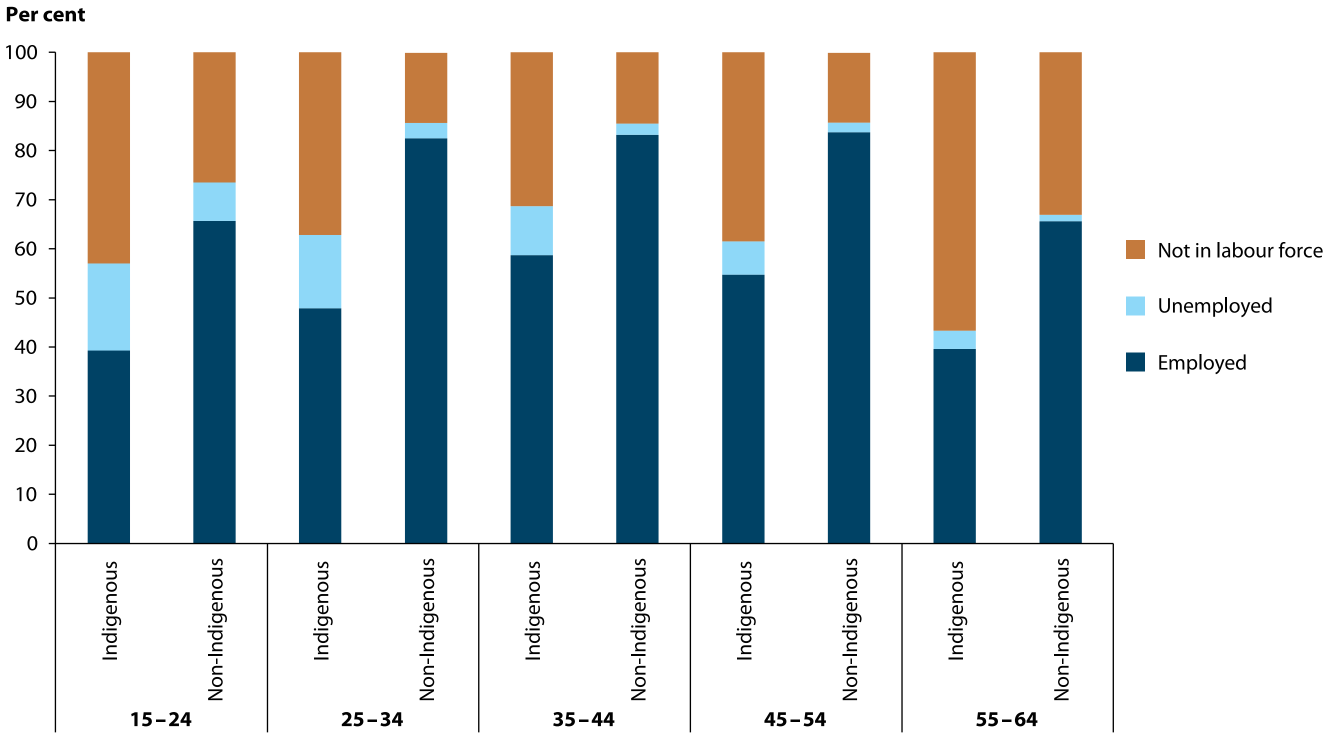


Note: Data for this figure, which were sourced from the ABS 2012–13 AATSIHS, are shown in Table S3.7.

Source: ABS 2014d.

Figure 3.7: Labour force status of Indigenous people aged 15 to 64, by age and sex, 2012–13

Indigenous Australians aged 15 to 64 were significantly less likely to be in the labour force than non-Indigenous Australians in 2012–13 (rate ratio of 0.7 based on age-standardised rates) (Table S3.8). As shown in Figure 3.8, this difference held across all age groups.



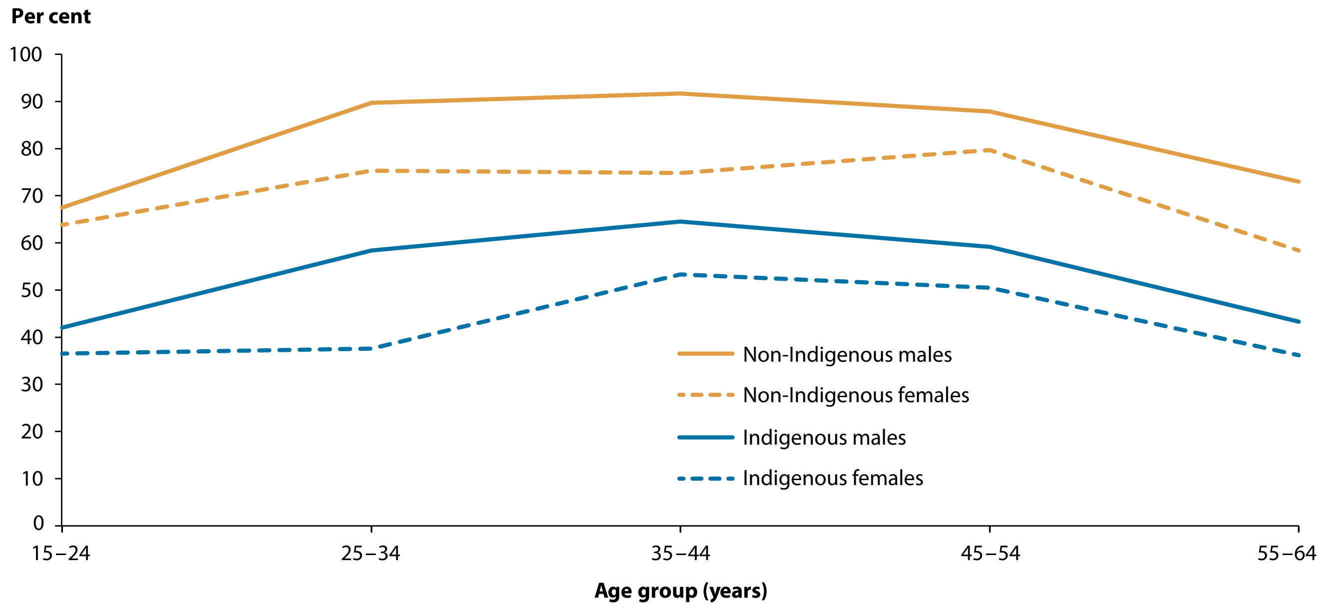
Note: Data for this figure, which were sourced from the ABS 2012–13 AATSIHS and the ABS 2011–12 AHS, are shown in Table S3.8.

Source: ABS 2014d.

Figure 3.8: Labour force status of people aged 15 to 64, by age and Indigenous status, 2012–13

Another aspect to the gap in employment outcomes between Indigenous and non-Indigenous Australians is the difference in levels of employment between men and women. Indigenous women of working age have significantly lower employment rates than:

- non-Indigenous men and women of the same age
- Indigenous men between the ages of 25 and 54 (Figure 3.9).



Note: Data for this figure, which were sourced from the ABS 2012–13 AATSIHS and the ABS 2011–12 AHS, are shown in Table S3.9.

Source: ABS 2014d.

Figure 3.9: Employment-to-population ratios among people aged 15 to 64, by age, sex and Indigenous status, 2012–13

One barrier to employment for some Indigenous women is their greater level of caring responsibility. Indigenous women are more likely than the rest of the population to have unpaid caring responsibilities for their own children and the children of others, as well as for those with disability or illness related to old age (Yap & Biddle 2012).

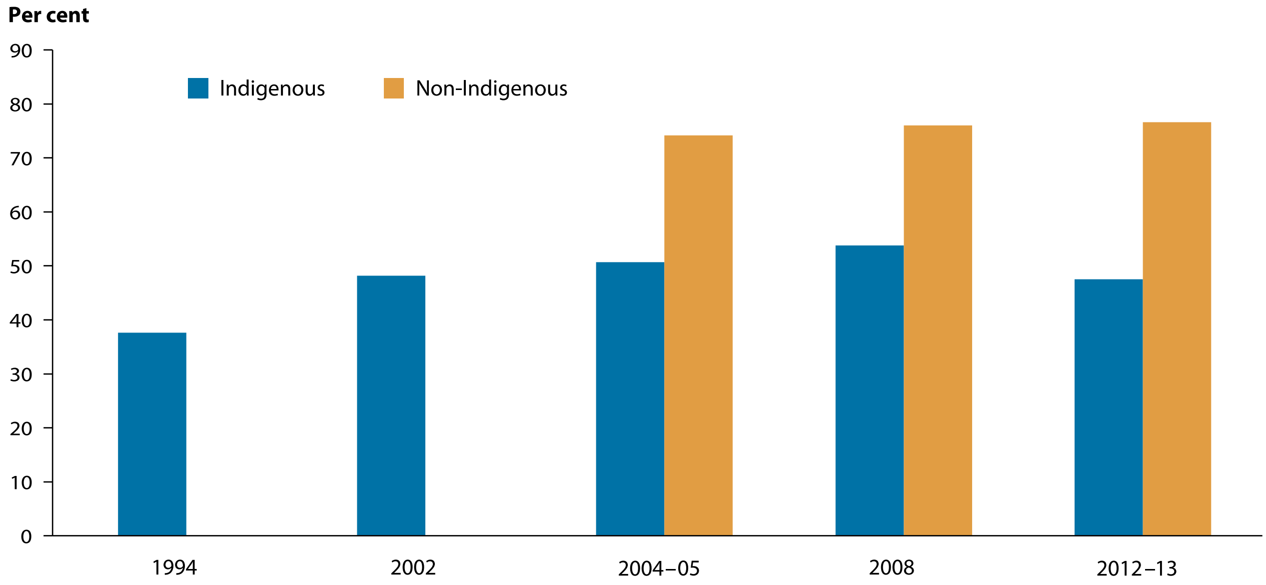
Unemployment rate

The unemployment rate indicates the number of unemployed people as a proportion of the labour force. In 2012–13, the unemployment rate for Indigenous people aged 15 to 64 was 21%, with the rate highest among those aged 15–24 (31%), followed by those aged 25–34 (24%). The unemployment rate for Indigenous people aged 15 to 64 was 4.2 times as high as the rate for non-Indigenous people, after adjusting for age differences in the 2 populations (Table S3.10; ABS 2014d). The largest difference was seen for adults aged 25–34, where the Indigenous unemployment rate was 6.6 times as high as the non-Indigenous rate.

There was little difference in unemployment rates for Indigenous people across remoteness areas—21% in non-remote areas and 20% in remote areas (ABS 2014d).

Change over time

The employment-to-population ratio for Indigenous people aged 15 to 64 increased from 38% in 1994 to 54% in 2008, and then declined to 48% in 2012–13 (Figure 3.10). In contrast, the employment-to-population ratio for non-Indigenous people remained fairly stable at about 76% between 2004–05 and 2011–12.



Notes

1. Data for non-Indigenous people are not available for 1994 and 2002.
2. Data for this figure are shown in Table S3.11.

Source: SCRGSP 2014b.

Figure 3.10: Employment-to-population ratios among people aged 15 to 64, by Indigenous status, selected years

It is a COAG target to reduce the gap in employment outcomes between Indigenous and non-Indigenous Australians between 2008 and 2018—see Box 3.6.

Box 3.6: COAG target for employment

Target: Halve the gap in employment outcomes between Indigenous and non-Indigenous Australians within a decade (by 2018)

The gap in employment is measured through employment-to-population ratios, labour force participation rates and unemployment rates.

Between 2008 and 2012–13 and among those aged 15 to 64:

- The employment gap widened by 7 percentage points—in 2008, the employment gap was 22% compared with 29% in 2012–13 (when the proportion of the Indigenous population aged 15 to 64 who were employed was 48% in 2012–13, compared with 77% of the non-Indigenous working-age population).
- The labour force participation gap increased by 6 percentage points due to a fall in the Indigenous participation rate and a rise in the non-Indigenous rate.
- Both the Indigenous and non-Indigenous unemployment rates rose; however the Indigenous rate rose more, leading to an increase in the unemployment gap of 4 percentage points (Table S3.12).

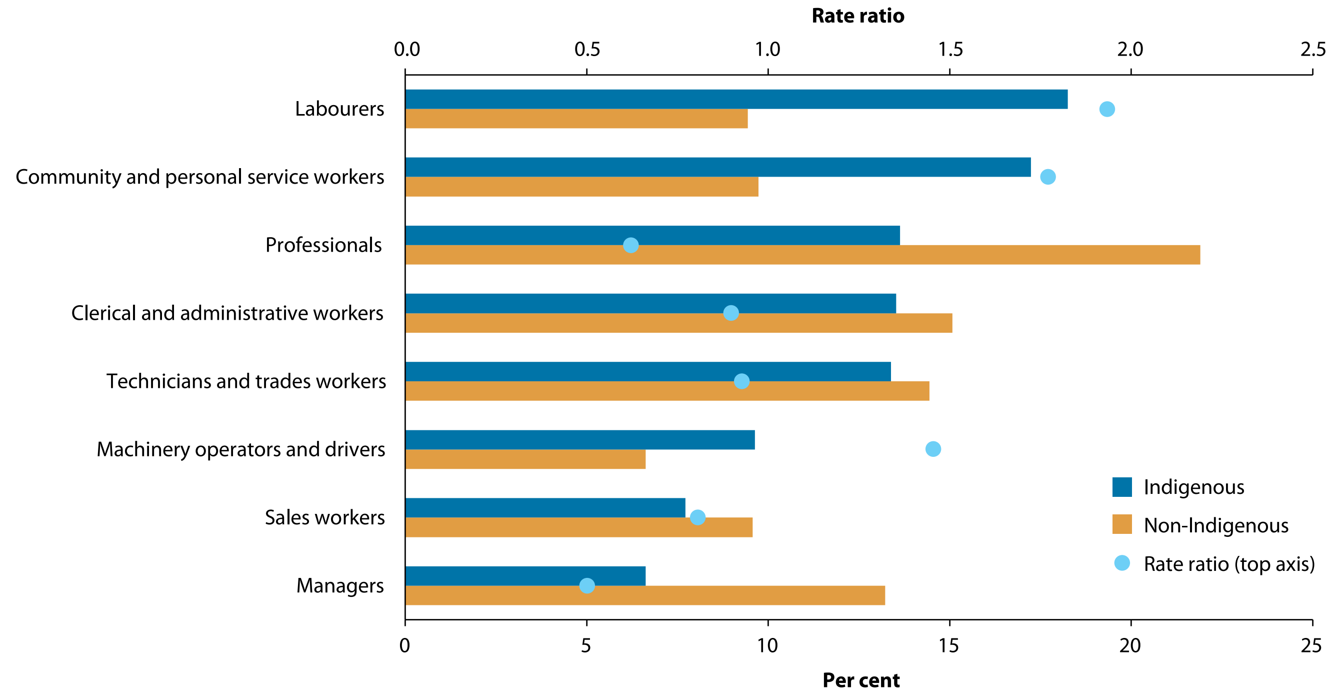
The fall in employment rates for Indigenous people over time may partly reflect changes to the Community Development Employment Projects (CDEP) program in July 2009 (COAG Reform Council 2014). From 2009, new CDEP participants did not receive CDEP wages but standard Centrelink income support payments instead. This change led to a fall in the number of Indigenous Australians considered to be employed.

Occupation

Of the 142,100 Indigenous workers who stated their occupation in the 2011 Census, the most common occupations were: labourers (18%), community and personal service workers (17%), professionals (14%), clerical and administrative workers (14%), and technicians and trades workers (13%) (Figure 3.11).

Compared with non-Indigenous workers, Indigenous workers were:

- about twice as likely to work as labourers or community and personal service workers
- about half as likely to work as managers or professionals (Figure 3.11).



Note: Data for this figure are shown in Table S3.13.

Source: AIHW analysis of ABS 2011 Census (using TableBuilder).

Figure 3.11: Occupation of employed people, by Indigenous status, 2011

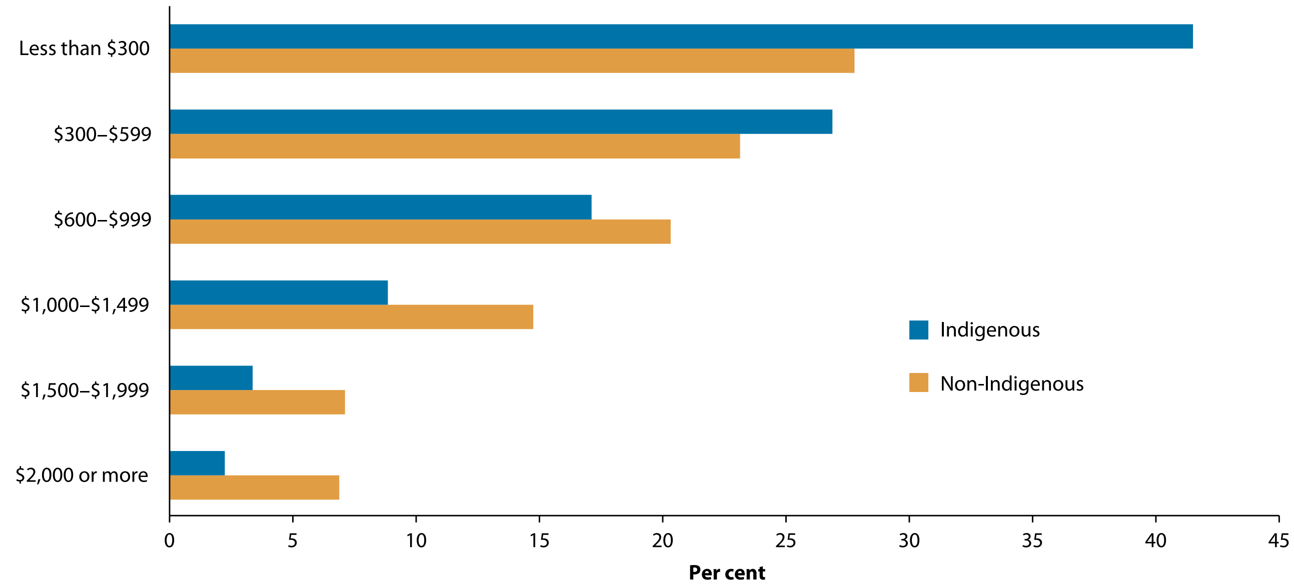
The proportion of Indigenous workers employed in various occupations in 2011 has changed from 2006. In 2011:

- a smaller proportion of Indigenous workers were employed as labourers (18% in 2011 compared with 25% in 2006)
- a larger proportion were employed as:
  - professionals (14% compared with 12%)
  - clerical and administrative workers (14% compared with 13%)
  - community and personal service workers (17% compared with 16%) (AIHW 2011b; AIHW analysis of 2011 Census).

3.4 Income

According to Census data, Indigenous people have relatively low average weekly incomes and are under-represented in the highest income bracket. Among those aged 15 and over in 2011:

- 2.2% of Indigenous people had a total weekly income of $2,000 or more, compared with 6.9% of non-Indigenous people
- more than two-thirds (68%) of Indigenous people had a total weekly income below $600, compared with 51% of non-Indigenous people (Figure 3.12).



Note: Data for this figure are shown in Table S3.14.

Source: AIHW analysis of ABS 2011 Census (using TableBuilder).

Figure 3.12: Total personal weekly income of people aged 15 and over, by Indigenous status, 2011

On average, Indigenous people aged 15 and over living in *Major cities* had higher weekly incomes than their counterparts in regional or remote areas, with 61% of Indigenous people in *Major cities* having a personal weekly income below $600 compared with 82% of Indigenous people in *Very remote* areas (Table S3.14).

Average disposable income for Indigenous people aged 15 and over increased from $391 per week in 2006 to $488 per week in 2011 (taking inflation into account); however, the ratio of Indigenous to non-Indigenous average income remained steady at 0.7 over the period (Biddle 2013).

Census data about household income indicate that in 2011, average total weekly equivalised household income for Indigenous households was $691; this compared with $941 for other households (ABS and AIHW analysis of 2011 Census).

Financial stress

Among Indigenous households in 2012–13:

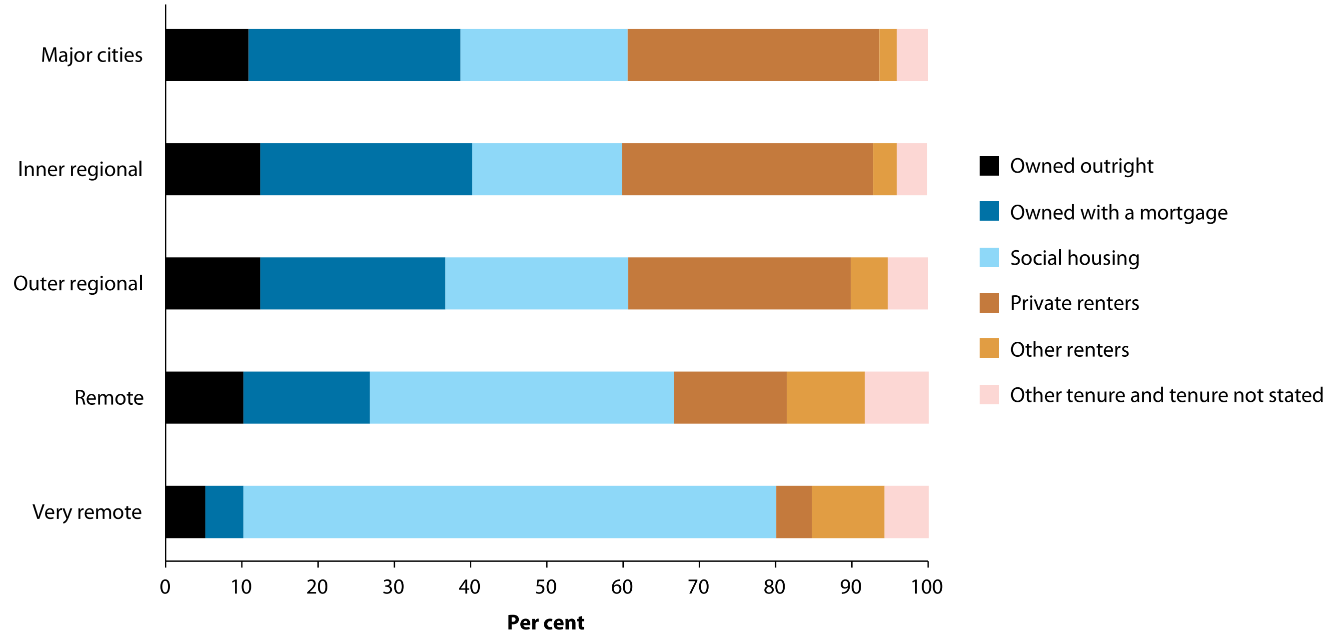
- 44% indicated that if household members had to raise $2,000 in one week to pay for something important, they could not do it
- 39% reported that they had days without money for basic living expenses in the previous 12 months and, of these households, 47% had days without money for basic living expenses in the 2 weeks prior to the survey
- about 1 in 4 (23%) stated that they had run out of food in the previous 12 months and could not afford to buy more; of those who had run out of food, 41% reported that they went without food (AIHW analysis of 2012–13 AATSIHS).

3.5 Housing

Housing tenure

In 2011, 36% of Indigenous households owned their home (with or without a mortgage), 29% were private renters, and 26% rented from social housing (that is, they rented through either a state or territory housing authority, or community housing) (Table S3.15; AIHW 2014r).

Indigenous households in non-remote areas (39%) were more likely to own their home than those in remote areas (18%). The proportion living in social housing was highest in *Very remote* areas (70%), followed by 40% in *Remote* areas and between 20% and 24% in other areas (Figure 3.13).



Note: Data for this figure, which were sourced from the ABS 2011 Census, are shown in Table S3.15.

Source: AIHW 2014r.

Figure 3.13: Tenure type, by remoteness, Indigenous households, 2011

Indigenous households have lower rates of home ownership than other households. In 2011, about half as many Indigenous households owned their home as other households (36% and 68%, respectively) (ABS 2012b). This may be due to:

- the lower socioeconomic status of Indigenous households
- more limited access to loans
- lack of familiarity with the home buying process
- the substantial number of Indigenous households living on community-titled land in more remote areas, where individual land ownership is more difficult to obtain (AIHW 2014r).

Home ownership rates among Indigenous households have increased according to Census data: 32% of Indigenous households owned their own home (either with or without a mortgage) in 2001, 34% in 2006 and 36% in 2011. The overall increase in the home ownership rate among Indigenous households between 2001 and 2011 was 12% (AIHW 2014r).

For further information about housing tenure among Indigenous households, including how housing costs vary by housing tenure, see *Housing circumstances of Indigenous households: tenure and overcrowding* (AIHW 2014r).

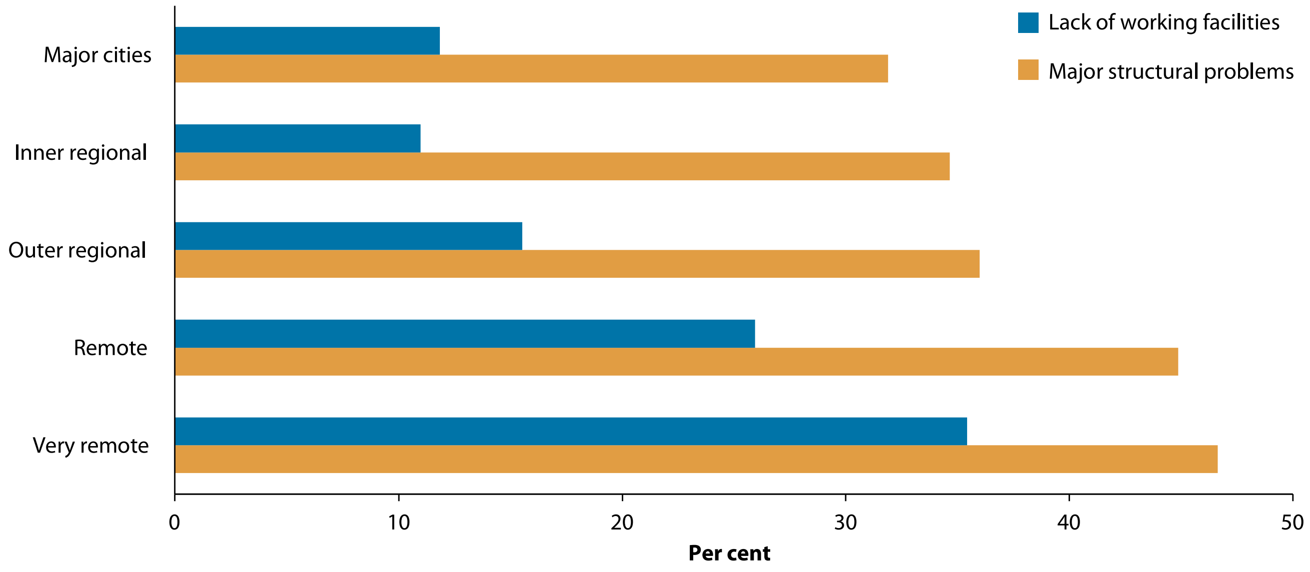
Functional housing

Among Indigenous households in 2012–13:

- more than 1 in 3 (35%) reported living in a dwelling with 1 or more major structural problems such as electrical or plumbing problems, major cracks in floors or walls, or roof defects
- more than 1 in 7 (15%) reported living in a dwelling that was lacking at least 1 working facility such as a fridge, cooking facilities, toilet, or bath or shower (AIHW analysis of 2012–13 AATSIHS).

Dwellings with structural problems or a lack of working facilities were more common in remote areas than in non-remote areas (Figure 3.14). In 2012–13:

- 46% of Indigenous households in remote areas reported living in a dwelling with 1 or more major structural problems, compared with 33% of those in non-remote areas
- 31% of Indigenous households in remote areas reported living in a dwelling that was lacking at least one working facility, compared with 12% of those in non-remote areas (Table S3.16).



Notes

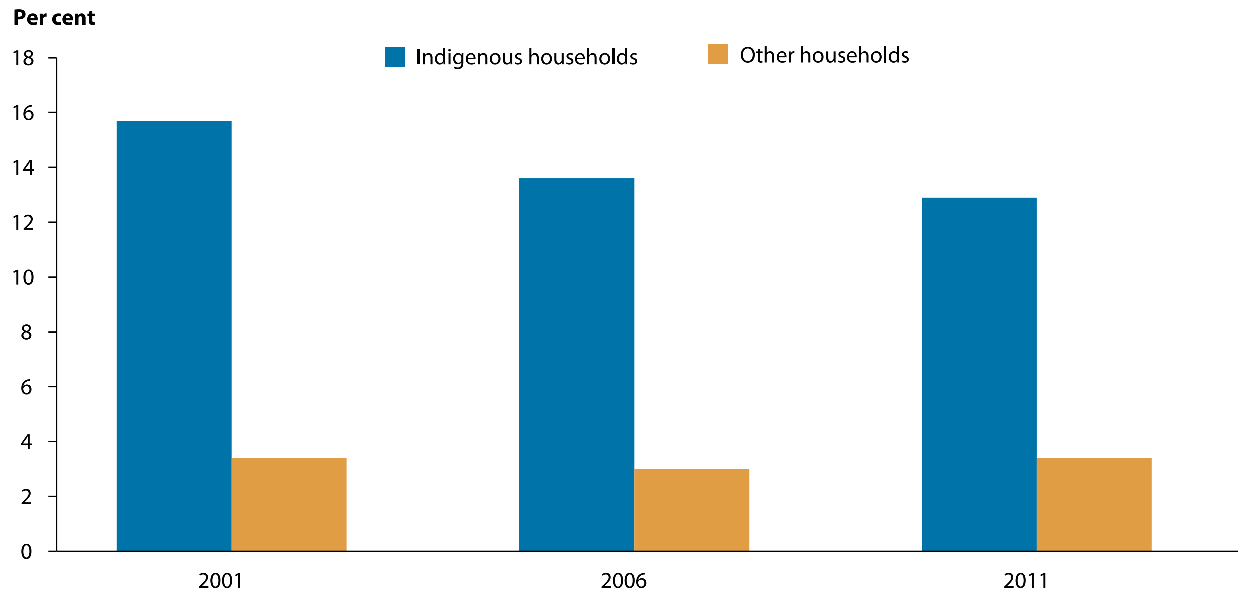
1. Working facilities include facilities such as a fridge, cooking facilities, toilet, and bath or shower. Major structural problems include problems such as major cracks in floors or walls, roof defects, termites, and electrical or plumbing problems.
2. Data for this figure are shown in Table S3.16.

Source: AIHW analysis of ABS 2012–13 Australian Aboriginal and Torres Strait Islander Health Survey (using TableBuilder).

Figure 3.14: Proportion of Indigenous households living in a dwelling with major structural problems or a lack of working facilities, by remoteness, 2012–13

Overcrowding

Almost 24,700 Indigenous households were considered to be overcrowded on Census night in 2011 (that is, they required 1 or more extra bedrooms to meet the Canadian National Occupancy Standard—see AIHW 2014r for further information). Indigenous households were more than 3 times as likely as other households to be deemed overcrowded (12.9% compared with 3.4%) (Figure 3.15). The higher level of overcrowding among Indigenous households is associated with a number of factors, including cultural and social differences, higher levels of unmet demand for affordable housing, and lower income levels (ABS 2011c; SCRGSP 2011).



Note: Data for this figure, which were sourced from Census data, are shown in Table S3.17.

Source: AIHW 2014r.

Figure 3.15: Overcrowded households, by Indigenous status of household, 2001, 2006 and 2011

According to the 2011 Census:

- the rate of overcrowding varied according to housing tenure—Indigenous households living in social housing (23%) had the highest rate while Indigenous home owners had the lowest rate (7%)
- the proportion of Indigenous households living in overcrowded conditions was substantially lower in non-remote areas (between 10% and 12%) than in remote areas (20% in *Remote* areas and 39% in *Very remote* areas) (AIHW 2014r).

The proportion of Indigenous households living in overcrowded conditions fell from 16% in 2001 to 13% in 2011, indicating a total decrease of 18% over the decade. In contrast, for other households, the proportion living in overcrowded conditions was steady at 3% in each of the 3 Census years. This resulted in a narrowing of the gap in overcrowding by 3 percentage points over the decade (AIHW 2014r).

For further information about overcrowding, see *Housing circumstances of Indigenous households: tenure and overcrowding* (AIHW 2014r).

Homelessness

The definition of homelessness is multifaceted, and there is no internationally agreed definition. In 2012, the ABS developed a new definition of homelessness for statistical purposes, which considers someone homeless if they do not have suitable accommodation alternatives and their current living arrangement:

- is in a dwelling that is inadequate (unfit for human habitation or lacks basic facilities such as kitchen and bathroom facilities), or
- has no tenure, or their initial tenure is short and not extendable, or
- does not allow them to have control of, and access to, space for social relations (including personal—or household—living space, ability to maintain privacy and exclusive access to kitchen and bathroom facilities) (ABS 2012d).

The ABS definition of 'homelessness' includes people who are living in 'severely' crowded dwellings, with such a dwelling defined as one that needs 4 or more extra bedrooms to accommodate the people who usually live there, according to the Canadian National Occupancy Standard (see AIHW 2014p for further information). People in these types of dwellings are considered homeless because they do not have control of, or access to, space for social relations.

Using the ABS definition, on Census night in 2011 an estimated 26,743 Indigenous people were experiencing homelessness in Australia—a rate of 1 in 20 Indigenous people. Of all homeless people who provided information on their Indigenous status, 28% were Indigenous.

Of the Indigenous people who were homeless in 2011, 3 in 4 (75%; 20,054 people) were living in severely crowded dwellings. The remaining Indigenous homeless people were in the following types of living situations:

- 12% (3,282 people) were living in supported accommodation for the homeless
- 6.3% (1,677 people) were staying in improvised dwellings, tents or sleeping out
- 3.8% (1,011 people) were staying temporarily with other households
- 2.5% were living in boarding houses while 0.2% were staying in other temporary lodgings (AIHW 2014p).

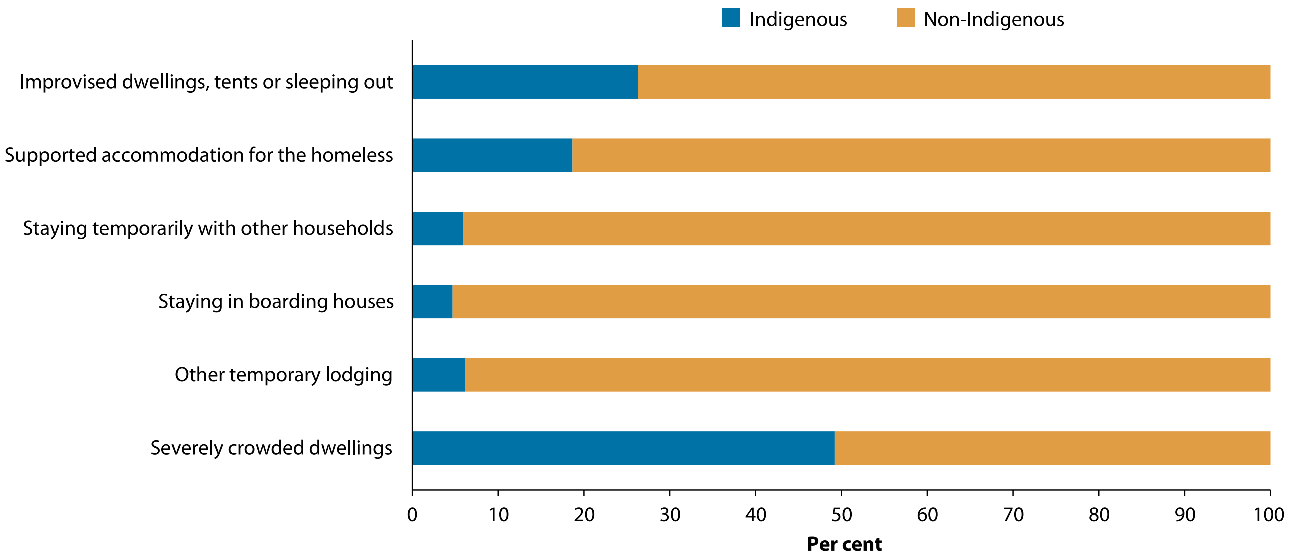
The Indigenous homelessness rate in 2011 was nearly 14 times the rate for non-Indigenous people (1 in 20 people compared with 1 in 284, respectively) (AIHW 2014p). Indigenous Australians are more likely to be homeless than non-Indigenous Australians for a range of reasons, including differing access to affordable and secure housing, greater mobility of some segments of the Indigenous population, and the need to travel to access services or observe cultural obligations (AIHW 2011b).

Between 2006 and 2011, the rate of homelessness among Indigenous people fell by 14% (from 571 to 488 per 10,000 Indigenous people). In contrast, there was a 12% increase in the rate of homelessness among non-Indigenous people.

Indigenous homeless people were over-represented in all homelessness groups. While Indigenous people comprised 3% of the Australian population in 2011, Indigenous people accounted for:

- 49% of those living in severely crowded dwellings
- 26% of people in improvised dwellings, tents or sleeping out
- 19% of people staying in supported accommodation for the homeless (Figure 3.16).

Further information on homelessness can be found in *Homelessness among Indigenous Australians* (AIHW 2014p).



Note: Data for this figure are shown in Table S3.18.

Source: AIHW 2014p.

Figure 3.16: Proportion of homeless people who were Indigenous, by type of homelessness, 2011

3.6 Community safety

Safe and supportive communities are positively associated with better health, education and employment outcomes; in addition, feeling safe is an important contributor to physical and mental wellbeing (SCRGSP 2011). Aspects of safety covered in this section include child abuse and neglect, and exposure to violence. Other topics covered are youth justice supervision and adult contact with the criminal justice system. The wide disparities between Indigenous and non-Indigenous people in these areas are another manifestation of Indigenous disadvantage.

Child abuse and neglect

In Australia, statutory child protection is primarily the responsibility of state and territory governments. Departments responsible for child protection provide support and assistance to the most vulnerable children and families, in collaboration with the non-government sector, which delivers a broad range of services. Children (defined as those aged under 18) generally come to the attention of the state and territory departments responsible for child protection when concern for their wellbeing is reported by community members, professionals (for example, police or teachers), organisations, the children themselves, their parent/s, or another relative (AIHW 2013c, 2014m).

Indigenous children are consistently and significantly over-represented across the child protection system. Child abuse and neglect can be a symptom of substance abuse, domestic violence or disadvantage in areas such as housing, employment and access to services (SCRGSP 2011).

In 2012–13:

- 36,656 Indigenous children received child protection services (that is, an investigation, care and protection orders, and/or out-of-home care) (AIHW 2014m)
- Indigenous children were 7 times as likely as non-Indigenous children to have received child protection services (127 and 18 per 1,000 children, respectively) (Table S3.19).

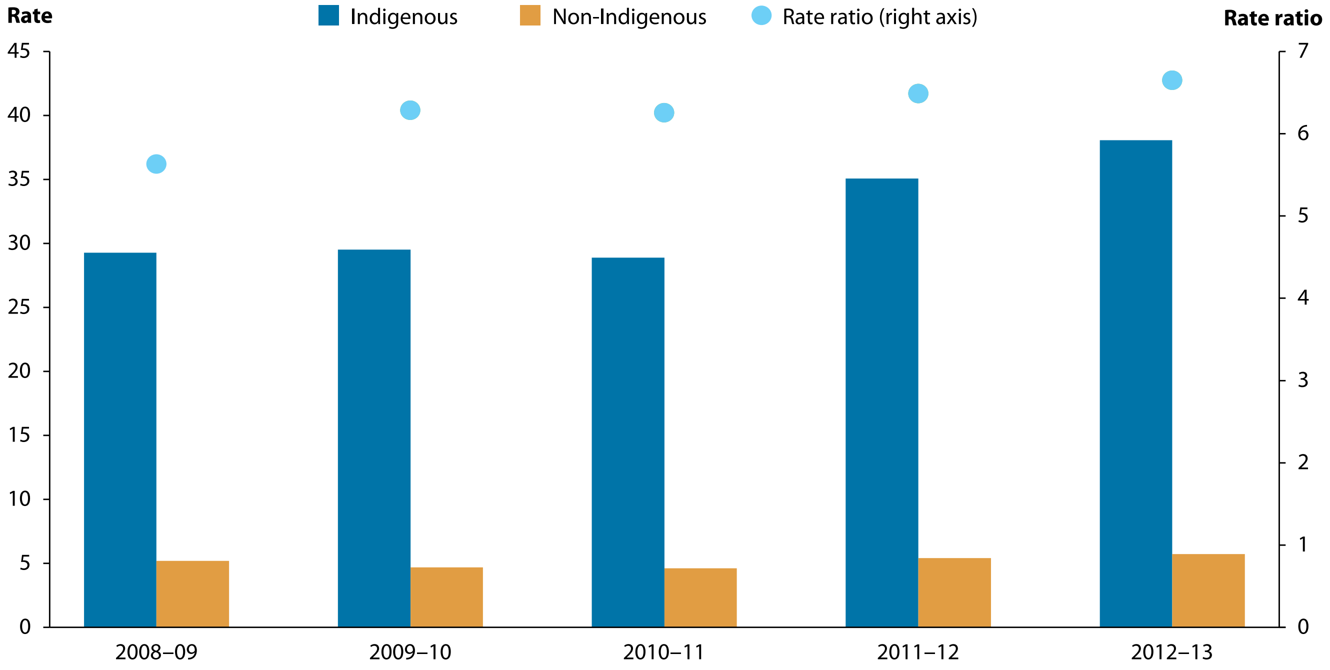
Child protection 'substantiations' are notifications that were investigated and a reasonable cause was found to believe that the child had been, was being, or was likely to be, abused, neglected or otherwise harmed (AIHW 2014m). In 2012–13:

- 10,991 Indigenous children were the subject of a child protection substantiation
- the rate of substantiated child protection notifications for Indigenous children was about 7 times the rate for non-Indigenous children (38.1 and 5.7 per 1,000 children, respectively)
- neglect was the most common type of substantiated abuse for Indigenous children, whereas for non-Indigenous children it was emotional abuse.

Between 2008–09 and 2012–13:

- substantiation rates increased for Indigenous children (from 29.3 to 38.1 per 1,000 children) as well as for non-Indigenous children (from 5.2 to 5.7 per 1,000) (Figure 3.17)
- the Indigenous to non-Indigenous gap in child substantiations rose by 38% between 2008–09 and 2012–13 (based on rate differences) (Table S3.20).

The increase in substantiation rates may reflect a number of factors, such as legislative changes, enhanced public awareness and inquiries into child protection processes, along with real increases in abuse and neglect (AIHW 2014m).



Notes

1. Rates are expressed per 1,000 children. Rates were calculated using population estimates based on the 2011 Census and may differ from previously published rates (see Box 1.2).
2. Data for this figure, which were sourced from the Child Protection National Minimum Data Set, are shown in Table S3.20.

Sources: AIHW 2014m; ABS 2014e, 2014h.

Figure 3.17: Child protection substantiation rates for children aged 0–17, by Indigenous status, 2008–09 to 2012–13

Care and protection orders are legal orders or arrangements that give child protection departments some responsibility for a child's welfare. At 30 June 2013:

- 14,455 Indigenous children were on care and protection orders (AIHW 2014m)
- the rate of Indigenous children on care and protection orders was about 9 times the rate for non-Indigenous children (49.9 and 5.8 per 1,000 children, respectively).

Out-of-home care provides alternative overnight accommodation for children aged 0 to 17 where the jurisdiction makes a financial payment to the carer, or where a financial payment has been offered but declined by the carer (AIHW 2014m). At 30 June 2013:

- 13,952 Indigenous children were in out-of-home care
- the rate of out-of-home care for Indigenous children was 9 times the rate for non-Indigenous children (48.2 and 5.4 per 1,000 children, respectively).

For further information on Indigenous children in the child protection system, see *Child protection Australia 2012–13* (AIHW 2014m) and *Indigenous child safety* (AIHW 2014s).

Exposure to violence

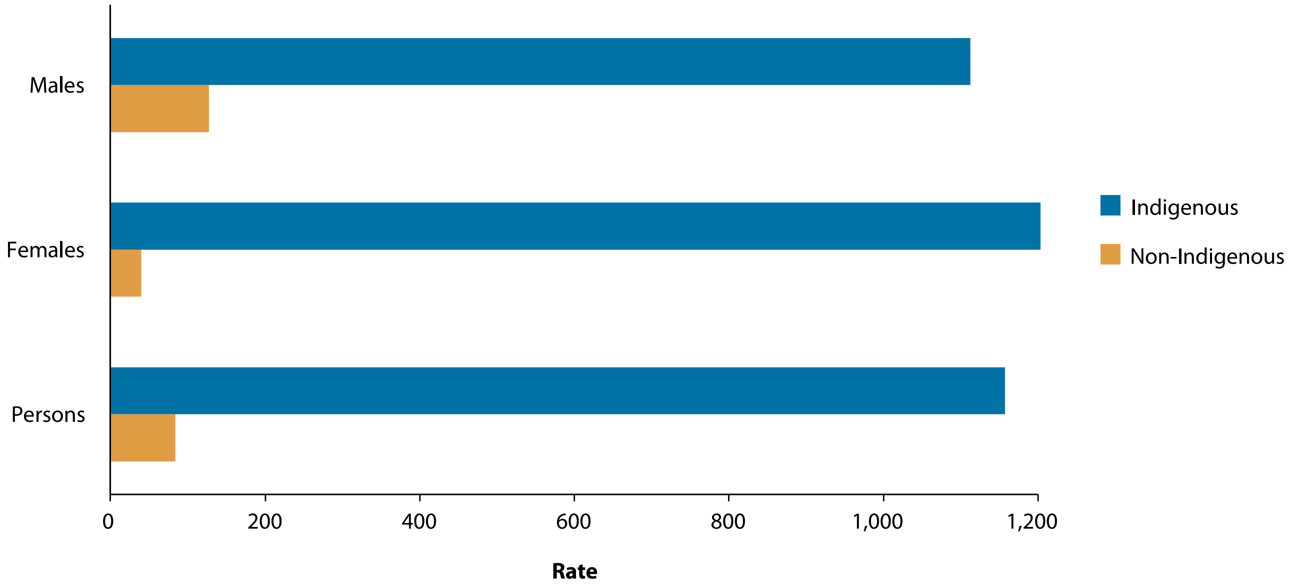
Violence not only has a negative impact on the physical and mental health of the victim, but it can also affect family members, friends and the broader community. In 2008, almost 1 in 4 (23%) Indigenous Australians aged 15 and over indicated that they had been a victim of physical or threatened violence in the previous 12 months (ABS 2009).

Assault

The extent to which Indigenous people experience assault can be gleaned from data relating to the number of hospitalisations for assault, as well as cases of assault reported to police. However, these data are likely to underestimate the true extent of assault because not all cases are reported to police and not all victims seek medical help (and those that do are not all subsequently hospitalised).

Data on hospitalisations for assault suggest that rates of assault in the Indigenous population are relatively high, especially among females. In 2012–13:

- there were an estimated 7,296 hospitalisations of Indigenous people due to assault
- the age-standardised rate of hospitalisations for assault among Indigenous people was 14 times as high as for non-Indigenous people (1,157 compared with 83 per 100,000 population)
- the age-standardised rate of hospitalisations for assault among Indigenous females was 31 times as high as for non-Indigenous females (1,204 and 39 per 100,000 females, respectively) (Figure 3.18).



Notes

1. Rates have been directly age-standardised to the 2001 Australian standard population and are expressed per 100,000 population.
2. Data for this figure are shown in Table S3.21.

Source: AIHW National Hospital Morbidity Database.

Figure 3.18: Rates of hospitalised assault cases, by sex and Indigenous status, 2012–13

Rates of assault reported to police were also higher among the Indigenous population than the non-Indigenous population in the 3 states and territories for which data are available. In 2013, there were about 11,900 Indigenous victims of assault reported to police in New South Wales, South Australia and the Northern Territory combined. Based on these data, Indigenous people experienced assault victimisation at:

- 6 times the rate of non-Indigenous people in the Northern Territory (7,615 and 1,274 per 100,000 population, respectively)
- 5 times the rate of non-Indigenous people in South Australia (4,174 and 811 per 100,000 population, respectively)
- almost 3 times the rate of non-Indigenous people in New South Wales (2,258 and 795 per 100,000 population, respectively) (ABS 2014l).

Victims of alcohol-related and illicit drug-related incidents

According to data from the 2013 National Drug Strategy Household Survey, Indigenous Australians aged 14 and over:

- were significantly more likely than their non-Indigenous counterparts to have been a victim of an alcohol-related incident in the previous 12 months (38% and 26%, respectively); the difference was particularly large in terms of physical abuse (more than twice as likely—21% compared with 8.5%)
- were also significantly more likely to have been a victim of illicit drug-related incidents in the previous year (twice as likely—16% and 8.1%, respectively) (Table S3.22).

Youth justice supervision

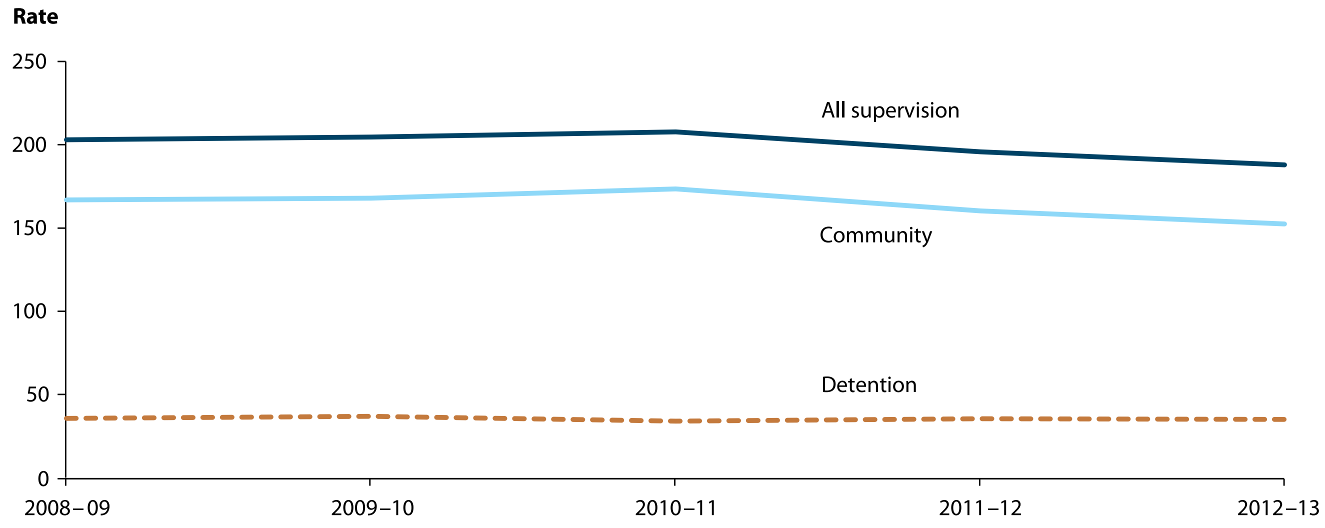
Indigenous children are over-represented in the youth justice system (AIHW 2014aa). As a result, they are likely to have poorer social, emotional and health outcomes (AIHW 2012e, 2013m). Indigenous young people are also more likely to reappear as adults in the justice system. A study in New South Wales found that of Indigenous young people aged 10 to 18 who first appeared in a juvenile court in 1995, 91% reappeared in the adult court system within the next 8 years (compared with 53% of non-Indigenous young people), and 36% ended up in an adult prison (compared with 10% of non-Indigenous young people) (Chen et al. 2005). Furthermore, data from the National Prisoner Health Data Collection indicate that, in 2012, 30% of Indigenous adult prisoners had previously been in juvenile detention, compared with 18% of non-Indigenous adult prisoners (AIHW 2013f).

On an average day in 2012–13, 44% of young people aged 10–17 under youth justice supervision were Indigenous; by comparison, 6% of all young people aged 10–17 are Indigenous. Of all Indigenous young people aged 10–17 under supervision, 81% were male.

Overall, on an average day in 2012–13, Indigenous young people aged 10–17 were:

- 14 times as likely as non-Indigenous young people to be under supervision (187.5 compared with 13.2 per 10,000 young people)
- 13 times as likely to be under community-based supervision (152.3 compared with 11.7 per 10,000)
- 23 times as likely to be in detention (35.3 compared with 1.5 per 10,000) (Table S3.23).

The overall rate of Indigenous young people aged 10–17 under supervision on an average day declined between 2008–09 and 2012–13 from 203 to 188 per 10,000 young people (Table S3.23). Most of this decrease was due to a fall in the rate of community-based supervision (rather than detention) (Figure 3.19).



Notes

1. Rates are expressed per 10,000 young people. Rates were calculated using population estimates based on the 2011 Census and may differ from previously published rates (see Box 1.2).
2. Data for this figure are shown in Table S3.23.

Sources: AIHW 2014aa; ABS 2014e, 2014h.

Figure 3.19: Indigenous young people aged 10–17 under supervision on an average day, by type of supervision, 2008–09 to 2012–13

Further information on Indigenous youth justice can be found in *Youth justice in Australia 2012–13* (AIHW 2014aa) and *Indigenous child safety* (AIHW 2014s).

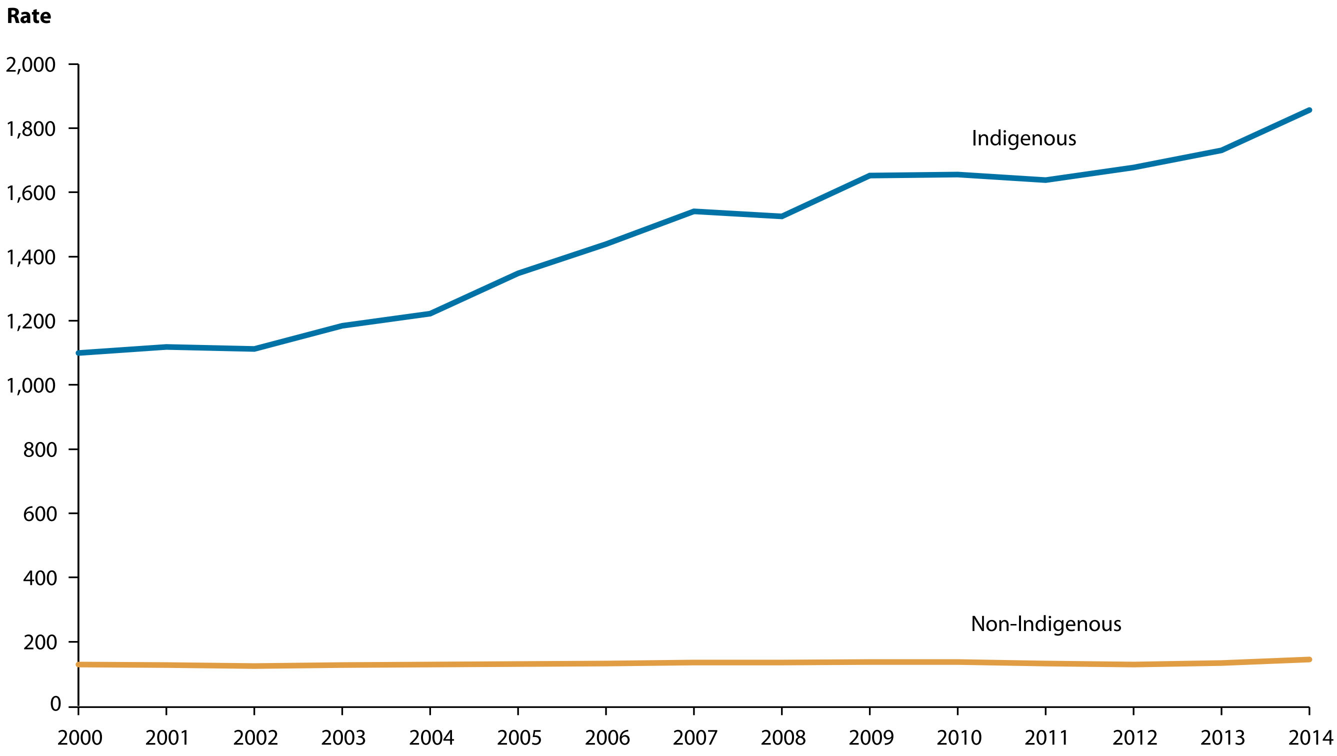
Contact with the criminal justice system

Incarceration not only affects the health and wellbeing of those imprisoned, but also the health and wellbeing of their families and children (Levy 2005). It also compromises community safety if there are high rates of crime and if ex-prisoners reoffend (Borzycki 2005).

At 30 June 2014:

- 27% of the total adult prisoner population were Indigenous (9,264 people)
- the most common offence or charge for which Indigenous prisoners were in custody was acts intended to cause injury (35%) followed by unlawful entry with intent (15%); in comparison, the most common offences or charges for which non-Indigenous prisoners were in custody were acts intended to cause injury, and illicit drug offences (both 16%)
- the majority (90%) of Indigenous prisoners were male, with the imprisonment rate for Indigenous men 9 times as high as the rate for Indigenous women (3,984 per 100,000 adult males compared with 420 per 100,000 adult females)
- the imprisonment rate of Indigenous people was 13 times as high as the rate for non-Indigenous people (age-standardised rates of 1,857 and 144 per 100,000 adults, respectively) (ABS 2014k).

The age-standardised imprisonment rate of Indigenous people increased significantly between 2000 and 2014 from 1,100 to 1,857 per 100,000 adults (Figure 3.20). The non-Indigenous rate increased slightly over this period. This resulted in an 82% increase in the gap in imprisonment rates between 2000 and 2014 (from a rate difference of 971 to 1,713 per 100,000 adults) (Table S3.24).



Notes

1. Rates have been directly age-standardised to the 2001 Australian standard population and are expressed per 100,000 adults.
2. Data for this figure are shown in Table S3.24.

Sources: ABS 2014k; SCRGSP 2014b.

Figure 3.20: Imprisonment rates in adult prisons, by Indigenous status, 2000 to 2014

In 2012, three-quarters (75%) of Indigenous prisoner entrants had previously been incarcerated, compared with 71% of non-Indigenous entrants (AIHW 2013f). Indigenous prison entrants were more likely than non-Indigenous entrants to have an extensive history of incarceration—one-third (34%) had been in prison at least 5 times before, compared with one-quarter (25%) of non-Indigenous entrants.

As discussed in Box 3.7, the health profile of the Indigenous prison population differs in several ways from that of their non-Indigenous counterparts.

Box 3.7: Health of Indigenous prisoners

In 2012, Indigenous prisoner entrants were *more* likely than their non-Indigenous counterparts to:

- be current smokers (92% compared with 83%)
- report risky alcohol consumption (59% and 39%, respectively)
- test positive for Hepatitis B (27% compared with 15%)
- report ever having been diagnosed with diabetes (5% compared with 2%).

Indigenous prison entrants were *less* likely than their non-Indigenous counterparts to:

- have been diagnosed with asthma (18% compared with 28%) or arthritis (4% and 8%)
- report a history of mental health issues (29% and 43%, respectively).

While in prison, Indigenous prisoners were less likely than non-Indigenous prisoners to be taking antidepressants (11% and 15%, respectively), and slightly more likely to be taking antihypertensives (7% and 5%) and drugs used to treat diabetes (4% and 2%).

Indigenous prisoners about to be released were more likely than their non-Indigenous counterparts to report positive changes to their health while in prison—74% reported that their health had improved to be a little or a lot better, compared with 49% of non-Indigenous prisoners.

Source: AIHW 2013f.

Determinants of health

4

Key points

Behavioural factors

- In 2012–13, 42% of Indigenous people aged 15 and over smoked daily. They were 2.6 times as likely to smoke daily as their non-Indigenous counterparts (based on age-standardised rates).
- The proportion of Indigenous people aged 18 and over who smoked daily decreased from 51% in 2001 to 44% in 2012–13.
- In 2011, Indigenous mothers were 4 times as likely as non-Indigenous mothers to have smoked during pregnancy (age-standardised rates of 49% and 12%). Between 2005 and 2011, the proportion of Indigenous mothers who smoked during pregnancy declined significantly (6% based on age-standardised rates).
- In 2012–13, 54% of Indigenous people aged 15 and over had consumed a risky amount of alcohol in a single occasion in the previous year, with Indigenous Australians significantly more likely to have done so than non-Indigenous Australians (1.1 times as likely, based on age-standardised rates), but the proportions who consumed alcohol at a lifetime risky level were similar (age-standardised rates of 18% and 19%).
- In 2012–13, about 3 in 5 (61%) Indigenous adults living in non-remote areas reported that they were sedentary or had only exercised at low intensity in the previous week.

Biomedical factors

- Liveborn singleton babies born to Indigenous mothers were more than twice as likely to be of low birthweight as babies born to non-Indigenous mothers (11.2% and 4.6%, respectively in 2011). Between 2000 and 2011, there was a significant decrease (of 9%) in the low birthweight rate among liveborn singleton babies of Indigenous mothers.
- In 2012–13, 10.2% of Indigenous children aged 2–14 were obese; Indigenous children were significantly more likely than non-Indigenous children (6.5%) to be obese (1.6 times as likely).
- Almost 2 in 5 (37%) Indigenous people aged 15 and over were obese in 2012–13. They were 1.6 times as likely as their non-Indigenous counterparts to be obese (based on age-standardised rates).
- In 2012–13, 1 in 5 (20%) Indigenous adults had measured high blood pressure. Indigenous adults had 1.2 times the rate of measured high blood pressure as non-Indigenous adults (based on age-standardised rates).
- In 2012–13, 1 in 4 (25%) Indigenous adults had abnormal total cholesterol levels.
- In 2012–13, nearly 1 in 5 (18%) Indigenous adults had indicators of chronic kidney disease; they were 2.1 times as likely as non-Indigenous adults to have these indicators (based on age-standardised rates).

Psychological factors

- In 2012–13, almost one-third (30%) of Indigenous adults were assessed as having high or very high levels of psychological distress. They were 2.7 times as likely as non-Indigenous adults to have these levels of psychological distress (based on age-standardised rates).
- In 2012–13, almost half (48%) of Indigenous adults reported that either they or their relatives had been removed from their natural family. Levels of high or very high psychological distress were significantly more common among Indigenous adults who had been removed from their family (35% compared with 29% for those who had not been removed), and among those who had relatives removed (34% compared with 26% of those who had not had relatives removed).

Socioeconomic and environmental factors

- In 2012–13, 16% of Indigenous people aged 15 to 64 who were employed assessed their health as fair or poor compared with 24% of those who were unemployed, and 33% of those not in the labour force.
- In 2012–13, about 3 in 5 (57%) Indigenous children aged 0–14 were living in a household with a daily smoker, compared with 26% of non-Indigenous children. The proportion of Indigenous children living in households with a daily smoker declined from 68% in 2004–05 to 57% in 2012–13.
- In 2012–13, 7% of Indigenous adults (an estimated 26,500 people) reported avoiding seeking health care because they had been treated unfairly by doctors, nurses or other staff at hospitals or doctor surgeries.

Comparison by remoteness

- Among Indigenous people aged 15 and over, rates of daily smoking were significantly higher among those living in remote compared with non-remote areas (50% and 39%, respectively) in 2012–13. Rates of tobacco smoking among Indigenous adults declined in non-remote areas between 2002 and 2012–13 (a significant fall of 8 percentage points), but remained relatively stable in remote areas.
- In 2012–13, Indigenous people aged 15 and over living in non-remote areas (55%) were significantly more likely to consume alcohol at single occasion risk levels than those living in remote areas (48%). However, there was no significant difference between the proportion of Indigenous people living in non-remote (18%) and remote (17%) areas who drank at levels exceeding the guidelines for lifetime risk.
- In 2012–13, Indigenous people aged 15 and over in non-remote areas (23%) were significantly more likely to report having used an illicit substance in the previous 12 months than those in remote areas (19%).
- Among Indigenous people aged 15 and over in 2012–13, those living in remote areas were significantly more likely than those in non-remote areas to consume an adequate amount of fruit daily (46% compared with 41%), and significantly less likely to consume an adequate amount of vegetables daily (3% compared with 5%).
- Rates of obesity among Indigenous people aged 15 and over were significantly higher in non-remote (38%) than remote (34%) areas in 2012–13.
- Indigenous adults in remote areas were significantly more likely to have self-reported and/or measured high blood pressure than those in non-remote areas (34% and 25%, respectively) in 2012–13.
- Indigenous adults living in remote areas were significantly more likely to have indicators of chronic kidney disease than those in non-remote areas (34% compared with 13%) in 2012–13.
- In 2012–13, Indigenous adults living in non-remote areas were significantly more likely to have high or very high levels of psychological distress than those in remote areas (32% and 24%, respectively).

4.1 Introduction

A person's health is dependent on a complex interaction of a range of factors, including behavioural, biological, psychological, socioeconomic and environmental factors. Some factors, such as regular exercise and a healthy diet, can have positive effects on health. Others, including tobacco smoking and lack of exercise, can have negative effects—such factors are referred to as health risk factors. Access to health services that are affordable, are culturally acceptable and meet people's health needs is another important determinant of health.

According to the World Health Organization, factors such as education, income, physical environment and personal behaviour can have a greater impact on health than factors such as access to, and use of, health services (WHO 2014a). The relative significance of particular risk factors may change throughout the life course, both in terms of prevalence rates and relative risk.

This chapter presents information on the following topics in relation to Indigenous Australians:

- behavioural risk factors, including tobacco use, alcohol and illicit drug use, physical activity and diet
- biomedical risk factors, including excess body weight, high blood pressure and cholesterol levels
- psychological factors such as psychological distress and life stressors
- the relationship between socioeconomic factors (education and employment) and health
- environmental factors such as exposure to tobacco smoke, discrimination and removal from family.

Access to health services is covered in Chapter 7.

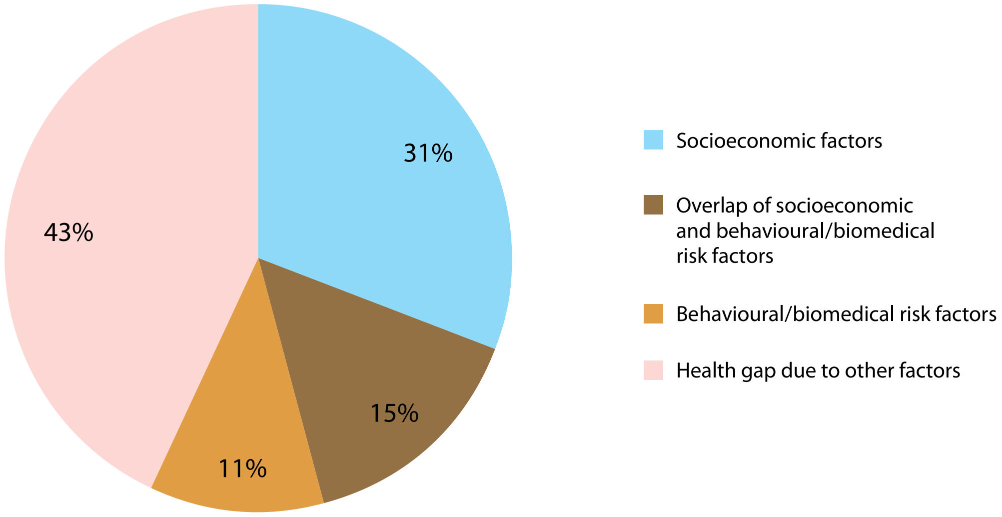
Data presented in this chapter were sourced primarily from the ABS 2012–13 Australian Aboriginal and Torres Strait Islander Health Survey—information about this data collection is provided in Appendix A.2. Comparisons with the non-Indigenous population are presented when possible, with those data sourced from the ABS 2011–12 Australian Health Survey (AHS) (ABS 2012a, 2013d).

Contribution of various determinants to the health gap

While it is well known that many different factors contribute to the health gap between Indigenous and non-Indigenous Australians, less is known about the relative contribution of particular factors. The AIHW undertook a study on this issue, using data for Indigenous and non-Indigenous people aged 15 to 64 (AIHW 2014c). The study suggested that:

- selected socioeconomic factors explained a larger proportion of the health gap (31% of the gap) than did selected behavioural/biomedical risk factors (11%)
- an additional 15% of the health gap was estimated to be due to the combined effects of socioeconomic determinants and behavioural/biomedical risk factors
- the remaining 43% of the gap was due to other unexplained factors, which may include poorer access to health services (Figure 4.1).

The socioeconomic factors with the greatest estimated impact were household income, highest level of school completed and employment status, while the behavioural/biomedical risk factors with the greatest impact were smoking status, body mass index and binge drinking (7 or more drinks on a single occasion).



Notes

1. The analysis controlled for differences in demographic characteristics (age, sex, marital status and remoteness) of the 2 populations.
2. Based on AIHW analyses of the ABS 2004–05 National Aboriginal and Torres Strait Islander Health Survey and the ABS 2004–05 National Health Survey.

Source: AIHW 2014c.

Figure 4.1: Proportion of the health gap between Indigenous and non-Indigenous people explained by selected risk factors, people aged 15 to 64

4.2 Behavioural factors

This section includes information on the following behavioural risk factors: substance use (tobacco, alcohol and illicit substances), physical activity, dietary behaviour and breastfeeding practices.

Substance use

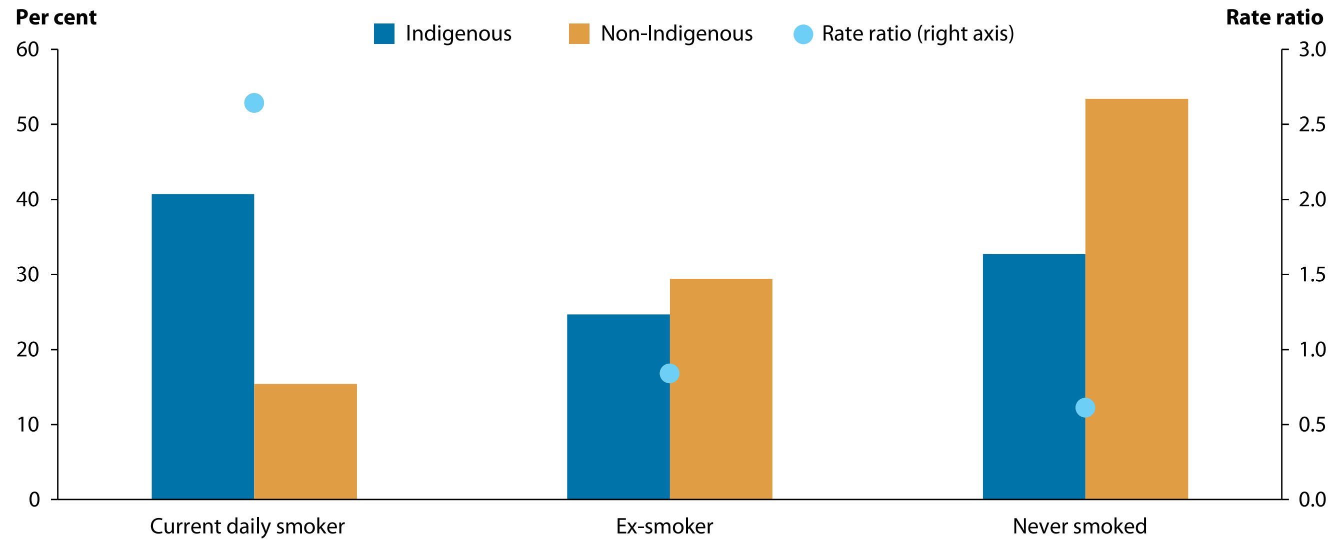
Tobacco

Tobacco smoking can increase the risk of developing various chronic health conditions, including heart disease, stroke, cancer and chronic respiratory conditions. While tobacco use is common among the Indigenous population, smoking rates have declined since 2001.

In 2012–13, among Indigenous people aged 15 and over:

- 44% reported being current smokers—42% smoked daily and 2% smoked weekly or less than weekly
- 20% were ex-smokers
- 36% had never smoked
- rates of daily smoking were significantly higher among those living in remote areas compared with non-remote areas (50% and 39%, respectively) (ABS 2014d).

Indigenous people aged 15 and over were 2.6 times as likely as their non-Indigenous counterparts to smoke daily in 2012–13, based on age-standardised rates (Figure 4.2).



Notes

1. Rates have been directly age-standardised to the 2001 Australian standard population and are expressed per 100 population.
2. Data for this figure are shown in Table S4.1.

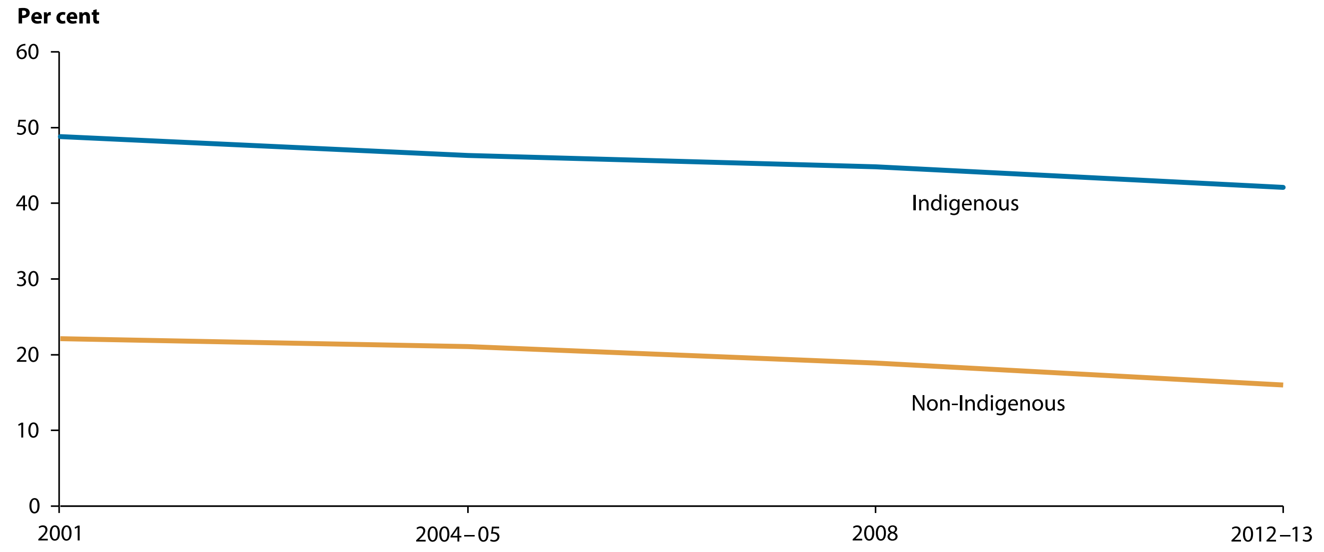
Source: ABS 2014d.

Figure 4.2: Tobacco smoking status among people aged 15 and over, by Indigenous status, 2012–13

Indigenous young people were significantly more likely than non-Indigenous young people to smoke:

- those aged 15–17 were 4.5 times as likely to smoke daily (18% and 4%, respectively)
- those aged 18–24 were 2.7 times as likely to smoke daily (43% and 16%) (ABS 2014d).

Between 2001 and 2012–13, the proportion of Indigenous adults who smoked daily decreased significantly—from 51% to 44%. Non-Indigenous adult smoking rates also fell, and the gap between the age-standardised Indigenous and non-Indigenous rates remained fairly stable (27% in 2001 compared with 26% in 2012–13) (Figure 4.3).



Notes

1. Rates have been directly age-standardised to the 2001 Australian standard population and are expressed per 100 population.
2. Data for this figure are shown in Table S4.2.

Source: ABS 2014d.

Figure 4.3: Current daily smoking rates among people aged 18 and over, by Indigenous status, selected years

Between 2002 and 2012–13:

- most of the change in rates of tobacco smoking occurred among Indigenous adults in non-remote areas—a significant fall of 8 percentage points from 50% to 42%
- rates in remote areas remained stable at around 52% to 53% (Table S4.3).

Over the same period, the proportion of Indigenous people aged 15 and over who had never smoked increased significantly from 33% to 36% (ABS 2014d).

Tobacco smoking while pregnant is considered a leading preventable risk factor for adverse birth outcomes including low birthweight. In 2011, half (50%) of Indigenous mothers who gave birth reported smoking during pregnancy (Li et al. 2013). Indigenous mothers were 4 times as likely as non-Indigenous mothers to have smoked during pregnancy (age-standardised rates of 49% and 12%, respectively). Between 2005 and 2011, there was a statistically significant decline (of 6%) in the age-standardised proportion of Indigenous mothers who smoked during pregnancy *(*AIHW 2014f).

Several programs that aim to reduce smoking rates among Indigenous people have been evaluated for their effectiveness; these evaluations have shown reductions in smoking rates (Adams et al. 2006; Eades et al. 2012; Mark et al. 2004; Richmond et al. 2006). A Cochrane review examined controlled trials evaluating smoking cessation initiatives for Indigenous people (Cochrane reviews are internationally recognised reviews of evidence-based health research). The review found that while the evidence base is not strong (due to a limited number of methodologically sound trials), programs specifically targeting Indigenous people can be effective (Carson et al. 2012).

Alcohol

Excessive alcohol consumption is a major cause of liver disease, brain damage, transport accidents, domestic violence and crime. It can also contribute to family breakdowns and job loss (MCDS 2011).

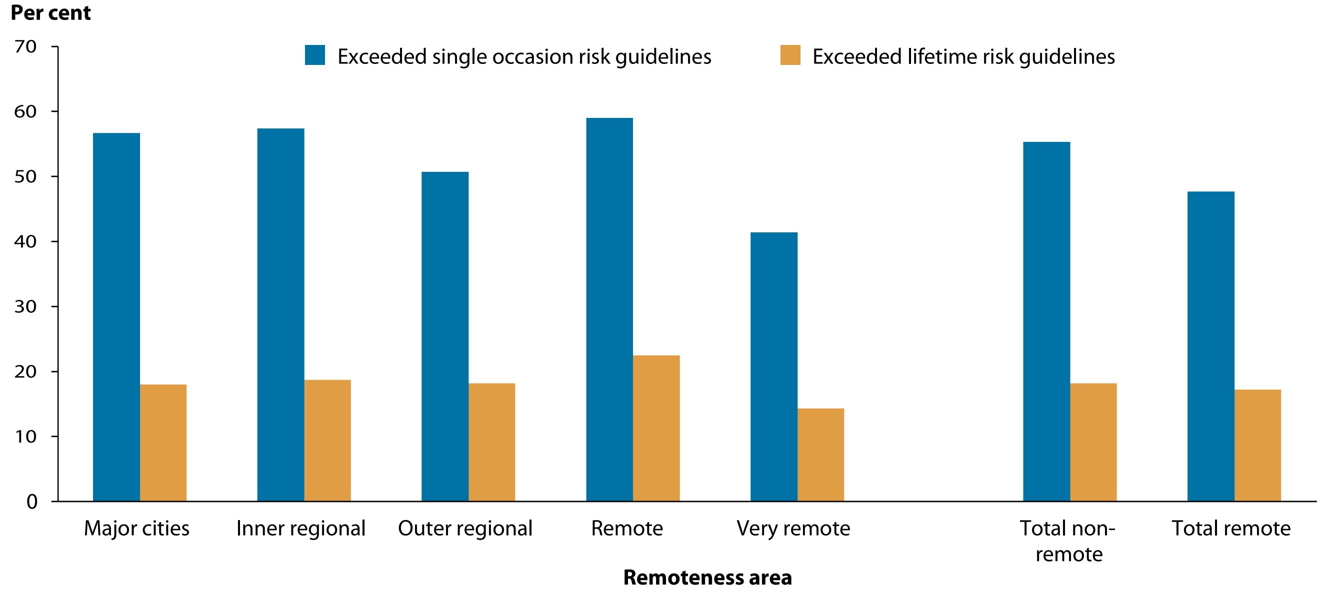
In 2012–13, almost 3 in 4 (72%) Indigenous people aged 15 and over reported that they had consumed alcohol in the previous 12 months, 13% had consumed alcohol 12 or more months ago, and 14% indicated they had never consumed alcohol. Indigenous people aged 15 and over were:

- significantly less likely than non-Indigenous people to report having consumed alcohol in the previous 12 months (age-standardised rates of 71% and 81%, respectively)
- significantly more likely than non-Indigenous people to report they had never consumed alcohol (age-standardised rates of 13% and 11%) (ABS 2013a).

Single occasion risk

In 2012–13, among Indigenous people aged 15 and over:

- 54% reported consuming more than 4 standard drinks on a single occasion in the previous year, exceeding the guidelines for single occasion risk (see Appendix C.2)
- males were significantly more likely to report drinking at these levels than females (64% compared with 44%)
- the proportion of 15–17 year olds exceeding the guidelines for single occasion risk was 24%; this rose to 68% among those aged 18–24 and then fell with age to 31% among those 55 and over
- those living in non-remote areas (55%) were significantly more likely to consume alcohol at single occasion risk levels than those living in remote areas (48%) (Figure 4.4; ABS 2013a).



Note: Data for this figure are shown in Table S4.4.

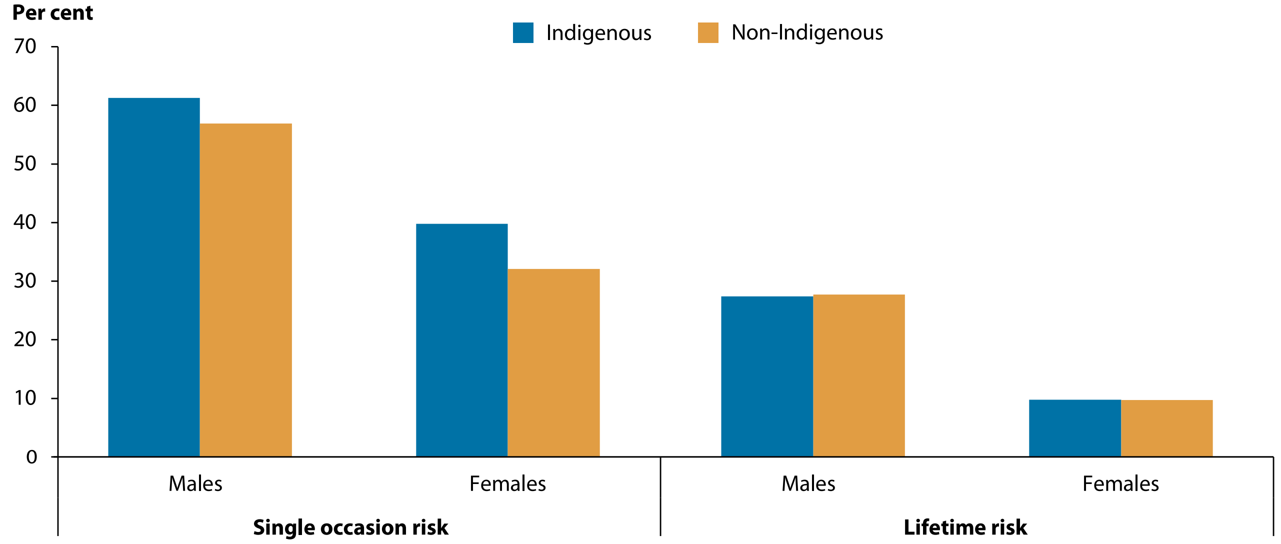
Source: ABS 2013a.

Figure 4.4: Indigenous people aged 15 and over who exceeded the guidelines for alcohol consumption, by type of risk and remoteness, 2012–13

Based on age-standardised rates:

- Indigenous people aged 15 and over were 1.1 times as likely to have exceeded the guidelines for single occasion risk as non-Indigenous Australians—a statistically significant difference
- Indigenous females were significantly more likely to have exceeded the guidelines than non-Indigenous females (1.2 times as likely); for males, the difference was not statistically significant (Figure 4.5).

Trends in alcohol consumption at single occasion risk levels are not available due to differences in the survey questions over time (ABS 2013a).



Notes

1. Rates have been directly age-standardised to the 2001 Australian standard population and are expressed per 100 population.
2. Data for this figure are shown in Table S4.5.

Source: ABS 2013a.

Figure 4.5: People aged 15 and over who exceeded the guidelines for alcohol consumption, by type of risk, sex and Indigenous status, 2012–13

Lifetime risk

In 2012–13, among Indigenous people aged 15 and over:

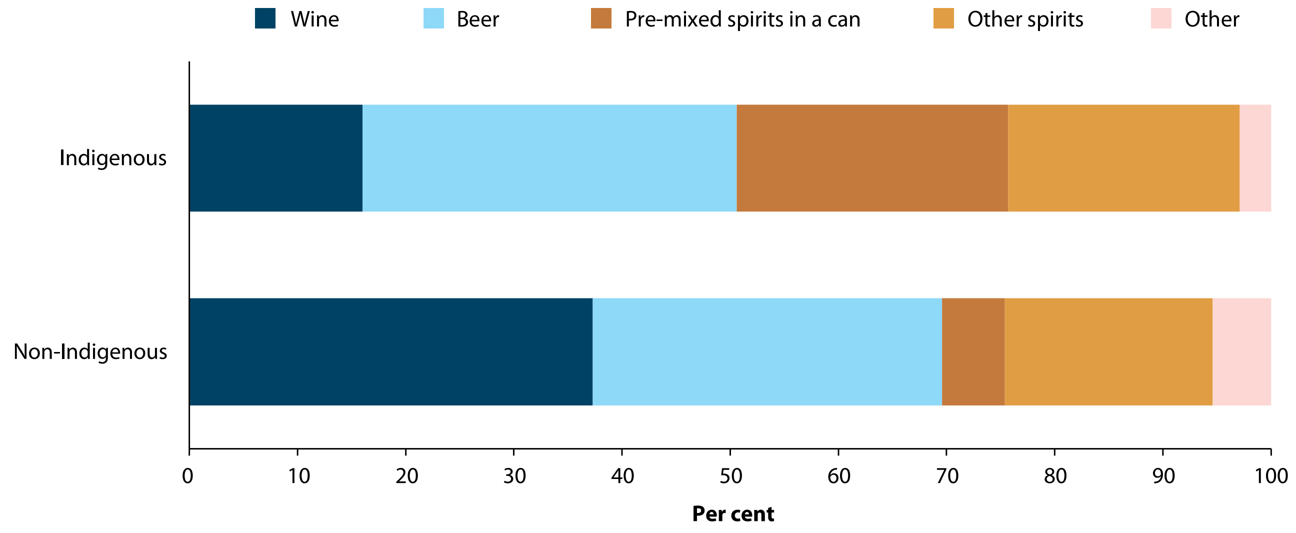
- 18% reported drinking more than 2 standard drinks per day on average over the previous year, exceeding the guidelines for lifetime risk (see Appendix C.2)
- males (26%) were significantly more likely than females (10%) to have exceeded these guidelines
- lifetime risky alcohol consumption peaked at 23% among those aged 35–44 and was lowest among those aged 15–17 (3%) and those aged 55 and over (16%); these differences were statistically significant
- there was no statistically significant difference between the proportion of people living in non-remote (18%) and remote (17%) areas who drank at levels exceeding the guidelines for lifetime risk (Figure 4.4)
- age-standardised rates of lifetime risky alcohol consumption were not significantly different from those for non-Indigenous people (18% and 19%, respectively) (Table S4.5; ABS 2013a).

The proportion of Indigenous people aged 18 and over who reported consuming alcohol at levels exceeding the guidelines for lifetime risk did not change significantly between 2001 and 2012–13 (19% and 20%, respectively) (ABS 2013a).

Type of alcohol consumed

According to the 2013 National Drug Strategy Household Survey, among people aged 14 and over who were recent drinkers (that is, had consumed alcohol in the previous 12 months):

- Indigenous Australians were significantly more likely than non-Indigenous Australians to drink spirits as the main type of alcohol usually consumed (47% and 25%, respectively), with this difference largely due to differences in the consumption of pre-mixed spirits in a can (25% and 6% of recent drinkers, respectively)
- Indigenous Australians were significantly less likely than non-Indigenous Australians to drink wine as their main type of alcohol consumed (16% compared with 37%)
- there was no significant difference in the proportion who drank beer as their main type of alcohol consumed (Figure 4.6).



Notes

1. Recent drinkers are those who had consumed a least a full serve of alcohol in the previous 12 months.
2. Data for this figure are shown in Table S4.6.

Source: AIHW 2013 National Drug Strategy Household Survey.

Figure 4.6: Main type of alcohol usually consumed among recent drinkers aged 14 and over, by Indigenous status, 2013

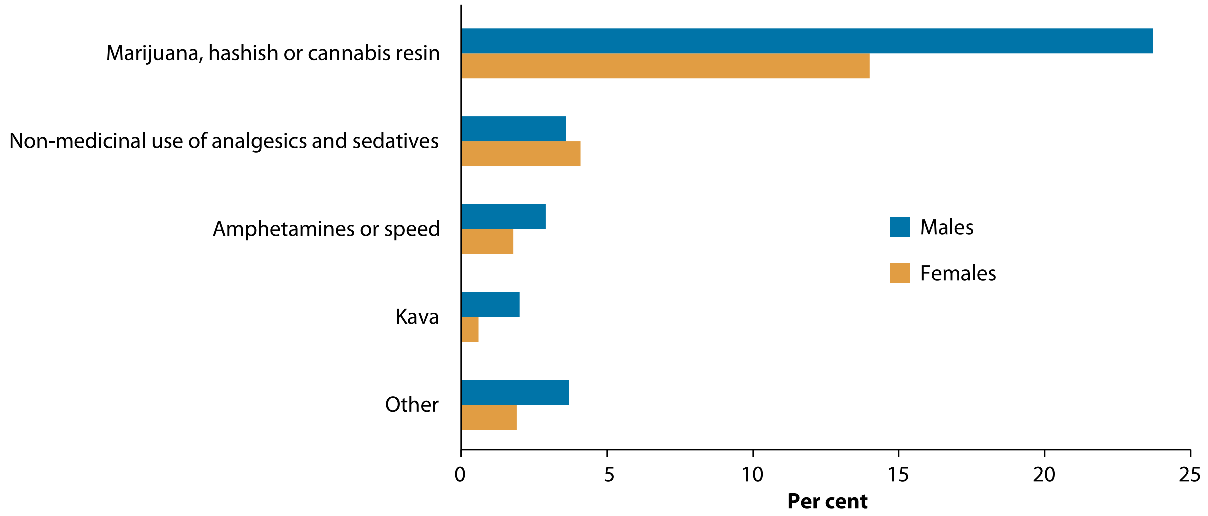
Illicit substances

Illicit substance use includes the use of drugs whose production, sale or possession is prohibited and the misuse of substances that are legally available (for example, the use of solvents and petrol as inhalants, and the non-medicinal use of prescribed drugs such as painkillers). Illicit drug use not only has adverse health effects—such as a greater risk of mental health problems and premature death due to overdose—it can also lead to accidents, domestic violence, crime and the breakdown of family relationships. Unsafe injecting of intravenous drugs can also increase the risk of acquiring blood-borne infections such as hepatitis C and HIV/AIDS (MCDS 2011).

In 2012–13, among Indigenous people aged 15 and over:

- 22% reported having used an illicit substance in the previous 12 months
- 23% reported that they had used illicit substances, but not in the previous 12 months
- 52% reported that they had never used illicit substances
- 3% did not state whether they had or had not used illicit substances (Table S4.7).

The most commonly used substance by Indigenous people aged 15 and over was cannabis (reported by 19%), followed by the non-medicinal use of analgesics and sedatives (4%) (Table S4.7). Males were more likely to report cannabis use than females (24% and 14%) (Figure 4.7).



Notes

1. 'Other' includes heroin, cocaine, petrol, LSD/synthetic hallucinogens, naturally occurring hallucinogens, ecstasy/designer drugs, methadone and other inhalants.
2. Data for this figure are shown in Table S4.7.

Source: ABS 2013a.

Figure 4.7: Illicit substance use in the previous 12 months among Indigenous people aged 15 and over, by sex, 2012–13

Among Indigenous people aged 15 and over:

- males were significantly more likely than females to report they had used an illicit substance in the previous 12 months (27% and 18%, respectively)
- those in non-remote areas were significantly more likely than those in remote areas to report having used an illicit substance in the previous 12 months (23% and 19%) (Table S4.7).

Comparable data on non-Indigenous rates of illicit drug use and trends over time are not available.

Physical activity

Being physically inactive is associated with several chronic diseases including cardiovascular disease, Type 2 diabetes, some cancers and osteoporosis. It is also related to biomedical risk factors such as excess body weight, high blood pressure and high cholesterol. The ABS 2012–13 AATSIHS collected information about physical activity from all respondents aged 5 and over in both remote and non-remote areas, and from children aged 2–4 in non-remote areas. Different questions were asked of people living in non-remote and remote areas.

Children in non-remote areas

Regular physical activity early in life can establish good habits that are maintained in adulthood. In 2012–13, among Indigenous children aged 2–4 living in non-remote areas:

- 82% met the physical activity recommendation for children in this age group of at least 3 hours of activity each day in the 3 days prior to interview
- an average of 6.6 hours per day was spent on physical activity, which was similar to the non-Indigenous average of 6.2 hours per day
- there was no difference between boys and girls in the proportion who met the recommendation or the average amount of time spent being physically active (ABS 2014c).

Indigenous children aged 5–17 in non-remote areas were less likely than those aged 2–4 to meet their physical activity recommendation (1 hour or more per day in the 3 days prior to the interview). In 2012–13, among Indigenous children aged 5–17 in non-remote areas:

- almost half (48%) met the physical activity recommendation—this was significantly higher than the proportion for non-Indigenous children (35%)
- an average of 2 hours per day was spent on physical activity, which was more than the average for non-Indigenous children (1.6 hours)
- boys were more likely than girls to meet the recommendation (54% compared with 41%) and spent more time being physically active per day (2.2 compared with 1.7 hours) (ABS 2014c).

Screen-based activity

Screen-based activities are those activities that use a screen-based device such as a television, computer or electronic gaming device. In 2012–13, Indigenous children in non-remote areas:

- aged 2–4 spent an average of 1.5 hours per day on screen-based activity (similar to the non-Indigenous average of 1.4 hours)
- aged 5–17 spent an average of 2.6 hours per day on screen-based activity (similar to the non-Indigenous average of 2.5 hours)
- spent more time on screen-based activity as they got older (1.9 hours per day among those aged 5–8 compared with 3.3 hours among those aged 15–17) (ABS 2014c).

Adults in non-remote areas

As part of the AATSIHS, information was collected on the frequency, intensity and duration of exercise undertaken in the week prior to being interviewed; that information was used to derive a score to represent exercise intensity with 4 categories: sedentary, low, moderate and high.

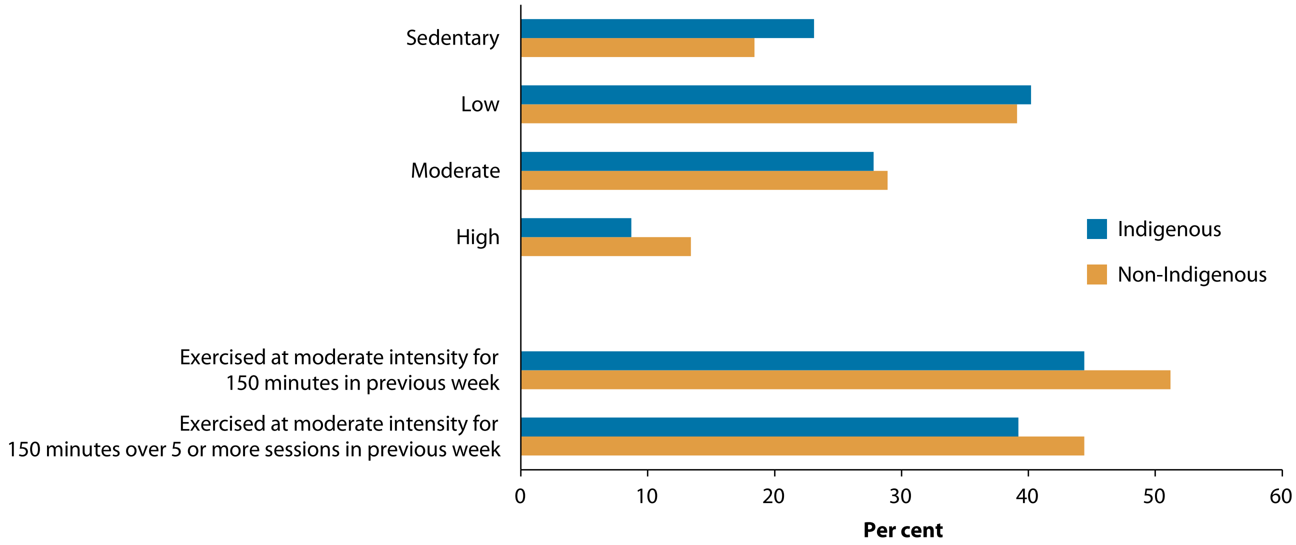
In 2012–13, among Indigenous adults in non-remote areas:

- about 3 in 5 (61%) reported that they had been sedentary or had exercised at low intensity in the week before the survey
- almost 3 in 10 (29%) had exercised at moderate intensity
- 1 in 10 (10%) had exercised at high intensity (ABS 2013a).

The proportion of Indigenous adults in non-remote areas who were sedentary or exercised at low intensity:

- was significantly lower among younger than older adults (53% of those aged 18–24 compared with 72% of those aged 55 and over)
- was higher for women than men (68% compared with 53%), with this difference being statistically significant for all age groups (AIHW analysis of ABS 2013a).

The proportion of Indigenous adults in non-remote areas who were sedentary or exercised at low intensity was significantly higher than for their non-Indigenous counterparts (1.1 times as high based on age-standardised rates) (Figure 4.8).



Notes

1. Rates have been directly age-standardised to the 2001 Australian standard population and are expressed per 100 population.
2. Data refer to level of physical activity in the week prior to the survey. Includes physical activity undertaken for fitness, recreation or sport, as well as walking for transport.
3. Data for this figure are shown in Table S4.8.

Source: ABS 2013a.

Figure 4.8: Physical activity among people aged 18 and over in non-remote areas, by level of exercise and Indigenous status, 2012–13

At the time of the 2012–13 AATSIHS, the National Physical Activity Guidelines recommended that people aged 18 and over be active for at least 30 minutes on most, if not all, days of the week and that each week, they accumulate at least 150 minutes of moderate intensity physical activity (ABS 2013b). Moderate intensity activities are those that require some effort but still allow for conversation—such as brisk walking, swimming, social tennis or dancing.

In 2012–13, among adults living in non-remote areas:

- 47% of Indigenous adults met the target of 150 minutes of moderate intensity physical activity in the week prior to the survey, and 41% had exercised for at least 150 minutes over 5 or more sessions in the previous week
- Indigenous men were significantly more likely than Indigenous women to have met the target of 150 minutes in the previous week (52% compared with 42%)
- Indigenous adults were significantly less likely than non-Indigenous adults to have met the target of 150 minutes of exercise, and to have exercised for 150 minutes over 5 or more sessions in the previous week (both having a rate ratio of 0.9 based on age-standardised rates) (ABS 2013a).

Sedentary behaviour

Indigenous adults living in non-remote areas who participated in the physical activity survey component of the 2012–13 AATSIHS (see Appendix A.2) spent an average of 5.3 hours per day on sedentary behaviour (that is, sitting or lying down for leisure and work-related activities, excluding sleeping) in the week prior to being interviewed. This included:

- 2.2 hours watching television or videos
- 0.8 hours sitting at work
- 0.6 hours sitting for transport.

On average, among adults in non-remote areas, Indigenous adults spent significantly less time than non-Indigenous adults on sedentary behaviour (age-standardised mean of 5.1 hours and 5.6 hours per day, respectively). This difference was due to Indigenous adults spending less time sitting at work (0.8 and 1.5 hours, respectively), rather than to sedentary behaviour for leisure (4.4 and 4.1 hours) (ABS 2014c).

Remote areas

As part of the AATSIHS, the ABS used different questions to measure physical activity among people living in remote and non-remote areas and the data are not comparable.

In 2012–13, data for Indigenous people in remote areas showed that on the day prior to being interviewed:

- 82% of Indigenous children aged 5–17 were physically active for more than 60 minutes and 4.1% had not participated in any type of physical activity
- 55% of Indigenous adults were physically active for more than 30 minutes and 21% had not participated in any type of physical activity (ABS 2014c).

Dietary behaviour

Poor diet is a risk factor for cardiovascular disease, Type 2 diabetes, some cancers, tooth decay and other conditions associated with overweight or obesity. Unhealthy diets are considered to be those that are low in fibre and high in salt, fats and sugar.

Data on fruit and vegetable consumption for children and adults are presented in this section. More information on the dietary behaviours of Indigenous people will be available when further results from the National Aboriginal and Torres Strait Islander Nutrition and Physical Activity Survey are published by the ABS. That survey (which is a component of the AATSIHS) collected information through a 24-hour dietary recall on all foods and beverages consumed on the day prior to the interview.

Fruit and vegetable consumption

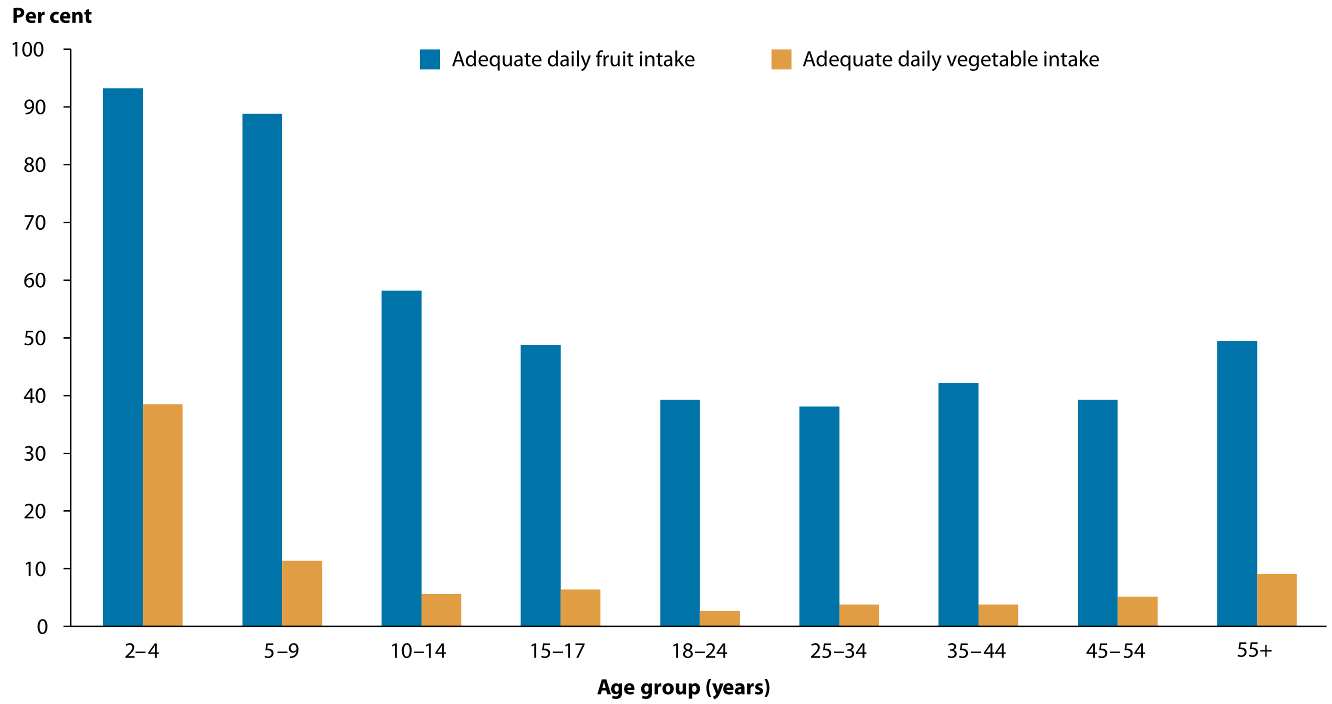
In 2012–13, among Indigenous children aged 2 to 14:

- 85% did not consume an adequate amount of fruit and/or vegetables daily
- more were likely to consume an adequate amount of fruit daily (78%) than an adequate amount of vegetables daily (16%)
- 9% consumed no fruit or less than 1 serve daily, and 10% consumed no vegetables or less than 1 serve daily
- there was no significant difference between remote and non-remote areas in the proportion who consumed an adequate amount of fruit and vegetables (13% and 15%, respectively) (ABS 2014d).

In 2012–13, among Indigenous people aged 15 and over:

- the rates of adequate daily fruit and vegetable consumption were significantly lower than those observed among Indigenous children aged 2 to 14 (Figure 4.9)
- 97% did not consume an adequate amount of fruit and/or vegetables daily
- 42% consumed an adequate amount of fruit and 5% consumed an adequate amount of vegetables
- adequate daily fruit and vegetable intake was highest among those aged 55 and over (6%)
- those living in remote areas were significantly more likely to consume an adequate amount of fruit daily than those in non-remote areas (46% compared with 41%), and significantly less likely to consume an adequate amount of vegetables daily (3% compared with 5%) (ABS 2014d).

Indigenous people aged 15 and over were significantly less likely than non-Indigenous people to consume an adequate amount of fruit daily (0.9 times as likely, based on age-standardised rates) and an adequate amount of vegetables daily (0.8 times as likely, based on age-standardised rates) (ABS 2014d).



Note: Data for this figure are shown in Table S4.9.

Source: ABS 2014d.

Figure 4.9: Adequate daily fruit and vegetable intake among Indigenous Australians aged 2 and over, by age, 2012–13

Data on changes to fruit and vegetable consumption over time are only available for Indigenous Australians aged 15 and over living in non-remote areas. Among these Indigenous Australians:

- there was no difference in the level of inadequate daily fruit consumption in 2012–13 compared with 2004–05 (both 59%)
- there was a statistically significant increase in inadequate daily vegetable consumption (92% in 2004–05 and 95% in 2012–13) (ABS 2014d).

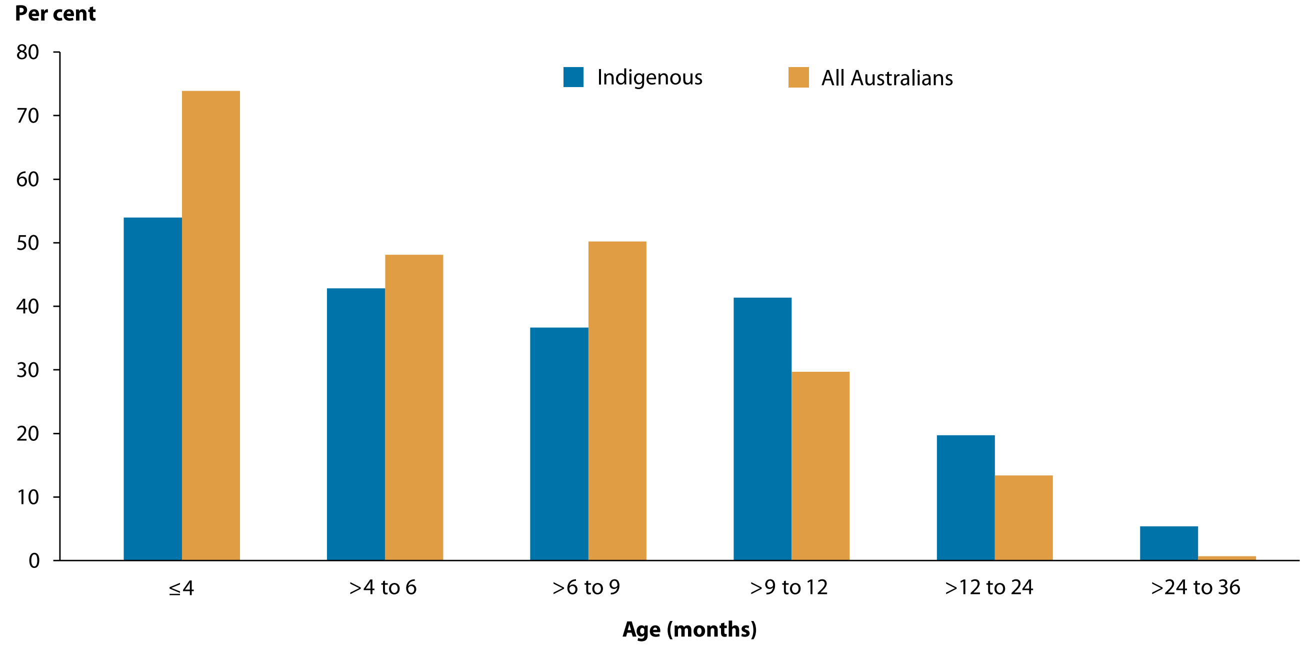
Breastfeeding practices

Breastfeeding offers protection to infants against conditions such as sudden infant death syndrome (SIDS), diarrhoea, respiratory infections and middle ear infections, as well as the development of diabetes in later life (AHMAC 2012). The National Health and Medical Research Council recommends that infants be exclusively breastfed for the first 6 months of life and that breastfeeding be ideally continued until 12 months of age in combination with solid food. Breastfeeding beyond 12 months, if the mother and child desire it, is encouraged (NHMRC 2013).

In 2012–13:

- 83% of Indigenous children aged 0–3 years had ever received breastmilk, compared with 92% of all children (ABS 2013c; AIHW analysis of 2012–13 AATSIHS)
- 54% of Indigenous children aged 4 months or under were currently receiving breastmilk, compared with 37% of those aged 6–9 months and 5% of those aged over 24 months to 36 months

- Indigenous children aged 4 months or under were significantly less likely than all Australian children at that age to be currently receiving breastmilk (Figure 4.10).



Note: Data for this figure are shown in Table S4.10.

Sources: AIHW analysis of ABS 2012–13 Australian Aboriginal and Torres Strait Islander Health Survey (using TableBuilder); ABS 2013c.

Figure 4.10: Children aged 0–3 years currently receiving breastmilk, by age and Indigenous status, 2012–13

Of Indigenous children aged 0–3 years who were no longer breastfed in 2012–13:

- 21% had been breastfed for less than 1 month
- 38% had been breastfed for 1 to less than 6 months
- 24% had been breastfed for 6 to less than 12 months
- 16% had been breastfed for 12 months or more (AIHW analysis of 2012–13 AATSIHS).

The most commonly reported reason for stopping breastfeeding was inadequate or no milk supply (24%), followed by the feeling it was time to stop (17%).

4.3 Biomedical factors

Biomedical risk factors can be a product of behaviours, genetics and the environment. This section describes the following biomedical factors for Indigenous people: body weight, blood pressure, cholesterol, glucose control, kidney function, liver function and haemoglobin levels. While some information on how each of these factors is measured is provided, further details are shown in Appendix C.1.

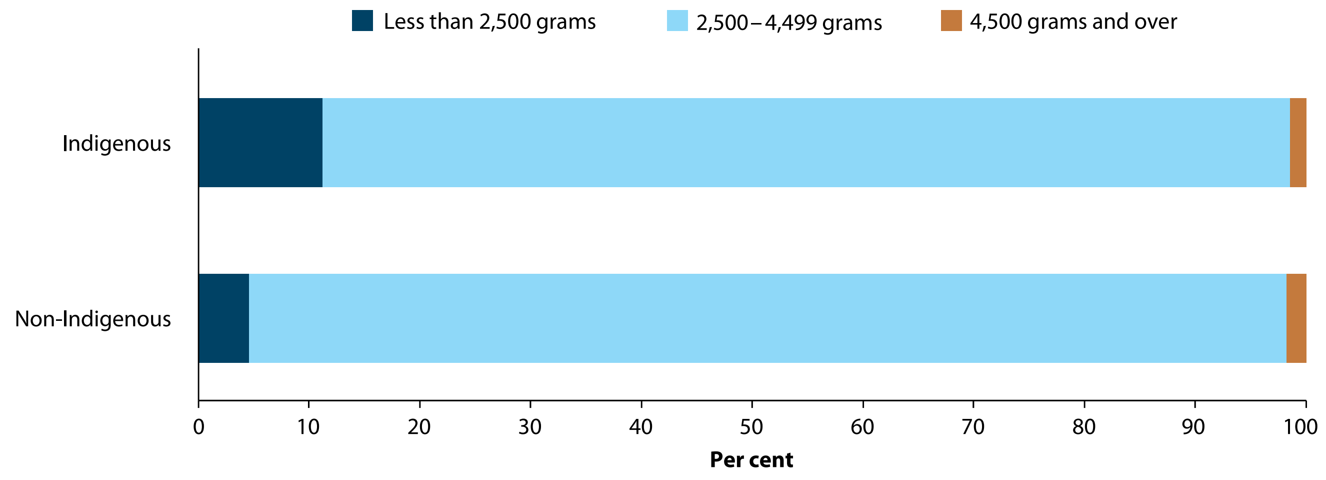
Body weight

Healthy body weight is important for overall health. Being underweight can increase the risk of developing osteoporosis and anaemia, and lead to problems with fertility and the immune system. Conversely, having excess body weight is a risk factor for chronic conditions such as cardiovascular disease, Type 2 diabetes, certain cancers, sleep apnoea and osteoarthritis (AIHW 2012f). Data on body weight presented in this report are based on measured (rather than reported) height and weight.

Low birthweight

A person's birthweight is a principal determinant of a baby's chance of survival and good health. It is also an important indicator of infant health in its own right. In 2011:

- liveborn babies born to Indigenous mothers were about twice as likely as babies born to non-Indigenous mothers to be of low birthweight (weighing less than 2,500 grams) (12.6% and 6.0%, respectively) (Table S4.11)
- excluding multiple births, 11.2% of liveborn singleton babies born to Indigenous mothers were of low birthweight, compared with 4.6% of babies born to non-Indigenous mothers (Figure 4.11).



Note: Data for this figure, which were sourced from the AIHW National Perinatal Data Collection, are shown in Table S4.11.

Source: AIHW 2014f.

Figure 4.11: Birthweight of liveborn singleton babies, by Indigenous status of the mother, 2011

Between 2000 and 2011, there was:

- a statistically significant decrease of 9% in the low birthweight rate among liveborn singleton babies of Indigenous mothers, compared with no significant change for babies born to non-Indigenous mothers
- a statistically significant narrowing of the gap in the low birthweight rate (AIHW 2014f).

Factors that may be contributing to the reduction in the rate of low birthweight babies among Indigenous mothers include an increase in the proportion of Indigenous women attending antenatal care during pregnancy (see Section 7.2), and a reduction in the proportion of Indigenous women smoking during pregnancy (see Section 4.2).

Further information about the birthweight of babies born to Indigenous mothers can be found in *Birthweight of babies born to Indigenous mothers* (AIHW 2014f).

Underweight

In 2012–13:

- 8.0% of Indigenous children aged 2–14 were considered to be underweight
- Indigenous children aged 2–14 were 1.7 times as likely as non-Indigenous children to be underweight (8.0% compared with 4.8%)
- 3.5% of Indigenous people aged 15 and over were considered to be underweight
- Indigenous people aged 15 and over were significantly more likely than non-Indigenous people to be underweight (1.6 times as likely, based on age-standardised rates) (ABS 2014d).

Overweight and obesity

Obesity is a risk factor for many chronic health conditions, including heart disease and diabetes. For example, in 2012–13, obese Indigenous adults were 7 times as likely to have diabetes compared with those who were of normal weight or underweight. Further, obese Indigenous Australians were more likely than obese non-Indigenous Australians to have biomedical risk factors for cardiovascular disease, diabetes and chronic kidney disease (ABS 2014b).

In 2012–13, among Indigenous children aged 2–14:

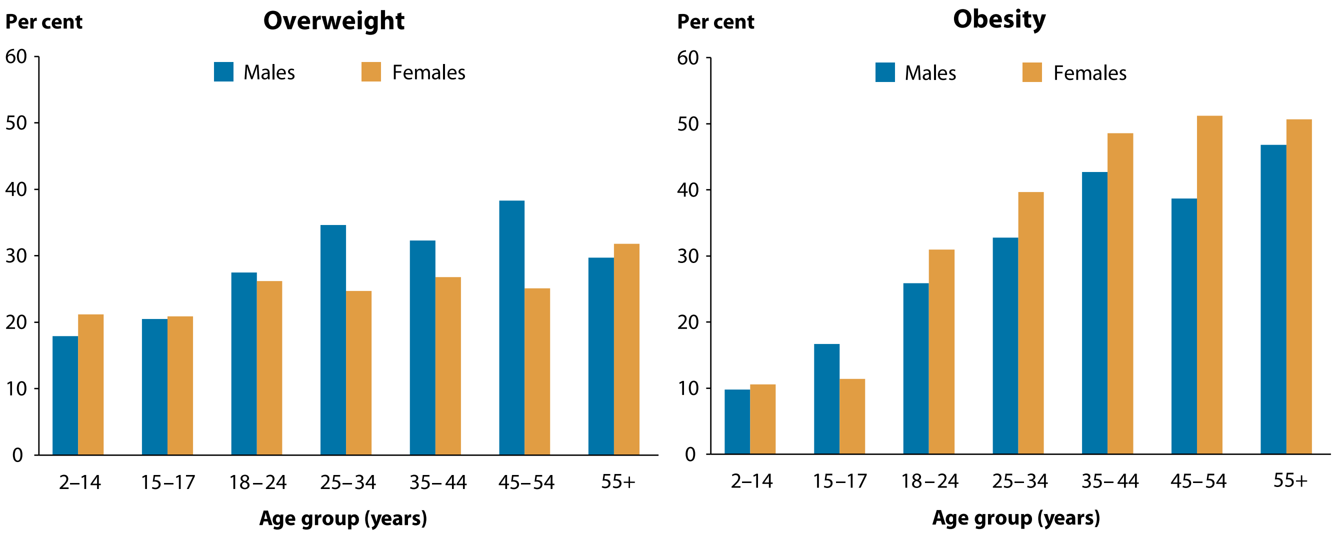
- 30% were classified as overweight (20%) or obese (10%)
- the proportion of girls who were classified as overweight (21%) or obese (10%) was not statistically different from the proportion of boys who were overweight (18%) or obese (10%).

Indigenous children aged 2–14 were significantly more likely than non-Indigenous children to be either overweight or obese (1.2 times as likely; 30% compared with 25%), and to be obese (1.6 times as likely; 10.2% compared with 6.5%) (ABS 2014d).

In 2012–13, among Indigenous people aged 15 and over:

- 66% were classified as overweight (29%) or obese (37%)
- overweight and obesity rates were significantly higher among older people (80% of those aged 55 and over were overweight or obese compared with 35% of those aged 15–17)
- males were significantly more likely than females to be overweight (31% compared with 26%) while females were significantly more likely than males to be obese (40% compared with 34%) (ABS 2014d).

Indigenous women aged 25–34 and 45–54 were significantly more likely than their male counterparts to be obese (Figure 4.12) (ABS 2014d).



Note: Data for this figure are shown in Table S4.12.

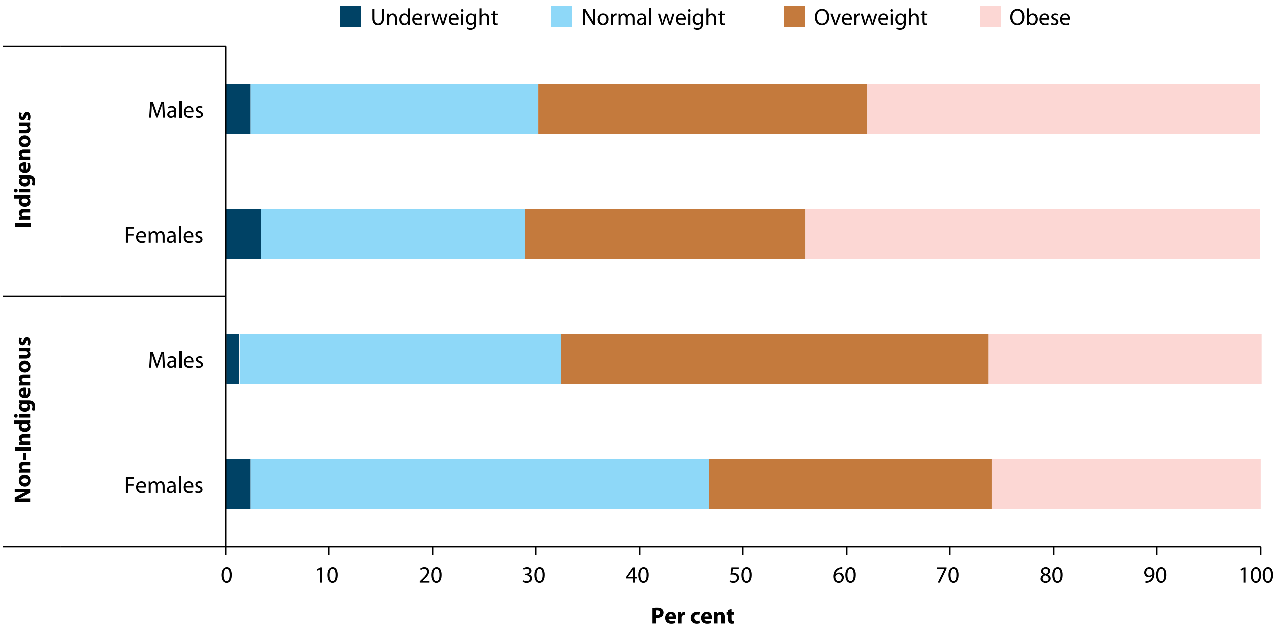
Source: ABS 2014d.

Figure 4.12: Age-specific rates of overweight and obesity among Indigenous people aged 2 and over, by sex, 2012–13

In 2012–13, rates of obesity among Indigenous people aged 15 and over were significantly higher in non-remote areas (38%) than remote areas (34%) (ABS 2014d).

Based on age-standardised rates, among people aged 15 and over:

- Indigenous people were significantly more likely than non-Indigenous people to be either overweight or obese (1.2 times as likely) and to be obese (1.6 times as likely) (Table S4.13)
- both Indigenous males and Indigenous females were significantly more likely to be obese than their non-Indigenous counterparts (1.4 times as likely for males and 1.7 times as likely for females) (Figure 4.13).



Notes

1. Rates have been directly age-standardised to the 2001 Australian standard population and are expressed per 100 population.
2. Data for this figure are shown in Table S4.13.

Source: ABS 2014d.

Figure 4.13: Body weight category among people aged 15 and over, by sex and Indigenous status, 2012–13

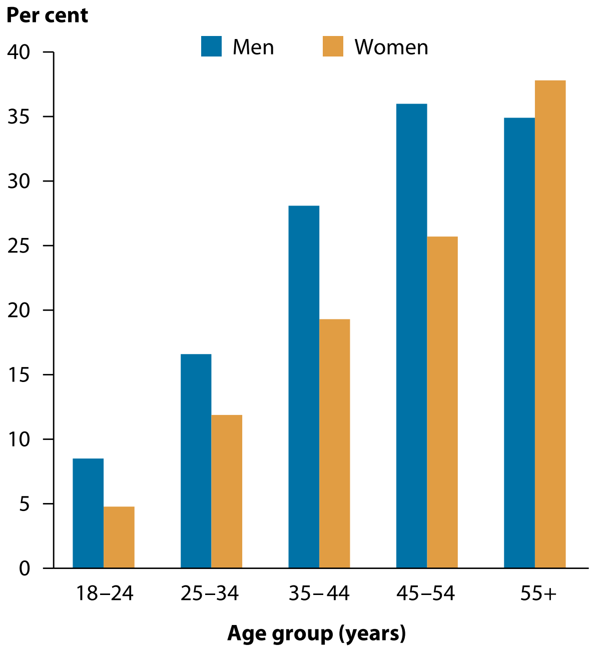
Blood pressure

High blood pressure, also known as hypertension, is a risk factor for stroke, coronary heart disease, heart failure and chronic kidney disease. It is also a cardiovascular condition in its own right. In the 2012–13 AATSIHS, high blood pressure was defined as blood pressure of 140/90 mmHg or more as measured in the survey (ABS 2014d).

In 2012–13:

- 1 in 5 (20%) Indigenous adults had measured high blood pressure
- Indigenous men were significantly more likely than Indigenous women to have measured high blood pressure (23% compared with 18%); this was true for all age groups except those aged 25–34 and 55 and over (Figure 4.14)
- the proportion of Indigenous adults with measured high blood pressure increased with age from 6.6% among those aged 18–24 to 36% among those aged 55 and over (Figure 4.15)
- 4 in 5 (79%) of Indigenous adults who had measured high blood pressure did not report that they had high blood pressure as a long-term condition (ABS 2014d).

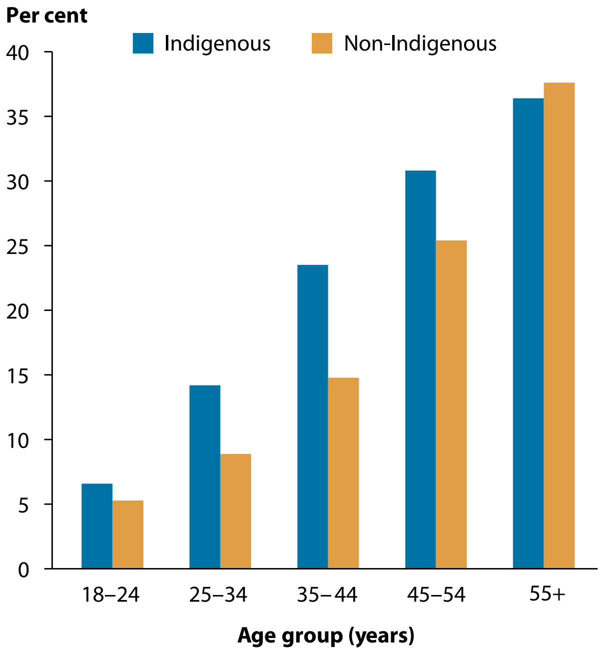
Indigenous adults were significantly more likely than non-Indigenous adults to have measured high blood pressure (1.2 times as likely, based on age-standardised rates). Indigenous people were significantly more likely than non-Indigenous people to have high blood pressure in the 25–34, 35–44 and 45–54 age groups (Figure 4.15).



Note: Data for this figure are shown in Table S4.14.

Source: ABS 2014d.

Figure 4.14: High blood pressure (measured) among Indigenous people aged 18 and over, by age and sex, 2012–13



Note: Data for this figure are shown in Table S4.15.

Source: ABS 2014d.

Figure 4.15: High blood pressure (measured) among people aged 18 and over, by age and Indigenous status, 2012–13

The information above relates to measured high blood pressure only; it does not include people who might otherwise have had high blood pressure but were effectively managing their condition (for example, through the use of blood pressure medications). When those who reported having high blood pressure are also taken into account, the 2012–13 AATSIHS indicates:

- 27% of Indigenous adults had self-reported and/or measured high blood pressure, with a significantly higher rate among Indigenous men than Indigenous women (29% compared with 25%)
- Indigenous adults in remote areas were significantly more likely to have high blood pressure than those in non-remote areas (34% and 25%, respectively) (Table S4.16).

Indigenous adults who reported having certain long-term health conditions were significantly more likely to have self-reported and/or measured high blood pressure than those without these conditions. In 2012–13, among Indigenous adults:

- those who reported heart/cardiovascular problems were 3.7 times as likely to have self-reported and/or measured high blood pressure as those without these problems (63% compared with 17%)
- those with kidney disease were 2.2 times as likely to have high blood pressure as those without (57% compared with 26%)
- those with diabetes were 2.2 times as likely to have high blood pressure as those without (51% compared with 23%) (Table S4.16).

Since blood pressure was not measured in previous Indigenous health surveys, comparisons over time of the proportion with measured high blood pressure cannot be made. However, trends in the self-reporting of high blood pressure can be monitored. A statistically significant smaller proportion of Indigenous people reported having high blood pressure in 2012–13 (6%) than in 2004–05 (7%) (ABS 2014d).

Cholesterol

Cholesterol is a fatty substance produced by the liver and elsewhere in the body. It is needed for metabolising fat and producing hormones and Vitamin D. High blood cholesterol levels are a major risk factor for heart disease and stroke. There are 2 main types of cholesterol: high density lipoprotein (HDL) (known as 'good' cholesterol) and low density lipoprotein (LDL) (known as 'bad' cholesterol). Total blood cholesterol levels above 5.5 mmol/L indicate an increased risk of developing coronary heart disease (AIHW 2013g).

In 2012–13, according to blood test results:

- 25% of Indigenous adults had abnormal total cholesterol levels (≥5.5 mmol/L)
- rates of abnormal total cholesterol levels were not significantly different for Indigenous men and women, nor between those living in remote and non-remote areas
- abnormal total cholesterol levels increased with age until 45–54, and then dropped among those aged 55 and over (however, this may be due to more older people than younger people taking cholesterol-lowering medication—see information about dyslipidaemia below)
- Indigenous adults who were obese were twice as likely to have abnormal total cholesterol as those who were normal weight or underweight (30% compared with 16%)
- Indigenous adults were significantly less likely than non-Indigenous adults to have abnormal total cholesterol (0.8 times as likely, based on age-standardised rates); however, this may be due to more Indigenous people taking cholesterol-lowering medication particularly among those aged 55 and over (ABS 2014b).

About 1 in 10 (9.1%) Indigenous adults with measured high total cholesterol levels reported that they had high cholesterol as a long-term condition. This suggests that the majority of Indigenous people with high total cholesterol levels were either not aware of this condition or did not report it for reasons such as not considering it a long-term or current problem (ABS 2014b).

In 2012–13, according to blood test results:

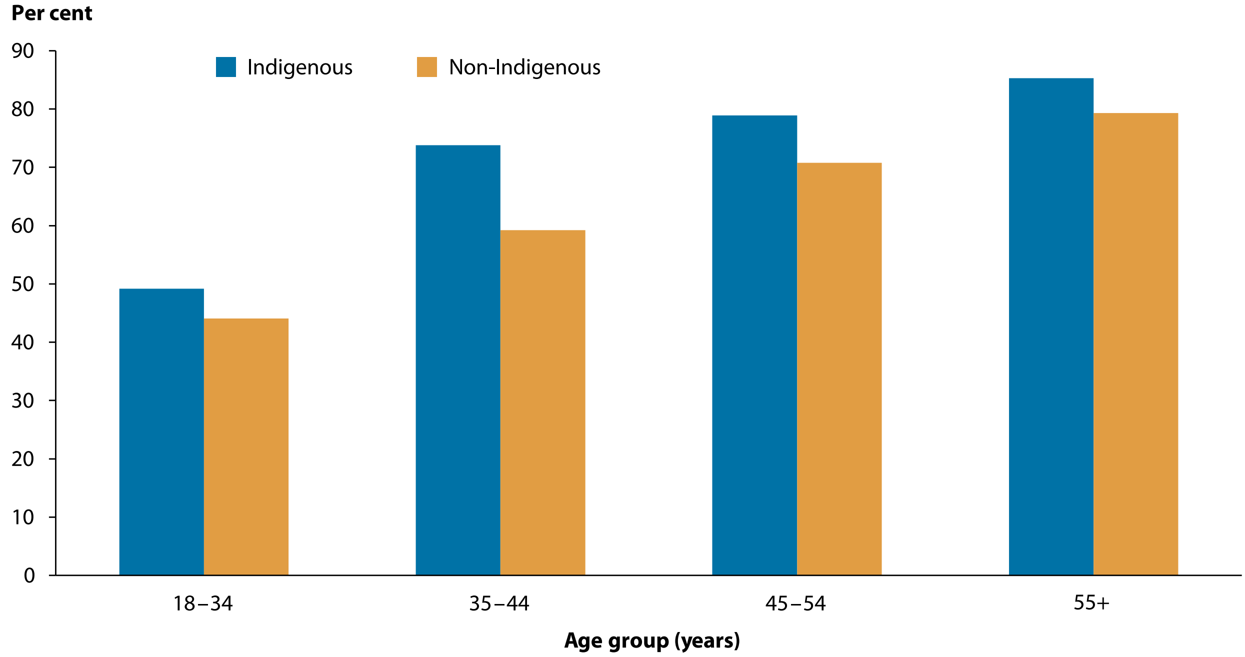
- 25% of Indigenous adults had high levels of LDL ('bad') cholesterol (≥ 3.5 mmol/L)
- 40% of Indigenous adults had abnormal levels of HDL ('good') cholesterol (<1.0 mmol/L for men and <1.3 mmol/L for women) (ABS 2014b).

Dyslipidaemia

Dyslipidaemia is a collective term for conditions where there are abnormal levels of lipids (fats) in the blood. It is a risk factor for heart disease and stroke. In the 2012–13 AATSIHS, people with dyslipidaemia included those who had measured abnormal lipid levels (cholesterol and triglycerides), as well as those with normal lipid levels who were taking cholesterol-lowering medication (see Appendix C.1 for further information).

In 2012–13:

- 65% of Indigenous adults had dyslipidaemia—14% were taking cholesterol-lowering medication and 51% had abnormal levels but were not taking medication
- the proportions of Indigenous men and women with dyslipidaemia were not significantly different
- rates of dyslipidaemia increased with age from 49% among Indigenous people aged 18–34 to 85% among those aged 55 and over (Figure 4.16)
- Indigenous adults in remote areas (79%) were significantly more likely to have dyslipidaemia than those in non-remote areas (63%)
- Indigenous adults were significantly more likely than non-Indigenous adults to have dyslipidaemia (1.1 times as likely, based on age-standardised rates) (ABS 2014b).



Note: Data for this figure are shown in Table S4.17.

Source: ABS 2014b.

Figure 4.16: Age-specific prevalence rates of dyslipidaemia among people aged 18 and over, by Indigenous status, 2012–13

Glucose control

Maintaining blood glucose levels within the normal range is important to prevent the development of diabetes. The 2012–13 AATSIHS used 2 tests to measure glucose control:

- fasting plasma glucose—this test requires fasting for 8 hours prior to the test and is the standard test for diabetes in Australia
- glycosylated haemoglobin (HbA1c)—this test does not require prior fasting.

In 2012–13, among those who did not have diabetes and based on fasting plasma glucose results:

- 4.7% of Indigenous adults were at high risk of diabetes (their fasting plasma glucose level was between 6.1 and <7.0 mmol/L)
- the proportion of Indigenous adults at high risk of diabetes did not differ significantly by sex or between remote and non-remote areas (ABS 2014b)
- Indigenous adults were significantly more likely to be at high risk of diabetes than non-Indigenous adults (1.8 times as likely, based on age-standardised rates).

About 1 in 5 (22%) survey respondents did not fast, so their fasting plasma glucose level could not be measured. Results using the alternative measure of HbA1c suggested 4.2% of Indigenous adults were at high risk of developing diabetes (that is, their HbA1c level was between 6.0% and 6.5%).

Kidney function

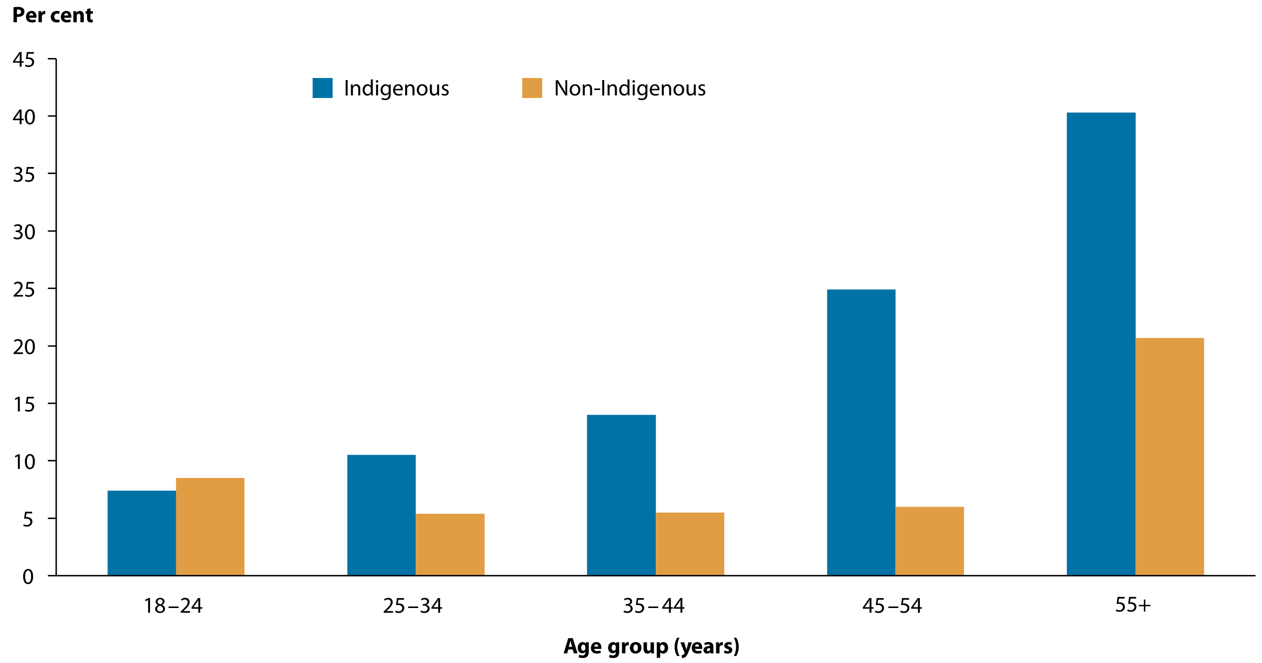
The kidneys remove waste from the blood and regulate the level of water and hormones in the body. Reduced kidney function may indicate the presence of kidney disease, which if diagnosed early can be managed to reduce the risk of disease progression and its complications such as heart disease. Chronic kidney disease occurs when kidney function is reduced or damaged (see Section 5.3). In the 2012–13 AATSIHS, kidney function was measured using estimated glomerular filtration rate (the amount of blood the kidneys filter in 1 minute) and the presence of protein in the urine. The results were used to determine chronic kidney disease stages, ranging in severity from Stage 1 (evidence of kidney damage but usually no symptoms) to Stage 5 (end-stage kidney disease which means the person is likely to require dialysis or a kidney transplant) (see Appendix C.1).

In 2012–13, among Indigenous adults:

- 18% had signs of chronic kidney disease—12% were in Stage 1, 3% in Stage 2, 2% in Stage 3 and 1% in Stages 4–5
- the proportion with indicators of chronic kidney disease did not differ significantly by sex, although it did increase with age (Figure 4.17)
- those living in remote areas were significantly more likely to have indicators of chronic kidney disease than those in non-remote areas (34% compared with 13%)
- 11% who had indicators of chronic kidney disease reported having the condition (ABS 2014b).

Indigenous adults were significantly more likely than non-Indigenous adults to have indicators of chronic kidney disease (2.1 times as likely, based on age-standardised rates). This pattern was evident in all age groups from 25–34 onwards (Figure 4.17). The difference may be partly due to the greater prevalence of diabetes and high blood pressure in the Indigenous population, especially at younger ages (ABS 2014b).

See Chapter 5 for information on the prevalence of chronic kidney disease in the Indigenous population.



Note: Data for this figure are shown in Table S4.18.

Source: ABS 2014b.

Figure 4.17: Presence of chronic kidney disease indicators among people aged 18 and over, by age and Indigenous status, 2012–13

Liver function

The liver metabolises food, makes proteins, secretes bile and removes toxins from the blood. Poor liver function may indicate the presence of liver disease which, if not treated, may cause liver damage or failure. Liver disease can impair the liver's function, causing complications such as abdominal fluid retention (ascites), cancer and gastrointestinal bleeding. In the 2012–13 AATSIHS, the levels of 2 enzymes related to liver function—alanine aminotransferase (ALT) and gamma glutamyl transferase (GGT)—were measured. High levels of either or both of these enzymes may indicate poor liver function.

In 2012–13, among Indigenous adults:

- 17% had elevated levels of ALT and 23% had elevated levels of GGT
- men were significantly more likely to have elevated ALT levels than women (20% compared with 13%), but their rates of elevated GGT levels were similar (24% and 23%, respectively)
- those in remote areas were significantly more likely than those in non-remote areas to have elevated ALT levels (22% compared with 15%) and elevated GGT levels (35% compared with 20%) (ABS 2014b).

Indigenous adults were significantly more likely than non-Indigenous adults to have elevated ALT levels (1.4 times as likely, based on age-standardised rates) and elevated GGT levels (2.1 times as likely, based on age-standardised rates) (ABS 2014b).

Haemoglobin levels

Haemoglobin is a protein in red blood cells that contains iron, which helps to transport oxygen around the body. People with low levels of haemoglobin are at risk of developing anaemia.

In 2012–13, among Indigenous adults:

- 7.6% had haemoglobin levels indicating they were at risk of anaemia
- women were significantly more likely to have low levels than men (10.3% compared with 4.8%)
- those in remote areas were significantly more likely to have low levels than those in non-remote areas (10.1% compared with 6.9%) (ABS 2014b).

Indigenous adults were significantly more likely to have low haemoglobin levels than non-Indigenous adults (1.9 times as likely, based on age-standardised rates) (ABS 2014b).

4.4 Psychological factors

Mental health can have a positive or negative effect on a person's physical health and, conversely, physical health can influence a person's mental health.

Psychological distress

The 2012–13 AATSIHS collected information from adults on psychological distress using the 'Kessler-5' scale. This scale, which consists of 5 questions from the Kessler Psychological Distress Scale, measures levels of negative emotional states experienced by respondents in the 4 weeks prior to interview. A high score may be associated with the person having feelings of anxiety or depression regularly, whereas a low score indicates that the person has these feelings less often or not at all.

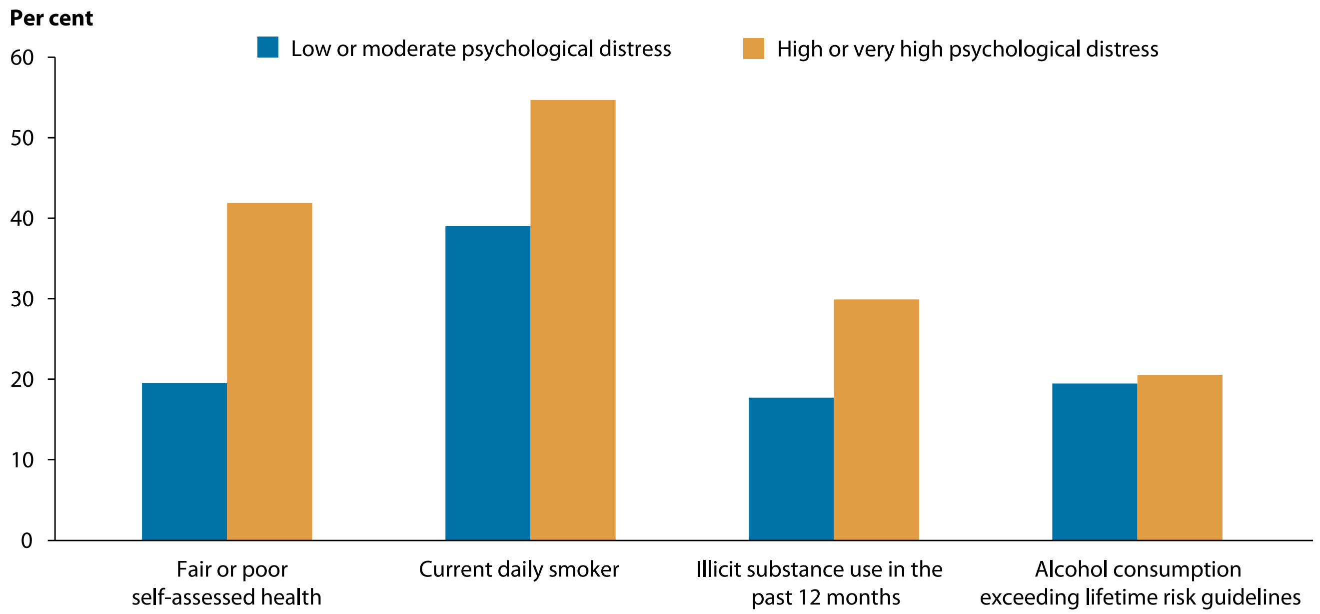
In 2012–13, among Indigenous adults:

- 30% had high or very high levels of psychological distress in the 4 weeks prior to the survey
- women had significantly higher rates of high or very high levels of psychological distress (36%) than men (24%)
- those in non-remote areas were significantly more likely to have high or very high levels of psychological distress than those in remote areas (32% compared with 24%)
- the proportion who had high or very high levels of psychological distress was significantly higher in 2012–13 (30%) than in 2004–05 (27%) (ABS 2013a).

In 2012–13, Indigenous adults were significantly more likely to have high or very high levels of psychological distress than non-Indigenous adults (2.7 times as likely, based on age-standardised rates) (ABS 2013a).

Indigenous adults with high or very high levels of psychological distress were significantly more likely than those with lower levels of psychological distress to:

- assess their health as fair or poor (42% and 20%, respectively)
- smoke daily (55% and 39%)
- have used illicit substances in the past 12 months (30% and 18%) (Figure 4.18).



Note: Data for this figure are shown in Table S4.19.

Source: AIHW analysis of ABS 2012–13 Australian Aboriginal and Torres Strait Islander Health Survey (using TableBuilder).

Figure 4.18: Self-assessed health and substance use among Indigenous people aged 18 and over, by level of psychological distress, 2012–13

Life stressors

Continued stress can lead to conditions such as anxiety, depression, high blood pressure and digestive problems, and can impair quality of life. In the 2012–13 AATSIHS, respondents were asked whether they, or their family or friends had experienced 1or more of a range of personal or family stressors in the previous year. The results indicated that among Indigenous people aged 15 and over:

- nearly 3 in 4 (73%) reported that they or their family or friends had experienced at least 1 stressor
- females were significantly more likely to have reported 1 or more stressors than males (77% compared with 70%)
- those in non-remote areas were significantly more likely to have reported 1 or more stressors than those in remote areas (75% compared with 69%) (ABS 2013a).

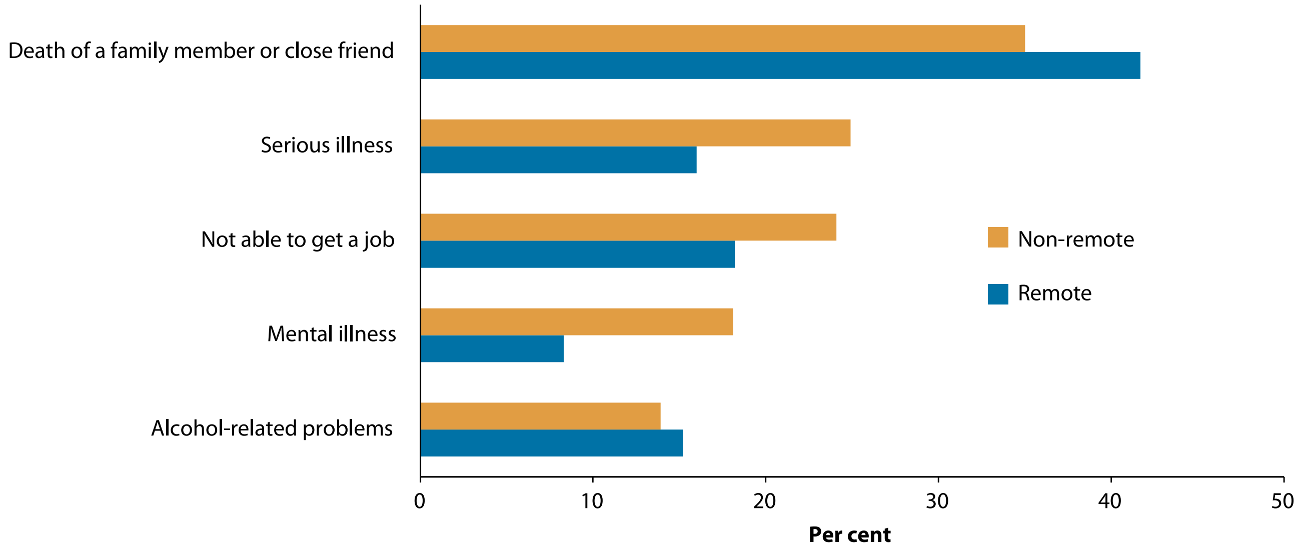
The most commonly reported stressors by Indigenous people aged 15 and over were:

- death of a family member or close friend (reported by 37%)
- serious illness (23%)
- not able to get a job (23%)
- mental illness (16%)
- alcohol-related problems (14%) (ABS 2013a).

Indigenous people aged 15 and over living in non-remote areas were significantly:

- more likely than those in remote areas to report inability to get a job (24% and 18%, respectively), serious illness (25% and 16%) and mental illness (18% and 8%) as a stressor
- less likely than those in remote areas to report the death of a family member or close friend as a stressor (35% compared with 42%) (Figure 4.19).

See Chapter 5 for information about Indigenous people with mental health conditions.



Note: Data for this figure are shown in Table S4.20.

Source: ABS 2013a.

Figure 4.19: Most common personal and/or family stressors experienced by Indigenous people aged 15 and over during the previous 12 months, by remoteness, 2012–13

4.5 Socioeconomic and environmental factors

Socioeconomic factors are associated with a person's health. For example, having a low income and/or a low level of education can limit choices and opportunities for improving health outcomes, and may influence other health-related factors, such as dietary choices and access to health care.

The relationship between health and socioeconomic factors is complex because both aspects can be an outcome or a determinant (WHO 2014b). For example, people with higher incomes may have better health outcomes because they have better access to a broader range of health services, while people with poorer health may have lower incomes due to work limitations caused by their health condition.

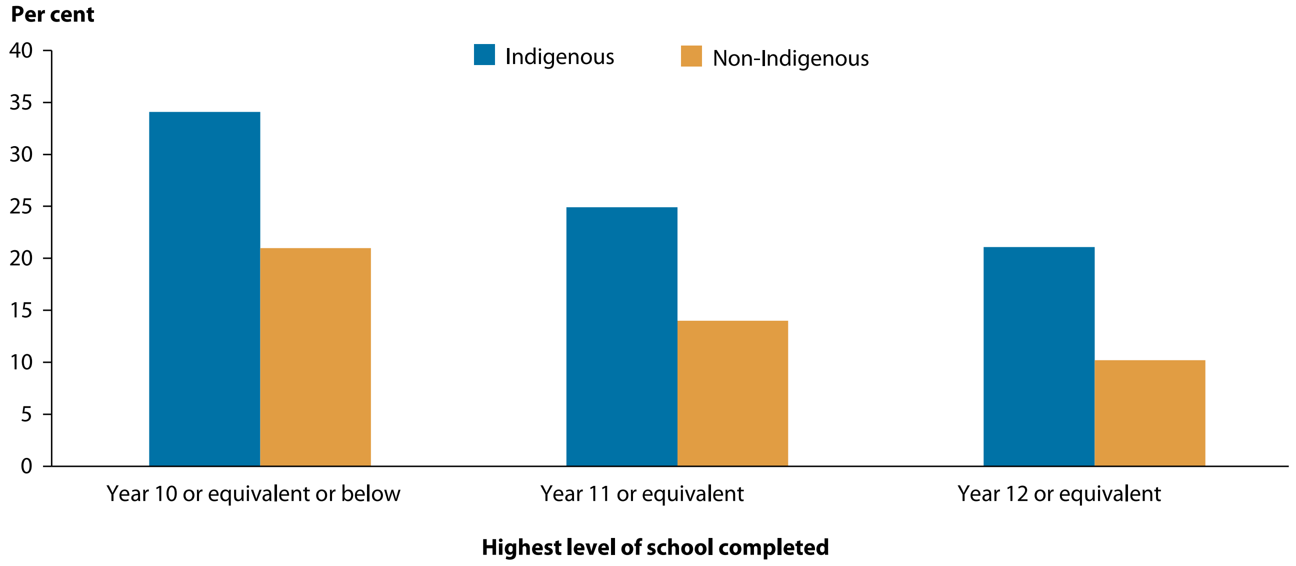
As described in Chapter 3, Indigenous Australians have lower levels of educational attainment and employment compared with non-Indigenous Australians. This section presents data on the relationship between education, employment and health status.

In addition to socioeconomic factors, environmental factors can also have an impact on a person's health and wellbeing. Examples of risk factors in the physical environment include exposure to air pollution or tobacco smoke. A lack of community safety and discrimination are examples of risk factors in the social environment. This section concludes by presenting information on exposure to tobacco smoke in the home and Indigenous people's experience of discrimination and removal from family.

Education

As described in more detail in Section 5.2, as part of the 2012–13 AATSIHS, respondents were asked to assess their health status on a scale ranging from 'poor' to 'excellent'. Compared with those with higher levels of school completion, Indigenous people with lower levels of school completion were more likely to assess their health as fair or poor; part of this difference may be due to lower educational attainment among older people who are more likely to assess their health as fair or poor (see Sections 3.1 and 5.2). Specifically, in 2012–13:

- Indigenous adults whose highest level of school completion was Year 10 or equivalent or below were more likely to assess their health as fair or poor than those who had completed Year 12 or equivalent (33% compared with 15%)
- non-Indigenous adults with lower levels of education were also more likely to assess their health as fair or poor than those who had higher levels of school completion
- Indigenous adults were significantly more likely than non-Indigenous adults to assess their health as fair or poor at each level of educational attainment (based on age-standardised rates) (Figure 4.20).



Notes

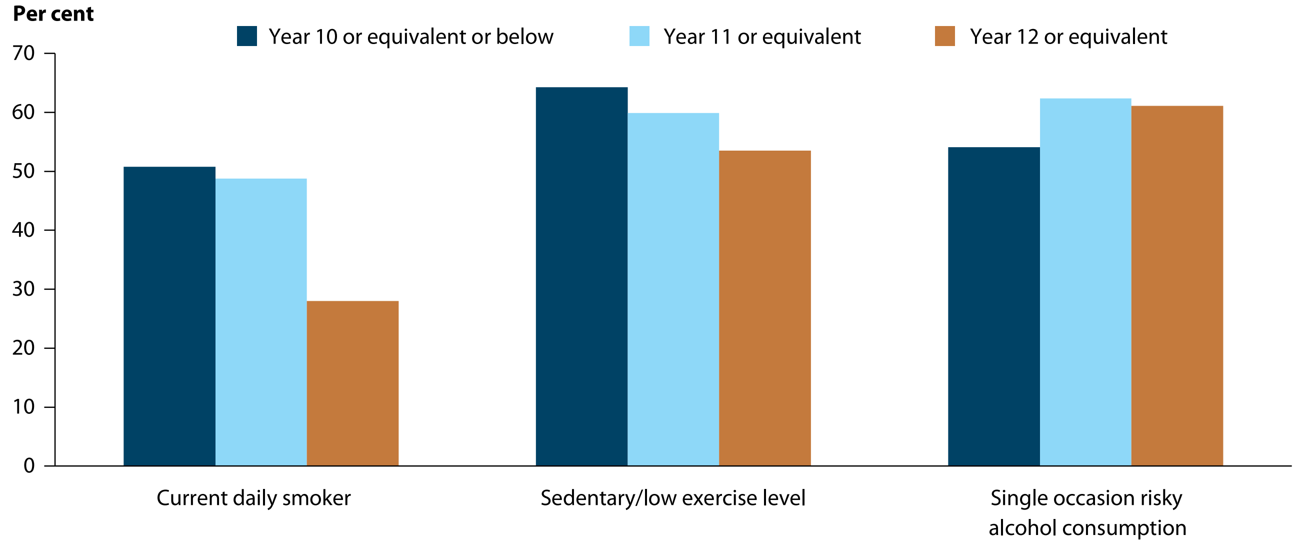
1. Rates have been directly age-standardised to the 2001 Australian standard population and are expressed per 100 population.
2. 'Year 10 or equivalent or below' includes people who never attended school.
3. Data for this figure are shown in Table S4.21.

Source: ABS 2014d.

Figure 4.20: Rates of fair or poor health assessments among people aged 18 and over, by highest level of school completed and Indigenous status, 2012–13

Lower levels of schooling were also associated with several risk factors for chronic disease. Compared with those who had completed Year 12 or equivalent, Indigenous adults whose highest level of school completion was Year 10 or equivalent or below were significantly:

- more likely to smoke tobacco daily (51% of those who had completed Year 10 or equivalent or below compared with 28% of those who had completed Year 12 or equivalent)
- more likely to be sedentary or exercise at a low level (64% compared with 54%)
- less likely to consume alcohol at levels exceeding single occasion risk guidelines (54% compared with 61%) (Figure 4.21).



Note: Data for this figure are shown in Table S4.22.

Sources: ABS 2013a, 2014d.

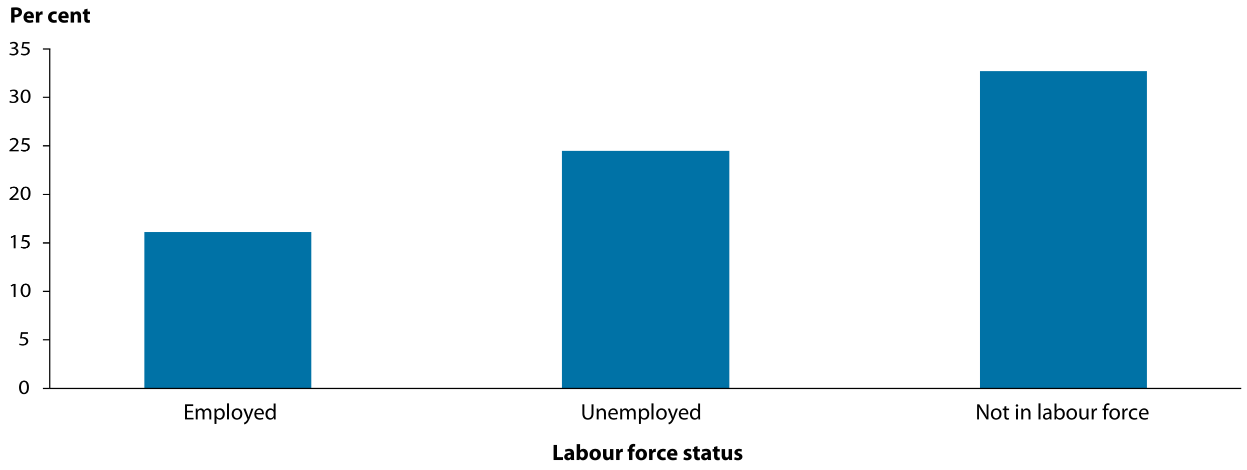
Figure 4.21: Selected risk factors for chronic disease among Indigenous people aged 18 and over, by highest level of school completed, 2012–13

While educational attainment can impact one's health status, the reverse is also true—health status can also affect educational attainment. For example:

- the odds of an Indigenous child aged 5–17 with a poor self-assessed health status currently studying were one-fifth that of an Indigenous child with an excellent self-assessed health status (AIHW analysis of the 2008 National Aboriginal and Torres Strait Islander Social Survey)
- in the 2 weeks prior to being surveyed, 19% of Indigenous people aged 5–24 who were studying reported that they had days away from study due to their own illness or injury (AIHW analysis of 2012–13 AATSIHS).

Employment

Self-assessed health status and employment are also associated. According to data from the 2012–13 AATSIHS, Indigenous people aged 15 to 64 who were not in the labour force were significantly more likely to assess their health as fair or poor (33%) than those who were employed (16%) or unemployed (24%) (Figure 4.22).



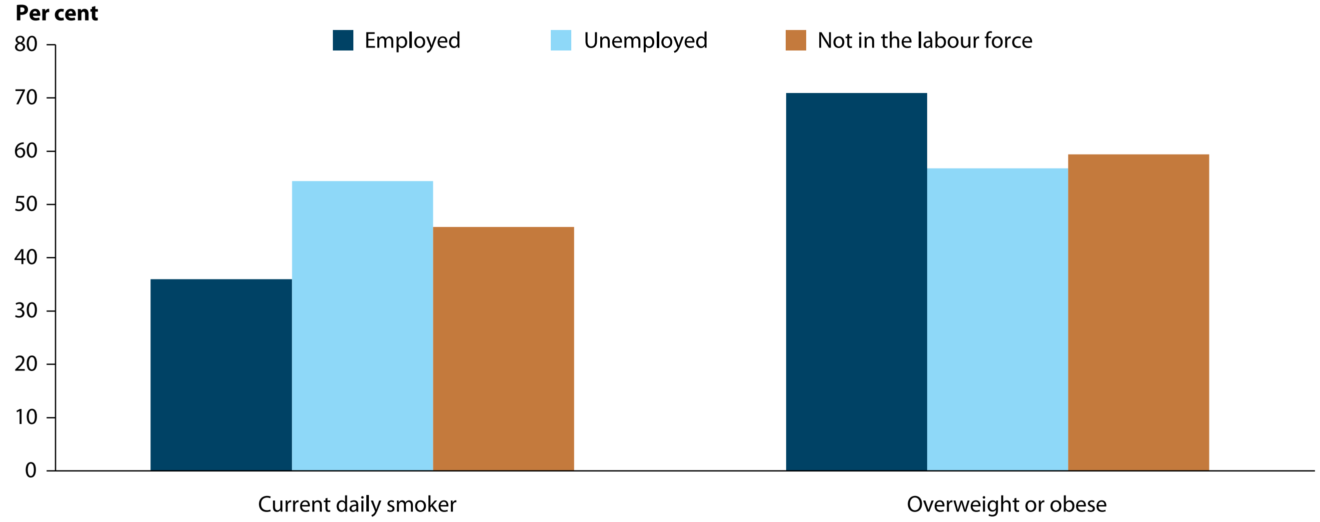
Note: Data for this figure are shown in Table S4.23.

Source: AIHW analysis of ABS 2012–13 Australian Aboriginal and Torres Strait Islander Health Survey (using TableBuilder).

Figure 4.22: Rates of fair or poor health assessments among Indigenous people aged 15 to 64, by labour force status, 2012–13

Employment was also associated with some behavioural risk factors for chronic disease. Compared with those who were unemployed or not in the labour force, Indigenous people aged 15 to 64 who were employed were significantly:

- less likely to smoke tobacco daily (36% of those employed compared with 46% of those not in the labour force and 54% of those who were unemployed)
- more likely to be overweight or obese (71% of those employed compared with 57% of those not in the labour force and 59% of those who were unemployed) (Figure 4.23).



Note: Data for this figure are shown in Table S4.24.

Source: AIHW analysis of ABS 2012–13 Australian Aboriginal and Torres Strait Islander Health Survey (using TableBuilder).

Figure 4.23: Selected risk factors for chronic disease among Indigenous people aged 15 to 64, by labour force status, 2012–13

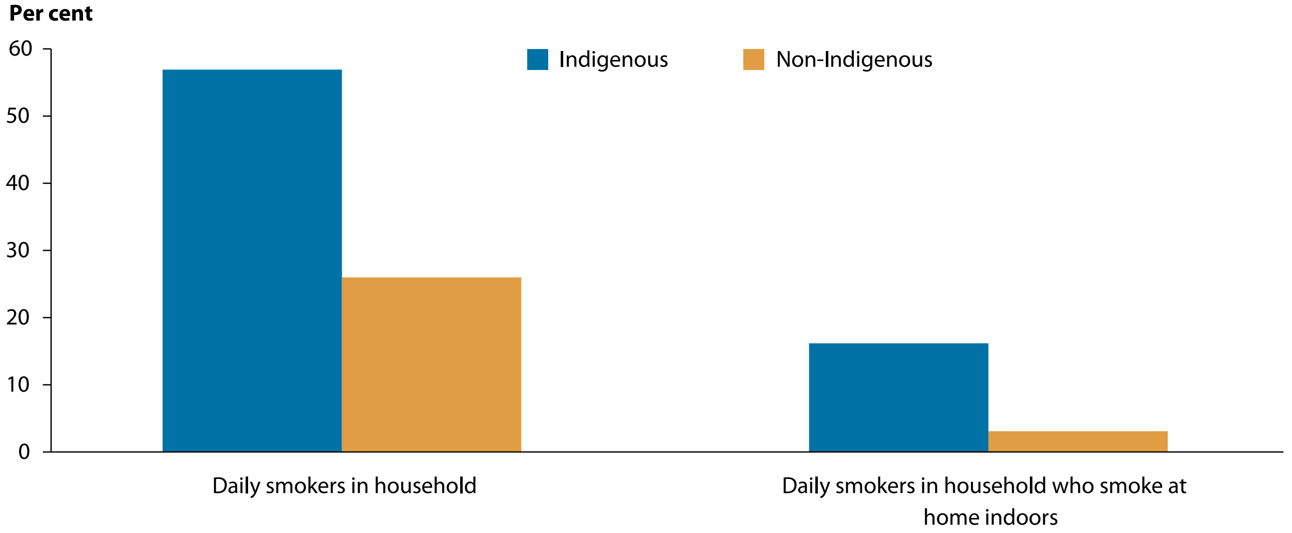
Indigenous people aged 15 to 64 who were employed were also significantly more likely than those who were not in the labour force to consume alcohol at risky levels, whereas those not in the labour force were significantly more likely than those who were employed or unemployed to be sedentary or to exercise at low intensity (Table S4.24).

The observed association between employment and health status can be looked at in 2 ways. While being employed has been shown to be beneficial to health, people are more likely to participate in the labour force if they are healthy (AIHW 2014c). For example, Indigenous Australians aged 15 to 64 who reported poor or fair self-assessed health were less likely to be employed compared with those who reported excellent health. Having circulatory disease, high cholesterol, high blood pressure, diabetes, arthritis or high psychological distress also decreased the likelihood of being employed full-time (AIHW analysis of the 2008 National Aboriginal and Torres Strait Islander Social Survey).

Exposure to tobacco smoke

Exposure to tobacco smoke increases a child's risk of ear infections and developing asthma (ABS & AIHW 2008). In 2012–13, almost 3 in 5 Indigenous children aged 0–14 (57%, or 130,610 children) were living in a household with a daily smoker, compared with about 1 in 4 non-Indigenous children (26%) (Figure 4.24). The proportion of Indigenous children aged 0–14 living in a household with a daily smoker declined from 68% in 2004–05 to 57% in 2012–13 (AIHW forthcoming 2015).

In 2012–13, Indigenous children aged 0–14 were 5 times as likely as non-Indigenous children to live in households with a daily smoker who smoked at home indoors (16% and 3%, respectively) (Figure 4.24).



Note: Data for this figure are shown in Table S4.25.

Source: AIHW forthcoming 2015.

Figure 4.24: Children aged 0–14 living in households with current daily smokers, by Indigenous status, 2012–13

Discrimination

Discrimination and racism have been associated with ill health and adverse health outcomes for Indigenous people—in particular, mental health conditions (such as anxiety) and risky health behaviours (Paradies et al. 2008). According to the 2012–13 AATSIHS:

- 7% of Indigenous adults (about 26,500 people) reported that they avoid seeking health care because they had been treated unfairly by doctors, nurses or other staff at hospitals or doctor surgeries
- 16% of Indigenous adults (about 59,000 people) reported that they felt they were treated badly in some type of situation in the previous year because they were Indigenous (AIHW analysis of 2012–13 AATSIHS).

The most common situations or places where Indigenous adults felt unfairly treated in the previous year included:

- by the general public (46% of those who reported being treated badly)
- when at work or when applying for work (29%)
- by the police, security people, lawyers or in a court of law (25%) (AIHW analysis of 2012–13 AATSIHS).

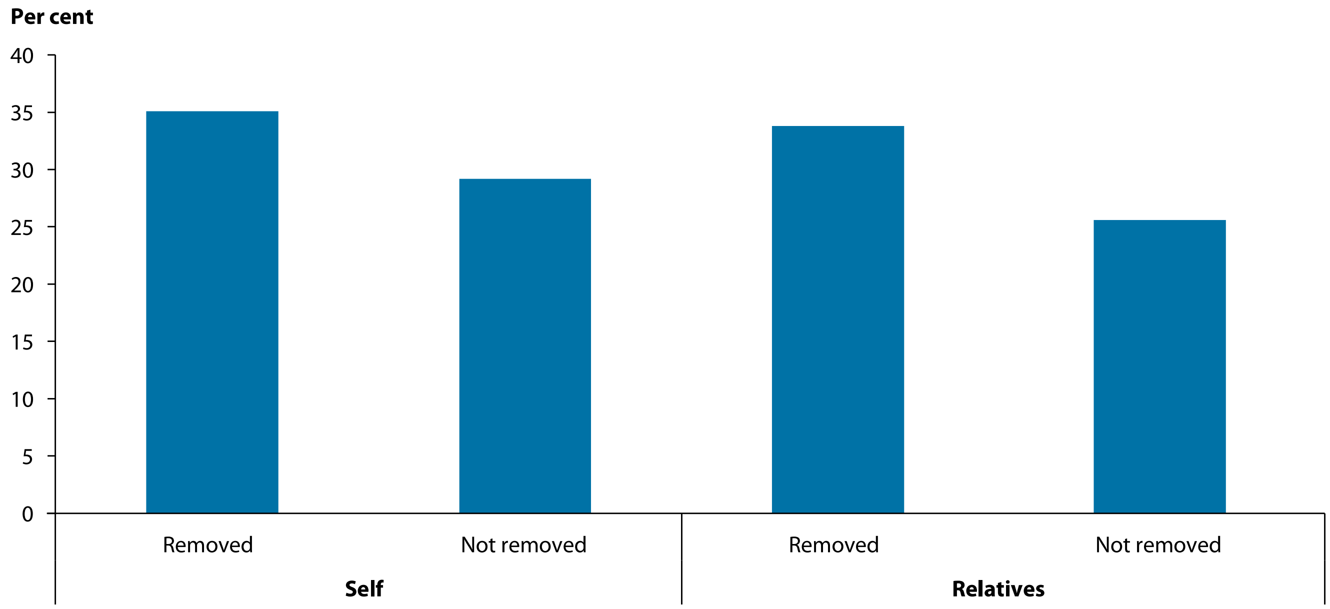
Data from an Aboriginal Experience of Racism survey conducted in Victoria in 2010 and 2011 indicated that almost all (97%) respondents had experienced at least 1 racist incident in the preceding 12 months (Kelaher et al. 2014). The survey, which interviewed 755 Indigenous adults living in 2 rural and 2 metropolitan areas, found that 2 in 3 (67%) experienced racism in shops, 59% in public spaces and 29% within health settings. Indigenous adults who had experienced high levels of racism were more likely to have high or very high levels of psychological distress than those who had experienced no, low or medium levels of racism (Ferdinand et al. 2012; Kelaher et al. 2014).

Removal from family

Between 1910 and 1970, an estimated one-tenth to one-third of Indigenous children in Australia were forcibly removed from their family (HREOC 1997). Removal from natural family has been associated with poorer mental health and general vitality, as well as higher levels of psychological distress (Dockery 2011).

In the 2012–13 AATSIHS:

- 13% of Indigenous adults reported having been removed from their natural family by welfare or the government or by being taken away to a mission
- 44% of Indigenous adults reported that they had relatives who had been removed from their natural family
- 9.2% of Indigenous adults fell into both groups—thus, in total, almost half (48%) of Indigenous adults reported that either they or their relatives had been removed from their natural family (Table S4.26)
- levels of high or very high psychological distress were significantly more common among Indigenous adults who:
  - had been removed from their family (35%) compared with those who had not (29%)
  - had relatives removed (34%) compared with those who had not (26%) (Figure 4.25).



Note: Data for this figure are shown in Table S4.27.

Source: AIHW analysis of ABS 2012–13 Australian Aboriginal and Torres Strait Islander Health Survey (using TableBuilder).

Figure 4.25: Rates of high or very high psychological distress among Indigenous people aged 18 and over, by removal from family experience, 2012–13

Health and disability

5

Key points

Self-assessed health status

- In 2012–13, 1 in 4 (24%) Indigenous Australians aged 15 and over assessed their health as fair or poor; Indigenous Australians were 2.1 times as likely as non-Indigenous Australians to report their health as fair or poor (based on age-standardised rates).

Mental health

- Mental health-related problems accounted for 11% of all problems managed by general practitioners (GPs) for Indigenous patients in 2008–13. GPs managed mental health problems for Indigenous Australians at 1.3 times the rate for other Australians (based on age-standardised rates).
- Mental health-related conditions accounted for 4.4% of hospitalisations of Indigenous people in 2012–13. Indigenous people were hospitalised for mental health conditions at twice the rate of non-Indigenous people (based on age-standardised rates).
- In 2008–2012, the suicide rate for Indigenous Australians was almost twice the rate for non-Indigenous Australians (based on age-standardised rates). For 15–19 year olds, the rate was 5 times as high as the non-Indigenous rate (34 and 7 per 100,000 population).

Respiratory diseases

- Almost one-third (31%) of Indigenous people reported some form of long-term respiratory disease in 2012–13; Indigenous people were 1.2 times as likely as non-Indigenous people to report having this condition (based on age-standardised rates).
- Respiratory diseases accounted for 5.4% of hospitalisations of Indigenous people in 2012–13. Indigenous people were hospitalised for respiratory diseases at 2.4 times the rate of non-Indigenous people (based on age-standardised rates).

Cardiovascular disease

- About 1 in 8 (13%) Indigenous Australians aged 2 and over reported having cardiovascular disease as a long-term condition in 2012–13. Indigenous people were 1.2 times as likely as non-Indigenous people to report having cardiovascular disease (based on age-standardised rates).
- Cardiovascular disease accounted for 3.0% of all hospitalisations of Indigenous people in 2012–13, and 8.1% of all problems managed by GPs for Indigenous patients in 2008–13.

Diabetes

- In 2012–13, 11% of Indigenous adults had diabetes, while a further 4.7% were at risk of developing diabetes. Indigenous adults were 3.3 times as likely to have diabetes as non-Indigenous adults (based on age-standardised rates).
- In 2008–2012, diabetes was listed as an underlying or associated cause of death in 1 in 5 (20%) Indigenous deaths.

Chronic kidney disease

- In 2012–13, 1.8% of Indigenous people aged 2 and over reported having long-term kidney disease. The proportion having long-term kidney disease was 3.7 times as high as the proportion of non-Indigenous people (based on age-standardised rates).
- In 2012–13, chronic kidney disease accounted for 173,423 (45%) hospitalisations of Indigenous Australians. Almost all (99%) of these hospitalisations were for same-day care involving dialysis which was the top reason for hospitalisation among Indigenous people. Indigenous people were 10 times as likely as non-Indigenous people to be hospitalised for chronic kidney disease (based on age-standardised rates).
- In 2008–2012, chronic kidney disease was either an underlying or associated cause of death for 16% of Indigenous deaths.

Cancer

- In 2005–2009, Indigenous people accounted for 1% of cancer cases diagnosed in the 4 jurisdictions with adequate Indigenous identification. The most commonly diagnosed cancers among Indigenous Australians were lung cancer (average of 130 cases per year) and breast cancer in females (95 cases per year).
- In 2008–2012, the cancer death rate for Indigenous people was 1.2 times that of non-Indigenous people (based on age-standardised rates). There was a 16% increase in the cancer death rate for Indigenous people between 1998 and 2012, whereas the rate for non-Indigenous people decreased by 10%.

Injury and poisoning

- Injury and poisoning was the second leading cause of hospitalisation for Indigenous Australians in 2012–13, accounting for 27,653 (7.2%) hospitalisations of Indigenous people. Of these hospitalisations, 23% were due to assault and 19% were due to accidental falls.
- In 2008–2012, external causes of injury and poisoning accounted for 15% of deaths of Indigenous people compared with 6.1% of deaths of non-Indigenous people. The most common external causes of death for Indigenous people were suicide (4.8% of all deaths) and transport accidents (3.9%).

Other common health conditions

- In 2012–13, 20% of Indigenous people reported long-term musculoskeletal diseases, 12% reported long-term ear or hearing problems, and 33% reported long-term eye or sight problems.

Disability

- In 2012–13, 6.4% of Indigenous people (an estimated 41,000 people) had severe or profound disability; Indigenous Australians were twice as likely as non-Indigenous Australians to have severe or profound disability (based on age-standardised rates).

Comparison by remoteness

- In 2012–13, Indigenous people aged 15 and over in remote areas were significantly less likely to assess their health as fair or poor than those in non-remote areas (20% compared with 25%).
- Indigenous people aged 2 and over in remote areas were significantly more likely to report cardiovascular disease than those in non-remote areas in 2012–13 (18% compared with 11%).
- In 2012–13, Indigenous adults in remote areas were significantly more likely than those in non-remote areas to have diabetes (21% compared with 9.4%).
- In 2012–13, the proportion of Indigenous Australians with severe or profound disability did not differ significantly between Indigenous people living in remote and non-remote areas (5.8% and 6.6%, respectively).

5.1 Introduction

Compared with non-Indigenous Australians, Indigenous Australians are more likely to have certain types of health conditions and, for many conditions, experience earlier onset. They also have a continued high occurrence of certain diseases that are now virtually unreported in the non-Indigenous population, such as trachoma and acute rheumatic fever.

This chapter provides an overview of the health and disability of Indigenous people. In addition to providing information on the overall health status of the Indigenous population, common types of ill-health among Indigenous people are described. To provide a comprehensive picture of these conditions, statistical information is presented on:

- prevalence—the number of people with the disease
- incidence—the number of people newly diagnosed with the disease (where available)
- hospitalisations due to the disease
- GP consultations (for selected diseases)
- mortality due to the disease.

Chapter 6 provides detailed information about overall mortality patterns and trends among Indigenous people. As noted there, mortality data presented in this report relate to 5 jurisdictions for which the quality of Indigenous identification is considered to be adequate. Chapter 7 provides more information on hospitalisations, in the context of health services provided to Indigenous Australians.

The last section of this chapter describes the level of disability among Indigenous Australians.

5.2 Self-assessed health status

Self-assessed health status provides an overall measure of a population's health based on an individual's own perceptions of their health. This assessment may or may not align with what a health professional would conclude.

In 2012–13, among Indigenous Australians aged 15 and over:

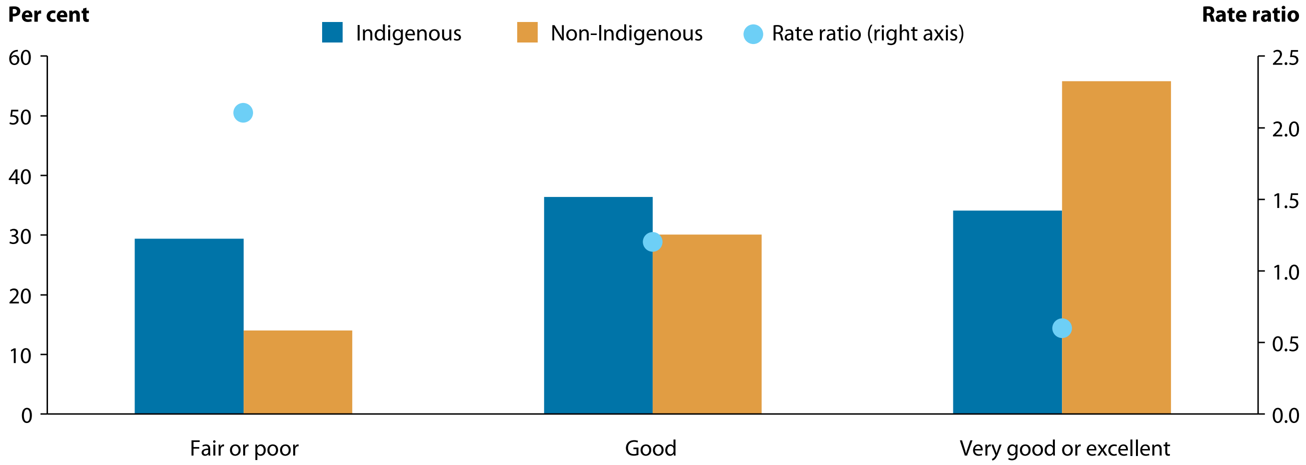
- 39% reported their health as excellent (13%) or very good (27%)
- 37% reported their health as good
- 24% reported their health as fair (17%) or poor (6.9%)
- males (42%) were significantly more likely to report excellent or very good health than females (37%) (ABS 2014d).

Indigenous people aged 15 and over in remote areas were:

- significantly less likely than those in non-remote areas to report fair or poor health (20% and 25%, respectively)
- significantly more likely to report good health (42% and 35%)
- as likely as those in non-remote areas to report excellent or very good health (Table S5.1).

Indigenous Australians aged 15 and over were:

- significantly more likely than their non-Indigenous counterparts to report their health as fair or poor (2.1 times as likely, based on age-standardised rates)
- about half as likely to report their health as excellent or very good (0.6 times as likely, based on age-standardised rates) (Figure 5.1).



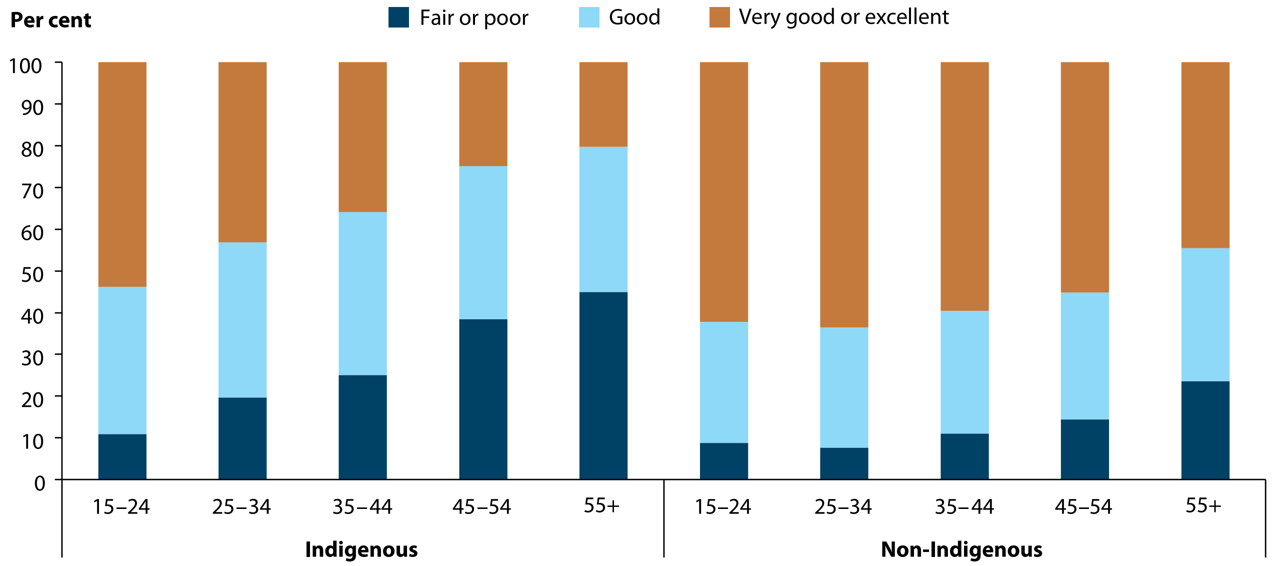
Notes

1. Rates have been directly age-standardised to the 2001 Australian standard population and are expressed per 100 population.
2. Data for this figure are shown in Table S5.2.

Source: ABS 2014d.

Figure 5.1: Self-assessed health status among people aged 15 and over, by Indigenous status, 2012–13

While most Indigenous Australians assessed their health as good or better in 2012–13, this declined significantly with age—with the proportion ranging from 89% of Indigenous people aged 15–24 to 55% of Indigenous people aged 55 and over (Figure 5.2). For non-Indigenous Australians, the corresponding figures were 91% for those aged 15–24 and 77% for those aged 55 and over—suggesting more similarity between Indigenous and non-Indigenous ratings of self-assessed health at younger ages than at older ages.



Note: Data for this figure are shown in Table S5.3.

Source: SCRGSP 2014b.

Figure 5.2: Age-specific self-assessed health status among people aged 15 and over, by Indigenous status, 2012–13

A comparison of self-assessed health status data for 2001 and 2012–13 shows that:

- a significantly higher proportion of Indigenous people aged 15 and over reported good health in 2012–13 (37%) than in 2001 (33%)
- there was no significant difference in the proportion reporting very good or excellent health (40% in 2001 and 39% in 2012–13) or fair or poor health (26% and 24%) (ABS 2014d).

5.3 Health conditions

In this section, the most common long-term health conditions among Indigenous Australians are described, followed by descriptions of selected health conditions that cause considerable morbidity and mortality in the Indigenous population. Table 5.1 presents a summary of the key findings in relation to these selected conditions.

Note that data about the prevalence of various health conditions were largely sourced from the 2012–13 AATSIHS. Unless otherwise indicated, these data were self-reported; the prevalence of health conditions (and risk factors) tends to be underestimated in self-reported data (see Appendix A.2).

Table 5.1: Prevalence, hospitalisations and mortality for selected health conditions, Indigenous people

	Prevalence 2012–13[a][b]	Hospitalisations 2012–13[c]		Deaths 2008–2012[d]	
Condition	**Rate (per 100 population)**	**Per cent**	**Rate (per 1,000 population)**	**Per cent**	**Rate (per 100,000 population)**
Mental health	n.a.[e]	4.4	24.4	3.0	12.0
Respiratory diseases	31.0	5.4	30.3	7.6	30.6
Cardiovascular disease	12.7	3.0	16.8	25.5	101.9
Diabetes	11.1	0.7	4.0	7.9	31.7
Chronic kidney disease	1.8	45.1	250.9	3.8	15.4
Cancer	1.0	0.9	5.1	19.8	79.2
Injury and poisoning (external causes)	n.a.	7.2	40.0	15.2	60.8
Musculoskeletal diseases	19.9	1.9	10.4	0.6	2.3
Ear and hearing problems	12.3	0.7	4.0	—	0.1
Eye and vision problems	33.4	0.8	4.6	—	—

(a) Prevalence data relate to long-term health conditions (that is, a current medical condition which had lasted, or was expected to last, for 6 months or more). All data are based on self-report, with the exception of diabetes, which is based on self-report and biomedical data.

(b) Prevalence data for respiratory diseases, cancer, musculoskeletal diseases, ear and hearing problems, and eye and vision problems cover people of all ages. Prevalence data for cardiovascular disease and chronic kidney disease are for people aged 2 and over, while data for diabetes are for people aged 18 and over.

(c) Based on principal diagnosis.

(d) Based on underlying cause of death. Data are for New South Wales, Queensland, Western Australia, South Australia and the Northern Territory.

(e) Data on the overall prevalence of mental health conditions are not available because a prompt card containing certain mental health conditions was incorrectly excluded during collection of data for the 2012–13 AATSIHS.

Sources: ABS 2013a, 2014b, 2014d; AIHW National Hospital Morbidity Database; AIHW National Mortality Database.

Common long-term health conditions

In 2012–13, two-thirds (67%) of Indigenous people reported at least 1 long-term health condition, with 33% reporting 3 or more (ABS 2013a). Indigenous Australians were as likely as non-Indigenous Australians to have reported at least 1 long-term health condition (based on age-standardised rates).

Overall, the most common long-term health conditions reported by Indigenous Australians were:

- eye diseases and vision problems (33%)
- respiratory diseases (31%)
- musculoskeletal diseases (20%)
- ear diseases and hearing problems (12%) (Figure 5.3).

Data on the overall prevalence of mental health conditions are not available from the 2012–13 AATSIHS because a prompt card containing certain mental health conditions was incorrectly excluded during data collection (ABS 2013a).

The prevalence of various long-term conditions varied by age:

- for Indigenous people aged under 35, respiratory diseases were the most commonly reported condition, followed by eye and sight problems
- for those aged 35 and over, eye diseases and vision problems (mainly short- and long-sightedness) were the most prevalent long-term conditions
- the second most common condition for those aged 35–44 was respiratory diseases, and for those aged 45 and over, musculoskeletal diseases (Figure 5.3).

Rank	0–14	15–24	25–34	35–44	45–54	55+	Total
1st	Respiratory diseases 20.9%	Respiratory diseases 29.9%	Respiratory diseases 36.9%	Eye diseases and vision problems 46.7%	Eye diseases and vision problems 87.2%	Eye diseases and vision problems 92.4%	Eye diseases and vision problems 33.4%
2nd	Eye diseases and vision problems 8.8%	Eye diseases and vision problems 22.0%	Eye diseases and vision problems 27.4%	Respiratory diseases 39.8%	Musculoskeletal diseases 47.0%	Musculoskeletal diseases 59.8%	Respiratory diseases 31.0%
3rd	Ear diseases and hearing problems 7.1%	Musculoskeletal diseases 12.7%	Musculoskeletal diseases 21.8%	Musculoskeletal diseases 35.3%	Respiratory diseases 42.6%	Endocrine, nutritional and metabolic diseases 47.4%	Musculoskeletal diseases 19.9%
4th	Skin and subcutaneous tissue diseases 3.3%	Ear diseases and hearing problems 8.3%	Nervous system diseases 13.7%	Cardiovascular disease 18.9%	Endocrine, nutritional and metabolic diseases 31.2%	Cardiovascular disease 41.9%	Ear diseases and hearing problems 12.3%
5th	Nervous system diseases 2.6%	Nervous system diseases 8.3%	Cardiovascular disease 12.2%	Endocrine, nutritional and metabolic diseases 16.5%	Cardiovascular disease 28.2%	Respiratory diseases 40.7%	Cardiovascular disease 12.0%

Notes

1. The top 5 disease categories for each age group are shown, excluding 'Symptoms, signs and conditions not elsewhere classified'.
2. Data on the overall prevalence of mental health conditions are not available from the 2012–13 AATSIHS.
3. For examples of the types of conditions in these broad categories, see Table S5.4.

Source: ABS 2013a.

Figure 5.3: Age-specific prevalence of leading long-term conditions for Indigenous Australians, 2012–13

The remainder of this section presents information about selected long-term health conditions among Indigenous people.

Mental health conditions

Mental illness comprises a wide spectrum of disorders and varies in its severity. Its effect on individuals and families can be severe, and it can also negatively affect the broader community. Social problems commonly associated with mental illness include poverty, unemployment or reduced productivity, and homelessness (AIHW 2012a).

Although the 2012–13 AATSIHS does not provide data on the overall prevalence of mental health conditions among Indigenous people, data are available from that survey on the prevalence of feeling depressed and depression. In 2012–13, 12% of Indigenous Australians reported feeling depressed or having depression as a long-term condition; this was significantly higher than the corresponding proportion for all Australians (9.6%) (AIHW analysis of 2012–13 AATSIHS and 2011–12 AHS).

Data on levels of psychological distress (based on the Kessler-5 scale of psychological distress) also provide an indication of mental health. As detailed in Section 4.4, data from the 2012–13 AATSIHS show that:

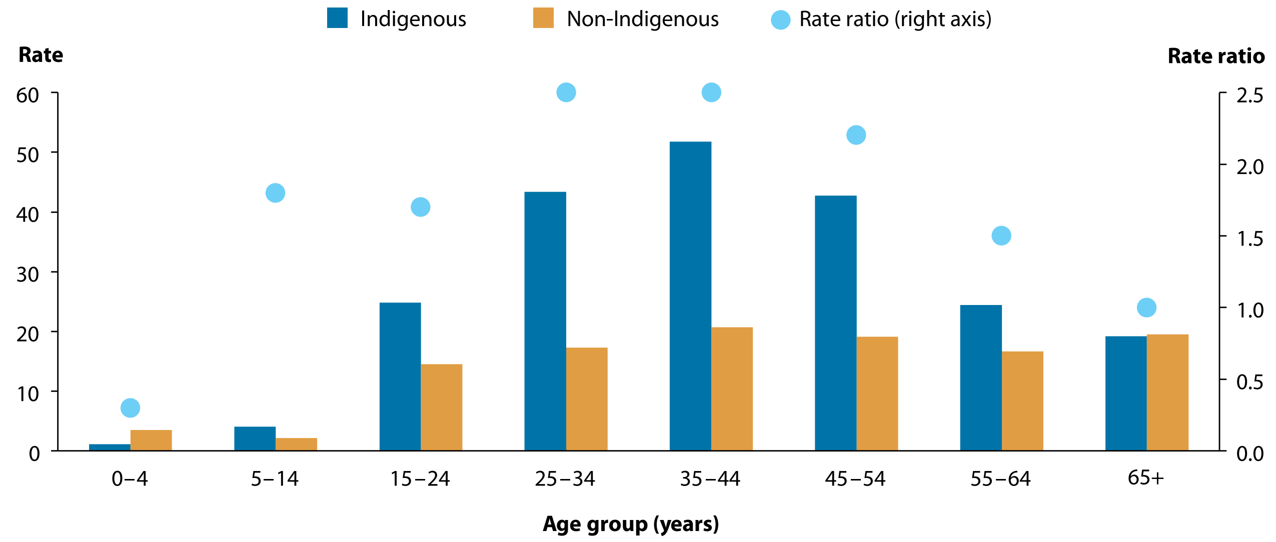
- 3 in 10 (30%) Indigenous adults had high or very high levels of psychological distress in the 4 weeks prior to the survey
- Indigenous adults were significantly more likely than non-Indigenous adults to have high or very high levels of psychological distress (2.7 times as likely, based on age-standardised rates) (ABS 2013a).

Another indication of mental health is suicide rates. For the 5-year period 2008–2012, there were 560 suicides among Indigenous people. This accounted for 4.8% of Indigenous deaths in this period. The suicide rate for Indigenous Australians was almost twice the rate for non-Indigenous Australians (rate ratio of 1.9, based on age-standardised rates). For 15–19 year olds, this rose to 5 times as high as the non-Indigenous rate (Table S5.5).

There was no significant change in suicide rates among Indigenous Australians between 1998 and 2012, although there was a significant decline of 25% among non-Indigenous Australians (Table S5.6). Further information about suicide is provided in this section under the heading of 'Injury and poisoning'.

In 2012–13, there were 16,880 hospitalisations of Indigenous Australians with a principal diagnosis of mental health-related conditions—amounting to 4.4% of hospitalisations of Indigenous people and a rate of 24 hospitalisations per 1,000 population. The rate of hospitalisations of Indigenous people for mental health-related conditions:

- rose with age to a high of 52 per 1,000 population for those aged 35–44, before falling progressively to 19 per 1,000 population for those aged 65 and over (Figure 5.4)
- was twice the rate for non-Indigenous people (based on age-standardised rates) (Table S5.7)
- was higher than that for non-Indigenous people in all age groups other than those aged 0–4 and those aged 65 and over (Figure 5.4)
- rose by 40% between 2004–05 and 2012–13, while rates for non-Indigenous people remained relatively steady over the same period (based on age-standardised rates) (Table S5.8).



Notes

1. Rates are expressed per 1,000 population.
2 Data for this figure are shown in Table S5.7.

Source: AIHW National Hospital Morbidity Database.

Figure 5.4: Age-specific hospitalisation rates for mental health-related conditions, by Indigenous status, 2012–13

Mental health-related problems accounted for 11% of all problems managed by GPs for Indigenous patients in the 5-year period 2008–13. The most common mental health problems managed by GPs for Indigenous patients were:

- depression (3.1% of all problems managed)
- anxiety (1.2%)
- tobacco abuse (1.1%)
- alcohol abuse (1.0%).

GPs managed mental health problems for Indigenous Australians at 1.3 times the rate for other Australians (based on age-standardised rates). A major contributor to this difference was a higher management rate for alcohol abuse among Indigenous Australians (rate ratio of 4.1) (Table S5.9).

In 2012–13, 98 organisations were funded by the Australian Government to provide social and emotional wellbeing or Link-Up counselling services to Indigenous people. Link-Up counselling services are aimed at the Stolen Generations, their families, and foster and adoptive families. The 98 organisations:

- provided counselling services to about 17,700 clients, most of whom were Indigenous (94% excluding those clients for whom Indigenous status was not known) (Table S7.7)
- provided counselling services to 3,716 first and second Stolen Generation clients (that is, those who were removed, or their parents were removed, from their families and communities), accounting for 24% of all clients for whom Indigenous status was known
- provided around 89,100 contacts to clients, an average of 5 contacts per client (AIHW 2014a).

Mental health-related conditions accounted for 3.0% of deaths of Indigenous people in 2008–2012—a rate of 12 deaths per 100,000 population. (Note, this does not include deaths due to suicide which are included in the 'Injury and poisoning' category.) Death rates for mental health-related conditions:

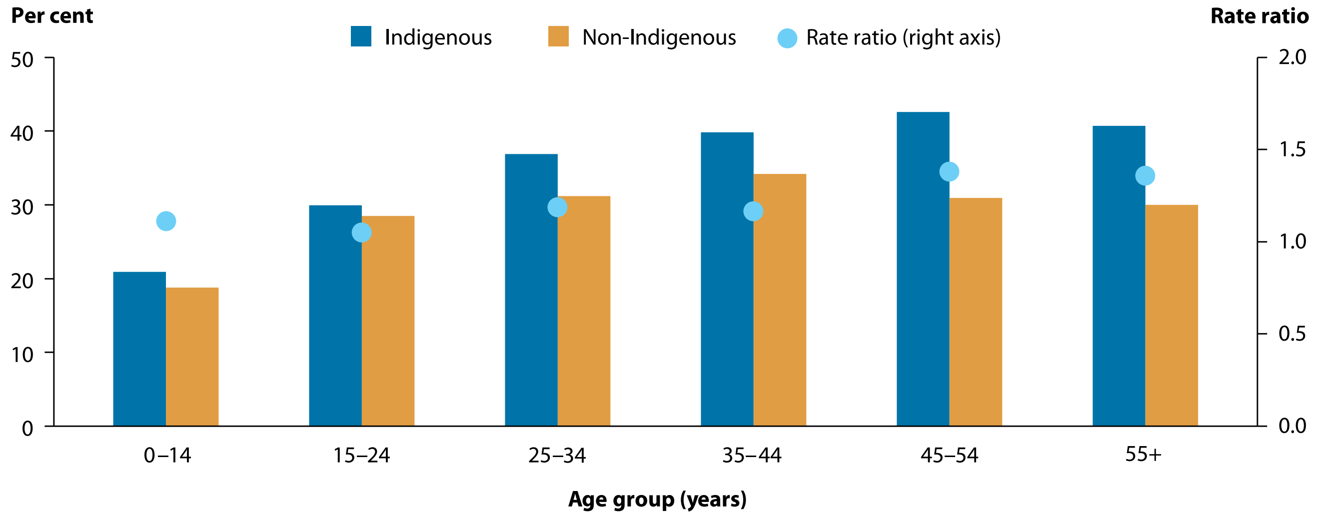
- were substantially higher for Indigenous people aged 65 and over than other age groups
- were 1.2 times as high for Indigenous Australians as for non-Indigenous Australians (based on age-standardised rates) (Table S5.10).

Respiratory diseases

Common respiratory diseases are asthma, chronic obstructive pulmonary disease (comprising chronic bronchitis and emphysema), influenza and pneumonia.

In 2012–13, almost one-third (31%) of Indigenous people reported some form of long-term respiratory disease; this equates to an estimated 197,700 Indigenous Australians. The proportion of Indigenous people with long-term respiratory disease:

- increased with age from 21% for those aged 0–14 to 43% for those aged 45–55, before then falling to 41% among those aged 55 and over (Figure 5.5)
- was relatively similar to the proportion for non-Indigenous people in the younger age groups, while for those aged 45 and over, proportions were at least 10 percentage points higher for Indigenous Australians than for non-Indigenous Australians (ABS 2013a).



Note: Data for this figure are shown in Table S5.11.

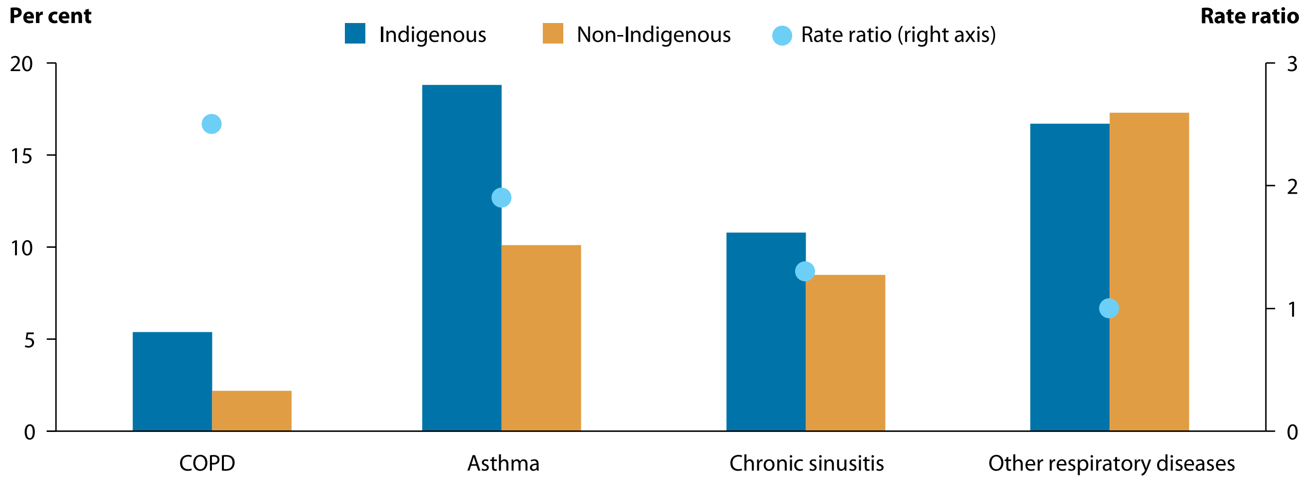
Source: ABS 2013a.

Figure 5.5: Age-specific prevalence rates of long-term respiratory diseases, by Indigenous status, 2012–13

Overall, Indigenous Australians were significantly more likely to report having a long-term respiratory disease than non-Indigenous Australians (1.2 times as likely, based on age-standardised rates) (ABS 2013a).

In relation to the specific types of long-term respiratory diseases reported, in 2012–13:

- 18% of Indigenous people indicated they had asthma and 4.1% reported chronic obstructive pulmonary disease (COPD) (ABS 2013a)
- Indigenous Australians were significantly more likely than non-Indigenous Australians to report asthma (1.9 times as likely) and COPD (2.5 times as likely) based on age-standardised rates (Figure 5.6).



Notes

1. Rates have been directly age-standardised to the 2001 Australian standard population and are expressed per 100 population.
2. Data for this figure are shown in Table S5.12.

Source: ABS 2013a.

Figure 5.6: Prevalence rates of long-term respiratory diseases, by type of respiratory disease and Indigenous status, 2012–13

Further details about COPD in Indigenous Australians can be found in *Coronary heart disease and chronic obstructive pulmonary disease in Indigenous Australians* (AIHW 2014n).

There were 20,944 hospitalisations of Indigenous Australians with a principal diagnosis of respiratory disease in 2012–13, representing 5.4% of Indigenous hospitalisations and a rate of 30 hospitalisations per 1,000 population. In 2012–13:

- the rate of hospitalisations of Indigenous people for respiratory diseases was 2.4 times the rate for non-Indigenous people (based on age-standardised rates) (Table S5.13)
- the rate for Indigenous children aged 0–4 was 1.7 times the rate for their non-Indigenous counterparts, while the rates for Indigenous adults aged 25 and over were between 2 and 5 times the rate for non-Indigenous adults in the corresponding age groups (Table S5.13)
- the rate of hospitalisations of Indigenous people for respiratory diseases increased by 16% between 2004–05 and 2012–13, compared with 6.9% for non-Indigenous people over the same period (based on age-standardised rates) (Table S5.14).

Respiratory diseases accounted for 7.6% of Indigenous deaths in the 5-year period 2008–2012 (Table S6.2)—a rate of 31 deaths per 100,000 population. Death rates for respiratory disease:

- were highest for Indigenous Australians aged 65 and over compared with those in other age groups
- declined significantly by 26% between 1998 and 2012 for Indigenous Australians (based on age-standardised rates) (Table S6.10).

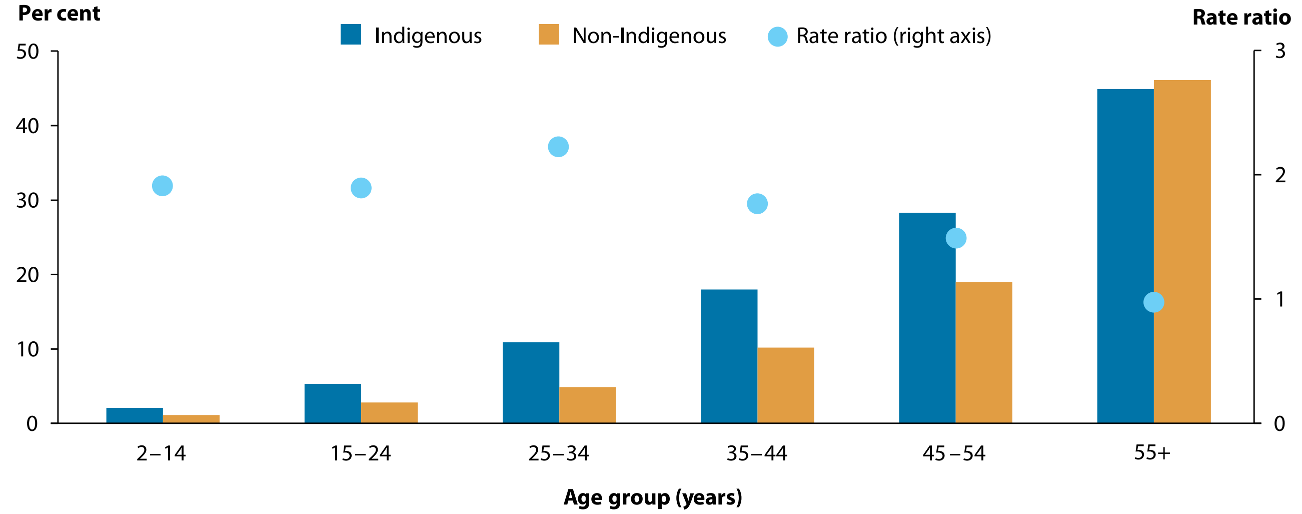
Cardiovascular disease

Cardiovascular disease (also known as circulatory system diseases) covers all diseases and conditions of the heart and blood vessels, including coronary heart disease, stroke, peripheral vascular disease, heart failure and rheumatic heart disease. In Australia, the main underlying cause of cardiovascular disease is a process known as atherosclerosis—this is a condition where abnormal deposits of fat, cholesterol and other substances build up in the inner lining of the arteries to form plaque, which causes the artery walls to lose their elasticity. Atherosclerosis is most serious when it leads to reduced or blocked blood supply to the heart (causing angina or heart attack) or to the brain (causing stroke). The process leading to atherosclerosis is slow and complex, often starting in childhood and progressing with age (AIHW 2014i).

Several factors are known to increase the risk of developing cardiovascular disease, including overweight and obesity, tobacco smoking, high blood pressure, high blood cholesterol, insufficient physical activity, poor nutrition and diabetes (AIHW 2015). Information on these biomedical and behavioural risk factors is presented in Chapter 4.

In 2012–13, among Indigenous Australians aged 2 and over:

- about 1 in 8 (13% or an estimated 76,800 people) reported having cardiovascular disease as a long-term condition (ABS 2014d)
- females were significantly more likely to have cardiovascular disease than males (14% compared with 11%), with this difference being due to factors such as the larger proportion of women than men in older age groups, and higher rates of obesity among females (ABS 2014d)
- those in remote areas (18%) were significantly more likely to report cardiovascular disease than those in non-remote areas (11%) (Table S5.15)
- the prevalence rates of cardiovascular disease increased with age, as they did for non-Indigenous Australians (Figure 5.7).



Note: Data for this figure are shown in Table S5.16.

Source: ABS 2014d.

Figure 5.7: Age-specific prevalence rates of cardiovascular disease among people aged 2 and over, by Indigenous status, 2012–13

Indigenous Australians aged 2 and over were significantly more likely than non-Indigenous Australians to report cardiovascular disease (1.2 times as likely, based on age-standardised rates). The difference was most pronounced for those aged 25–34 (rate ratio of 2.2) (Table S5.16).

In 2001 and 2012–13, the age-standardised prevalence rates of cardiovascular disease among Indigenous Australians aged 2 and over were the same (both 20%) (ABS 2014d).

There were 11,588 hospitalisations with a principal diagnosis of cardiovascular disease for Indigenous Australians in 2012–13—representing 3.0% of all hospitalisations and a rate of 17 hospitalisations per 1,000 population. A further 21,562 hospitalisations (5.6% of hospitalisations) had an additional diagnosis of cardiovascular disease.

Indigenous Australians were hospitalised with a principal diagnosis of cardiovascular disease at 1.6 times the rate of non-Indigenous Australians (based on age-standardised rates). The difference was most pronounced for those aged 35–44 (2.4 times as likely) and 45–54 (2.5 times as likely).

Between 2004–05 and 2012–13, the age-standardised hospitalisation rate for cardiovascular disease increased by 12% for Indigenous people; by comparison, the rate fell by 2.9% for non-Indigenous people (Table S5.17).

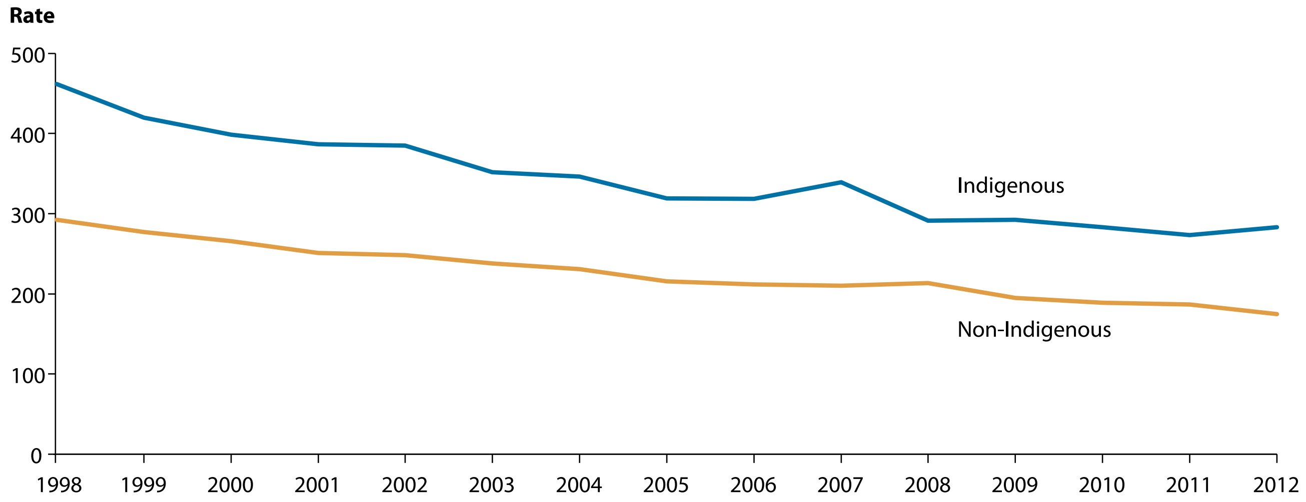
Cardiovascular problems accounted for 8.1% of all problems managed by GPs for Indigenous patients in 2008–13. The most common cardiovascular problem managed was hypertension (4.0% of all problems managed). Indigenous Australians had cardiovascular problems managed by GPs at a similar rate to that for other Australians (based on age-standardised rates) (Table S5.9).

Cardiovascular disease is the largest cause of death for Indigenous Australians. In 2008–2012:

- cardiovascular disease accounted for 2,958 deaths of Indigenous people, amounting to 25% of Indigenous deaths (102 deaths per 100,000 population) (see also Section 6.4)
- over one-third (39%) of these deaths occurred among those aged 45 to 64—a much higher proportion than for non-Indigenous Australians of the same age (8.5%)
- the mortality rates from cardiovascular disease were highest among older people for both Indigenous and non-Indigenous Australians (Table S5.18).

Between 1998 and 2012, age-standardised mortality rates due to cardiovascular disease:

- fell significantly (by 40%) for Indigenous people (Figure 5.8)—the decline was statistically significant for both Indigenous males (33%) and females (46%)
- also fell significantly (by 38%) for non-Indigenous people (Table S6.10).



Notes

1. Rates have been directly age-standardised to the 2001 Australian standard population and are expressed as deaths per 100,000 population.
2. Data are for New South Wales, Queensland, Western Australia, South Australia and the Northern Territory.
3 Data for this figure are shown in Table S5.19; summary statistics about change over the period are shown in Table S6.10.

Source: AIHW National Mortality Database.

Figure 5.8: Mortality rates from cardiovascular disease, by Indigenous status, 1998 to 2012

Details about coronary heart disease—the most common form of cardiovascular disease—can be found in *Coronary heart disease and chronic obstructive pulmonary disease in Indigenous Australians* (AIHW 2014n).

Acute rheumatic fever and rheumatic heart disease

Rheumatic heart disease is caused by long-term damage to the heart muscle or heart valves as a result of acute rheumatic fever. Acute rheumatic fever is a delayed complication of a throat or possibly skin infection caused by group A *streptococcus* bacteria. Both acute rheumatic fever and rheumatic heart disease are preventable causes of ill health and death. Socioeconomic and environmental factors play an important, but indirect, role in the magnitude and severity of acute rheumatic fever and rheumatic heart disease—for example, exposure to group A *streptococcus* bacteria is closely related to overcrowded housing, a low level of hygiene and poor sanitation. As well, limited access to medical care for adequate diagnosis and/or appropriate treatment of rheumatic fever can have a significant impact on the early detection of acute rheumatic fever and the development of further complications (AIHW 2013j).

Jurisdictional data on the incidence of acute rheumatic fever and the prevalence of rheumatic heart disease from heart disease registers in the Northern Territory, Western Australian and Queensland show that these conditions are much more common among Indigenous people than non-Indigenous people. During the 4-year period 2010–2013, in the Northern Territory, Western Australia and Queensland combined:

- there were 743 new or recurrent cases of acute rheumatic fever among Indigenous Australians
- people aged 5–14 accounted for about half (52%) of cases among Indigenous Australians
- Indigenous Australians accounted for 94% of all new or recurrent cases of acute rheumatic fever
- the incidence rate among Indigenous Australians was 53 per 100,000 population, compared with less than 1 case per 100,000 among other Australians (Table S5.20).

Data on rheumatic heart disease registrations from these same 3 jurisdictions indicate that:

- there were 1,455 registered cases of rheumatic heart disease among Indigenous people in the Northern Territory and 305 registered cases in Western Australia at 31 December 2013
- there were 921 registered cases of rheumatic heart disease among Indigenous people in Queensland at 1 July 2014
- Indigenous people accounted for 89% of registered cases of rheumatic heart disease in Queensland, and 94% of cases in the Northern Territory (Table S5.21).

Over the 3-year period 2010–13:

- there were 1,384 hospitalisations with a principal diagnosis of acute rheumatic fever or rheumatic heart disease for Indigenous people, representing 0.1% of all hospitalisations for Indigenous people
- Indigenous people were over-represented in hospitalisations for acute rheumatic fever and rheumatic heart disease, accounting for 17% of such hospitalisations where Indigenous status was known
- the age-standardised rate of hospitalisations for acute rheumatic fever or rheumatic heart disease for Indigenous Australians was 6.4 times the rate for non-Indigenous Australians (AIHW National Hospital Morbidity Database).

Diabetes

Diabetes is a chronic condition marked by high levels of glucose in the blood. It is caused by the inability of the body to produce insulin (a hormone produced by the pancreas to control blood glucose levels), by the body not being able to use insulin effectively, or both. There are several types of diabetes, with the most common form being Type 2 diabetes, which is largely preventable. Type 2 diabetes is usually associated with lifestyle factors and with a later onset than Type 1 diabetes. Complications of diabetes include heart disease, stroke, kidney disease and limb amputation. A number of factors are known to increase the risk of developing diabetes, including insufficient physical activity, poor diet, overweight and obesity, tobacco smoking, high blood pressure and high blood lipids (AIHW 2014i, 2015).

In the 2012–13 AATSIHS, diabetes prevalence was determined using blood test results and self-reported information, with a distinction made between those who had 'known diabetes' and those who were newly diagnosed with diabetes as part of the survey—see Box 5.1.

Box 5.1: Diabetes prevalence based on fasting plasma glucose levels

A person was considered to have **known diabetes** if they had ever been told by a doctor or nurse that they had diabetes and:

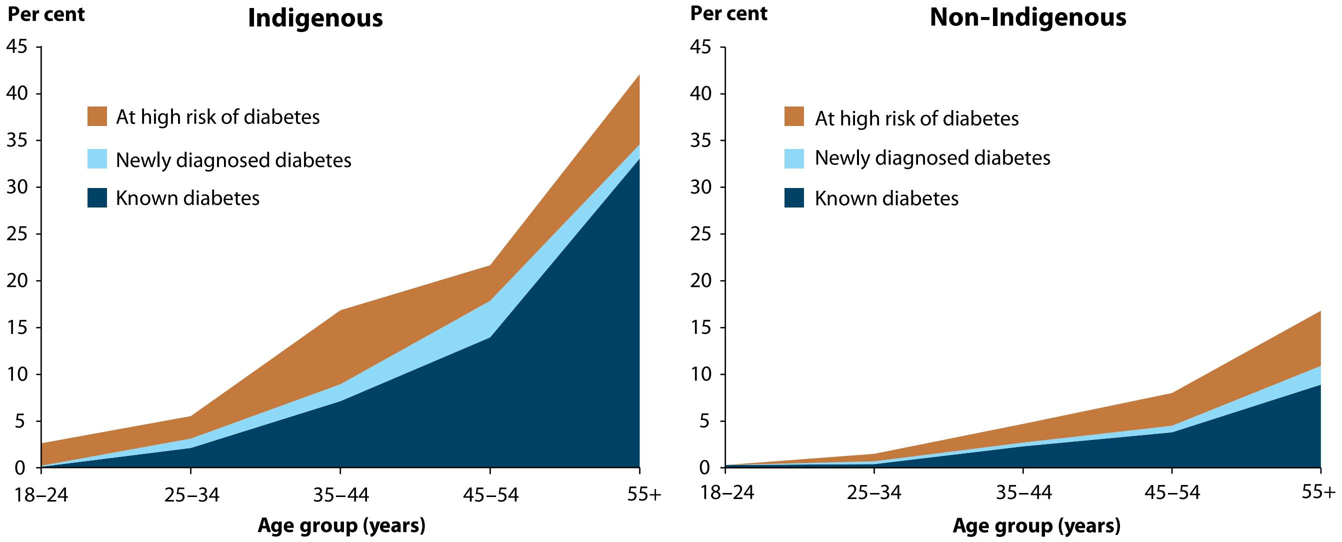
- they were taking diabetes medication, or
- they had a fasting plasma glucose level ≥7.0 mmol/L.

A person was considered to have **newly diagnosed diabetes** if they had not reported a prior diagnosis of diabetes but had a fasting plasma glucose level ≥7.0 mmol/L.

A person was considered to be **at high risk of diabetes** if they did not currently have diabetes but had an impaired fasting plasma glucose level (6.1 mmol/L to <7.0 mmol/L) (ABS 2014b).

In 2012–13:

- 11% of Indigenous adults had diabetes, comprising 9.6% with known diabetes and 1.5% with newly diagnosed diabetes
- Indigenous adults in remote areas (21%) were significantly more likely than those in non-remote areas (9.4%) to have diabetes
- the prevalence rates of diabetes increased with age for both Indigenous and non-Indigenous adults (Figure 5.9)
- Indigenous adults who were obese were 7 times as likely as those of normal weight or underweight to have diabetes (17% compared with 2.4%)
- just over half (53%) of Indigenous adults with diabetes had signs of chronic kidney disease
- Indigenous adults were 3.3 times as likely to have diabetes as non-Indigenous adults, based on age-standardised rates (ABS 2014b).



Note: Data for this figure, which are based on fasting plasma glucose results, are shown in Table S5.22; data based on HbA1c results are shown in Table S5.23.

Source: ABS 2014b.

Figure 5.9: Age-specific prevalence rates of diabetes and those at high risk among people aged 18 and over, by Indigenous status, 2012–13

In addition to the estimated 11% of Indigenous adults with diabetes, a further 4.7% of Indigenous adults had impaired fasting plasma glucose, which means they are at risk of developing diabetes (see Section 4.3 for further information).

A comparison of the prevalence of diabetes over time is only available for self-reported prevalence of diabetes and high sugar levels combined. Among Indigenous people aged 2 and over, similar proportions had self-reported diabetes or high sugar levels in 2012–13 (15%) as in 2001 (13%) (based on age-standardised rates) (Table S5.24; ABS 2014d).

In 2012–13, diabetes was recorded as:

- the principal diagnosis for 2,749 hospitalisations of Indigenous Australians (0.7% of all Indigenous hospitalisations and a rate of 4 hospitalisations per 1,000 population)
- an additional diagnosis for a further 41,237 hospitalisations of Indigenous people (10.7% of hospitalisations)
- either a principal or additional diagnosis for just over 1 in 10 (11%) hospitalisations of Indigenous people.

In 2012–13 and based on age-standardised rates:

- Indigenous Australians were hospitalised with a principal diagnosis of diabetes at 4 times the rate of non-Indigenous Australians
- similarly, Indigenous Australians were hospitalised with either a principal diagnosis or additional diagnosis of diabetes at 4 times the rate of non-Indigenous Australians.

Data about change over time in the number of hospitalisations due to diabetes are not available due to changes in coding practices for classifying hospitalisations for diabetes in 2010 and 2012 (see AIHW 2014h).

Diabetes problems accounted for 5.2% of all problems managed by GPs for Indigenous patients in 2008–13. Indigenous Australians had diabetes problems managed by GPs at 2.8 times the rate for other Australians (based on age-standardised rates) (Table S5.9).

In 2008–2012, diabetes was:

- the second leading specific cause of death for Indigenous people, accounting for 7.9% of Indigenous deaths (921 deaths and a rate of 32 deaths per 100,000 population)
- an associated cause of death for a further 12.3% of deaths of Indigenous people
- either an underlying or associated cause of death for 1 in 5 (20%) deaths of Indigenous people (2,344 deaths).

In comparison, diabetes was the underlying cause of death for 2.6% of non-Indigenous deaths, an associated cause of death for a further 7.4% and either an underlying or associated cause of death for a total of 10% of non-Indigenous deaths.

Based on age-standardised rates, the mortality rate of Indigenous Australians due to diabetes:

- as an underlying cause of death was 5.7 times the rate for non-Indigenous Australians
- as either an underlying or associated cause of death was 3.9 times the non-Indigenous rate.

There were large year-to-year fluctuations in mortality rates for Indigenous people for diabetes between 1998 and 2012 with no statistically significant trend observed (Table S6.10).

Chronic kidney disease

Chronic kidney disease refers to all kidney conditions where a person has evidence of kidney damage and/or reduced kidney function lasting at least 3 months. Many people do not know that they have kidney disease, as up to 90% of kidney function can be lost before symptoms appear. Thus diagnosis tends to occur at later stages of the disease, at which point there are fewer treatment options and poorer outcomes. Chronic kidney disease is a common complication of diabetes (AIHW 2014i).

People who have end-stage kidney disease—the most severe form of chronic kidney disease—often require kidney replacement therapy to survive. Kidney replacement therapy has 2 forms: a kidney transplant or dialysis.

Chronic kidney disease is often largely preventable because some of its risk factors are modifiable, such as high blood pressure, tobacco smoking and being overweight or obese. Many of the risk factors for chronic kidney disease also apply to other chronic diseases (for example, cardiovascular disease and diabetes), which in turn are risk factors for chronic kidney disease (AIHW 2015).

Based on self-reported information from the 2012–13 AATSIHS, among Indigenous people aged 2 and over:

- 1.8% reported having diagnosed kidney disease that was current and had lasted, or was expected to last, for 6 months or more
- a similar proportion of males (1.7%) and females (1.9%) reported having long-term kidney disease
- the rate of long-term kidney disease was 3.7 times as high as among their non-Indigenous counterparts, based on age-standardised rates (ABS 2014d).

The 2012–13 AATSIHS also used 2 biomedical tests to measure kidney function and indicate the stage of chronic kidney disease; those tests indicated that nearly 1 in 5 (18%) Indigenous adults had signs of chronic kidney disease (see Section 4.3 for more information). While these tests cannot be used on their own to diagnose chronic kidney disease, the proportion is much higher than the self-reported figures on diagnosed long-term kidney disease.

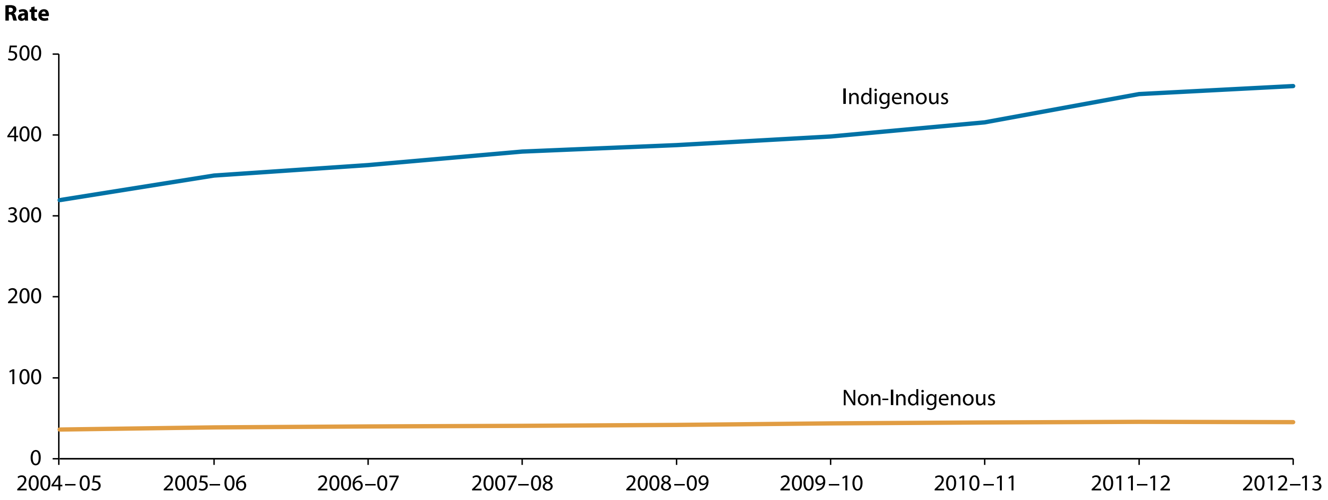
In 2012–13:

- there were 173,423 hospitalisations of Indigenous Australians with a principal diagnosis of chronic kidney disease (and its resulting conditions)—representing 45% of hospitalisations and a rate of 251 hospitalisations per 1,000 population
- a further 14,652 hospitalisations (3.8% of hospitalisations) had an additional diagnosis of chronic kidney disease (AIHW National Hospital Morbidity Database).

Of those hospitalisations with a principal diagnosis of chronic kidney disease, almost all (99%) were for care involving dialysis which was the top reason for hospitalisation among Indigenous people (see Table 7.2); virtually all of these (99.8%) were same-day hospitalisations (rather than involving an overnight stay). Since an individual reliant on dialysis would normally undergo dialysis 3 times each week, the number of hospitalisations for dialysis reflects the same individuals accessing services many times.

In relation to hospitalisations with a principal diagnosis of chronic kidney disease in 2012–13:

- rates increased with age for Indigenous Australians until the age of 55–64, with rates for those in this age group similar to those of Indigenous Australians aged 65 and over (Table S5.25)
- Indigenous Australians were 10 times as likely as non-Indigenous Australians to be hospitalised for this disease (based on age-standardised rates)—Indigenous females were 15 times as likely while Indigenous males were 7 times as likely as their non-Indigenous counterparts
- age-standardised rates increased by 41% between 2004–05 and 2012–13 for Indigenous Australians, while the rates for non-Indigenous Australians increased by 25% (Figure 5.10).



Notes

1. Rates have been directly age-standardised to the 2001 Australian standard population and are expressed per 1,000 population.
2. Data are for New South Wales, Victoria, Queensland, Western Australia, South Australia and public hospitals in the Northern Territory.
3. Data for this figure are shown in Table S5.26.

Source: AIHW National Hospital Morbidity Database.

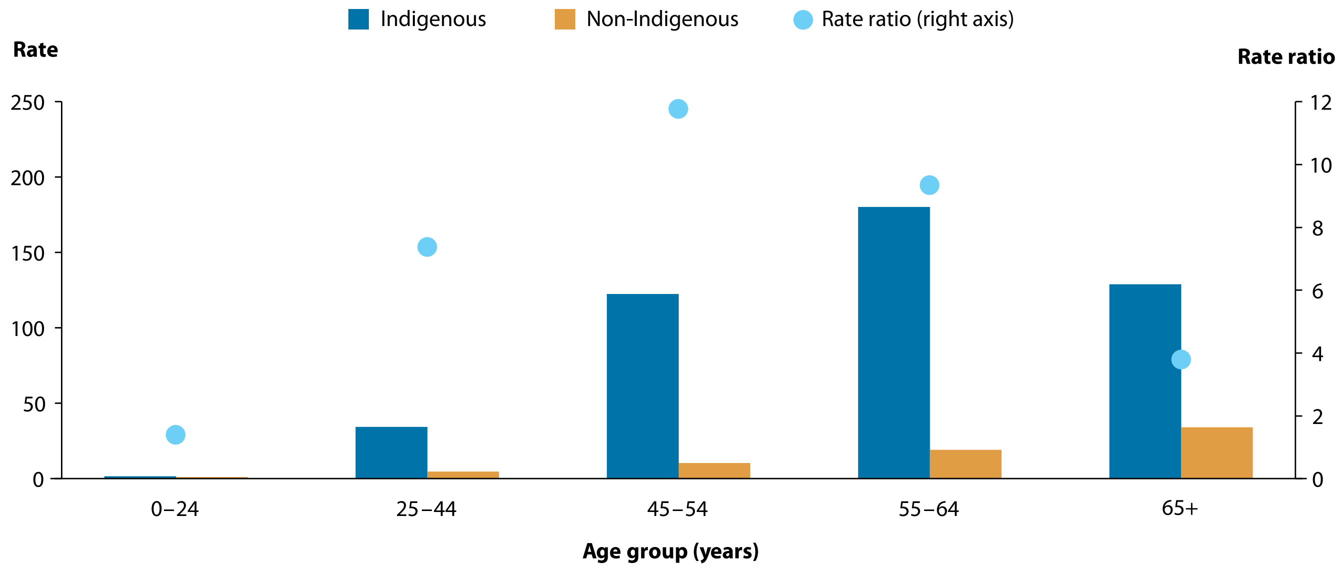
Figure 5.10: Hospitalisation rates for chronic kidney disease, by Indigenous status, 2004–05 to 2012–13

The age-standardised rate of hospitalisations for care involving dialysis varied widely by jurisdiction, ranging from 15 per 1,000 population in Tasmania to 1,140 per 1,000 population in the Northern Territory in the 2-year period 2011–13 (Table S5.27). Reasons for the higher rates in some jurisdictions include:

- home dialysis being the first-line form of treatment in some regions (such as parts of Western Queensland) but not others (such as central Australia) (Hoy 2014)
- lower rates of functioning kidney transplants in some jurisdictions—in particular, the Northern Territory (AIHW 2012b).

Information about people with treated end-stage kidney disease is available from the Australia and New Zealand Dialysis and Transplant Registry (ANZDATA)—a registry of people receiving kidney dialysis or a kidney transplant. In the 3-year period 2010–2012:

- 10% (716 patients) of the 7,360 new patients registered with ANZDATA identified as being of Aboriginal and/or Torres Strait Islander origin
- the incidence rate of end-stage kidney disease among Indigenous Australians was 6.6 times that for non-Indigenous Australians (based on age-standardised rates) (Table S5.28)
- Indigenous people were more likely than non-Indigenous people to have been newly registered with ANZDATA across all age groups, with the greatest difference among those aged 45–54 (Figure 5.11).



Notes

1. Rates are expressed as number of new cases per 100,000 population.
2. Data for this figure are shown in Table S5.28.

Source: AIHW analysis of Australia and New Zealand Dialysis and Transplant Registry data.

Figure 5.11: Age-specific incidence rates of treated end-stage kidney disease, by Indigenous status, 2010–2012

On average, Indigenous Australians newly registered on the ANZDATA were younger than non-Indigenous Australians—60% were aged under 55, compared with 31% of non-Indigenous Australians. This is in part because many Indigenous Australians have chronic conditions such as diabetes and hypertension at younger ages than non-Indigenous Australians, which often leads to an earlier onset of end-stage kidney disease.

Between 1996 and 2012, the change in the age-standardised incidence rates for treated end-stage kidney disease for Indigenous Australians was not statistically significant, while rates for non-Indigenous Australians rose significantly by 26%, although from a smaller base (Table S5.29).

In 2008–2012:

- chronic kidney disease was the underlying cause of death for 3.8% of Indigenous deaths (a rate of 15 deaths per 100,000 population)
- a further 12% of Indigenous deaths had chronic kidney disease listed as an associated cause of death
- chronic kidney disease was either an underlying or associated cause of death for a total of 16% of Indigenous deaths
- the age-standardised death rate for Indigenous Australians from chronic kidney disease as an underlying cause was 3.5 times as high as the rate for non-Indigenous Australians.

Between 1998 and 2012, there was no significant change in the age-standardised death rate due to chronic kidney disease for Indigenous Australians (Table S5.30).

Cancer

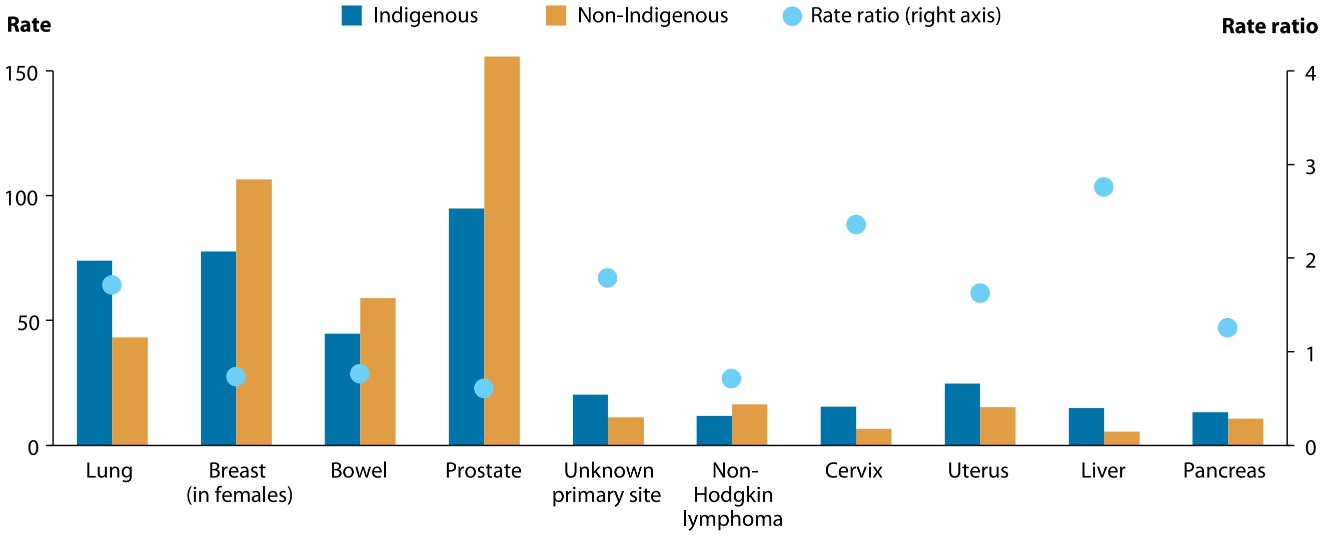
Cancer, also called malignancy, is a term used to describe diseases in which abnormal cells divide without control and can invade nearby tissues. Cancer cells can also spread to other parts of the body through the blood and lymph systems. The term 'neoplasms' refers to cancers and non-cancerous tumours (AIHW 2014g).

In the 5-year period 2005–2009, an annual average of 840 Indigenous people were diagnosed with cancer (excluding basal cell and squamous cell carcinoma of the skin) in New South Wales, Queensland, Western Australia and the Northern Territory combined (jurisdictions for which cancer incidence information on Indigenous status is considered to be of sufficient quality). This represents 1% of all cancer cases diagnosed in those jurisdictions (AIHW 2014g). The most commonly diagnosed cancers among Indigenous Australians were:

- lung cancer (average of 130 cases per year)
- breast cancer in females (95 cases per year)
- bowel cancer (79 cases per year)
- prostate cancer (66 cases per year) (AIHW 2014g).

In 2005–2009, the age-standardised incidence rate of:

- all cancers combined was 421 per 100,000 population for Indigenous Australians, compared with 443 per 100,000 for non-Indigenous Australians (Table S5.31)
- liver cancer was 2.8 times as high for Indigenous people as for non-Indigenous people (15 and 5.4 cases per 100,000 population, respectively)
- cervical cancer was 2.3 times as high for Indigenous women as for non-Indigenous women (Figure 5.12).



Notes

1 Rates have been directly age-standardised to the 2001 Australian standard population and are expressed per 100,000 population. Rates for breast, cervical and uterine cancers are per 100,000 females. The rate for prostate cancer is per 100,000 males.
2. Data are for New South Wales, Queensland, Western Australia and the Northern Territory.
3. Data for this figure, which were sourced from the AIHW Australian Cancer Database, are shown in Table S5.31.

Source: AIHW 2014g.

Figure 5.12: Incidence rates of selected cancers, by Indigenous status, 2005–2009

The reason for the lower incidence rate of some cancers among Indigenous Australians is unclear. While Indigenous Australians may be less likely than non-Indigenous Australians to develop these cancers, other factors may include a lower uptake of screening and diagnostic tests among Indigenous Australians (leading to a lower rate of diagnosis), as well as a greater likelihood of being diagnosed at a later stage (when the primary cancer site is no longer apparent) (AIHW 2014g). For information on cancer screening, see Section 7.2.

Details on the self-reported prevalence of cancer indicate that in 2012–13:

- an estimated 6,200 (1.0%) Indigenous people had cancer
- cancer prevalence rates were similar for Indigenous and non-Indigenous Australians (1.7% and 1.5%, respectively based on age-standardised rates)
- the age-standardised prevalence rate of cancer for the Indigenous population was not significantly different from the rate in 2004–05 (AIHW analysis of ABS 2013a).

In 2012–13:

- 0.9% of hospitalisations (3,540) for Indigenous Australians had a principal diagnosis of cancer—a rate of 5 hospitalisations per 1,000 population
- the age-standardised rate of hospitalisations for cancer for Indigenous people was 0.7 times the rate for non-Indigenous people
- from the age of 15 onwards, hospitalisation rates for cancer for both Indigenous and non-Indigenous Australians increased with age, but were lower for Indigenous people in each age group (Table S5.32).

The hospitalisation rate for cancer for Indigenous Australians rose by 21% between 2004–05 and 2012–13, while there was no substantial change for non-Indigenous Australians (Table S5.33). As discussed in Appendix A.3, the observed increase could be due either to changes in the accuracy of Indigenous identification or 'real' changes in the rates at which Indigenous people were hospitalised for this disease.

Cancer accounted for 0.7% of all problems managed by GPs for Indigenous patients in 2008–13. Indigenous Australians had cancer problems managed by GPs at 0.6 times the rate for other Australians (based on age-standardised rates) (Table S5.9).

Mortality data indicate that in 2008–2012:

- cancer was responsible for 20% of deaths of Indigenous people compared with 30% of deaths of non-Indigenous people (Table S6.2)
- the rate of death from cancer for Indigenous people was 79 deaths per 100,000 population
- the age-standardised rate of death due to cancer for Indigenous people was 1.2 times that of non-Indigenous people (see Table S6.2); the higher rate among Indigenous people may be partly due to factors such as later diagnosis, lesser likelihood of receiving adequate treatment, and a greater likelihood of being diagnosed with cancers for which the prospect of successful treatment and survival is poorer (AIHW & AACR 2012).

There was a 16% rise in the age-standardised mortality rate due to cancer for Indigenous people between 1998 and 2012, whereas the rate for non-Indigenous people fell by 10% (Table S5.34).

Injury and poisoning

Injury and poisoning are large contributors to ill health among Indigenous people, especially for younger people.

The 2012–13 AATSIHS collected information on recent injuries by asking respondents whether they had had any accidents, had hurt themselves or had been hurt by someone or something in the 4 weeks prior to the survey. In 2012–13:

- about 1 in 5 (19% or an estimated 120,500) Indigenous Australians indicated they had had an accident or were hurt in the previous 4 weeks
- the proportion reporting an injury decreased with age, ranging from 23% for those aged 0–14 to 9.3% for those aged 65 and over
- Indigenous people in non-remote areas (20%) were significantly more likely to report an injury than those in remote areas (14%) (AIHW analysis of 2012–13 AATSIHS).

Injury data can be viewed in terms of the damage sustained to the body (for example, broken bones and head injuries), or by the external cause of the injury (for example, falls, poisoning and drowning), both of which are recorded by hospitals. In 2012–13, injury and poisoning:

- was the second main cause of hospitalisation for Indigenous Australians, accounting for 27,653 hospitalisations, or 7.2% of all hospitalisations of Indigenous people—a rate of 40 hospitalisations per 1,000 population
- accounted for 13% of hospitalisations of Indigenous people when hospitalisations for dialysis are excluded (see Table 7.2).

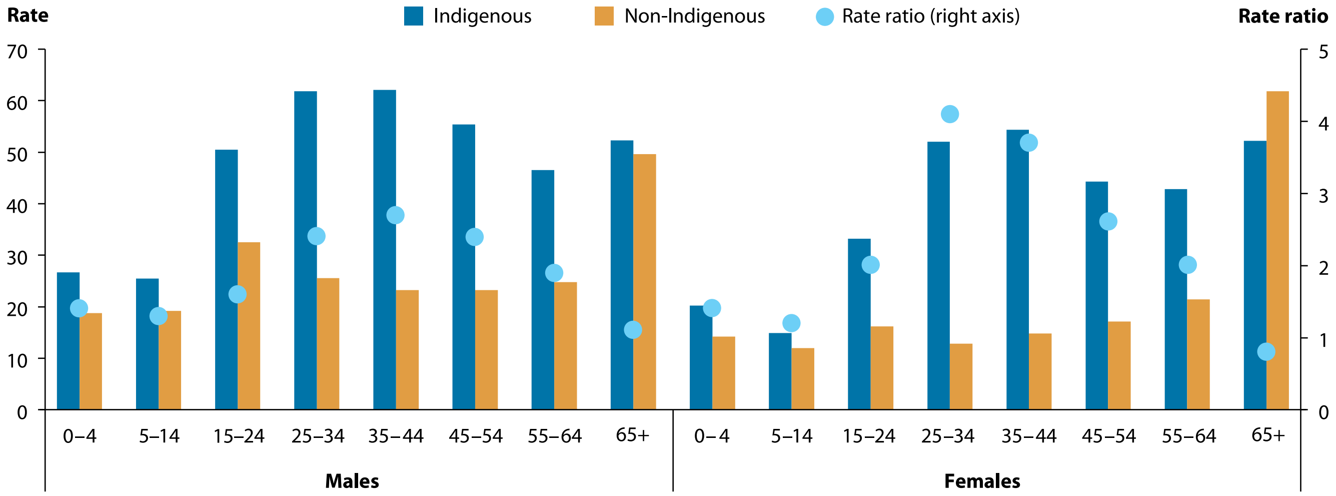
Across most age groups, rates of hospitalisation for injury and poisoning were higher for Indigenous males than Indigenous females (Table S5.35).

Of hospitalisations with a principal diagnosis of injury and poisoning:

- 23% were due to assault (see Section 3.6 for further information)
- 19% were due to accidental falls
- 12% were due to complications of medical and surgical care
- 8.8% were due to transport accidents.

In 2012–13, rates of hospitalisation for injury and poisoning:

- for Indigenous people were 1.9 times as high as for non-Indigenous people (based on age-standardised rates)
- among Indigenous people were highest for those aged 25–34 and 35–44, while for non-Indigenous people, rates were highest for those aged 65 and over
- for Indigenous women aged 25–34 and 35–44 were around 4 times the rates for non-Indigenous women (Figure 5.13).



Notes

1. Rates are expressed per 1,000 population.
2. Data for this figure are shown in Table S5.35.

Source: AIHW National Hospital Morbidity Database.

Figure 5.13: Age-specific hospitalisation rates for injury and poisoning, by sex and Indigenous status, 2012–13

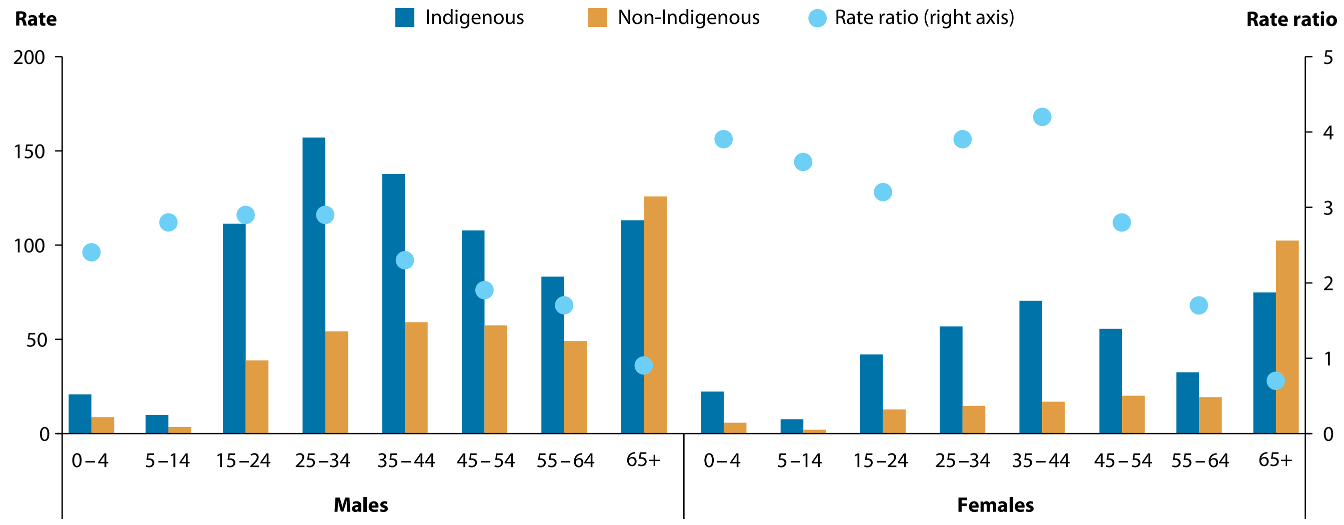
Between 2004–05 and 2012–13, age-standardised hospitalisation rates for injury and poisoning increased by 32% for Indigenous Australians, compared with a 12% increase for non-Indigenous Australians (Table S5.36).

Problems related to injuries accounted for 4.6% of all problems managed by GPs for Indigenous patients in 2008–13. Indigenous Australians had injuries managed by GPs at a similar rate to that for other Australians (based on age-standardised rates) (Table S5.9).

In 2008–2012, external causes of death were responsible for 15% of deaths of Indigenous people compared with 6.1% of deaths of non-Indigenous people. The mortality rate due to external causes among Indigenous people during this period was 61 deaths per 100,000 population. The most common external causes of death for Indigenous people were suicide (4.8% of all deaths) and transport accidents (3.9%) (Table S6.2).

In 2008–2012, death rates due to external causes:

- were especially high among young Indigenous males aged 15–24 and 25–34, with their rates almost 3 times the rates for both Indigenous females and non-Indigenous males
- for Indigenous women aged 25–34 and 35–44 were particularly high—around 4 times as high as for non-Indigenous women (Figure 5.14).



Notes

1. Rates are expressed per 100,000 population.
2. Data are for New South Wales, Queensland, Western Australia, South Australia and the Northern Territory.
3. Data for this figure are shown in Table S5.37.

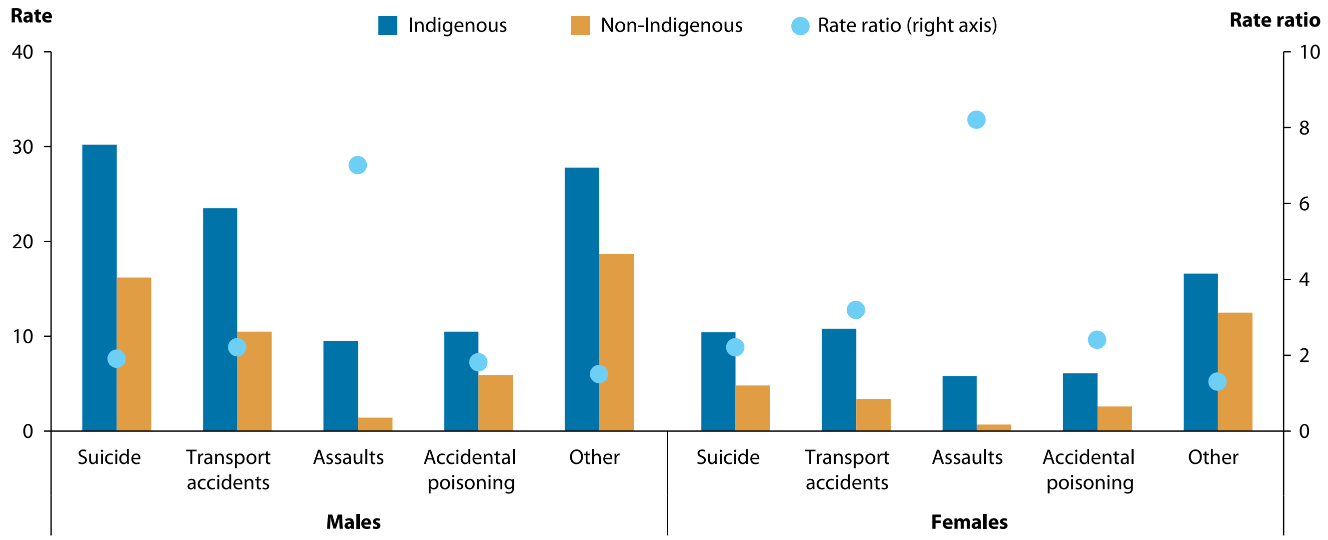
Source: AIHW National Mortality Database.

Figure 5.14: Age-specific death rates for external causes, by sex and Indigenous status, 2008–2012

Figure 5.15 shows the age-standardised rates of different types of external causes of death for Indigenous and non-Indigenous males and females. In 2008–2012:

- the death rate due to suicide was higher than for any other specific category within external causes for Indigenous males—almost double the rate for non-Indigenous males
- the death rate for Indigenous males due to transport accidents was more than double the rate for non-Indigenous males
- the death rate due to assaults was 7 times as high among Indigenous males as non-Indigenous males, and 8 times as high for Indigenous females compared with non-Indigenous females.

There was no significant change in age-standardised mortality rates for Indigenous people for external causes between 1998 and 2012 (Table S6.10).



Notes

1. Rates have been directly age-standardised to the 2001 Australian standard population and are expressed as deaths per 100,000 population.
2. Data are for New South Wales, Queensland, Western Australia, South Australia and the Northern Territory.
3. Data for this figure are shown in Table S5.38.

Source: AIHW National Mortality Database.

Figure 5.15: Mortality rates for external causes, by type of external cause, Indigenous status and sex, 2008–2012

Musculoskeletal diseases

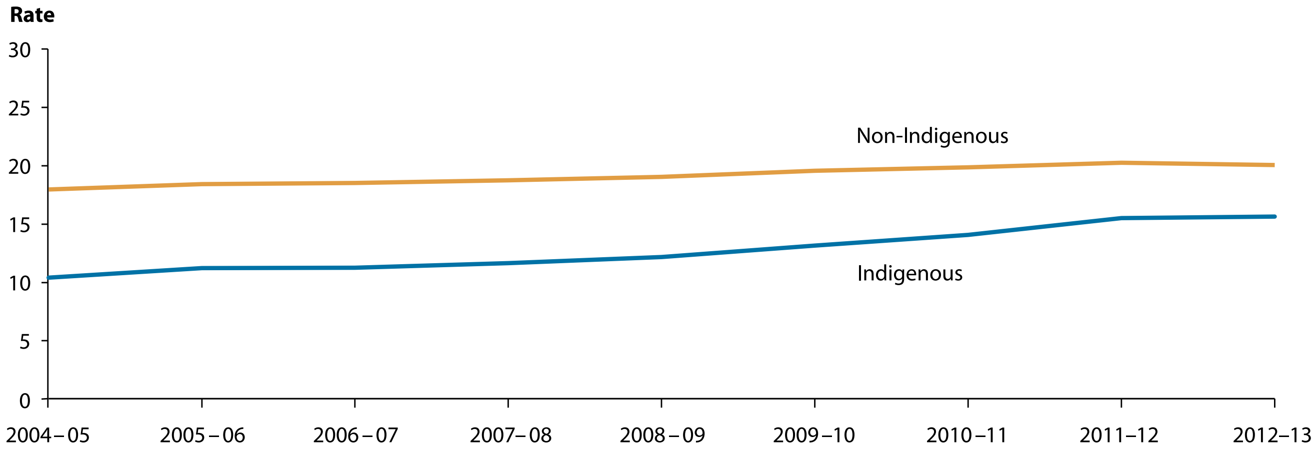
Musculoskeletal diseases, including arthritis, are a major cause of pain and disability, especially among the elderly. Arthritis is a heterogeneous group of disorders which is characterised by inflammation of the joints, causing chronic pain, stiffness, functional limitations and/or deformity. Its 2 most common forms are osteoarthritis and rheumatoid arthritis.

In 2012–13:

- an estimated 127,100 (20%) Indigenous people reported 1 or more long-term diseases of the musculoskeletal system and connective tissue—10% of Indigenous people reported back pain/disc disorders, 10% reported arthritis, 2% reported osteoporosis and 6% reported other musculoskeletal conditions
- the proportion of Indigenous people reporting musculoskeletal diseases increased with age from 1.1% among those aged 0–14 to 60% among those aged 55 and over
- the prevalence of long-term musculoskeletal diseases for Indigenous Australians was 1.1 times as high as for non-Indigenous Australians based on age-standardised rates; this difference was statistically significant (ABS 2013a).

In 2012–13, there were 7,201 hospitalisations of Indigenous Australians with a principal diagnosis of musculoskeletal diseases, representing 1.9% of hospitalisations of Indigenous people and a rate of 10 hospitalisations per 1,000 population. The rate of hospitalisations of Indigenous Australians for such diseases:

- increased with age from 2 per 1,000 population for those aged 0–4 to 38 per 1,000 population for those aged 65 and over (Table S5.39)
- was lower than the rate for non-Indigenous Australians (0.8 times as likely, based on age-standardised rates)
- rose by 54% between 2004–05 and 2012–13 compared with a 13% increase for non-Indigenous Australians, based on age-standardised rates (Figure 5.16).



Notes

1. Rates have been directly age-standardised to the 2001 Australian standard population and are expressed per 1,000 population.
2. Data are for New South Wales, Victoria, Queensland, Western Australia, South Australia and public hospitals in the Northern Territory.
3. Data for this figure are shown in Table S5.40.

Source: AIHW National Hospital Morbidity Database.

Figure 5.16: Hospitalisation rates for musculoskeletal diseases, by Indigenous status, 2004–05 to 2012–13

Deaths due to musculoskeletal diseases were not common, with these diseases listed as the underlying cause for 0.6% of deaths of Indigenous people in 2008–2012 (68 deaths—a rate of 2 deaths per 100,000 population).

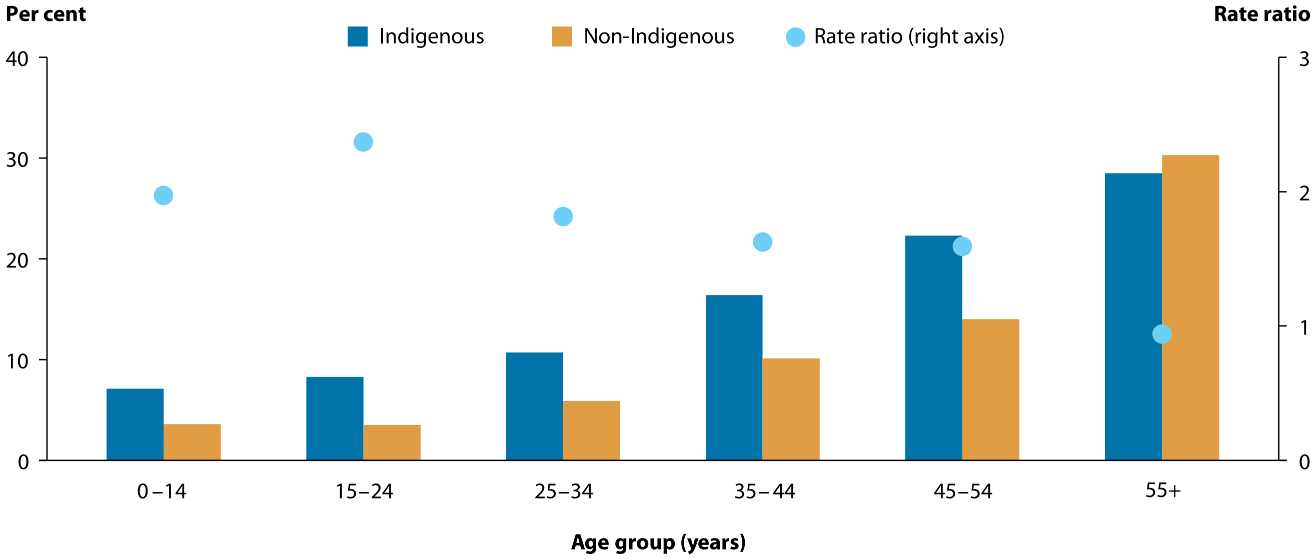
Ear and hearing problems

The most common ear problems among Indigenous people are disorders of the middle ear, specifically bacterial and viral infections leading to otitis media. Otitis media is a common childhood disease, the recurrence of which can lead to hearing loss, deafness and further complications such as learning difficulties.

Based on self-reported data from the 2012–13 AATSIHS:

- 78,400 (12%) Indigenous Australians had long-term ear and/or hearing problems
- the proportion with ear or hearing problems increased with age, ranging from 7% of Indigenous children aged 0–14 to 29% of those aged 55 and over (Figure 5.17)
- Indigenous Australians were 1.3 times as likely to report long-term ear or hearing problems as non-Indigenous Australians, based on age-standardised rates, with the difference largest for those aged 15–24 (rate ratio of 2.4) (Table S5.41)
- almost half (48%) of the ear or hearing problems experienced by Indigenous children aged 0–14 were deafness or partial hearing loss, and 39% were otitis media
- Indigenous children were significantly more likely than non-Indigenous children to have otitis media (2.3 times as likely) (ABS 2013a).

The age-standardised prevalence rate of ear and hearing problems in the Indigenous population in 2012–13 was not significantly different from that in 2001 or 2004–05 (Table S5.42).



Note: Data for this figure are shown in Table S5.41.

Source: ABS 2013a.

Figure 5.17: Age-specific prevalence rates of long-term ear and hearing problems, by Indigenous status, 2012–13

In 2012–13:

- there were 2,762 (0.7%) hospitalisations of Indigenous Australians for diseases of the ear and mastoid process (temporal bone behind the ear)—a rate of 4 hospitalisations per 1,000 population
- the age-standardised hospitalisation rate for ear problems among Indigenous Australians was somewhat higher than for non-Indigenous Australians (rate ratio of 1.2)
- of all age groups, hospitalisation rates for ear problems were highest for children aged 0–4 for both Indigenous and non-Indigenous Australians (Table S5.43).

Hospitalisation rates for ear problems for Indigenous Australians rose by 45% between 2004–05 and 2012–13, while rates for non-Indigenous Australians remained fairly stable (Table S5.44).

Ear and hearing problems accounted for 8.7% of all problems managed by GPs for Indigenous children aged 0–14 in 2008–13. The most common ear problem managed was acute otitis media/myringitis (5.7% of problems managed). Indigenous children had ear and hearing problems managed by GPs at a similar rate to other Australian children (Table S5.45).

In 2008–2012, ear and hearing problems accounted for a small number (3) of deaths of Indigenous Australians—a rate of 0.1 deaths per 100,000 population.

Eye and vision problems

A loss of vision can affect development, communication, ability to work, health and quality of life. Compared with the non-Indigenous population, the Indigenous population has a much higher rate of vision problems. Almost all (94%) vision loss in Indigenous people is considered unnecessary, as it is preventable or treatable (AIHW 2011a).

The 2008 National Indigenous Eye Health Survey found that:

- about one-third (35%) of Indigenous people aged 40 and over reported they had never had an eye examination (AIHW 2011a)
- 1.5% of Indigenous children aged 5–15 had low vision and 0.2% were blind
- 9.4% of Indigenous people aged 40 and over had low vision and 1.9% were blind (Taylor et al. 2010).

Based on the 2012–13 AATSIHS:

- 33% of Indigenous people reported having long-term eye and/or sight problems; males were significantly less likely than females to report such problems (29% compared with 38%)
- Indigenous people were more likely to report having long-term eye or sight problems the older they were—reporting of these conditions ranged from 8.8% among children aged 0–14 to 92% among those aged 55 and over
- the most common eye or sight problems among Indigenous people aged 55 and over were long-sightedness (68%), followed by short-sightedness (36%)
- Indigenous people in non-remote areas were significantly more likely to have eye or sight problems than those in remote areas (35% compared with 28%)
- Indigenous Australians were about 7 times as likely as non-Indigenous Australians to report complete or partial blindness (3.9% compared with 0.5% based on age-standardised rates) (ABS 2013a).

In 2012–13:

- there were 3,158 (0.8%) hospitalisations of Indigenous Australians for eye diseases—a rate of 5 hospitalisations per 1,000 population
- the age-standardised hospitalisation rate for eye diseases among Indigenous Australians was lower than for non-Indigenous Australians (rate ratio of 0.8)
- for both Indigenous and non-Indigenous Australians, hospitalisation rates were highest for those aged 65 and over (Table S5.46).

Eye problems accounted for 1.1% of all problems managed by GPs for Indigenous patients in 2008–13. Indigenous Australians had eye problems managed by GPs at a similar rate to that for other Australians (based on age-standardised rates) (Table S5.9).

The National Trachoma Surveillance and Reporting Unit screens for active trachoma (that is, chronic inflammation of the conjunctiva caused by infection with *Chlamydia trachomatis*) in remote Indigenous communities in the Northern Territory, South Australia and Western Australia. In 2012, the prevalence of active trachoma among children aged 5–9 in screened communities was 4%—this was a decrease from 7% in 2011. However, trachoma was endemic in some areas—in one-quarter (25%) of screened communities, more than 5% of children aged 5–9 had trachoma, and in 8% of communities, more than 20% of children had trachoma (National Trachoma Surveillance and Reporting Unit 2013).

Deaths from eye diseases and vision problems among Indigenous people are rare, with 1 such death recorded in 2008–2012.

5.4 Disability

Indigenous Australians are often subject to a number of predisposing factors for disability, including low birthweight, and higher rates of chronic disease, infectious diseases, accidents, violence, mental health problems and substance abuse (as discussed in Chapter 4 and earlier sections of this chapter).

Disability may be conceptualised as an impairment of body structure or function, a limitation in undertaking activities and/or a restriction in participation in life situations. Three ABS data collections provide national information about disability among Indigenous Australians, each with advantages and disadvantages with respect to estimating the number of Indigenous people with disability. Information on how disability data are collected in the 3 collections can be found in Appendix D, along with disability prevalence data from each of the collections. In this section, information on disability from the 2012–13 AATSIHS is presented; AATSIHS data apply to people living in private dwellings (and thus exclude those in aged care facilities and other non-private dwellings) in both non-remote and remote areas of Australia.

Data from the 2012–13 AATSIHS are available in relation to Indigenous people with disability, as well as the subset of Indigenous people with disability who had profound or severe core activity limitation—meaning they always or sometimes needed help with 'core activities' (that is, self-care, mobility and communication). This report uses the term 'severe or profound disability' to describe people with severe or profound core activity limitation.

Disability prevalence

According to the 2012–13 AATSIHS:

- 36% of Indigenous Australians (an estimated 228,000 people) had some form of disability
- 6.4% of the Indigenous population had severe or profound disability—an estimated 41,000 people, or 18% of Indigenous people with disability
- a similar proportion of Indigenous males (6.3%) and Indigenous females (6.5%) had severe or profound disability (Table S5.47)
- Indigenous Australians were twice as likely as non-Indigenous Australians to have severe or profound disability (based on age-standardised rates) (Table 5.2).

Table 5.2: Disability prevalence, by Indigenous status, 2012–13 (per cent)(a)

	Crude rates		Age-standardised rates(b)	
Indigenous status	**Severe or profound disability(c)**	**All with disability(d)**	**Severe or profound disability(c)**	**All with disability(d)**
Indigenous	6.4	35.7	7.9(f)	44.2(f)
Non-Indigenous(e)	4.1	30.4	3.9(f)	29.3(f)

(a) Data pertain to people living in private dwellings.

(b) Rates have been directly age-standardised to the 2001 Australian standard population and are expressed per 100 population.

(c) People who have either severe or profound core activity limitation as identified in the AATSIHS.

(d) Includes people with severe, profound, moderate or mild core activity limitation, a schooling/employment restriction only, and an unspecified limitation or restriction. Information about people with mild core activity limitation was not collected from Indigenous people in remote areas.

(e) Data for non-Indigenous people are for 2011–12 from the Australian Health Survey.

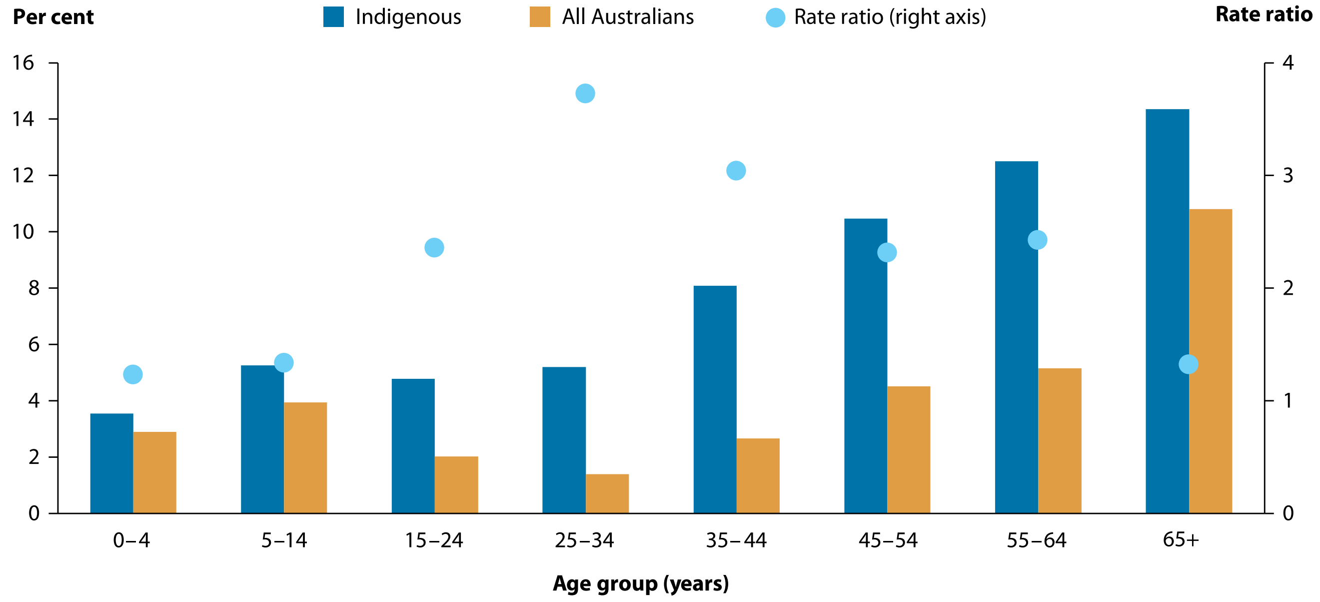
(f) The difference between the age-standardised rates for Indigenous and non-Indigenous people is statistically significant at $p<0.05$.

Sources: Unpublished data provided by the ABS from 2012–13 Australian Aboriginal and Torres Strait Islander Health Survey and 2011–12 Australian Health Survey.

In 2008, 8% of Indigenous people aged 15 and over had severe or profound disability (ABS 2009), which was similar to the proportion in 2012–13 (7%).

In 2012–13, the rate of severe or profound disability:

- was highest among those in the oldest age groups, reaching 14% among Indigenous people aged 65 and over and 11% of all Australians aged 65 and over (Figure 5.18)
- was significantly higher for Indigenous Australians than for all Australians in all age groups except those aged under 15 and those aged 65 and over (Table S5.48)
- did not differ between Indigenous people living in remote and non-remote areas (5.8% and 6.6%, respectively).



Note: Data for this figure are shown in Table S5.48.

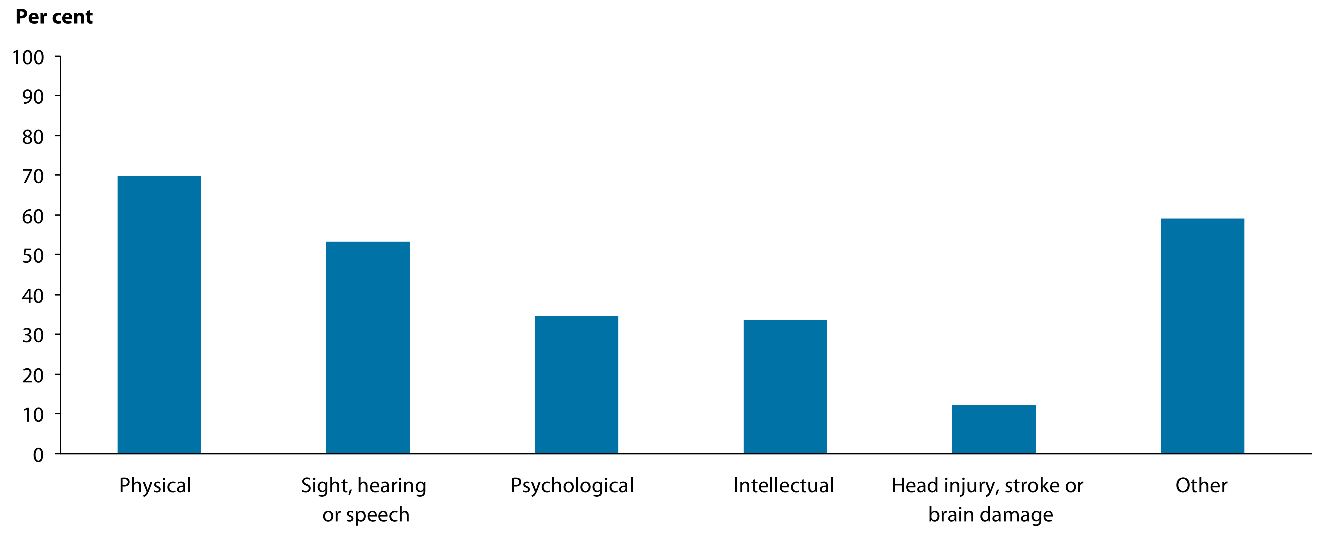
Sources: AIHW analyses of ABS 2011–12 Australian Health Survey and ABS 2012–13 Australian Aboriginal and Torres Strait Islander Health Survey (using TableBuilder).

Figure 5.18: People with severe or profound disability, by age and Indigenous status, 2012–13

In 2012–13, the most common disability types among Indigenous people with severe or profound disability were:

- physical disability (70% of those with severe or profound disability)
- sight, hearing or speech-related disabilities (53%; Figure 5.19).

By comparison, among all Australians with severe or profound disability, 79% had a physical disability and 51% had sight, hearing and speech-related disabilities (AIHW analysis of 2011–12 AHS).



Notes

1. The disability types are not mutually exclusive; thus the sum of disability types exceeds 100%.
2. Data for this figure are shown in Table S5.49.

Source: AIHW analysis of ABS 2012–13 Australian Aboriginal and Torres Strait Islander Health Survey (using TableBuilder).

Figure 5.19: Disability type for Indigenous people with severe or profound disability, 2012–13

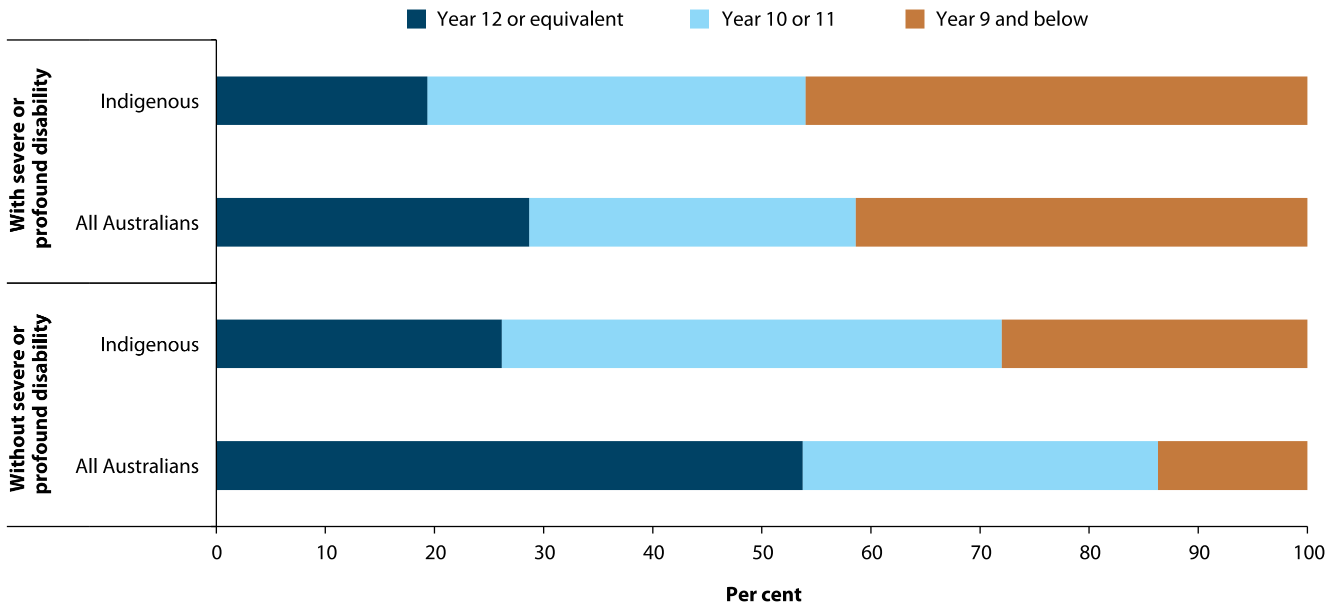
Among Indigenous people aged 15 and over with severe or profound disability, 62% assessed their health as poor or fair; this compares with 11% of those without disability. The comparable proportions for all Australians were 60% and 6%, respectively (Table S5.50).

Disability and economic participation

People with disability may face additional difficulties accessing and participating in education and employment.

In 2012–13 and among those aged 20 and over, Year 12 or equivalent completion rates:

- were significantly lower among Indigenous people who had severe or profound disability (19%) than among Indigenous people who did not (26%)
- were significantly lower among Indigenous Australians with severe or profound disability than all Australians with severe or profound disability (19% and 29%, respectively) (Figure 5.20).



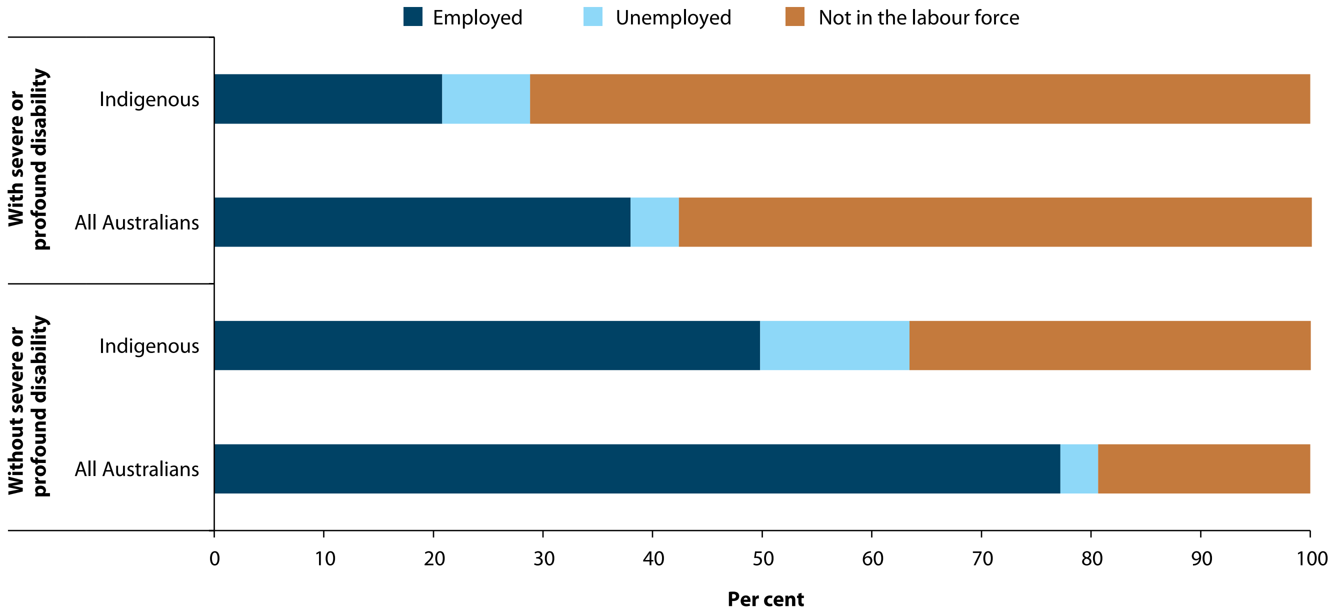
Note: Data for this figure are shown in Table S5.51.

Sources: AIHW analyses of ABS 2012–13 Australian Aboriginal and Torres Strait Islander Health Survey and ABS 2011–12 Australian Health Survey (using TableBuilder).

Figure 5.20: Highest school attainment among people aged 20 and over, by severe or profound disability status and Indigenous status, 2012–13

In 2012–13 and among those aged 15 to 64, employment-to-population ratios:

- were significantly lower among Indigenous people who had severe or profound disability (21%) than among those who did not (50%)
- were significantly lower among Indigenous Australians with severe or profound disability than all Australians with severe or profound disability (21% and 38%, respectively) (Figure 5.21).



Note: Data for this figure are shown in Table S5.52.

Sources: AIHW analyses of ABS 2012–13 Australian Aboriginal and Torres Strait Islander Health Survey and ABS 2011–12 Australian Health Survey (using TableBuilder).

Figure 5.21: Labour force status among people aged 15 to 64, by severe or profound disability status and Indigenous status, 2012–13

Life expectancy and mortality

6

Key points

Life expectancy

- In 2010–2012, estimated life expectancy at birth was:
  - 69.1 years for Indigenous males—10.6 years lower than for non-Indigenous males (79.7 years)
  - 73.7 years for Indigenous females—9.5 years lower than for non-Indigenous females (83.1 years).
- Between 2005–2007 and 2010–2012, the life expectancy gap is estimated to have narrowed by 0.8 years for males and 0.1 years for females.

Mortality rates

- Two-thirds (65%) of deaths among Indigenous people occurred before the age of 65, compared with 19% of deaths among non-Indigenous people during the 5-year period 2008–2012.
- The mortality rate for Indigenous people was 1.6 times that of non-Indigenous people in 2008–2012 (age-standardised rates of 981 and 596 deaths per 100,000 population, respectively).
- The largest difference between Indigenous and non-Indigenous mortality rates in 2008–2012 was for people aged 35–44, with male and female Indigenous death rates 3.9 and 4.5 times the non-Indigenous rates, respectively.

Causes of death

- The most common broad cause of death among Indigenous Australians was cardiovascular disease (25% of deaths), with Indigenous people dying from this condition at 1.5 times the rate of non-Indigenous people in 2008–2012. Almost one-quarter (24%) of the mortality gap between Indigenous and non-Indigenous people was due to this disease.
- Cancer was the second most common cause of death among Indigenous people (20%), with lung cancer being the most common cause of such deaths (4.9% of all deaths).
- The next most common causes of death among Indigenous people in 2008–2012 were:
  - external causes of injury and poisoning (15%)
  - endocrine, metabolic and nutritional disorders (including diabetes) (9.1%)
  - respiratory diseases (7.6%)
  - digestive diseases (5.6%).

Mortality trends

- Between 1998 and 2012, there was a significant decline (16%) in the age-standardised mortality rate for Indigenous Australians, with the mortality gap between Indigenous and non-Indigenous people narrowing significantly (by 17%).
- Between 1998 and 2012, there was a significant decline in age-standardised mortality rates for Indigenous people for cardiovascular disease (40%) and respiratory diseases (26%), but an increase in rates for cancer (16%) and no significant change in rates for external causes.
- Infant deaths represented 4.2% of deaths of Indigenous people compared with 0.8% of deaths of non-Indigenous people in 2008–2012. The mortality rate for Indigenous infants fell by 64% between 1998 and 2012 (from 13.5 to 5.0 deaths per 1,000 live births), while it fell by 25% for non-Indigenous infants (from 4.4 to 3.3 per 1,000 live births); over this period, the gap narrowed by 83%.

6.1 Introduction

While there have been some improvements in mortality rates for Indigenous people over recent decades, a notable gap between Indigenous and non-Indigenous people remains. This difference results in lower estimated life expectancies for Indigenous Australians.

This chapter looks at life expectancy for Indigenous people, as well as patterns and trends in Indigenous mortality. Mortality data presented in this report:

- relate to the 5 jurisdictions for which the quality of Indigenous identification is considered to be adequate—namely, New South Wales, Queensland, Western Australia, South Australia and the Northern Territory
- pertain to the underlying cause of death, unless otherwise indicated
- were sourced from the AIHW National Mortality Database.

Due to the small number of Indigenous deaths from some conditions each year, grouped data for the 5-year period 2008–2012 are shown to allow for the reporting of various conditions by age and sex. See Appendix A.4 for further information about mortality data and its quality.

6.2 Life expectancy

Life expectancy is a measure of how long, on average, a person is expected to live; it is often expressed as the number of years of life remaining for a person at a given age, usually at birth (ABS 2013l). For the 3-year period 2010–2012, estimated life expectancy at birth was:

- 69.1 years for Indigenous males—10.6 years lower than that of non-Indigenous males (79.7 years)
- 73.7 years for Indigenous females—9.5 years lower than that of non-Indigenous females (83.1 years) (ABS 2013l).

Between 2005–2007 and 2010–2012, estimated life expectancy at birth increased by:

- 1.6 years for Indigenous males compared with 0.8 years for non-Indigenous males
- 0.6 years for Indigenous females compared with 0.5 years for non-Indigenous females.

As shown in Box 6.1, this has resulted in a small decline in the life expectancy gap between Indigenous and non-Indigenous Australians.

Box 6.1: COAG target for life expectancy

Target: Close the gap in life expectancy within a generation (by 2031)

Between 2005–2007 and 2010–2012, the gap between Indigenous and non-Indigenous life expectancy at birth narrowed by 0.8 years for males and 0.1 years for females (Table 6.1).

Table 6.1: Life expectancy at birth, by sex and Indigenous status, 2005–2007 and 2010–2012 (years)

	Males		Females	
Indigenous status	**2005–2007**	**2010–2012**	**2005–2007**	**2010–2012**
Indigenous	67.5	69.1	73.1	73.7
Non-Indigenous	78.9	79.7	82.6	83.1
Difference	*11.4*	*10.6*	*9.6*	*9.5*

Source: ABS 2013l.

6.3 Mortality

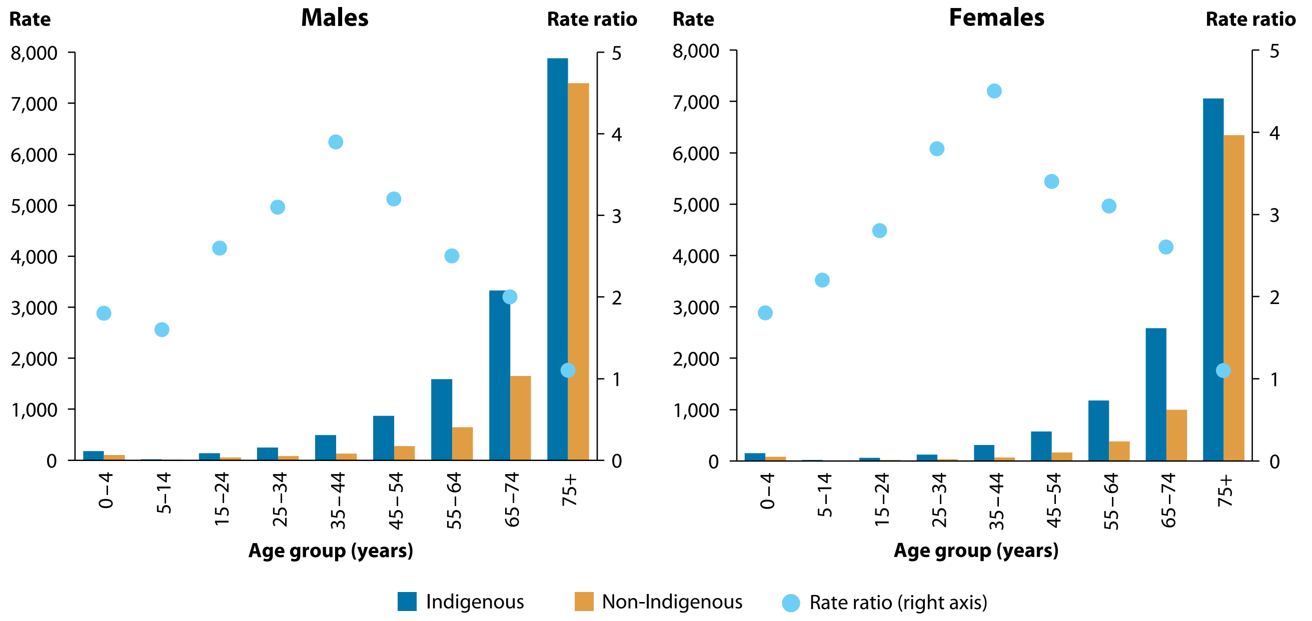
During the 5-year period 2008–2012, there were 11,612 deaths registered for Indigenous people in New South Wales, Queensland, Western Australia, South Australia and the Northern Territory combined, representing 2.3% of all deaths in these 5 jurisdictions. Males accounted for just over half (55%) of these deaths. The age-standardised mortality rate for Indigenous people was 1.6 times that of non-Indigenous people (981 and 596 deaths per 100,000 population, respectively) (Table S6.1).

Differences by age

A relatively large proportion of Indigenous deaths occur before 'old age'—during 2008–2012, 65% of deaths among Indigenous people occurred before the age of 65, compared with 19% of deaths among non-Indigenous people.

Infant deaths (that is, deaths of children aged under 1 year) represented 4.2% of deaths of Indigenous people in 2008–2012, compared with 0.8% of deaths of non-Indigenous people. The death rate for Indigenous infants was higher than the rate for non-Indigenous infants—6 per 1,000 live births compared with 4 per 1,000 live births. Infant mortality and low birthweight are strongly associated—that is, the lower the birthweight, the higher the risk of a baby dying; see Section 4.3 for more information about the birthweight of Indigenous babies.

Age-specific patterns of mortality in 2008–2012 are shown in Figure 6.1. Across all age groups, death rates for Indigenous males and females were consistently higher than the rates for their non-Indigenous counterparts. The largest differences were for people aged 35–44, with male and female Indigenous death rates 3.9 and 4.5 times the non-Indigenous rates, respectively.



Notes

1. Rates are expressed as deaths per 100,000 population.
2. Data are for New South Wales, Queensland, Western Australia, South Australia and the Northern Territory.
3. Data for this figure are shown in Table S6.1.

Source: AIHW National Mortality Database.

Figure 6.1: Age-specific mortality rates, by sex and Indigenous status, 2008–2012

Differences by state and territory

During 2008–2012, age-standardised mortality rates for Indigenous people were significantly higher than those for non-Indigenous people in each of the 5 jurisdictions reported (Table 6.2). The differences were particularly large in Western Australia and the Northern Territory with Indigenous death rates in both jurisdictions 2.3 times the non-Indigenous rates.

Table 6.2: Mortality, by jurisdiction and Indigenous status, 2008–2012

	Number of deaths			Age-standardised death rate[b]			
Jurisdiction[a]	Indigenous	Non-Indigenous	Not stated	Indigenous	Non-Indigenous	Rate ratio[c]	Rate difference[c]
New South Wales	3,133	238,629	1,914	786.1	594.3	1.3	191.8
Queensland	3,160	130,300	2,813	947.6	603.0	1.6	344.6
Western Australia	2,258	61,322	521	1,287.9	562.8	2.3	725.1
Northern Territory	2,321	2,640	16	1,460.5	625.3	2.3	835.2
South Australia	740	62,891	253	806.8	617.7	1.3	189.1
Total[d]	**11,612**	**495,782**	**5,517**	**980.5**	**595.6**	**1.6**	**384.9**

(a) Care should be taken when comparing mortality rates across states and territories due to jurisdictional differences in the level of Indigenous under-identification in death registrations data (ABS 2013l).

(b) Rates have been directly age-standardised to the 2001 Australian standard population and are expressed as deaths per 100,000 population.

(c) Based on age-standardised rates. See Appendix B for information on interpreting rate ratios and rate differences.

(d) Data are for New South Wales, Queensland, Western Australia, South Australia and the Northern Territory.

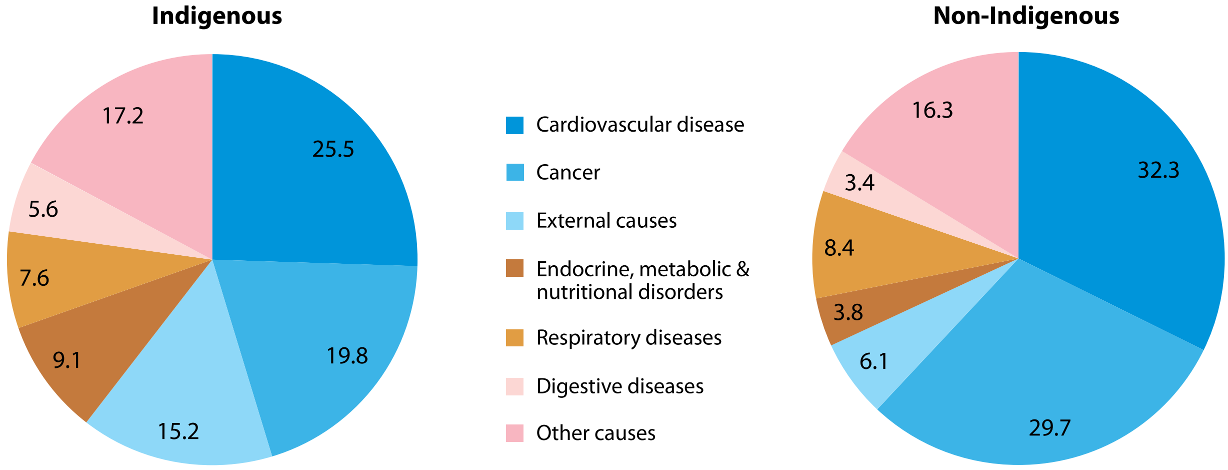
Note: See notes in Table S6.1 for additional information regarding the data and analyses shown in this and other mortality tables.

Source: AIHW National Mortality Database.

6.4 Causes of death

Broad causes of death

The 6 most common broad causes of Indigenous death during the period 2008–2012 in the 5 jurisdictions are shown in Figure 6.2. These 6 diseases groups accounted for 83% of deaths of Indigenous Australians.



Notes

1. Data are for New South Wales, Queensland, Western Australia, South Australia and the Northern Territory.
2. Data for this figure are shown in Table S6.2.

Source: AIHW National Mortality Database.

Figure 6.2: Leading broad causes of death, by Indigenous status, 2008–2012 (per cent)

The most common broad cause of death among Indigenous Australians was cardiovascular disease (25% of deaths), with Indigenous people dying from this condition at 1.5 times the rate of non-Indigenous people in 2008–2012.

The second most common cause was cancer (20%), followed by external causes of injury and poisoning (15%), with the latter including suicide (4.8%) and transport accidents (3.9%). Endocrine, metabolic and nutritional disorders (9.1%), respiratory diseases (7.6%) and digestive diseases (5.6%) were the next most common broad causes (Table S6.2).

Patterns of mortality in the Indigenous population differ somewhat to those in the non-Indigenous population:

- while cardiovascular disease and cancer were the leading causes of death for both Indigenous and non-Indigenous people in 2008–2012, these diseases accounted for a smaller proportion of Indigenous deaths (25% and 20%, respectively) than non-Indigenous deaths (32% and 30%)
- in contrast, more common causes of death for Indigenous Australians than for non-Indigenous Australians were external causes (15% and 6.1%, respectively), and endocrine, metabolic and nutritional disorders (9.1% compared with 3.8%), with the latter difference due mostly to diabetes (7.9% and 2.6%) (Table S6.2).

The largest gaps between Indigenous and non-Indigenous people in age-standardised death rates in 2008–2012 were due to:

- cardiovascular disease (24% of the mortality gap between Indigenous and non-Indigenous people)
- endocrine, metabolic and nutritional disorders (21% of the mortality gap, with diabetes alone explaining 19% of the gap)
- respiratory diseases (12% of the gap)
- cancer (11% of the gap) (Table 6.3).

Table 6.3: Mortality rates due to leading broad causes of death, by Indigenous status, 2008–2012

	Age-standardised death rate[a]			
Broad cause of death	**Indigenous**	**Non-Indigenous**	**Rate ratio[b]**	**Proportion of mortality gap[c] (%)**
Cardiovascular disease	284.2	191.4	1.5	24.1
Endocrine, metabolic & nutritional disorders	102.7	22.6	4.5	20.8
Respiratory diseases	95.7	49.7	1.9	12.0
Cancer	219.2	175.6	1.2	11.3
External causes	74.9	38.1	2.0	9.6
Digestive diseases	47.2	20.5	2.3	6.9
All causes[d]	**980.5**	**595.6**	**1.6**	**100.0**

(a) Rates have been directly age-standardised to the 2001 Australian standard population and are expressed as deaths per 100,000 population.
(b) Based on age-standardised rates. See Appendix B for information on interpreting rate ratios.
(c) Equals the proportion of the rate difference for all deaths that is attributed to the broad cause of death.
(d) Includes causes of death not shown in this table (see Table S6.2).

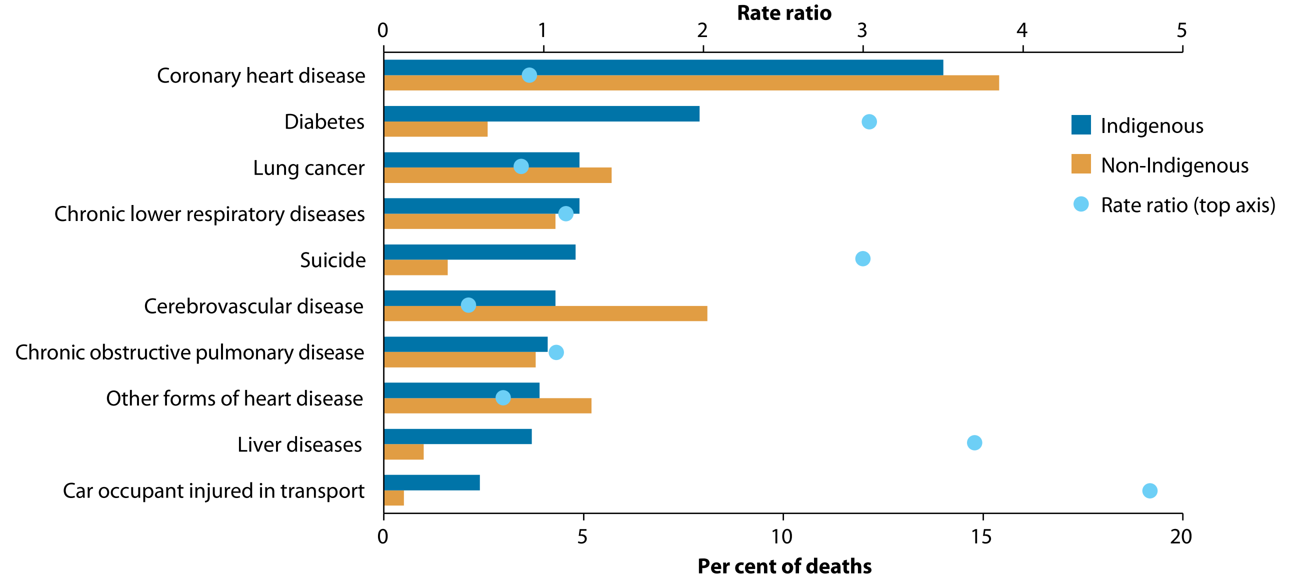
Note: Data are for New South Wales, Queensland, Western Australia, South Australia and the Northern Territory.

Source: AIHW National Mortality Database.

Specific causes of death

The leading specific causes of death for Indigenous Australians are shown in Figure 6.3. In 2008–2012 and among the 5 jurisdictions:

- coronary heart disease (including angina and heart attack) was the leading specific cause of death for both Indigenous (14%; 1,628 people) and non-Indigenous people (15%)
- diabetes was the second leading specific cause of death for Indigenous people (7.9%; 921 deaths) while for non-Indigenous people, diabetes accounted for 2.6% of deaths (see Section 5.3 for further information about deaths due to diabetes)
- of all cancers, lung cancer led to the most deaths, accounting for 4.9% of deaths of Indigenous people and 5.7% of deaths of non-Indigenous people
- another 4.9% of deaths of Indigenous people were due to chronic lower respiratory diseases, while 4.3% of deaths of non-Indigenous people were due to these diseases
- suicide accounted for 4.8% of deaths of Indigenous people, but was a more common cause of death among Indigenous males (6.4%) than Indigenous females (2.9%); among non-Indigenous people, suicide accounted for 1.6% of deaths (see Chapter 5 for further information about suicide).



Notes

1. Data are for New South Wales, Queensland, Western Australia, South Australia and the Northern Territory.
2. Data for this figure are shown in Table S6.3.

Source: AIHW National Mortality Database.

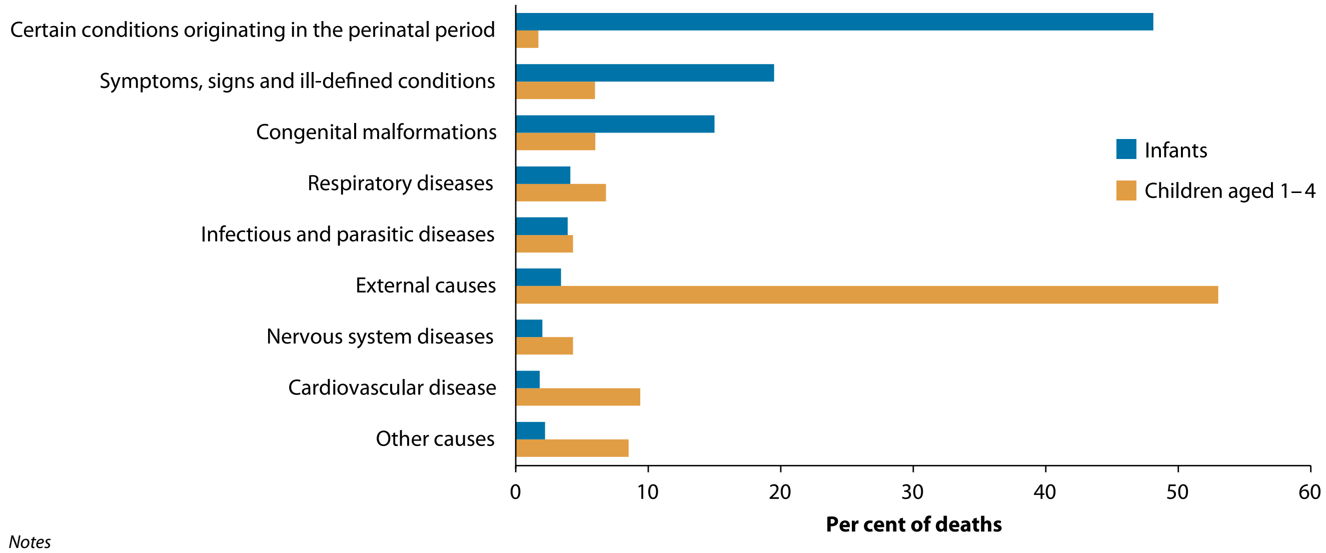
Figure 6.3: Leading specific causes of death, by Indigenous status, 2008–2012

Causes of death by life stage

The proportion of deaths due to various causes differs substantially with age.

For Indigenous infants, the 2 main causes of death in 2008–2012 were:

- 'Certain conditions originating in the perinatal period'—such as birth trauma, disorders related to fetal growth, and complications of pregnancy, labour and delivery (48% of infant deaths)
- 'Symptoms, signs and ill-defined conditions' (19% of infant deaths), which mainly includes deaths due to sudden infant death syndrome (SIDS) (Figure 6.4).



Notes

1. Data are for New South Wales, Queensland, Western Australia, South Australia and the Northern Territory.
2. Data for this figure are shown in Table S6.4.

Source: AIHW National Mortality Database.

Figure 6.4: Leading broad causes of death among Indigenous infants and children, 2008–2012

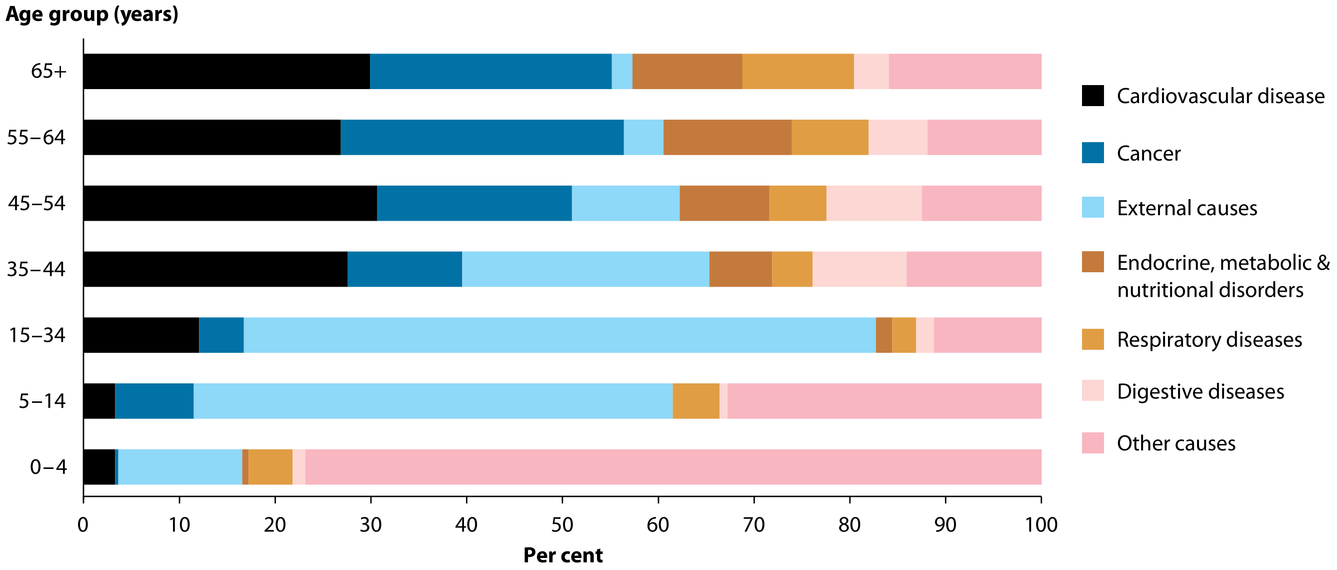
Among Indigenous children aged 1–4, external causes accounted for over half (53%) of deaths (Figure 6.4)—with these deaths mainly due to transport accidents (18% of deaths), and accidental drowning or accidental threats to breathing (17%).

Among Indigenous people aged 5 to 34, external causes was also the most common underlying cause of death. As shown in Figure 6.5:

- half (50%) of deaths among Indigenous children aged 5–14 were due to external causes, with these deaths mainly due to transport accidents (22%), followed by intentional self-harm/suicide (11%) and accidental drowning or threats to breathing (7%)
- 66% of deaths among Indigenous people aged 15–34 were due to external causes; these deaths were mainly due to suicide (29%), followed by transport accidents (18%) and assault (6%) (Figure 6.5).

Among Indigenous people aged 35–44, cardiovascular disease was the most common cause of death (28%), followed closely by external causes (26%).

Among Indigenous people aged 45 and over, the leading causes of death were chronic diseases—in particular, cardiovascular disease (mainly coronary heart disease), and cancer (mainly lung and bowel cancer).



Notes

1. For further details about broad causes of death among those aged under 5, see Figure 6.4. For children aged 5–14, the most common 'Other causes' were nervous system diseases, congenital malformations, and infectious and parasitic diseases.
2. Data are for New South Wales, Queensland, Western Australia, South Australia and the Northern Territory.
3. Data for this figure are shown in Table S6.5.

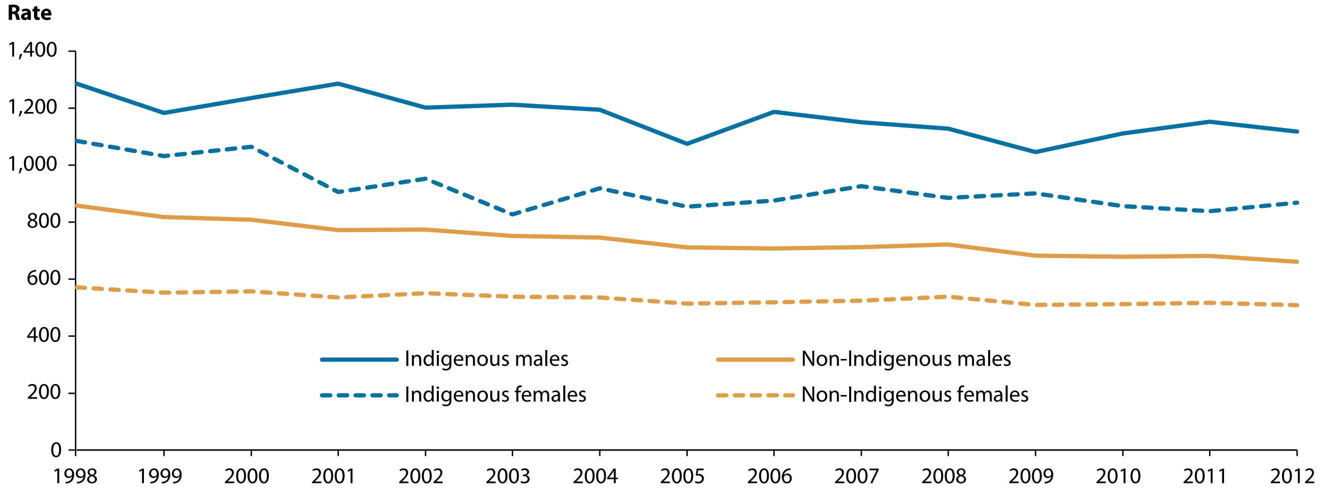
Source: AIHW National Mortality Database.

Figure 6.5: Leading broad causes of death among Indigenous Australians, by age, 2008–2012

6.5 Mortality trends

Between 1998 and 2012, there was a significant fall of 16% in the age-standardised mortality rate for Indigenous Australians. The decline for Indigenous males was 13% while for females, it was 19% (with both statistically significant) (Figure 6.6). There was also a significant decline in mortality rates for the non-Indigenous population (15%) between 1998 and 2012.

Overall, the mortality gap between Indigenous and non-Indigenous Australians narrowed significantly (by 17%, based on rate difference) between 1998 and 2012. The reduction in the gap was mostly due to a significant narrowing of the mortality gap between Indigenous and non-Indigenous females (30% decline in the rate difference). By comparison, among males, there was no significant decrease in the mortality gap (Table S6.6).



Notes

1. Rates have been directly age-standardised to the 2001 Australian standard population and are expressed as deaths per 100,000 population.
2. Data are for New South Wales, Queensland, Western Australia, South Australia and the Northern Territory.
3. Data for this figure are shown in Table S6.6.

Source: AIHW National Mortality Database.

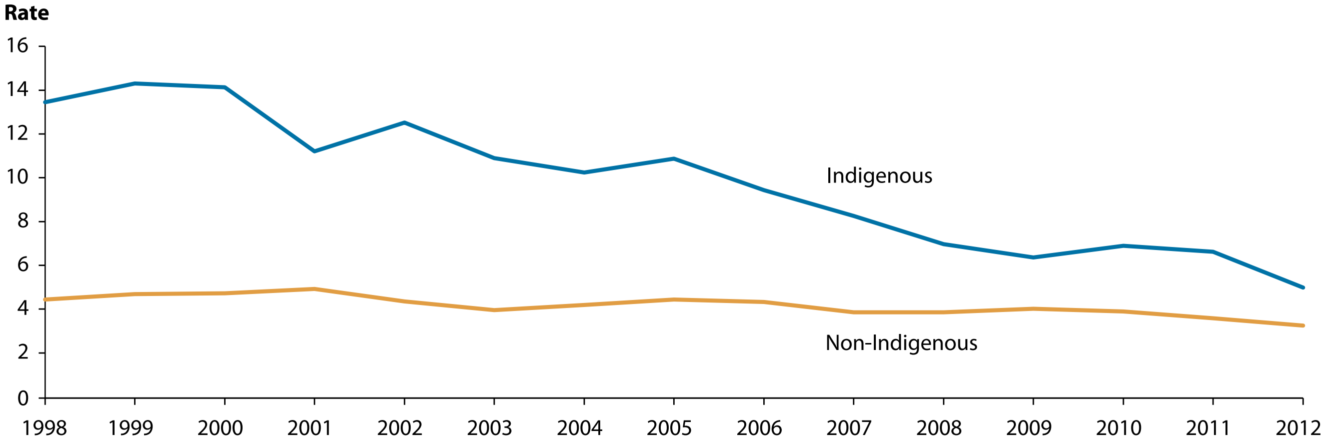
Figure 6.6: Mortality rates, by sex and Indigenous status, 1998 to 2012

Age-specific trends

Infant mortality

The mortality rate for Indigenous infants fell by 64% between 1998 and 2012 (from 13.5 to 5.0 deaths per 1,000 live births); this compares with a 25% decline in the non-Indigenous rate (from 4.4 to 3.3 per 1,000 live births) (Figure 6.7).

Over that period, there was a significant decline in the mortality rate difference between Indigenous and non-Indigenous infants such that the gap decreased by 83% (Table S6.7). The large decline in infant mortality in recent decades is likely due to large falls in deaths from sudden unexpected death in infancy (which includes SIDS), and deaths from conditions originating in the perinatal period (AIHW 2013a).



Notes

1. Rates are expressed as deaths per 1,000 live births.
2. Data are for New South Wales, Queensland, Western Australia, South Australia and the Northern Territory.
3. Data for this figure are shown in Table S6.7.

Source: AIHW National Mortality Database.

Figure 6.7: Infant mortality, by Indigenous status, 1998 to 2012

Child mortality

Given that four-fifths (81%) of deaths of Indigenous children were infant deaths, it is not surprising that the mortality trends for children aged 0–4 followed a similar pattern to that of infant mortality (although the decline for Indigenous children was not as great as for infants). The COAG target is to halve the gap in mortality rates for children under 5 between 2008 and 2018—see Box 6.2.

Box 6.2: COAG target for mortality of young children

Target: Halve the gap in mortality rates for children under 5 within a decade (by 2018)

Between 1998 and 2012:

- there was a significant decline of 33% in mortality rates for Indigenous children aged 0–4 compared with a 25% decline for non-Indigenous children (Figure 6.8)
- the gap in mortality rates for children aged 0–4 declined significantly by 41% (Table S6.8).

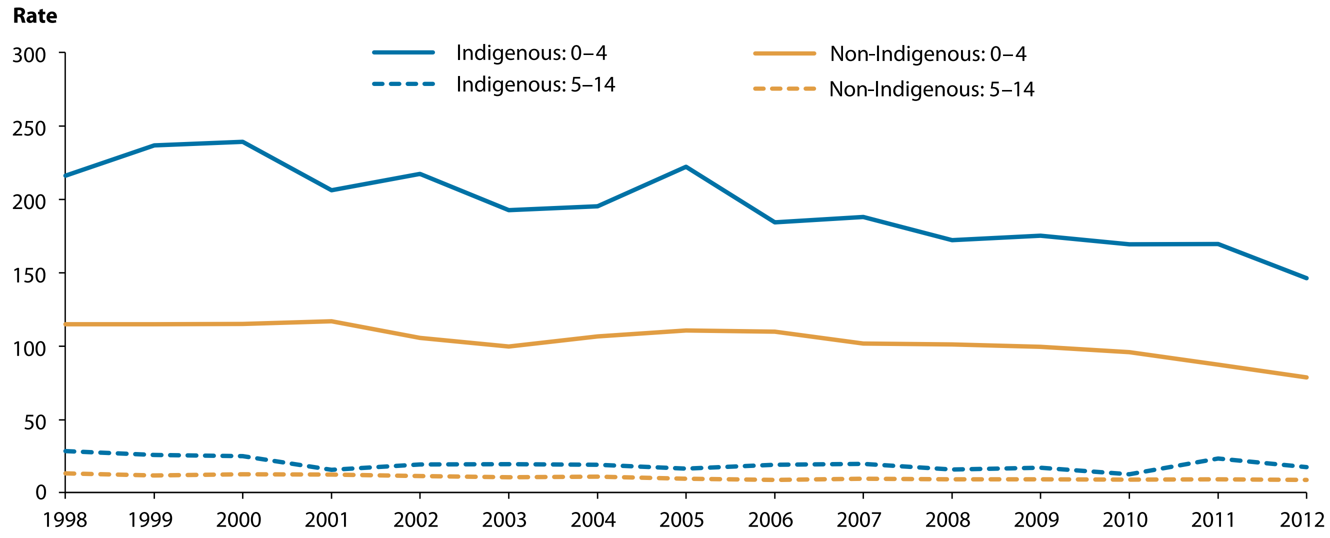
Between 2008 and 2012:

- the gap in mortality rates for children aged 0–4 changed from 71 to 67 deaths per 100,000 population (Table S6.9), but the decrease was not statistically significant.

The ABS recently released 2013 mortality data. Analysis of those data show that:

- between 1998 and 2013, there was a significant decline of 31% in mortality rates for Indigenous children aged 0–4, compared with a 27% decline for non-Indigenous children; the gap in mortality declined significantly by 35%
- between 2008 and 2013, there was no significant change in the mortality gap for children aged 0–4 (AIHW forthcoming 2015).

The mortality rate for Indigenous children aged 5 to 14 also fell between 1998 and 2012, by 33%; however, there was no significant change in the mortality gap (Figure 6.8; Table S6.8).



Notes

1. Rates are expressed as deaths per 100,000 population.
2. Data are for New South Wales, Queensland, Western Australia, South Australia and the Northern Territory.
3. Data for this figure are shown in Table S6.9; summary statistics about change over the period are shown in Table S6.8.

Source: AIHW National Mortality Database.

Figure 6.8: Child mortality, by age and Indigenous status, 1998 to 2012

Adult mortality

Declines in mortality for Indigenous people were also observed for other age groups (Figure 6.9). Between 1998 and 2012, with the exception of those aged 65 and over, there were significant declines in mortality for Indigenous people among all age groups. The largest percentage decline for Indigenous people was observed for those aged 15–24 (40%); similarly, for non-Indigenous people, the decline was largest for this age group (50%) (Table S6.8).

Notes

1. Rates are expressed as deaths per 100,000 population.
2. Data are for New South Wales, Queensland, Western Australia, South Australia and the Northern Territory.
3. Data for this figure are shown in Table S6.9; summary statistics about change over the period are shown in Table S6.8.

Source: AIHW National Mortality Database.

Figure 6.9: Age-specific mortality rates, by Indigenous status, 1998 to 2012

Between 1998 and 2012, there were statistically significant declines in the mortality gap (based on the rate difference) between Indigenous and non-Indigenous adults for the following 3 age groups:

- among those aged 25–34—a 33% decline
- among those aged 45–54—a 24% decline
- among those aged 55–64—a 39% decline (Table S6.8).

Cause of death trends

Changes in the pattern of causes of death may reflect changes in behaviours, risk exposures, health interventions, social and environmental circumstances, and the effects of medical and technological advances (AIHW 2012d).

Between 1998 and 2012 and based on age-standardised rates:

- death rates due to cardiovascular disease declined significantly (by 40%) for Indigenous people, with a significant decline in the mortality gap over this period of 43% (as measured by the rate difference) between Indigenous and non-Indigenous people (Table S6.10); the main contributors to the decline were decreases in deaths from coronary heart disease and cerebrovascular disease (AIHW 2014n, 2014z)
- death rates from respiratory diseases also declined significantly (by 26%) for Indigenous people, with a significant closing of the gap of 39%
- in contrast, there was a significant increase in the mortality rate for Indigenous people due to cancer (16%) while, over the same period, death rates due to cancer for non-Indigenous people fell significantly (10%)
- mortality rates due to external causes for both Indigenous males and females did not change significantly and there was no significant change in the gap between Indigenous and non-Indigenous people (Table S6.10).

Health and welfare services

7

Key points

Population health programs

- Among Indigenous mothers who gave birth in 2011, half (50%) had attended at least 1 antenatal visit in the first trimester; Indigenous mothers were less likely than non-Indigenous mothers to have done so (age-standardised rates of 51% and 66%, respectively).
- In 2013, the proportion of Indigenous and non-Indigenous children who were fully vaccinated at ages 2 and 5 were similar, while 86% of Indigenous children aged 1 were fully vaccinated compared with 90% of other children of the same age.
- In 2012–13, 57% of Indigenous women aged 18 and over reported they had a Pap test at least every 2 years.
- In the 2-year period 2011–2012, 38% of Indigenous women aged 50–69 participated in a BreastScreen program, compared with 54% of non-Indigenous women.

Primary health care and dental care

- In 2013–14, over 3.6 million GP services were claimed through Medicare for Indigenous people. Such services were claimed at 1.1 times the rate for non-Indigenous Australians, with Indigenous Australians more likely to have long or complex GP consultations.
- The rate of use of Indigenous health checks for children, adults and older people increased significantly over time—for example, between 2006–07 and 2013–14, rates of Indigenous adult health checks (for those aged 15 to 54) rose by an average annual rate of 25% (from 39 to 205 checks per 1,000 population).
- In 2012–13, about 3.1 million episodes of care were provided by 205 Indigenous-specific primary health care organisations funded by the Australian Government.
- In 2012–13, 14% of Indigenous Australians aged 2 and over had never consulted a dental professional compared with 5% of all Australians.

Hospital services

- In 2012–13, there were about 384,638 hospitalisations for Indigenous people, accounting for 4.1% of all hospitalisations.
- In 2012–13, the hospitalisation rate for Indigenous Australians was 2.3 times the rate for non-Indigenous Australians (based on age-standardised rates). Much (84%) of the difference in the rates was due to the substantially higher rates of hospitalisations for dialysis among Indigenous people. Excluding hospitalisations for dialysis, the rate for Indigenous people was 1.2 times the rate for non-Indigenous people.
- In 2013–14, there were 392,142 public hospital emergency department presentations by Indigenous people, accounting for 5.4% of all such presentations.

Mental health and drug treatment services

- In 2012–13:
  - the rate of community mental health service contacts for Indigenous people was 3.2 times the rate for non-Indigenous people (age-standardised rates of 999 and 313 per 1,000 population, respectively)
  - an estimated 15,356 clients of publicly-funded alcohol and/or other drug treatment services were Indigenous, accounting for 14% of clients
  - Indigenous-specific organisations provided about 305,000 episodes of care for substance-use.

Welfare services

- In 2012–13, 36,656 Indigenous children received child protection services. Indigenous children were 7 times as likely as non-Indigenous children to have received such services (127 and 18 per 1,000 children, respectively).
- In 2012–13, 17,406 Indigenous Australians used disability support services, representing 5.8% of all users.
- At 30 June 2013, there were 1,299 Indigenous permanent residents in Australian Government-subsidised residential aged care facilities (0.8% of all residents). Of these residents, 27% were aged under 65 (compared with 3.4% of non-Indigenous residents) and half (51%) had dementia (similar to the 52% of non-Indigenous residents).
- About 67,700 Indigenous households lived in social housing at 30 June 2013. Indigenous households (31%) were more than 6 times as likely as other households (4.5%) to live in social housing.
- In June 2013, between 43% and 46% of Indigenous households were receiving support from at least 1 of the major housing assistance programs (that is, social housing and Commonwealth Rent Assistance); this compares with 18% of other households.
- In 2012–13, one-fifth (22%) of clients of specialist homelessness services were Indigenous—an estimated 54,885 people.

Comparison by remoteness

- Similar proportions of Indigenous people in non-remote and remote areas had consulted a GP or specialist (22% and 20%, respectively) or a health professional other than a GP or specialist (18% and 21%) in the 2 weeks prior to the 2012–13 AATSIHS.
- In 2012–13, rates of pneumococcal vaccination among Indigenous people aged 15 and over increased with remoteness (from 8% in *Major cities* to 24% in *Very remote* areas).
- In 2012–13, there was no significant difference by remoteness in either the proportion of Indigenous women aged 18 and over reporting having a Pap test at least every 2 years, or the proportion of Indigenous women aged 40 and over reporting having regular mammograms.
- In 2012–13, 45% of Indigenous-specific primary health care organisations were located in remote areas, as were 43% of Indigenous-specific organisations providing substance-use services.
- In 2012–13, Indigenous Australians living in remote areas were more likely than those in non-remote areas to have never consulted a dental professional (21% and 12%).
- During the 2-year period 2010–12, Indigenous Australians living in *Remote and very remote* areas had higher hospitalisation rates than those in other areas.
- The proportion of Community Aged Care Package (CACP) recipients at 30 June 2013 who were Indigenous increased with remoteness, from 1.4% of all CACP recipients in *Major cities* to 55% in *Remote and very remote* areas.
- At 30 June 2013, 84% of residential aged care services provided under the National Aboriginal and Torres Strait Islander Flexible Aged Care Program and the Multi-Purpose Service Program were located in *Outer regional* (41%), *Remote* (19%) or *Very remote* (25%) areas.

7.1 Introduction

The nature and extent of need for health and welfare services among Indigenous Australians differ from those of non-Indigenous Australians for a range of reasons, including a substantially higher prevalence of certain diseases, and social, economic and environmental factors. This chapter provides an overview of Indigenous people's use of health and welfare services.

7.2 Health service use

Access to quality health care is an important contributor to good health and wellbeing. This section presents data on the use of the following types of health services by Indigenous Australians:

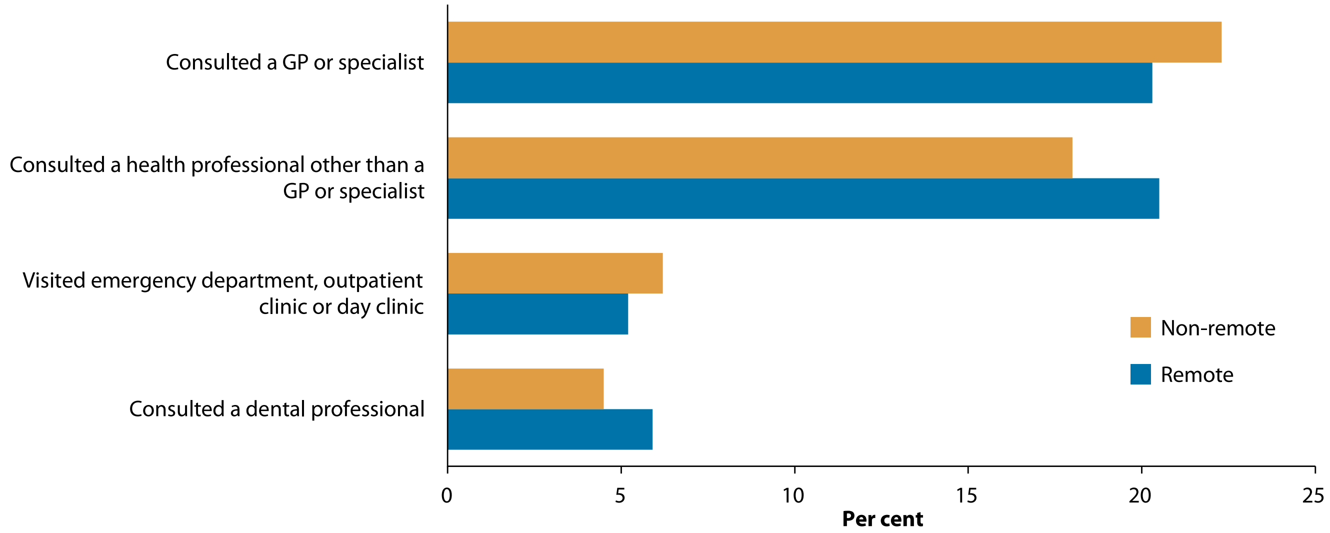
- selected population health programs
- primary health care
- hospital services
- selected specialised health services.

According to the 2012–13 AATSIHS, 1 in 3 (34%) Indigenous Australians had taken at least 1 health-related action in the previous 2 weeks:

- 22% had consulted a GP or specialist
- 19% had consulted a health professional other than a GP or specialist
- 6% had visited casualty, emergency or an outpatient clinic (ABS 2013a).

Similar proportions of Indigenous people in non-remote areas and remote areas had:

- consulted a GP or specialist (22% and 20%, respectively)
- visited a health professional other than a GP or specialist (18% and 21%) (Figure 7.1).



Notes

1. Data for people who consulted a dental professional are for those aged 2 and over. Data for other health-related actions are for people of all ages.
2. Data for this figure are shown in Table S7.1.

Source: ABS 2013a.

Figure 7.1: Actions taken for health in previous 2 weeks by Indigenous people, by remoteness, 2012–13

Population health programs

Population health programs aim to reduce illness and injury, and promote health through targeting environmental and socioeconomic factors, health behaviours, community capacity and biomedical factors that influence health. Examples of such programs include health promotion and education activities, cancer screening, immunisation programs, and child and maternal health services. The specific services considered in this section are: antenatal care, vaccination services and cancer screening.

Antenatal care

Antenatal care (also referred to as prenatal care) relates to care provided by skilled birth attendants for reasons related to pregnancy. Such care has been found to have a positive effect on health outcomes for both mother and baby, and may reduce the risk of low birthweight (Eades 2004; Taylor et al. 2013). Antenatal care may be especially important for Indigenous women, since they are at higher risk of giving birth to low birthweight babies and have greater exposure to other risk factors such as anaemia, poor nutritional status, hypertension, diabetes, genital and urinary tract infections, and smoking (de Costa & Wenitong 2009; also see Chapter 4).

For mothers who gave birth in 2011, data on the number of antenatal visits during pregnancy are available from the AIHW National Perinatal Data Collection for 6 jurisdictions: New South Wales, Queensland, South Australia, Tasmania, the Australian Capital Territory and the Northern Territory. These data show that:

- nearly all Indigenous and non-Indigenous mothers had at least 1 antenatal session (99% and 99.9%, respectively)
- Indigenous mothers were less likely to have 5 or more antenatal visits than non-Indigenous mothers (83% and 95%) (Table 7.1)
- when only women who gave birth at 32 weeks gestation or more were considered (thus excluding the very preterm births), 85% of Indigenous mothers had 5 or more visits, compared with 96% of non-Indigenous mothers (Li et al. 2013).

Table 7.1: Use of antenatal services by mothers who gave birth in 2011, by Indigenous status[(a)]

	Indigenous			Non-Indigenous		
Number of sessions attended	**Number**	**Crude rate[(b)]**	**Age-standardised rate[(b)(c)]**	**Number**	**Crude rate[(b)]**	**Age-standardised rate[(b)(c)]**
None	112	1.3	1.3	136	0.1	0.1
1	223	2.5	2.5	1,381	0.8	0.8
2 to 4	1,149	13.0	12.9	7,185	4.1	4.1
5 or more	7,346	83.2	83.4	166,209	95.0	95.0
At least 1	*8,718*	*98.7*	*98.7*	*174,775*	*99.9*	*99.9*

(a) Data pertain to New South Wales, Queensland, South Australia, Tasmania, the Australian Capital Territory and the Northern Territory.

(b) Rates are expressed per 100 women who gave birth in 2011. Rates were calculated after excluding mothers with no information about antenatal care.

(c) Rates have been directly age-standardised to the Australian female population who gave birth in 2011.

Source: AIHW 2014f.

Trend data on antenatal care are available for 3 states—New South Wales, South Australia and Queensland. These data show that between 2000 and 2011, there was a statistically significant increase in the rate of Indigenous mothers attending at least 1 antenatal care session during pregnancy (a 4% increase over the period), but no significant change among non-Indigenous women. This resulted in a significant narrowing of the gap in antenatal care between Indigenous and non-Indigenous mothers in these 3 jurisdictions combined (AIHW 2014f).

Antenatal care in first trimester

Research indicates that antenatal care in the first trimester may be particularly important. In 2011, data on gestational age at the first antenatal visit were available for all states and territories. Among Indigenous mothers who gave birth in 2011:

- half (50%) attended at least 1 antenatal visit in the first trimester (that is, before 14 weeks gestation)
- Indigenous mothers were less likely than non-Indigenous mothers to have attended care in the first trimester (age-standardised rates of 51% and 66%, respectively) (COAG Reform Council 2014).

Trend data on antenatal care in the first trimester are available for the period 2007 to 2011 for 3 jurisdictions: New South Wales, South Australia and the Northern Territory. These data indicate no significant change in the proportion of Indigenous mothers or non-Indigenous mothers who attended at least 1 antenatal care visit in the first trimester of their pregnancy.

Further information about antenatal care among Indigenous mothers can be found in *Birthweight of babies born to Indigenous mothers* (AIHW 2014f).

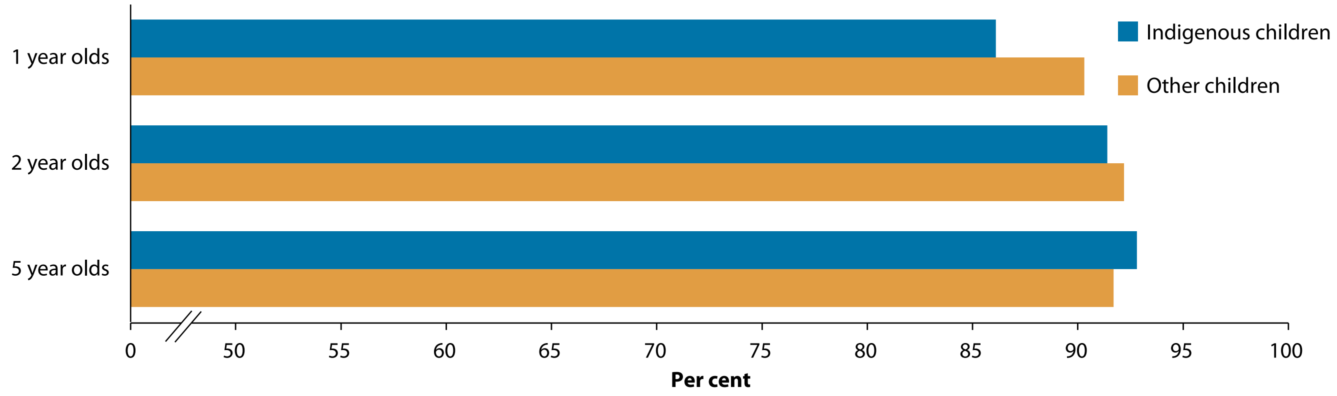
Vaccination

The Immunise Australia Program aims to reduce illness and death associated with 16 vaccine-preventable diseases by funding a series of age-specific vaccinations as outlined in the National Immunisation Program Schedule (Department of Health 2013a).

Childhood vaccination

According to 2013 data from the Australian Childhood Immunisation Register:

- 86% of Indigenous children aged 1 were fully vaccinated compared with 90% of other children of the same age (SCRGSP 2014b)
- the proportion of Indigenous and other children who were fully vaccinated at the ages of 2 and 5 were similar (Figure 7.2).



(a) 'Fully vaccinated' refers to children who have received the vaccinations outlined in the National Immunisation Program Schedule at the specified age—see Table S7.2 for data on the proportion of children vaccinated for individual vaccines.

Notes

1. 'Other children' includes non-Indigenous children and children whose Indigenous status was not stated.
2. Data for this figure are shown in Table S7.2.

Source: SCRGSP 2014b.

Figure 7.2: Proportion of children fully vaccinated at 1, 2 and 5 years of age[(a)], by Indigenous status, 31 December 2013

Vaccines for hepatitis A and an additional pneumococcal polysaccharide vaccine are also available to children living in high risk areas (namely, the Northern Territory, South Australia, Western Australia and Queensland). Based on data from the Australian Childhood Immunisation Register, for Indigenous children living in those 4 jurisdictions:

- full Hepatitis A vaccine coverage (2 doses by 30 or 36 months, depending on jurisdiction) increased from 31% in March 2007 to 60% in December 2012
- full pneumococcal polysaccharide vaccine coverage (1 additional dose by 36 months) increased from 47% to 73% over the same period (Hull et al. 2013, 2014).

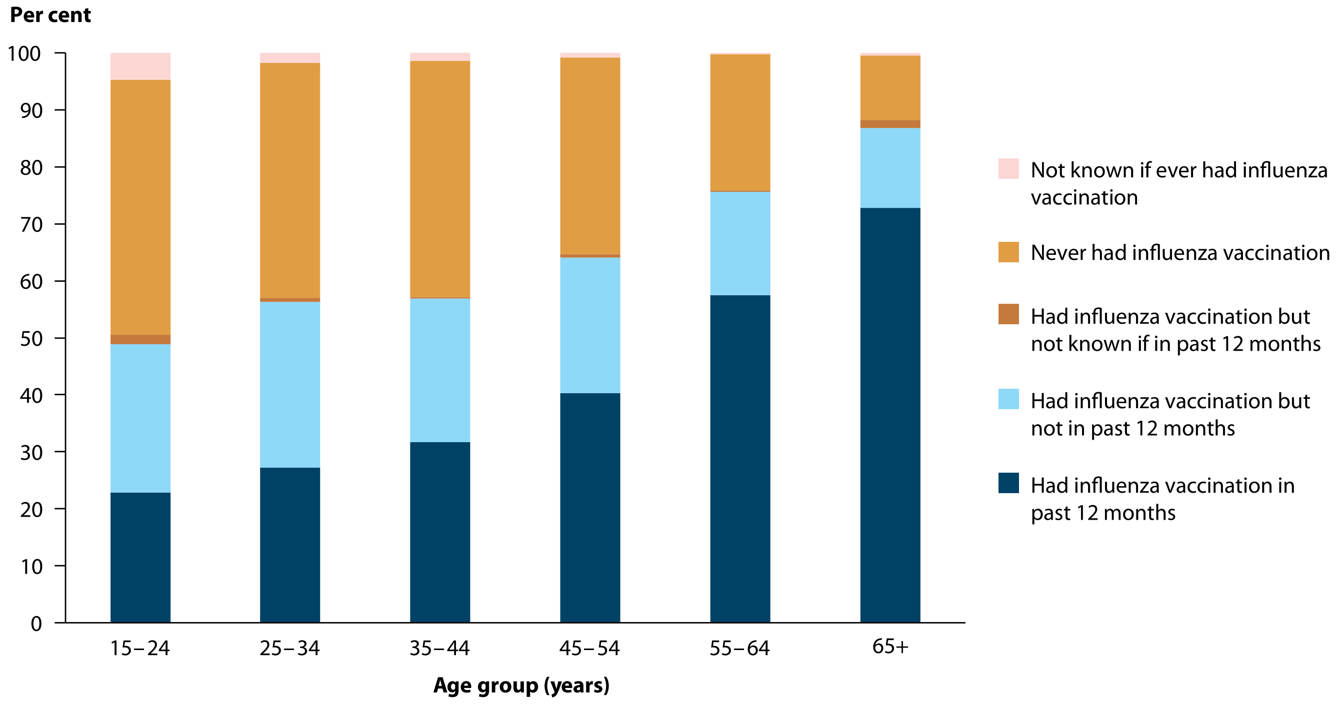
Adult vaccination

According to the 2012–13 AATSIHS:

- 13% of Indigenous Australians aged 15 and over had a pneumococcal vaccination in the previous 5 years
- coverage increased with both age (9% of those aged 15–24 up to 44% of those 65 and over) and remoteness (8% in *Major cities* compared with 24% in *Very remote* areas) (AIHW analysis of 2012–13 AATSIHS).

Indigenous people aged 15 and over are eligible to receive free influenza vaccinations as they are at greater risk of developing complications from influenza than non-Indigenous people. In 2012–13:

- 34% of Indigenous Australians aged 15 and over had an influenza vaccination in the previous 12 months
- the proportion that had such a vaccination in the previous 12 months increased with age, from 23% of those aged 15–24 to 73% of those aged 65 and over (Figure 7.3).



Note: Data for this figure are shown in Table S7.3.

Source: AIHW analysis of ABS 2012–13 Australian Aboriginal and Torres Strait Islander Health Survey (using TableBuilder).

Figure 7.3: Influenza vaccination status of Indigenous people aged 15 and over, by age, 2012–13

Cancer screening

Population-based screening activities focus on detecting diseases in their early or pre-disease stages to reduce illness and death. An example of these activities is population-based cancer screening that is used to identify individuals who should be referred for further diagnostic testing. In Australia, free national screening programs for breast, cervical and bowel cancers are available to eligible people with no apparent symptoms; data are provided about these screening programs in this section. Information on Indigenous people with cancer is available in Section 5.3.

Cervical cancer screening

Cervical cancer incidence and mortality are both higher in Indigenous women, with the incidence rate more than twice that of non-Indigenous women in 2005–2009 (Table S5.31) and the mortality rate, over 3 times in 2008–2012 (Table S6.2).

The National Cervical Screening Program aims to detect and treat high-grade abnormalities before they possibly progress to cervical cancer. The program recommends regular 2-yearly cervical screening by Pap test for all women aged 18 to 69 who have ever been sexually active (regardless of whether or not they were vaccinated against human papillomavirus). Since pathology forms do not currently collect Indigenous status information, data on the participation of Indigenous women in the National Cervical Screening Program are not available (AIHW 2014j) but data are available from alternative sources.

According to the 2012–13 AATSIHS and among Indigenous women aged 18 and over:

- 9 in 10 (88%) had ever had a Pap test
- 57% indicated they had a Pap test at least every 2 years (AIHW analysis of 2012–13 AATSIHS).

There was no statistically significant difference by remoteness in the proportion of Indigenous women aged 18 and over who had ever had a Pap test or who had a Pap test at least every 2 years (Table S7.4).

National data at December 2013 from 180 Australian Government-funded primary health care organisations that provide services primarily to Indigenous people show that for female Indigenous regular clients aged 20 to 69:

- nearly one-third (32%) had had a Pap test in the previous 2 years
- 40% had a Pap test in the previous 3 years
- 46% had a Pap test in the previous 5 years (AIHW 2014w).

These data may be an underestimate for a number of reasons, such as pathology results held at the organisation not reflecting all pathology tests that have occurred for its regular clients, and organisations without systems in place not recording the relevant information (AIHW 2014w).

Breast cancer screening

Breast cancer is 1 of the top 10 specific causes of death for Indigenous females, accounting for 2.9% of Indigenous female deaths in 2008–20012 (Table S6.2).

The BreastScreen Australia program aims to detect early stage breast cancer, with the program currently actively targeting women aged 50 to 74, although all women aged 40 and over are eligible to receive free screening. In the 2-year period 2011–2012, BreastScreen Australia actively targeted women aged 50–69. Among women in that age range, 38% of Indigenous women participated in a BreastScreen program in that 2-year period, compared with 54% of non-Indigenous women (Department of Health 2014).

Data from the 2012–13 AATSIHS show that among Indigenous women aged 40 and over:

- two-thirds (67%) had ever had a mammogram
- 40% reported that they had a mammogram at least every 2 years
- the most common reasons reported for having their most recent mammogram were 'regular annual check-up' (44%) and 'participating in a screening program' (22%)
- there was no statistically significant difference by remoteness in the proportion either ever having had a mammogram or having regular mammograms (AIHW analysis of 2012–13 AATSIHS).

Bowel cancer screening

Free bowel cancer screening is available to Australians turning 50, 55, 60 and 65 through the National Bowel Cancer Screening Program. Eligible Australians are sent a faecal occult blood test—a test used to detect tiny traces of blood in a person's faeces that may be a sign of bowel cancer. This test can be completed at home and mailed to a pathology laboratory for analysis.

In 2012–13:

- 0.6% of bowel screening participants indicated that they were Indigenous
- Indigenous participants were more likely to return a positive screening result (11%) than non-Indigenous participants (7%)
- a similar proportion of Indigenous and non-Indigenous Australians with a positive screening test followed up the outcome with a primary health care provider (56% and 60%, respectively), although Indigenous people with a positive screening test were less likely to have a follow-up colonoscopy (59% compared with 71%) (AIHW 2014v).

Primary health care

In Australia, primary health care is typically a person's first point of contact with the health system for a particular health issue and is most often provided outside the hospital system. The use of this type of health care is considered in this section. A person does not routinely need a referral for primary health care, which includes services provided by GPs, dental practitioners, nurses, Indigenous health workers, pharmacists and other allied health professionals. In some cases, emergency departments within hospitals serve as a person's first point of contact with the health system—information on emergency department services is provided in the 'Hospital services' section below.

An indirect measure of the lack of access to, or use of, primary health care is the rate of potentially preventable hospitalisations. Information on such hospitalisations is also provided in this section.

GP services

According to 2013–14 Medicare data:

- over 3.6 million GP services were claimed through Medicare for Indigenous people in that year
- the rate of GP services claimed for Indigenous Australians was 1.1 times the rate for non-Indigenous Australians (6,115 compared with 5,822 per 1,000 population)
- Indigenous people were more likely than non-Indigenous people to have long or complex consultations:
  - they were 1.4 times as likely to have a Level C consultation with a GP (over 20 minutes duration)
  - they were 2.3 times as likely to have a Level D consultation (over 40 minutes duration) (AHMAC 2015; AIHW forthcoming 2015).

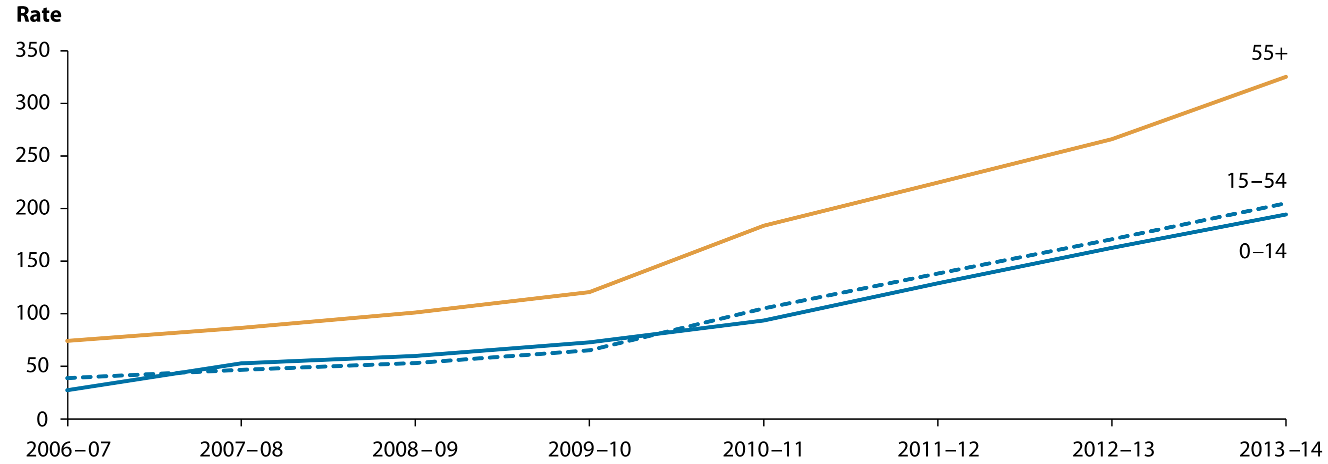
Health checks and assessments

The Medicare Benefits Schedule (MBS) has a health assessment item (namely, MBS item 715) to encourage primary health care providers to carry out annual health assessments on Indigenous patients. In 2013–14, primary health care providers carried out:

- 47,414 Indigenous child health checks—a rate of 194 checks per 1,000 Indigenous children aged 0–14
- 80,645 Indigenous adult health checks—a rate of 205 checks per 1,000 Indigenous people aged 15 to 54
- 22,295 Indigenous older person health checks—a rate of 325 checks per 1,000 Indigenous people aged 55 and over (AIHW forthcoming 2015).

The rate of use of these health checks has increased significantly over time (Figure 7.4). From 2006–07 to 2013–14:

- Indigenous child health check rates increased at an average annual rate of 23% (from 27 to 194 checks per 1,000 population)
- Indigenous adult health check rates increased by an average annual rate of 25% (from 39 to 205 checks per 1,000 population)
- older person health check rates increased by an average annual rate of 37% (from 74 to 325 checks per 1,000 population) (Table S7.5).



Notes

1. Rates are expressed per 1,000 population.
2. Data for this figure are shown in Table S7.5.

Source: AIHW forthcoming 2015.

Figure 7.4: Rates of Medicare Benefit Schedule health checks for Indigenous Australians (MBS item 715), by target age group, 2006–07 to 2013–14

Further data about Indigenous health checks are available from the *Indigenous health check (MBS 715) data tool* (AIHW 2013h).

Australian Government-funded Indigenous-specific primary health care organisations

In 2012–13, the Australian Government funded 205 primary health care organisations to provide health services primarily to Indigenous people. Of these:

- 69% (141 organisations) identified as being Aboriginal Community Controlled Health Organisations, 10% were run by other non-government organisations, and 21% were government-run organisations
- 45% were located in remote areas
- the largest number were located in the Northern Territory (55 organisations) (Figure 7.5).

Note: Data for this figure are shown in Table S7.6.

Source: AIHW 2014a.

Figure 7.5: Indigenous-specific primary health care organisations, by jurisdiction and remoteness, 2012–13

In 2012–13:

- 85% of these primary health care organisations had a GP
- the on-site services most commonly provided by these organisations were podiatry (73%), dietetics (71%), diabetes education (70%) and optometry (62%); the off-site services most commonly provided were specialist renal services (73%), ear, nose and throat services (73%) and cardiology services (70%)
- an estimated 416,971 people received primary care services from these organisations (however, since individuals may be clients at more than 1 organisation, this count is likely to overestimate the total number of individual clients)
- 313,980 of these clients identified as Indigenous—accounting for 75% of clients
- about 3.1 million episodes of care were provided, with an average of 7 episodes of care per client (Table S7.7; AIHW 2014a; AIHW Online Services Report database).

Dental services

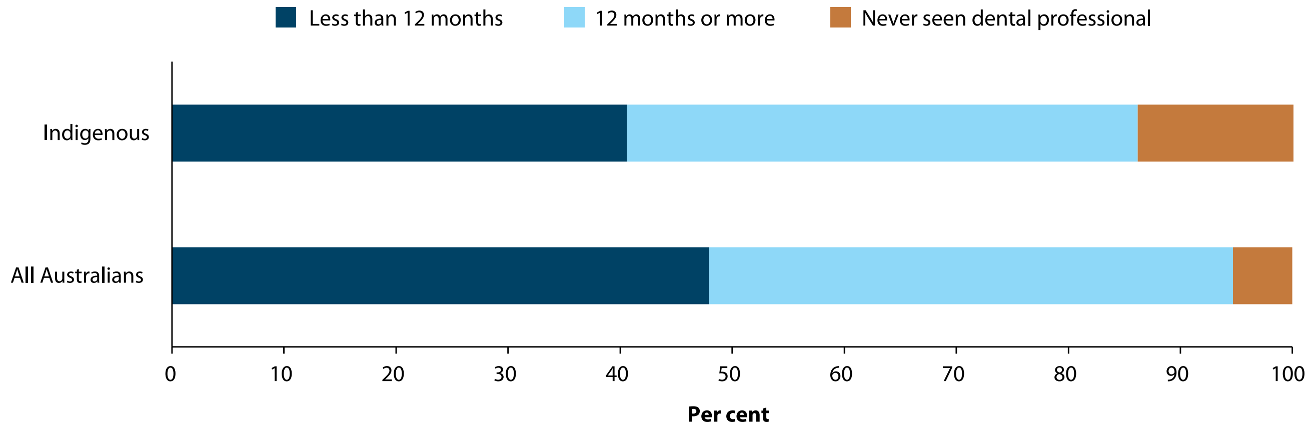
Poor dental health can impact a person's ability to eat, speak, and socialise; it can also exacerbate other conditions such as cardiovascular diseases, diabetes, stroke and pre-term low birthweight (AHMAC 2015).

According to the 2012–13 AATSIHS, among Indigenous Australians aged 2 and over (with teeth):

- nearly half (46%) reported cleaning their teeth at least twice a day, with those living in non-remote areas significantly more likely to do so than those in remote areas (51% and 30%, respectively)
- 11% reported cleaning their teeth less than once a week, with those living in remote areas significantly more likely to report this than those in non-remote areas (27% compared with 6%) (AIHW analysis of 2012–13 AATSIHS).

Indigenous Australians were less likely to have consulted a dental professional. In 2012–13, among Indigenous people aged 2 and over:

- 14% had never seen a dental professional—a significantly higher proportion than for all Australians (5%)
- two-fifths (41%) had consulted a dental professional in the previous 12 months—a significantly lower proportion than for all Australians (48%)
- a significantly higher proportion in remote areas (21%) had never seen a dental professional compared with those in non-remote areas (12%) (Figure 7.6; Table S7.8).



Notes

1. Those who had been to a dental professional but did not know how long ago they had done so were grouped with those who indicated '12 months or more'.
2. Data for this figure are shown in Table S7.8.

Sources: AIHW analyses of ABS 2012–13 Australian Aboriginal and Torres Strait Islander Health Survey and ABS 2011–12 Australian Health Survey (using TableBuilder).

Figure 7.6: Time since last consulted a dental professional by people aged 2 and over, by Indigenous status, 2012–13

Among Indigenous Australians aged 2 and over who had ever seen a dental professional:

- 33% had their last dental consultation at a private dental practice, 30% at a government dental clinic, 16% at a school dental service, 16% at an Aboriginal Medical Service or community clinic, 2% elsewhere and the remainder (2%) said they did not know
- the proportion last consulting a dental professional at a private dental practice was significantly lower in remote areas (13%) than in non-remote areas (38%)
- the proportion last consulting a dental professional at an Aboriginal Medical Service or community clinic was significantly higher in remote than non-remote areas (31% compared with 12%) (AIHW analysis of 2012–13 AATSIHS).

Among Indigenous people aged 2 and over, 1 in 5 (20%) reported that they had needed to go to a dentist in the previous 12 months but did not, with those in non-remote areas significantly more likely to report this than those in remote areas (22% compared with 15%) (AIHW analysis of 2012–13 AATSIHS).

Cost was the most commonly reported reason for not visiting a dentist in the previous 12 months—this was reported by 43% of Indigenous Australians aged 2 and over who had needed to see a dentist in the past 12 months but did not. There were some differences by remoteness:

- in non-remote areas, cost was the most common reason (47%), followed by being too busy (including work, personal and family responsibilities) (21%)
- in remote areas, the most commonly reported reasons were lack of availability in the area (31%) and cost (25%) (AIHW analysis of 2012–13 AATSIHS).

Potentially preventable hospitalisations

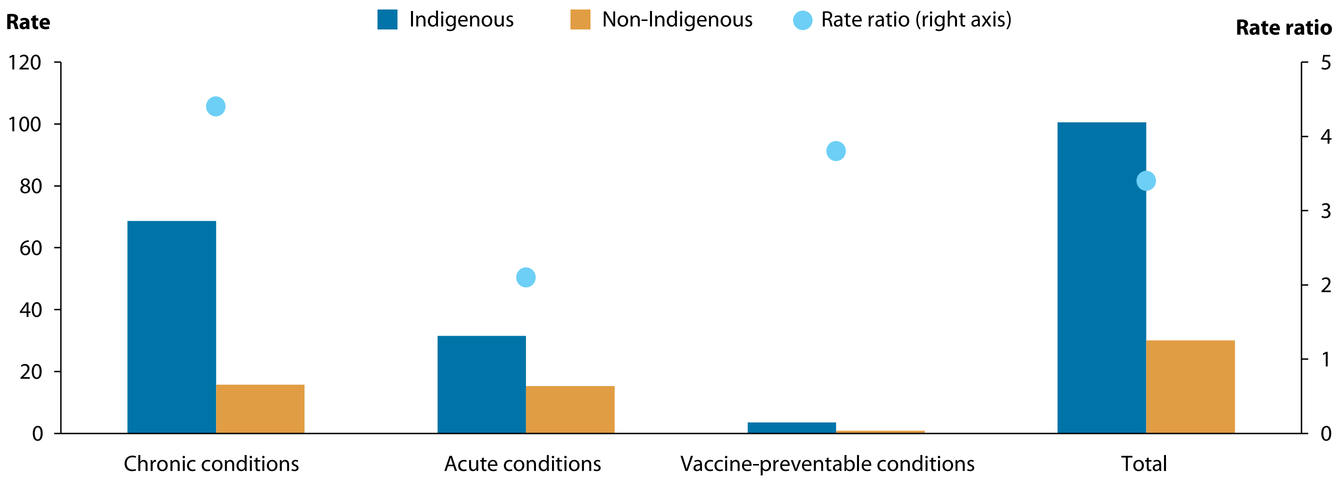
The rate of potentially preventable hospitalisations provides an indirect measure of the lack of access to, or use of, primary health care. Potentially preventable hospitalisations are those hospitalisations that might have been prevented through the timely and appropriate provision and use of population health services, primary care or other non-hospital services. There are 3 types of conditions for which hospitalisations are regarded as potentially preventable:

- chronic conditions (such as asthma, congestive heart failure and diabetes)
- acute conditions (such as dehydration, nose and throat infections, and dental conditions)
- vaccine-preventable conditions (such as influenza, tetanus and pneumonia) (AIHW 2014c, 2014d).

Indigenous Australians tend to be more likely than non-Indigenous Australians to have the conditions for which hospitalisations are regarded as potentially preventable and to live in remote areas where non-hospital health services are more limited.

In 2012–13:

- 6% of potentially preventable hospitalisations recorded in public and private hospitals were for Indigenous people, accounting for 44,804 hospitalisations
- the potentially preventable hospitalisation rate for Indigenous people was 3.4 times the rate for non-Indigenous people (age-standardised rates of 101 and 30 per 1,000 population, respectively) (Table S7.9)
- for each category of potentially preventable hospitalisations, the age-standardised rate was higher for Indigenous than non-Indigenous Australians, with the difference largest for chronic conditions (a rate ratio of 4.4) (Figure 7.7).



Notes

1. Rates have been directly age-standardised to the 2001 Australian standard population and are expressed per 1,000 population.
2. Data for this figure are shown in Table S7.9.

Source: AIHW National Hospital Morbidity Database.

Figure 7.7: Potentially preventable hospitalisations, by category and Indigenous status, 2012–13

Rates of potentially preventable hospitalisations for Indigenous people varied considerably by remoteness. During the 2-year period 2010–12:

- Indigenous people living in *Remote* areas were 4.3 times as likely as those living in *Major cities* to experience a potentially preventable hospitalisation, while those in *Very remote* areas were 1.6 times as likely
- the relationship was not as strong for other Australians, with the corresponding rate ratios being 1.4 and 1.2 (AIHW 2014c).

Box 7.1 provides information on expenditure on potentially preventable hospitalisations for Indigenous people. (See Section 8.2 for information on total expenditure on health.)

Box 7.1: Expenditure on potentially preventable hospitalisations

In 2010–11, expenditure on potentially preventable hospitalisations for Indigenous people was estimated to be $219 million, or an average of $385 per Indigenous person. Most of this expenditure was on chronic conditions ($115 million). The conditions with the largest expenditure were:

- chronic obstructive pulmonary disease ($36 million or 16%)
- diabetes complications ($35 million or 16%)
- cellulitis (bacterial skin infection) ($20 million or 9%)
- convulsions and epilepsy ($20 million or 9%).

Average per person expenditure on potentially preventable hospitalisations for Indigenous people was higher than for non-Indigenous people—overall, $2.22 was spent per Indigenous Australian for every $1.00 spent per non-Indigenous Australian. Conditions with the highest ratio of Indigenous to non-Indigenous expenditure were pelvic inflammatory disease (4.56), and influenza and pneumonia (4.47).

Source: AIHW 2013e.

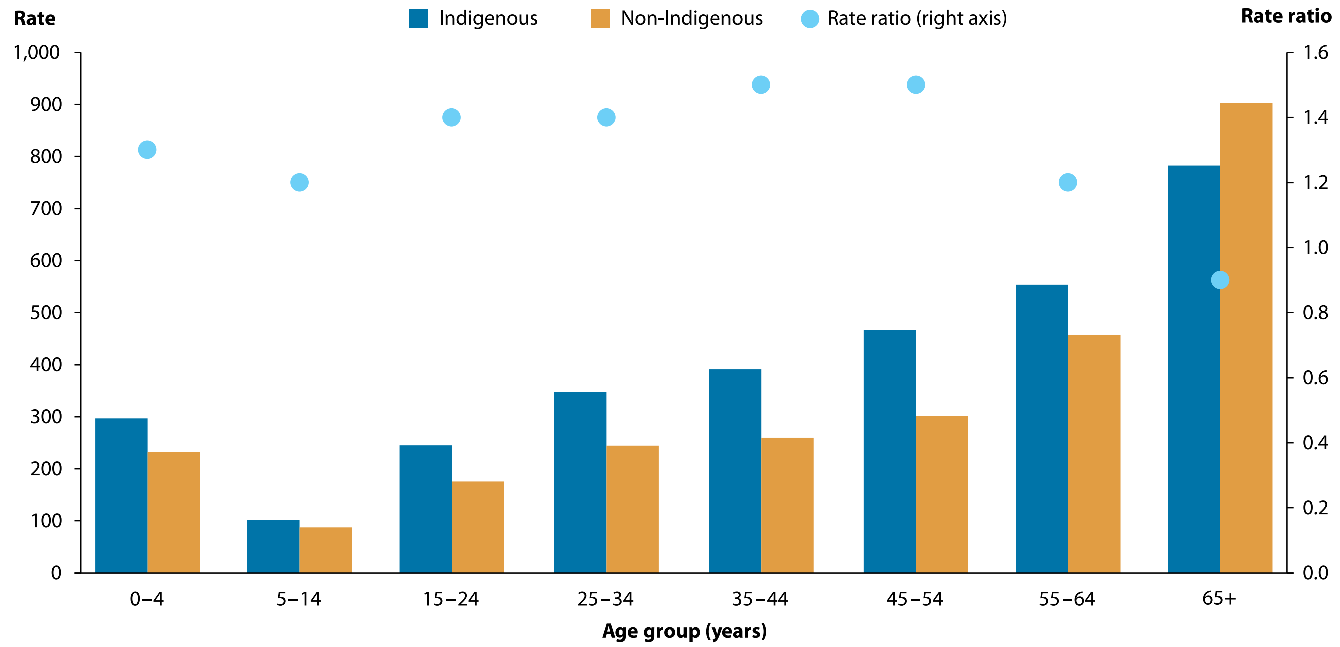
Hospital services

In Australia, hospital services are provided by both public and private hospitals. These services may be provided to patients who are admitted to hospital or to those who seek assistance from emergency departments. This section draws on data from the National Hospital Morbidity Database to present information about admitted patients (see Appendix A.3). Some data are also provided about emergency department presentations to public hospitals by Indigenous people as collected by the AIHW (see AIHW 2014e for information about that data collection).

Admitted patient care

Indigenous Australians are relatively high users of admitted patient services in hospitals, the majority of which are accessed via public hospitals. In 2012–13:

- 384,638 (4.1%) of the 9.4 million hospitalisations recorded across Australia were for Indigenous people (AIHW 2014d)
- the majority (92%) of hospitalisations for Indigenous Australians were in public hospitals, compared with 58% for non-Indigenous Australians—in part, this difference may reflect the lower quality of Indigenous identification in private hospitals compared with public hospitals
- the hospitalisation rate for Indigenous Australians was 2.3 times the rate for non-Indigenous Australians (age-standardised rates of 835 and 370 per 1,000 population, respectively) (Table S7.10)
- much (84%) of the difference in the Indigenous to non-Indigenous hospitalisation rate was due to the substantially higher rates of hospitalisations for care involving dialysis among Indigenous people (see Section 5.3 for information on the prevalence of chronic kidney disease among Indigenous people and related hospitalisations)
- when hospitalisations for dialysis are excluded, the Indigenous hospitalisation rate was 1.2 times the rate for non-Indigenous Australians, based on age-standardised rates (Table S7.10)
- the hospitalisation rate, excluding dialysis, was higher for Indigenous people than for non-Indigenous people in all age groups except for those aged 65 and over (Figure 7.8).



Notes

1. Rates are expressed per 1,000 population.
2. Data for this figure are shown in Table S7.10.

Source: AIHW National Hospital Morbidity Database.

Figure 7.8: Age-specific hospitalisation rates (excluding hospitalisations for dialysis), by Indigenous status, 2012–13

Data for the 2-year period 2010–12 indicate that Indigenous Australians:

- living in *Remote* areas had the highest hospitalisation rates of all remoteness areas, followed by those in *Very remote* areas (adjusted age-standardised rates of 1,361 and 1,004 per 1,000 population, respectively); the corresponding rates for other areas were 985 in *Outer regional* areas, 720 in *Major cities* and 619 in *Inner regional* areas
- had higher hospitalisation rates than other Australians across all remoteness areas, but the differences were largest for *Remote* (rate ratio of 3.9, based on adjusted age-standardised rates), *Very remote* (3.5) and *Outer regional* (2.8) areas (AIHW 2014c).

As shown in Table 7.2, the main reasons for hospitalisation among Indigenous Australians in 2012–13 were:

- care involving dialysis (45% of hospitalisations)—nearly all (99.8%) of these were same-day hospitalisations (rather than involving an overnight stay)
- injury and poisoning (7.2% of hospitalisations, or 13% excluding dialysis)
- pregnancy and childbirth (5.8% of hospitalisations, or 11% excluding dialysis).

Table 7.2: Main reasons for hospitalisation, by principal diagnosis and Indigenous status, 2012–13

	Number	Per cent (including dialysis)		Per cent (excluding dialysis)	
Principal diagnosis	**Indigenous**	**Indigenous**	**Non-Indigenous**	**Indigenous**	**Non-Indigenous**
Care involving dialysis	171,272	44.5	12.4	. .	. .
Injury and poisoning	27,653	7.2	6.4	13.0	7.3
Pregnancy and childbirth	22,342	5.8	5.3	10.5	6.0
Respiratory diseases	20,944	5.4	4.3	9.8	4.9
Digestive diseases	19,315	5.0	10.0	9.1	11.5
Total (including dialysis)	**384,638**	**100.0**	**100.0**	**. .**	**. .**
Total (excluding dialysis)	**213,366**	**. .**	**. .**	**100.0**	**100.0**

Note: For further information on reasons for hospitalisation (and related ICD-10-AM codes), see Table S7.11.

Source: AIHW National Hospital Morbidity Database.

In 2012–13, compared with non-Indigenous Australians, Indigenous Australians were:

- 10 times as likely to be hospitalised for care involving dialysis
- 2.4 times as likely to be hospitalised for respiratory diseases
- 2.3 times as likely to be hospitalised for endocrine, nutritional, and metabolic diseases
- 2.2 times as likely to be hospitalised for skin and subcutaneous tissue diseases
- 2.0 times as likely to be hospitalised for mental and behavioural disorders (Table S7.11).

Further information on hospitalisations for common health conditions among Indigenous people is provided in Section 5.3.

Emergency department visits

Indigenous people are relatively more likely than non-Indigenous people to make use of emergency department services. In 2013–14:

- there were 392,142 public hospital emergency department presentations by Indigenous people
- these presentations accounted for 5.4% of all emergency department presentations (AIHW 2014e).

The quality of the data reported for Indigenous status in emergency departments has not been formally assessed, but is likely to be an underestimate.

Specialised health services

Mental health services

Mental health services are provided in various settings, including hospitals, the community, residential care and prisons. This section presents information about community and residential mental health services, as well as about the provision of mental health services by Indigenous-specific health organisations. Data about hospitalisations for mental health-related conditions are presented in Section 5.3.

In 2012–13, one-quarter (26%) of Indigenous adults reported having accessed mental health services for a mental health condition at some time in the past (AIHW analysis of 2012–13 AATSIHS).

Data from the AIHW National Community Mental Health Care Database indicate that in 2012–13:

- there were 597,275 community mental health service contacts reported for Indigenous people
- these contacts accounted for 11% of all service contacts for which Indigenous status was recorded
- Indigenous people accessed community mental health services at 3.2 times the rate of non-Indigenous people (age-standardised rates of 999 and 313 per 1,000 population, respectively) (AIHW 2014k).

Residential mental health care services provide specialised mental health care on an overnight basis in a domestic-like environment. Residential mental health services may include rehabilitation, treatment or extended care. Data from the AIHW National Residential Mental Health Care Database indicate that in 2012–13:

- 228 residential care episodes were reported for Indigenous people, accounting for 3.5% of all residential care episodes
- Indigenous people accessed residential mental health care services at a higher rate than non-Indigenous people (age-standardised rates of 4.1 and 2.8 per 10,000 population, respectively) (AIHW 2014l).

Mental health services are also provided by Indigenous-specific health organisations, including 98 organisations that were funded by the Australian Government in 2012–13 to provide social and emotional wellbeing (SEWB) or Link-Up counselling services. These organisations:

- provided about 89,100 service contacts for SEWB or Link-Up counselling to 17,725 clients (AIHW 2014a)
- 94% of those clients were Indigenous (excluding those clients for whom Indigenous status was not stated) (Table S7.7).

Alcohol and other drug treatment services

Publicly-funded alcohol and/or other drug treatment services

According to 2012–13 data from publicly-funded alcohol and/or other drug treatment services:

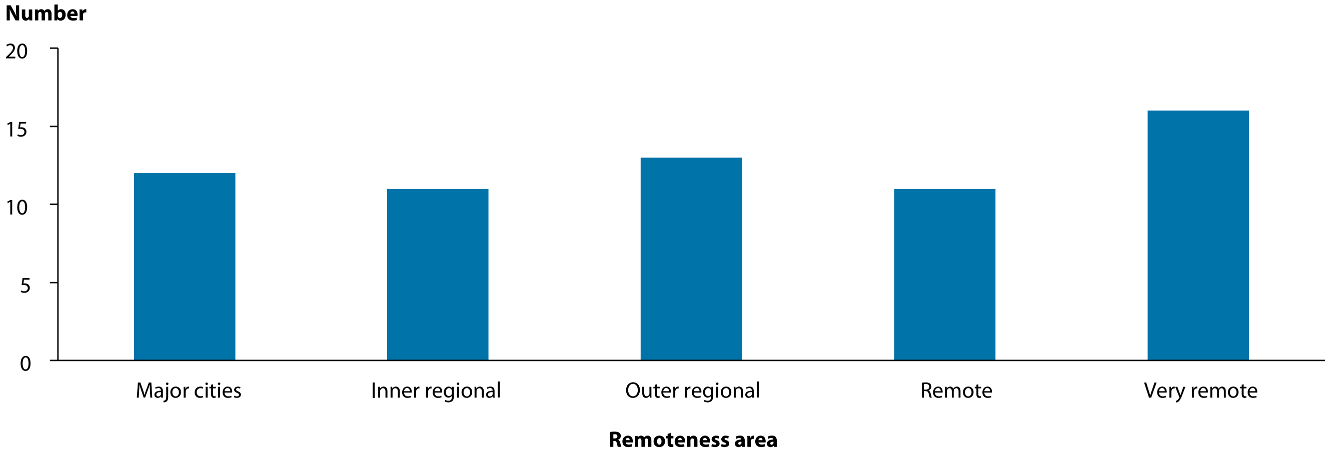
- an estimated 15,356 clients of these services were Indigenous, accounting for 1 in 7 (14%) clients
- there were 22,746 episodes of treatment for Indigenous clients accounting for 14% of episodes
- 98% of Indigenous clients sought assistance for their own drug use (rather than for someone else's drug use); this compares with 95% of non-Indigenous clients
- the most common principal drug of concern (that is, the main drug that led them to seek treatment) for Indigenous clients seeking treatment for their own drug use was alcohol, followed by cannabis, amphetamines and heroin
- counselling was the most common 'main treatment type' for both Indigenous clients (44% of episodes) and non-Indigenous clients (42% of episodes) (AIHW 2014b).

Indigenous people are under-represented in these data since information about Australian Government-funded Indigenous-specific agencies providing substance-use services is largely not included in this data collection; many Indigenous clients receive treatment from such agencies. Data on substance-use services provided by the Indigenous-specific agencies are detailed below. There is some degree of overlap between the 2 data collections (see AIHW 2014b for further information).

Australian Government-funded Indigenous-specific organisations providing substance-use services

In 2012–13, substance-use services were provided by 63 organisations that received funding from the Australian Government to provide health services primarily to Indigenous people. Of these organisations:

- 25% were located in the Northern Territory and 22% in New South Wales (AIHW 2014a)
- 4 in 10 (43%) were located in remote areas—25.4% in *Very remote* areas and a further 17.5% in *Remote* areas (Figure 7.9).



Note: Data for this figure are shown in Table S7.12.

Source: AIHW 2014a.

Figure 7.9: Indigenous-specific organisations providing substance-use services, by remoteness, 2012–13

In 2012–13, the Indigenous-specific organisations providing substance-use services reported:

- about 305,000 episodes of care for substance use to 49,686 clients
- 40,798 of these clients were Indigenous—accounting for 82% of clients (Table S7.7)
- that treatment and assistance was most commonly for alcohol use (reported by 100% of services as 1 of the 5 most common substance-use issues in terms of staff time and resources), followed by cannabis (97%), tobacco and nicotine (63%), and multiple drug use (54%)
- providing non-residential services (94% of organisations provided such services), residential treatment and rehabilitation programs (43%), and sobering-up or residential respite services (24%) (AIHW 2014a).

Pharmacotherapy for opioid dependence

Dependence on opioid drugs such as heroin and morphine is associated with a range of health and social problems that affect individual drug users, their family and friends, and the wider community. Treatment with an opioid pharmacotherapy drug can reduce drug cravings, improve physical and mental health, and reduce drug-related crime (AIHW 2014x).

On a 'snapshot day' in June 2013 and in the 6 jurisdictions for which information on the Indigenous status of clients was reported (namely, New South Wales, Queensland, South Australia, Tasmania, the Northern Territory and the Australian Capital Territory):

- there were 2,822 Indigenous clients receiving pharmacotherapy, accounting for 9.3% of clients
- Indigenous people received pharmacotherapy at over 3 times the rate of non-Indigenous people (59 and 17 clients per 10,000 population, respectively)
- most Indigenous clients (73%) received methadone, with others receiving either buprenorphine (18%) or buprenorphine-naloxone (8%) (AIHW 2014x).

Hearing services

In 2012–13, Australian Hearing:

- provided services to 4,356 Indigenous children and young adults aged under 26 through the Community Service Obligation program, accounting for 6% of all children and young adults who received services
- conducted outreach visits to 224 Aboriginal and Torres Strait Islander communities in urban, rural and remote areas of Australia; the number of sites visited was higher than the previous year (215), but lower than the number in 2008–09 (238) (Australian Hearing 2013).

7.3 Welfare service use

Welfare services are provided by agencies funded by Australian, state and territory, and local governments, as well as by the non-government sector. While there are some welfare services that aim to prevent or reduce the need for welfare services, most are aimed at meeting established needs. This section provides information on the following types of services: child protection, disability support, aged care, and housing and homelessness.

Child protection services

As described in Section 3.6, statutory child protection is a state and territory government responsibility in Australia. Assistance is provided to vulnerable children who are suspected of being abused, neglected or harmed, or whose parents are unable to provide adequate care or protection.

Indigenous children are significantly over-represented across the child protection system (AIHW 2014m). In 2012–13:

- 36,656 Indigenous children received child protection services
- Indigenous children were 7 times as likely as non-Indigenous children to have received child protection services (127 and 18 per 1,000 children, respectively) (Table S3.19).

On average, Indigenous children receiving child protection services were slightly younger than non-Indigenous children. In 2012–13:

- the median age of Indigenous children receiving child protection services was 7 years compared with 8 years for non-Indigenous children
- 37% of Indigenous children were aged under 5 compared with 32% of non-Indigenous children (AIHW 2014m).

Section 3.6 provides further information on Indigenous children in the child protection system.

Disability support services

Many people with disability are able to live independently and participate in society without assistance, or with the help of informal carers (such as family members and friends). However, others require formal disability support services to study, work, interact with the community or carry out everyday activities.

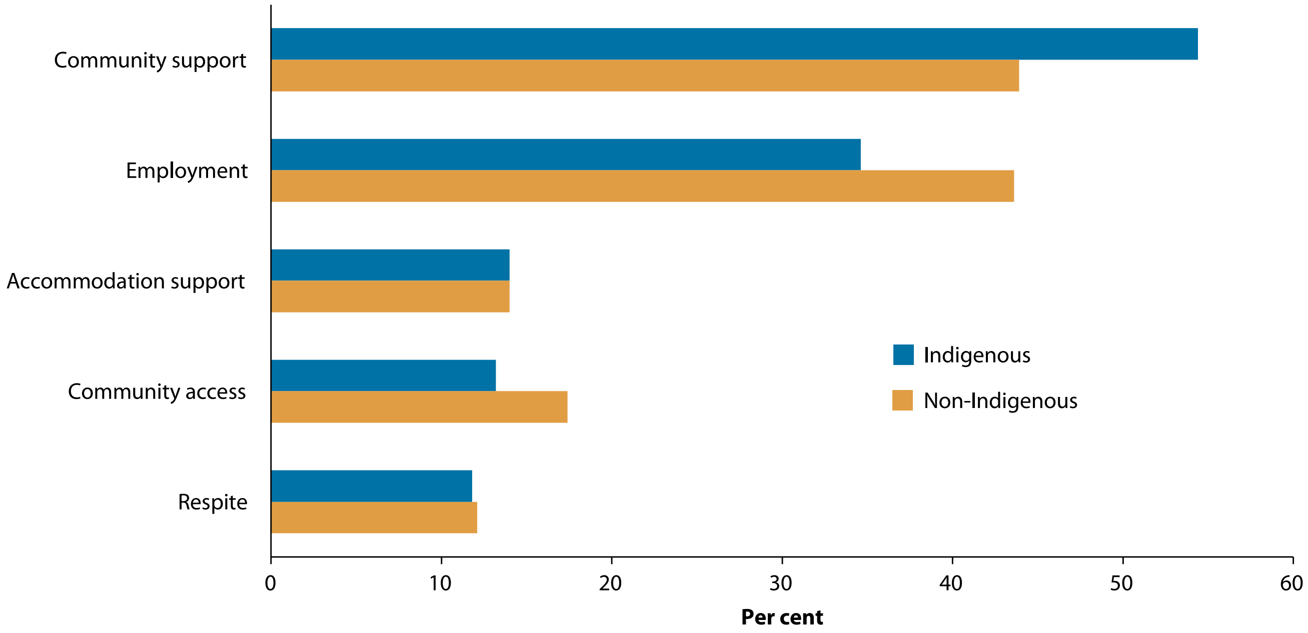
Disability support services are services provided to people with disability under the National Disability Agreement (AIHW 2014o). Such services, which are provided under a variety of programs and in many different ways, include support with accommodation, employment, respite care, and access to and participation in community facilities and activities. This section provides information about the use of disability support services by Indigenous people. For information on the number of Indigenous people with disability, see Section 5.4.

In 2012–13:

- 17,406 Indigenous Australians used disability support services
- Indigenous Australians accounted for 5.8% of all disability support service users; this was an increase from 4.8% in 2008–09
- the most common primary reason for activity limitations among Indigenous service users was intellectual disability (29%), followed by physical disability (17%) and psychiatric disability (16%)
- a higher proportion (84%) of Indigenous service users were aged under 50 than non-Indigenous service users (74%), at least partly reflecting the younger age structure of the Indigenous population (AIHW 2014o).

The most common disability support service used by Indigenous people was community support—it was used by 54% of Indigenous service users in 2012–13, which was higher than for non-Indigenous service users (44%) (Figure 7.10). Community disability support services help people to live in a non-institutional setting and can include individual therapy, early childhood intervention, case management, behaviour management and counselling.

The second most common disability support service used by Indigenous people was employment services, used by 35% of Indigenous service users compared with 44% of non-Indigenous service users (Figure 7.10). These services may assist people with disability to find or retain employment in the open job market, or provide employment opportunities and assistance to people with disability to work in specialised and supported work environments.



Notes

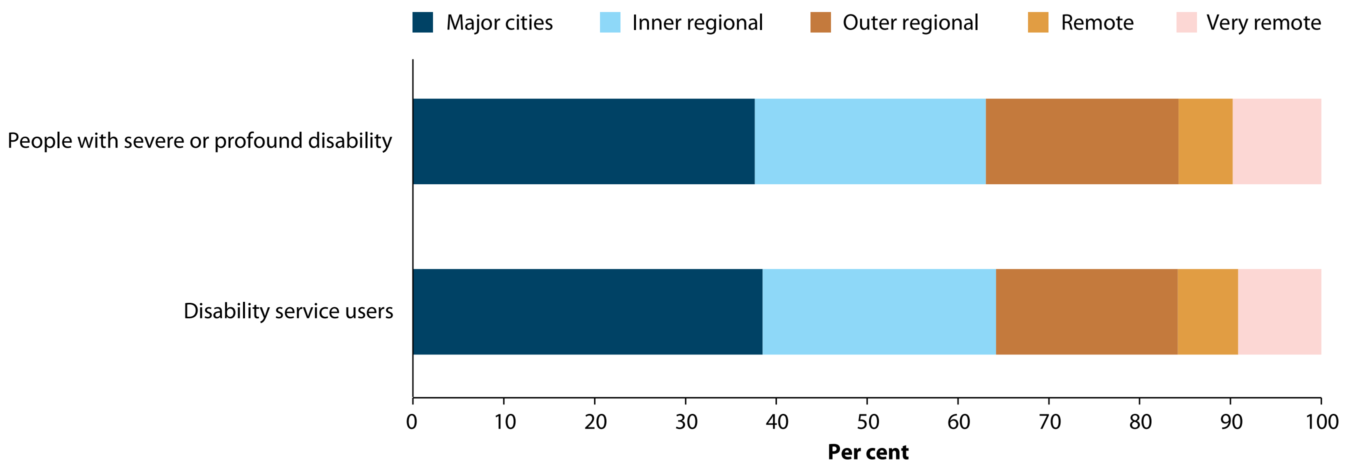
1. Service users may have used more than 1 service type; thus the sum of the service types exceeds 100%.
2. Data for this figure are shown in Table S7.13.

Source: AIHW 2014o.

Figure 7.10: Types of disability support services used, by Indigenous status of disability support clients, 2012–13

The use of disability support services reflects both the need for services, as well as the availability or accessibility of services. Figure 7.11 compares the geographic distribution of Indigenous Australians with severe or profound disability, with that of Indigenous disability support service users. While these data are not a measure of the adequacy of services, nor do they indicate the proportion of those with disability who require additional services, they do show that there are similarities in the geographic distribution of Indigenous people with severe or profound disability and the geographic distribution of Indigenous disability support service users. For example:

- 38% of Indigenous people with severe or profound disability (in 2011) lived in *Major cities*, as did 39% of Indigenous disability support service users (in 2011–12)
- one-quarter (25%) of Indigenous people with severe or profound disability lived in *Inner regional* areas, as did 26% of Indigenous disability service users.



Note: Data for this figure are shown in Table S7.14.

Sources: AIHW analysis of ABS 2011 Census (using TableBuilder); AIHW Disability Services National Minimum Data Set.

Figure 7.11: Indigenous people with severe or profound disability (2011) and Indigenous disability service users (2011–12), by remoteness

Aged care services

The Australian aged care system provides a range of services that support older people—and a small number of younger people—in both community and residential settings. In addition, flexible aged care services, such as the National Aboriginal and Torres Strait Islander Flexible Aged Care Program, provide care in mixed delivery settings and are designed to meet the needs of recipients in ways other than that provided through mainstream community and residential aged care.

Generally, the Australian Government considers the distribution of the population aged 70 and over when it undertakes planning processes to determine the location and types of aged care places to be made available across Australia. However, since conditions associated with ageing often affect Indigenous people at a younger age than non-Indigenous people, consideration of the Indigenous population from the age of 50 is taken into account during such planning processes (DSS 2013).

Aged care packages for people living at home

During 2012–13, the Australian Government provided 3 main types of home care packages:

- Community Aged Care Packages
- Extended Aged Care at Home (EACH) packages
- Extended Aged Care at Home Dementia (EACHD) packages.

These individually tailored care packages assist people with complex care needs who wish to remain at home, are able to do so with assistance, and might otherwise require care in a residential aged care facility. At 30 June 2013, 2,035 Indigenous people were receiving a CACP, EACH or EACHD package (AIHW 2014y).

Community Aged Care Packages were designed to provide a community care alternative to frail older people assessed as needing low-level residential care. At 30 June 2013:

- 1,798 Indigenous Australians were receiving a CACP—4% of all CACP recipients
- 37% of Indigenous CACP recipients were aged under 65—a much higher proportion than non-Indigenous recipients (2.0%)
- the proportion of Indigenous recipients increased with remoteness, from 1.4% of all CACP recipients in *Major cities* to 55% in *Remote and very remote* areas (AIHW 2014y).

Extended Aged Care at Home packages provided home and community care to older, frail people with more complex needs who were assessed as needing high-level residential care. At 30 June 2013:

- 183 Indigenous people were receiving an EACH package—2.2% of all EACH package recipients
- 2 in 5 (41%) Indigenous recipients were aged under 65 compared with 4.4% of non-Indigenous recipients
- Indigenous recipients comprised 1.0% of all EACH package recipients in *Major cities*, 3.0% in *Inner regional* areas, 4.8% in *Outer regional* areas and 41% in *Remote and very remote* areas (AIHW 2014y).

Like EACH packages, Extended Aged Care at Home Dementia packages were provided to older, frail people with more complex needs who were assessed as needing high-level residential care; in addition, EACHD packages provided care specific to the needs of people with dementia. At 30 June 2013:

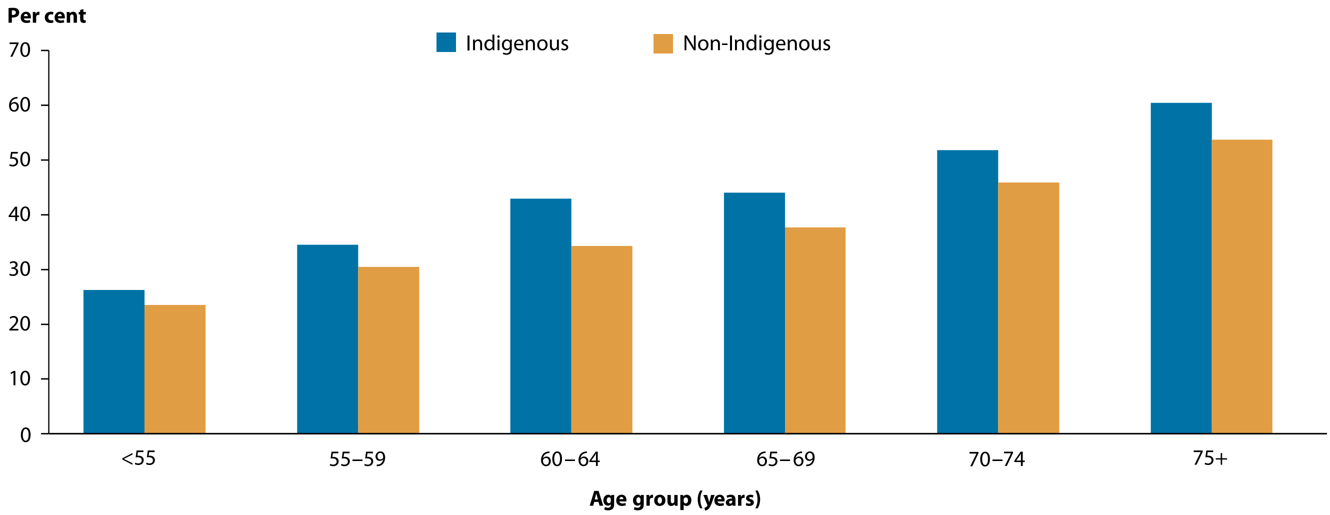
- 54 Indigenous people were receiving an EACHD package—1.4% of EACHD package recipients
- most Indigenous recipients (42 people) were aged 65 and over (AIHW 2014y).

Residential aged care

Residential aged care is subsidised by the Australian Government and provides accommodation and other support services such as personal care and nursing care.

At 30 June 2013, among permanent residents in Australian Government-subsidised residential aged care facilities (excluding flexible aged care which is described on the next page):

- 1,299 residents identified as being of Aboriginal or Torres Strait Islander origin—representing 0.8% of all residents
- over one-quarter (27%) of Indigenous residents were aged under 65 (compared with 3.4% of non-Indigenous residents), while 21% were aged 85 and over (compared with 58% of non-Indigenous residents) (AIHW National Aged Care Data Clearinghouse)
- 51% of Indigenous residents had a diagnosis of dementia—similar to the proportion of non-Indigenous residents (52%) (Table S7.15)
- 26% of Indigenous residents aged under 55 had dementia, with this proportion increasing to 61% of those aged 75 and over (Figure 7.12).



Note: Data for this figure are shown in Table S7.15.

Source: AIHW National Aged Care Data Clearinghouse.

Figure 7.12: Proportion of permanent residents with dementia in Australian Government-subsidised aged care facilities, by age and Indigenous status, 30 June 2013

While residential aged care is generally considered to be long term, the service is also used for short-term respite care. At 30 June 2013:

- there were 48 Indigenous respite residents in residential aged care, constituting 1.2% of all respite residents
- 38% of Indigenous respite residents were aged under 65, compared with 3.7% of non-Indigenous residents (AIHW 2014y).

Flexible aged care

Flexible aged care can be provided in either a residential or community care setting and is designed to meet the needs of recipients in ways other than those available through mainstream residential and community care. Two flexible aged care programs are:

- the National Aboriginal and Torres Strait Islander Flexible Aged Care Program (NATSIFACP)
- the Multi-Purpose Service (MPS) Program.

The NATSIFACP, which was established to meet the care needs of older Indigenous people, focuses on providing aged care close to a person's home and community. The program provides a flexible mix of residential and community-based aged care services which changes according to the community's care needs. At 30 June 2013, the program funded 29 aged care services to deliver 679 flexible aged care places (SCRGSP 2014c).

The MPS Program delivers a mix of aged care, health and community services in rural and remote communities where separate services may not be viable otherwise. At 30 June 2013:

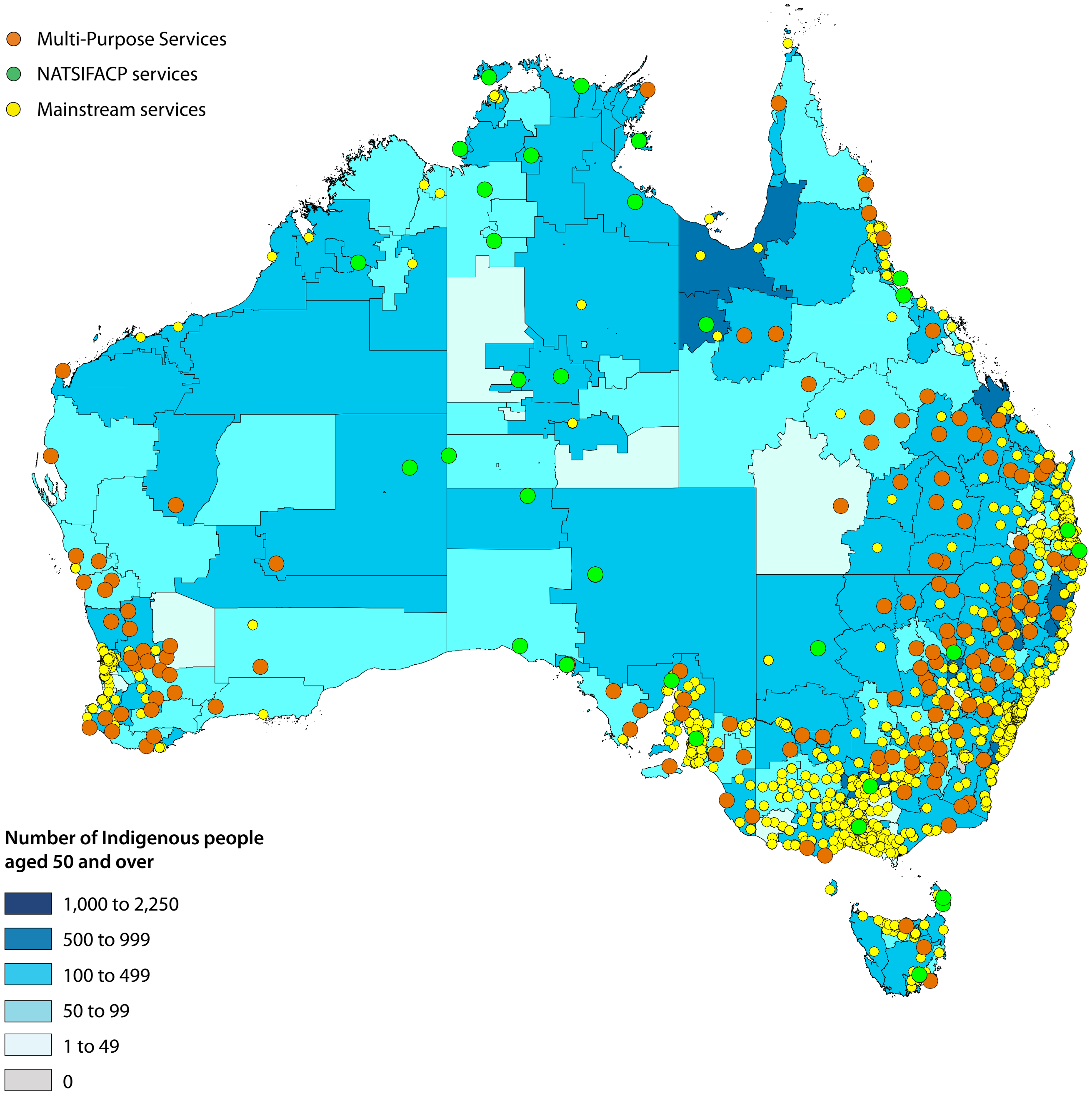
- there were 3,483 MPS places provided by 143 service outlets
- just over half (56%) of the MPS places were for high-level residential care, 30% were for low-level residential care and the remainder were for community care (DSS 2013).

While data were not available on the Indigenous status of those with MPS places, they are an important source of services for Indigenous people because they are located in rural and remote communities where separate services may not be viable.

Location of residential aged care services

Figure 7.13 shows the distribution of service outlets providing residential aged care (at 30 June 2013), as well the distribution of the Indigenous population aged 50 and over (based on 2011 Census data). At 30 June 2013, there were 2,890 residential aged care service outlets across Australia:

- 2,718 'mainstream' residential aged care services
- 143 Multi-Purpose Services
- 29 services provided under the NATSIFACP (AIHW National Aged Care Data Clearinghouse).



Note: Map shows Indigenous Areas based on the ASGS.

Sources: AIHW National Aged Care Data Clearinghouse; AIHW analysis of ABS 2011 Census (using TableBuilder).

Figure 7.13: Distribution of residential aged care services (30 June 2013) and the Indigenous population aged 50 and over (2011)

Of these service outlets, 4 in 5 (81%) were located in *Major cities and inner regional* areas, 14% in *Outer regional* areas, and 4.5% in *Remote and very remote* areas (Table S7.16).

Flexible aged care services were substantially more likely than mainstream residential aged care services to be located in rural and remote locations. At 30 June 2013, the majority (84%) of services provided under the NATSIFACP and the MPS Program were located in *Outer regional* and remote areas (41% in *Outer regional*, 19% in *Remote* and 25% in *Very remote* areas); by comparison, 14% of mainstream residential aged care services were located in *Outer regional* and *Remote and very remote* areas (Table S7.16).

Housing and homelessness assistance

Due to relatively low income, lower rates of home ownership and higher rates of homelessness, Indigenous Australians are more likely to require housing assistance and specialist homelessness services than non-Indigenous Australians (AIHW 2014p, 2014q).

Housing assistance

Housing assistance aims to relieve the pressures of housing costs, and provide safe and secure housing for many low-income households, particularly those who are disadvantaged or vulnerable. Housing assistance can comprise:

- provision of housing (for example, social housing), with rents generally based on the tenant's income
- financial assistance with rent
- financial assistance with purchasing a home
- provision of services to assist in obtaining rental accommodation, sustaining tenancies or attaining home ownership.

This assistance can be provided through Indigenous-specific housing programs—such as state owned and managed Indigenous housing (SOMIH) and Indigenous community housing—as well as mainstream programs of public housing and community housing. Commonwealth Rent Assistance (CRA), which is provided to private renters on low incomes, is also available to Indigenous (and non-Indigenous) people.

At 30 June 2013, about 67,700 Indigenous households were receiving assistance through a range of social housing programs:

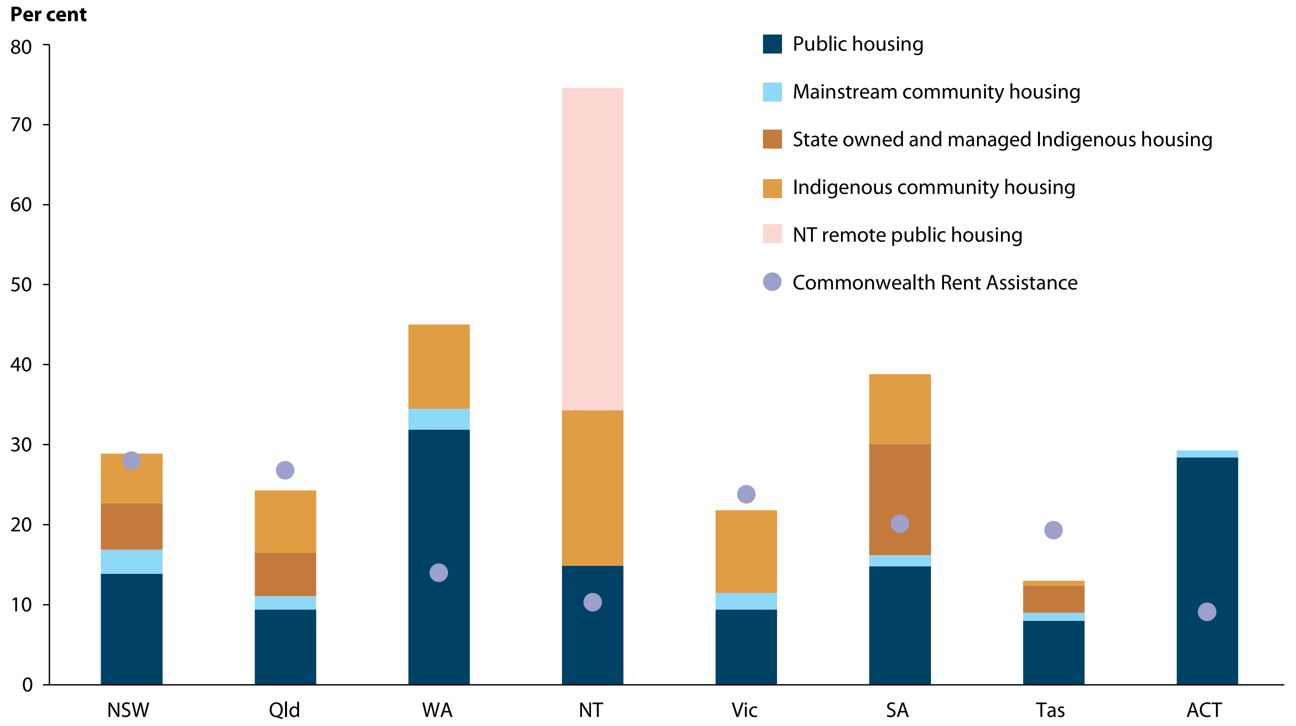
- 30,774 households were in public housing, with Indigenous households comprising one-tenth (9.6%) of all households in public housing
- 4,640 households were in mainstream community housing, with Indigenous households accounting for 7.1% of all households in mainstream community housing
- 9,820 households were in the state owned and managed Indigenous housing program
- there were 17,473 Indigenous community housing program dwellings
- there were an additional 4,965 public housing dwellings in remote areas of the Northern Territory—these are not captured in the usual public housing data collection (AIHW 2014q).

Data about Commonwealth Rent Assistance recipients indicate that at 14 June 2013:

- there were about 54,900 Indigenous income units (that is, single people, couples or family units) in receipt of CRA
- 61% of Indigenous CRA recipients would have been in rental stress (that is, spending more than 30% of income on rent) if they had not received CRA; the availability of CRA reduced this proportion to 30%
- in comparison, 67% of all CRA recipients would have been in rental stress without CRA in 2013, while 40% remained in rental stress after receiving CRA (AIHW 2014q).

The proportion of Indigenous households receiving support from major housing assistance programs varied across jurisdictions. In June 2013:

- differences were particularly large for public housing—Western Australia had the highest rate of Indigenous households living in public housing (32%), while Tasmania had the lowest rate (8%)
- considering all social housing provision collectively, the rates of Indigenous households living in social housing ranged from a low of 13% in Tasmania to a high of 75% in the Northern Territory
- the rate of Indigenous households receiving CRA was highest in New South Wales (28% of Indigenous households), followed closely by Queensland (27%) (Figure 7.14).



Notes

1. Rates are expressed per 100 households and were calculated using an estimated total number of Indigenous households based on data from the ABS 2011 Census and ABS projections of growth in household numbers (see AIHW 2014q).
2. Some households living in certain types of social housing are also eligible for Commonwealth Rent Assistance (see AIHW 2014q).
3. Data for this figure are shown in Table S7.17.

Source: AIHW 2014q.

Figure 7.14: Proportion of Indigenous households receiving support from major housing assistance programs, by jurisdiction, June 2013

In June 2013, Indigenous households were:

- more than 6 times as likely as other households to live in social housing (31% and 4.5%, respectively)
- more likely than other households to receive CRA (24% compared with 15%) (AIHW 2014q).

There is considerable interest in knowing the overall proportion of Indigenous and other households who receive assistance from at least 1 of the 5 major housing assistance programs (that is, the 4 social housing programs and CRA). Deriving this estimate is not straightforward because some households living in certain types of social housing are also eligible for CRA. Analysis undertaken by the AIHW suggest that Indigenous households were more than twice as likely as other households to be receiving support from at least 1 of the major housing assistance programs. In June 2013:

- between 43% and 46% of Indigenous households were receiving support from at least 1 of the major housing assistance programs
- by comparison, 18% of other households were receiving such support (AIHW 2014q).

There has been an increase over time in the number of Indigenous households living in social housing, as well as in the number of CRA recipients. These rises have outpaced the corresponding increases for other Australians. Between 2009 and 2013:

- the number of Indigenous households living in social housing rose by 5.3%; this compares with an increase of 3.6% for other households
- the number of Indigenous CRA recipients rose by 48%, while the number of other recipients rose by 21% (AIHW 2014q).

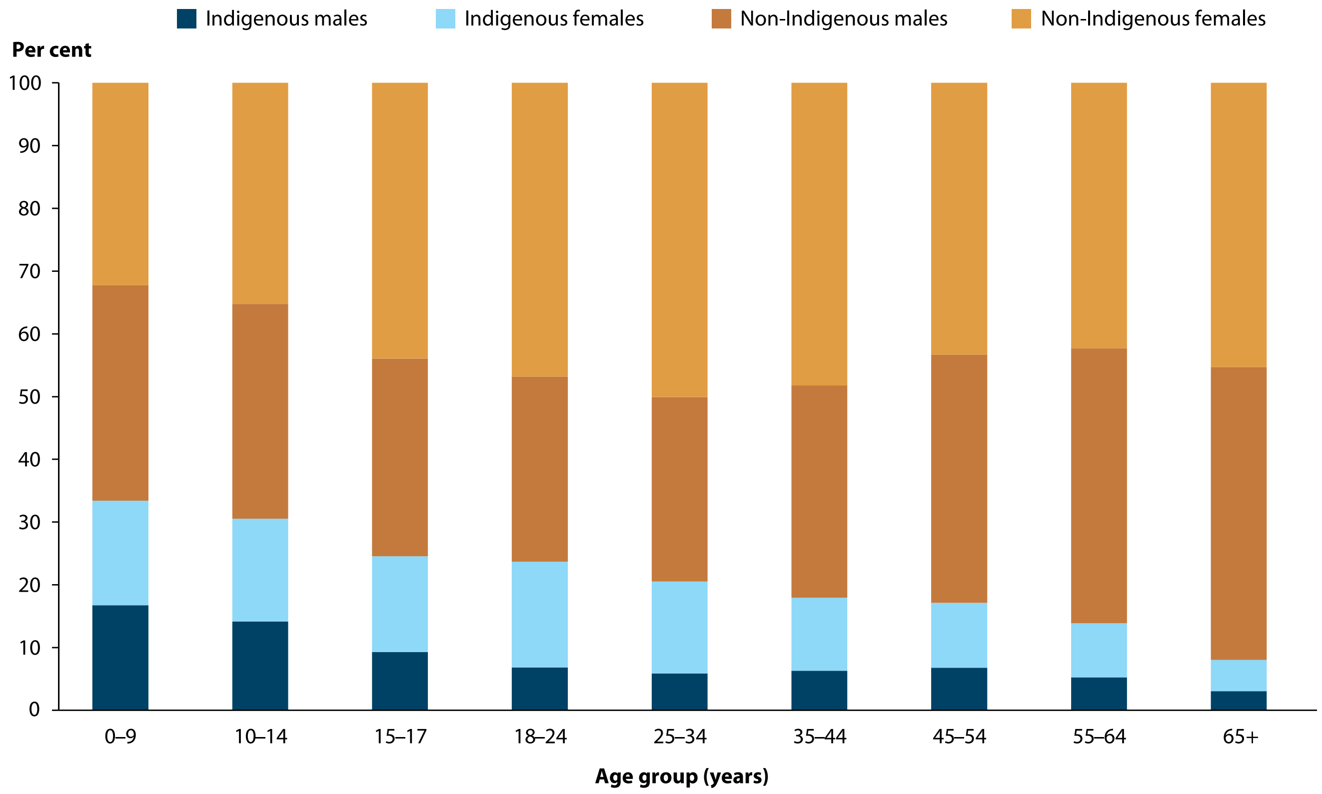
For further details about the use of these and other housing assistance programs by Indigenous Australians, see *Housing assistance for Indigenous Australians* (AIHW 2014q).

Specialist homelessness support services

Governments across Australia fund non-government organisations to deliver a range of services to support people who are either experiencing homelessness or at risk of becoming homeless. Services can include temporary accommodation and support services such as domestic violence counselling, employment assistance and life skills development. These services also often specialise in providing assistance to specific population groups, for example, young people, people escaping domestic violence or those 'sleeping rough'.

Indigenous people are over-represented among specialist homelessness services clients. In 2012–13:

- an estimated 54,885 clients of specialist homelessness services were Indigenous, comprising 22% of all clients (based on data adjusted for missing information about Indigenous status)
- Indigenous females were 1.6 times as likely as Indigenous males to access specialist homelessness services (97 and 60 per 1,000 population, respectively)
- Indigenous people were more than 10 times as likely as non-Indigenous people to access specialist homelessness services (92 and 8.5 per 1,000 population, respectively)
- the proportion of specialist homelessness services clients who were Indigenous decreased with age—from 33% among those aged 0–9 to 8.0% among those aged 65 and over (Figure 7.15; AIHW 2014p).



Notes

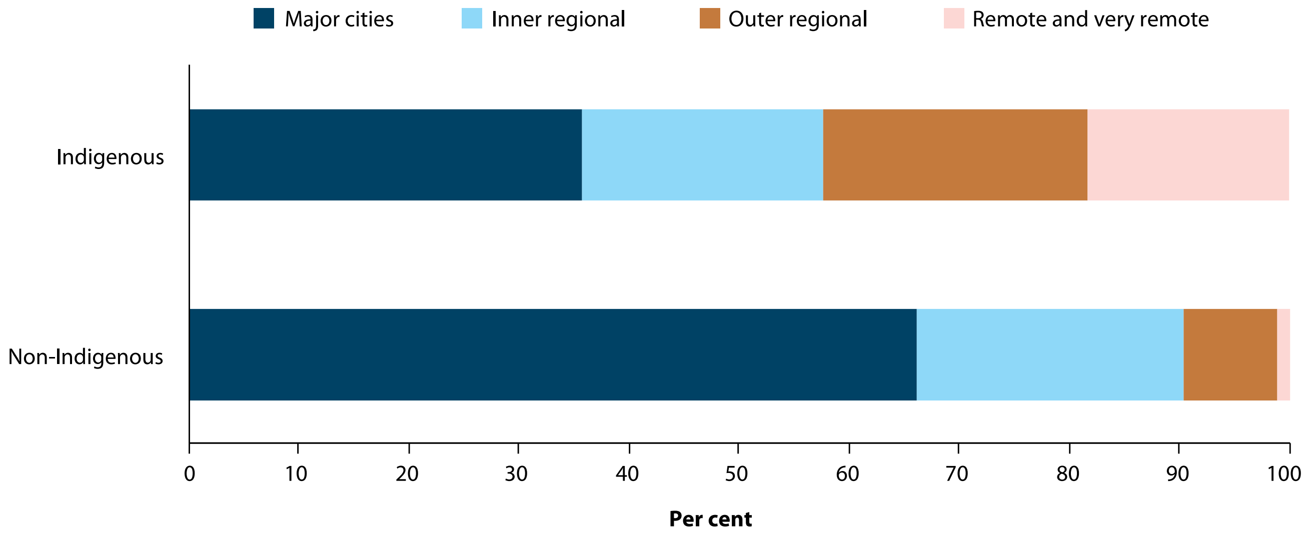
1. Data do not include clients for whom Indigenous status was not stated.
2. Data for this figure are shown in Table S7.18.

Source: AIHW 2013k.

Figure 7.15: Specialist homelessness services clients, by age, sex and Indigenous status, 2012–13

The largest proportions of Indigenous and non-Indigenous clients were assisted in *Major cities* (36% and 66%, respectively); however, a much higher proportion of Indigenous clients (18%) was assisted in *Remote and very remote* areas than non-Indigenous clients (1.2%) (Figure 7.16). These proportions align fairly closely to the proportions of Indigenous and non-Indigenous people who live in these remoteness areas (see Table 2.1).

For further information about the use of specialist homelessness services by Indigenous people—including reasons for seeking assistance, services provided and housing outcomes for clients—see *Homelessness among Indigenous Australians* (AIHW 2014p).



Note: Data for this figure are shown in Table S7.19.

Source: AIHW 2014p.

Figure 7.16: Specialist homelessness services clients, by remoteness and Indigenous status, 2012–13

Expenditure and workforce

8

Key points

Health expenditure and funding

- In 2010–11, health care expenditure for Indigenous people was estimated to be $4.6 billion, accounting for 3.7% of total recurrent health expenditure by government and non-government sources (including out-of-pocket payments by individuals).
- On average, health care expenditure was $7,995 per Indigenous Australian, compared with $5,437 per non-Indigenous Australian in 2010–11—thus $1.47 was spent on health care per Indigenous person for every $1.00 spent per non-Indigenous person.
- Between 2008–09 and 2010–11, government health expenditure for Indigenous people increased by $847 per person (adjusted for inflation)—an average annual growth rate of 6.1%. The corresponding growth rate for non-Indigenous people was 2.6%.
- In 2010–11, the health conditions that accounted for the largest proportion of admitted patient expenditure for Indigenous people were genitourinary diseases (which includes expenditure on dialysis), and mental and behavioural disorders (both 11% of admitted patient expenditure).
- In 2010–11, average per person expenditure for:
  - Medicare Benefits Schedule benefits was lower for Indigenous Australians ($493 per person) than for non-Indigenous Australians ($737) (a ratio of 0.7)
  - Pharmaceutical Benefits Scheme benefits was also lower for Indigenous Australians ($291) than for non-Indigenous Australians ($366) (a ratio of 0.8).
- The Australian Government funded 45% of health expenditure for Indigenous people, state and territory governments funded 47%, and non-government sources funded 8.6% in 2010–11. This compares with 44%, 24% and 32%, respectively, of health expenditure for non-Indigenous people.
- Among people in non-remote areas, 20% of Indigenous adults had private health insurance in 2012–13, compared with 57% of all Australian adults.

Welfare expenditure

- In 2012–13, government expenditure on welfare for Indigenous Australians was an estimated $9.8 billion—accounting for 6.7% of total government welfare expenditure.
- On a per person basis, government welfare expenditure was $13,968 per Indigenous Australian, compared with $6,019 per non-Indigenous Australian in 2012–13— this equates to expenditure of $2.32 per Indigenous person for every $1.00 spent per non-Indigenous person.
- Between 2008–09 and 2012–13, government welfare expenditure for Indigenous people increased by 13% per Indigenous person (adjusted for inflation), while it decreased by 8.2% per non-Indigenous person.
- In 2012–13:
  - just under half (46%) of government welfare expenditure for Indigenous people was for social security payments, followed by 42% for community support and welfare services, and 12% for housing and homelessness assistance
  - of the $4.5 billion spent on social security payments for Indigenous people, nearly half (48%) was in the form of cash payments to assist families and children (compared with 26% for non-Indigenous people)
  - of the $4.1 billion spent on community support and welfare services for Indigenous people, the largest proportion (29%) was spent on child protection and out-of-home care services (compared with 6.5% for non-Indigenous people)
  - of the $1.1 billion spent on housing and homelessness assistance for Indigenous people, 74% was spent on social housing, 15% on rental market assistance and 12% on assistance for homeless people (compared with 34%, 59% and 6.7%, respectively, for non-Indigenous people).

Indigenous people employed in health and welfare sectors

- According to the 2011 Census, there were around 8,500 Indigenous people employed in health-related occupations, representing 5.7% of all employed Indigenous people aged 15 and over. Of these, one-quarter (26%) were nurses or midwives, and 15% were Indigenous health workers.
- In 2011, 1.6% of the Indigenous population were employed in health-related occupations compared with 3.4% of the non-Indigenous population.
- In 2012, there were 221 Indigenous employed medical practitioners in Australia—accounting for 0.3% of employed medical practitioners who indicated their Indigenous status.
- In 2011, there were 16,114 Indigenous people aged 15 and over employed in community services occupations—accounting for 3.7% of all community services workers.
- Among Indigenous people in the community services workforce in 2011, the largest occupational groups were education aides (3,998 workers), welfare support workers (3,573 workers), and aged and disabled carers (2,672 workers).
- In 2011, 2.9% of the Indigenous population were employed in the community services workforce, compared with 2.2% of the non-Indigenous population.

Comparison by remoteness

- In 2010–11, per person health expenditure for Indigenous people generally increased with remoteness. For the areas of health services for which expenditure data by remoteness were available:
  - expenditure was $3,899 per Indigenous person in *Major cities*, compared with $6,616 per Indigenous person in *Remote and very remote* areas
  - in contrast, per person health expenditure for non-Indigenous people was more similar across the remoteness areas (ranging from $2,979 to $3,371 per person).
- In 2010–11, average per person health expenditure for Indigenous people was higher than for non-Indigenous people in each remoteness area, with the ratio highest in *Remote and very remote* areas ($2.22 was spent for Indigenous Australians for every dollar spent for non-Indigenous Australians) and lowest in *Inner regional* areas ($1.14).

8.1 Introduction

Regular reporting of health and welfare expenditure for Indigenous people is central to understanding the needs of the Indigenous population and how they are being met. This chapter presents estimates of expenditure on health and welfare for Indigenous Australians, including comparisons with non-Indigenous Australians. Differences in expenditure between these 2 groups reflect a number of complex and inter-related factors, including the differing age structures and geographic distribution of the 2 populations, and greater levels of disadvantage among the Indigenous population (AIHW 2013d; SCRGSP 2014a). This chapter also presents information on employment of Indigenous people in the health and welfare sectors.

The health expenditure estimates in this chapter were sourced from the AIHW's health expenditure database (AIHW 2013d, 2013e), while estimates of welfare expenditure were sourced from the Productivity Commission's *2014 Indigenous expenditure report* (SCRGSP 2014a). See Appendix A.5 for further information about these data sources.

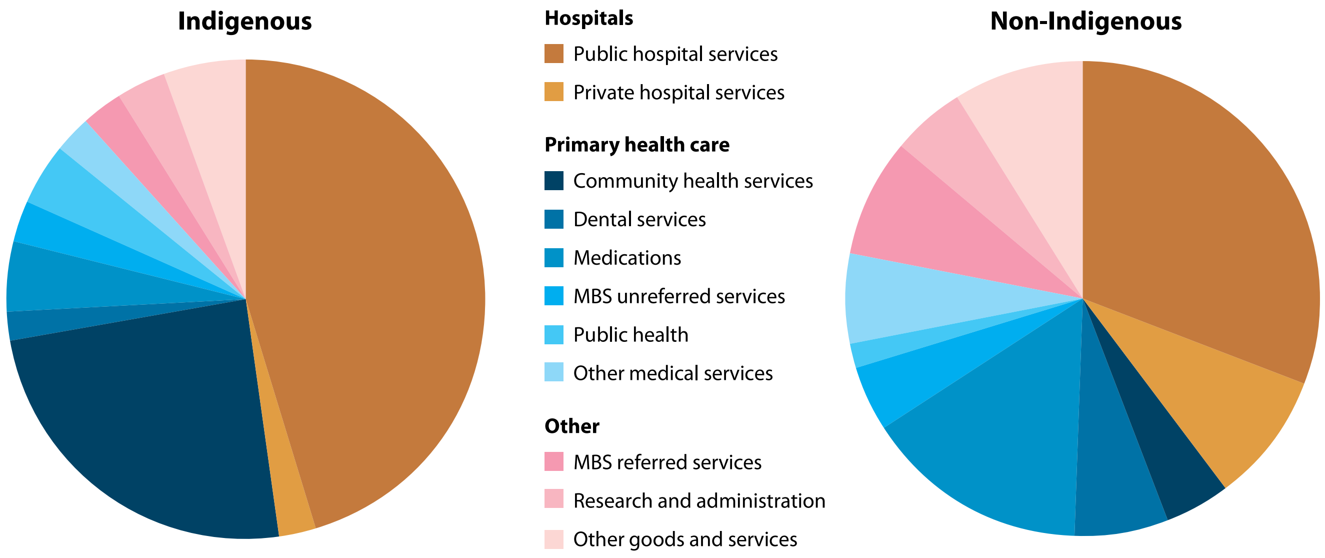
8.2 Health expenditure and funding

Health expenditure

Health expenditure occurs where money is spent on health goods and services. The health expenditure estimates in this section include expenditure by governments, out-of-pocket payments by individuals and expenditure by other non-government sources, such as private health insurers.

In 2010–11:

- health expenditure was estimated to be $4.6 billion for Indigenous people, or 3.7% of Australia's total recurrent health expenditure (AIHW 2013d)
- larger proportions of health expenditure for Indigenous Australians were on public hospital and community health services than for non-Indigenous Australians (Figure 8.1).



Notes

1. 'Other goods and services' includes aids and appliances, other professional services, and patient transport services.
2. Data for this figure are shown in Table S8.1.

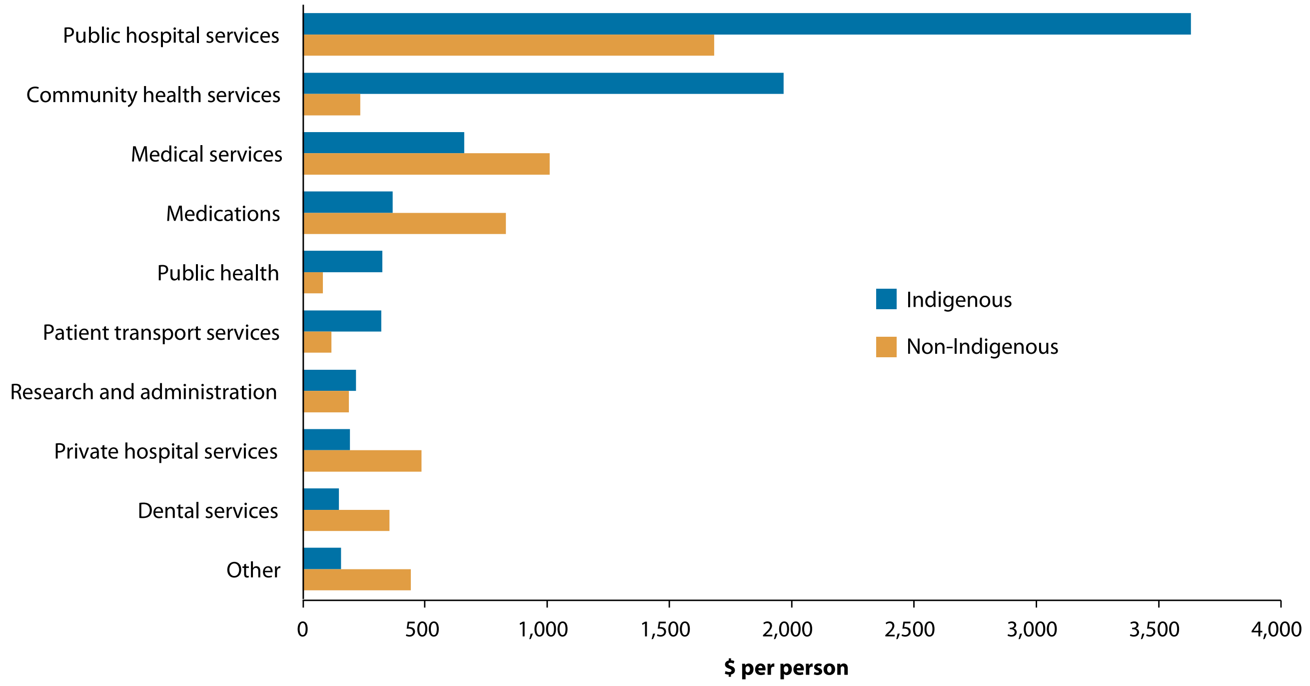
Source: AIHW 2013d.

Figure 8.1: Areas of health expenditure, by Indigenous status, 2010–11

On average, health care expenditure was $7,995 per Indigenous person, compared with $5,437 per non-Indigenous person in 2010–11; thus $1.47 was spent on health care per Indigenous person for every $1.00 spent per non-Indigenous person (Table S8.2).

In terms of specific areas of health expenditure:

- publicly-provided services, such as public hospital services and community health services, were the areas of highest expenditure for Indigenous people
- average per person expenditure on public hospital services for Indigenous Australians ($3,631) was more than twice that for non-Indigenous Australians ($1,683)
- average per person expenditure on community health services for Indigenous people was more than 8 times that for non-Indigenous people ($1,967 versus $236)
- for health services that have greater out-of-pocket expenses, such as medications and dental services, expenditure for Indigenous people was generally lower than for non-Indigenous people (Figure 8.2).



Notes

1. 'Medical services' includes MBS unreferred and referred medical services and other medical services (that is, not provided through the MBS).
2. 'Other' includes aids and appliances, and other professional services.
3. Data for this figure are shown in Table S8.2.

Source: AIHW 2013d.

Figure 8.2: Per person health expenditure, by area of expenditure and Indigenous status, 2010–11

In 2010–11, expenditure on health by governments comprised most ($4.3 billion or 95%) of total health expenditure for Indigenous Australians—$1.2 billion on programs and services directly administered by the Australian Government and $3.1 billion on programs and services administered by state and territory governments. Government health expenditure for Indigenous Australians comprised 5.1% of total government health expenditure.

Between 2008–09 and 2010–11:

- health expenditure by Australian and state and territory governments for Indigenous people increased by $847 per person (adjusted for inflation)—representing an average annual growth rate of 6.1%
- the corresponding rate of growth for non-Indigenous people was lower (2.6% or an increase of $182 per person).

Some of the observed increase in government health expenditure for Indigenous people may be due to improvements in the accuracy and quality of the expenditure estimates (AIHW 2013d).

Expenditure by remoteness

Economies of scale and the relative geographic isolation of some Indigenous populations can affect the costs of both producing and delivering health goods and services. Estimates of expenditure by remoteness for 2010–11 can be derived for 4 areas of health services: admitted patient services (public and private), Medicare Benefits Schedule, Pharmaceutical Benefits Scheme, and grants to Aboriginal Community Controlled Health Services by the then Office for Aboriginal and Torres Strait Islander Health. Together, these 4 areas accounted for 61% of health expenditure for Indigenous Australians in 2010–11 (AIHW 2013e).

In 2010–11, for the 4 areas of health expenditure collectively:

- average per person health expenditure for Indigenous people generally increased with remoteness—in *Major cities*, expenditure was $3,899 per Indigenous person while in *Remote and very remote* areas it was $6,616 per Indigenous person
- in contrast, per person health expenditure for non-Indigenous people was more similar across the remoteness areas (ranging from $2,979 per person in *Remote and very remote* areas to $3,371 per person in *Outer regional* areas)
- for each remoteness area, average per person health expenditure for Indigenous people was higher than for non-Indigenous people, with the ratio highest in *Remote and very remote* areas (for every dollar spent for non-Indigenous Australians, $2.22 was spent for Indigenous Australians) and lowest in *Inner regional* areas ($1.14) (Table 8.1).

Table 8.1: Health expenditure on selected health services[(a)], by remoteness[(b)] and Indigenous status, 2010–11 ($ per person)

Remoteness area	Indigenous	Non-Indigenous	Ratio
Major cities	3,899.0	3,072.0	1.27
Inner regional	3,835.3	3,358.3	1.14
Outer regional	4,459.5	3,370.6	1.32
Remote and very remote	6,615.8	2,979.1	2.22
Total	**4,675.0**	**3,067.7**	**1.52**

(a) Estimates of expenditure by remoteness can be derived for 4 areas of health services: admitted patient services (public and private), Medicare Benefits Schedule, Pharmaceutical Benefits Scheme, and grants to Aboriginal Community Controlled Health Services by the then Office for Aboriginal and Torres Strait Islander Health.

(b) Remoteness area refers to patient's residence. Remoteness was classified according to the ABS Australian Standard Geographical Classification remoteness areas.

Source: AIHW 2013e.

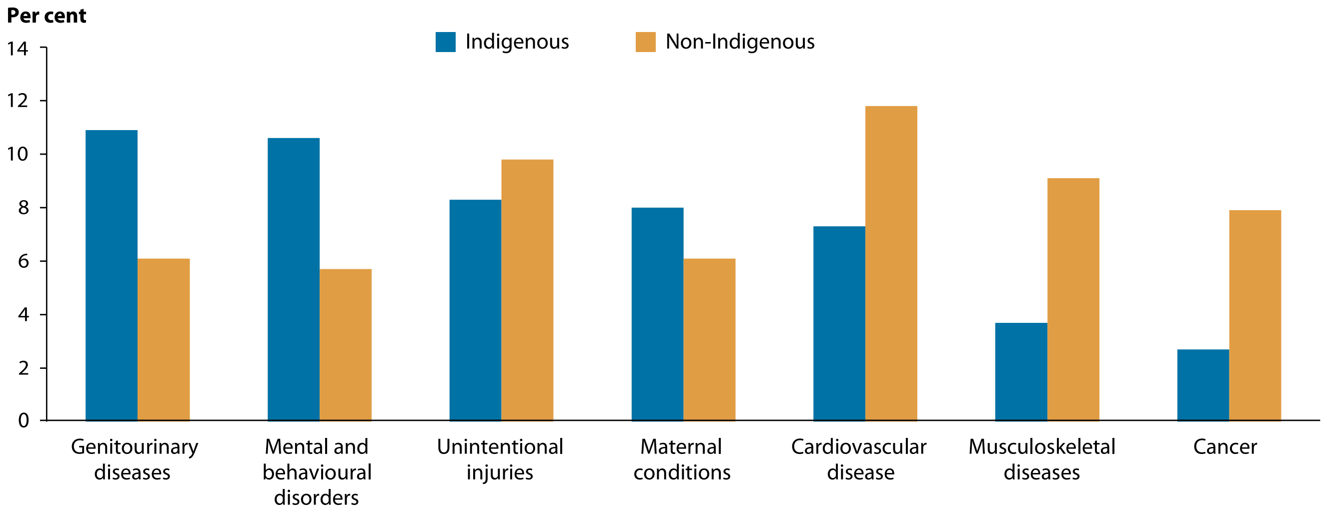
The higher expenditure for Indigenous people in remote areas was mainly due to greater per person expenditure on public admitted patient services and Aboriginal Community Controlled Health Services (AIHW 2013e).

Expenditure by health condition

Expenditure estimates by health condition (based on the principal diagnosis) are available for admitted patient services in public and private hospitals. Together, admitted patient services accounted for 40% of total Indigenous health expenditure in 2010–11.

In 2010–11, the health conditions that accounted for the largest proportion of admitted patient expenditure for Indigenous people were:

- genitourinary diseases (which includes expenditure on dialysis)—$195 million or 11% of admitted patient expenditure; by comparison, these diseases accounted for 6.1% of admitted patient expenditure for non-Indigenous people
- mental and behavioural disorders—$191 million or 11%; this compares with 5.7% for non-Indigenous people
- unintentional injuries—$149 million or 8.3%; this compares with 9.8% for non-Indigenous people
- maternal conditions—$144 million or 8.0%; this compares with 6.1% for non-Indigenous people
- cardiovascular disease—$131 million or 7.3%; this compares with 12% for non-Indigenous people, making it the leading area of admitted patient expenditure for non-Indigenous people (Figure 8.3).



Note: Data for this figure, as well as for other conditions, are shown in Table S8.3.

Source: AIHW 2013e.

Figure 8.3: Expenditure on hospitalisations for selected conditions, by Indigenous status, 2010–11

The conditions with the largest difference in average per person admitted patient expenditure between Indigenous and non-Indigenous people were:

- intentional injuries (ratio of 6.5 to 1)
- diabetes (ratio of 3.3)
- neonatal causes, such as birth trauma and asphyxia, low birthweight and neonatal infections (ratio of 3.3)
- skin and subcutaneous tissue diseases (ratio of 3.1)
- acute respiratory infections (ratio of 3.1) (AIHW 2013e).

Medicare

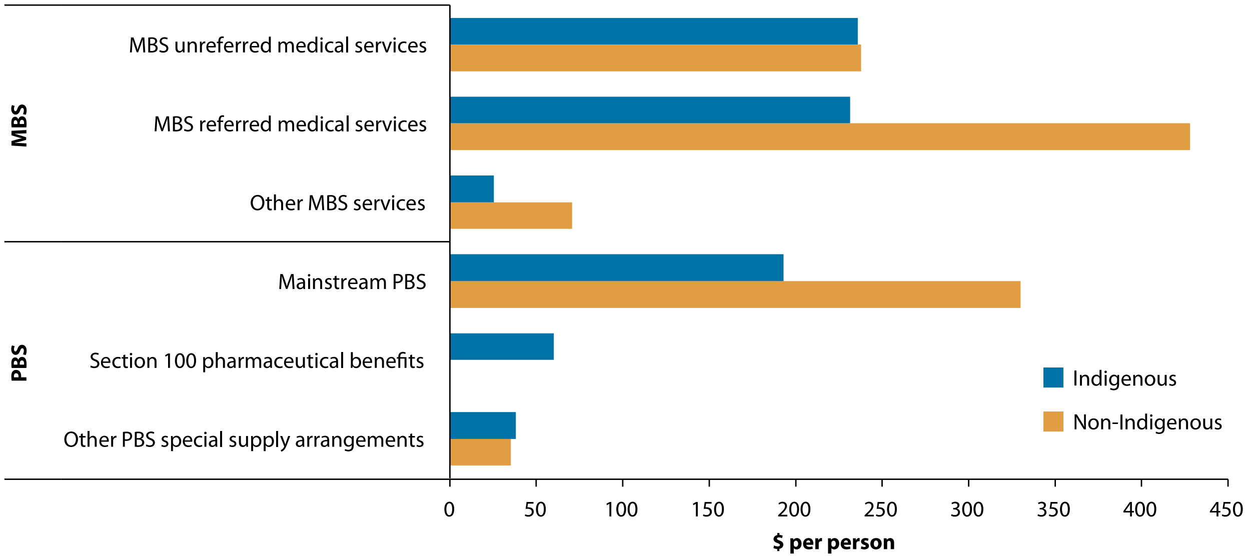
Medicare is Australia's universal health insurance scheme. The major elements of Medicare include free treatment for public patients in public hospitals, the payment of benefits or rebates for professional health services listed on the Medicare Benefits Schedule, and subsidisation of the costs of a wide range of prescription medicines under the Pharmaceutical Benefits Scheme (AIHW 2014c).

Medicare Benefits Schedule

Benefits paid under the MBS include medical services, such as visits to GPs and other health practitioners, and services delivered to patients receiving private hospital care. In-hospital services covered by the MBS include pathology and imaging for private patients in both private and public hospitals (Department of Health 2013b).

In 2010–11:

- the Australian Government spent an estimated $281 million on MBS benefits for Indigenous Australians
- average per person expenditure for MBS benefits was lower for Indigenous Australians ($493) than for non-Indigenous Australians ($737)—a ratio of 0.7 (Table S8.4)
- per person expenditure for Indigenous Australians on MBS unreferred medical services (such as GP consultations) was similar to that for non-Indigenous Australians (ratio of 1.0)
- in contrast, per person expenditure for Indigenous people on MBS referred medical services (such as specialist consultations, pathology, imaging and operations) and on other MBS services (comprising allied health services, optometry services and dental services) was substantially lower than for non-Indigenous people (ratios of 0.5 and 0.4, respectively) (Figure 8.4).



Notes

1. 'Other MBS services' includes allied health services, optometry services and dental services.
2. PBS expenditure under Section 100 includes only those medicines provided through the Remote Aboriginal Health Services Arrangement.
3. Data for this figure are shown in Table S8.4.

Source: AIHW 2013d.

Figure 8.4: Australian Government expenditure for MBS and PBS benefits, by area of expenditure and Indigenous status, 2010–11

Pharmaceutical Benefits Scheme

Under the Pharmaceutical Benefits Scheme (PBS), Australians are subsidised for a high proportion of prescription medicines bought from pharmacies, with individuals contributing out-of-pocket payments as well. While most of the medicines listed on the PBS Schedule are dispensed by pharmacists and are used by patients in their home, some are accessible only through special arrangements and are supplied under Section 100 of the *National Health Act 1953*. PBS expenditure under Section 100 shown in this report is restricted to medicines provided through the Remote Aboriginal Health Services Arrangement. These medicines may be dispensed to patients at no cost by approved health professionals without the need for a prescription. These arrangements reduce access barriers in remote areas such as the delays associated with the standard prescription-based supply chain, difficulties demonstrating eligibility for concessional PBS benefits and affordability (Department of Health 2012).

In 2010–11:

- the Australian Government spent an estimated $166 million on PBS benefits for Indigenous Australians
- as with MBS services, average per person expenditure on PBS benefits was lower for Indigenous Australians ($291) than for non-Indigenous Australians ($366)—an Indigenous to non-Indigenous expenditure ratio of 0.8
- the largest proportion of PBS benefits paid to Indigenous people was for mainstream PBS benefits (66%); per person expenditure for Indigenous people for such benefits was lower than for non-Indigenous people (ratio of 0.6) (Figure 8.4)
- expenditure for Indigenous Australians under Section 100 arrangements was $34 million (or an average of $60 per person), accounting for 21% of total PBS expenditure for Indigenous Australians (Table S8.4).

According to the 2012–13 AATSIHS, 13% of Indigenous people living in non-remote areas who had received a prescription in the previous 12 months did not get the prescription filled. Of those people, the most common reasons for not filling the prescription were:

- they decided they did not need it (35%)
- cost (33%)
- they did not want to (13%) (AIHW analysis of 2012–13 AATSIHS).

Health funding

Health funding and health expenditure are distinct but related concepts. Health funding refers to who provides the funds that are used to pay for health expenditure. Health expenditure refers to what is spent, and is reported in terms of who incurs the expenditure, rather than who ultimately provides the funding.

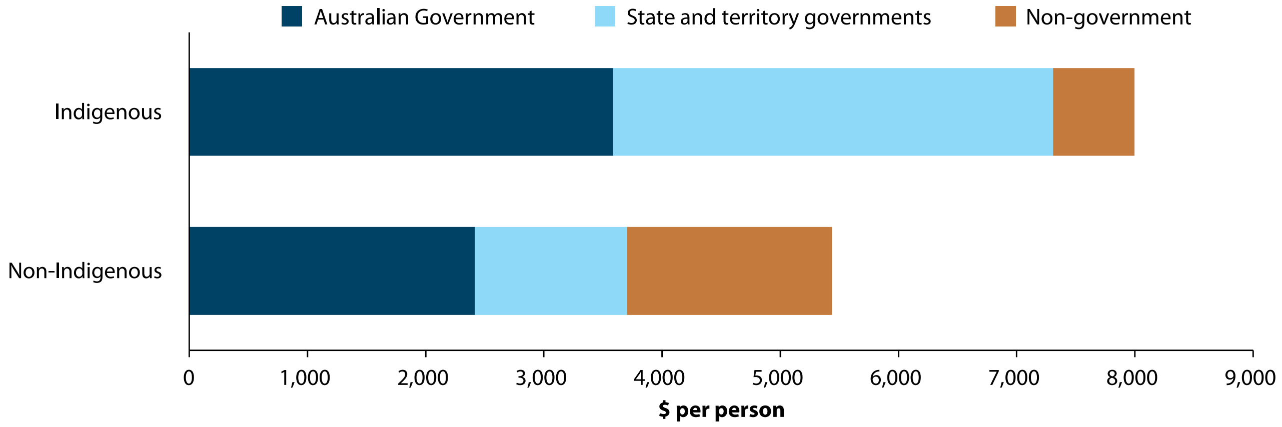
Funding for health goods and services comes from a range of sources, including the Australian Government, state, territory and local governments, and non-government sources, such as private health insurers, out-of-pocket payments by individuals, and injury compensation insurers.

In 2010–11, total health expenditure for Indigenous Australians was funded as follows:

- 45% by the Australian Government (similar to the 44% of expenditure for non-Indigenous Australians)
- 47% by state and territory governments (compared with 24% of expenditure for non-Indigenous Australians)
- 8.6% by non-government sources (including out-of-pocket payments by individuals) (compared with 32% for non-Indigenous Australians) (Table S8.5).

In terms of average health funding per person:

- Australian Government funding for Indigenous Australians was 1.5 times as high as for non-Indigenous Australians ($3,584 compared with $2,418 per person)
- state and territory government funding for Indigenous Australians ($3,722 per person) was nearly 3 times as high as for non-Indigenous Australians ($1,286 per person)
- non-government health funding for Indigenous Australians was less than half the funding for non-Indigenous Australians ($689 compared with $1,733 per person) (Figure 8.5).



Note: Data for this figure are shown in Table S8.5.

Source: AIHW 2013d.

Figure 8.5: Health funding, by source and Indigenous status, 2010–11

Private health insurance

Private health insurance fully or partly covers the costs of being admitted to hospital as a private patient and/or the costs of other ancillary health services (AIHW 2014c). According to the 2012–13 AATSIHS, among Indigenous Australians aged 15 and over in non-remote areas:

- 1 in 5 (20%) were covered by private health insurance; this compares with 15% in 2004–05
- the majority (78%) of those with private health insurance had both hospital and ancillary cover
- private health insurance coverage was higher among those in full-time or part-time employment (32%) than among those who were unemployed (6.9%) or not in the labour force (10%)
- those aged 55–64 were most likely to have private health insurance (29%) followed by those aged 35–44, 45–54, and 65 and over (23% in each group)
- around two-thirds (63%) of those with private health insurance reported 'security, protection or peace of mind' as a reason for their private health insurance coverage
- among those without private health insurance, the main reasons reported for not having such insurance were:
  - 'can't afford it or too expensive' (72% of those without private health insurance)
  - 'Medicare cover is sufficient' (22%) (AIHW analysis of 2012–13 AATSIHS).

Indigenous people were less likely to have private health insurance than the general population. More than half (57%) of Australians aged 18 and over in non-remote areas had private health insurance coverage in 2011–12 (AIHW analysis of 2011–12 AHS). The equivalent proportion for Indigenous adults was 20% (AIHW analysis of 2012–13 AATSIHS).

8.3 Welfare expenditure

Welfare expenditure broadly comprises spending on both social security (that is, cash payments to people) and welfare services. This section provides estimates of government expenditure on services and payments provided directly to individuals, non-government service providers or local governments, with the data sourced from the Productivity Commission's *2014 Indigenous expenditure report* (SCRGSP 2014a). Unlike the health expenditure estimates, the welfare expenditure estimates do not include expenditure by individuals and other non-government sources.

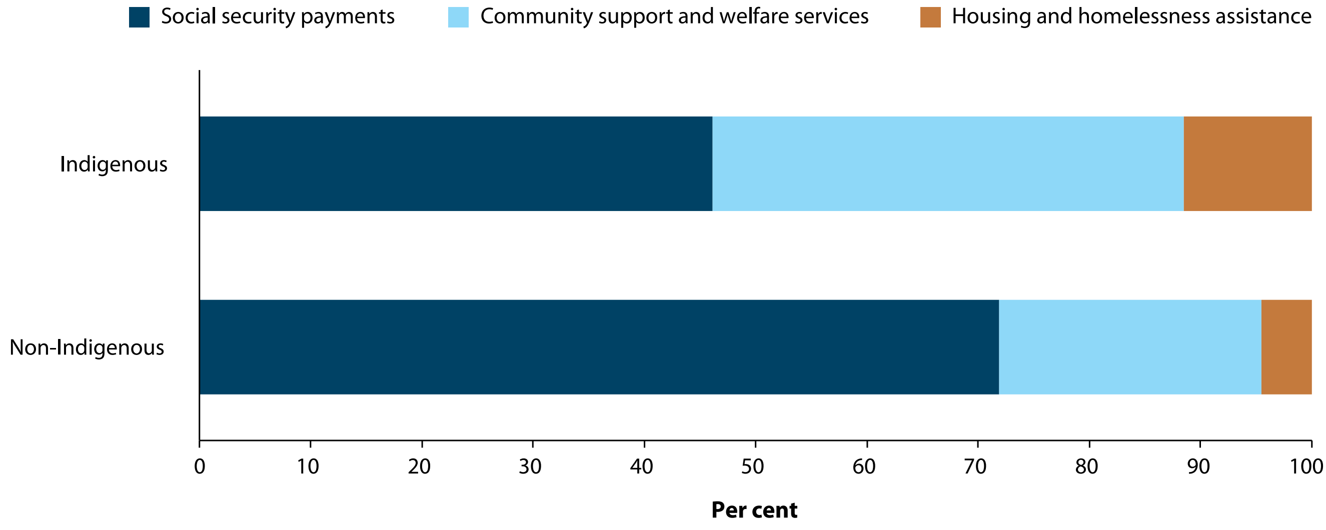
The specific categories of welfare expenditure included in the estimates presented in this section comprise 3 broad areas of government spending:

- social security payments—such payments provide a safety net for those who are unable to support themselves fully through paid work or other income sources
- community support and welfare services—encompasses a range of services and programs to support and assist people and the broader community (for example, services for people with disability, protection and support services, and general family and support services)
- housing and homelessness assistance—includes outlays on social housing, rental assistance and homelessness services (SCRGSP 2012, 2014a); note that expenditure on home purchase assistance (which was $67 million in 2012–13) was not included in the estimates of housing and homelessness expenditure shown in this chapter because it was considered to be less closely related to the concept of welfare expenditure than the other categories.

Further information about these 3 areas of spending can be found in Appendix A.5.

In 2012–13, government expenditure on welfare for Indigenous Australians was an estimated $9.8 billion (6.7% of total government welfare expenditure) (AIHW analysis of SCRGSP 2014a). Of this:

- 46% ($4.5 billion) was for social security payments; this compares with 72% of welfare expenditure for non-Indigenous Australians
- 42% ($4.1 billion) was for community support and welfare services; this compares with 24% for non-Indigenous Australians
- 12% ($1.1 billion) was for housing and homelessness assistance; this compares with 4.5% for non-Indigenous Australians (Figure 8.6).



Note: Data for this figure are shown in Table S8.6.

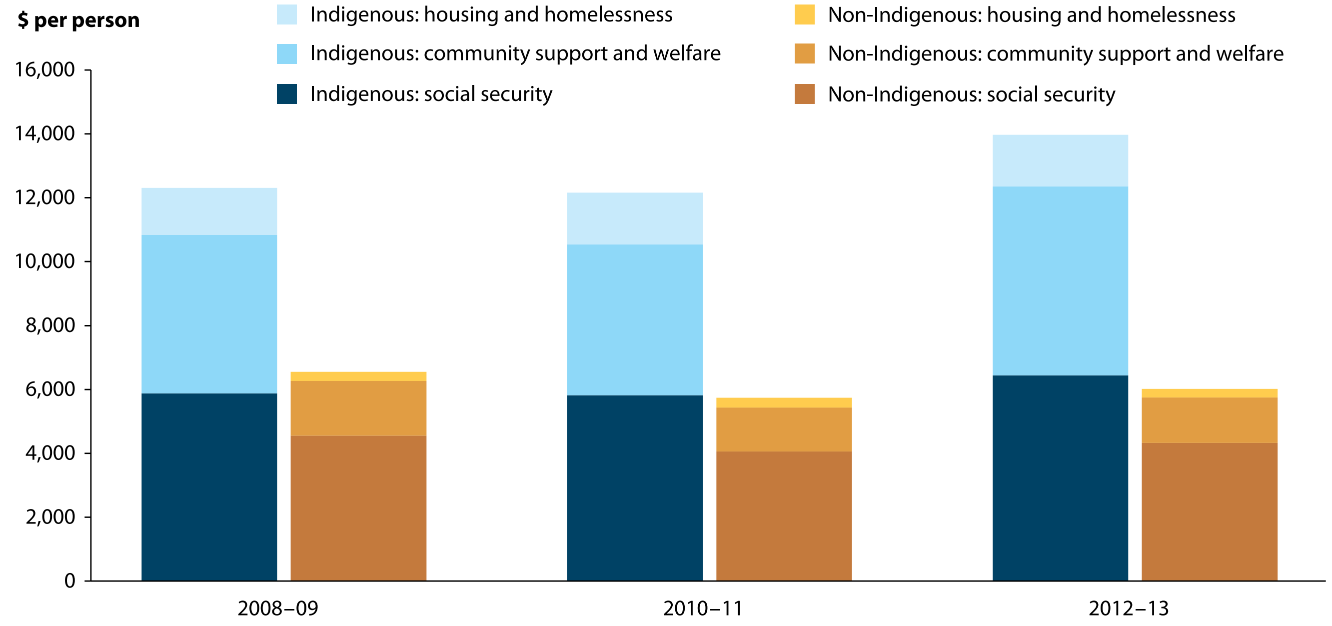
Source: AIHW analysis of SCRGSP 2014a.

Figure 8.6: Government welfare expenditure, by type of expenditure and Indigenous status, 2012–13

In 2012–13:

- on average, government welfare expenditure was $13,968 per Indigenous person, compared with $6,019 per non-Indigenous person—thus, $2.32 was spent per Indigenous person for every $1.00 spent per non-Indigenous person
- over half (57%) of the per person difference in welfare expenditure was attributable to spending on community support and welfare services (Table S8.7).

Between 2008–09 and 2012–13, government welfare expenditure per Indigenous person increased by 13% (adjusted for inflation), while it decreased by 8.2% per non-Indigenous person (Figure 8.7). Longer-term trends for total government welfare expenditure indicate that welfare spending was unusually high in 2008–09, due in large part to the Australian Government's response to the global financial crisis (AIHW 2013c).



Notes

1. Expenditure for 2008–09 and 2010–11 has been expressed in constant 2012–13 dollars.
2. Data for this figure are shown in Table S8.8.

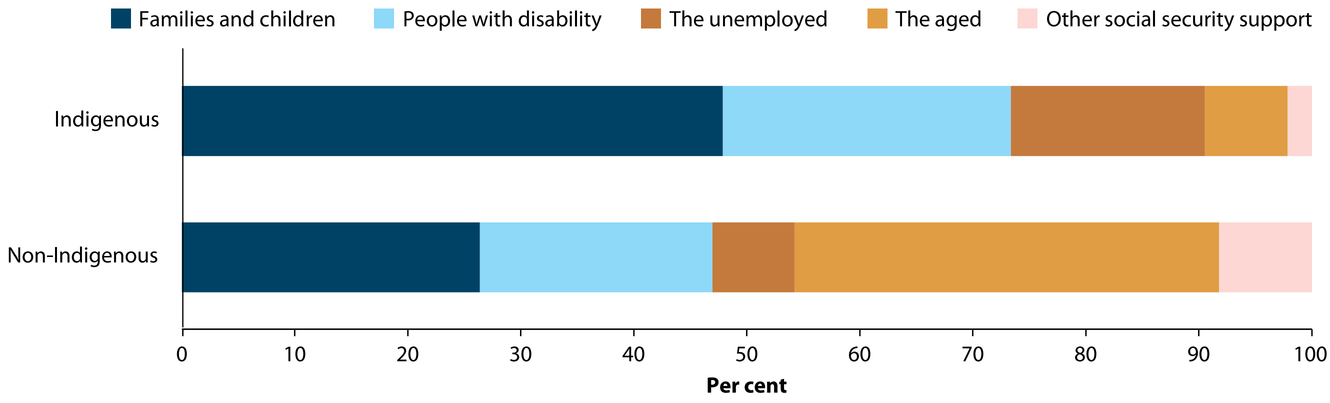
Source: AIHW analysis of SCRGSP 2014a.

Figure 8.7: Government welfare expenditure, by type of expenditure and Indigenous status, 2008–09, 2010–11 and 2012–13

Social security payments

Of the $4.5 billion spent by governments on social security payments for Indigenous people in 2012–13:

- nearly half (48%) was in the form of cash payments to assist families and children; this compares with 26% for non-Indigenous people
- 25% was to assist people with disability; this compares with 21% for non-Indigenous people
- 17% was to assist the unemployed; this compares with 7.3% for non-Indigenous people
- 7.3% was to assist the aged; this was substantially lower than the 38% for non-Indigenous people (Figure 8.8).



Note: Data for this figure are shown in Table S8.9.

Source: AIHW analysis of SCRGSP 2014a.

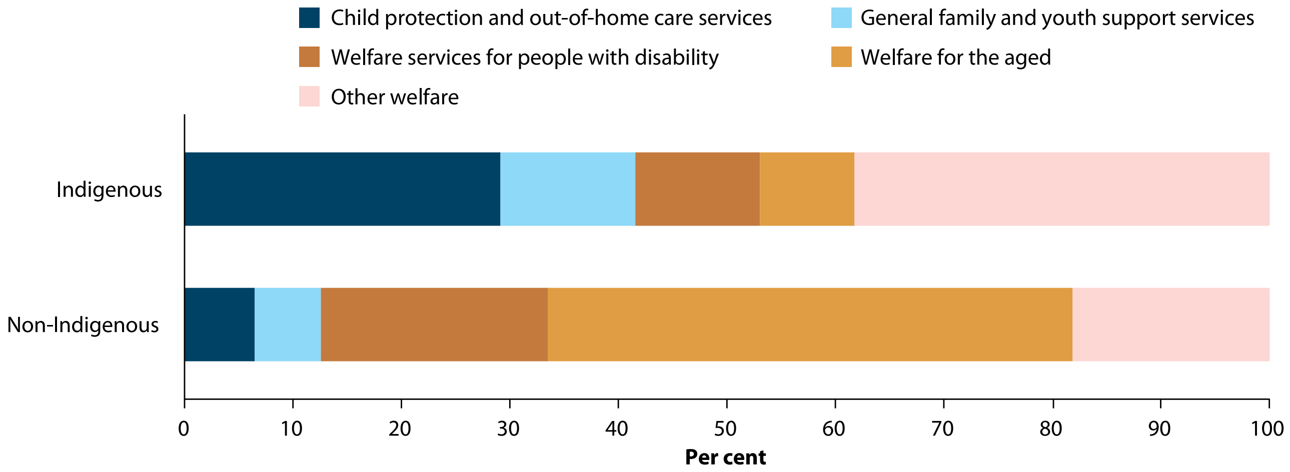
Figure 8.8: Government social security payments, by area of expenditure and Indigenous status, 2012–13

In 2012–13, average per person expenditure on social security was estimated to be $6,443 for Indigenous people, compared with $4,325 for non-Indigenous people (Table S8.9). The difference mainly reflects greater assistance to families and children ($3,086 per Indigenous person, compared with $1,141 per non-Indigenous person; ratio of 2.7). Average per person spending on the unemployed and those with disability were also higher for Indigenous than non-Indigenous people (ratios of 3.5 and 1.8, respectively), while per person spending for Indigenous older people was lower than for non-Indigenous older people (ratio of 0.3).

Community support and welfare services

Of the $4.1 billion spent by governments on community support and welfare services for Indigenous people in 2012–13:

- 29% was spent on child protection and out-of-home care services (this compares with 6.5% for non-Indigenous people)
- 12% was spent on general family and youth support services (6.1% for non-Indigenous people)
- 12% was spent on people with disability (21% for non-Indigenous people)
- 8.7% was spent on the aged (48% for non-Indigenous people) (Figure 8.9).



Note: Data for this figure are shown in Table S8.10.

Source: AIHW analysis of SCRGSP 2014a.

Figure 8.9: Government expenditure on community support and welfare services, by area of expenditure and Indigenous status, 2012–13

Community support and welfare services are provided to Indigenous people through a combination of mainstream services (that is, services available to all eligible Australians) and Indigenous-specific services (services that are explicitly targeted to Indigenous people). In 2012–13:

- Indigenous-specific services accounted for one-fifth (20%) of expenditure on community support and welfare services for Indigenous people
- the proportion of such expenditure that was Indigenous-specific ranged from 7.4% for child protection and out-of-home care services to 33% for general family and youth support services (Table S8.11).

Estimates of average per person expenditure in 2012–13 indicate that:

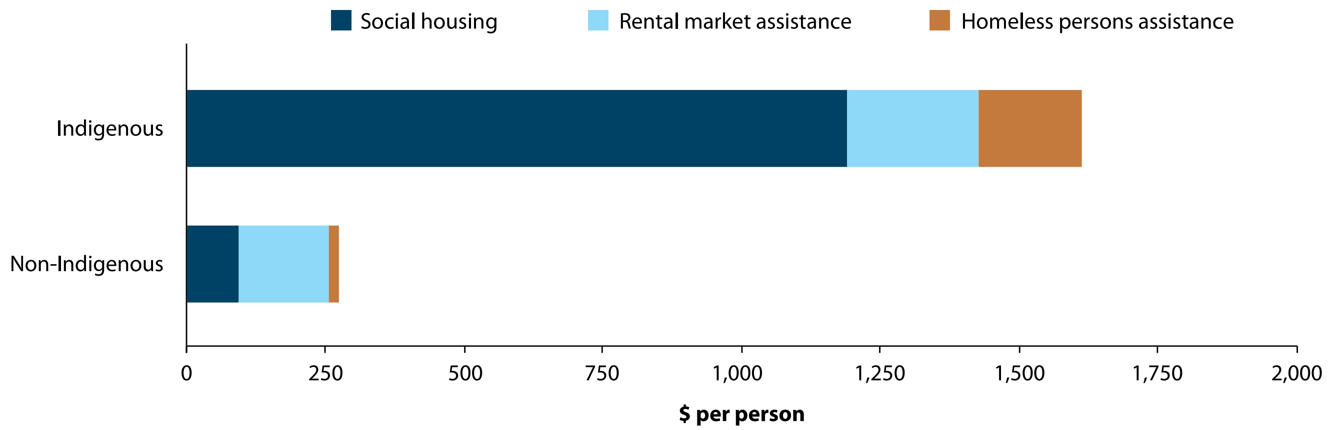
- $4.16 was spent per Indigenous person for every $1.00 spent per non-Indigenous person on community support and welfare services
- for each area of community support and welfare services expenditure, with the exception of welfare for the aged, average per person expenditure for Indigenous people was higher than for non-Indigenous people
- the largest difference was in child protection and out-of-home care services—expenditure in this area was 19 times as high for Indigenous people as for non-Indigenous people ($1,720 and $92 per person, respectively) (Table S8.7).

Housing and homelessness assistance

Of the $1.1 billion spent by governments on housing and homelessness assistance for Indigenous people in 2012–13:

- 74% was spent on social housing, 15% on rental market assistance and 12% on assistance for homeless people (the corresponding proportions for non-Indigenous people were 34%, 59% and 6.7%) (Table S8.12)
- just under half (46%) was for assistance provided through Indigenous-specific services and programs (Table S8.11).

An average of $1,612 was spent on housing and homelessness assistance per Indigenous person, compared with $273 per non-Indigenous person in 2012–13. The difference mainly reflects differences in expenditure on social housing—expenditure in this area was 13 times as high for Indigenous people as for non-Indigenous people ($1,189 and $93 per person, respectively) (Figure 8.10).



Note: Data for this figure are shown in Table S8.12.

Source: AIHW analysis of SCRGSP 2014a.

Figure 8.10: Government expenditure on housing and homelessness assistance, by area of expenditure and Indigenous status, 2012–13

8.4 Indigenous participation in the health and community services workforces

In this section, details about the occupations held by Indigenous people in the health workforce and in the community services workforce are provided. Occupations are defined by the activities of the workers.

Health workforce

The Australian Government's National Aboriginal and Torres Strait Islander Health Workforce Strategic Framework (2011–2015) seeks to achieve equitable health outcomes for Indigenous people through a competent health workforce that delivers culturally appropriate health services. One of the key priority areas of the framework is to increase the participation of Indigenous people in the health workforce to 2.6% by 2015 (AHMAC 2011).

According to the 2011 Census, there were around 8,500 Indigenous people employed in health-related occupations (Table 8.2), representing 5.7% of all employed Indigenous people aged 15 and over. Of these, one-quarter (26%; 2,189 people) were nurses or midwives, and 15% (1,256) were Indigenous health workers.

Among these Indigenous health workers:

- the majority were women (72%)
- 62% were employed in New South Wales, Queensland and Western Australia (AIHW analysis of 2011 Census), which are the 3 most populous states in terms of the Indigenous population (see Table 2.2).

Table 8.2: People aged 15 and over employed in health-related occupations, by Indigenous status, 2011

	Number	Rate[(a)]		
Occupation	**Indigenous**	**Indigenous**	**Non-Indigenous**	**Rate difference**
Nurses and midwives	2,189	40.1	129.0	88.9
Indigenous health workers	1,256	23.0	0.1	-23.0
Allied health professionals	724	13.3	43.9	30.6
Health diagnostic and promotion professionals	981	18.0	29.6	11.6
Dental and dental allied workforce	323	5.9	18.0	12.1
Medical practitioners	171	3.2	35.0	31.8
Other[(b)]	2,812	51.6	88.4	36.8
Total health occupations	**8,456**	**155.1**	**344.1**	**189.0**

(a) Rates were calculated as number of workers per 10,000 population; this provides a measure of the health workforce available to service the population.

(b) Includes health service managers, nursing support worker and personal care workers, ambulance officers and paramedics, drug and alcohol counsellors, and other health professionals.

Source: AHMAC 2015.

In 2012, 265 Indigenous health practitioners were registered with the Aboriginal and Torres Strait Islander Health Practice Board (AIHW 2013b). This number is quite different from the 1,256 Indigenous health workers reported in 2011 Census data because Indigenous health workers only need to be registered with the Board if their employer requires them to use the term 'health practitioner' in their title, rather than 'health worker'.

Based on 2011 Census data, a smaller proportion of the Indigenous population (1.6%) was employed in health-related occupations than the non-Indigenous population (3.4%). The occupations with the largest gap between rates of Indigenous and non-Indigenous employed persons were nurses and midwives, medical practitioners and allied health professionals.

Medical practitioners

Medical practitioners are commonly referred to as 'doctors' and include general practitioners, as well as surgeons, anaesthetists and other medical specialists. According to data on Indigenous medical practitioners from the Australian Health Practitioner Regulation Agency, there were 221 medical practitioners employed in Australia in 2012 who identified as being of Aboriginal and/or Torres Strait Islander origin, representing 0.3% of employed medical practitioners who provided their Indigenous status.

In 2012:

- the Northern Territory had the highest proportion of Indigenous medical practitioners, at 1.4% of employed medical practitioners
- 42% of Indigenous medical practitioners were women; this compares with 38% of non-Indigenous medical practitioners
- the average age of Indigenous medical practitioners was 42.7, which was 3.3 years younger than the average age of non-Indigenous medical practitioners (46.0)
- Indigenous medical practitioners worked an average of 3.3 hours more per week than non-Indigenous medical practitioners (46.0 hours compared with 42.7 hours) (AIHW 2014t).

Community services workforce

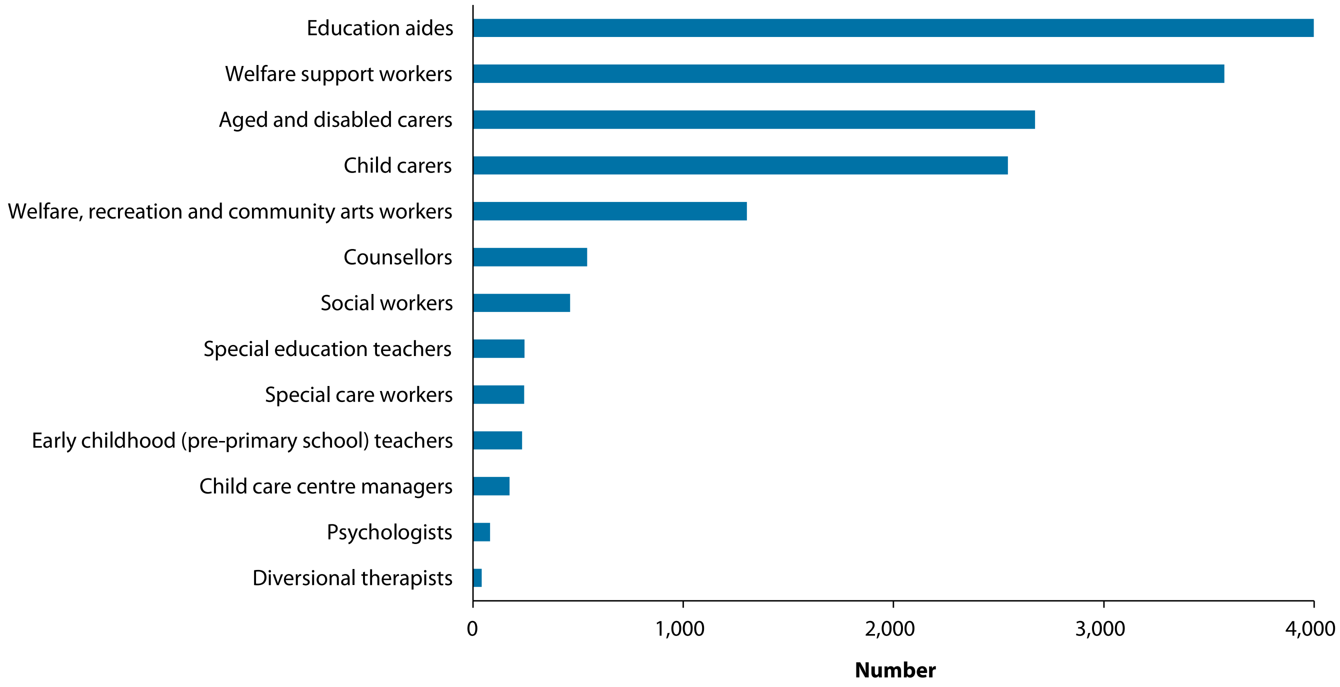
The provision of community services depends on the existence of an adequate, accessible, and skilled workforce. The community services workforce comprises people in paid employment who provide community services such as personal and social support, child care, and corrective services. Family members and other informal carers complement the assistance provided by this workforce, as do volunteers.

There is no agreed definition of which occupations comprise the community services workforce. This chapter uses the definition outlined in *Australia's welfare 2013* (AIHW 2013c), which was agreed to in consultation with relevant Australian Government departments.

According to the 2011 Census:

- 16,114 Indigenous people aged 15 and over worked in community services occupations
- Indigenous Australians accounted for 3.5% of all community services workers who stated their Indigenous status
- the majority (78%) of Indigenous community services workers were female
- within the community services workforce, the largest occupational group for Indigenous people was education aides (3,998 workers), followed by welfare support workers (3,573 workers), and aged and disabled carers (2,672 workers) (Figure 8.11).

Indigenous Australians were more likely to be employed in the community services workforce than non-Indigenous Australians—in 2011, 2.9% of the Indigenous population was employed in these occupations, compared with 2.2% of the non-Indigenous population.



Notes

1. Some occupations included in the community services workforce data are also included in the health workforce data (for example, psychologists).
2. Data for this figure are shown in Table S8.13.

Source: AIHW analysis of ABS 2011 Census (using TableBuilder).

Figure 8.11: Indigenous people aged 15 and over employed in community services occupations, 2011

Appendixes

Glossary

References

Appendix A: Data quality and key data sources

Existing data about Indigenous people are subject to some limitations and these should be taken into account when considering the information presented in this report. This appendix initially provides an overview of some of the key issues pertaining to data about Indigenous people.

The data collections that were used most extensively while preparing this report are:

- the ABS 2012–13 Australian Aboriginal and Torres Strait Islander Health Survey
- the AIHW National Hospital Morbidity Database
- the AIHW National Mortality Database.

This appendix provides information about these 3 data collections, as well as about the sources of health and welfare expenditure estimates as presented in Chapter 8.

A.1 Quality of data about Indigenous Australians

Data about Indigenous Australians are subject to a number of issues. A key issue in many statistical collections is the under-identification of Indigenous people. This can happen when:

- people are not asked about their Indigenous status
- people are asked but in an inconsistent way
- information about a person's Indigenous status is recorded inaccurately.

Incorrect or missing information raises problems for analysing the data and drawing conclusions. The degree of under-identification can vary across time and data sets, and within and between jurisdictions.

Another issue is the lack of full coverage of the Indigenous population in some data collections; this can result in undercounting and/or a possible 'biased' representation of the Indigenous population. For example, in the 2011 Census, the ABS estimates that the net undercount for Indigenous people was 17%, compared with 6% for non-Indigenous people. Another example is the ABS 2012 Survey of Disability, Ageing and Carers. As detailed further in Appendix D, this survey excluded people living in *Very remote* areas, as well as households in discrete Indigenous communities; thus this survey may not be representative of all Indigenous Australians.

In addition to issues of data quality, there are gaps in the availability of data on particular topics and available data are not always comprehensive. For example, data on the use of health services are available on health consultations claimed through Medicare or are otherwise funded by the Australian Government. However, data on other health consultations—such as those conducted at community clinics that are funded by state and territory governments—are not always available. Such gaps in data make it difficult to determine overall patterns and trends in relation to specific topics.

The propensity of Indigenous people to identify as being of Aboriginal and/or Torres Strait Islander origin can vary over time and between data sets. An increased likelihood that people identified themselves as being Indigenous was considered to be a key contributor to the increase in the Census count of Indigenous people between 2006 and 2011 (ABS 2013f). As discussed in Box 1.2, changes in Indigenous identification may affect the comparability of data about Indigenous people over time.

Compared with the non-Indigenous population, the Indigenous population is small, accounting for 3% of the total Australian population (see Chapter 2). Small numbers in the data can affect the interpretation of results, particularly when data are compared over time, between population groups (such as by age, remoteness or jurisdiction) or by diseases. For this reason, grouped data for multiple years are used at times—such as in Chapter 6, where mortality data are shown for the 5-year period 2008–2012 (see Appendix A.4).

A.2 ABS 2012–13 Australian Aboriginal and Torres Strait Islander Health Survey

The ABS 2012–13 AATSIHS was designed to obtain national benchmark information on a range of health-related issues and to enable monitoring over time of the health of Indigenous people (ABS 2013b). It combined the previous ABS National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) with 2 new components:

- a National Aboriginal and Torres Strait Islander Nutrition and Physical Activity Survey (NATSINPAS), which collected detailed nutritional and physical activity data
- a National Aboriginal and Torres Strait Islander Health Measures Survey (NATSIHMS), which collected blood and urine samples from adults to test for nutritional status and chronic disease markers.

In this report, all 3 components are collectively referred to as the 2012–13 AATSIHS.

As in previous Indigenous-specific health surveys, the 2012–13 NATSIHS collected data on a wide range of health topics including health status and health-related activities (for example, lifestyle factors and consultations with health professionals); new additions involved taking physical measurements, such as blood pressure, weight and height.

Overall, the AATSIHS included a nationally representative sample of around 13,000 Indigenous people living in 8,300 private dwellings in remote and non-remote areas of Australia, including discrete Indigenous communities.

Further information about the AATSIHS can be found in various ABS publications, including those that provide results from the survey (ABS 2013a, 2014b, 2014c, 2014d) and the AATSIHS users' guide (ABS 2013b).

Some of the results from the AATSIHS that are presented in this report were sourced directly from ABS-published reports. Other results are based on AIHW analyses of:

- the ABS microdata (TableBuilder) product *Microdata: Australian Aboriginal and Torres Strait Islander Health Survey: detailed conditions and other health data, 2012–13* (ABS 2014i)
- customised tables supplied by the ABS.

The applicable source of the AATSIHS data shown in figures and tables is indicated in the source statements. There may be slight discrepancies between the data shown in this report and those in other reports depending on the original source of the data and the random adjustment of those data by the ABS to avoid the release of confidential data.

Interpreting self-reported data

While the prevalence of a few conditions (such as diabetes) and some risk factors (such as obesity) were ascertained by taking biomedical or other measures, most data from the AATSIHS were self-reported by survey participants (or their proxies). Whether or not a person reports having a condition often depends on the condition having been diagnosed—some conditions that have yet to be detected (for example, those in the early stages) may not be captured in self-reported data. In addition, the reporting of conditions and risk factors can be affected by:

- imperfect recall
- willingness to disclose
- individual interpretations of survey questions.

Because of these factors, the prevalence of health conditions and risk factors tends to be underestimated in AATSIHS data.

Comparing results

Where possible in this report, data from the 2012–13 AATSIHS are compared with data from earlier Indigenous-specific surveys, and with data for non-Indigenous people from the ABS 2011–12 Australian Health Survey. However, comparisons are not always possible for reasons including:

- different wording of questions between surveys
- inclusion of questions in one survey but not the other
- some questions being asked of different age groups or geographic areas.

A.3 AIHW National Hospital Morbidity Database

Data about admitted patient care were extracted from the AIHW National Hospital Morbidity Database (NHMD), which is a compilation of episode-level records from admitted patient morbidity data collection systems in Australian hospitals in each state and territory. Information on the characteristics, diagnoses and care of admitted patients in public and private hospitals is provided annually to the AIHW by state and territory health departments.

Hospitalisations data refer to episodes of care and any one individual may have multiple hospitalisations; thus, the number of hospitalisations does not equate to the number of people who were hospitalised. Furthermore, since people can be hospitalised on several occasions for a particular condition, or not hospitalised at all, the number of hospitalisations should not be interpreted as a measure of the prevalence of conditions. However, data on the use of hospitals provide a useful measure of the impact of conditions on the population.

Each hospitalisation is assigned a principal diagnosis, while additional diagnoses are reported if the condition affected patient management (see Glossary). In this report, information on principal diagnoses was used to identify hospitalisations for specific types of ill-health; additional diagnoses have not been considered, unless otherwise indicated.

While there is some under-identification of Indigenous Australians in the NHMD, data for all states and territories are considered to have adequate Indigenous identification from the 2010–11 financial year onwards (AIHW 2013i). Levels of non-reporting of Indigenous status have been found to be higher in private than in public hospitals (AIHW 2010).

Time series comparisons shown in this report are based on data for the 6 jurisdictions that were assessed by the AIHW as having adequate identification of Indigenous hospitalisations from 2004–05 onwards—namely, New South Wales, Victoria, Queensland, Western Australia, South Australia and public hospitals in the Northern Territory (AIHW 2010). These 6 jurisdictions represent 95% of the Indigenous population (see Table 2.2).

For 2012–13 hospitalisations data, diagnoses were recorded using the 7th edition of the International Statistical Classification of Diseases and Related Health Problems, 10th revision, Australian modification (ICD-10-AM) (NCCH 2010). The relevant codes used to identify various disease groupings for the analyses shown in this report are indicated in the supplementary tables.

Definitions of relevant terms in regard to the NHMD can be found in the Glossary. Further details about this collection are available in *Australian hospital statistics 2012–13* (AIHW 2014d), and the complete NHMD data quality statement is available online at <http://meteor.aihw.gov.au/content/index.phtml/itemId/568730>.

In this report, the hospitalisation rates for Indigenous people were calculated using ABS estimates and projections of the Indigenous population based on the 2011 Census (ABS 2013i, 2014h). These rates may differ from previously published rates (such as those published in AIHW 2014d) which used population estimates based on the 2006 Census.

Interpreting trends

Changes in the level of accuracy of Indigenous identification in hospital records will result in changes in the level of reported hospitalisations for Indigenous Australians, as will changes in access, hospital admission policies and practices over time. Caution should be used when interpreting changes over time, as it is not possible to ascertain whether a change in reported hospitalisation rates is due to changes in the accuracy of Indigenous identification and/or real changes in the rates at which Indigenous people were hospitalised. An increase in hospitalisation rates for a particular population may also reflect increased use of admitted patient hospital services—as opposed to other forms of health care—rather than a worsening of health; likewise, a decrease in hospitalisation rates may not necessarily indicate an improvement in health.

A.4 AIHW National Mortality Database

Mortality data presented in this report were extracted from the AIHW's National Mortality Database (NMD) unless otherwise indicated. These data are:

- provided to the AIHW by the Registrars of Births, Deaths and Marriages in each state and territory, as well as by the National Coronial Information System
- assigned codes for cause(s) of death by the ABS.

In this report, mortality data are reported for 5 jurisdictions combined—New South Wales, Queensland, Western Australia, South Australia and the Northern Territory. Other jurisdictions have a small number of Indigenous deaths, and identification of Indigenous deaths in their death registration systems is relatively poor, making the data less reliable. The AIHW considers the quality of Indigenous identification in mortality data for the 5 jurisdictions to be adequate from 1998; thus trend data are shown in this report from that year onwards.

Due to the small number of Indigenous deaths from some conditions each year, mortality data for the most 'recent' period are presented for the 5-year period 2008–2012 to allow for the reporting of cause of death data by age and sex.

Deaths registered in:

- 2010 and earlier are based on the final version of cause of death data
- 2011 and 2012 are based on revised and preliminary versions, respectively, and are subject to further revision by the ABS.

Data for 2010 have been adjusted for the additional deaths arising from outstanding registrations of deaths in Queensland in 2010—see Technical note 3 in ABS 2014g for further details.

The Indigenous status of a deceased person is identified through the death registration process. While virtually all deaths in Australia are registered, there is some degree of under-identification of Indigenous people in mortality data. This is because a proportion of Indigenous deceased are not reported as Indigenous by the family, health worker or funeral director during the death registration process. Mortality data presented in this chapter have not been adjusted for under-identification and are therefore likely to under-estimate the true level of Indigenous mortality (ABS 2008b, 2013j, 2014g; AIHW 2012c).

In this report, registered deaths where Indigenous status was not stated are excluded from analyses that compare Indigenous and non-Indigenous mortality rates. This applies to 5,517 registered deaths in 2008–2012.

Although the NMD includes information about both the underlying and associated causes of death (see Glossary), only the underlying cause is used in the analyses presented in this report, unless otherwise indicated.

There may be small differences in the mortality data presented in this report compared with other reports (including ABS death reports) for 2 reasons:

- Each year, there is a small number of deaths for which the age at death was not recorded (for example, 2 deaths in 2012). For the data presented in this report, deaths with missing information about age were excluded from the calculation of rates, but included in total counts. A different approach may be used for other reports.
- The version of the NMD used for analysis may have a slight impact on the data. The NMD data presented in this report were extracted from the database as updated on 3 October 2014.

For more information about deaths in Australia and the quality of the data underpinning the AIHW NMD, refer to ABS and AIHW reports about deaths statistics (for example, ABS 2013g, 2014g; AIHW 2014u).

A.5 Sources of health and welfare expenditure estimates

Health expenditure

In this report, health expenditure estimates were sourced from the AIHW's health expenditure database. This database is compiled annually from a wide range of government and non-government sources. Total health expenditure is divided into expenditure for Indigenous and non-Indigenous Australians using a variety of data sources and methods, and published in the AIHW series of *Expenditure on health for Aboriginal and Torres Strait Islander people* reports (see AIHW 2013d, 2013e).

The health expenditure estimates include recurrent health expenditure, consisting mainly of expenditure on wages, salaries and supplements, purchases of goods and services, and consumption of fixed capital. They do not include expenditure that results in the creation or acquisition of fixed assets.

Information on Indigenous health expenditure is also available from the Productivity Commission's *Indigenous expenditure report* (IER) series (SCRGSP 2014a). Although there are overlaps between this and the AIHW series of Indigenous expenditure reports, each has a different focus and scope. For example, the focus of the AIHW series is to provide detailed information on *health* expenditure for Indigenous people, whereas the Productivity Commission series has a broader scope and reports on all areas of government expenditure (including, for example, education and housing). Due to differences in methodology, the estimates of health expenditure from these 2 sources differ somewhat and are not directly comparable (see AIHW 2013d).

Welfare expenditure

While information on government welfare spending for all Australians is available from the AIHW welfare expenditure database, and most recently published in *Australia's welfare 2013* (AIHW 2013c), separate estimates for Indigenous Australians are not available from that database. However, welfare expenditure estimates are available from the Productivity Commission's IER series, and this series is the source of estimates of government expenditure on welfare for Indigenous Australians provided in this report (SCRGSP 2014a). The estimates pertain to government expenditure on services and payments provided directly to individuals, non-government service providers or local governments. They include all recurrent Australian and state and territory government expenditure (SCRGSP 2014a). Capital expenditure is excluded, but the estimates include expenses related to depreciation and maintenance of assets, and capital grants made outside the general government sector, or indirect expenditure to other governments.

In this report, the estimates of government expenditure on welfare as derived from the IER comprise 3 broad areas of spending: social security payments, community support and welfare services, and housing and homelessness assistance (SCRGSP 2012, 2014a).

Social security payments

The social security system provides a safety net for those who are unable to support themselves fully through paid work or other income sources. Payments can be grouped into the following 5 categories based on the populations they target:

- assistance to families and children—includes parenting payment (single and partnered), paid parental leave and Family Tax Benefit Parts A and B
- assistance to people with disability—the primary payment is the Disability Support Pension; carers may receive the Carer payment and Carer Allowance
- assistance to the unemployed—key payments are Newstart Allowance and Youth Allowance
- assistance to the aged—key payment is the Age Pension
- other income support payments—these payments provide assistance to:
  - veterans and dependants
  - widows, deserted wives, divorcees and orphans
  - the vulnerable and people in special circumstances.

Community support and welfare services

Expenditure on community support and welfare services includes outlays on:

- welfare for the aged—nursing homes and welfare services for the aged, including support programs, and home and residential care services
- welfare services for people with disability—accommodation and community support, community access and other disability support such as employment services
- protection and support services—child protection and out-of-home care services
- general family and support services—child support payments and family support, including intensive family support
- other welfare services—includes social security and welfare services not elsewhere classified, such as superannuation support programs, Indigenous advancement programs, and research into social security and welfare affairs and services.

Housing and homelessness assistance

Expenditure on housing and homelessness assistance comprises outlays on:

- social housing—includes public housing and community housing
- rental assistance—includes Commonwealth Rent Assistance and financial assistance to people in the private rental market
- homelessness services—that is, homeless persons assistance, for example, specialist homelessness services (formerly the Supported Accommodation Assistance Program).

The IER housing and homelessness area of spending includes a fourth category—namely, 'home purchase assistance' which comprises grants and concessions designed to make home ownership achievable, typically to first home buyers. This component of housing expenditure (which was $67 million in 2012–13) was considered to be less closely related to the concept of welfare expenditure than the other categories, and thus was not included in the estimates of total welfare expenditure shown in this report.

Appendix B: Methods and technical notes

Crude and age-standardised rates

This report presents both crude and age-standardised rates.

A **crude rate** provides information on the number of events (for example, deaths of Indigenous people) relative to the population 'at risk' (for example, all Indigenous people). No age adjustments are made when calculating such a rate.

Crude rates may not always be suitable when making comparisons across time or between groups when differences by age structure exist (for example, the Indigenous population has a much younger age structure than the non-Indigenous population—see Section 2.2). In such situations, more meaningful comparisons can be made by using **age-standardised rates**, with such rates taking into account differences in the age structures of the populations.

For this report, the Australian standard population at 30 June 2001 has been used when deriving age-standardised rates. The same population was used for males and females to allow valid comparison of age-standardised rates between the sexes.

Two different methods of age-standardisation can be used: direct and indirect. Direct age-standardisation has been used in this report.

Age-specific rates

Age-specific rates provide information on the incidence of a particular event in a specified age group relative to the total number of people 'at risk' of that event in that age group.

Effects of rounding

Entries in columns and rows of tables may not sum to the totals shown because of rounding. Derived values (such as proportions and rates) are calculated using unrounded numbers.

Rate differences and rate ratios

A **rate difference** measures the literal, or absolute, gap between 2 population rates; in this report, it is calculated as the rate for Indigenous people minus the rate for non-Indigenous people.

A **rate ratio** measures the relative difference between populations by taking scale into account; in this report, it is calculated as the rate for Indigenous people divided by the rate for non-Indigenous people and is interpreted as follows:

- a rate ratio of 1 indicates there is no difference between the rates
- a ratio less than 1 indicates the rate is lower in the Indigenous population
- a ratio greater than 1 indicates the rate is higher in the Indigenous population.

A large rate ratio does not necessarily imply that an event has a large absolute impact. Events that are rare in the comparative population (the non-Indigenous population in this report) can produce large rate ratios, even if the prevalence of that event in the population of interest (the Indigenous population) is relatively low.

Measuring 'the gap'

Throughout this report, the term '**the gap**' is used to refer to the rate difference. For trend analyses, references to the widening or narrowing of the gap refer to changes in the rate difference over time.

Presenting dates and time spans

Periods based on full calendar years (1 January to 31 December) are written as, for example, 2012 for 1 year. When there are 2 or more calendar years in the period, the first and final years are written in full. For example, 2012–2013 is a 2 calendar-year span and 2008–2012 covers 5 calendar years.

Periods based on financial years (1 July to 30 June, as with hospital statistics) are written with a second number which is abbreviated: for example, 2012–13 for 1 financial year and 2011–13 for 2 financial years.

Statistical significance

In this report, references to 'significant' or 'statistically significant' differences refer to differences at the $p<0.05$ level—that is, there is less than a 1 in 20 chance that the result occurred by chance.

Time trend analysis

In a number of instances for this report, linear regression analysis was used to determine if there was a statistically significant increase or decrease in rates over time. Such analysis produces more powerful results because the regression modelling has the advantage of *jointly* considering the information contained in the series of rates, rather than considering each time point separately. Analysing the series of rates as a unit imposes stability and, consequently, the confidence band around the set of predicted values are narrower than the confidence limits calculated around the rates separately. When linear regression analysis was used, this has been footnoted in the supplementary tables.

The average annual change in rates and rate differences were also calculated using linear regression analysis.

Significance testing of time trends for rate ratios was not performed as the accuracy of this testing may be low. As rate ratios do not increase or decrease linearly, applying linear regression to rate ratios may over-estimate the significance of any changes.

The total per cent change estimates presented in this report that are based on linear regression were calculated using start and end points derived from the regression line (rather than the actual start and end points).

Appendix C: Description of selected measures in the 2012–13 AATSIHS

C.1 Biomedical measures

Blood pressure

Blood pressure is the force exerted by the blood on the walls of the arteries and is written as systolic/diastolic (for example, 120/80 mmHg, stated as '120 over 80'). Systolic blood pressure is the blood pressure measurement when the heart beats and diastolic blood pressure is the measurement when the heart relaxes.

In the 2012–13 AATSIHS, information on blood pressure was collected by physical measurement and by asking respondents if they had high blood pressure as a long-term condition. People who reported having high blood pressure may not have also had a high blood pressure measurement since their condition may have been controlled by medication.

The definition of measured high blood pressure in the 2012–13 AATSIHS was a reading of 140/90 mmHg or higher (ABS 2014d).

Body mass index

Body mass index is a measure of a person's weight relative to their height, and is used to classify people as underweight, normal weight, overweight or obese. It is calculated by dividing body weight (measured in kilograms) by height (in metres) squared. The following cut-offs were used in the 2012–13 AATSIHS:

- underweight: <18.50
- normal weight: 18.50 to 24.99
- overweight: 25.00 to 29.99
- obese: ≥30.00 (ABS 2013a).

Cholesterol

There are 2 types of cholesterol:

- high density lipoprotein (HDL) cholesterol—known as 'good' cholesterol—which transports excess cholesterol to the liver to be broken down
- low density lipoprotein (LDL) cholesterol—known as 'bad' cholesterol—which transports cholesterol to cells; at high levels, LDL cholesterol can collect on blood vessel walls leading to a narrowing or blockage of the arteries (AHA 2014).

A blood test is used to measure cholesterol levels. In the 2012–13 AATSIHS, abnormal cholesterol levels were defined as:

- total cholesterol greater than or equal to 5.5 mmol/L
- LDL cholesterol greater than or equal to 3.5 mmol/L
- HDL cholesterol less than 1.0 mmol/L for men and less than 1.3 mmol/L for women (ABS 2014b).

Participants were required to fast for at least 8 hours before the blood test in order to get an accurate reading for LDL cholesterol.

Dyslipidaemia

In the 2012–13 AATSIHS, Indigenous adults were considered to have dyslipidaemia if 1 or more of the following applied:

- they were taking cholesterol-lowering medication
- total cholesterol level was greater than or equal to 5.5 mmol/L
- LDL cholesterol level was greater than or equal to 3.5 mmol/L
- HDL cholesterol level was less than 1.0 mmol/L for men or less than 1.3 mmol/L for women
- triglyceride level was greater than or equal to 2.0 mmol/L (ABS 2014b).

Participants were required to fast for at least 8 hours before the blood test. The ABS presented results about dyslipidaemia only for those people who had fasted.

Glucose control (diabetes)

The 2012–13 AATSIHS used 2 tests to measure glucose control: fasting plasma glucose and glycosylated haemoglobin (HbA1c).

Fasting plasma glucose measures the level of sugar in the blood at the time of testing after a person has fasted for 8 hours. It can be used to indicate the presence of diabetes. In the 2012–13 AATSIHS, the following cut-offs were used:

- has diabetes: ≥7.0 mmol/L
- at high risk of diabetes: 6.1 to <7.0 mmol/L
- no diabetes: <6.1 mmol/L.

HbA1c measures a person's average blood glucose level over the previous 3 months. It can be used: to diagnose diabetes (in addition to fasting plasma glucose), and as a measure of diabetes management among those with known diabetes. The test does not require fasting. The HbA1c cut-offs used for diabetes prevalence in the 2012–13 AATSIHS were:

- indicates diabetes: ≥6.5%
- at high risk of diabetes: 6.0 to <6.5%
- does not indicate diabetes: <6.0%.

Among those who have diabetes, the target HbA1c level for optimum management is ≤7.0% (ABS 2014b).

Haemoglobin levels and risk of anaemia

The level of haemoglobin that indicates a risk of anaemia differs by sex, age and, among females, whether they are pregnant. In the 2012–13 AATSIHS, haemoglobin levels were measured using a blood test. The following haemoglobin levels indicated a risk of anaemia:

- less than 130 g/L for males aged 15 and over
- less than 120 g/L for females aged 15 and over who were not pregnant
- less than 110 g/L for pregnant females (ABS 2014b).

Kidney function

In the 2012–13 AATSIHS, kidney function was measured using both:

- the estimated glomerular filtration rate (eGFR)—that is, the amount of blood filtered by the kidneys in 1 minute
- the presence of albuminuria—excess protein in the urine.

The results from these 2 tests were used to determine chronic kidney disease stages, ranging in severity from Stage 1 (evidence of kidney damage but usually no symptoms) to Stage 5 (end-stage kidney disease which may require dialysis or kidney transplant) (AIHW 2013l). The following cut-offs were used:

Stage 1:	eGFR ≥90 mL/min/1.73m^2 and presence of albuminuria
Stage 2:	eGFR 60 to 89 mL/min/1.73m^2 and presence of albuminuria
Stage 3a:	eGFR 45 to 59 mL/min/1.73m^2
Stage 3b:	eGFR 30 to 44 mL/min/1.73m^2
Stages 4–5:	eGFR <30 mL/min/1.73m^2 (ABS 2014b).

The AATSIHS test results can only be used to indicate a stage of chronic kidney disease; further testing is required to diagnose this condition.

Liver function

As part of the 2012–13 AATSIHS, levels of 2 liver enzymes—alanine aminotransferase (ALT) and gamma glutamyl transferase (GGT)—were measured as markers of liver inflammation and damage. The following cut-offs were used to determine abnormal liver function:

- ALT reading of ≥40 U/L for males and ≥30 U/L for females
- GGT reading of ≥50 U/L for males and ≥35 U/L for females (ABS 2014b).

High levels of ALT or GGT are indicators of liver damage, but they cannot be used on their own to diagnose liver disease. Since GGT is also found in other body tissues—such as in the kidneys, bile duct and pancreas, among others—high levels may indicate damage in tissues other than the liver.

C.2 Alcohol consumption

The 2012–13 AATSIHS assessed risky alcohol consumption levels using both the 2001 and 2009 National Health and Medical Research Council (NHMRC) guidelines (ABS 2013a). In this report, risk levels are reported based on the 2009 guidelines (NHMRC 2009). The following levels were deemed to have exceeded the guidelines:

- single occasion risk—more than 4 standard drinks on a single occasion
- lifetime risk—more than 2 standard drinks per day on average (ABS 2013a).

Appendix D: Disability data

Estimates of disability prevalence among the Indigenous population are available from 3 ABS data collections:

- the 2012–13 Australian Aboriginal and Torres Strait Islander Health Survey
- the 2012 Survey of Disability, Ageing and Carers (SDAC)
- the 2011 Census.

As described below, each of these collections capture disability information in a different way. However, all 3 collect conceptually-comparable information about people who need help with 'core activities' (that is, self-care, mobility and communication). In this report, the term 'severe or profound disability' is used to describe people who always or sometimes need help with core activities as identified using each of the 3 data sources.

Measuring disability in the Indigenous population

The Australian Aboriginal and Torres Strait Islander Health Survey

In the ABS 2012–13 AATSIHS, disability is said to exist 'if a limitation, restriction, impairment, disease or disorder has lasted, or is expected to last, for 6 months or more, which restricts everyday activities' (ABS 2013b).

As noted in Appendix A.2, the AATSIHS included a nationally representative sample of around 13,000 Indigenous people living in 8,300 private dwellings in remote and non-remote areas of Australia, including discrete communities. Persons in non-private dwellings were not included in the scope of the AATSIHS.

Disability data from the 2012–13 AATSIHS and the 2012 SDAC are not directly comparable for reasons including differences in scope and methodology. For example, the AATSIHS used a smaller set of questions to assess disability status than that used in the SDAC. Previous analysis by the ABS has found that surveys using questions similar to those used in the AATSIHS consistently indicate higher rates of *overall* disability than the SDAC (ABS 2010).

Data from the AATSIHS provide information about Indigenous people with disability across a range of severity levels, as well as information about type of disability and detailed health information (including service use and risk factors).

Survey of Disability, Ageing and Carers

In the SDAC, which was most recently conducted in 2012, disability is defined as 'any limitation, restriction or impairment which restricts everyday activities and has lasted, or is likely to last, for at least 6 months'. The survey collected information about whether respondents: needed help with various activities, had difficulty undertaking the activities, or used aids or equipment to undertake the activities. Activities related to self-care, mobility and communication were referred to as 'core activities', and a person who sometimes or always needed help with 1 or more of these activities was referred to as having 'severe or profound core activity limitation' (ABS 2014a).

The SDAC includes the most comprehensive measure of disability of the 3 ABS surveys, using more than 100 questions to establish disability status. Among these questions is a series of screening questions not used in the other surveys which have been found to more effectively differentiate between people with disability and those with long-term health conditions but no disability.

The 2012 SDAC excluded people living in *Very remote* areas, as well as those living in Indigenous Community Frame (ICF) Collection Districts—nationally, 15% of Indigenous Australians live in *Very remote* areas or ICF Collection Districts in other remoteness areas (ABS, personal communication, 10 February 2015). Thus these data are not representative of all Indigenous Australians.

The number of Indigenous people sampled in the 2012 SDAC was considerably smaller than for the AATSIHS—the 2012 SDAC sampled 1,550 Indigenous people in private dwellings.

Like the 2012–13 AATSIHS data:

- the SDAC provides information about Indigenous people with disability across a range of severity levels
- disability data about Indigenous people in the 2012 SDAC apply to those in private dwellings; while the SDAC included a sample of people in non-private dwellings, no information about the Indigenous status of these people was collected (ABS 2014a).

The Census

Information is available from the 2006 and 2011 Censuses about whether a person needs assistance with core activities because of disability, a long-term health condition or old age (ABS 2011b, 2012c). These data are based on a limited number of questions and only capture a subset of people with disability—namely those who always or sometimes need help with core activities—thus excluding those with less severe disability.

Unlike the AATSIHS and the SDAC, the Census completely counts (rather than takes a sample of) the whole Australian population, including those in non-private dwellings (such as aged care facilities). It therefore provides an important set of data for comparing specific populations across geographic regions, as well as a comparison of disability prevalence among those in private and non-private dwellings.

Key findings

Data from the 3 ABS collections that provide estimates of the prevalence of disability among Indigenous Australians are shown in Table D.1. Disability data based on the AATSIHS are described in detail in Section 5.4.

Table D.1: Disability prevalence, selected data sources, by Indigenous status, various years (per cent)(a)

	2012–13 AATSIHS(b)		2012 SDAC		2011 Census
Indigenous status	**Severe or profound disability(c)**	**All with disability(d)**	**Severe or profound disability(c)**	**All with disability(d)**	**Severe or profound disability(e)**
Crude rate					
Indigenous	6.4	35.7	7.8	23.4	5.7
Non-Indigenous	4.1	30.4	5.2	17.4	4.9
Age-standardised rate(f)					
Indigenous	7.9(g)	44.2(g)	8.4(g)	27.9(g)	9.2
Non-Indigenous	3.9(g)	29.3(g)	4.9(g)	16.5(g)	4.5
Rate ratio	*2.0*	*1.5*	*1.7*	*1.7*	*2.0*

(a) Data from the AATSIHS and the SDAC pertain to people living in private dwellings; data from the Census pertain to the whole Australian population, including those living in non-private dwellings.

(b) Data for non-Indigenous people are for 2011–12 from the Australian Health Survey.

(c) In both the AATSIHS and SDAC, severe or profound disability applies to people who had either severe or profound core activity limitation.

(d) Includes people with severe, profound, moderate or mild core activity limitation, a schooling/employment restriction only, and with an unspecified limitation or restriction. Information about people with mild core activity limitation was not collected from Indigenous people in remote areas.

(e) Applies to people who had a 'core activity need for assistance' as identified in the Census. People who did not respond to the Census questions about need for help with core activities were excluded from the analysis.

(f) Rates have been directly age-standardised to the 2001 Australian standard population.

(g) The difference between the age-standardised rates for Indigenous and non-Indigenous people is statistically significant at $p<0.05$.

Sources: Unpublished data provided by the ABS from 2012–13 Australian Aboriginal and Torres Strait Islander Health Survey and 2011–12 Australian Health Survey; AIHW analysis of 2011 Census; ABS 2014a.

As noted earlier, the SDAC excludes people in *Very remote* areas, as well as discrete Indigenous communities, and applies to those in private dwellings. Data from this survey show that in 2012:

- 23% of Indigenous Australians had some form of disability—this was not significantly different from the proportion in 2009 (21%)
- 7.8% of Indigenous Australians had severe or profound disability
- the rate of severe or profound disability among Indigenous Australians was significantly higher than the rate for non-Indigenous Australians (1.7 times as high, based on age-standardised rates) (Table D.1; ABS 2014a).

Data from the 2011 Census show that among people in private and non-private dwellings who responded to the question about need for assistance with core activities:

- 5.7% of Indigenous people had severe or profound disability, with similar rates for males (6.1%) and females (5.4%)
- the age-standardised rate of severe or profound disability among Indigenous Australians was 2 times the rate for non-Indigenous Australians (9.2% compared with 4.5%) (Table D.1)
- Indigenous people living in non-private dwellings were 3 times as likely to have severe or profound disability as those living in private dwellings (15% compared with 5.4%); in comparison, among non-Indigenous people, the rate of severe or profound disability in non-private dwellings was more than 7 times as high as in private dwellings (31% compared with 4.1%) (AIHW analysis of ABS 2012b).

In 2006 (the first Census in which disability questions were included), 4.6% of Indigenous people had severe or profound disability (ABS 2008a)—this is somewhat lower than the proportion of 5.7% in 2011.

Glossary

Aboriginal Community Controlled Health Services: primary health care services initiated and operated by local Indigenous communities to deliver comprehensive, holistic and culturally-appropriate health care to the community, which controls it through a locally elected board of management. These services range in size from large services with several medical practitioners to small services that rely on nurses and/or Aboriginal health workers. For more information see <www.naccho.org.au>.

Aboriginal and/or Torres Strait Islander: for nearly all data collections used for this report, an Aboriginal and/or Torres Strait Islander person is one who identified themselves, or was identified by another household member, as being of Aboriginal and/or Torres Strait Islander origin. For a few data collections, information on acceptance of a person as being Indigenous by an Indigenous community may also be required. See also **Indigenous**.

additional diagnosis: a condition or complaint that either coexists with the principal diagnosis or arises during an episode of admitted patient care. An additional diagnosis is reported if the condition affects patient management. Compare with **principal diagnosis**.

admitted patient: a patient who undergoes a hospital's formal admission process.

age-standardised rates: rates adjusted for age in order to take into account differences in age structures when comparing different populations or across time—see Appendix B.

associated cause(s) of death: all causes listed on the death certificate, other than the **underlying cause of death**. They include the immediate cause, any intervening causes, and conditions which contributed to the death but were not related to the disease or condition causing the death. See also **cause of death**.

capital expenditure: expenditure on large-scale fixed assets (for example, new buildings and equipment with a useful life extending over a number of years). Compare with **recurrent expenditure**.

cause of death: all diseases, morbid conditions or injuries that either resulted in or contributed to death, and the circumstances of the accident or violence that produced any such injuries, as entered on the Medical Certificate of Cause of Death. Causes of death are commonly reported using the **underlying cause of death**. See also **associated cause(s) of death**.

COAG: the Council of Australian Governments is the peak intergovernmental forum in Australia, comprising the Prime Minister, state premiers, territory chief ministers and the President of the Australian Local Government Association. For more information, see <www.coag.gov.au>.

determinant: a factor that can increase the chances of ill health (risk factor) or good health (protective factor) in a population or individual. By convention, services or other programs that aim to improve health are usually not included.

dialysis: an artificial method of removing waste substances from the blood and regulating levels of circulating chemicals—functions usually performed by the kidneys.

disposable income: equal to gross (total) income minus income tax, the Medicare levy and the Medicare levy surcharge. Disposable income is sometimes referred to as net income. See also **equivalised household income**.

dwelling: a structure or a discrete space within a structure intended for people to live in, or where a person or group of people live. Thus, a structure that people live in is a dwelling regardless of its intended purpose, but a vacant structure is only a dwelling if intended for human residence.

employment-to-population ratio: for any group, the number of employed people expressed as a percentage of the population in the same group.

equivalised household income: an indicator of the economic resources available to a 'standardised household' that takes into account variations in **household** size and composition by the application of an equivalence scale. For a one-person household, it is equal to income received. For a household comprising more than 1 person, it is an indicator of the household income that a one-person household would require to enjoy the same level of economic wellbeing. This indicator can be calculated based on **disposable income** or gross (total) income.

external cause: the term used in disease classification to refer to an event or circumstance in a person's external environment that is regarded as a cause of injury or poisoning.

fertility rate: number of live births per 1,000 females aged 15–49.

hospitalisation (or separation): an episode of admitted patient care, which can be a total hospital stay (from admission to discharge, transfer or death) or a portion of a hospital stay beginning or ending in a change of type of care (for example, from acute care to rehabilitation).

household: a group of 2 or more related or unrelated people who usually reside in the same **dwelling**, and who make common provision for food or other essentials for living, or an individual living in a dwelling who makes provision for his or her own food and other essentials for living, without combining with any other person.

incidence: the number of new cases (of an illness or event, and so on) occurring during a given period. Compare with **prevalence**.

Indigenous: used interchangeably with **Aboriginal and/or Torres Strait Islander** in this report (also see Box 1.3).

Indigenous Community Frame: an ABS-defined group of discrete Indigenous communities (including any outstations associated with them) in remote areas of New South Wales, Queensland, South Australia, Western Australia and the Northern Territory.

Indigenous household: a household in which at least 1 resident of any age identified as being of **Aboriginal and/or Torres Strait Islander** origin.

Kessler-5: a measure of psychological distress which is based on responses to a subset of 5 questions from the full Kessler Psychological Distress Scale, which has 10 questions. A high score indicates that the person may be experiencing feelings of anxiety or depression on a regular basis, whereas a low score indicates that the person is experiencing these feelings less frequently or not at all.

life expectancy: a summary measure of mortality that indicates how long, on average, a person is expected to live if current mortality rates in every age group remained constant throughout a person's life. It is expressed as the number of years of life remaining for a person at a given age, usually at birth.

mammogram: X-ray of the breast. It may be used to assess a breast lump or as a screening test in women with no evidence of cancer.

non-Indigenous: people who have indicated they are not of **Aboriginal and/or Torres Strait Islander** origin. Compare with **other Australians**.

other Australians: includes people who did not identify as being of **Aboriginal and/or Torres Strait Islander** origin, and people for whom information on their Indigenous status was not available. Compare with **non-Indigenous**.

prevalence: the number or proportion (of cases, instances, and so forth) in a population at a given time. Compare with **incidence**.

principal diagnosis: the diagnosis established after study to be chiefly responsible for occasioning a patient's episode of admitted patient care. Compare with **additional diagnosis**.

recurrent expenditure: expenditure that does not result in the creation or acquisition of fixed assets (new or second-hand). It consists mainly of expenditure on wages, salaries and supplements, purchases of goods and services, and consumption of fixed capital. It excludes expenditure on capital. Compare with **capital expenditure**.

remoteness areas: a classification of the remoteness of a location using the Australian Statistical Geography Standard Remoteness Structure, based on the Accessibility/Remoteness Index of Australia which measures the remoteness of a point based on the physical road distance to the nearest urban centre (ABS 2013e).

severe or profound disability: as used in this report, refers to people with severe or profound core activity limitation, meaning they always or sometimes needed help with 'core activities' (that is, self-care, mobility and communication).

statistical significance: an indication from a statistical test that an observed difference or association may be significant or 'real' because it is unlikely to be due just to chance—see Appendix B.

total fertility rate: a summary measure that describes the average number of children a woman could expect to bear during her lifetime if she experienced current age-specific fertility rates at each age of her reproductive life.

underlying cause of death: the disease or injury that initiated the sequence of events leading directly to death, or the circumstances of the accident or violence that produced the fatal injury. See also **cause of death** and **associated cause(s) of death**.

unemployed person: a person aged 15 or over who was not employed during the reference week but had actively looked for work and was currently available for work.

unemployment rate: the number of unemployed people as a proportion of the labour force.

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The health and welfare of Australia's Aboriginal and Torres Strait Islander peoples 2015 provides a comprehensive statistical picture of a range of topics considered important for improving the health and welfare of Indigenous people. The report, which is the eighth in a series, presents up-to-date statistics, as well as trend information. It examines differences between Indigenous and non-Indigenous Australians, as well as differences by factors such as age, sex and remoteness.