



Australian Government


Australian Institute of  
Health and Welfare

Aboriginal and Torres Strait Islander  
Health Performance Framework  
2014 report

**Victoria**







# **Aboriginal and Torres Strait Islander Health Performance Framework 2014 report**

**Victoria**

Australian Institute of Health and Welfare  
Canberra

Cat. no. IHW 160

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# Abbreviations

AATSIHS	Australian Aboriginal and Torres Strait Islander Health Survey
ABS	Australian Bureau of Statistics
ACIR	Australian Childhood Immunisation Register
ACT	Australian Capital Territory
AGPAL	Australian General Practice Accreditation Limited
AHW	Aboriginal health worker
AIHW	Australian Institute of Health and Welfare
AMS	Aboriginal Medical Service
ANZDATA	Australian and New Zealand Dialysis and Transplant Registry
AODTS- NMDS	Alcohol and Other Drug Treatment Services National Minimum Data Set
AQF	Australian Qualifications Framework
ARF	acute rheumatic fever
BEACH	Bettering the Evaluation and Care of Health
BMI	body mass index
CDEP	Community Development Employment Projects
CHINS	Community Housing and Infrastructure Needs Survey
CI	confidence intervals
COAG	Council of Australian Governments
COPD	chronic obstructive pulmonary disease
CSOM	chronic suppurative otitis media
DASR	Drug and Alcohol Services Reporting
DEEWR	(Australian Government) Department of Education, Employment and Workplace Relations
DoHA	(Australian Government) Department of Health and Ageing
DSNMDS	Disability Services National Minimum Data Set
ERP	estimated resident population
ESKD	end-stage kidney disease

ESRD	End-stage renal disease
FASD	fetal alcohol spectrum disorder
FOBT	fecal occult blood test
FTE	full-time equivalent
GP	general practitioner
GPA+	General Practice Accreditation Plus
GPMP	General Practice Management Plan
GSS	General Social Survey
HfL	Healthy for Life
HIV/AIDS	human immunodeficiency virus/acquired immunodeficiency syndrome
HPF	Aboriginal and Torres Strait Islander Health Performance Framework
ICD-10-AM	International statistical classification of disease and related health problems, 10th revision, Australian modification, 4th edition
IHO	Indigenous Housing Organisation
IRSAD	Index of Relative Socio-Economic Advantage and Disadvantage
KPI	key performance indicator
MBS	Medicare Benefits Schedule
MCEECDYA	Ministerial Council for Education, Early Childhood Development and Youth Affairs
NAGATSIHID	National Advisory Group on Aboriginal and Torres Strait Islander Health Information and Data
NAHA	National Affordable Housing Agreement
NAPEDCD	National Non-admitted Patient Emergency Department Care Database
NAPLAN	National Assessment Program—Literacy and Numeracy
NATSIHON	National Aboriginal and Torres Strait Islander Health Officials Network
NATSISS	National Aboriginal and Torres Strait Islander Social Survey
NCMHCD	National Community Mental Health Care Database
NCVER	National Centre for Vocational Education Research
NDA	National Disability Agreement
n.e.c	not elsewhere classified



NHMRC	National Health and Medical Research Council
NHMD	National Hospital Morbidity Database
NHS	National Health Survey
NIRA	National Indigenous Reform Agreement
NMDS	national minimum data set
NNDSS	National Notifiable Diseases Surveillance System
NOPSAD	National Opioid Pharmacotherapy Statistics Annual Data
NPAH	National Partnership Agreement on Homelessness
NPSU	National Perinatal Statistics Unit
NSSC	National Schools Statistics Collection
NSW	New South Wales
NT	Northern Territory
NTER	Northern Territory Emergency Response
OATSIH	Office of Aboriginal and Torres Strait Islander Health
OECD	Organisation for Economic Co-operation and Development
ORIC	Office of the Registrar of Indigenous Corporations
OSR	Online Services Report
PBS	Pharmaceutical Benefits Scheme
PES	Post Enumeration Survey
PMRT	Performance Measurement and Reporting Taskforce
Qld	Queensland
RHD	rheumatic heart disease
SA	South Australia
SAAPNDC	Supported Accommodation Assistance Program National Data Collection
SAR	Service Activity Reporting
SEIFA	Socio-Economic Indexes for Areas
SFNT	Stronger Futures in the Northern Territory
SHSC	Specialist Homelessness Services Collection
SIDS	sudden infant death syndrome



SIH	Survey of Income and Housing
STIs	sexually transmissible infections
TAFE	Technical and Further Education
Tas	Tasmania
TCA	Team Care Arrangement
VET	Vocational Education and Training
Vic	Victoria
VII	Voluntary Indigenous Identifier
WA	Western Australia
WHO	World Health Organization



## Summary

The *Aboriginal and Torres Strait Islander Health Performance Framework 2014* report for Victoria finds areas of improvement as well as areas of concern in the health of Aboriginal and Torres Strait Islander people living in Victoria (Table S1).

Areas of improvement include:

- There was a large increase in the rate of Medicare recorded health assessments for Indigenous Australians, from 9 per 1,000 in 2006–07 to 111 per 1,000 in 2013–14.
- The gap in the low birthweight rate for singleton babies born to Indigenous and other mothers decreased from 6.3% in 2001 to 5.8% in 2011.

Other favourable results include:

- The immunisation coverage rate for Indigenous children is slightly higher than for other children at age 5.
- The gap in literacy and numeracy attainment between Indigenous and non-Indigenous students in Victoria is considerably smaller than at the national level.
- The proportion of Indigenous women who smoke during pregnancy is lower in Victoria than nationally (38% compared with 49%).

Areas of concern include:

- The proportion of Indigenous women who smoke during pregnancy is 3 times that of non-Indigenous women.
- Indigenous mothers had lower rates of access to antenatal care in the first trimester of pregnancy (41% compared with 56% for non-Indigenous mothers).
- The incidence of end-stage kidney disease for Indigenous Australians increased from 15 per 100,000 in 1997 to 29 per 100,000 in 2012, and is more than 4 times the rate among non-Indigenous Australians.
- Indigenous Australians are almost 5 times as likely as non-Indigenous Australians to be hospitalised for injury and poisoning due to assault, and more than twice as likely to be hospitalised for intentional self-harm.
- Unemployment rates for Indigenous Australians aged 15–64 continue to be higher for Indigenous than non-Indigenous Australians (19% compared with 4%).

**Table S1: Key measures of Aboriginal and Torres Strait Islander health, national and Victoria**

Topic	Measure	National		Victoria	
		Indigenous <sup>(a)</sup>	Age-standardised gap <sup>(b)</sup>	Indigenous <sup>(a)</sup>	Age-standardised gap <sup>(b)</sup>
<b>Health status and outcomes</b>					
Low birthweight	Low birthweight live born babies per 100 live births (2011)	12.6	6.6*	12.9	6.7*
Hospitalisations	Total hospitalisations (excluding dialysis) per 1,000 population (2011–12 to 2012–13)	303.7	65.5 <sup>(c)</sup>	248.9	–2.1 <sup>(c)</sup>
Disease incidence and prevalence	Proportion of persons reporting circulatory disease as a long-term condition (2012–13)	12.7	3.7*	10.0	–0.1 <sup>(c)</sup>
	Age-standardised proportion of persons with diabetes (2012–13)	17.9	12.8 <sup>(c)</sup>	n.a.	n.a.
	Age-standardised incidence of cancer per 100,000 population (2005–2009)	408.1	–31.9 <sup>(c)</sup>	n.a.	n.a.
	Age-standardised rate of treated end-stage kidney disease per 100,000 population (2010–2012)	61.7	52.4*	43.7	33.8*
Social and emotional wellbeing	Proportion of adults reporting high/very high levels of psychological distress (2012–13)	30.2	18.6 <sup>(c)</sup>	32.4	20.3 <sup>(c)</sup>
Disability	Proportion of persons with a disability or restrictive long-term health condition (2012–13)	35.7	14.9*	44.1	23.3*
Mortality	Life expectancy at birth, males (2010–2012)	69.1	–10.6 <sup>(c)</sup>	n.a.	n.a.
	Life expectancy at birth, females (2010–2012)	73.7	–9.5 <sup>(c)</sup>	n.a.	n.a.
	Age-standardised mortality rate per 100,000 population (2009–2013)	985.0	399.8*	n.a.	n.a.
	Age-standardised mortality rate for avoidable and preventable deaths (0–74) per 100,000 population (2008–2012)	442.7	297.4*	n.a.	n.a.
	Age-standardised mortality rate for circulatory diseases per 100,000 population (2008–2012)	285.7	93.8*	n.a.	n.a.
	Child 0–4 mortality rate per 100,000 population (2009–2013)	169.2	79.9*	n.a.	n.a.
	Infant mortality rate per 1,000 live born infants (2009–2013)	6.3	2.6*	n.a.	n.a.

(continued)



Table S1 (continued): Key measures of Aboriginal and Torres Strait Islander health, national and Victoria

Topic	Measure	National		Victoria	
		Indigenous <sup>(a)</sup>	Age-standardised gap <sup>(b)</sup>	Indigenous <sup>(a)</sup>	Age-standardised gap <sup>(b)</sup>
<b>Determinants of health</b>					
Housing	Proportion of persons living in overcrowded households (2012–13)	22.7	17.4*	14.2	8.3 <sup>(c)</sup>
Environmental tobacco smoke	Proportion of children aged 0–14 living in households with daily smokers who smoke at home indoors (2012–13)	28.4	16.5*	40.8	9.9 <sup>(c)</sup>
Education	Proportion of Year 7 students achieving reading benchmark (2014)	77.1	-18.8 <sup>(c)</sup>	84.3	-11.6 <sup>(c)</sup>
	Proportion of Year 7 students achieving writing benchmark (2014)	59.3	-30.9 <sup>(c)</sup>	68.9	-22.1 <sup>(c)</sup>
	Proportion of Year 7 students achieving numeracy benchmark (2014)	79.5	-16.6 <sup>(c)</sup>	83.6	-12.2 <sup>(c)</sup>
	Apparent retention rate Years 7/8 to Year 12 (2013)	55.1	-27.8 <sup>(c)</sup>	55.1	-29.0 <sup>(c)</sup>
Employment	Labour force participation rate, persons aged 15–64 (2012–13)	60.1	-19.9*	59.9	-19.8*
	Employment rate (proportion of population employed), persons aged 15–64 (2012–13)	47.5	-29.1*	48.7	-27.8*
	Unemployment rate, persons aged 15–64 (2012–13)	20.9	16.7*	18.6	14.5*
Income	Proportion of persons aged 18 and over in the bottom 20% of equivalised gross weekly household income (2012–13)	42.5	25.6*	36.8	17.9*
Transport	Proportion of households with at least 1 motor vehicle (2011)	81.2	-10.3 <sup>(c)</sup>	84.0	-7.4 <sup>(c)</sup>
Community safety	Imprisonment rate per 100,000 adults (2013)	2,039.5	1,598.1 <sup>(c)</sup>	1,330.2	1,078.8 <sup>(c)</sup>
	Age-standardised hospitalisation rate for assault per 1,000 population (2011–12 to 2012–13)	9.8	9.0 <sup>(c)</sup>	3.1	2.5 <sup>(c)</sup>

(continued)

**Table S1 (continued): Key measures of Aboriginal and Torres Strait Islander health, national and Victoria**

Topic	Measure	National		Victoria	
		Indigenous <sup>(a)</sup>	Age-standardised gap <sup>(b)</sup>	Indigenous <sup>(a)</sup>	Age-standardised gap <sup>(b)</sup>
Health behaviours	Proportion of persons aged 15 and over who are current smokers (2012–13)	43.7	25.4*	43.7	n.a.
	Proportion of persons aged 18 and over who drank at risky/high-risk levels on any occasion during last 12 months (2012–13)	57.1	6.6 <sup>(c)</sup>	62.4	10.7 <sup>(c)</sup>
	Proportion of mothers who smoked during pregnancy (2011)	50.0	36.7*	42.1	25.2 <sup>(c)</sup>
Overweight and obesity	Proportion of persons aged 15 and over who are obese (2012–13)	37.4	14.8*	34.1	n.a.
<b>Health system performance</b>					
Early detection and prevention, health promotion	Proportion of mothers who attended an antenatal care session during the first trimester of pregnancy (2011)	50.0	-14.8*	38.7	-15.0*
	Proportion of 5 year olds fully vaccinated (2013)	92.8	1.1	93.4	1.0
	Age-standardised proportion of women aged 50–69 who participated in BreastScreen Australia programs (2011–12)	33.3	-21.7 <sup>(c)</sup>	26.9	-27.7 <sup>(c)</sup>
	Child 0–14 health checks, rate per 1,000 population (2013–14)	194.2	..	110.8	..
	Adult 15–54 health assessments, rate per 1,000 population (2013–14)	205.0	..	131.1	..
	Adult 55+ health assessments, rate per 1,000 population (2013–14)	325.0	..	186.3	..
Chronic disease management/care planning	General Practice Management Plans (GPMPs), rate per 1,000 population (2013–14)	76	41.7*	65.0	24.1*
	Team Care Arrangements (TCAs), rate per 1,000 population (2013–2014)	63	37.7*	51.0	17.1*
	MBS allied health services provided, rate per 1,000 population (2013–14)	252	-51.8*	332.0	-51.3*
Access to hospital procedures	Age-standardised proportion of hospitalisations (excluding dialysis) with a procedure recorded (2011–12 to 2012–13)	58.8	-21.1 <sup>(c)</sup>	70.8	-11.4 <sup>(c)</sup>

(continued)

**Table S1 (continued): Key measures of Aboriginal and Torres Strait Islander health, national and Victoria**

Topic	Measure	National		Victoria	
		Indigenous <sup>(a)</sup>	Age-standardised gap <sup>(b)</sup>	Indigenous <sup>(a)</sup>	Age-standardised gap <sup>(b)</sup>
Access to health services	MBS non-referred GP services claimed, rate per 1,000 population (2013–14)	5,165	532.3*	6,093.0	1,288.6*
	Age-standardised community mental health care service contacts, per 1,000 population (2012–13)	999.2	686.1 <sup>(c)</sup>	n.a.	n.a.
	Proportion of presentations to emergency departments which were after-hours (2011–12 to 2012–13)	58.7	2.7 <sup>(c)</sup>	58.8	2.5 <sup>(c)</sup>
Workforce, training and resources	People in the health workforce (rate per 10,000 population) (2011)	155.1	-189.0 <sup>(c)</sup>	186.1	-161.9 <sup>(c)</sup>
	Proportion of undergraduates enrolled in health-related courses who were Indigenous (2012)	1.8	..	0.8	..
	Proportion of VET students enrolled in health-related courses who were Indigenous (2012)	4.8	..	0.9	..
Expenditure	State and territory government health expenditure per person (2010–11)	5,460.4	3,331.6 <sup>(c)</sup>	4,855.8	2,826.0 <sup>(c)</sup>

\* Represents statistically significant differences between Indigenous and non-Indigenous data at the  $p < 0.05$  level.

(a) Indigenous crude rates are presented unless otherwise indicated in the measure description.

(b) Age-standardised gap is Indigenous age-standardised rate minus the non-Indigenous age-standardised rate. Age-standardised comparisons take into account the differences in the age structure between the Indigenous and non-Indigenous populations. The age-standardised gap cannot be used to calculate the non-Indigenous rate. Note that age-standardisation is not appropriate for the following measures and gaps calculated on crude rates have been presented for: low birthweight, housing, employment, education, motor vehicles, income, children in households with daily smokers, child health checks, emergency department presentations, health workforce and higher education data. Age-standardised gap is positive (+) when Indigenous rate is higher than non-Indigenous rate and negative (-) when Indigenous rate is lower than non-Indigenous rate.

(c) Differences between Indigenous and non-Indigenous are not tested for statistical significance.



# Introduction

This report provides information on a range of measures of health status, determinants of health and the health system performance relating to Aboriginal and Torres Strait Islander people in Victoria. The report is based on the *Aboriginal and Torres Strait Islander Health Performance Framework 2014 report, detailed analyses*, the fifth in a series of reports against the Aboriginal and Torres Strait Islander Health Performance Framework (HPF) which are published every 2 years. Analysis presented in this report includes jurisdiction-specific measures and how they compare with national measures. Detailed tables to support the analysis can be found on the AIHW website in the form of Excel tables. See <http://www.aihw.gov.au/indigenous-data/health-performance-framework/>.

The HPF comprises 3 tiers:

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

**Tier 2 – Determinants of health.** This tier covers determinants of health that focus on factors outside the health system that affect the health of Aboriginal and Torres Strait Islander people. This includes socioeconomic status (for example, income and education), environmental factors (for example, overcrowding), community capacity (for example, child protection), health behaviours (for example, risky alcohol consumption or dietary behaviour) and person-related factors (for example, prevalence of overweight and obesity). Such factors have been shown to have a strong association with disease and ill health.

**Tier 3 – Health system performance.** This tier covers the performance of the health system, including population health, primary health care and secondary/tertiary care services. Six domains are covered: effectiveness of health services, responsiveness of health services to Aboriginal and Torres Strait Islander communities and individuals, accessibility of services, continuity, capability and sustainability. This tier includes measures that deal with a range of programs and service types, including child and maternal health, early detection and chronic disease management, continuous care, access to secondary/tertiary care, and the health workforce and expenditure. The safety and quality of health care is measured through the Australian Safety and Quality Framework for Health Care <http://www.safetyandquality.gov.au>.

The tiers and domains of the HPF and selected measures are shown in Figure 1. There are currently 68 measures that can be reported at the national level but not all can be reported for individual jurisdictions due to data availability and quality issues. Information on why these indicators were selected is in the Aboriginal and Torres Strait Islander Health Performance Framework 2014 policy report (AHMAC 2015).

Tier 1—Health status and outcomes		
<b>Health conditions</b> 1.01 Low birthweight 1.02 Top reasons for hospitalisation 1.03 Injury and poisoning 1.04 Respiratory disease 1.05 Circulatory disease 1.06 Acute rheumatic fever & rheumatic heart disease* 1.07 High blood pressure 1.08 Cancer 1.09 Diabetes 1.10 Kidney disease 1.11 Oral health 1.12 HIV/AIDS, hepatitis and sexually transmissible infections	<b>Human function</b> 1.13 Community functioning 1.14 Disability 1.15 Ear health 1.16 Eye health  <b>Life expectancy and wellbeing</b> 1.17 Perceived health status 1.18 Social and emotional wellbeing 1.19 Life expectancy at birth	<b>Deaths</b> 1.20 Infant and child mortality 1.21 Perinatal mortality 1.22 All causes age-standardised death rates 1.23 Leading causes of mortality 1.24 Avoidable and preventable deaths
Tier 2—Determinants of health		
<b>Environmental factors</b> 2.01 Housing 2.02 Access to functional housing with utilities 2.03 Environmental tobacco smoke  <b>Socioeconomic factors</b> 2.04 Literacy and numeracy 2.05 Education outcomes for young people 2.06 Educational participation and attainment of adults 2.07 Employment 2.08 Income 2.09 Index of disadvantage	<b>Community capacity</b> 2.10 Community safety 2.11 Contact with the criminal justice system 2.12 Child protection 2.13 Transport 2.14 Indigenous people with access to their traditional lands	<b>Health behaviours</b> 2.15 Tobacco use 2.16 Risky alcohol consumption 2.17 Drug and other substance use including inhalants 2.18 Physical activity 2.19 Dietary behaviour 2.20 Breastfeeding practices 2.21 Health behaviours during pregnancy  <b>Person-related factors</b> 2.22 Overweight and obesity
Tier 3—Health system performance		
<b>Effective/appropriate/efficient</b> 3.01 Antenatal care 3.02 Immunisation 3.03 Health promotion 3.04 Early detection and early treatment 3.05 Chronic disease management 3.06 Access to hospital procedures 3.07 Potentially preventable hospital admissions 3.08 Cultural competency  <b>Responsive</b> 3.09 Discharge against medical advice 3.10 Access to mental health services 3.11 Access to alcohol and drug services 3.12 Aboriginal and Torres Strait Islander Australians in the health workforce 3.13 Competent governance	<b>Accessible</b> 3.14 Access to services compared with need 3.15 Access to prescription medicines 3.16 Access to after-hours primary health care  <b>Continuous</b> 3.17 Regular GP or health service 3.18 Care planning for chronic diseases	<b>Capable</b> 3.19 Accreditation 3.20 Aboriginal and Torres Strait Islander people training for health-related disciplines  <b>Sustainable</b> 3.21 Expenditure on Aboriginal and Torres Strait Islander health compared with need 3.22 Recruitment and retention of staff

**Figure 1: Aboriginal and Torres Strait Islander Health Performance Framework Measures**

Shading indicates that Victorian data are unavailable, or data are not of sufficient quality for reporting.



## Demographic information

The preliminary estimated resident Aboriginal and Torres Strait Islander population of Victoria at 30 June 2014 was about 50,893 people (ABS 2014a), accounting for 7.1% of Australia's Indigenous population. Indigenous people represent 0.9% of the Victorian population, which is much lower than the proportion of Indigenous people in the total Australian population (3.0%) (Table 1 Vic).

**Table 1 Vic: Preliminary estimated resident population by Indigenous status, Victoria and Australia, 30 June 2014**

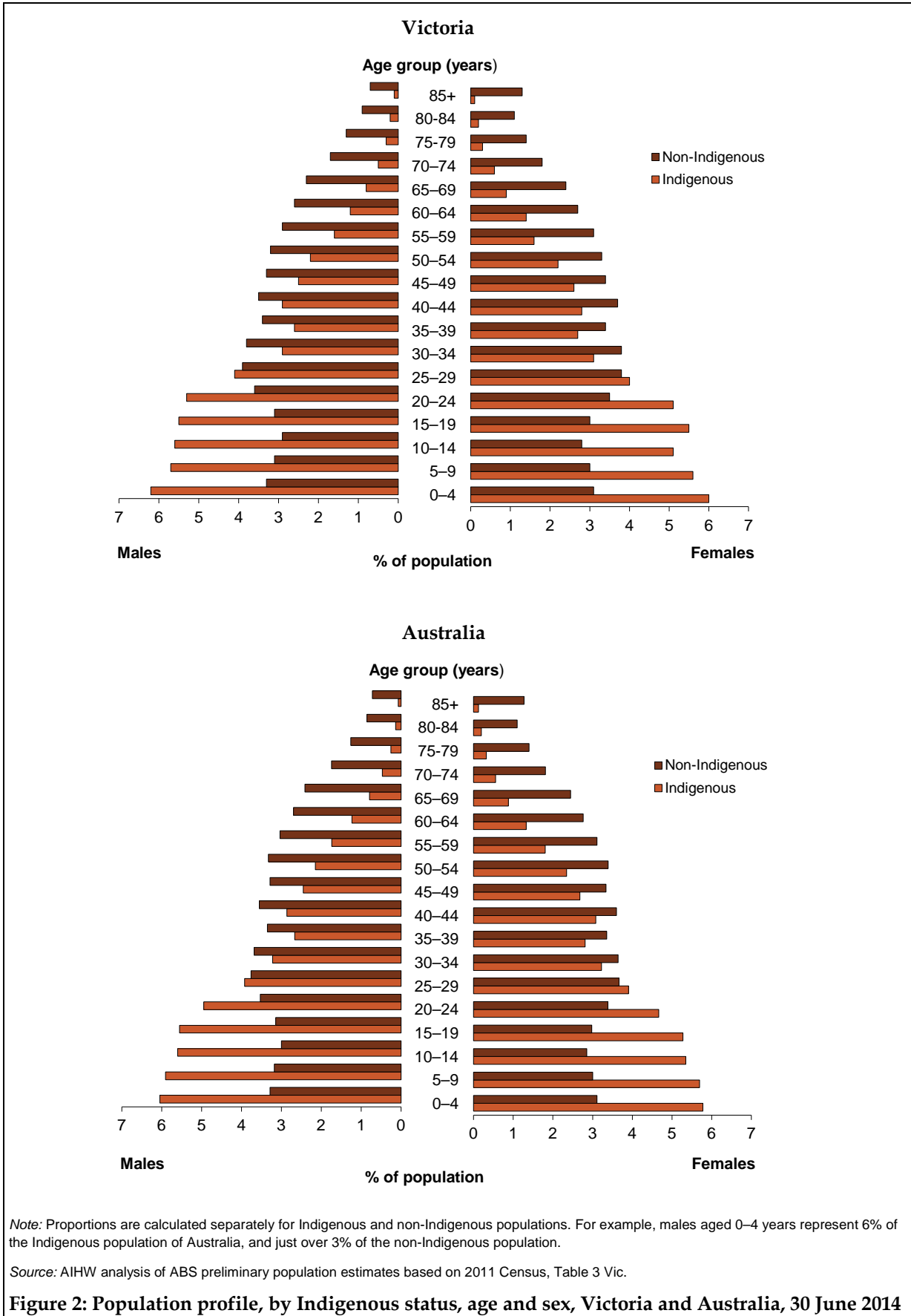
	Indigenous		Non-Indigenous		Total			% non-Indig.
	Number	%	Number	%	Number	%	% Indig.	
Victoria	50,983	7.1	5,777,986	25.3	5,828,969	24.8	0.9	99.1
<b>Australia<sup>(a)</sup></b>	<b>713,589</b>	<b>100.0</b>	<b>22,810,466</b>	<b>100.0</b>	<b>23,524,055</b>	<b>100.0</b>	<b>3.0</b>	<b>97.0</b>

(a) Australia total includes 'other Territories'.

Source: AIHW analysis of ABS preliminary population estimates based on 2011 Census.

The Aboriginal and Torres Strait Islander population has an age structure that is significantly younger than that of other Australians. For example, in Victoria, Aboriginal and Torres Strait Islander people aged under 15 constitute 34% of the Indigenous population, whereas this age group represents 18% of the non-Indigenous population. Conversely, people aged 65 and over comprise only 4% of the Indigenous population in Victoria, compared with 15% of the non-Indigenous population (Figure 2).

In Victoria, more than four-fifths of Aboriginal and Torres Strait Islander people lived in *Major cities* (49.9%) and *Inner regional* (35.1%) areas. Only 15.0% lived in *Outer regional* and *Remote* areas. In comparison, about three-quarters of the total Indigenous population in Australia lived in *Major cities* (34.8%), *Inner regional* (22.0%) and *Outer regional* (21.8%) areas, with just under a quarter in *Remote* (7.7%) and *Very remote* areas (13.7%) (Table 2 Vic).



**Table 2 Vic: Estimated resident population by remoteness area and Indigenous status, Victoria and Australia, 30 June 2011**

	Indigenous		Non-Indigenous		Total			% non-Indig.
	Number	%	Number	%	Number	%	% Indig.	
<b>Victoria</b>								
Major cities	23,622	49.9	4,191,365	76.3	4,214,987	76.1	0.6	99.4
Inner regional	16,620	35.1	1,056,336	19.2	1,072,956	19.4	1.5	98.5
Outer regional and remote	7,091	15.0	242,783	4.4	249,874	4.5	2.8	97.2
<b>Victoria</b>	<b>47,333</b>	<b>100.0</b>	<b>5,490,484</b>	<b>100.0</b>	<b>5,537,817</b>	<b>100.0</b>	<b>0.9</b>	<b>99.1</b>
<b>Australia</b>								
Major cities	233,146	34.8	15,451,394	71.3	15,684,540	70.2	1.5	98.5
Inner regional	147,683	22.0	3,963,346	18.3	4,111,029	18.4	3.6	96.4
Outer regional	146,129	21.8	1,880,300	8.7	2,026,429	9.1	7.2	92.8
Remote	51,275	7.7	263,401	1.2	314,676	1.4	16.3	83.7
Very remote	91,648	13.7	111,702	0.5	203,350	0.9	45.1	54.9
<b>Australia</b>	<b>669,881</b>	<b>100.0</b>	<b>21,670,143</b>	<b>100.0</b>	<b>22,340,024</b>	<b>100.0</b>	<b>3.0</b>	<b>97.0</b>

Source: AIHW analysis of ABS population estimates based on 2011 Census.

## Structure of this report

This report presents the most recent data available at the time of writing, which varies by data source (see Table S1 for the most recent year/period for which key statistics are reported). Analyses for each measure are presented in order, through Tier 1 – Health status and outcomes, Tier 2 – Determinants of health and Tier 3 – Health system performance.


The format of this report is different to previous HPF reports for Victoria. More graphs are included, and key findings for Australia are presented in each measure to enable comparison of Indigenous people in Victoria with Indigenous people nationally. In each measure, trend data are highlighted in the text where these are available, and where possible the analysis focuses on the gap between Indigenous and non-Indigenous Australians.

Detailed tables to support the analyses presented in this report can be found on the AIHW website in the form of Excel tables. See <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

## Interpreting the data in this report

### Data sources and limitations

Data in this report come from a number of different administrative data sets and surveys, all of which have limitations that should be considered when interpreting the results. A brief description of the major data sources used in this report is at Appendix 1; a more detailed



description of all data sources and comments on data quality can be found on the AIHW website at <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### **Administrative data sources**

Health-related administrative data sets used for this report include the Australian Institute of Health and Welfare's National Hospital Morbidity Database, the National Mortality Database, the Community Mental Health Care Database, the National Perinatal Data Collection, the Australia and New Zealand Dialysis and Transplant Registry, the National Notifiable Diseases Surveillance System, the Online Services Report data collection and Medicare databases. Administrative data related to education include the Australian Bureau of Statistics National Schools Statistics Collection, Department of Education and Training Higher Education Student Statistics Collection and the National Vocational Education and Training database. Community services related data include the National Child Protection Data collections.

The main limitation in most of these administrative data collections is the under-identification of Aboriginal and Torres Strait Islander people. Under-identification is a problem in mortality, hospital morbidity and communicable disease data, particularly in some states and territories. Data analysis using these sources has therefore been limited to jurisdictions with adequate identification of Indigenous people, and this has been noted in relevant measures. Time-series analyses may also be affected by changes in the quality of Indigenous identification over time.

For current hospitalisation results (for 2011–12 and 2012–13 combined), all states and territories are considered as having data of sufficient quality to be included in the analyses. For short-term trends (2004–05 to 2012–13), data from New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory are used. For longer-term trends (1998–99 to 2012–13), data from only Queensland, Western Australia, South Australia and the Northern Territory are used.

For both current and long-term mortality data (from 1998 onwards), New South Wales, Queensland, Western Australia, South Australia and the Northern Territory are considered as having adequate levels of Indigenous identification to be included in the analyses.


Data on communicable diseases from the National Notifiable Disease Surveillance System have been found to have varying levels of completeness across diseases and jurisdictions. Results for each disease include only data from those jurisdictions considered to have adequate levels of Indigenous identification for that disease. Footnotes in tables and figures specify which jurisdictions have been included in each case.

The incompleteness of Indigenous identification in many administrative data sources results in an underestimate of the true rates for Indigenous Australians.

### **Surveys and other non-administrative data sources**

Surveys that were used to obtain data for this report include Indigenous-specific surveys such as the Australian Aboriginal and Torres Strait Islander Health Survey (AATSIHS), and the National Aboriginal and Torres Strait Islander Social Survey (NATSISS). Data from the Census of Population and Housing have also been used.

Surveys are also subject to a number of data limitations due to sampling and non-sampling errors, such as bias in responses. In many tables that are referred to in this report, estimates with large relative standard errors (which is a measure of the sampling variability) have been



footnoted to indicate that they should be used with caution or are considered too unreliable for general use.

For convenience, text and tables including data from the 2012–13 AATSIHS and the 2011–12 Australian Health Survey (which provides a non-Indigenous comparator) are referred to as being 2012–13 data.

## **Methods used for analysis**

### **Comparator population**

This report focuses on the health of Aboriginal and Torres Strait Islander people and how they are faring relative to other Australians. Wherever possible, results for Indigenous Australians are compared with those for non-Indigenous Australians – that is, people who identified as not being of Aboriginal or Torres Strait Islander origin. This is not always possible, however: some data sources do not allow for the separate identification of people who identified as not being of Aboriginal and/or Torres Strait Islander origin, and people for whom no Indigenous status information was available. For other data sources, investigation has shown that the characteristics of records with unknown Indigenous status tend to be more similar to those specified as not Indigenous than to those specified as Indigenous, and so may be grouped together with the ‘not Indigenous’ records. In these cases, results for Indigenous Australians are compared with those for ‘other Australians’, where the ‘other Australians’ group comprises non-Indigenous people and those of unknown Indigenous status. Text, tables and figures in this report clearly note whether ‘non-Indigenous Australians’ or ‘other Australians’ are the comparator population.


### **Population data**

Population data are required when computing rates. The 2011 ERP is the latest available data that gives an estimate of the number of Aboriginal and Torres Strait Islander people in the population. Unless otherwise noted, denominators used to calculate Indigenous Australian rates in this report are therefore based on the ABS backcast Indigenous population estimates and projections based on the 2011 Census. Estimates of the non-Indigenous population for each year have been calculated by subtracting the Indigenous population estimates from the total Australian ERP. These estimates have been used as denominators for both the ‘non-Indigenous’ and ‘other Australian’ rates.

The Census enumerated the Indigenous population from responses to a question on a person’s Indigenous status. The Indigenous ERP for 2011 is computed using this enumerated figure, and adjusted for undercount based on results from the Post-Enumeration Survey (PES) as well as for non-response to the Indigenous status question (ABS 2013a). Estimates of the Indigenous ERP at June 2011, based on the 2011 Census, are about 30% higher than estimates of the 2006 Indigenous ERP based on the 2006 Census. This increase involved a 21% increase in the Census count (mostly at age groups below 19 years) and an increase in the measured undercount (influenced by improved PES questions on Indigenous status). Historical rates presented in this report will therefore be different to those presented in previous HPF reports.

### **Calculating 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). In such situations, more meaningful comparisons can be made by using **age-standardised rates**, with such rates taking into account differences in age structures of the populations.

For this report, the Australian estimated resident population at 30 June 2001 (based on the 2001 Census) has been used as the standard population 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. Unless otherwise noted (specifically, for hospital procedures and some perinatal data), direct age-standardisation has been used in this report.

### **Effects of rounding**

Entries in columns and rows of tables may not add to the totals shown because of rounding. Derived values (such as proportions, rates, rate ratios and rate differences) are calculated using unrounded numbers. Percentages cited in the text therefore may not add to 100 due to rounding.

### **Comparing rates at a point in time**

Comparison of rates for Indigenous and non-Indigenous (or other) Australians has been done by calculating 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.

To determine whether the Indigenous and non-Indigenous rates are significantly different from each other, 95% confidence intervals are constructed around the rate difference or rate ratio. If these show that the rate difference is statistically significantly different from zero, or the rate ratio is significantly different from 1, then the rates are considered to be significantly different from each other at the  $p < 0.05$  level. A similar method has been used in tables which present data for subgroups of the Indigenous population (for example, smokers and





non-smokers), to determine whether the results for those groups are significantly different from each other.

Tables include an asterisk (\*) next to proportions, rates, rate ratios and rate differences to indicate that the results for the relevant groups are statistically different from each other at the  $p < 0.05$  level. Footnotes in each table specify which results are being compared. Where results of significance testing differ between rate ratios and rate differences, caution should be exercised in the interpretation of the tests.

### **Comparing rates over time**

In cases where at least 4 data points are available, linear regression analysis has been used to calculate annual change and overall percentage change over the period, to determine whether there have been significant changes in the observed rates. 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 is narrower than the confidence limits calculated around the rates separately. When linear regression analysis was used, this has been footnoted in the tables.

Linear regression uses the least squares method to calculate a straight line that best fits the data. The 'slope' of the line is an estimate of the average annual change in the data over the period; if the slope is statistically significantly greater (less) than zero then the data are said to have significantly increased (decreased) over the period. The annual change estimates presented in this report represent the change each year in the units presented in the table (for example, number of deaths, or rate per 1,000), rather than the average annual percentage change often presented in other publications.

In contrast to previous HPF publications, the overall percentage change estimates presented in this report are calculated using the start and end points of the fitted regression line, rather than the actual start and end data points. This overcomes the problem of variation from one data point to the next leading to highly variable percentage and annual change estimates. The time-trend results in this report should therefore not be compared with those in previous HPF publications.

Because percentage change is the change from the starting point (of the trend line), percentage change estimates presented for Indigenous and non-Indigenous Australians should not be compared with each other because the starting points are generally different. In contrast, annual change estimates presented for Indigenous and non-Indigenous Australians can be compared.

Both small numbers and variability in the data from year to year can make it difficult to detect significant changes over time, and can impact on any conclusions reached from a trend analysis. This is a particular problem when analysing trends for small populations such as the Indigenous population in the smaller jurisdictions. Care should be taken when assessing apparent changes over time, particularly those involving small numbers and a small number of data points.

Time-series analysis of rate ratios has not been undertaken in the 2014 HPF as the accuracy of this testing may be low. As rate ratios often do not increase or decrease linearly, applying linear regression to rate ratios may not accurately reflect the change over time.



## Remoteness areas

Remoteness is an important factor in understanding the health of Indigenous Australians. Remoteness areas in this report are classified 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 2013b).

The ABS classifications for remoteness have recently been subject to revision. Rates for 2011 Remoteness Areas are calculated using ERPs based on the 2011 Census and should not be compared with rates calculated using ERPs based on previous censuses.

## 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.

## Reading about diagnoses and causes of death

This report presents information on hospitalisations and deaths relating to specific diseases and injuries. This information usually refers to hospitalisations with a principal diagnosis of a particular disease or injury, or deaths with an underlying cause of the disease or external cause of injury (see **Glossary of important terms** below).


For ease of reading, in this report, the phrases ‘hospitalisations for’ or ‘hospitalised due to’ mean ‘hospitalisations with a principal diagnosis of’. Similarly, the phrase ‘deaths due to’ means ‘deaths with an underlying cause of’.

In death records, coding rules indicate that the event causing the injury or poisoning leading to death should be recorded as the underlying cause of death. These are referred to as ‘external causes’. For ease of reading, in this report, the phrase ‘deaths due to injury and poisoning’ is used to mean deaths with an underlying cause of an external cause of injury or poisoning.

## Data improvement activities

Jurisdictions, in liaison with the AIHW and the ABS, have been actively engaged and committed to undertaking a range of activities to improve the quality of Aboriginal and Torres Strait Islander data in health data collections. These activities were funded by the Council of Australian Governments (COAG) and the Australian Government with a total budget of \$46.4 million over 4 years to June 2013 under the National Indigenous Reform Agreement (COAG 2008). The activities cover the key data sets required for NIRA Indigenous reporting; for example, mortality, morbidity, perinatal data and population estimates.

Major data development activities done or in progress by the AIHW are described below. Major data developments achieved by the ABS include: improvements to the Census Indigenous enumeration procedures and expansion of the Census PES; timing of the Indigenous Social Surveys and Health Surveys scheduled at 6-yearly cycles in order to provide 3-yearly estimates for key statistics collected in both surveys and 2011 Census records linked with death registration records to assess the level of Indigenous identification.



A variety of data improvement activities have also been done or are in progress throughout the states and territories. Further detail on these activities is available in the HPF policy report technical appendix (AHMAC 2015).

## **Improving Indigenous identification in health data sets**

The AIHW released the *National best practice guidelines for collecting Indigenous status in health data sets* (AIHW 2010c) in April 2010. The AIHW National Indigenous Data Improvement Support Centre has been established to support jurisdictions and service providers to implement the guidelines. Reports on the assessment of the quality of Indigenous identification in labour-force data collections (AIHW 2009), the National Cancer Registry, and the National Diabetes Register have been finalised. A report on Phase 1 of the support and evaluation project of the guidelines, *Towards better Indigenous health data*, has also been published (AIHW 2013h).


The AIHW has advanced the recommendations of the report *Taking the next steps: identification of Aboriginal and Torres Strait Islander status in general practice* (AIHW 2013e) through its development of the online Indigenous health check (MBS 715) data tool. This innovative tool draws together 715 MBS billing data and Indigenous population data to show numbers of health checks and usage rates (the proportion of Indigenous people who have had a health check) by quarter and financial year. Data are available at geographic levels including national, jurisdictional, by Medicare Local and by Primary Health Network. The tool can be accessed via the AIHW website at <http://www.aihw.gov.au/indigenous-australians/indigenous-health-check-data-tool/>.

## **National best practice guidelines for data linkage activities relating to Aboriginal and Torres Strait Islander people**

The AIHW and ABS in partnership with jurisdictions developed national best practice guidelines for linking data relating to Indigenous people. The guidelines covered linkage methods and protocols, privacy protocols, quality standards, and procedures. The *National best practice guidelines for data linkage activities relating to Aboriginal and Torres Strait Islander people* (AIHW & ABS 2012) were released on 9 July 2012. Two companion documents, *Report on the use of linked data relating to Aboriginal and Torres Strait Islander people* and *Thematic list of projects using linked data relating to Aboriginal and Torres Strait Islander people*, describe and review past, ongoing and planned data linkage studies that have an Indigenous focus (AIHW 2013d; AIHW2013g).

## **Improving estimates of Indigenous under-identification in key data sets**

The AIHW and the ABS work in partnership with jurisdictions to lead analysis of the level of Indigenous under-identification in key data sets. As part of this work, the AIHW conducted a study in 2011–12 to assess the level of under-identification in public hospitals data, which was a repeat of a study done in 2007 (AIHW 2010b). All states and territories have participated in the study to assess improvements in data quality. *Indigenous identification in hospital separations data: quality report* (AIHW 2013c), which includes new correction factors for the level of Indigenous under-identification in hospital separations data at the national, state/territory and remoteness levels, was published in April 2013.



A scoping study investigating options for assessing the quality of Indigenous identification in administrative mental health services data collections is being done by the AIHW. The study will include the development of a business case for the preferred option.

## **Improving estimates of Indigenous mortality**

The AIHW is undertaking a project to develop an Enhanced Mortality Database by linking death registration records to several extra data sources that contain information on Aboriginal and Torres Strait Islander deaths (hospital, perinatal and residential aged care data). The enhanced data are expected to enable more accurate estimates of Aboriginal and Torres Strait Islander mortality, including life expectancy, to be made. Results from phases 1 and 2 of the project, which linked data for 2001 to 2006, produced national estimates of Aboriginal and Torres Strait Islander life expectancy at birth of 66.6 years for males and 72.7 for females, which was similar to the estimates produced by the ABS (AIHW 2012a). Two more phases of the Enhanced Mortality Database project are in progress. In Phase 3, the AIHW is linking the Enhanced Mortality Database with the NSW Native Title Services Corporation Database to validate the quality of the derived Indigenous status variable on the Enhanced Mortality Database. In Phase 4, the Enhanced Mortality Database is being extended to cover all deaths 2006–2010, with data linkage and data analysis taking place as new deaths data become available. Phase 4 is also exploring the use of extra algorithms to derive enhanced Indigenous status from the linked data.


The AIHW Linked Perinatal, Births, Deaths Dataset Project will create a national ongoing linked perinatal, birth and death data set for the purposes of analysing the factors affecting infant and child health outcomes in Australia. Infant and child mortality rates are important markers of population health. At the national level, aggregate data demonstrate that there are significant differences in infant and child mortality rates within Australia by factors such as Indigenous status. Currently, however, there is no way to link information on antenatal characteristics/behaviours with birth outcomes, and birth outcomes to infant and child deaths, and so we cannot analyse these factors simultaneously. The data set will be created by linking unit record level data across jurisdictions from perinatal data collections, birth records, and death records covering all births from 2003 to 2010, and deaths within this cohort of births from 2003 to 2015. Work on this project began in May 2013. The project has applied for, and received, ethics approval from the AIHW Ethics Committee as well as from Health Research Ethics committees in all jurisdictions. Agreements have also been reached with the Registrars (with the exception of ACT births data) and perinatal data custodians in all jurisdictions for the supply of perinatal data for the project.

## **Enhanced Perinatal National Minimum Data Set**

The AIHW is working with the states and territories to develop an enhanced Perinatal National Minimum Data Set (NMDS) to include nationally consistent data items on antenatal care, smoking and alcohol use during pregnancy, and Indigenous status of the baby. Nationally consistent data items on smoking during pregnancy, gestational age at first antenatal visit, and Indigenous status of the baby have been added to the Perinatal NMDS (from 1 July 2009, 1 July 2010, and 1 July 2012, respectively). A data item on number of antenatal visits was included in the Perinatal NMDS from 1 July 2013, although Victoria was not able to start collection until 1 January 2015.

Data development for alcohol consumption in pregnancy has been deferred due to the jurisdictions' inability to implement a nationally standardised data item.





Some states and territories are progressively implementing indications for induction of labour in their perinatal data collections from 1 July 2015, with the intention of adding it to the Perinatal NMDS from 1 July 2016.

## **Development of a business case for inclusion of Indigenous status in pathology data**

The AIHW report *The inclusion of Indigenous status on pathology request forms* (AIHW 2013f) was published on 1 November 2013. It outlines work towards the inclusion of Indigenous status on pathology request forms as a way to improve Indigenous identification in national cancer, communicable disease and cervical screening registries.

## **Other relevant activities**

### **Key performance indicators for Indigenous primary health care services**

As part of the NIRA, the COAG agreed that the Department of Health, in partnership with the state and territory health departments and in collaboration with the AIHW, would develop a set of national Key Performance Indicators (nKPIs) for Indigenous-specific primary health care services. The AIHW receives funding from the Department of Health to collect, manage and report on the nKPIs (AIHW 2014o; AIHW 2014p). Data from more than 200 organisations are now collected every 6 months. The nKPIs are designed to enable monitoring of the contribution of this part of the health system in achieving Closing the Gap targets. They can also be used to help improve the delivery of primary health care for Aboriginal and Torres Strait Islander people and to improve health outcomes. A working paper about data quality issues and suggestions for improvement was recently published (AIHW 2015e). The data have also been used to provide insights into the New Directions Mothers and Babies Services programme, showing improvements in relevant indicators for those organisations receiving New Directions funding (AIHW 2014r).

### **Closing the Gap Clearinghouse**


The AIHW with the Australian Institute of Family Studies delivered the Closing the Gap Clearinghouse. The Clearinghouse is an online collection of research and evaluation evidence on what works to overcome Indigenous disadvantage, focusing on 7 subject areas: early childhood, schooling, health, economic participation, healthy homes, safe communities, and governance and leadership. It aims to support policymakers and service providers involved in overcoming Indigenous disadvantage by providing access to and synthesising the evidence on particular topics.

The contract for the Clearinghouse ended in June 2014. All resources and publications on the website will continue to be publicly available. However, once all commissioned issues papers and resource sheets have been released (towards the end of 2015), no new material will be added to the website.

The Closing the Gap Clearinghouse can be found on the AIHW website at <<http://www.aihw.gov.au/closingthegap/>>.

### **Mapping of health services and need**

The AIHW is undertaking a series of projects examining the geographic distribution of health services and mapping against potential need for these services among Aboriginal and



Torres Strait Islander people. The first project involved the development of an area-based index that measures access to general practitioners relative to the need for primary health care for both the Indigenous and non-Indigenous populations. The index takes into account travel times by road as well as the capacity of general practitioners (GPs) to meet the demands of the populations they serve. *Access to primary health care relative to need for Indigenous Australians* (AIHW 2014b) shows that, on average, there is a general decrease in access to GPs and access to GPs relative to need with increasing remoteness in both population groups, but that the effect appears to be greater for the Indigenous population.

The second project, reported in *Spatial variation in Aboriginal and Torres Strait Islander people's access to primary health care* (AIHW 2015d), aimed to identify areas where critical service gaps exist for the Indigenous population in relation to their access to primary health care. Areas with potential service gaps were defined as areas (Statistical Areas Level 2) with no Indigenous-specific primary health care service located within 1 hour's drive and with poor access to GP services in general. This project also examined the types of services provided by Indigenous-specific primary health care services, with a specific focus on maternal health services and diabetes management, using data from the Online Services Reporting (OSR) data collection, the nKPI data collection and the AIHW's National Hospital Morbidity Database.

The third project uses data from the National Health Workforce Data Set to analyse variation in the distribution of the medical workforce, the nursing and midwifery workforce, the allied health workforce and the dental workforce to enhance our understanding of area-level patterns and gaps in the supply of the health workforce for Indigenous Australians. The results of this project are expected to be published towards the end of 2015.


The fourth project is examining the distribution of maternal and child health services in relation to the geographic distribution of Indigenous women of childbearing age and Indigenous children. The aim of this work is to identify gaps and examine whether there is an association between supply of these services and relevant health outcomes (for example, low birthweight, smoking during pregnancy, antenatal care use) at low geographic levels. This project is expected to be completed in late 2015 with results published in 2016.

### **Timing of impact of Closing the Gap initiatives**

In 2012–13, AIHW was funded by NAGATSIHID to examine the likely timing of the impact of COAG Closing the Gap health initiatives on the Indigenous child mortality target. This work involved examining the main drivers impacting on the child mortality target; interventions that have been shown to be effective in reducing risk factors and child mortality; and time lags between program implementation, expected reductions in child mortality, and the availability of data to measure outcomes achieved. The report, *Timing impact assessment for COAG Closing the Gap targets: child mortality* (AIHW 2014s), suggests that the full effect of the COAG maternal and child health initiatives may not be evident for a number of years to come.

### **Burden of disease**

The AIHW received funding from the Department of Health and the previous Australian National Preventive Health Agency to revise and update Australia's burden of disease estimates for the total Australian population and the Aboriginal and Torres Strait Islander population. This work, which was last updated in 2007 using 2003 data, builds on the AIHW's previous burden of disease studies and existing disease monitoring work and aims



to identify the extent and distribution of health problems in Australia and quantify the contribution of key health risks. Estimates will be produced specifically for the Aboriginal and Torres Strait Islander population.

Estimates of the fatal burden of disease for Indigenous Australians are presented in *Australian burden of disease study: fatal burden of disease in Aboriginal and Torres Strait Islander people 2010* (AIHW 2015a). Final estimates, expected to be released in 2016, will provide information on the amount of ill health due to death and disability from a variety of diseases, injuries and health risks to help determine the total burden of disease in Australia for the total population and the Aboriginal and Torres Strait Islander population.

## Glossary of important terms

**Aboriginal or Torres Strait Islander:** a person of Aboriginal and/or Torres Strait Islander descent who identifies as an Aboriginal and/or Torres Strait Islander. 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**.

**age-specific rate:** an estimate of the proportion of people experiencing a particular event in a specified age group relative to the total number of people 'at risk' of that event in that age group. See also **crude rate**.

**age-standardised rates:** rates adjusted for age to take into account differences in age structures when comparing different populations or across time.

**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**.

**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**.

**crude rate:** an estimate of the proportion of a population that experiences an outcome during a specified period. It is calculated by dividing the number of people with the outcome in a specified period by the number of people in the population during that period.


**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:** a process used to treat kidney failure. A machine is connected to the patient's bloodstream to filter the blood externally to the body, removing water, excess substances and waste from the blood, as well as regulating the levels of circulating chemicals. In doing this, the machine takes on the role normally played by the kidneys.

**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.

**gap:** in this report, 'the gap' refers to the rate difference.





**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:** a person of Aboriginal and/or Torres Strait Islander descent who identifies as an Aboriginal and/or Torres Strait Islander. See also **Aboriginal or Torres Strait Islander**.

**non-Indigenous:** people who have indicated they are not of **Aboriginal or Torres Strait Islander** descent. Compare with **other Australians**.

**other Australians:** includes people who do not identify as being of Aboriginal 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**.

**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 2013b).

**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. 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. The words 'significant' and 'significantly' are not used in this report other than in their statistical context.

**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**.

## 1.01 Low birthweight

### What is measured and why it is important

This measure reports on the incidence of low birthweight among live born babies of Aboriginal and Torres Strait Islander mothers.

Low birthweight (newborns weighing less than 2,500 grams) is associated with premature birth or restricted fetal growth. Low birthweight infants are at a greater risk of dying during the first year of life, and are prone to ill-health in childhood and the development of chronic disease as adults (OECD 2011; Scott 2014). Low birthweight is a risk factor for neurological and physical disabilities and for ill health in childhood, with the risk of adverse outcomes increasing with decreasing birthweight (Ford et al. 2003).

Tables referenced are available from <http://www.aihw.gov.au/indigenous-data/health-performance-framework/>.

### Key findings for Victoria

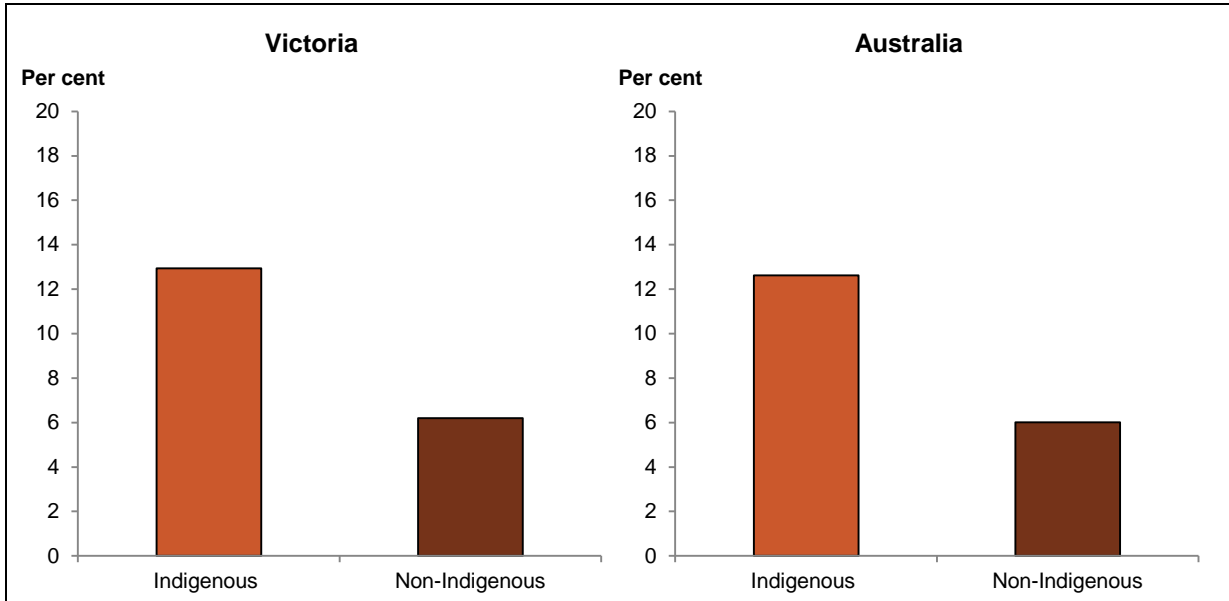
According to the National Perinatal Data Collection, in Victoria:

- The low birthweight rate for babies born to Indigenous mothers was 2 times as high as those with a non-Indigenous mother (13% compared with 6%). There was a gap of 7% (Table 1.01.1, Figure 1.01.1).
- When multiple births are excluded, the low birthweight rate for live born babies born to Indigenous mothers was 2.3 times as high as those with a non-Indigenous mother (11% compared with 5%). There was a gap of 6% (Table 1.01.1).

### Trend

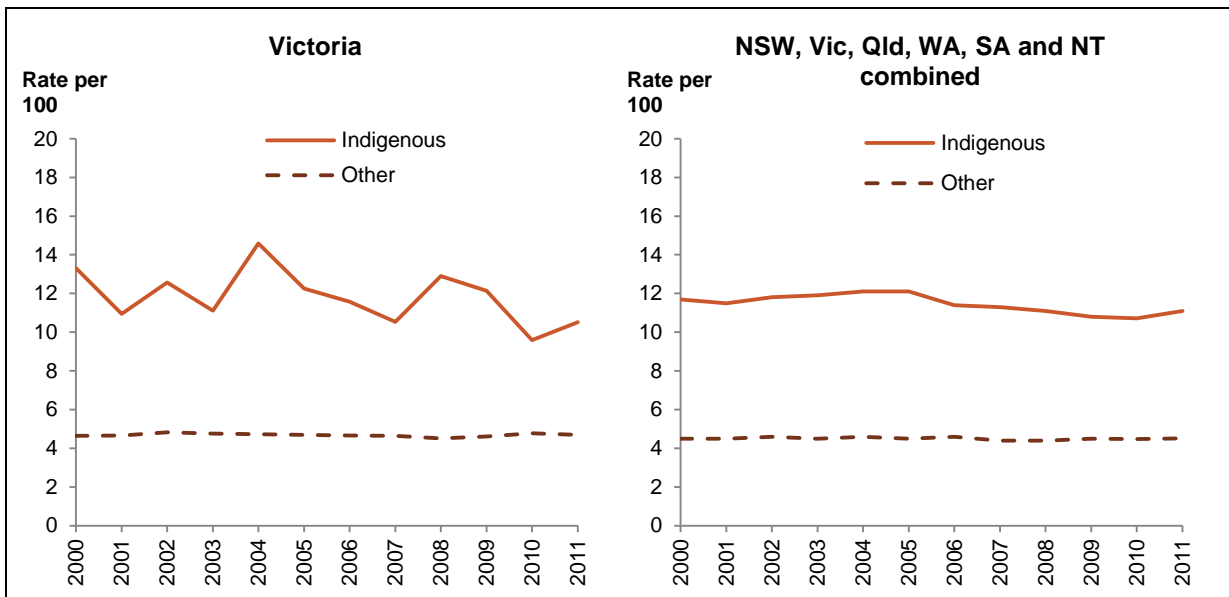
Between 2000 to 2011 in Victoria:

- Excluding multiple births, the low birthweight rate for babies born to Indigenous mothers decreased slightly, from 13% in 2000 to 10% in 2011, while the rate for babies born to other mothers was stable at nearly 5%. The gap decreased from 9% in 2000 to 6% in 2011 (Table 1.01.3, Figure 1.01.2).



Source: Table 1.01.1.

**Figure 1.01.1: Proportion of low birthweight babies by Indigenous status of mother, Victoria and Australia, 2011**



Source: Table 1.01.3.

**Figure 1.01.2: Proportion of low birthweight babies, by Indigenous status of mother (per 100 singleton live births), Victoria, and NSW, Vic, Qld, WA, SA and NT combined, 2000-2011**



## Key findings for Australia

According to the National Perinatal Data Collection:

- In 2011, the low birthweight rate among babies born to Aboriginal and Torres Strait Islander mothers was twice the rate among those born to non-Indigenous mothers (13% compared with 6%) (Table 1.01.1).
- When multiple births are excluded, 11% of live born babies born to Indigenous mothers were of low birthweight compared with 5% of babies born to non-Indigenous mothers (Table 1.01.1).
- Between 2000 and 2011, excluding multiple births, the low birthweight rate among babies born to Indigenous mothers declined significantly by 9%. There was a significant (13%) narrowing of the gap between Indigenous and non-Indigenous babies with a low birthweight (Table 1.01.2).
- The low birthweight rate among babies born to Aboriginal and Torres Strait Islander mothers was significantly higher in *Remote* areas (14%) and *Very remote* areas (15%) than in *Non-remote* areas (12%) (Table 1.01.6).
- In 2009–2011, excluding pre-term and multiple births, 51% of low birthweight births to Indigenous mothers were attributable to smoking, compared with 19% for other Australian mothers (Table 1.01.7).
- Analysis of differences in age and other characteristics of Indigenous and non-Indigenous mothers shows that smoking is a major factor influencing low birthweight (Table 1.01.8).

## 1.02 Top reasons for hospitalisation

### What is measured and why it is important

This measure reports on the leading causes of hospitalisation using disease chapters in the International Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification (ICD-10 AM) for Aboriginal and Torres Strait Islander Australians compared with non-Indigenous Australians.

Hospitalisation rates are based on the number of hospital episodes rather than on the number of individual people who are hospitalised. A person who has frequent hospitalisations for the same disease is counted multiple times in the hospitalisation rate for that disease. For this reason, hospitalisations for dialysis (treatment for end-stage kidney disease, generally undertaken 3 times per week) are often excluded from analyses looking at overall hospitalisations, or considered separately, as this is by far the most common reason for hospitalisation in Australia. This is noted below and in other measures where relevant.

At the time this report was compiled, data on the rate of hospitalisations for Indigenous Australians were available for July 1998 to June 2013 for Queensland, Western Australia, South Australia and the Northern Territory. These jurisdictions were considered to have adequate levels of Indigenous identification in hospital separations data over this period. For the period July 2004 to July 2013, data for New South Wales and Victoria are also available. From 2010–11 onwards, data for all states and territories are considered of sufficient quality for reporting by Indigenous status (AIHW 2013c).

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### Key findings for Victoria

The National Hospital Morbidity Database shows that, in the period 2011–13 in Victoria:

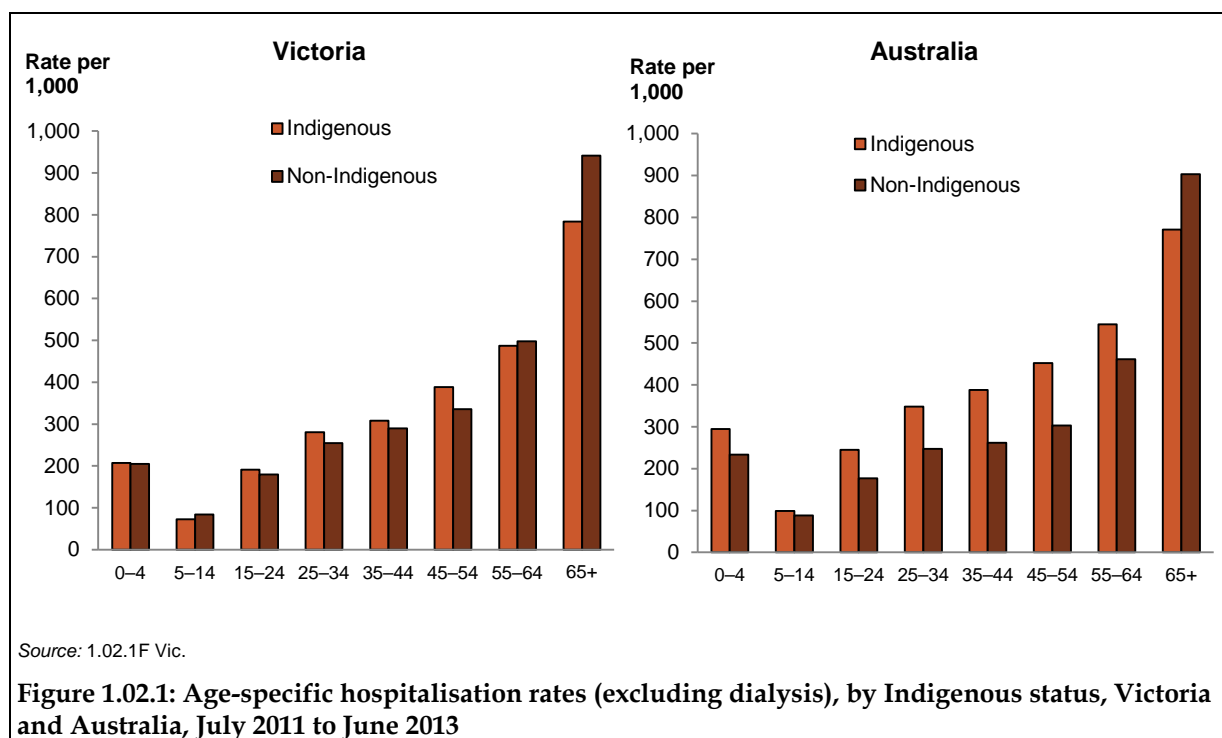
- Excluding dialysis and after adjusting for differences in age structure, the rate of hospitalisation of Indigenous Australians was 341 per 1,000 compared with the national rate for Indigenous Australians of 393 per 1,000 (without adjusting for Indigenous under-identification).
  - This was 24,152 hospitalisations of Indigenous Australians.
  - Indigenous Australians were hospitalised at the same rate as non-Indigenous Australians and the rate difference was 2 per 1,000 fewer hospitalisations of Indigenous Australians than non-Indigenous Australians (Table 1.02.1, Figure 1.02.1).
- Including dialysis, Indigenous Australians were hospitalised at 1.5 times the rate of non-Indigenous Australians (589 compared with 394 per 1,000). The rate difference between Indigenous and non-Indigenous Australians was 195 hospitalisations per 1,000 (Table 1.02.1T Vic).
- Pregnancy, childbirth and the puerperium was the leading principal diagnosis group for hospitalisations of Indigenous Australians in Victoria (50 per 1,000).

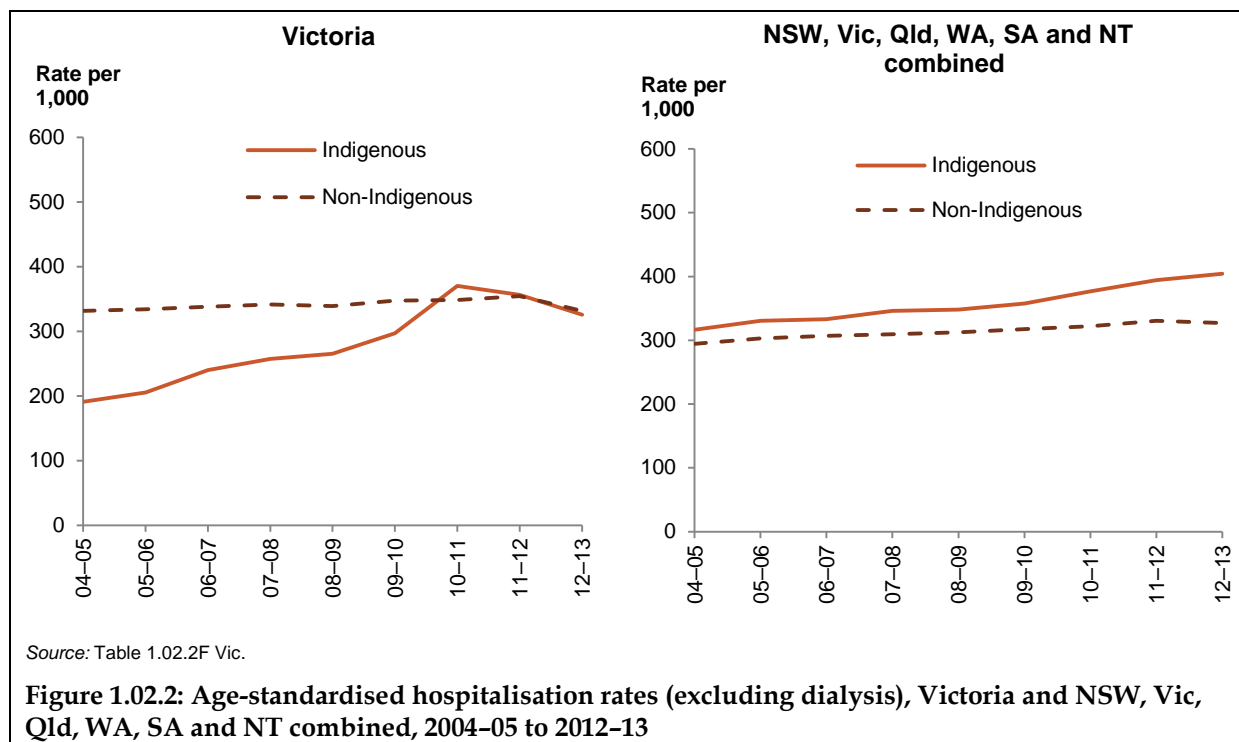
- This is higher than the national rate for Indigenous Australians of 58 per 1,000 for this principal diagnosis group (Table 1.02.1T Vic, Figure 1.02.3).

## Trend

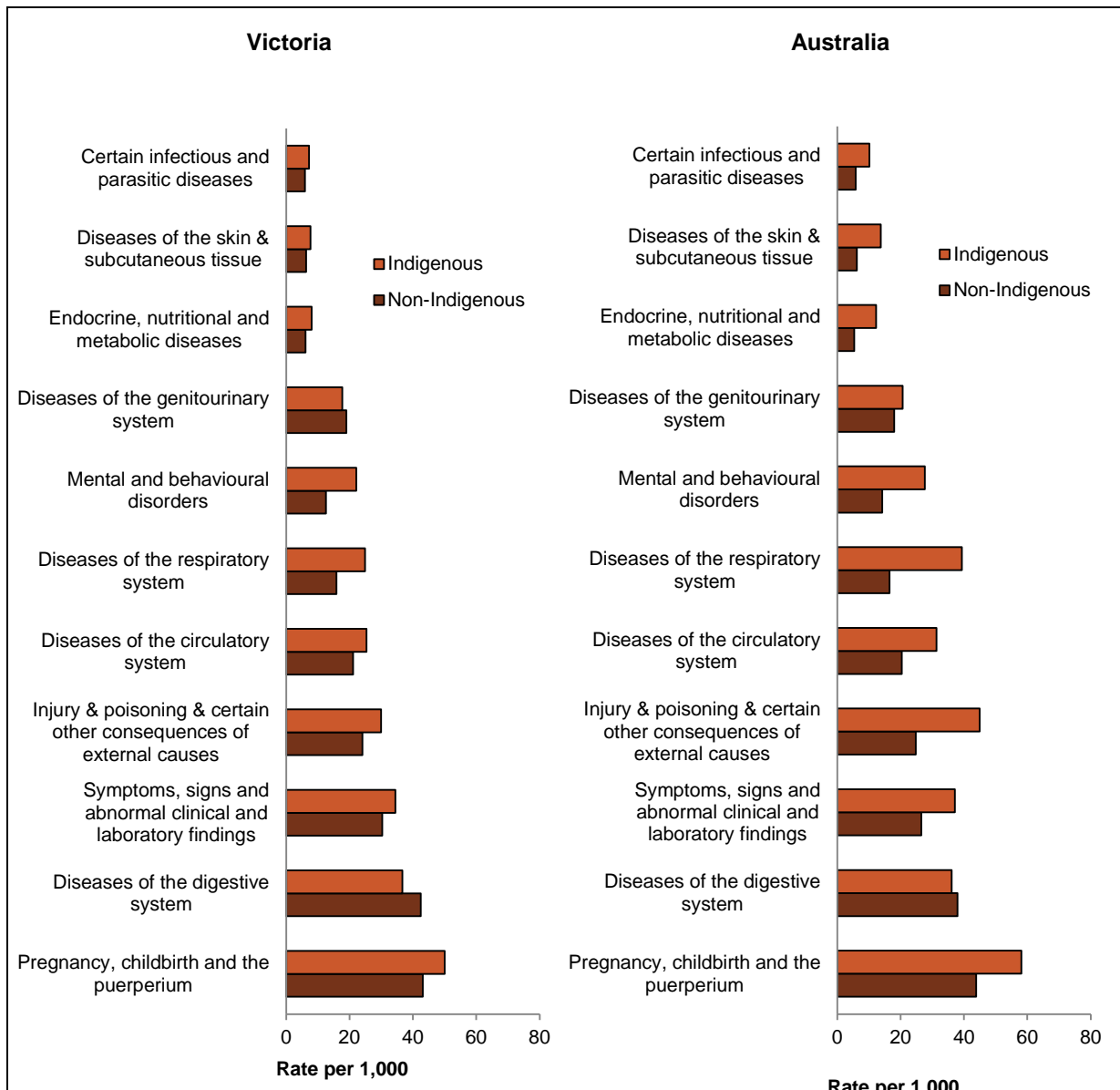
In the period from 2004-05 to 2012-13:

- The rate of hospitalisations of Indigenous Australians in Victoria increased by 90%, from 191 per 1,000 to 326 per 1,000.
  - In New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, this rate increased by 27%, from 317 per 1,000 to 404 per 1,000.
  - It is important to note that the level of Indigenous identification has improved over time, particularly since 2004 after the implementation of Victorian Government's policy for Improving Care to Aboriginal Patients (ICAP) program. As such, caution should be used in the interpretation of these data.
- The rate difference between hospitalisations of Indigenous and non-Indigenous Australians in Victoria decreased from -141 to -6 per 1,000 (Table 1.02.2F Vic, Figure 1.02.2).









Source: Table 1.02.1T Vic.

**Figure 1.02.3: Age-standardised hospitalisation by principal diagnoses and Indigenous status, Victoria and Australia, July 2011 to June 2013**

## Key findings for Australia

According to the National Hospital Morbidity Database, in the period 2011–13:

- The hospitalisation rate for Indigenous Australians was 331 per 1,000 population, a total of about 453,000 hospitalisations (after being adjusted for Indigenous under-identification).
- After adjusting for age, Indigenous Australians were hospitalised at 1.3 times the rate of non-Indigenous Australians. The rate difference between Indigenous and non-Indigenous Australians was 94 hospitalisations per 1,000 over the 2-year period (Table 1.02.1).
- Care involving dialysis is the leading cause of hospitalisations for Indigenous Australians, representing 44% of their total hospitalisations, compared to 12% of hospitalisations for non-Indigenous Australians (Table 1.02.7).
- The second largest cause of hospitalisations for Indigenous Australians was injury and poisoning and certain other consequences of external causes (7%), followed by pregnancy and childbirth (6%), diseases of the respiratory system (6%) and diseases of the digestive system (5%) (Table 1.02.7).

### Trend

- From July 1998 to June 2013, the rate of hospitalisations for Indigenous Australians was available for 4 jurisdictions (Queensland, South Australia, Western Australia and the Northern Territory). For these 4 jurisdictions combined, the rate of hospitalisations for Indigenous Australians increased from 389 per 1,000 to 441 per 1,000 (a 14% increase). The rate difference between hospitalisation for Indigenous and non-Indigenous Australians did not change (Table 1.02.5).
- For the period July 2004 to June 2013, data for New South Wales and Victoria were also available. For this period in the 6 jurisdictions combined, there was a rate increase of 27%, from 317 per 1,000 to 404 per 1,000 (Table 1.02.6).
- Hospitalisation rates for non-Indigenous Australians also increased over the 2 periods July 1998 to June 2013 (22%) and July 2004 to June 2013 (11%).
- The rate difference between Indigenous and non-Indigenous Australians increased by 311% over the period July 2004 to June 2013. The rate difference between Indigenous and non-Indigenous Australians increased substantially more for males than for females (tables 1.02.5 and 1.02.6).

## 1.03 Injury and poisoning

### What is measured and why it is important

This measure reports on injury and poisoning among Aboriginal and Torres Strait Islander and non-Indigenous Australians.

Injury and poisoning are responsible for 15% of the health gap between Indigenous and non-Indigenous Australians (Vos et al. 2007). Injuries can cause long-term disability and disadvantage including reduced opportunities in education and employment, communication impairment and burden on caregivers (Stephens et al. 2014).

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### Key findings for Victoria

Data from the National Hospital Morbidity Database show that, in 2011–12 to 2012–13 in Victoria:

- Indigenous Australians were hospitalised due to a principal diagnosis of injury and poisoning at a rate of 25 per 1,000. After adjusting for differences in age structure, the rate difference was 6 per 1,000. This compares with a rate difference of 20 per 1,000 nationally (Table 1.03.1F Vic, Figure 1.03.1).
- For Indigenous Australians, hospitalisations due to injury and poisoning had the highest rates in those aged 65 and over (46 per 1,000). This was also true for non-Indigenous Australians (58 per 1,000). Rates were similar for Indigenous and non-Indigenous Australians for those aged 5–14 (14 per 1,000 and 15 per 1,000, respectively) and 15–24 (25 per 1,000 and 24 per 1,000, respectively). For all other age groups, Indigenous Australians had higher rates (Table 1.03.1F Vic, Figure 1.03.2).
- Falls were the leading external cause of injury and poisoning requiring hospitalisation among Indigenous Australians. The rate of hospitalisations for Indigenous Australians was similar to the rate for non-Indigenous Australians (both almost 8 per 1,000) (Table 1.03.2T Vic).

According to the 2012–13 Australian Aboriginal and Torres Strait Islander Health Survey (AATSIHS):

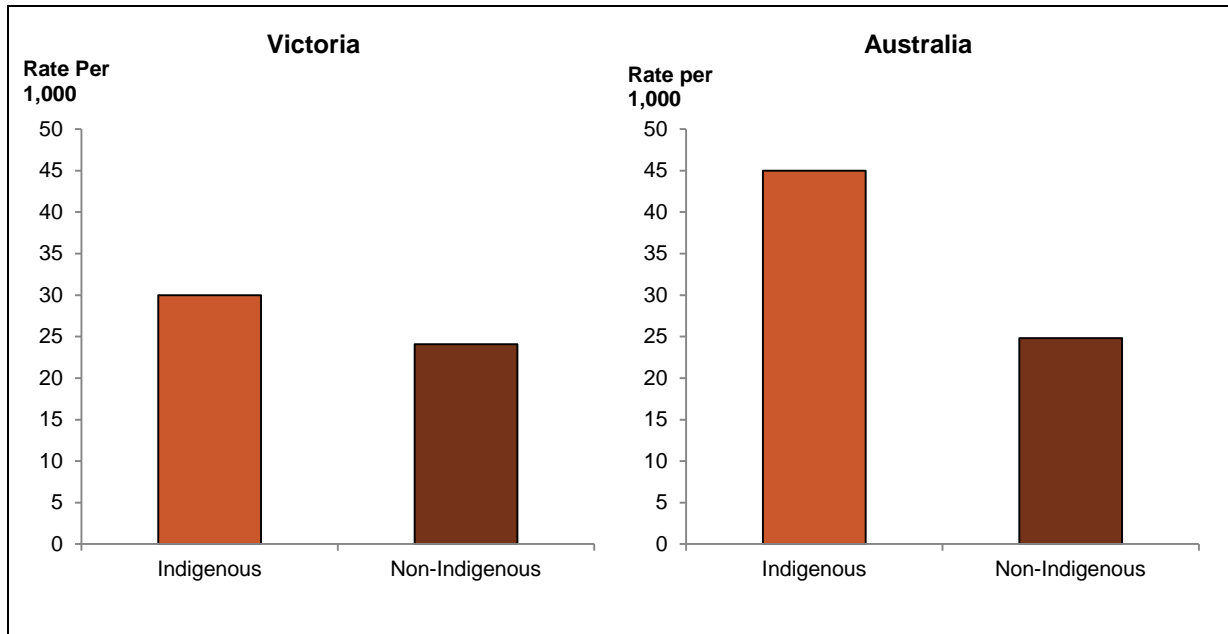
- About 27% of Indigenous Australians were estimated to have reported an injury in the 4 weeks before being surveyed (Table 1.03.5).

### Trend

Data from the National Hospital Morbidity Database show that between 2004–05 and 2012–13:

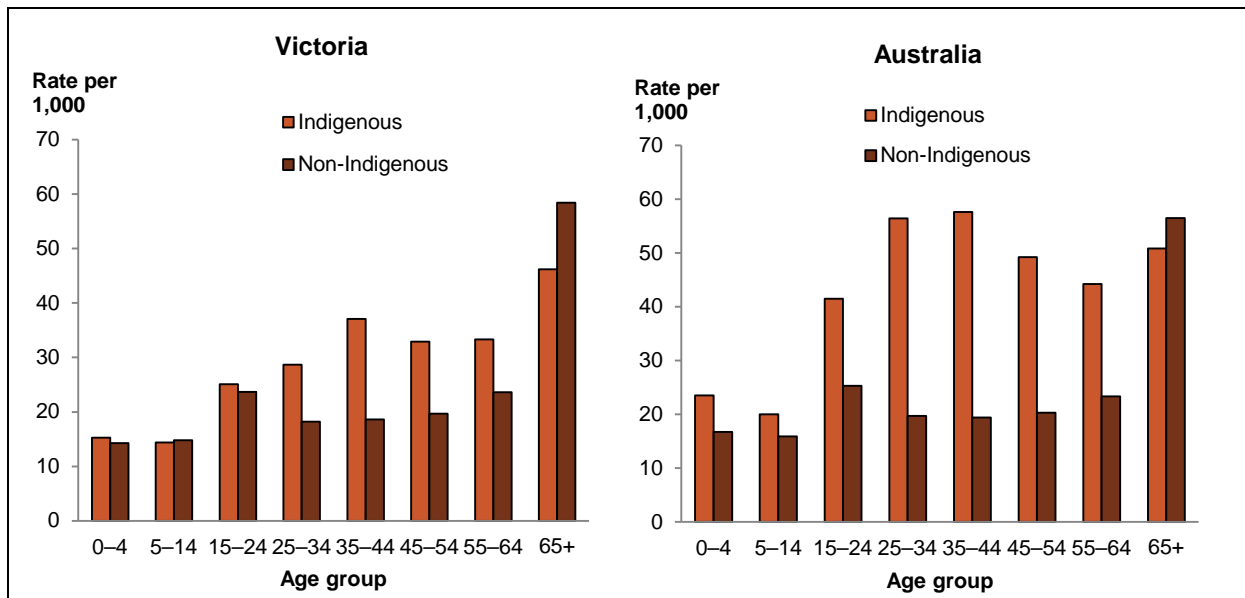
- In Victoria, the rate of hospitalisations due to injury and poisoning for Indigenous Australians increased by 57%, from 20 per 1,000 to 27 per 1,000. The rate difference between Indigenous and non-Indigenous Australians increased at a rate of 1.3 per 1,000 per year.

- For New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, the rate difference between Indigenous and non-Indigenous Australians increased from 14 per 1,000 to 22 per 1,000, at a rate of 1.0 per 1,000 per year (Table 1.03.3F Vic, Figure 1.03.3).



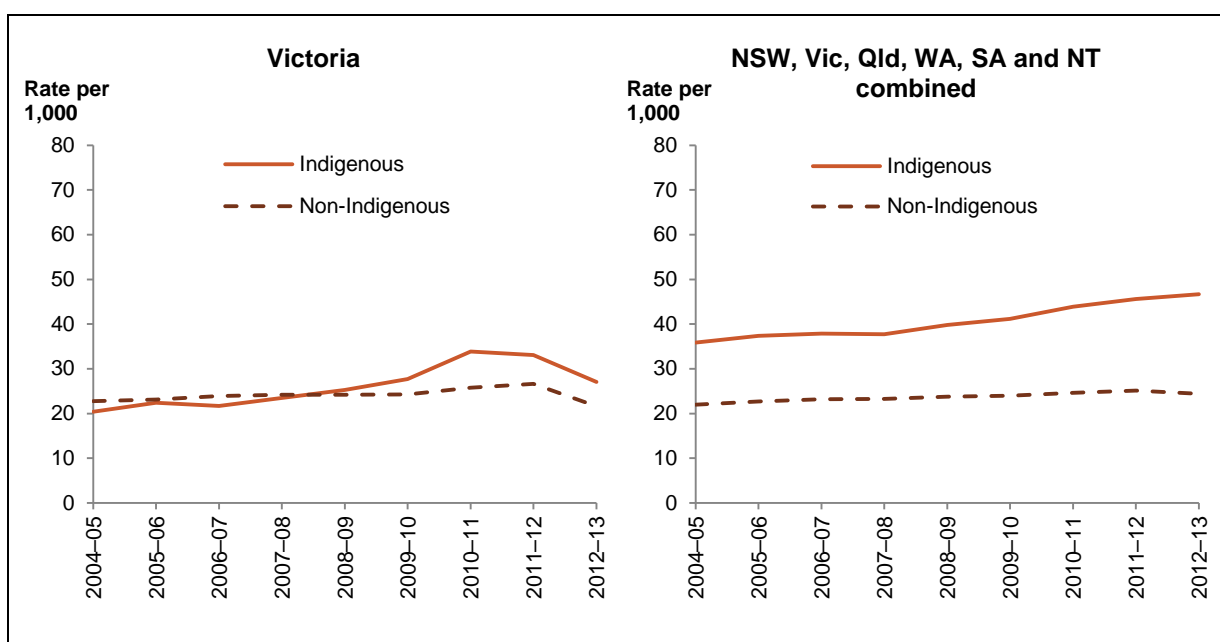
Source: Table 1.03.9.

**Figure 1.03.1: Age-standardised hospitalisation rates for a principal diagnosis of injury and poisoning, by Indigenous status, Victoria and Australia, July 2011 to June 2013**



Source: Table 1.03.1F Vic.

**Figure 1.03.2: Age-specific hospitalisation rates for a principal diagnosis of injury and poisoning, by Indigenous status, Victoria and Australia, July 2011 to June 2013**



Source: Table 1.03.3F Vic.

**Figure 1.03.3: Age-standardised hospitalisation rates for injury and poisoning, by Indigenous status, Victoria and NSW, Vic, Qld, WA, SA & NT combined, 2004-05 to 2012-13**

## Key findings for Australia

Data from the National Mortality Database show that in the period 2008 to 2012:

- There were 1,766 deaths due to injury and poisoning for Indigenous Australians, a rate of 75 deaths per 100,000. This was twice the rate for non-Indigenous Australians, at 38 per 100,000 (Table 1.23.10).
- For Indigenous Australians, intentional self-harm (suicide) was the most common underlying cause of death and accounted for 5% of total deaths (Table 1.03.1). Indigenous Australians died from intentional self-harm at 2 times the rate of non-Indigenous Australians (Table 1.23.10).
- The rate of death due to assault for Indigenous Australians (8 per 100,000) was 7 times as high as for non-Indigenous Australians (1 per 100,000) (Table 1.23.10).

According to the 2012-13 AATSIHS:

- About 19% of Indigenous Australians reported an injury in the 4 weeks before being surveyed (Table 1.03.5).

Data from the National Hospital Morbidity Database show that in the 2 years 2011-12 and 2012-13:

- There were 54,079 hospitalisations for injury and poisoning for Indigenous Australians, a rate of 45 per 1,000. After adjusting for age, the rate for Indigenous Australians was 1.8 times as high as for non-Indigenous Australians. The rate difference was 20 per 1,000 (Table 1.03.9).
- Assault was the leading cause of hospitalisation for injury and poisoning among Indigenous Australians. The rate of hospitalisations for Indigenous people (10 per 1,000) was 13 times the non-Indigenous rate, a rate difference of 9 per 1,000 hospitalisations (Table 1.03.14).

## Trend

According to the National Mortality Database, between 1998 and 2012 in New South Wales, Queensland, Western Australia, South Australia and the Northern Territory:

- Although mortality rates due to injury and poisoning declined significantly for non-Indigenous Australians (by 11%), there was no significant change in the rate for Indigenous Australians and no significant change in the gap (Table 1.23.19).

Between 2006 and 2012 in the 5 jurisdictions combined:

- There were no significant changes in the mortality rates due to injury and poisoning for either Indigenous or non-Indigenous Australians and no significant change in the gap (Table 1.23.19).

According to the National Hospital Morbidity Database, between 1998–99 and 2012–13 in Queensland, Western Australia, South Australia and the Northern Territory:

- The rate of hospitalisation due to injury and poisoning for Indigenous Australians increased by 15%, from 49 to 55 per 1,000. The rate difference changed little (Table 1.03.11).
- The rate of hospitalisation for Indigenous Australians for injury and poisoning due to assault changed little: from 13 to 15 per 1,000. There was little change in the rate difference (Table 1.03.16).

Between 2004–05 and 2012–13 in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory:

- The rate of hospitalisation due to injury and poisoning for Indigenous Australians increased by 32%, from 36 to 47 per 1,000. The rate difference increased by 66% (Table 1.03.12).
- The rate of hospitalisations for injury and poisoning due to assault for Indigenous Australians increased by 10%, from 9 to 10 per 1,000. The rate difference increased by 13% (Table 1.03.17, Figure 1.03.2).



## 1.04 Respiratory disease

### What is measured and why it is important

This measure reports on deaths, hospitalisations and prevalence of respiratory disease for Aboriginal and Torres Strait Islander people expressed as a rate by age group, age-standardised rate and ratio.

Chronic respiratory diseases were responsible for 9% of the total disease burden among Indigenous Australians in 2003. COPD and asthma caused 43% and 38% of this burden respectively. The burden from chronic respiratory diseases in Indigenous Australians occurred at a rate 2.5 times that of the total Australian population (Vos et al. 2007).

Tables referenced are available from <http://www.aihw.gov.au/indigenous-data/health-performance-framework/>.

### Key findings for Victoria

Data from the 2012–13 Australian AATSIHS show that:

- 38% of Indigenous Australians in Victoria had a respiratory disease that had lasted, or was likely to last, for 6 months or more. This is higher than the rate for Indigenous Australians at the national level (31%) (Table 1.04.2).
- After adjusting for differences in age structure, Indigenous Australians in Victoria were 1.4 times as likely as non-Indigenous Australians to report respiratory disease. At the national level, Indigenous Australians were 1.2 times as likely as non-Indigenous Australians to report respiratory disease (Table 1.04.3, Figure 1.04.1).

According to the National Hospital Morbidity Database, in the 2 years 2011–12 and 2012–13:

- In Victoria, the age-standardised hospitalisation rate for respiratory disease for Indigenous Australians was 25 per 1,000, compared with 16 per 1,000 for non-Indigenous Australians. The rate difference between the rate for Indigenous and non-Indigenous Australians was 9 per 1,000.
- At the national level, the rate for Indigenous Australians was higher (39 per 1,000), and rate for non-Indigenous Australians was slightly higher (17 per 1,000). The rate difference between Indigenous and non-Indigenous Australians was higher (23 per 1,000) (Table 1.04.7, Figure 1.04.2).

### Trend

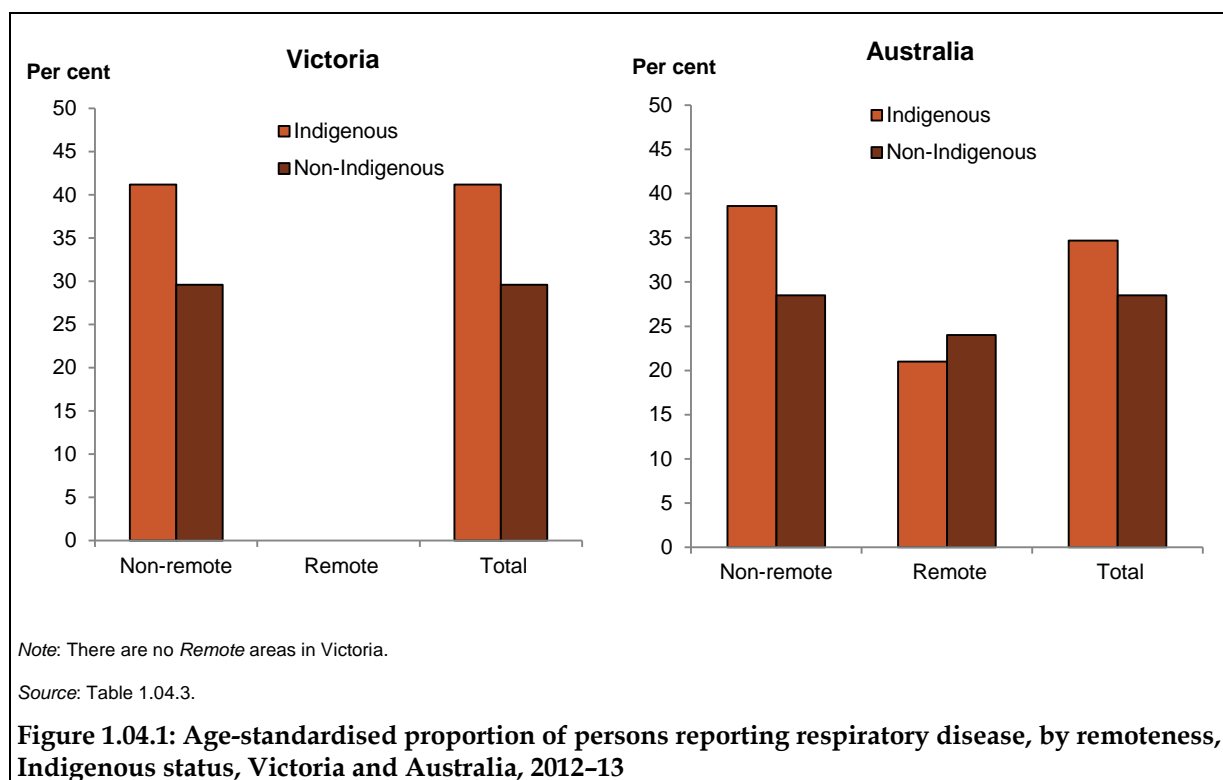
Time-series analyses may be affected by changes in the quality of Indigenous identification over time.

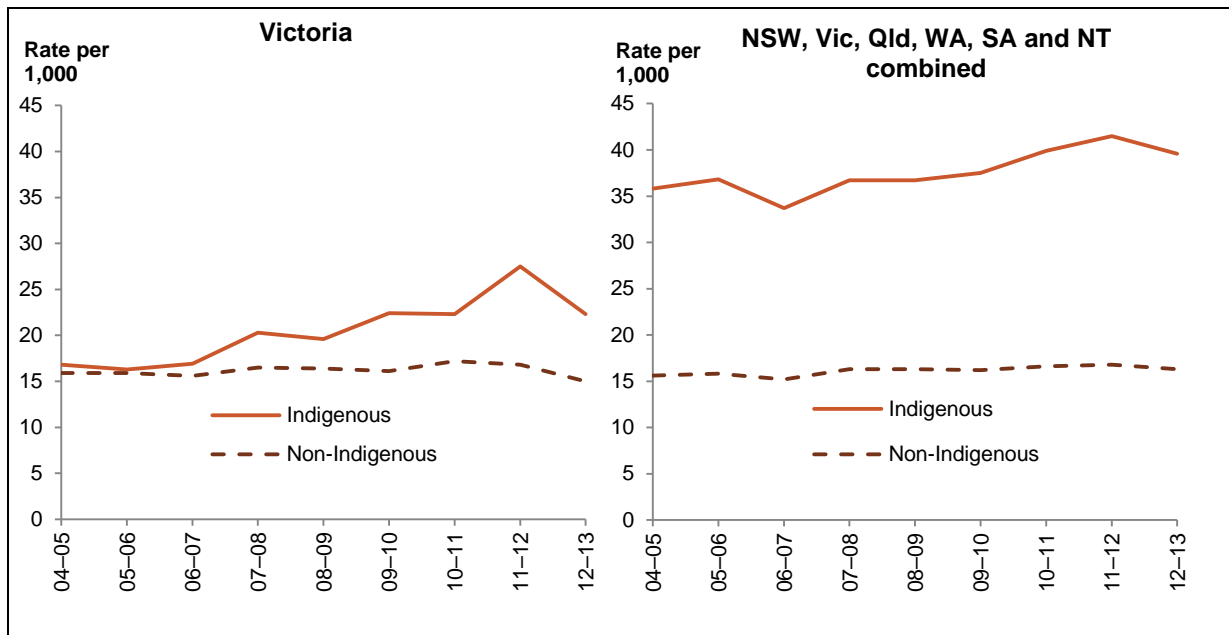
From 2004–05 to 2012–13:

- In Victoria, the hospitalisation rate of Indigenous Australians for respiratory disease increased from 17 per 1,000 to 22 per 1,000. This represents an increase of 57% over the period. The rate for non-Indigenous Australians was stable at around 16 per 1,000. The rate difference between Indigenous and non-Indigenous Australians increased from 1 to 7 per 1,000.



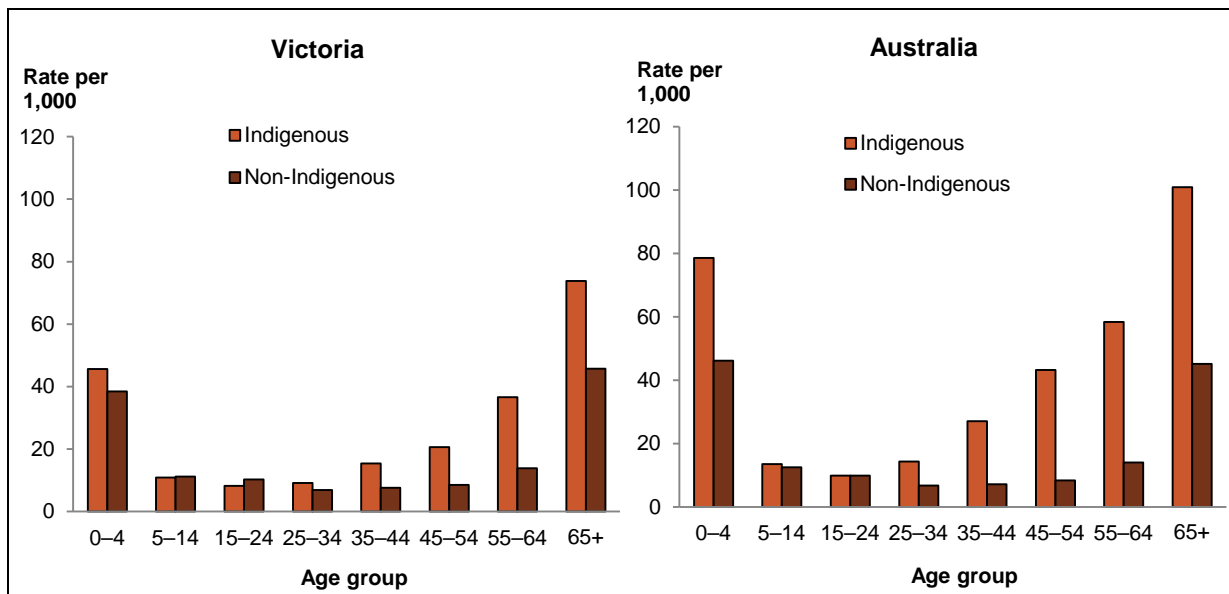
- In New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, the rate for Indigenous Australians increased by 16%, and the rate for non-Indigenous Australians increased by 7%. The rate difference between Indigenous and non-Indigenous Australians increased by 24% (Table 1.04.2F Vic, Figure 1.04.3).





Source: Table 1.04.2F Vic.

**Figure 1.04.2: Age-standardised hospitalisation rates for respiratory diseases, by Indigenous status, Victoria and NSW, Vic, Qld, WA, SA & NT combined, 2004-05 to 2012-13**



Source: Table 1.23.2.

**Figure 1.04.3: Age-specific hospitalisation rates for all respiratory diseases by age group, Indigenous status and jurisdiction, July 2011 to June 2013**

## Key findings for Australia

According to the National Mortality Database, in the period 2008–2012 in New South Wales, Queensland, Western Australia, South Australia and the Northern Territory combined:

- Respiratory disease caused 888 deaths of Indigenous Australians (8% of Indigenous deaths) (Table 1.04.1). After adjusting for age differences, the mortality rate due to respiratory disease for Indigenous Australians was almost twice the non-Indigenous rate (96 per 100,000 and 50 per 100,000 respectively). There was a significant gap between Indigenous and non-Indigenous Australians of 47 per 100,000 (Table 1.23.1).

Data from the 2012–13 AATSIHS suggest that:

- 31% of Indigenous Australians had long-term respiratory disease that had lasted, or was expected to last, 6 months or more. After adjusting for differences in the age structure of the 2 populations, Indigenous Australians were 1.2 times as likely as non-Indigenous Australians to report respiratory disease (tables 1.04.2 and 1.04.3).

Data from the National Hospital Morbidity Database show that in the 2 years 2011–12 and 2012–13:

- There were 42,209 hospitalisations for respiratory disease for Indigenous Australians. After adjusting for differences in the age structure of the 2 populations, the hospitalisation rate for Indigenous Australians was 2.4 times as high as the rate for non-Indigenous Australians (39 per 1,000 and 17 per 1,000 respectively). The rate difference between Indigenous and non-Indigenous Australians was 23 per 1,000 (Table 1.04.7).

According to the National Notifiable Diseases Surveillance System, in the period 2011–13:

- There were 745 notifications of invasive pneumococcal disease for Indigenous Australians. After adjusting for age differences, the notification rate for Indigenous Australians was almost 7 times as high as that for other Australians (45 per 100,000 and 7 per 100,000 respectively). The gap between Indigenous and non-Indigenous Australians was 38 per 100,000 (Table 1.04.17).

## Trend

Data from the National Mortality Database show that in the period from 1998 to 2012:

- There was a significant decline in the respiratory disease mortality rate among Indigenous Australians (27%), and a significant decline in the gap between Indigenous and non-Indigenous Australians (40%). However, in the period from 2006 to 2012 there was no significant change (Table 1.23.21).

According to the National Hospital Morbidity Database, in the period from 1998–99 to 2012–13 in Queensland, Western Australia, South Australia and the Northern Territory combined:

- There was a decrease in the rate of hospitalisation for respiratory disease for Indigenous females (11%) leading to a narrowing of the rate difference between Indigenous and non-Indigenous Australian females from 39 per 1,000 to 29 per 1,000. However, there was no change in the overall rate difference between Indigenous and non-Indigenous Australians (Table 1.04.11).



In the period from 2004–05 to 2012–13 in New South Wales, Victoria, Queensland, Western Australia, South Australia, and the Northern Territory combined:

- There was a 16% increase in the rate of hospitalisation for respiratory disease for Indigenous Australians, from 36 per 1,000 to 40 per 1,000. The rate difference between Indigenous and non-Indigenous Australians increased 24%, from 20 per 1,000 to 23 per 1,000 (Table 1.04.13, Figure 1.04.1).

## 1.05 Circulatory disease

### What is measured and why it is important

This measure reports on prevalence, incidence and deaths caused by circulatory disease, as well as the number of hospital separations with a principal diagnosis of circulatory disease for Aboriginal and Torres Strait Islander people.

Circulatory disease accounts for 25% of mortality in Indigenous Australians (see measure 1.23), and in 2003 it accounted for 17% of the burden of disease (Vos et al. 2007). Smoking levels are high among Indigenous adults, although there has been a significant reduction in recent times (see measure 2.15). Risk factors such as physical inactivity, obesity, diabetes and high blood pressure are more prevalent among Indigenous Australians than non-Indigenous Australians (AHMAC 2015). Low socioeconomic status is associated both with greater risk of developing circulatory disease and with lower chance of receiving appropriate treatment (Beard et al. 2008; Cunningham 2010).

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### Key findings for Victoria

Self-reported data from the 2012-13 AATSIHS suggest that:

- 10% of Indigenous Australians aged 2 and over in Victoria had a circulatory condition. After adjusting for differences in age structure, Indigenous Australians were as likely as non-Indigenous Australians to have circulatory conditions.
- This compares with a slightly higher rate for Indigenous Australians at the national level (13%), and a higher rate ratio (1.2) (tables 1.05.1 and 1.05.2).

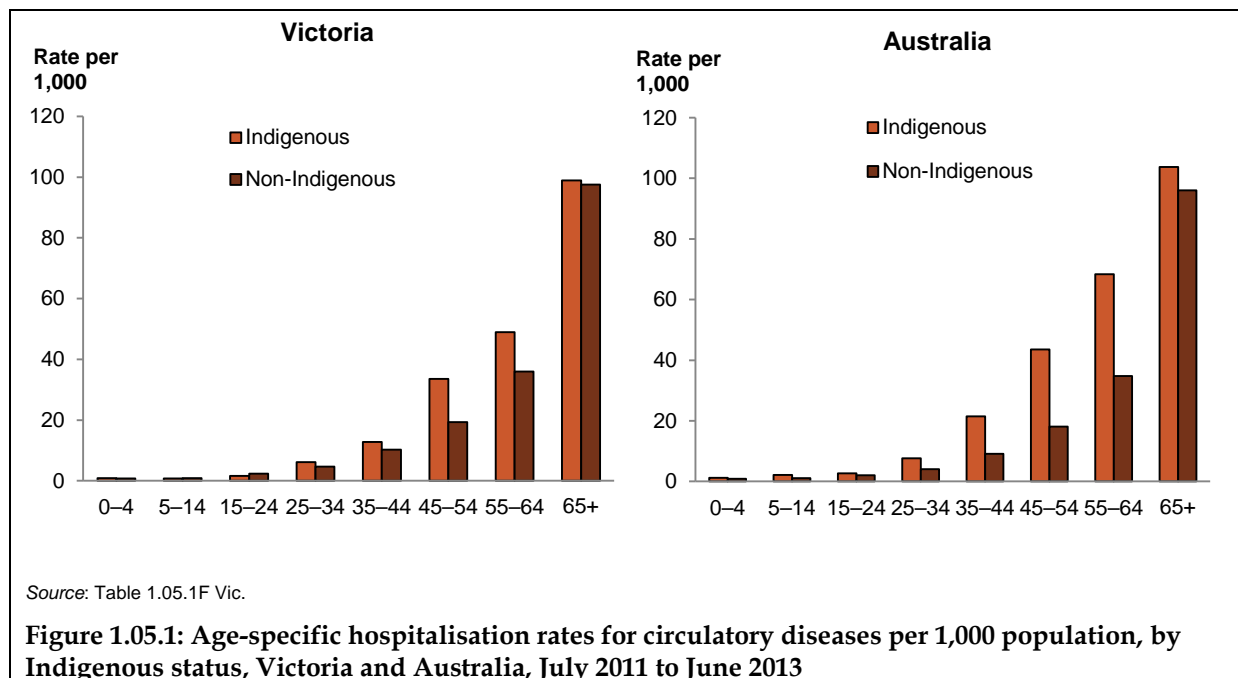
According to the National Hospital Morbidity Database, in the period 2011-13:

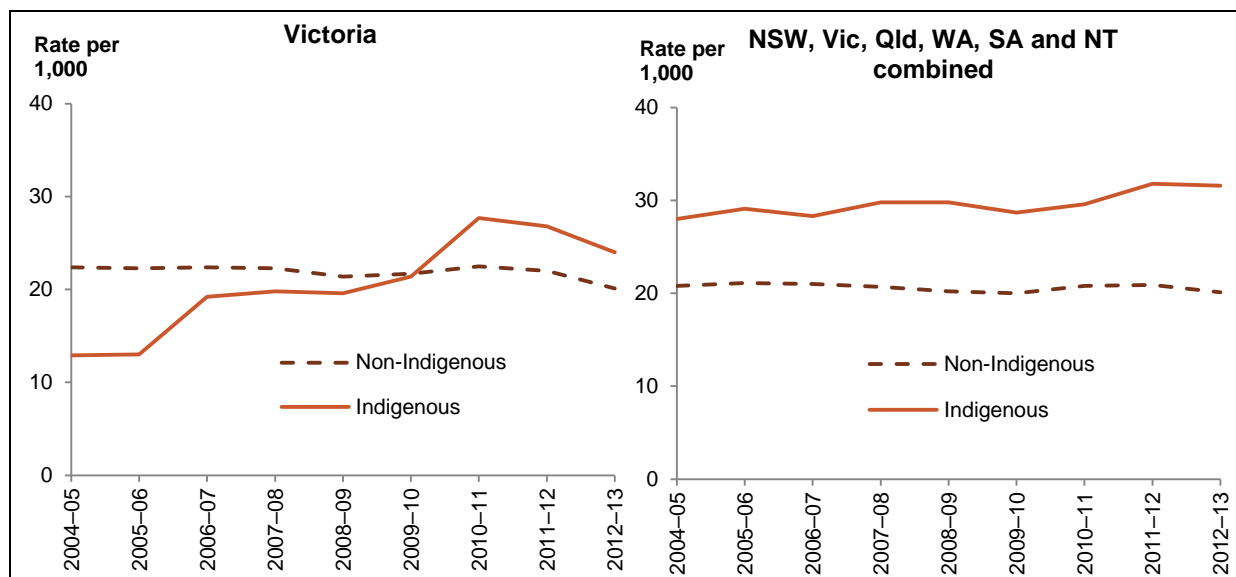
- The hospitalisation rate for circulatory disease for Indigenous Australians in Victoria was 25 per 1,000, compared with a rate of 21 per 1,000 for non-Indigenous Australians.
  - Indigenous Australians had similar rates in age groups 0-4 and 5-14, and 15-24 to non-Indigenous Australians, and higher rates in all other age groups and in total than non-Indigenous Australians.
  - At the national level, the age-standardised rate for Indigenous Australians, was higher (31 per 1,000), but the non-Indigenous rate was similar (20 per 1,000).
- The rate difference between Indigenous and non-Indigenous Australians was lower in Victoria (4 per 1,000) than nationally (11 per 1,000) (Table 1.05.1F Vic, Figure 1.05.1).

### Trend

- Data from the National Hospital Morbidity Database suggest that, between 2004-05 and 2012-13 in Victoria, the hospitalisation rate for circulatory disease increased 103%, from 13 to 24 per 1,000 for Indigenous Australians. The rate difference increased from -10 to 4 per 1,000, an increase of 1.9 hospitalisations per 1,000 per year.

- In comparison, for the combined jurisdictions of New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory, the rate difference increased at a rate of 0.5 hospitalisations per 1,000 per year (Figure 1.05.2 and Table 1.05.2F Vic).





Source: Table 1.05.2F Vic.

**Figure 1.05.2: Hospitalisation rates for circulatory disease, by Indigenous status, Victoria, and NSW, Vic, Qld, WA, SA, NT combined, 2004-05 to 2012-13**

## Key findings for Australia

- According to the National Mortality Database, in the period 2008–12 in New South Wales, Queensland, Western Australia, South Australia and the Northern Territory combined, circulatory disease was the leading cause of death for Indigenous Australians, accounting for 26% of all deaths (2,958 cases).
- After adjusting for age, Indigenous Australians were 1.5 times as likely as non-Indigenous Australians to die of circulatory disease. The rate difference between Indigenous and non-Indigenous Australians was 94 per 100,000 (Table 1.23.1).
- According to the 2012–13 AATSIHS, 13% of Indigenous Australians aged 2 and over had a circulatory condition. After adjusting for age, Indigenous Australians were 1.2 times as likely as non-Indigenous Australians to have a circulatory condition (tables 1.05.1 and 1.05.2).
- According to the National Hospital Morbidity Database, in the period from 2011–12 to 2012–13, Indigenous Australians were hospitalised for circulatory disease at a rate of 17 per 1,000. After adjusting for age, the rate for Indigenous Australians was 31 per 1,000, and the rate for non-Indigenous Australians was 20 per 1,000 (Table 1.05.6).
- Among patients hospitalised for coronary heart disease, Indigenous Australians were nearly half as likely as non-Indigenous Australians to receive coronary angiography or revascularisation. The rate ratio was 0.6 for each procedure, after age differences were taken into account (Table 3.06.9).





## Trend

- According to the National Mortality Database, in the period between 1998 and 2012 in New South Wales, Queensland, Western Australia, South Australia and the Northern Territory combined, the mortality rate for Indigenous Australians from circulatory disease dropped 40%, from 462 to 283 per 100,000. The rate for non-Indigenous Australians dropped 38%, from 292 to 175 per 100,000. The rate difference decreased (Table 1.23.18).
- According to the National Hospital Morbidity Database, in the period from 2004–05 to 2012–13 in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, the hospitalisation rate for Indigenous Australians with circulatory disease increased by 12% (from 28 per 1,000 to 32 per 1,000). The difference between the rate for Indigenous and non-Indigenous Australians increased (Table 1.05.12, Figure 1.05.2).

## 1.06 Acute rheumatic fever and rheumatic heart disease

### What is measured and why it is important

Data are presented on the incidence and prevalence of acute rheumatic fever (ARF) and rheumatic heart disease (RHD) among Aboriginal and Torres Strait Islander people.

ARF and RHD are now rare diseases in populations with good living conditions and easy access to quality medical care (Parnaby & Carapetis 2010), yet Aboriginal and Torres Strait Islander Australians remain at risk of ARF and RHD. It is important to monitor cases of ARF and RHD, to allow the incidence and prevalence of ARF and RHD in the Indigenous population to be analysed, and to assess how these rates compare to non-Indigenous Australians and whether there have been improvements over time.

Tables referenced are available from <http://www.aihw.gov.au/indigenous-data/health-performance-framework/>.

### Key findings for Victoria

- According to the National Hospital Morbidity database, in 2011–13 in Victoria there were 10 Indigenous Australians hospitalised with a principal diagnosis of ARF or RHD. The crude hospitalisation rate was 0.1 per 1,000 for both Indigenous and non-Indigenous Australians (Table 1.06.13).

### Key findings for Australia

- Data from the Northern Territory, Western Australia and Queensland Rheumatic Heart Disease programs show that, over the period 2010–2013, the rate of new and recurrent ARF registrations among Indigenous Australians (0.5 per 1,000) was 329 times that of other Australians (Table 1.06.1). The highest rate was among those aged 5–14 (1.2 per 1,000) (Table 1.06.2).
- The rate of total RHD registrations among Indigenous Australians in the Northern Territory was 23 per 1,000 – 39 times as high as for other Australians. Rates were highest among those aged 35–44 and 25–34 (32 per 1,000 and 31 per 1,000, respectively). Rates were higher among females than males (Table 1.06.6).
- According to the National Hospital Morbidity Database, over the 2 years 2011–12 and 2012–13, after accounting for differences in population age structures, the rate of hospitalisations among Indigenous Australians with a principal diagnosis of ARF or RHD was 6.6 times as high as that of non-Indigenous Australians (with age-standardised rates of 0.6 and 0.1 per 1,000, respectively) (Table 1.06.13).



## Trend

- Data from the Northern Territory, Western Australia and Queensland Rheumatic Heart Disease programs suggest that over the period 2010 to 2013, there was no significant change in rate of new and recurrent ARF cases in Queensland, Western Australia and the Northern Territory combined (Table 1.06.5).
- Over the period 2006 to 2013, in the Northern Territory, there was a significant decrease in the rate of new RHD cases, from 1.3 to 1.0 per 1,000 – a decrease of 41% over the period (Table 1.06.10).

## 1.07 High blood pressure

### What is measured and why it is important

This measure reports on the prevalence (self-reported and measured) of high blood pressure (also referred to as hypertension) among Aboriginal and Torres Strait Islander Australians. It is expressed as a rate by age group and Indigenous status, age-standardised rate, rate ratio and rate differences.

High blood pressure is a major risk factor for stroke, coronary heart disease, heart failure, kidney disease, deteriorating vision, and peripheral vascular disease leading to leg ulcers and gangrene. Reducing the prevalence of high blood pressure is one of the most important means of reducing serious circulatory diseases, which are the leading cause of death among Indigenous Australians (AHMAC 2015).

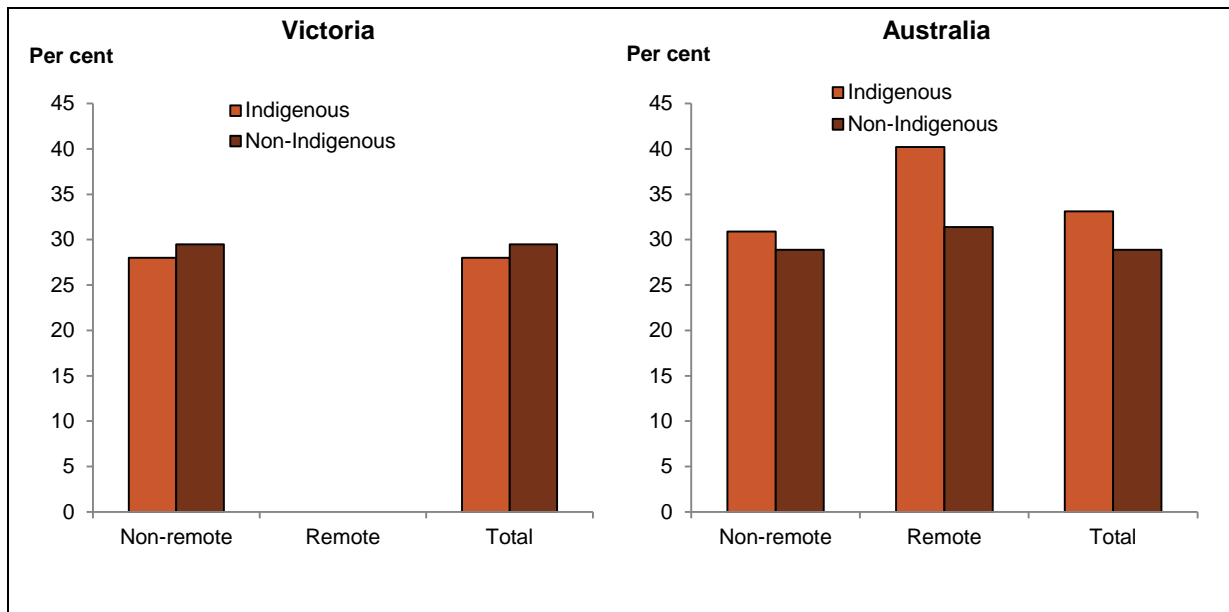
Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### Key findings for Victoria

- Based on both measured and self-reported data from the 2012–13 AATSIHS, about 21% of Indigenous Australians in Victoria had high blood pressure (Table 1.07.4).
- After adjusting for differences in age structure, Indigenous Australians were 0.9 times as likely as non-Indigenous Australians to have high blood pressure. This was lower than the rate ratio at the national level, which were also 1.1 (Table 1.07.7, Figure 1.07.1).

According to the National Hospital Morbidity Database, in the period 2011–12 to 2012–13:

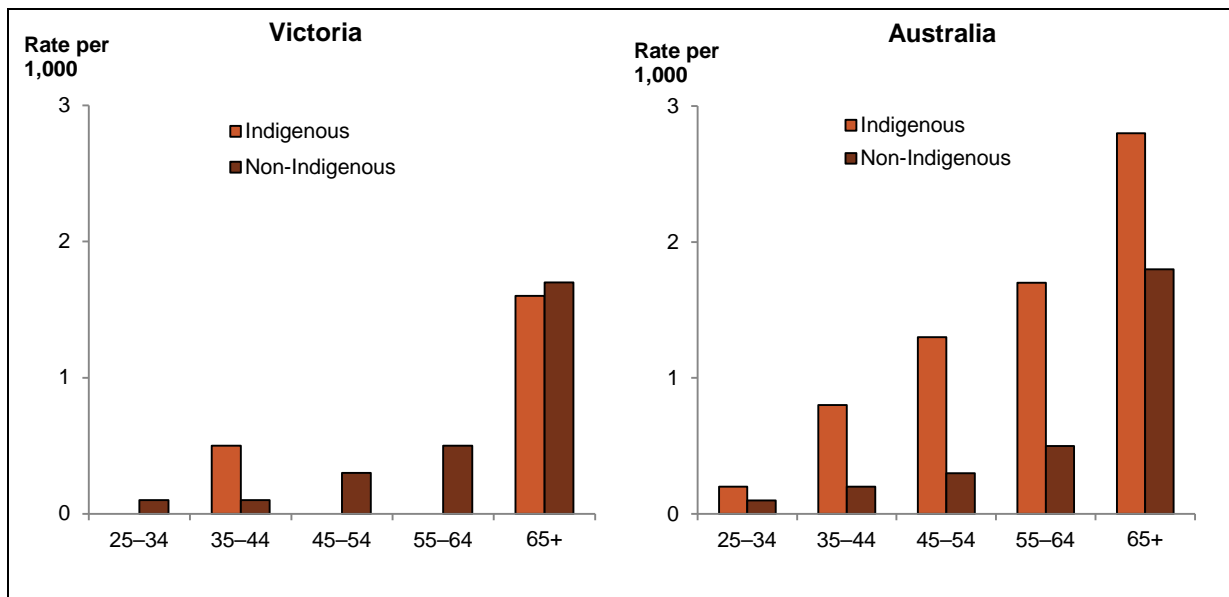
- The hospitalisation rate for hypertensive disease in Victoria was 0.3 per 1,000 for Indigenous Australians (Table 1.07.10).
- In Victoria, rates were highest for Indigenous Australians aged 65 and over (1.6 per 1,000). At the national level, the rate for Indigenous Australians was higher for those aged 65 and over (2.8 per 1,000).
- The rate difference was highest for the 35–44 year age group in Victoria (0.4 per 1,000). At the national level the rate was highest for those aged 55–64 (1.1 per 1,000) (Table 1.07.1F Vic, Figure 1.07.2).



Note: There are no Remote areas in Victoria.

Source: Table 1.07.7.

**Figure 1.07.1: Age-standardised rate (per 100 population) of persons (18 years and over) with high blood pressure, by remoteness, Indigenous status, Victoria and Australia, 2012-13**



Source: Table 1.07.1F NT.

**Figure 1.07.2: Age-specific hospitalisation rates for principal diagnosis of hypertensive disease, by Indigenous status and age, Victoria and Australia, July 2011 to June 2013**



## Key findings for Australia

- Based on both measured and self-reported data from the 2012–13 AATSIHS, about 27% of Indigenous Australians aged 18 and over had high blood pressure. After adjusting for age, Indigenous Australians were 1.1 times as likely to have high blood pressure as non-Indigenous Australians. The gap was 4 percentage points (Table 1.07.1).
- Rates of high blood pressure for Indigenous Australians were higher in *Remote* areas (34%) than *Non-remote* areas (25%) (Table 1.07.4).
- Data collected through the Bettering the Evaluation and Care of Health (BEACH) program between April 2008 and March 2013 suggest that hypertension represented 4% of problems managed in encounters with Indigenous Australians. The management rate was 64 per 1,000 encounters. After adjusting for age, the rate was similar between Indigenous and non-Indigenous Australians (Table 1.07.12).

## Trend

- Data from the AATSIHS and previous health surveys suggest that the proportion of Indigenous males with high blood pressure was 6% in 2001, 7% in 2004–05 and 6% in 2012–13. The estimated proportion of Indigenous females with high blood pressure was 8% in 2001, 8% in 2004–05 and 6% in 2012–13 (Table 1.07.8).
- According to the National Hospital Morbidity Database, in the period 2011–12 to 2012–13, Indigenous Australians were hospitalised for hypertensive disease at a rate of 0.5 per 1,000. After adjusting for age, the rate was 2.4 times that of non-Indigenous Australians. The rate difference was 0.5 per 1,000 (Table 1.07.10).



## 1.08 Cancer

### What is measured and why it is important

Data are presented on incidence, survival rates, mortality and hospital separations for selected cancers (malignant neoplasms) and for all neoplasms.

Risk factors for high-fatality cancers remain prevalent in the Aboriginal and Torres Strait Islander population, including smoking, risky drinking and poor diet (Condon et al. 2003). Indigenous Australians have a higher incidence of fatal, screen detectable and preventable cancers and are diagnosed at more advanced stages, and often with more complex co-morbidities (Cunningham et al. 2008). Compared with non-Indigenous Australians diagnosed with the same cancer, Indigenous Australians are usually diagnosed later with more advanced disease, are less likely to have treatment and often have to wait longer for surgery than non-Indigenous patients (Hall et al. 2004; Valery et al. 2006).

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

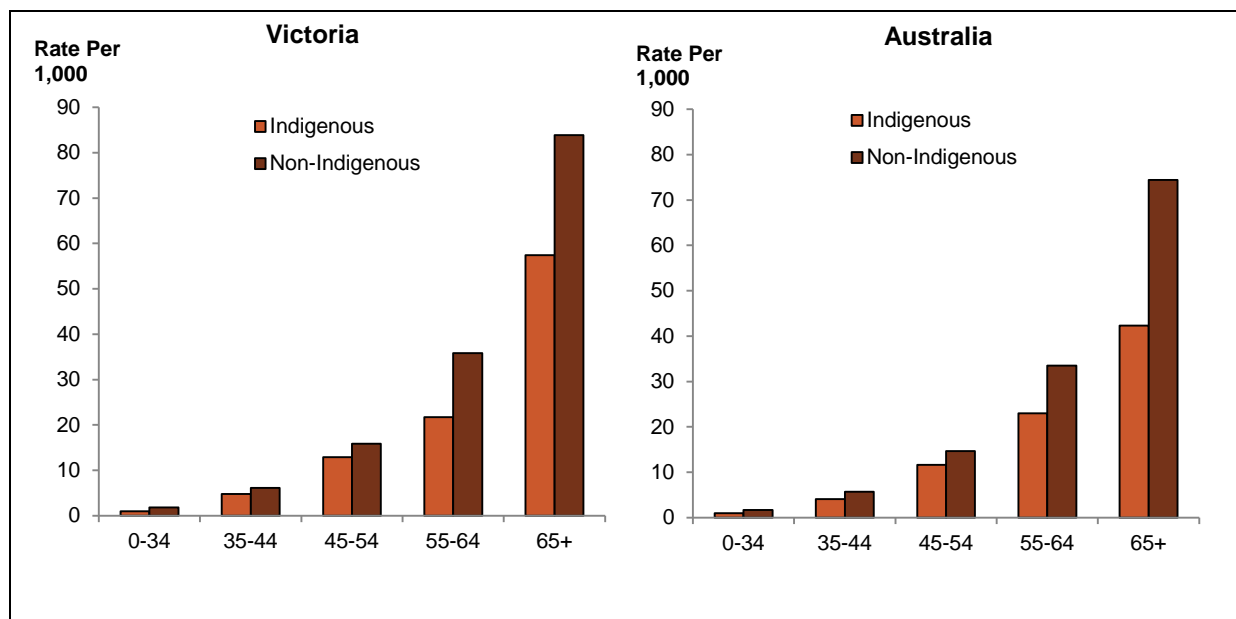
### Key findings for Victoria

- According to the National Hospital Morbidity Database, in 2011–2013 in Victoria, Indigenous Australians were hospitalised due to a principal diagnosis of cancer at a rate of 5.8 per 1,000 population. After adjusting for differences in age structure, Indigenous Australians were hospitalised with a principal diagnosis of cancer at 0.7 times the rate for non-Indigenous Australians. Nationally the rate ratio was 0.6 (Table 1.08.12, Figure 1.08.1).

### Trend

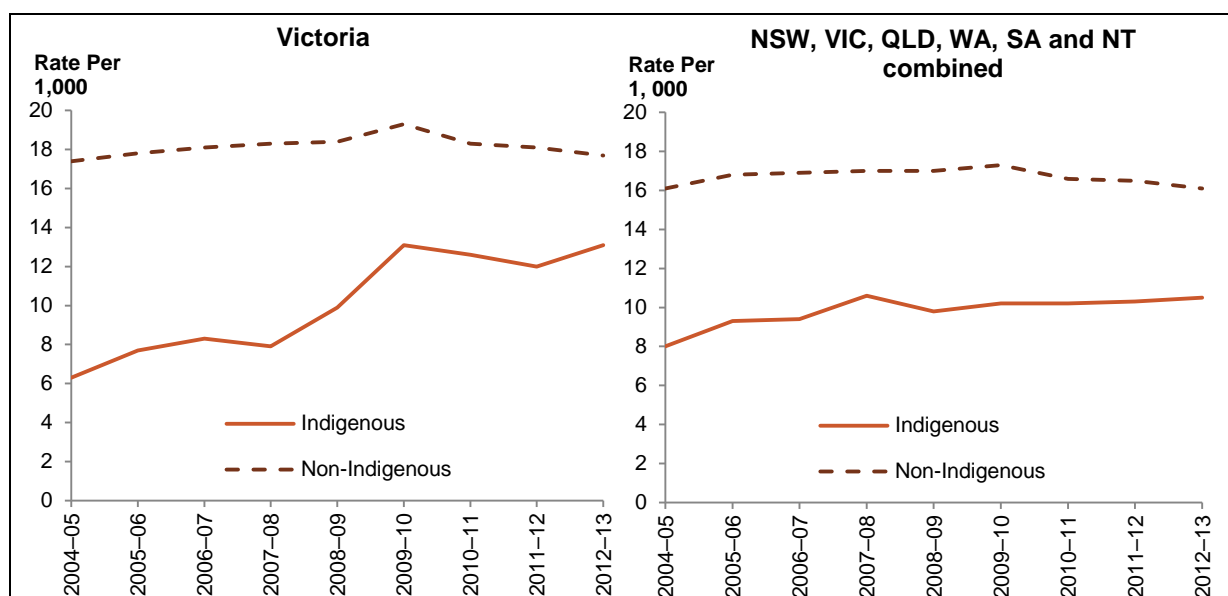
Data from the National Hospital Morbidity Database shows that, from 2004–05 to 2012–13 in Victoria:

- Hospitalisation rates among Indigenous Australians due to cancer increased by 112%, from 6 to per 1,000 in 2004–05 to 13 per 1,000 in 2012–13. This rate also increased by 21% in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, from 8 per 1,000 to 11 per 1,000.
- There was a decrease of 59% in the rate difference between Indigenous and non-Indigenous Australians in the rate of hospitalisations due to cancer. In New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, there was also a decrease of 25% in the rate difference (Table 1.08.3F Vic, Figure 1.08.2).



Source: Table 1.08.2F Vic.

**Figure 1.08.1: Age-specific hospitalisation rates for principal diagnosis of neoplasms (including cancer), by Indigenous status, Victoria and Australia, July 2011 to June 2013**



Source: Table 1.08.3F Vic.

**Figure 1.08.2: Age-standardised hospitalisation rates from cancer (neoplasms), Victoria and NSW, Vic, Qld, WA, SA and NT combined, 2004-05 to 2012-13**

## Key findings for Australia

- According to the Australian Cancer Database, in the period 2005–2009 in New South Wales, Queensland, Western Australia and the Northern Territory combined, after adjusting for age, the incidence of cancer was lower for Indigenous Australians (408 per 100,000) than non-Indigenous Australians (440 per 100,000). The rate of cancer incidence was higher for Indigenous Australians compared with non-Indigenous Australians for lung (1.7 times as high), digestive (1.6 times as high) and cervical cancers (2.3 times as high – for females only) (Table 1.08.1).
- For cancers diagnosed in the period 1997–2007 and followed to 2010, the crude cancer survival rate for Indigenous Australians was lower for males (34%) and females (46%) compared with non-Indigenous males (48%) and females (56%) (Table 1.08.8).
- According to the National Mortality Database, in the period 2008–2012 in New South Wales, Queensland, Western Australia, South Australia and the Northern Territory combined, neoplasms (including cancer) were the underlying cause for 2,340 deaths (20% of all deaths). The age-standardised rate for Indigenous Australians (224 per 100,000) was significantly higher than for non-Indigenous Australians (178 per 100,000). The gap was 46 per 100,000 (12% of the overall mortality gap) (Table 1.23.1).
- Data collected through the BEACH program during the period April 2008–March 2009 to April 2012–March 2013 suggest that about 0.7% of problems managed by GPs in encounters with Indigenous patients were related to cancer, a rate of 11 per 1,000 encounters. After adjusting for age, GPs managed cancer in encounters with Indigenous patients at 0.6 times the rate at encounters with other Australians (Table 1.08.10).
- According to the National Hospital Morbidity Database, in the period 2011–12 to 2012–13, Indigenous Australians were hospitalised due to cancer at a rate of 5 per 1,000. After adjusting for age, the rate difference was 6 per 1,000 (Table 1.08.11).

## Trend

- According to the National Mortality Database, between 2006 and 2012 in New South Wales, Queensland, Western Australia, South Australia and the Northern Territory combined, the age-standardised rate of deaths due to cancer for Indigenous Australians increased significantly by 11%, from 203 to 223 per 100,000. There was a significant 135% increase in the gap between Indigenous and non-Indigenous Australians, from 24 to 53 per 100,000 (Table 1.23.20).
- Data from the National Hospital Morbidity Database show that from 2004–05 to 2012–13 in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, the rate of hospitalisation of Indigenous Australians due to cancer increased 21%, from 8 to 11 per 1,000. The rate difference decreased 25% (Table 1.08.16, Figure 1.08.2).

## 1.09 Diabetes

### What is measured and why it is important

This measure reports on the prevalence of diabetes for Aboriginal and Torres Strait Islander people expressed as a rate by age group, age-standardised rate and ratio.

Diabetes is responsible for 12% of the health gap between Indigenous and non-Indigenous Australians (Vos et al. 2007). Diabetes rates are higher among Indigenous Australians than non-Indigenous Australians in every socioeconomic status group (Cunningham 2010).

There are several forms of diabetes. The most common form is type 2, which accounted for 85% of all diabetes in Australia in 2011–12 (ABS 2012). Type 2 diabetes is a significant contributor to morbidity and mortality for Indigenous Australians (AIHW 2008a).

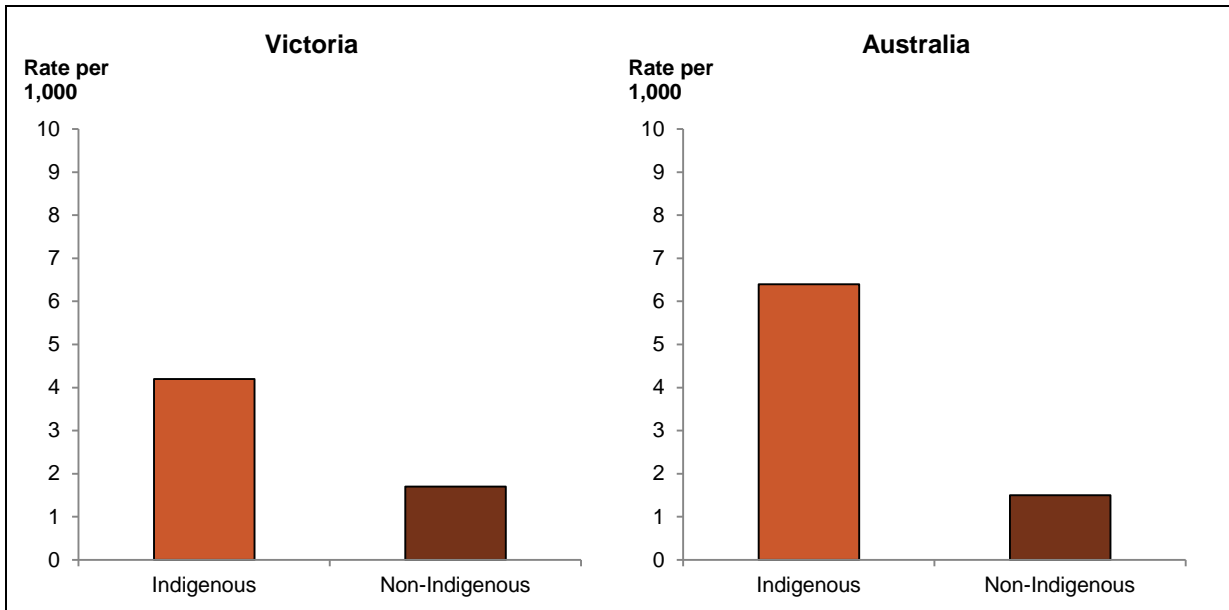
Type 1 diabetes – the most common form of diabetes in children – is generally thought to be rare among Indigenous Australians although misclassification problems with type 2 diabetes make this difficult to ascertain (AIHW 2002).

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### Key findings for Victoria

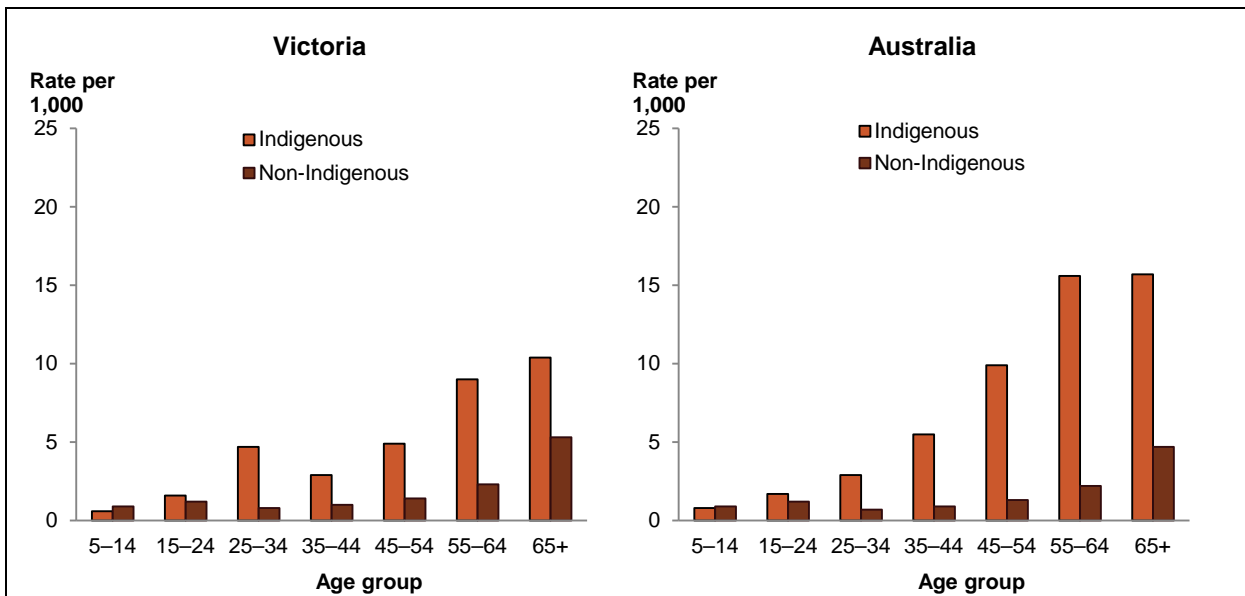
According to the National Hospital Morbidity Database, in the period 2011–12 to 2012–13 in Victoria:

- The crude hospitalisation rate with a principal diagnosis of diabetes for Indigenous Australians was 2.8 per 1,000. This is lower than the national rate (4 per 1,000) (Table 1.09.8).
- After adjusting for differences in age structure, hospitalisation rates with a principal diagnosis of diabetes were 2.5 times as high for Indigenous as for non-Indigenous Australians (4.2 per 1,000 compared with 1.7 per 1,000). The gap was 2.5 per 1,000 (Table 1.09.8, Figure 1.09.1).
- Among Indigenous Australians, hospitalisations with a principal diagnosis of diabetes increased with age, particularly from age 45 onwards. The rate increased from less than 1 per 1,000 among those aged 5–14 to 10 per 1,000 among those aged 65 and over. For non-Indigenous Australians, the rate increased only slightly with age from age 45 onwards and peaked at 5 per 1,000 among those aged 65 and over (Table 1.09.1F Vic, Figure 1.09.2).



Source: Table 1.09.8.

**Figure 1.09.1: Age-standardised hospitalisations for diabetes by Indigenous status, Victoria and Australia, 2011-12 to 2012-13**



Source: Table 1.09.1F Vic.

**Figure 1.09.2: Age-specific hospitalisation rates for diabetes by Indigenous status and age group, Victoria and Australia, 2011-12 to 2012-13**

## Key findings for Australia

According to the 2012–13 AATSIHS:

- Among Indigenous Australians tested for diabetes using a fasting plasma glucose test, 11% were found to have diabetes. This comprised 9.6% of Indigenous adults with known diabetes and 1.5% with diabetes newly diagnosed by the blood test results (ABS 4727.0.55.003 Table 4.3).
- After adjusting for age, the prevalence of diabetes as determined by the fasting plasma glucose test for Indigenous Australians aged 18 and over was 3 times as high as for non-Indigenous Australians (ABS 4727.0.55.003 Table no 3.3).

Data collected through the BEACH program over the period April 2008–March 2009 to April 2012–March 2013 show that:

- After adjusting for age, diabetes was managed at a rate of 108 per 1,000 GP encounters among Indigenous patients, compared with 38 per 1,000 among other patients. This was 2.8 times as high, representing a significant difference of 70 management occasions per 1,000 encounters. The difference was mainly due to the management rate of type 2 diabetes (Table 1.09.6).

According to the National Hospital Morbidity Database, in the period 2011–12 to 2012–13:

- The hospitalisations rate for diabetes was 6.4 per 1,000 among Indigenous Australians, compared with 1.5 per 1,000 among non-Indigenous Australians – a rate difference of 4.9 per 1,000 (Table 1.09.7).
- Hospitalisation rates for diabetes among Indigenous Australians generally increased with remoteness, from 4 per 1,000 of those living in *Major cities* to 11 per 1,000 in *Remote* areas. In contrast, the rate among non-Indigenous Australians was similar between remoteness categories (about 1–2 per 1,000) (Table 1.09.9).

According to the National Mortality Database:

- In the period 2008–2012, 8% of deaths of Indigenous Australians were due to diabetes and death rates from diabetes were 6 times the non-Indigenous rate (see Table 1.23.1).
- Diabetes was the second leading cause of the gap in death rates, behind circulatory disease (see Table 1.23.1).

## Trend

- There has been no improvement in death rates from diabetes for Indigenous Australians in the last 15 years (see Table 1.23.22).



## 1.10 Kidney disease

### What is measured and why it is important

This measure reports on prevalence, deaths and hospitalisations for kidney disease among Aboriginal and Torres Strait Islander people, as well as incidence of treated end-stage kidney disease (ESKD) as registered by the Australia and New Zealand Dialysis and Transplant Registry.

Kidney failure was estimated to contribute 5% of the burden of disease for Indigenous Australians in 2003 (Vos et al. 2007). Among non-Indigenous Australians, ESKD usually occurs in older age, but for Indigenous Australians, it occurs more frequently in the middle adult years (White et al. 2010). Fewer Indigenous patients receive kidney transplants, so most must have dialysis 3 times a week for the rest of their lives, affecting quality of life and social and emotional wellbeing (AIHW 2014d; Devitt et al. 2008; McDonald et al. 2006).

Registrations data for ESKD are only estimates of incidence and prevalence because not all cases may be reported and not all persons with ESKD may be receiving treatment. Here, new registrations are used to estimate incidence, and total registrations are used to estimate prevalence.

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### Key findings for Victoria

Data from the National Hospital Morbidity Database show that, in the 2 years 2011–12 to 2012–13:

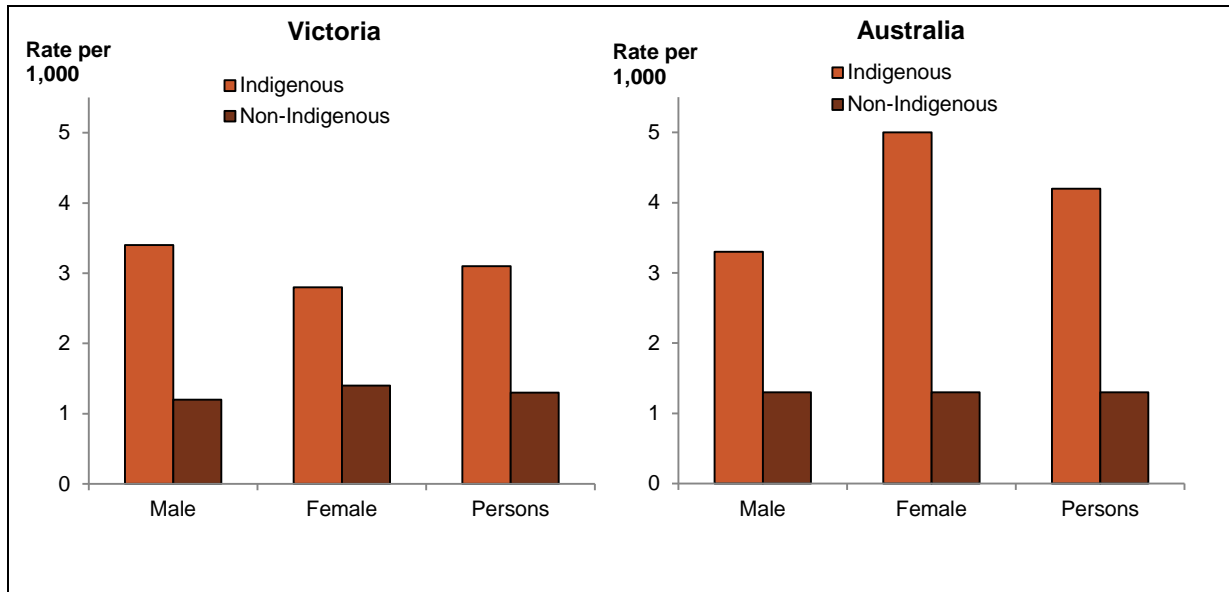
- The age-standardised rate for hospitalisations from chronic kidney disease (excluding dialysis) for Indigenous Australians in Victoria was 3 per 1,000 and the rate for non-Indigenous Australians was 1 per 1,000. The rate difference was 2 per 1,000. This was similar to results at the national level (Table 1.10.8, Figure 1.10.1).

According to the Australia and New Zealand Dialysis and Transplant registry:

- In Victoria, the incidence rate of treated-ESKD for Indigenous Australians was 44 per 100,000, compared with 10 per 100,000 for non-Indigenous Australians. The gap was 34 per 100,000.
- During this same period, at the national level, the incidence rate of treated-ESKD for Indigenous Australians was higher at 62 per 100,000, and the non-Indigenous rate was similar at 9 per 100,000. The gap was larger at 52 per 100,000 (Table 1.10.12, Figure 1.10.1).

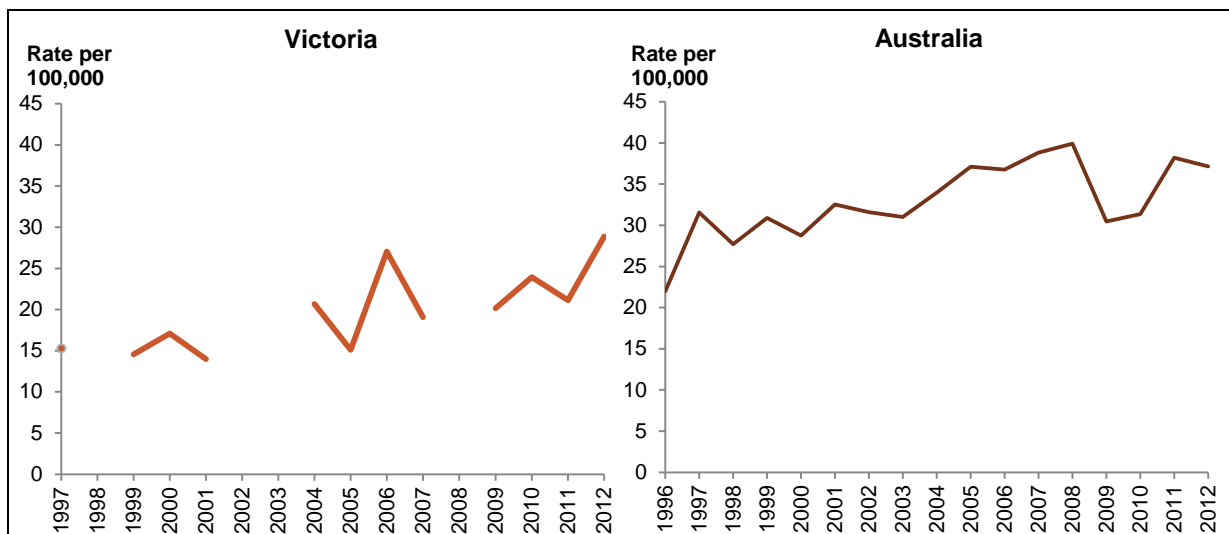
### Trend

- Between 1997 and 2012 in Victoria, the incidence rate of ESKD for Indigenous Australians increased from 15 per 100,000 to 29 per 100,000. This represents an increase of 153% over the period (Table 1.10.16, Figure 1.10.2). Note that time-series analyses may be affected by changes in the quality of Indigenous identification over time.



Source: Table 1.10.8.

**Figure 1.10.1: Age-standardised hospitalisations rate for chronic kidney disease (excluding dialysis) by Indigenous status and sex, Victoria and Australia, 2011-12 to 2012-13**



Note: Incidence rates for Victoria could not be calculated for 1996, 1998, 2002, 2003 or 2008 due to small number of cases.

Source: Table 1.10.16.

**Figure 1.10.2: Incidence (crude rate) of end-stage kidney disease of Indigenous Australians, Victoria and Australia, 1996-2012**

## Key findings for Australia

According to the 2012–13 AATSIHS:

- The age-standardised rate of chronic kidney disease among Indigenous Australians aged 18 and over was 22 per 100 persons, compared with 10 per 100 for non-Indigenous Australians (Table 1.10.1).

According to the National Mortality Database, in 2008–2012 in New South Wales, Queensland, Western Australia, South Australia and the Northern Territory combined:

- The age-standardised death rate due to kidney disease among Indigenous Australians was 30 per 100,000, compared with 11 per 100,000 for non-Indigenous Australians, a gap of 18 per 100,000 (Table 1.10.4).

Data from the National Hospital Morbidity Database show that in the 2 years 2011–12 and 2012–13:

- The age-standardised rate of hospitalisation for care involving dialysis was 432 per 1,000 for Indigenous Australians and 44 per 1,000 for non-Indigenous Australians.
- Indigenous Australians were hospitalised for care involving dialysis at almost 10 times the rate of non-Indigenous Australians. The rate difference was 388 per 1,000 (Table 1.10.5).

According to the Australia and New Zealand Dialysis and Transplant registry, in the 3 years 2010 to 2012:

- The incidence rate for treated ESKD was 62 persons per 100,000 for Indigenous Australians and 9 per 100,000 persons for non-Indigenous Australians, a gap of 52 per 100,000 persons (Table 1.10.10).

## Trend

According to the National Mortality Database, from 2006 to 2013 in New South Wales, Queensland, Western Australia, South Australia and Northern Territory combined:

- There was a significant 40% decrease in the death rate due to kidney disease for Indigenous Australians, and a significant 53% decrease in the gap (Table 1.23.23).

According to the Australia and New Zealand Dialysis and Transplant Registry, from 1996 to 2012:

- There was a significant increase of 26% in the incidence rate of treated ESKD for non-Indigenous Australians. There was no significant change in the rate for Indigenous Australians and no significant change in the gap. There was, however, a significant increase of 33% for Indigenous males (Table 1.10.14).

## 1.11 Oral health

### What is measured and why it is important

This measure reports on experiences of decayed, missing and filled teeth and dental treatment among Aboriginal and Torres Strait Islander people.

The 2 most frequently occurring oral diseases are tooth decay (termed 'caries') and periodontal disease. If not treated in a timely manner, these can cause discomfort and tooth loss, affecting a person's ability to eat, speak and socialise without active disease, discomfort or embarrassment (Williams et al. 2011). Additionally, oral diseases can exacerbate other chronic diseases (Jamieson et al. 2010) and have been associated with cardiovascular diseases, diabetes, stroke and pre-term low birthweight (Roberts-Thomson et al. 2008; Williams et al. 2011).

Caries experience is measured by the average number of decayed, missing and filled infant/deciduous (dmft) and adult/permanent (DMFT) teeth. The number of teeth with caries reflects untreated dental disease. The number of missing and filled teeth reflects the history of dental health problems and treatment (AHMAC 2015).

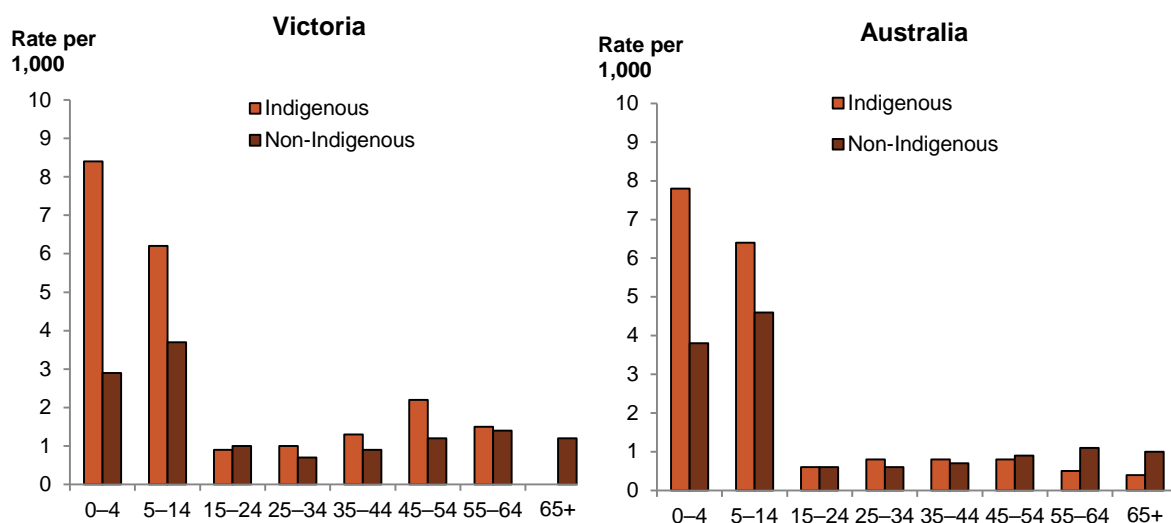
Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### Key findings for Victoria

- In the 2008 NATSISS, in Victoria 38% of Indigenous children aged under 15 reported teeth or gum problems. This was higher than the national proportion of 32% (Table 1.11.1).
- In the 2012–13 AATSIHS, an estimated 8% of Indigenous Australians aged 15 and over in Victoria reported complete tooth loss (excluding wisdom teeth). This was higher than the rate nationally (5%) (Table 1.11.10).

According to the National Hospital Morbidity Database, in the period 2011–12 to 2012–13 in Victoria:

- Indigenous Australians were hospitalised for dental problems at a rate of 3 per 1,000. After adjusting for differences in age structure, the rate for Indigenous Australians was 1.6 times the rate for non-Indigenous Australians, compared with 1.3 times nationally (Table 1.11.3F Vic).
- Indigenous children aged 0–4 were hospitalised for dental problems at a rate of 8 per 1,000 compared with 3 per 1,000 for non-Indigenous children – a rate difference of 6 per 1,000. The rate difference for this age group was greater in Victoria than nationally (4 per 1,000). For those aged 5–14, the rate difference was around 2 per 1,000 in both Victoria and Australia. For all other age groups, patterns were similar between Victoria and nationally, where the rate difference was generally less than 1 per 1,000 (Table 1.11.2F Vic, Figure 1.11.1).



Source: Table 1.11.2F Vic.


**Figure 1.11.1: Age-specific hospitalisation rates for dental problems, by Indigenous status, Victoria and Australia, July 2011 to June 2013**

## Key findings for Australia

- In the 2008 NATSISS, 32% of Indigenous children aged under 15 reported having teeth or gum problems (Table 1.11.3).
- In the 2012–13 AATSIHS, among Indigenous Australians aged 15 and over, an estimated 5% reported complete tooth loss (excluding wisdom teeth) and a further 47% reported having lost at least one adult tooth (Table 1.11.7).
- Data from the National Hospital Morbidity Database show that in the period 2011–12 to 2012–13, the rate of hospitalisation for dental problems for Indigenous Australians was 3 per 1,000. After adjusting for age differences between the 2 populations, the rate for Indigenous Australians was 1.3 times the rate for non-Indigenous Australians (Table 1.11.21).
  - Indigenous children aged 0–4 were hospitalised for dental conditions at twice the rate of non-Indigenous children (8 per 1,000 compared with 4 per 1,000) (Table 1.11.21).
- Medicare data from 2014 show that a higher proportion of Indigenous than non-Indigenous children were eligible to receive services under the Child Dental Benefit Schedule (82% and 59%, respectively). However, the proportion of eligible children who received services claimed under the Child Dental Benefit Schedule was lower among Indigenous than non-Indigenous children (9% and 16%, respectively) (Table 1.11.26).

According to the Child Dental Health Survey, in 2010 in Queensland, Western Australia, South Australia, Tasmania, the Australian Capital Territory and the Northern Territory combined:

- Indigenous children aged 5–10 had a significantly higher mean number of decayed, missing or filled deciduous teeth than non-Indigenous children (3.81 and 2.22,



respectively) (Table 1.11.13). The proportion of Indigenous children aged 5–10 with no decayed, missing or filled deciduous teeth was significantly lower than non-Indigenous children (24% and 45%, respectively) (Table 1.11.14).

- Among those aged 6–15, Indigenous Australians had a higher mean number of decayed, missing or filled permanent teeth than non-Indigenous Australians (1.94 and 1.08, respectively) (Table 1.11.15). The proportion of Indigenous Australians aged 6–15 with no decayed, missing or filled permanent teeth was significantly lower than non-Indigenous Australians (48% and 63%, respectively) (Table 1.11.16, Figure 1.11.2).



## 1.12 HIV/AIDS, hepatitis and sexually transmissible infections

### What is measured and why it is important

This indicator reports on the rate of notified sexually transmissible infections (STIs) for chlamydia, gonorrhoea, non-congenital syphilis, newly acquired hepatitis C, newly acquired hepatitis B and HIV/AIDS for Indigenous Australians.

Indigenous Australians currently experience high notifications of bacterial STIs, and high notification rates for hepatitis B and C. Each of these infections can have potentially serious consequences if left untreated.

Notification data include cases that have been tested, diagnosed and notified to health authorities, representing only a proportion of the total incidence of disease. Changes in notification rates over time are influenced by a range of factors including access to health care, improved screening programs for Indigenous Australians and improved accuracy of tests. The accuracy of Indigenous identification in the data is also an issue and varies by jurisdiction. Improved primary health care can lead to increased testing and a corresponding increase in notification rates.

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

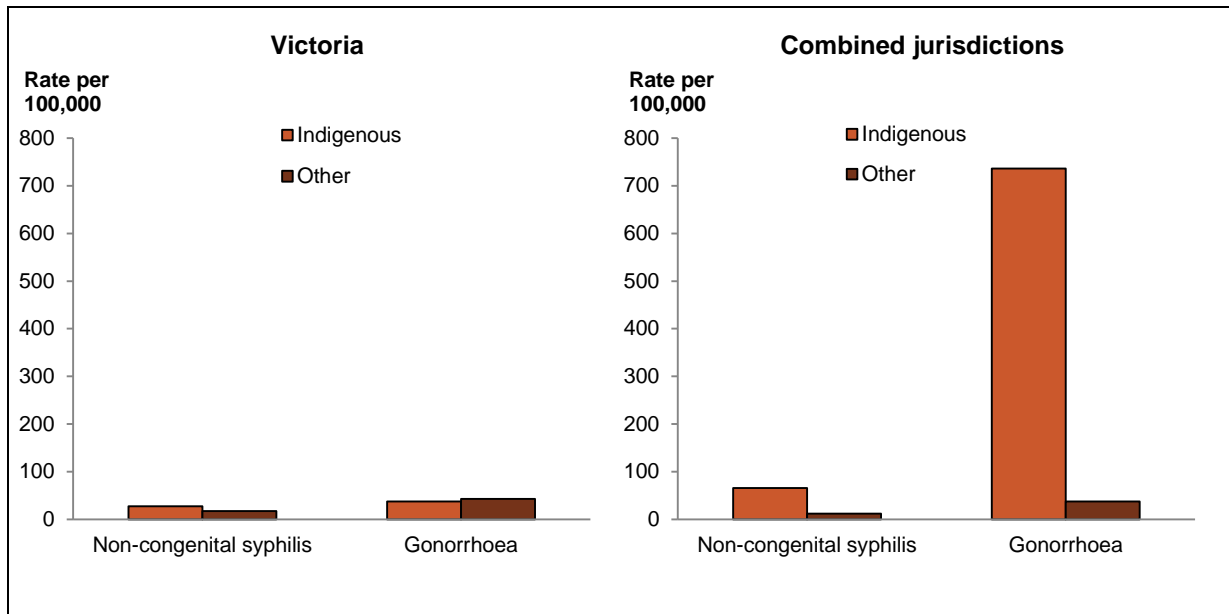
### Key findings for Victoria

According to the National Notifiable Diseases Surveillance System (NNDSS) in 2011–2013, in Victoria:

- The notification rate of non-congenital syphilis for Indigenous Australians was 28 per 100,000 (31 notifications).
  - This was 1.6 times as high as the rate for other Australians of 18 per 100,000. There was no significant difference in rates of non-congenital syphilis between Indigenous and other Australians.
- The notification rate of gonorrhoea for Indigenous Australians was 37 per 100,000 (58 notifications).
  - This was 86% of the rate for other Australians which was 43 per 100,000 (Table 1.12.1, Figure 1.12.1).
- Data on chlamydia, hepatitis C and hepatitis B were not available for Victoria.

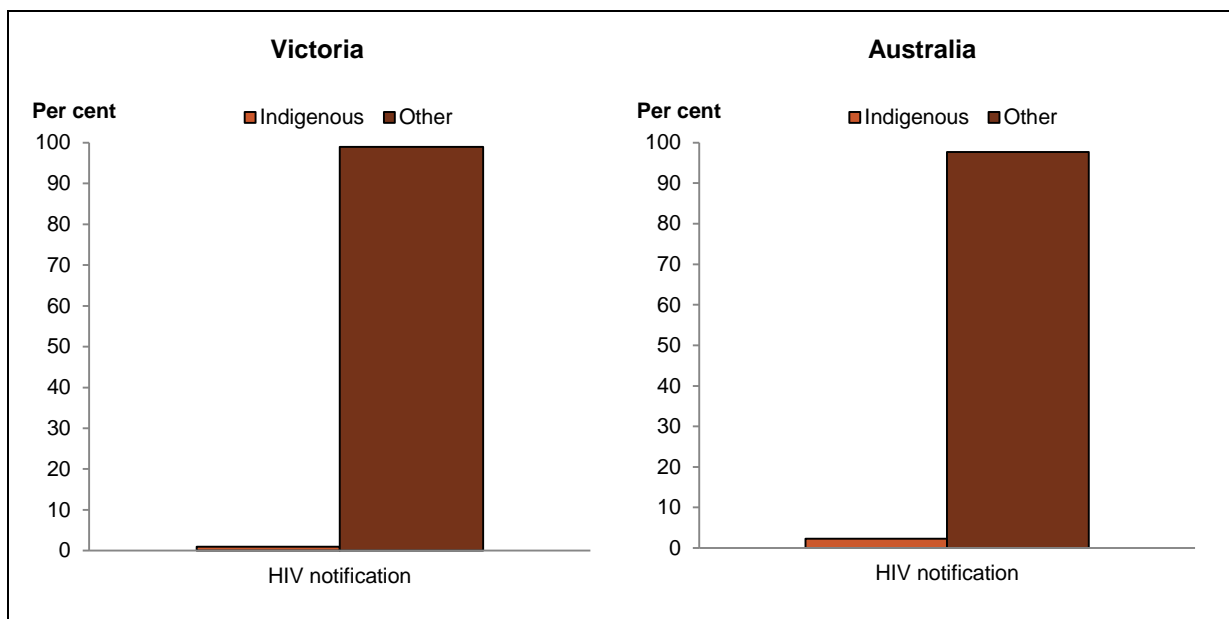
Data from the National HIV Registry show that in 2010–2012, in Victoria:

- There were 926 notifications of HIV, 1% of these notifications were for Indigenous Australians (Table 1.12.9, Figure 1.12.2).



Source: Table 1.12.1.

**Figure 1.12.1: Age-standardised notification rates for non-congenital syphilis and gonorrhoea by Indigenous status, Victoria and combined jurisdiction totals, 2011-2013**



Source: Table 1.12.9.

**Figure 1.12.2: Proportion of notifications for HIV, by Indigenous status, Victoria and Australia, 2010-12**

## Key findings for Australia

- In 2011–2013, there were 19,990 notifications of chlamydia, 12,643 notifications of gonorrhoea, 1,111 notifications of non-congenital syphilis, 847 notifications of hepatitis C, and 402 notifications of hepatitis B for Indigenous Australians.
- These represent the following percentage of total number of notifications for all Australians during this period: chlamydia (17%), gonorrhoea (43%), non-congenital syphilis (12%), hepatitis C (13%) and hepatitis B (8%) (Table 1.12.1).
- Notification rates of HIV for Indigenous Australians represented 2% of the total 3,452 notifications for the period 2010–2012 (Table 1.12.9).

## Trend

- From 1996–1998 to 2011–2013, the notification rates of chlamydia for Indigenous Australians doubled, and the notification rates for other Australians also increased significantly. The gap in the rate of chlamydia notifications between Indigenous and other Australians widened significantly (by 83%) (Table 1.12.3).
- Notification rates of gonorrhoea for Indigenous Australians increased by 17%. The gap in the rate of gonorrhoea notifications between Indigenous and other Australians also widened by 17% (Table 1.12.5).
- The gap in the rate of hepatitis C notifications between Indigenous and other Australians also widened significantly (by 83%) (Table 1.12.6).
- Notification rates of non-congenital syphilis for Indigenous Australians decreased by 64%. The gap between rates of non-congenital syphilis notifications for Indigenous and other Australians narrowed significantly (by 64%) (Table 1.12.4).
- From 2006–2007 to 2012–2013, notification rates of hepatitis B among Indigenous Australians decreased significantly (by 63%) and the gap narrowed significantly (by 77%) (Table 1.12.8).
- From 1998–2000 to 2010–2012, notification rates of HIV for Indigenous Australians were stable at around 4 per 100,000 (Table 1.12.12).

## 1.13 Community functioning

### What is measured and why it is important

This measure reports on the analysis of factors to describe community functioning for Aboriginal and Torres Strait Islander Australians.

Functioning is about the things people achieve or experience, consistent with their account of wellbeing. The conversion of capabilities into functioning is influenced by the values and personal features of individuals, families and communities and by the environment in which they live. Hence, it is likely that different cultures will give greater or lesser priority to different aspects of functioning (OATSIH 2004).

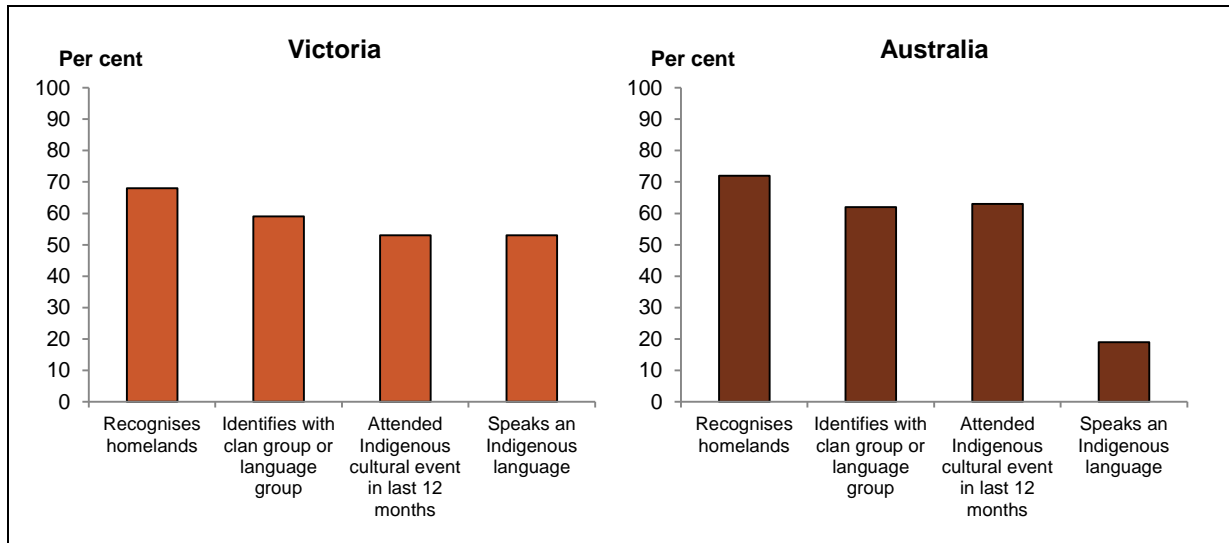
The 6 community functioning themes are: connectedness to Country, land, and history, culture and identity; resilience; leadership; having a role, structure and routine; feeling safe; and vitality.

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### Key findings for Victoria

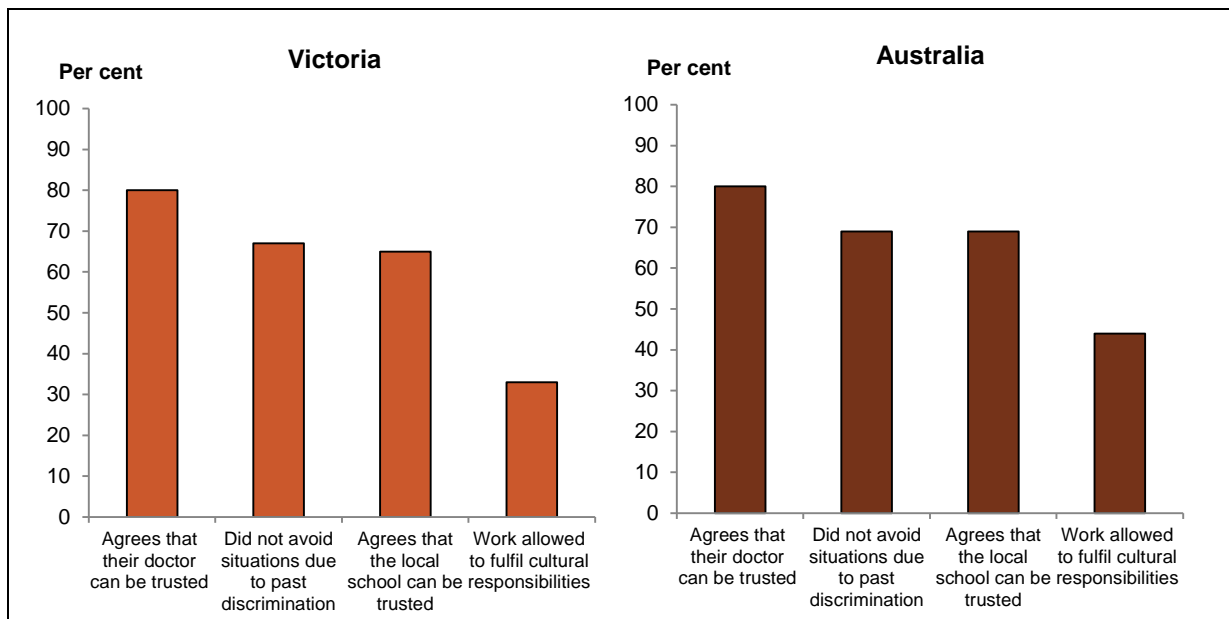
In the 2008 NATSISS, for Indigenous Australians aged 15 and over in Victoria:

- 68% recognised a homeland, 6% spoke an Aboriginal or Torres Strait Islander language, 53% had attended an Indigenous cultural event within the last year and 59% identify with a clan group or language group (Table 1.13.12, Figure 1.13.1).
- 67% reported that they had not avoided a situation due to past discrimination, 80% agreed that their doctor could be trusted, 65% agreed that the local school could be trusted and 33% of employed people said work allowed them to fulfil cultural responsibilities (Table 1.13.12, Figure 1.13.2).
- 79% reported having lived in only 1 dwelling in the last 12 months (Table 1.13.12).
- 78% felt safe at home alone after dark and 71% reported not being a victim of physical or threatened violence in the past 12 months (Table 1.13.12, Figure 1.13.3).
- 44% reported no disability or long-term health condition and 64% reported low to moderate levels of psychological distress in the last 4 weeks (Table 1.13.12).



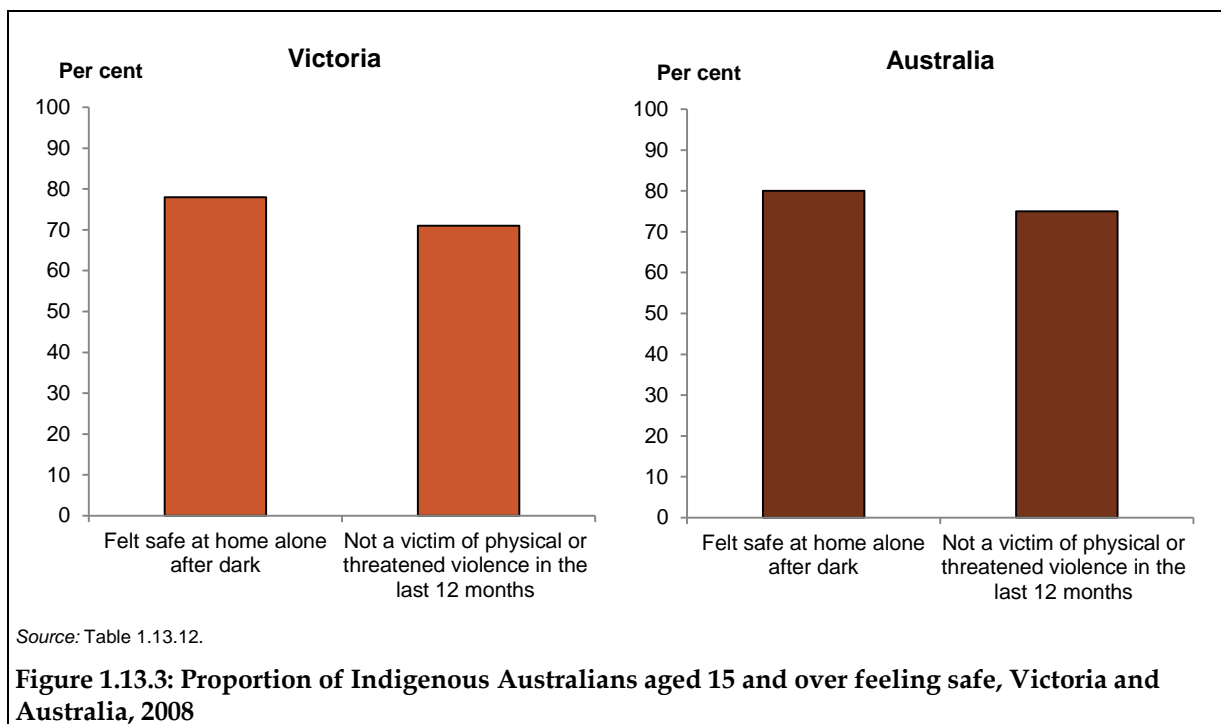
Source: Table 1.13.12.

**Figure 1.13.1: Proportion of Indigenous Australians aged 15 and over: connectedness to country, land, and history; culture and identity, Victoria and Australia, 2008**



Source: Table 1.13.12.

**Figure 1.13.2: Proportion of Indigenous Australians aged 15 and over: resilience, Victoria and Australia, 2008**



## Key findings for Australia

In the 2008 NATSISS, for Indigenous Australians aged 15 and over (unless otherwise specified):

- 72% recognised a homeland; 19% spoke an Aboriginal or Torres Strait Islander language; 63% attended an Indigenous cultural event within the last year; and 62% identified with a clan or language group (Table 1.13.3, Figure 1.13.1).
- 69% reported that they had not avoided a situation due to past discrimination; 80% agreed that their doctor could be trusted; 69% agreed that the local school could be trusted; and 44% of employed people said work allowed them to fulfil cultural responsibilities (Table 1.13.4, Figure 1.13.2).
- 42% of children aged 3–14 had spent time with an Indigenous leader or Elder in the past week (Table 1.13.5).
- 78% reported having lived in only 1 dwelling in the last 12 months (Table 1.13.6).
- 80% felt safe at home alone after dark and 75% reported not being a victim of physical or threatened violence in the past 12 months (Table 1.13.7, Figure 1.13.3).
- 50% reported no disability or long-term health condition and 68% reported low to moderate levels of psychological distress in the last 4 weeks (Table 1.13.8).



## 1.14 Disability

### What is measured and why it is important

This measure reports on the prevalence of disability among Aboriginal and Torres Strait Islander people, including children with special needs and users of disability support services.

Disability may be an impairment of body structure or function, a limitation in activities and/or a restriction in a person's participation in specific activities. A person's functioning involves an interaction between health conditions and environmental and personal factors. Aboriginal and Torres Strait Islander people may be at greater risk of disability due to increased exposure to factors such as low birthweight, chronic disease, infectious diseases (for example, otitis media), injury and substance use. Along with limited access to early treatment and rehabilitation services, these factors increase the risk of a person acquiring a disability (AHMAC 2015).

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### Key findings for Victoria

According to the 2012–13 AATSIHS:

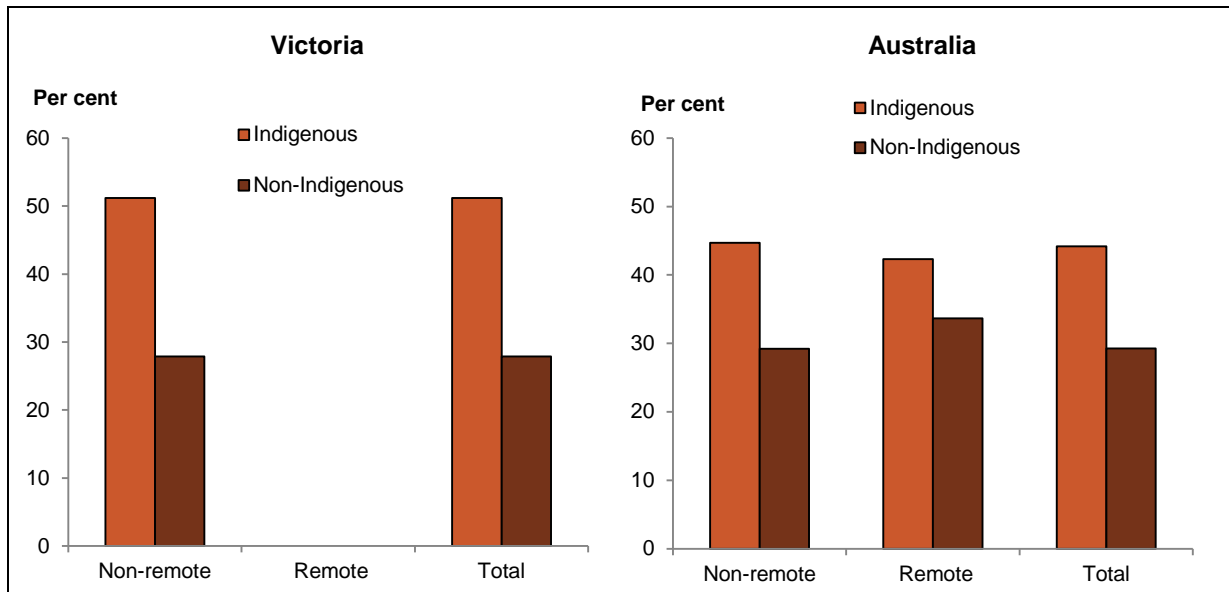
- An estimated 44% of Indigenous Australians in Victoria had a disability or restrictive long-term health condition (Table 1.14.2). After adjusting for differences in age structure, the rate for Indigenous Australians was 1.8 times the rate for non-Indigenous Australians, compared with 1.5 times nationally (Table 1.14.1, Figure 1.14.1).

Data from the 2011 Census of Population and Housing suggest that:

- 6.9% of the total Indigenous population in Victoria were identified as needing assistance with a core activity (self-care, mobility or communication) some or all of the time (Table 1.14.13). After adjusting for differences in age structure, the rate for Indigenous Australians was 2.0 times the rate for non-Indigenous Australians, compared with 2.0 times nationally (Table 1.14.13, Figure 1.14.2).

According to the Disability Services National Minimum Data Set, in 2012–13 in Victoria:

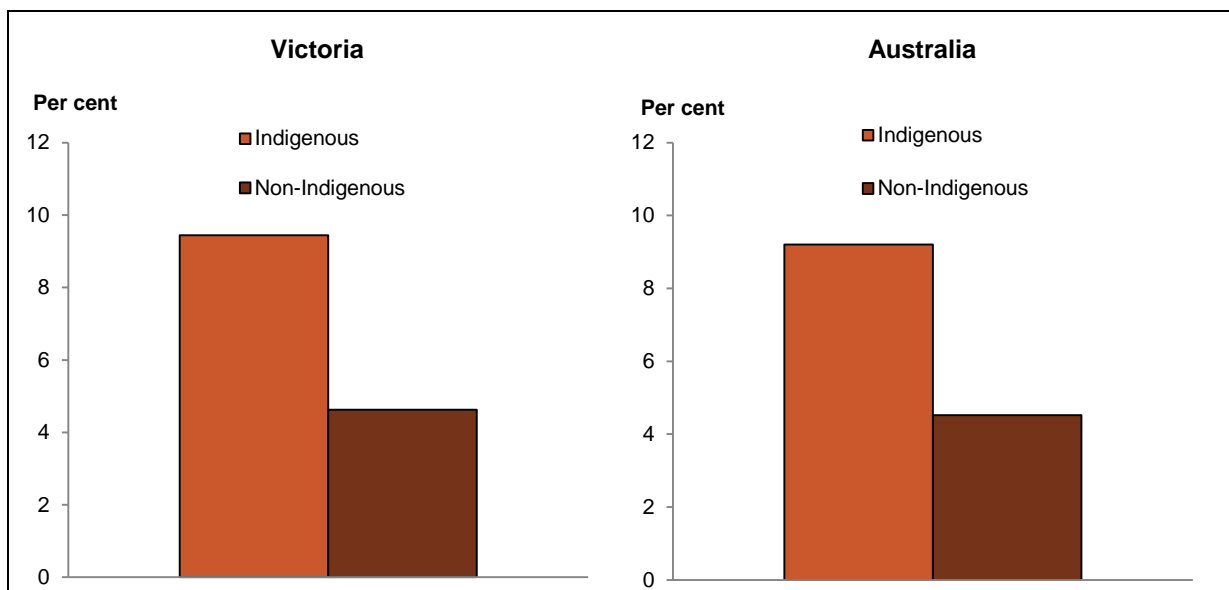
- The rate of disability support service used by Indigenous Australians aged under 65 was 41 per 1,000 (Table 1.14.17). After adjusting for differences in age structure, the rate for Indigenous Australians was 2.9 times the rate for non-Indigenous Australians, compared with 1.9 times nationally (Table 1.14.17, Figure 1.14.3).



Note: There are no Remote areas in Victoria.

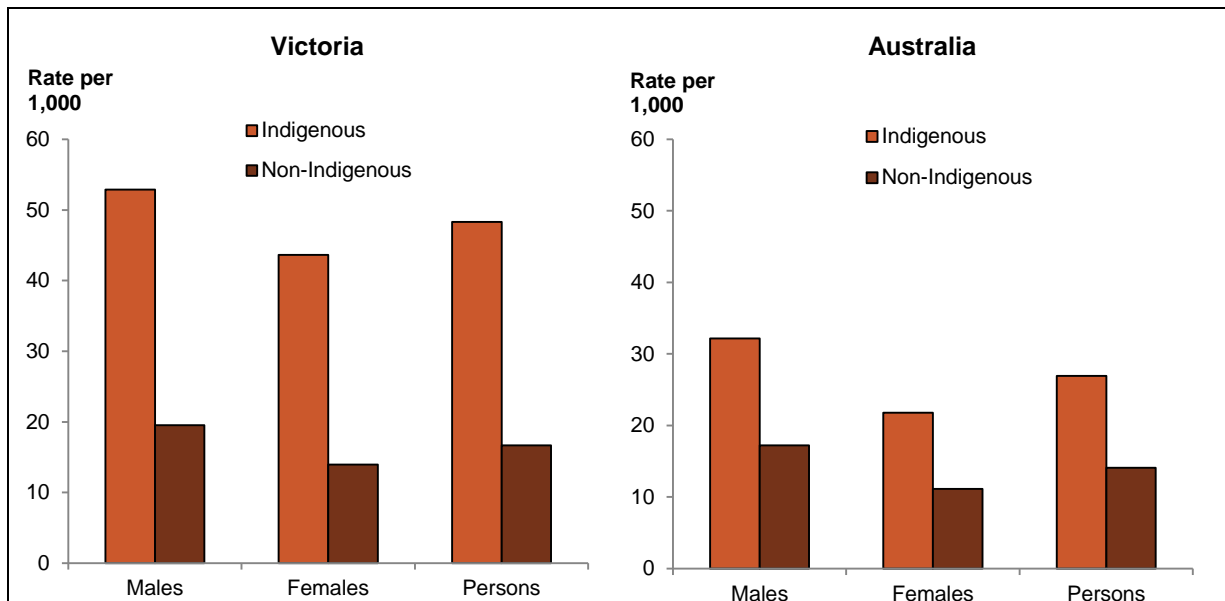
Source: Table 1.14.1.

**Figure 1.14.1: Age-standardised proportion of persons reporting disability or a restrictive long-term health condition, by Indigenous status and remoteness category, Victoria and Australia, 2012-13**



Source: Table 1.14.13.

**Figure 1.14.2: Age-standardised proportion of persons with need for core activity assistance, by Indigenous status, Victoria and Australia, 2011**



Source: Table 1.14.17.

**Figure 1.14.3: Age-standardised rate of persons younger than 65 years using disability support services, by sex and Indigenous status, Victoria and Australia, 2012-13**

## Key findings for Australia

- According to the 2012-13 AATSIHS, an estimated 36% of Indigenous Australians reported disability or a restrictive long-term health condition (Table 1.14.2). After adjusting for age, the rate for Indigenous Australians was 1.5 times the rate for non-Indigenous Australians (Table 1.14.1).
- Around 10% of Indigenous Australians had a profound, severe or moderate core-activity limitation with at least 1 activity of everyday living (self-care, mobility or communication) – 1.6 times the rate for non-Indigenous Australians (tables 1.14.3-4).
- Data from the 2011 Census of Population and Housing suggest that 5.7% of the Indigenous population needed assistance with a core activity (self-care, mobility or communication) some or all of the time – twice the rate for non-Indigenous Australians (Table 1.14.11).
- According to the Disability Services NMDS, the rate of disability support service use by Indigenous Australians aged under 65 in 2012-13 was 25 per 1,000 – 1.9 times the rate for non-Indigenous Australians (Table 1.14.17).

## Trend

- In 2012-13, around 17,400 or 6% of disability support services users of all ages were Indigenous, compared with 5% in 2008-09 (AIHW 2014j; AIHW 2011).

## 1.15 Ear health

### What is measured and why it is important

This measure includes indicators of hearing health in children and adults, including prevalence rates for ear and hearing problems, hospitalisation rates for diseases of the ear and mastoid process, and rates of ear and hearing problems managed at consultations with GPs.

Hearing loss, especially in childhood, can lead to linguistic, social and learning difficulties and behavioural problems in school. These difficulties may reduce educational achievements and have lifelong consequences for employment, income, social success and contact with the criminal justice system (Williams & Jacobs 2009).

Otitis media is an inflammation of the middle ear. Otitis media with effusion involves a collection of fluid within the middle ear space. Chronic suppurative otitis media (CSOM) occurs with persistent discharge through a perforation in the eardrum and active bacterial infection within the middle ear space, which lasts several weeks or more. The WHO regards a prevalence of CSOM of greater than 4% as a massive public health problem requiring urgent action (WHO 2004a). Otitis media is associated with poverty, crowded housing conditions, passive smoking and nutritional deficiencies (Burns et al. 2013).

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### Key findings for Victoria

The 2012–13 AATSIHS shows that:

- 8% of Indigenous children under 15 in Victoria had a reported ear or hearing problem, compared with 7% nationally (Figure 1.15.1, Table 1.15.9).
- 17% of the total Indigenous population in Victoria had a reported ear or hearing problem, this is higher than the proportion in the non-Indigenous population (12%). This was similar to rates at the national level (16% and 12%, respectively) (Figure 1.15.2).
  - In *Non-remote* areas of Victoria, the prevalence of ear/hearing problems was higher for Indigenous Australians than for non-Indigenous Australians (17% compared with 12%) (Table 1.15.5).

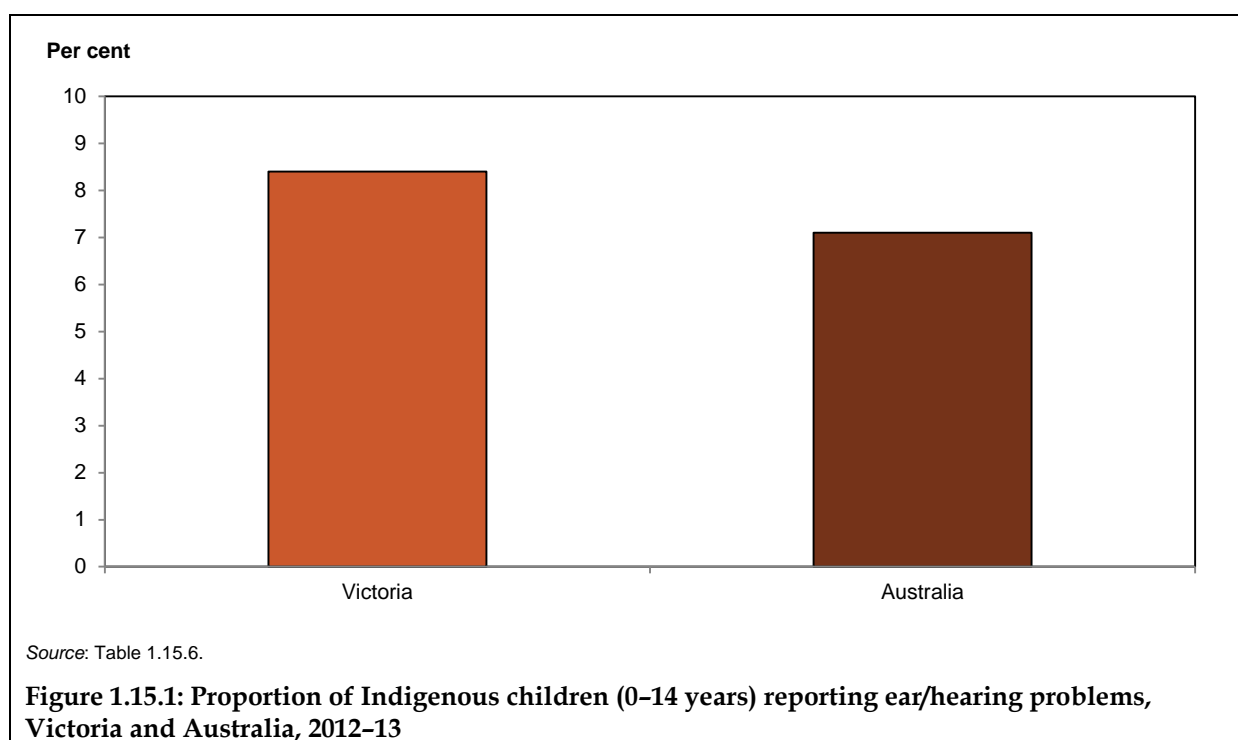
According to the National Hospital Morbidity Database, over the 2 years 2011–12 and 2012–13 in Victoria:

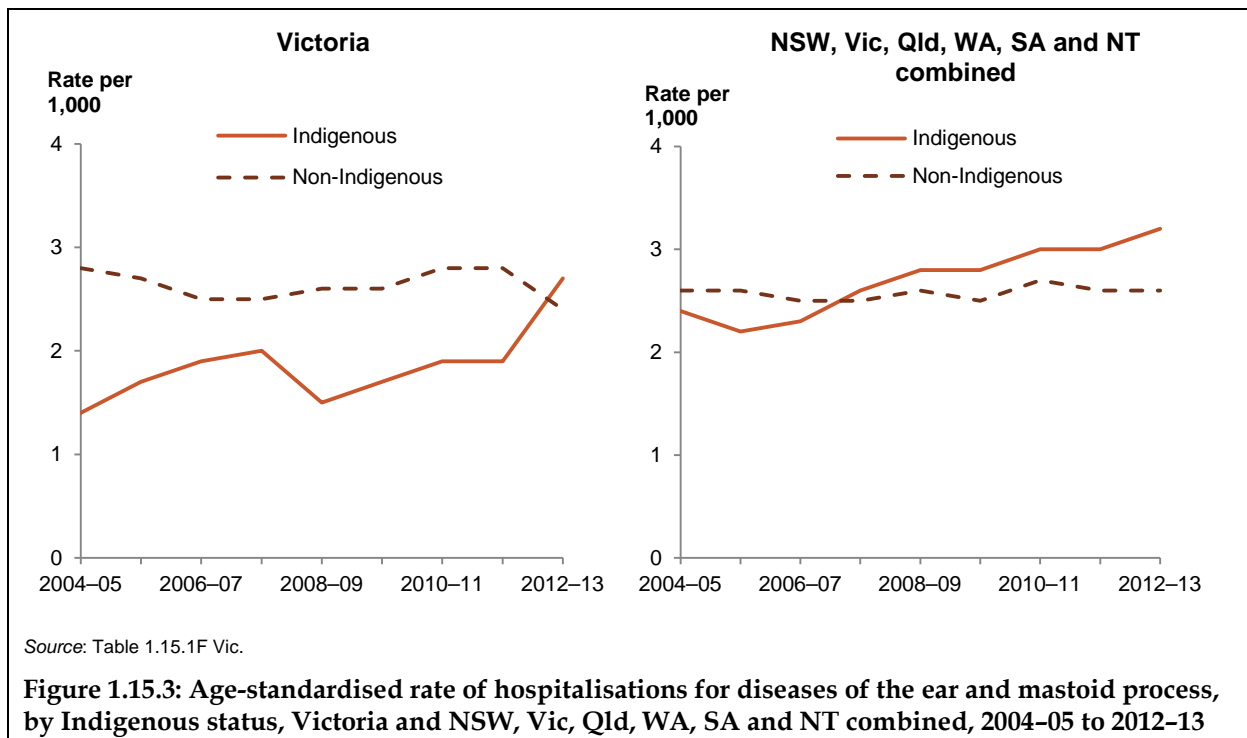
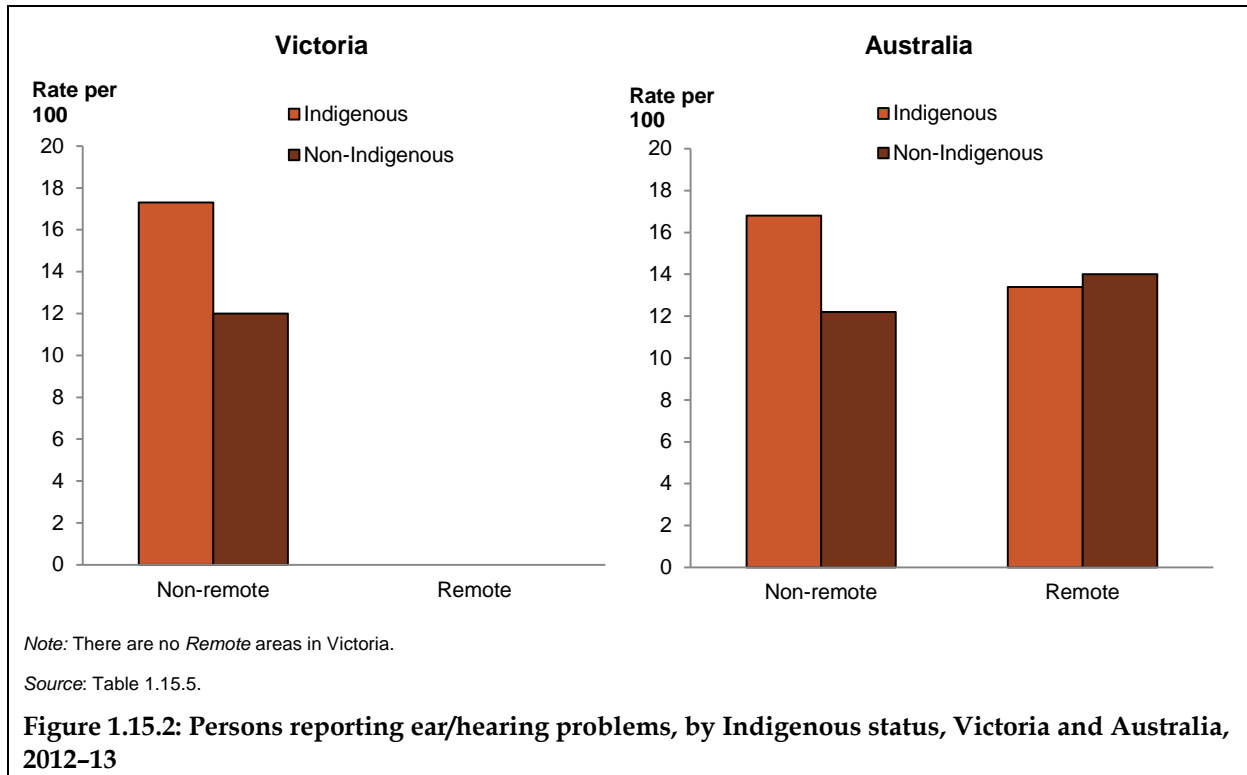
- After adjusting for age, Indigenous Australians aged under 15 were hospitalised for diseases of the ear and mastoid process at a lower rate than non-Indigenous Australians of this age (5 compared with 7 per 1,000). The difference in rates was –2 per 1,000.
  - This was opposite to the pattern seen at the national level, where it was 8 compared with 7 per 1,000, and the difference in rates was 1 per 1,000 (Table 1.15.10).

## Trend

The National Hospital Morbidity Database shows that between 2004–05 and 2012–13 in Victoria:

- The hospitalisation rate for diseases of the ear and mastoid process for Indigenous Australians increased from 1 per 1,000 to 3 per 1,000. The rate for non-Indigenous Australians was relatively stable at just under 3 per 1,000.
- The difference in the rates of hospitalisation for diseases of the ear and mastoid process between Indigenous and non-Indigenous Australians narrowed from -1.4 to 0.3 per 1,000. This represented a change of 0.1 per 1,000 per year.
  - In comparison, the difference in rates in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined increased from -0.3 to 0.6 over this period. This represented a change of 0.1 per 1,000 per year. (Figure 1.15.3, Table 1.15.1F Vic).





## Key findings for Australia

The 2012–13 AATSIHS shows that:

- Among Indigenous children aged 0–14, 7% reported ear/hearing problems, with just over 3% having total or partial hearing loss and almost 3% having otitis media. For both of these problems the prevalence was higher in *Remote* areas and more than twice as high in Indigenous children compared with non-Indigenous children (Table 1.15.3).
- 12% of the total Indigenous population reported having an ear or hearing problem, 1.3 times the rate for the non-Indigenous population (Table 1.15.5).

According to the National Hospital Morbidity Database, in the 2 years 2011–12 to 2012–13:

- There were more than 5,300 hospitalisations of Indigenous Australians for diseases of the ear and mastoid process (3.9 per 1,000). After adjusting for age, the separation rate for Indigenous Australians was 1.2 times as high as for non-Indigenous Australians. The difference in rates was 0.4 per 1,000 (Table 1.15.12).
- The majority (75%) of hospitalisations of Indigenous Australians were for children aged under 15, whereas for the non-Indigenous population children aged under 15 accounted for half (52%) of the total hospitalisations (Table 1.15.14).
- Among Indigenous children aged under 15, hospitalisation for diseases of the ear and mastoid process were more common in *Remote* and *very remote* areas compared with other areas (around 17 per 1,000 compared with 6 per 1,000). Among non-Indigenous children the rates were similar across remoteness areas (Table 1.15.14).
- 670 tympanoplasty procedures (surgery to repair or reconstruct a perforated eardrum) were performed for Indigenous children aged 0–14, in hospitalisations for otitis media or non-traumatic rupture of the eardrum. Tympanoplasty procedure rates were 5.5 times as high in Indigenous compared with non-Indigenous children of this age (1.4 compared with 0.3 per 1,000) (Table 1.15.17).
- In 2012–13, the rate of myringotomy procedures (incision in the eardrum to relieve pressure caused by excessive fluid build-up) in hospital was 1.8 per 1,000 population for both Indigenous and other Australians (AIHW 2014f).

Data collected through the BEACH program during the period April 2008 to March 2013 suggest that:

- Otitis media was managed by GPs at a similar rate for Indigenous and non-Indigenous children aged 0–14 years (70 per 1,000 encounters compared with 67 per 1,000 encounters).
- Total diseases of the ear were managed by GPs at a similar rate for Indigenous and non-Indigenous children aged 0–14 years (107 per 1,000 encounters compared with 101 per 1,000 encounters) (Table 1.15.20).





## Trend

- According to the AATSIHS and previous surveys, the prevalence of ear/hearing problems in Indigenous children decreased significantly between 2001 and 2012–13, from 11% to 7% (Table 1.15.3).
- The National Hospital Morbidity Database shows that, between 2004–05 and 2012–13 in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory, hospitalisation rates for Indigenous children under 15 increased by 56% (from 6 to 9 per 1,000) whereas rates for non-Indigenous children were stable, leading to an increase in the difference in rates (Table 1.15.16).

## 1.16 Eye health

### What is measured and why it is important

This indicator shows prevalence rates of eye health problems, including low vision, blindness, refractive error, cataract, diabetic retinopathy and trachoma for Aboriginal and Torres Strait Islander people.

Partial or full loss of vision is the loss of a critical sensory function that has effects across all dimensions of life. Vision loss and/or eye disease can lead to linguistic, social and learning difficulties and behavioural problems during schooling years, which can then lead to poor education outcomes and employment prospects. Visual impairment can affect health-related quality of life and independent living (West et al. 2002).

The World Health Organization (WHO) and the Australian Government have identified eye health as an important health area. Although often undiagnosed, eye conditions affect a large proportion of Australians of all ages (AIHW 2008b).

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### Key findings for Victoria

Data from the 2012–13 AATSIHS show that in 2012–13 in Victoria:

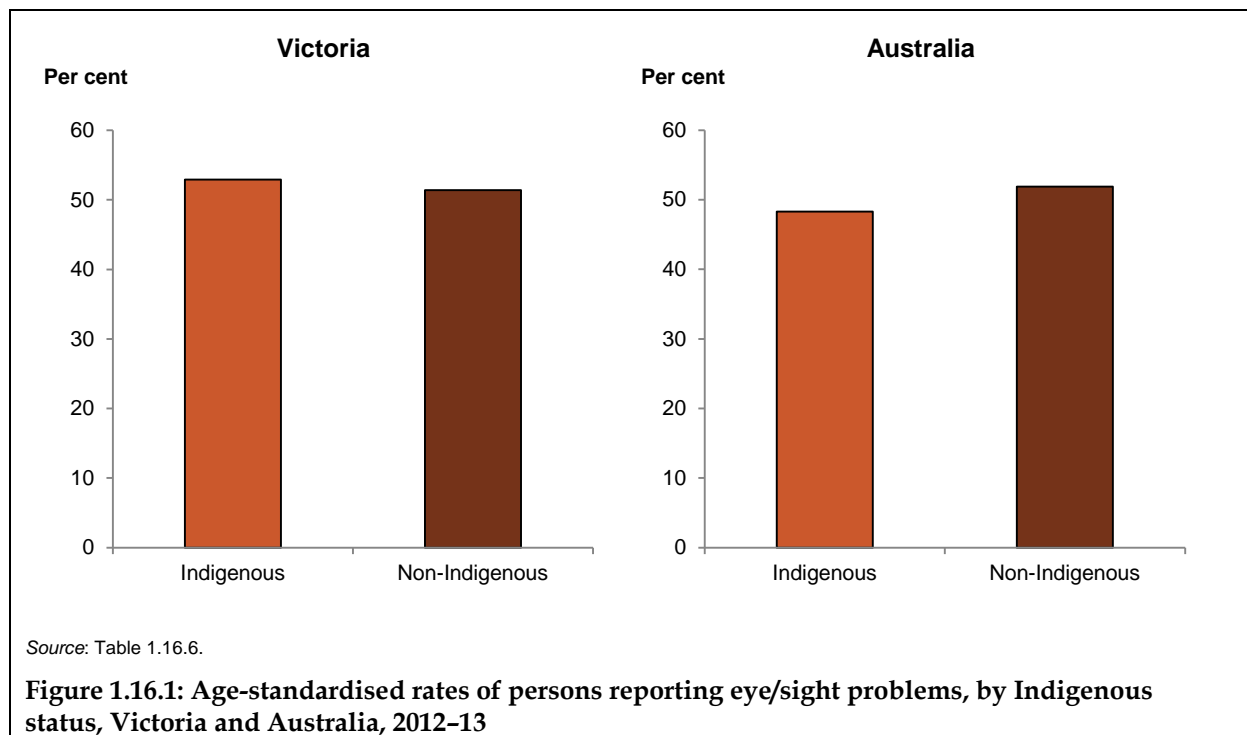
- The rate of persons reporting eye or sight problems was 38% for Indigenous Australians. After adjusting for differences in age structure, the rate ratio between Indigenous and non-Indigenous Australians in Victoria was 1.0, compared with 0.9 nationally (tables 1.16.56, Figure 1.16.1).
- In *Non-remote* areas of Victoria, 38% of Indigenous Australians reported having eye or sight problems. After adjusting for differences in age structure, the rate ratio between Indigenous and non-Indigenous Australians in *Non-remote* areas was 1.0, similar to the ratio at the national level (Table 1.16.5 and 1.16.6).

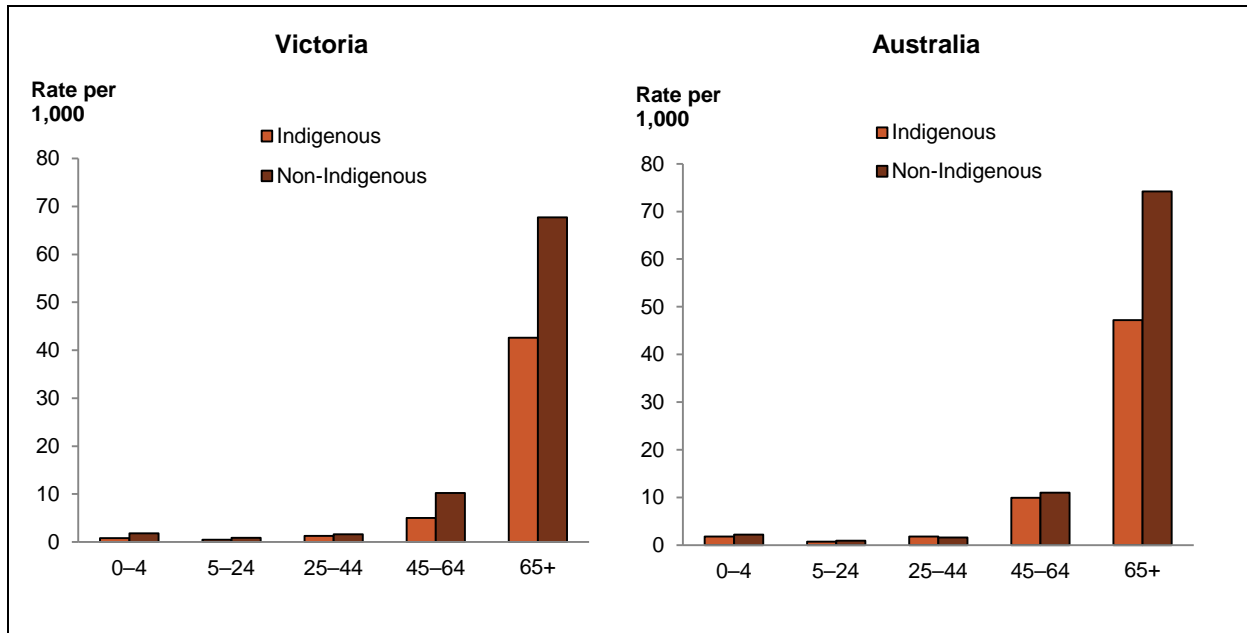
According to the National Hospital Morbidity Database, in the 2 years 2011–12 and 2012–13, the hospitalisation rate for diseases of the eye and adnexa:

- Was lower for Indigenous than for non-Indigenous Australians in Victoria, at 8 per 1,000 and 12 per 1,000, respectively – a rate ratio of 0.6 (Table 1.16.14). This was similar to the hospitalisation rate at the national level, which was also lower for Indigenous than non-Indigenous Australians, at 10 per 1,000 and 13 per 1,000, respectively – a rate ratio of 0.8 (Table 1.16.14).
- Was lower for Indigenous than non-Indigenous Australians in Victoria over the period for different reported age groups. The highest rate was for non-Indigenous Australians aged over 65, at 68 per 1,000, compared with 43 per 1,000 for Indigenous Australians in the same age group. This was similar to the Australian rate for the same age group, non-Indigenous Australians had a rate of 74 per 1,000, compared with 47 per 1,000 for Indigenous Australians (Table 1.16.2T Vic, Figure 1.16.2).

## Trend

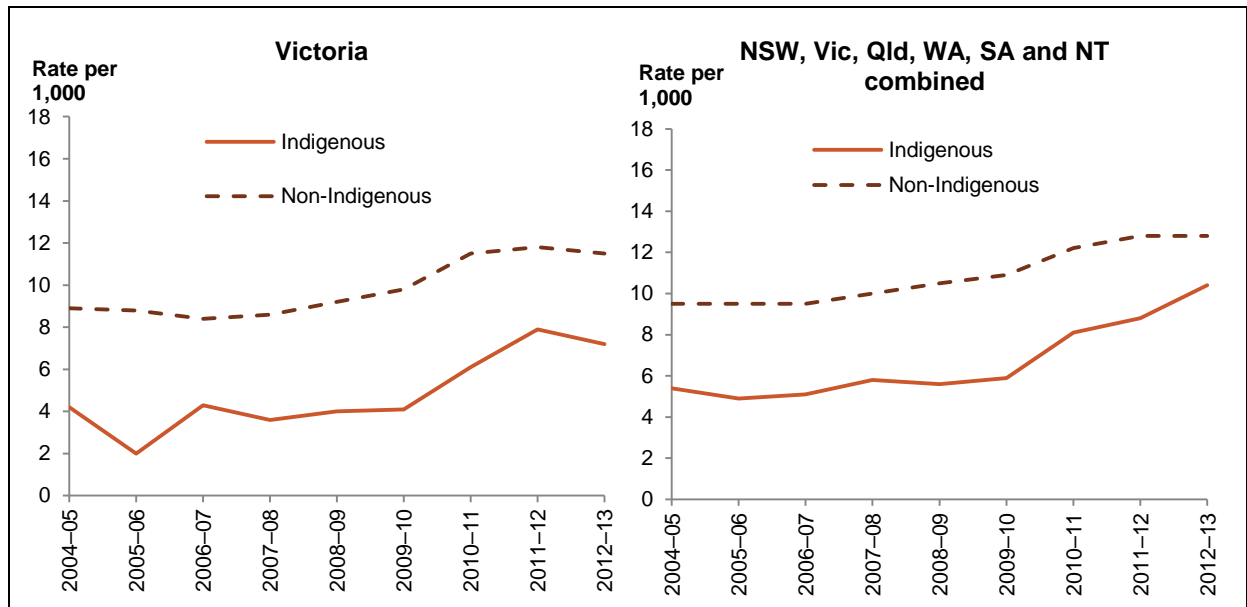
- Data from the National Hospital Morbidity Database suggest that between 2004–05 and 2012–13 in Victoria there was a 174% increase in hospitalisation rates for diseases of the eye and adnexa among Indigenous Australians, ranging between 4 per 1,000 and 8 per 1,000 over the period. Similarly, for non-Indigenous Australians there was a 44% increase in the rate, from 9 per 1,000 to 12 per 1,000 over the period; however there was little change in the gap (Table 1.16.3F Vic).
- In New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, the hospitalisation rate for diseases of the eye and adnexa increased for both Indigenous and non-Indigenous Australians (Table 1.16.3F Vic, Figure 1.16.3).





Source: Table 1.16.2T Vic.

**Figure 1.16.2: Age-specific hospitalisation rates for diseases of the eye and adnexa, by Indigenous status, Victoria and Australia, July 2011 to June 2013**



Source: Table 1.16.3F Vic.

**Figure 1.16.3: Age-standardised hospitalisation rates for diseases of the eye and adnexa, by Indigenous status, Victoria and NSW, Vic, Qld, WA, SA and NT combined 2004-05 to 2012-13**

## Key findings for Australia

- The National Indigenous Eye Health Survey showed that in 2008, about 9% of Indigenous adults had vision impairment and 2% suffered blindness (Centre for Eye Research Australia 2009). The leading cause of vision loss among Indigenous Australians was refractive error (54%) and the leading cause of blindness was cataract (32%) (Table 1.16.1).

According to the National Trachoma Surveillance and Reporting Unit:

- In 2012, in 204 at-risk communities in Queensland, Western Australia, South Australia and the Northern Territory combined, the prevalence of trachoma among Indigenous children aged 1–9 was 4%. The trachoma screening coverage rate in these at-risk communities was 70% (Table 1.16.9).
- In 2012, in 108 at-risk communities screened in Western Australia, South Australia and the Northern Territory combined, the prevalence of trichiasis among adults aged over 40 was 2% of those screened. The trichiasis screening coverage was low, with a total of 4,468 adults of an estimated at-risk population of 13,406 screened (Table 1.16.10).

Data from the AATSIHS suggest that in 2012–13:

- 33% of Indigenous Australians reported eye or sight problems; this was similar to the rate among non-Indigenous Australians (Table 1.16.6).
- The rate of blindness (complete and partial) among Indigenous Australians was 3 times as high as among non-Indigenous Australians (3% and 1%, respectively). The rate of cataracts among Indigenous Australians was almost 2 times as high as in non-Indigenous Australians (3% and 2%, respectively) (Table 1.16.3).
- Among people with diabetes, the proportion of Indigenous Australians who had sight problems due to diabetes (29%) was almost 3 times as high as that for non-Indigenous Australians (Table 1.16.4).

According to the National Hospital Morbidity Database, in the period 2011–13:

- The rate of hospitalisations for diseases of the eye and adnexa was lower for Indigenous Australians than for non-Indigenous Australians (10 per 1,000 and 13 per 1,000, respectively) (Table 1.16.14).
- The hospitalisation rate for eye injuries among Indigenous Australians was 3 times that of non-Indigenous Australians (Table 1.16.17).

## Trend

The National Hospital Morbidity Database shows that:

- From 2004–05 to 2012–13, in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, there was not much change in the rates or rate difference for hospitalisations for diseases of the eye and adnexa between Indigenous and non-Indigenous Australians (Table 1.16.19).
- From 1998–99 to 2012–13, in Queensland, Western Australia, South Australia and the Northern Territory combined, there was not much change in the hospitalisation rate for diseases of the eye and adnexa among Indigenous Australians. For non-Indigenous Australians, there was a 61% increase, leading to an increase in the rate difference (Table 1.16.18).

## 1.17 Perceived health status

### What is measured and why it is important

This measure reports on self-reported, self-assessed health status of Aboriginal and Torres Strait Islander Australians.

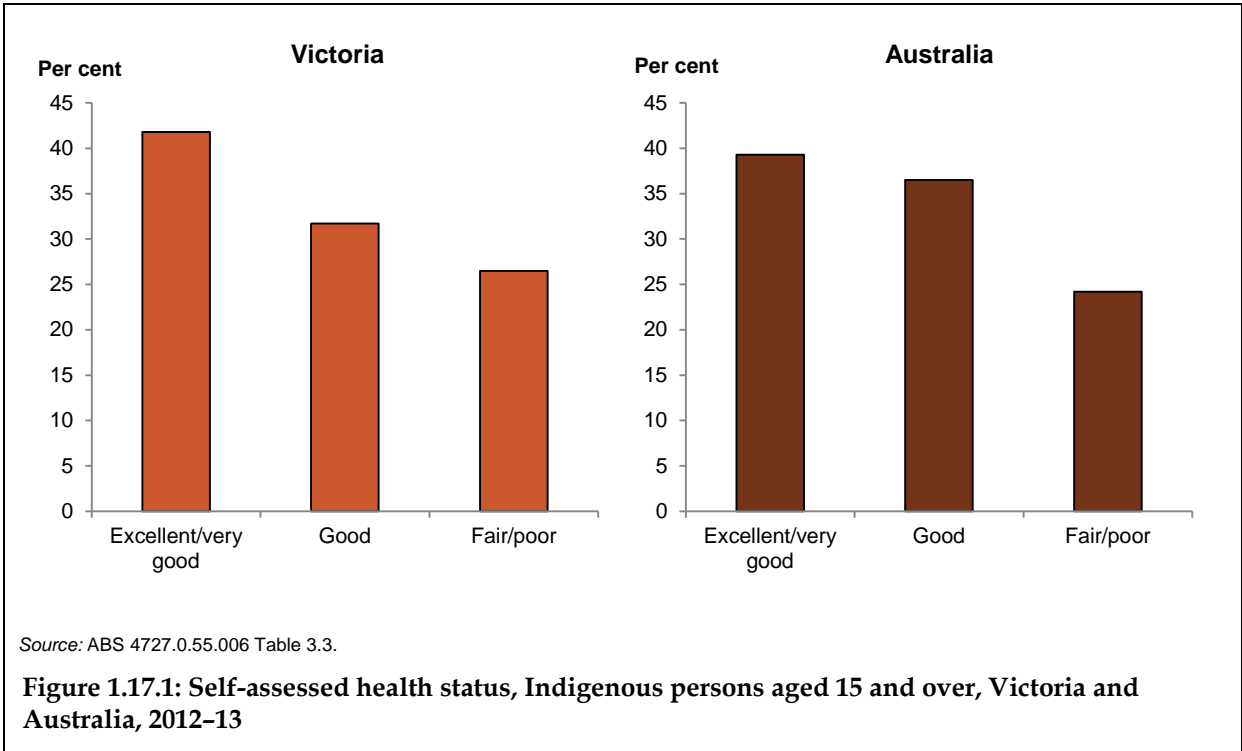
Self-assessed health status provides a measure of the overall level of a population's health based on individuals' personal perceptions of their own health. It is dependent on an individual's awareness and expectations regarding their health. It is influenced by various factors, including access to health services and health information, the extent to which health conditions have been diagnosed, and level of education (Delpierre et al. 2009). Social constructs of health also influence this assessment, such as the culturally distinct view of health and wellbeing held by Indigenous Australians, the existing level of health within a community, and judgments concerning the person's own health compared with others in their community (AHMAC 2015).

Tables referenced are available from <http://www.aihw.gov.au/indigenous-data/health-performance-framework/>.

### Key findings for Victoria

In the 2012–13 AATSIHS, in Victoria:

- An estimated 42% of Indigenous Australians aged 15 and over reported their health status as being excellent/very good, compared with 39% nationally. A further 32% of Indigenous Australians aged 15 and over reported their health status as being good, compared with 37% nationally.
- An estimated 27% of Indigenous Australians aged 15 and over reported their health status as being fair/poor compared with 24% nationally (ABS 4727.0.55.006 Table 3.3, Figure 1.17.1).





## Key findings for Australia

In the 2012–13 AATSIHS:

- An estimated 39% of Indigenous Australians aged 15 and over reported their health status as being excellent/very good. An estimated 37% reported their health status as being good, and 24% reported their health status as being fair/poor.
- After adjusting for age, the rate for Indigenous Australians aged 15 and over reporting their health as fair/poor was 2.1 times as high as the rate for non-Indigenous Australians aged 15 and over (Table 1.17.1).
- Indigenous Australians aged 15 and over living in *Remote* areas were less likely to report their health status as fair/poor (20%) compared with those in *Non-remote* areas (25%). The proportion of Indigenous Australians aged 15 and over who reported their health status as excellent/very good was more similar across *Remote* and *non-remote* areas (38% and 40%, respectively) (ABS 4727.0.55.006 Table 2.3).

## Trend

The AATSIHS and previous surveys suggest that, between 2004–05 and 2012–13:

- The proportion of Indigenous Australians aged 15 and over who rated their health as:
  - excellent/very good was 43% in 2004–05 and 39% in 2012–13
  - good was 35% in 2004–05 and 37% in 2012–13
  - as fair/poor was 22% in 2004–05 and 24% in 2012–13 (Table 1.17.1).
- The proportion of Indigenous Australians aged 15 and over who reported their health status as excellent/very good was 0.6 times as high as for non-Indigenous Australians aged 15 and over in both 2004–05 and 2012–13.
- The proportion of Indigenous Australians aged 15 and over who reported their health status as fair/poor was 1.9 times as high as for non-Indigenous Australians aged 15 and over in 2004–05, and 2.1 times as high in 2012–13 (Table 1.17.1).

## 1.18 Social and emotional wellbeing

### What is measured and why it is important

This indicator reports on the social and emotional wellbeing of Aboriginal and Torres Strait Islander people expressed as a percentage by age group, age-standardised rate and ratio.

Social and emotional wellbeing is a holistic concept based on connections to Country, culture, community, family, spirit and physical and mental health. For Indigenous Australians, health is not just the physical wellbeing of the individual but the social, emotional and cultural wellbeing of the whole community (SHRG 2004).

Social and economic disadvantage is interconnected with historical loss of land (which was the economic and spiritual base for Aboriginal and Torres Strait Islander communities), damage to traditional social and political structures and languages, child removals, incarceration rates and intergenerational trauma (NPHP 2006). Experience of discrimination also leads to psychological distress and has a negative impact on health (Paradies & Cunningham 2008).

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### Key findings for Victoria

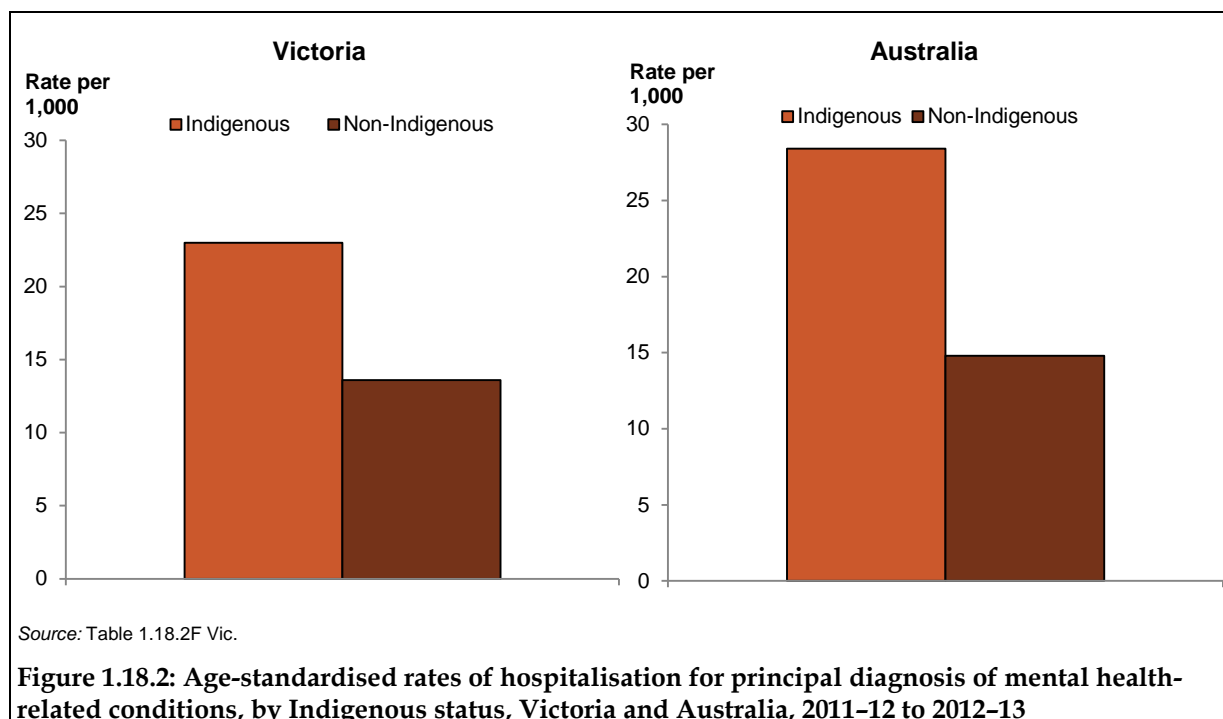
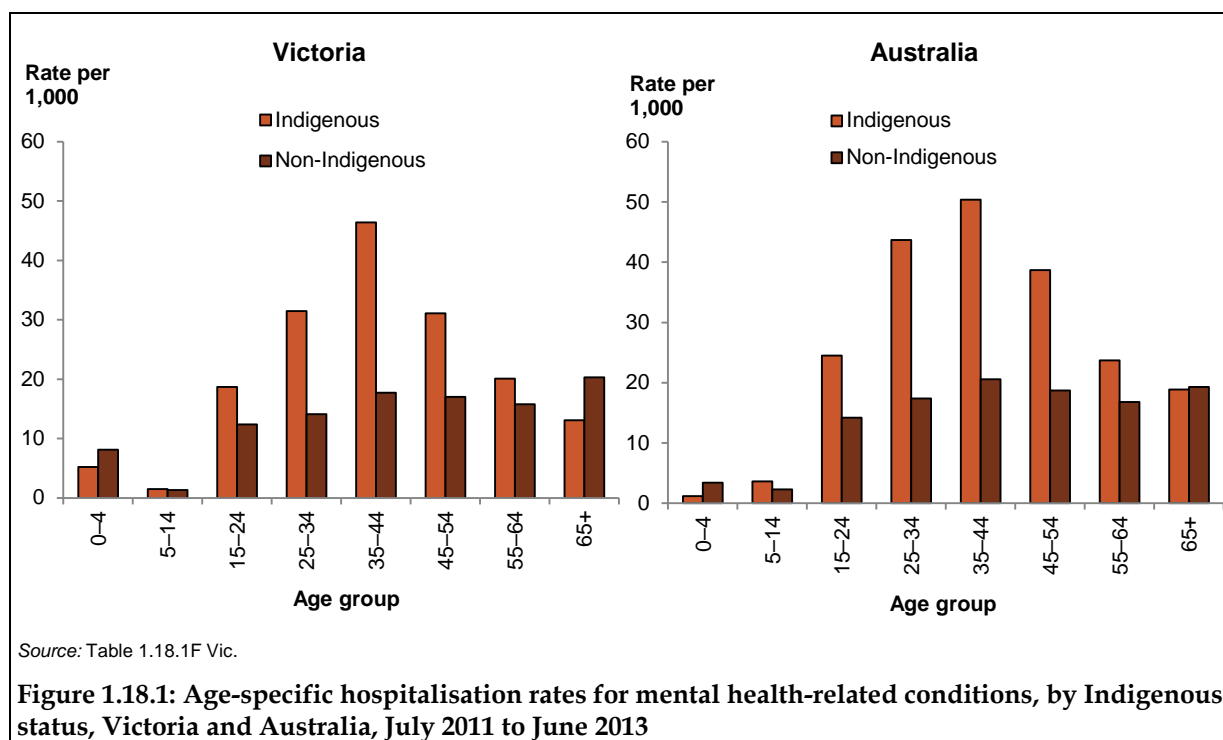
- In the 2012–13 AATSIHS, 32% of Indigenous Australians aged 18 and over in Victoria reported experiencing high/very high levels of psychological distress. This is lower than at the national level where 30% of Indigenous Australians reported experiencing high/very high levels of psychological distress (Table 1.18.2).
  - After adjusting for differences in age structure, the rate for Indigenous Australians was 2.8 times as high as the rate for non-Indigenous Australians, compared with 2.7 nationally (Table 1.18.3).
- According to the National Hospital Morbidity Database, in the 2 years 2011–12 and 2012–13, the rate of hospitalisations for mental health-related conditions was 19 per 1,000 for Indigenous Australians. After adjusting for differences in age structure, the rate for Indigenous Australians was 1.7 times as high as the rate for non-Indigenous Australians. The rate difference was 9.5 per 1,000, this is lower than the rate difference at the national level (14 per 1,000) (Table 1.18.15, Figure 1.18.1).

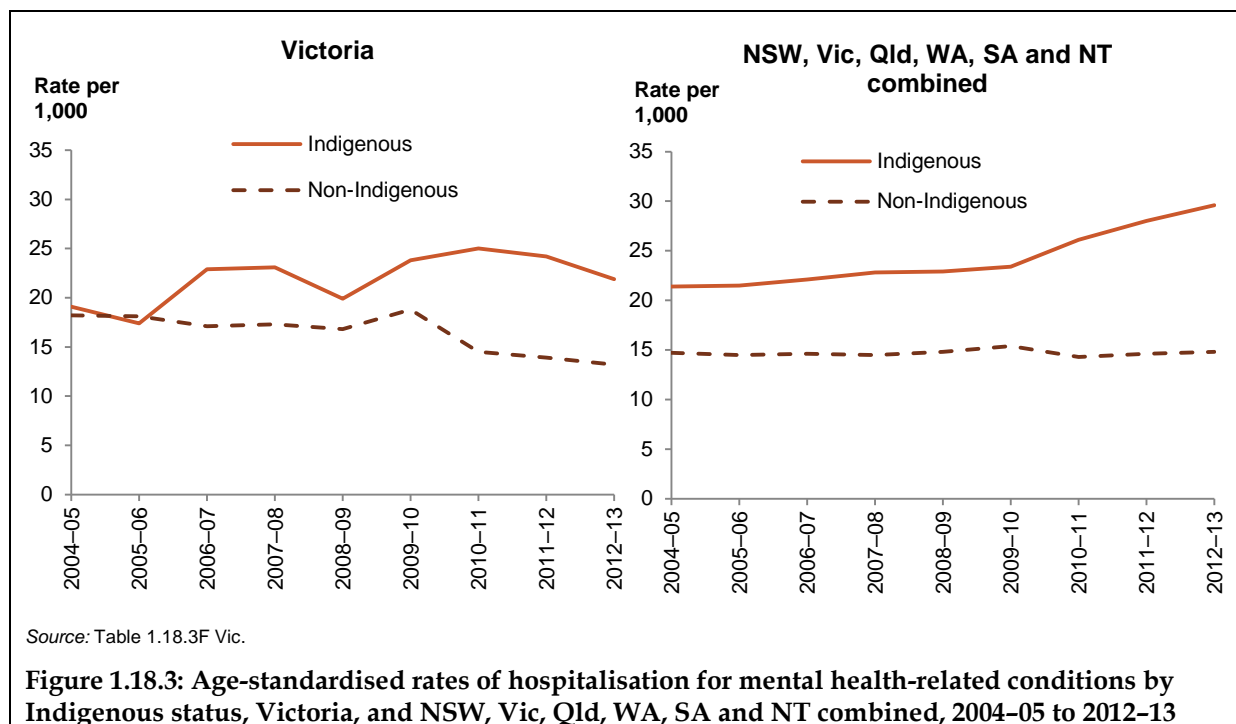
### Trend

Data from the National Hospital Morbidity Database suggest that between 2004–05 and 2012–13:

- The hospitalisation rate for mental health-related conditions for Indigenous Australians increased by 25%, from 19 per 1,000 to 22 per 1,000. The rate difference increased by 1,471%, at a rate of 1.2 per 1,000 per year.
- In the combined jurisdictions of New South Wales, Victoria, Queensland, Western Australia, South Australia and Victoria, the hospitalisation rate for Indigenous Australians increased by 40%. The rate for non-Indigenous Australians changed little.

The rate difference increased by 144%, at a rate of 1 per 1,000 per year (Table 1.18.3F NT, Figure 1.8.2).





## Key findings for Australia

In the 2012-13 AATSIHS, of Indigenous Australians aged 18 and over:

- An estimated 63% reported that they identified with a clan or language group; 73% recognised an area as homelands/traditional country; and 86% felt accepted by other Indigenous Australians (Table 1.18.1).
- 30% experienced high/very high levels of psychological distress – 2.7 times the rate for non-Indigenous Australians (tables 1.18.2, 1.18.3).
- An estimated 16% reported that they felt they had been treated badly in the last 12 months because they were Indigenous (Table 1.18.1).

In 2012-13 for Indigenous Australians aged 15 and over:

- An estimated 74% reported that they, their family or close friends had experienced at least 1 stressor in the previous 12 months (Table 1.18.4).

According to the National Mortality Database, in 2008-2012 in New South Wales, Queensland, Western Australia, South Australia and the Northern Territory:

- After adjusting for age, the mental health-related mortality rate for Indigenous Australians was 49 per 100,000 – 1.2 times the rate for non-Indigenous. The rate difference was 9 per 100,000 (Table 1.18.12).
- There were 561 suicides of Indigenous Australians, accounting for 5% of Indigenous Australian deaths (Table 1.03.1). The mortality rate from suicide was 19 per 100,000 for Indigenous Australians, nearly twice as high as for non-Indigenous Australians. The gap was 10 per 100,000. Among Indigenous Australians aged 15-19, the suicide rate was more than 5 times the rate for non-Indigenous Australians (Table 1.18.24).



According to the National Hospital Morbidity Database, in the period July 2011 to June 2013:

- The rate of hospitalisation for mental health-related conditions was 24 per 1,000 for Indigenous Australians – 2 times the rate for non-Indigenous Australians. The rate difference between Indigenous and non-Indigenous Australians was 14 per 1,000 (Table 1.18.15).

Data collected through the BEACH program in the period April 2008 to March 2013 suggests that:

- About 11% of problems managed by GPs in encounters with Indigenous patients were mental health-related problems, a management rate of 176 per 1,000 encounters. After adjusting for age, GPs managed mental health-related problems in encounters with Indigenous patients at 1.3 times the rate for other Australians (Table 1.18.23).

## Trend

According to the National Hospital Morbidity Database, between 2004–05 and 2012–13 in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined:

- The rate of hospitalisations for mental health conditions for Indigenous Australians increased by 40%. The rate difference between Indigenous and non-Indigenous Australians increased by 144% (Table 1.18.22).

From 1998–99 to 2012–13 in Queensland, Western Australia, South Australia and the Northern Territory combined:

- The rate of hospitalisations for mental health conditions for Indigenous Australians increased 50%. The rate difference between Indigenous and non-Indigenous Australians increased by 188% (Table 1.18.21).

Data from the National Mortality Database suggest that from 1998 to 2012 in New South Wales, Queensland, Western Australia, South Australia and the Northern Territory combined:

- There was no significant change in the suicide mortality rate for Indigenous Australians, and no significant change in the gap (Table 1.18.25).

## 1.19 Life expectancy at birth

### What is measured and why it is important

This measure reports on life expectancy at birth. Life expectancy refers to the average number of years a person of a given age and sex can expect to live, if current age and sex-specific death rates continue to apply throughout his or her lifetime.

Estimates of life expectancy are drawn from life tables. To construct a life table, data on total population, births and deaths are needed, and the accuracy of the life table depends on the completeness of these data. These life expectancies should only be used as an indicative summary measure of life expectancy of the Indigenous population.

Life expectancy at birth is widely used internationally as a measure of the general health of the population. There is a large gap in life expectancy between Indigenous and non-Indigenous Australians, reflecting the poor health outcomes experienced by Indigenous Australians (AHMAC 2015).

Tables referenced are available from <http://www.aihw.gov.au/indigenous-data/health-performance-framework/>.

### Key findings for Victoria

Life expectancy at birth data by Indigenous status are not available for Victoria.

### Key findings for Australia

- According to the Australian Bureau of Statistics, in 2010–2012, life expectancy at birth for Indigenous Australians was estimated to be 69.1 years for males and 73.7 years for females. By comparison, the life expectancy at birth for non-Indigenous Australians was 79.7 years for males and 83.1 years for females.
- This represents a gap of 10.6 years for males and 9.5 years for females (Table 1.19.1, Figure 1.19.1).
- Between 2005–2007 and 2010–2012, the gap decreased from 11.4 to 10.6 years for males, and from 9.6 to 9.5 years for females (Table 1.19.1).



## 1.20 Infant and child mortality

### What is measured and why it is important

This measure reports on the mortality rates of Indigenous infants and children aged 0–4, by cause of death (including SIDS) and over time.

Infant mortality is the death of a child less than 1 year of age and is an established measure of child health, as well as the overall health of the population and its physical and social environment. COAG has committed to halving the gap in mortality rates for Aboriginal and Torres Strait Islander children under 5 years by 2018 (AHMAC 2015).

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### Key findings for Victoria

Infant and child mortality data by Indigenous status are not available for Victoria.

### Key findings for Australia

According to the National Mortality Database, in New South Wales, Queensland, Western Australia, South Australia and the Northern Territory combined:

- In 2009–2013, there were 621 deaths of Indigenous children aged 0–4, a rate of 169 per 100,000. This was almost twice (1.9 times) the rate for non-Indigenous children. The rate difference was 80 per 100,000 (Table 1.20.1).
- In 2009–2013, there were 502 deaths among Indigenous infants, a rate of 6 per 1,000 live births. This was almost twice (1.7 times) the rate for non-Indigenous infants. The gap was 3 per 1,000 live births (Table 1.20.4).
- In 2008–2012, there were 46 deaths of Indigenous infants caused by SIDS, a rate of 0.6 per 1,000 live births. This was 2.4 times the rate for non-Indigenous infants. The gap was 0.3 per 1,000 live births (Table 1.20.7).

### Trend

Data from the National Mortality Database show that in New South Wales, Queensland, Western Australia, South Australia and the Northern Territory combined:

- Between 1998 and 2013, the mortality rate among Indigenous children aged 0–4 decreased significantly by 31%, and there was a significant 35% decrease in the gap between Indigenous and non-Indigenous child mortality rates (Table 1.20.3).
- Between 1998 and 2012, there was a significant (64%) decrease in the mortality rate for Indigenous infants, and a significant (83%) decrease in the gap between Indigenous and non-Indigenous infant mortality rates (Table 1.20.9).
- Between 1998 and 2012, there was a significant (92%) decrease in the SIDS mortality rate for Indigenous infants and a significant (101%) decrease in the gap between Indigenous and non-Indigenous rates (Table 1.20.12).



## 1.21 Perinatal mortality

### What is measured and why it is important

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

The perinatal mortality rate includes fetal deaths (stillbirths) and deaths of live born babies within the first 27 completed days after birth. Perinatal mortality may reflect the health status and health care of the general population; access to and quality of preconception, reproductive, antenatal and obstetric services for women; and health care in the neonatal period. Broader social factors such as maternal education, nutrition, smoking, alcohol use in pregnancy and socioeconomic disadvantage may also have an effect (AHMAC 2015).

Tables referenced are available from <http://www.aihw.gov.au/indigenous-data/health-performance-framework/>.

### Key findings for Victoria

Perinatal deaths by Indigenous status are not available for Victoria.

### Key findings for Australia

According to the National Mortality Database, in 2008–2012 in New South Wales, Queensland, Western Australia, South Australia and the Northern Territory combined:

- The perinatal mortality rate for Indigenous babies was almost 10 per 1,000 births compared with 8 per 1,000 births for non-Indigenous babies. The gap was 1.5 per 1,000 births (Table 1.21.1).
- The gap in the perinatal mortality rate between Indigenous and non-Indigenous babies varied between jurisdictions. The largest gap was 11 per 1,000 in the Northern Territory. In New South Wales and South Australia, perinatal mortality rates were lower for Indigenous than non-Indigenous Australians (Table 1.21.2).
- Disorders related to the length of gestation and fetal growth (premature birth/inadequate fetal growth) caused 36% of deaths for Indigenous babies compared with 31% for non-Indigenous babies. Congenital malformations, deformations and chromosomal abnormalities was another common cause of perinatal mortality, causing 15% of perinatal deaths for Indigenous babies and 20% for non-Indigenous babies (Table 1.21.6).
- The 2 main conditions in the mother that led to perinatal deaths were complications of pregnancy; and complications of the placenta, cord and membranes. These caused 27% of perinatal deaths for both Indigenous and non-Indigenous babies (Table 1.21.6).



## Trend

Data from the National Mortality Database show that between 1998 and 2012 in New South Wales, Queensland, Western Australia, South Australia and the Northern Territory combined:

- The perinatal mortality rate for Indigenous babies decreased by around 52%, an average yearly decline of 0.7 deaths per 1,000 births. The gap in the perinatal mortality rate between Indigenous and non-Indigenous Australians narrowed significantly, by 93% (Table 1.21.3).
- The Indigenous fetal mortality rate declined significantly (from 8 to 5 per 1,000 births) whereas the non-Indigenous rate was relatively stable, leading to a significant decrease in the gap (Table 1.21.4).
- There was a significant (87%) decrease in the neonatal mortality rate gap (Table 1.21.4).

## 1.22 All causes age-standardised death rates

### What is measured and why it is important

This measure reports on the number of Aboriginal and Torres Strait Islander deaths, expressed as a rate by age group, age-standardised rate, rate ratio and rate difference.

Mortality rates are a useful measure to compare the overall health status of different populations and to monitor changes in overall health status of populations over time.

Age-standardised rates and ratios have been used as a measure of mortality in the Indigenous population relative to non-Indigenous Australians. Ratios of this type illustrate differences between the rates of mortality among Indigenous and non-Indigenous Australians, taking into account differences in age distributions between the 2 populations. Rate differences have been used to describe the gap between Indigenous and non-Indigenous mortality rates.

Closing the gap in life expectancy between Aboriginal and Torres Strait Islander Australians and other Australians within a generation has been adopted as a target by COAG.

Data are presented for 5 jurisdictions that have been determined to have adequate levels of Indigenous identification: Queensland, Western Australia, South Australia, Tasmania and the Northern Territory.

Tables referenced are available from <http://www.aihw.gov.au/indigenous-data/health-performance-framework/>.

### Key findings for Victoria

All-causes age-standardised death rate data by Indigenous status are not available for Victoria.

### Key findings for Australia

According to the National Mortality Database, in 2009–2013 in New South Wales, Queensland, Western Australia, South Australia and the Northern Territory combined:

- The age-standardised death rate for Indigenous Australians was 985 per 100,000, compared with 585 per 100,000 for non-Indigenous Australians.
- The death rate for Indigenous Australians was 1.7 times as high as for non-Indigenous Australians. The gap (rate difference) was 400 per 100,000.
- The rate ratio was highest for the 35–44 year age group; the Indigenous mortality rate was 4.2 times as high as the non-Indigenous rate (Table 1.22.3).



## Trend

- From 1998 to 2013 in the 5 jurisdictions combined, the all-cause mortality rate for Indigenous Australians decreased significantly by 7% (Table 1.22.6).
- There was also a significant decrease (15%) in the gap between Indigenous and non-Indigenous Australians (from 479 per 100,000 to 427 per 100,000).
- From 2006 to 2013 in the 5 jurisdictions combined, there was no significant change in the gap between the Indigenous and non-Indigenous mortality rates (Table 1.22.6).

## 1.23 Leading causes of mortality

### What is measured and why it is important

This measure reports on causes of death of Aboriginal and Torres Strait Islander Australians, expressed as a rate by age group, age-standardised rate, rate ratio and rate difference.

Mortality rates are a useful measure of the overall health status of a population, particularly to compare one population with another or to measure improvements over time. The gap between Indigenous and non-Indigenous populations for particular causes of death gives an indication of the prevention, prevalence and management of particular diseases for Indigenous people, relative to the rest of the population. This provides a useful indication of the diseases that have a greater effect on Indigenous Australians. However, some significant health problems will not be reflected in mortality statistics; many conditions that cause serious health problems may not be fatal (such as depression, arthritis and intellectual disability) and so do not appear as common causes of death (AHMAC 2015).

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### Key findings for Victoria

Leading causes of mortality data by Indigenous status are not available for Victoria.

### Key findings for Australia

According to the National Mortality Database, in 2008–2012 in New South Wales, Queensland, Western Australia, South Australia and the Northern Territory combined:

- The 5 most common causes of death among Indigenous Australians were circulatory diseases (286 per 100,000), neoplasms (including cancer) (224 per 100,000), external causes (injury and poisoning) (75 per 100,000), diabetes (90 per 100,000) and respiratory diseases (96 per 100,000).
- The gap between Indigenous Australians and non-Indigenous Australians was 94 per 100,000 for circulatory diseases, 46 per 100,000 for neoplasms (including cancer), 37 per 100,000 for external causes (injury and poisoning), 74 per 100,000 for diabetes, and 47 per 100,000 for respiratory diseases (Table 1.23.1, Figure 1.13.1).
- The age-standardised rate of deaths due to chronic disease in those aged 0–74 was 460 per 100,000 for Indigenous Australians compared with 169 per 100,000 for non-Indigenous Australians, a gap of 291 deaths per 100,000 (Table 1.23.5).

## Trend

Data from the National Mortality Database show that between 1998 and 2012 in the 5 jurisdictions combined:

- For deaths due to circulatory disease, the age-standardised rate for Indigenous Australians decreased from 462 to 283 per 100,000, and the gap decreased from 169 to 108 per 100,000 (Table 1.23.18, Figure 1.23.1).
- For deaths due to malignant neoplasms, the age-standardised rate for Indigenous Australians increased from 185 to 223 per 100,000, and the gap increased from -9 to 53 per 100,000 (Table 1.23.20).
- For deaths due to respiratory disease, the age-standardised rate for Indigenous Australians decreased from 134 to 99 per 100,000, and the gap decreased from 82 to 46 per 100,000 (Table 1.23.21).
- For deaths due to kidney disease, there was a significant decrease in the age-standardised rate for Indigenous Australians over the period 2006 to 2012 and a 53% decline in the gap (Table 1.23.21).
- For deaths due to chronic disease, the age-standardised rate for Indigenous Australians decreased from 951 to 782 per 100,000, and the gap decreased from 354 to 326 per 100,000 (Table 1.23.4).

Between 2006 and 2012 in the 5 jurisdictions combined:

- For deaths due to malignant neoplasms, the age-standardised rate for Indigenous Australians increased from 203 to 223 per 100,000, and the gap increased from 24 to 53 per 100,000 (Table 1.23.20).
- For deaths due to kidney disease, the age-standardised rate for Indigenous Australians decreased from 44 to 25 per 100,000, and the gap decreased from 33 to 14 per 100,000 (Table 1.23.23).

## 1.24 Avoidable and preventable deaths

### What is measured and why it is important

The measure reports on the number of potentially avoidable deaths of Aboriginal and Torres Strait Islander people aged 0–74, expressed as an age-standardised rate and rate ratio.

Avoidable and preventable deaths refer to deaths from conditions that are considered avoidable given timely and effective health care (including disease prevention and population health initiatives) (AIHW 2010d; Page et al. 2006).

Avoidable deaths have been used in various studies to measure the quality, effectiveness and/or accessibility of the health system. Deaths from most conditions are influenced by a range of factors in addition to health system performance, including the underlying prevalence of conditions in the community, environmental and social factors and health behaviours (NSW Health 2004).

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### Key findings for Victoria

Avoidable and preventable death data by Indigenous status are not available for Victoria.

### Key findings for Australia

According to the National Mortality Database, in 2008–2012 in New South Wales, Queensland, Western Australia, South Australia and the Northern Territory combined:

- The age-standardised mortality rate for Indigenous Australians from all avoidable causes was 3 times as high as the rate for non-Indigenous Australians (443 per 100,000 compared with 145 per 100,000). The gap was 297 per 100,000 (Table 1.24.1).
- The highest rate ratio of avoidable mortality between Indigenous and non-Indigenous Australians occurred in the 35–54 age group, where the age-standardised avoidable mortality rate for Indigenous Australians was 4 times the rate for non-Indigenous Australians (Table 1.24.3).
- After adjusting for age, the conditions contributing the most to the avoidable mortality gap between Indigenous and non-Indigenous Australians were ischaemic heart disease (22% of the gap), diabetes (17% of the gap) and cancer (14% of the gap) (Table 1.24.6).

### Trend

- From 1998 to 2012, the age-standardised avoidable mortality rate for Indigenous Australians declined by 27%. There was a significant 20% decrease in the gap between Indigenous and non-Indigenous Australians, from 368 per 100,000 to 298 per 100,000 (Table 1.24.2).



## 2.01 Housing

### What is measured and why it is important

This measure reports on the housing circumstances of Indigenous Australians, including overcrowding in housing, housing tenure type and homelessness.

Housing circumstances including overcrowding, tenure type and homelessness have potential effects on health. The effects of overcrowding occur in combination with other environmental health factors such as poor water quality and sanitation. These factors are associated with increased risk of transferring infectious diseases, recurrence/exacerbation of chronic infections such as otitis media, and exposure to hazards such as smoking indoors as well as increased risk of injury within the home (Bailie & Wayte 2006; DFCS 2003; Nganampa Health Council 1987). Overcrowding and insecure housing tenure is also associated with stress and adverse educational opportunities for students, such as decreased educational continuity, school attendance and attainment (Dockery et al. 2013; Taylor & Edwards 2012). However, the presence of more people in a household may decrease social isolation, which could have a positive effect on health (Greenop & Memmott 2014).

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### Key findings for Victoria

Results from the AATSIHS show that in 2012–13 in Victoria:

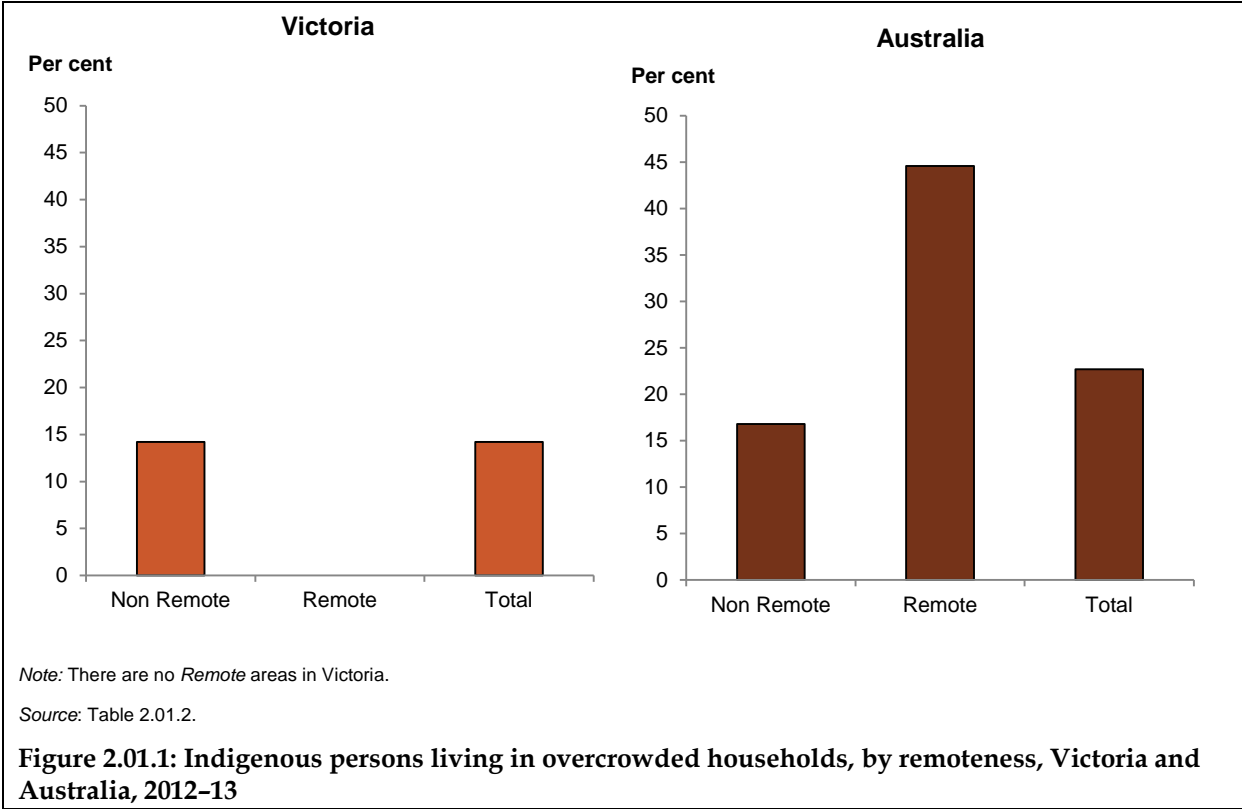
- 14% of Indigenous Australians lived in overcrowded households compared with 6% of non-Indigenous Australians – a rate ratio of 2.4 and a gap of 8 percentage points. In comparison, at the national level, 23% of Indigenous Australians and 5% of non-Indigenous Australians lived in overcrowded households (Table 2.01.2, figure 2.01.1).

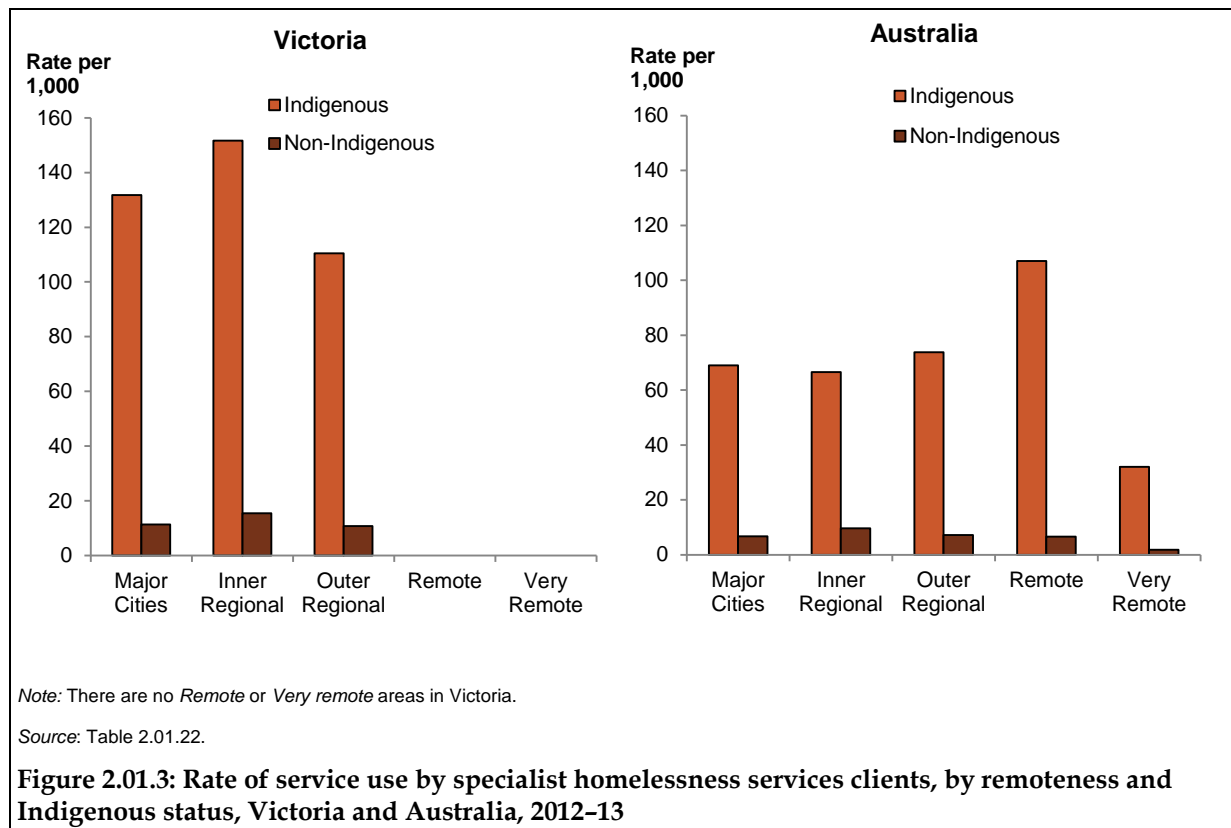
According to the Census of Population and Housing, in 2011 in Victoria:

- 44% of Indigenous adults were home owners compared with 74% of non-Indigenous adults – a gap of 31 percentage points. This was narrower than the gap nationally in 2011, which was (38 percentage points (tables 2.01.16–17, Figure 2.01.2).
- 56% of Indigenous adults rented, compared with 25% of non-Indigenous adults (Figure 2.01.1). Most commonly, Indigenous adults rented through real estate agents (23%) and state or territory housing authorities (19%) (Table 2.01.17). Nationally, the proportions were (18% and 29%, respectively) (Table 2.01.15).
- The rate of homelessness among Indigenous Australians was 220 per 10,000 compared with 38 per 10,000 for non-Indigenous Australians. The Indigenous rate was more than 5 times as high as the non-Indigenous rate. Nationally, the homelessness rate among Indigenous Australians was 14 times as high as for non-Indigenous Australians (488 per 10,000 and 35 per 10,000, respectively) (AIHW 2014k).

Data from the Specialist Homelessness Services Collection show that, in 2011:

- The rate of specialist homelessness service use in Victoria was 11.3 times as high among Indigenous Australians as non-Indigenous Australians (136 per 1,000, compared with 12 per 1,000). The rate was highest among Indigenous Australians in *Inner regional* areas of Victoria (152 per 1,000). Nationally, Indigenous Australians accessed specialist homelessness services at 9.3 times the rate of non-Indigenous Australians (Table 2.01.22, Figure 2.01.3).





## Key findings for Australia

According to the 2012–13 AATSIHS:

- 23% of Indigenous Australians were living in overcrowded households, compared with 5% of other Australians – this was a significant gap of 17 percentage points (Table 2.01.1).
- Indigenous adults were less than half as likely as non-Indigenous adults to live in homes that were owned or being purchased, with respective rates of 30% and 72% – a rate ratio of 0.4 and a gap of 42 percentage points (Table 2.01.13).
- 38% of Indigenous adults lived in a property rented through social housing compared with 3% of non-Indigenous Australians. In *Remote* areas, most Indigenous adults lived in social housing (72%) whereas most non-Indigenous adults were home owners (62%).

Data from the Specialist Homelessness Services Collection show that, in 2012–13:

- 22% of those accessing specialist homelessness services were Indigenous Australians (Table 2.01.22). Indigenous Australians accessed specialist homelessness services at 9 times the rate of non-Indigenous Australians (67 per 1,000 compared with 7 per 1,000) (Table 2.01.22).

According to the Census of Population and Housing, in 2011:

- Indigenous Australians accounted for 28% of the homeless population (based on the new ABS definition of homelessness). Indigenous Australians were 14 times as likely as non-Indigenous Australians to be homeless (AIHW 2014k).

## Trend

Data from the AATSIHS and previous surveys suggest that between 2004–05 and 2012–13:

- The proportion of Indigenous Australians living in overcrowded households decreased significantly by 5 percentage points (from 27% to 23%). The gap narrowed, with non-Indigenous rates remaining steady at 5–6% (Table 2.01.11).

Between 2002 and 2012–13:

- Rates of Indigenous home ownership increased significantly by 3 percentage points, from 27% to 30%. The proportion of Indigenous adults who rented social housing decreased significantly from 45% to 38%, and the proportion who rented privately and from other landlord types increased significantly from 24% to 30% (Table 2.01.19).

According to the Census of Population and Housing, between 2006 and 2011:

- The rate of homelessness among Indigenous Australians fell by 14% (AIHW 2014k).

## 2.02 Access to functional housing with utilities

### What is measured and why it is important

This measure reports on connection to water, sewerage and electricity services and functionality of Indigenous housing facilities that are required to support healthy living practices.

Housing is an important mediating factor for health and wellbeing. Functional housing encompasses basic services/facilities, infrastructure and habitability. These factors combined enable households to carry out healthy living practices including: waste removal; maintaining cleanliness through washing people, clothing and bedding; managing environmental risk factors such as electrical safety and temperature in the living environment; controlling air pollution for allergens; and preparing food safely (Bailie & Wayte 2006; DFCS 2003; Dockery et al. 2013).

Children who live in a dwelling that is badly deteriorated have been found to have poorer physical health outcomes and social and emotional wellbeing compared with those growing up in a dwelling in excellent condition (Dockery et al. 2013).

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### Key findings for Victoria

According to the AATSIHS, in the period 2012–13 in Victoria:

- 81% of Indigenous households were living in houses of an acceptable standard, compared with 78% of Indigenous households nationally (Table 2.02.1). An acceptable standard is defined as a household with 4 working facilities (for washing people, for washing clothes and bedding, for storing and preparing food, and for sewerage) and not more than 2 major structural problems.
- 32% of Indigenous households were living in dwellings with major structural problems, compared with 34% of Indigenous households nationally (Table 2.02.2, Figure 2.02.1).
- 99% of Indigenous households had working facilities for washing people, compared with 97% of Indigenous households nationally.
- 96% of Indigenous households had working facilities for washing clothes and bedding, compared with 94% of Indigenous households nationally.
- 94% of Indigenous households had working facilities for preparing food, compared with 90% of Indigenous households nationally.
- 99% of Indigenous households had working sewerage facilities, compared with 97% of Indigenous households nationally (Table 2.02.5, Figure 2.02.2).

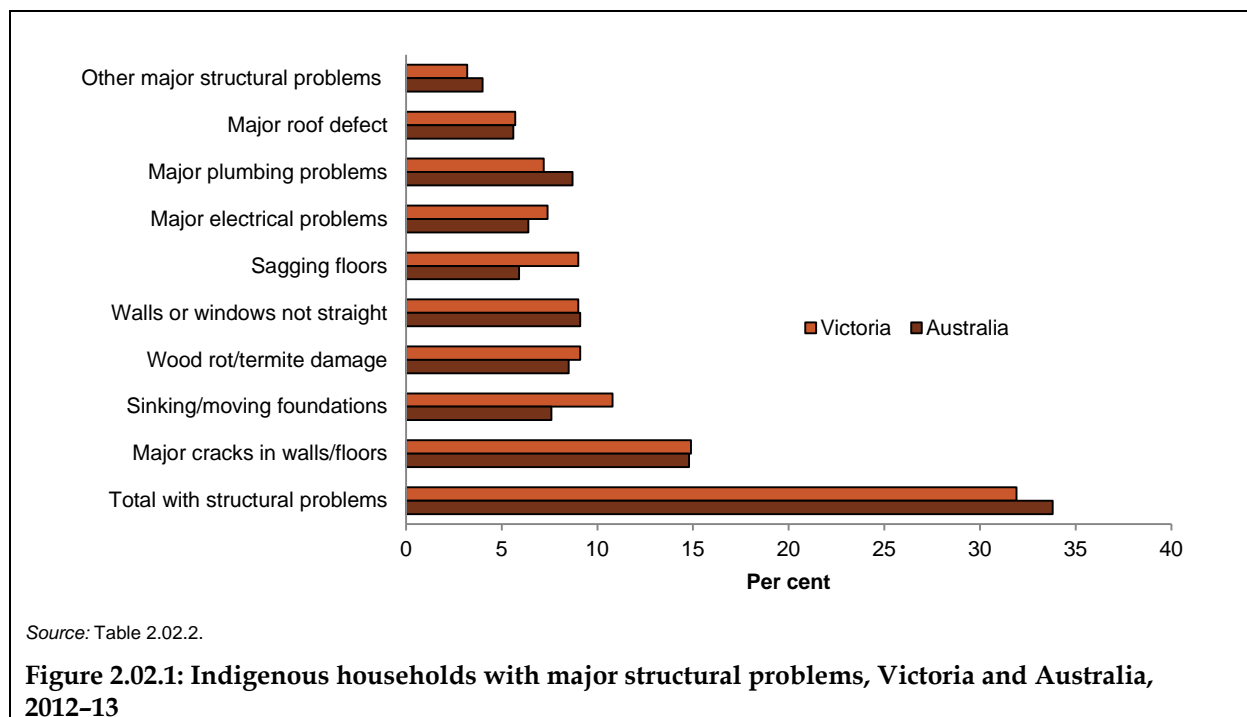
## Trend

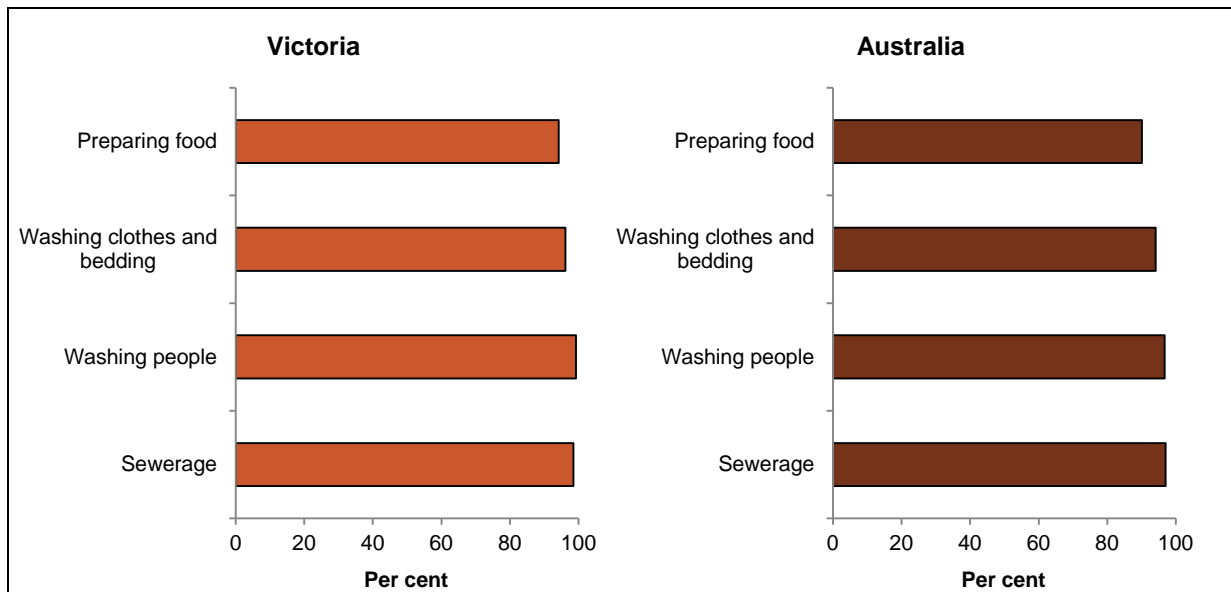
Data from the AATSIHS and previous surveys suggest that between 2008 and 2012–13 in Victoria:

- The proportion of Indigenous households living in houses of an acceptable standard decreased from 84% to 81%, compared with a decrease from 83% to 78% nationally (Table 2.02.1, Figure 2.02.3).
- The proportion of Indigenous households living in dwellings with major structural problems increased from 27% to 32%, compared with an increase from 26% to 34% nationally (Table 2.02.4).

Between 2002, 2008 and 2012–13 in Victoria, the proportion of Indigenous households with:

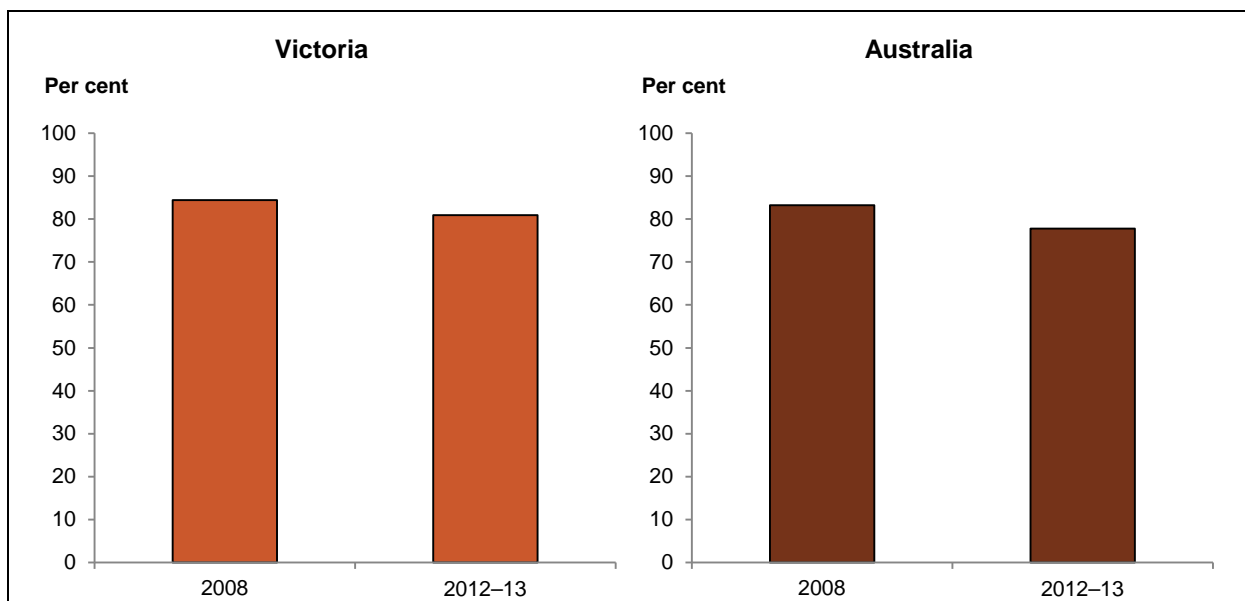
- Working facilities for washing people changed from 100% to 98% and 99%, in those years, respectively. Nationally, the proportions were 99%, 98% and 97%, respectively.
- Working facilities for washing clothes and bedding changed from 98% to 93% and 96%, respectively. Nationally, the proportions were 98%, 93% and 94%, respectively.
- Working facilities for preparing food changed from 98% to 95% and 94%, respectively. Nationally, the proportions were 95%, 93% and 90%, respectively. However, this should be treated with caution, as in 2002 households were asked if they had adequate kitchen cupboard (storage) space as part of this question. Households were not asked this in 2008 and 2012–13.
- Working sewerage facilities changed from 100% to 97% and 99%, respectively. Nationally, the proportions were 99%, 98% and 97%, respectively (Table 2.02.5).





Source: Table 2.02.5.

**Figure 2.02.2: Proportion of Indigenous households with working facilities to support healthy living, Victoria and Australia, 2012-13**



Source: Table 2.02.1.

**Figure 2.02.3: Proportion of Indigenous households living in houses of an acceptable standard, Victoria and Australia, 2008 and 2012-13**





## Key findings for Australia

According to the 2012–13 AATSIHS:

- 78% of Indigenous households were living in houses of an acceptable standard (Table 2.02.1, Figure 2.02.3).
- 34% of Indigenous households lived in dwellings with major structural problems (Table 2.02.2).
- 97% of Indigenous households had working facilities for washing people, 94% had working facilities for washing clothes and bedding, 90% had working facilities for preparing food and 97% had working sewerage facilities (Table 2.02.5).

### Trend

According to the AATSIHS and previous surveys, between 2008 and 2012–13:

- The proportion of Indigenous households living in houses of an acceptable standard decreased from 83% to 78% (Table 2.02.1).
- The proportion of Indigenous households living in dwellings with structural problems increased from 26% to 34% (Table 2.02.2).

In the years 2002, 2008 and 2012–13, the proportion of Indigenous households with:

- working facilities for washing people changed from 99% to 98% and 97%, respectively
- working facilities for washing bedding and clothes changed from 98% to 93% and 94%, respectively
- working facilities for preparing food changed from 95% to 93% and 90%, respectively
- working sewerage facilities changed from 99% to 98% and 97%, respectively (Table 2.02.5).

## 2.03 Environmental tobacco smoke

### What is measured and why it is important

This measure reports on the number and proportion of Indigenous children aged 0–14 who live in households with daily smokers and daily indoor smokers.

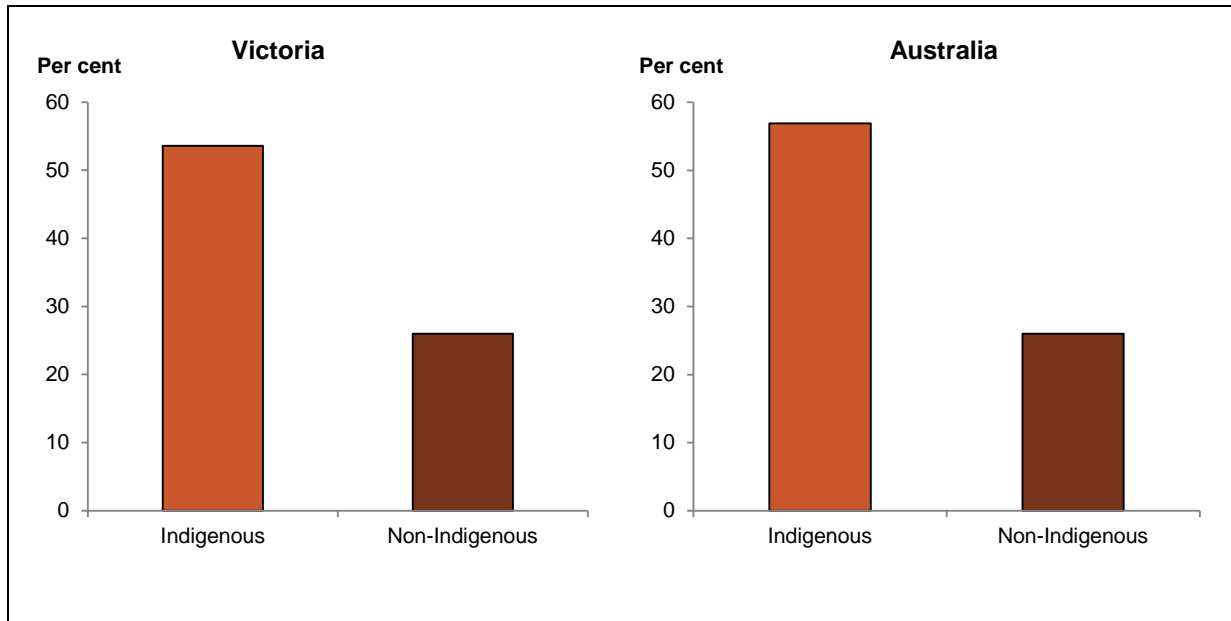
Environmental tobacco smoke (also known as second-hand or passive smoking) is a substantial cause of morbidity and mortality. There is strong and consistent evidence that passive smoking increases a non-smoker's risk of lung cancer and ischaemic heart disease. Passive smoking is associated with increased risk of respiratory disease in adults, increases the risk of SIDS and exacerbates asthma and ear infections such as otitis media in children (Thomas & Stevens 2014). Passive smoking during pregnancy is also associated with an increased risk of neural tube defects (Wang et al. 2014a).

Tables referenced are available from <http://www.aihw.gov.au/indigenous-data/health-performance-framework/>.

### Key findings for Victoria

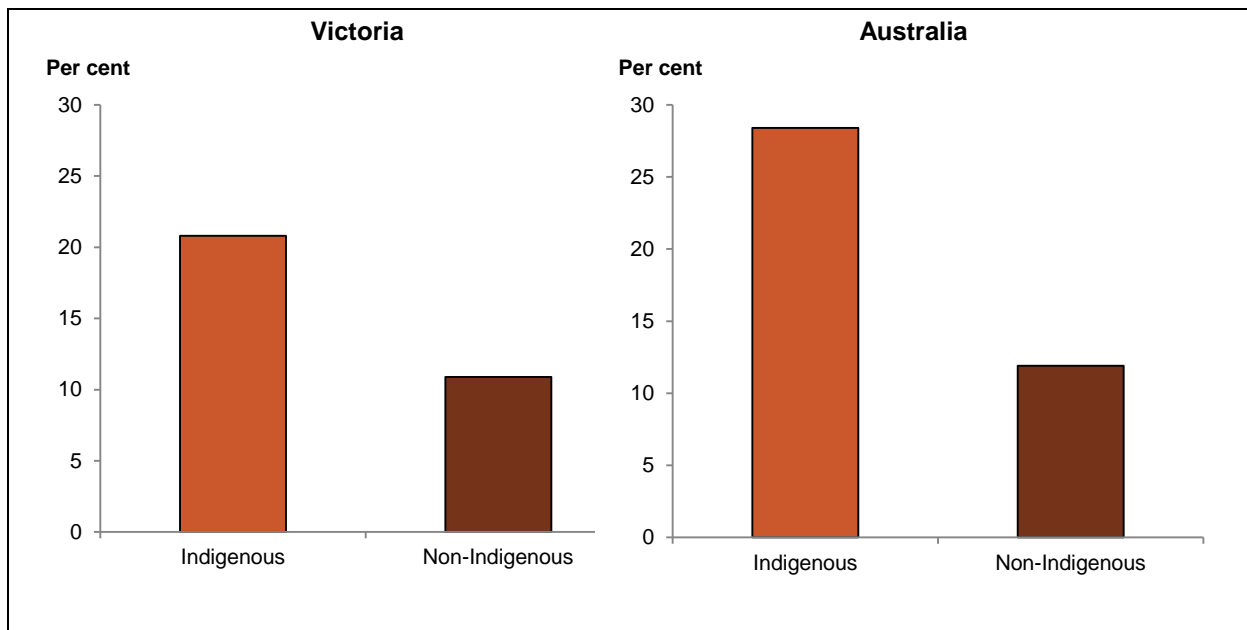
Data from the 2012–13 AATSIHS show that in Victoria:

- The proportion of Indigenous children aged 0–14 who lived in households with a daily smoker was 2.1 times as high as for non-Indigenous children (54% compared with 26%). The rate ratio between Indigenous and non-Indigenous Australians was similar for Victoria and nationally (2.1 and 2.2, respectively) (Table 2.03.2, Figure 2.03.1).
- Of the children living in households with a daily smoker, Indigenous children were 1.9 times as likely as non-Indigenous children to live with one who smoked at home indoors (21% compared with 11%). The rate ratio between Indigenous and non-Indigenous Australians was lower for Victoria than at the national level (1.9 compared with 2.4) (Table 2.03.2, Figure 2.03.2).



Source: Table 2.03.2.

**Figure 2.03.1: Children aged 0-14 living in households with daily smokers, by Indigenous status, Victoria and Australia, 2012-13**



Source: Table 2.03.2.

**Figure 2.03.2: Children aged 0-14 living in households with daily smokers who smoked at home indoors, by Indigenous status, Victoria and Australia, 2012-13**



## Key findings for Australia

According to the AATSIHS, in 2012–13:

- An estimated 57% of Indigenous children aged 0–14 (around 130,600 children) lived in households with daily smokers, compared with 26% of non-Indigenous children. There was a significant rate difference of 31% between Indigenous and non-Indigenous children (Table 2.03.3).
- Of the children aged 0–14 living in households with a daily smoker, Indigenous children were 2.4 times as likely as non-Indigenous children to live with one who smoked at home indoors (28% or around 37,200 children, compared with 12% or around 123,900 children). There was a significant rate difference of 17% (Table 2.03.1).
- Indigenous children aged 0–14 living in the lowest income (first quintile) households with daily smokers were 2.7 times as likely to live with one who smoked at home indoors compared with those living in the highest income (fourth/fifth quintile) households with daily smokers (36% and around 13%, respectively) (Table 2.03.5).

### Trend

Between 2004–05 and 2012–13:

- There was a significant decrease in the proportion in Indigenous children aged 0–14 living in households with a daily smoker, from 68% to 57%. For non-Indigenous children, there was also a significant decrease, from 35% to 26% (Table 2.03.4).

## 2.04 Literacy and numeracy

### What is measured and why it is important

This indicator reports on the proportion of Year 3, 5, 7 and 9 students achieving national benchmarks for literacy and numeracy achievement.

There is a two-way association between health and education. People with low educational attainment tend to have poorer health, fewer opportunities, low incomes and reduced employment prospects (Johnston et al. 2009). In turn, poor health is associated with lower educational attainment (Conti et al. 2010).

Early education experiences and school readiness are important as they influence future academic performance. Low-performing students have a propensity for poor attendance in later years, and are also less likely to complete Year 12 (Hancock et al. 2013). Around 20% of the gap in school performance between Indigenous and non-Indigenous 15 year olds is explained by poorer school attendance by Indigenous students (Biddle 2014).

COAG has agreed 2 targets related to this indicator:

- to halve the gap between the proportion of Indigenous and non-Indigenous students achieving reading, writing and numeracy benchmarks within a decade (2007)
- closing the gap between Indigenous and non-Indigenous school attendance (2014).

The NAPLAN Minimum Standard represents a performance standard in literacy and numeracy, below which students will have difficulty progressing satisfactorily at school.

A new persuasive writing scale was introduced in 2011. The persuasive writing results cannot be directly compared to the narrative writing results from earlier years.

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### Key findings for Victoria

According to the National Assessment Program, in 2014 in Victoria:

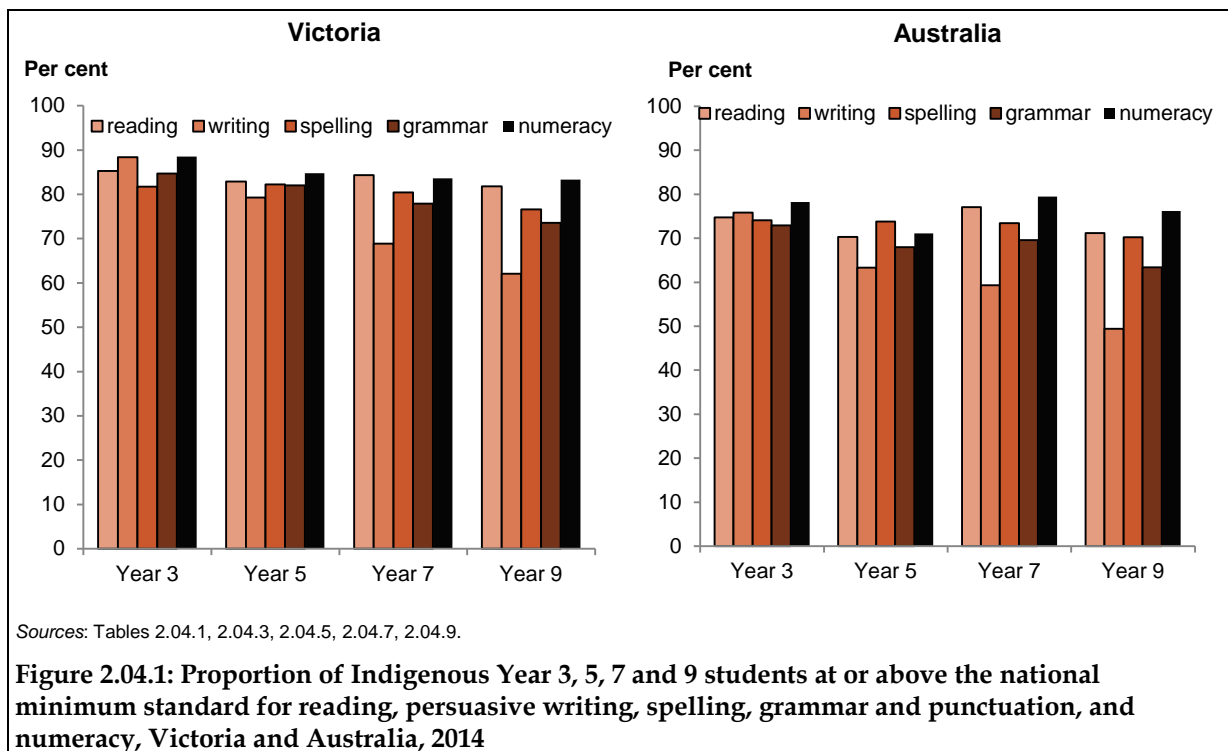
- The proportion of Indigenous students at or above the benchmark for reading was lower than for non-Indigenous students for Year 3 (85% compared with 95%); Year 5 (83% compared with 95%); Year 7 (84% compared with 96%); and Year 9 (82% compared with 94%) (Table 2.04.1, Figure 2.04.1). The gap between the proportion for Indigenous and non-Indigenous students was 10%, 12%, 12% and 12%, respectively, compared with 20%, 24%, 19% and 22% nationally.
- The proportion of Indigenous students at or above the benchmark for persuasive writing was lower than for non-Indigenous students for Year 3 (88% compared with 96%); Year 5 (79% compared with 94%); Year 7 (69% compared with 91%); and Year 9 (62% compared with 86%) (Table 2.04.3, Figure 2.04.1). The gap between the proportion for Indigenous and non-Indigenous students was 7%, 14%, 22% and 24%, respectively, compared with 19%, 29%, 31% and 34% nationally.
- The proportion of Indigenous students at or above the benchmark for spelling was lower than for non-Indigenous students for Year 3 (82% compared with 94%); Year 5 (82%

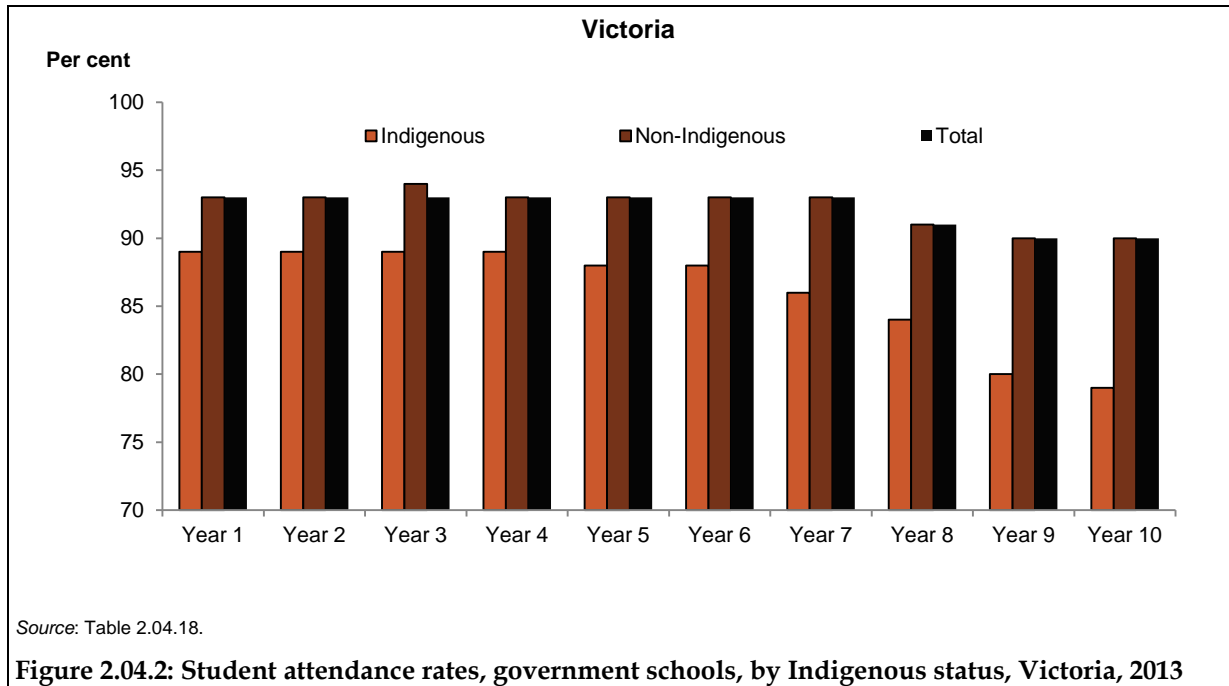
compared with 94%); Year 7 (80% compared with 94%); and Year 9 (77% compared with 91%) (Table 2.04.5, Figure 2.04.1). The gap between the proportion for Indigenous and non-Indigenous students was 13%, 12%, 13% and 14% respectively, compared with 20%, 20%, 20% and 21% nationally.

- The proportion of Indigenous students at or above the benchmark for grammar and punctuation was lower than for non-Indigenous students for Year 3 (85% compared with 95%); Year 5 (82% compared with 94%); Year 7 (78% compared with 94%); and Year 9 (74% compared with 91%) (Table 2.04.7, Figure 2.04.1). The gap between the proportion for Indigenous and non-Indigenous students was 11%, 12%, 16% and 18%, respectively, compared with 22%, 26%, 25% and 28% nationally.
- The proportion of Indigenous students at or above the benchmark for numeracy was lower than for non-Indigenous students for Year 3 (89% compared with 96%); Year 5 (85% compared with 95%); Year 7 (84% compared with 96%); and Year 9 (83% compared with 95%) (Table 2.04.9, Figure 2.04.1). The gap between the proportion for Indigenous and non-Indigenous students was 7%, 10%, 12% and 12% respectively, compared with 18%, 24%, 17% and 19% nationally.

According to the National Student Attendance Collection, in 2013 in Victoria:

- School attendance rates for Indigenous students enrolled in government schools were lower than rates for non-Indigenous students for Year 3 (89% compared with 94%); Year 5 (88% compared with 93%); Year 7 (86% compared with 93%); and Year 9 (80% compared with 90%).
- The gap in school attendance rates between Indigenous and non-Indigenous students widened in higher grades, ranging from 4–5 percentage points in the primary school years (Years 1–6), to 11 percentage points in Year 10 (Table 2.04.18, Figure 2.04.2).





**Figure 2.04.2: Student attendance rates, government schools, by Indigenous status, Victoria, 2013**

## Key findings for Australia

According to the National Assessment Program, in 2014:

- The proportion of Indigenous students at or above the benchmark for reading was lower than for non-Indigenous students: for Year 3 (75% compared with 95%), Year 5 (70% compared with 94%), Year 7 (77% compared with 96%) and Year 9 (71% compared with 93%) (Table 2.04.1).
- The proportion of Indigenous students at or above the benchmark for persuasive writing was lower than for non-Indigenous students: for Year 3 (76% compared with 95%), Year 5 (63% compared with 92%), Year 7 (59% compared with 90%) and Year 9 (49% compared with 84%) (Table 2.04.3).
- The proportion of Indigenous students at or above the benchmark for spelling was lower than for non-Indigenous students: for Year 3 (74% compared with 94%), Year 5 (74% compared with 94%), Year 7 (73% compared with 94%) and Year 9 (70% compared with 91%) (Table 2.04.5).
- The proportion of Indigenous students at or above the benchmark for grammar and punctuation was lower than for non-Indigenous students: for Year 3 (73% compared with 95%), Year 5 (68% compared with 94%), Year 7 (70% compared with 94%) and Year 9 (63% compared with 91%) (Table 2.04.7).
- The proportion of Indigenous students at or above the national minimum standard for numeracy was lower than for non-Indigenous students: for Year 3 (78% compared with 96%), Year 5 (71% compared with 95%), Year 7 (80% compared with 96%) and Year 9 (76% compared with 95%) (Table 2.04.9).

According to the National Student Attendance Collection, in 2013:

- Indigenous Australian school attendance rates in government schools were lower than non-Indigenous Australian rates for each jurisdiction and all grades from Year 1 to Year 10 (Table 2.04.18, Figure 2.04.2).





## Trend

Data from the National Assessment Program show that between 2008 and 2014:

- The only significant changes in the proportion of Indigenous students at or above the benchmark in reading, persuasive writing, spelling, grammar and punctuation, or numeracy, was for Year 3 spelling (increased by 12%) and Year 3 grammar and punctuation (increased by 15%).
- There was no significant change in the gap between Indigenous and non-Indigenous students, except for Year 3 students in spelling, and in grammar and punctuation, both of which narrowed significantly by 28% (Table 2.04.13).

## 2.05 Education outcomes for young people

### What is measured and why it is important

Data are presented on Year 10 and 12 apparent retention rates and Year 12 attainment rates for Aboriginal and Torres Strait Islander people.

Higher levels of education are associated with improved health outcomes through greater health literacy and better prospects for socioeconomic status, including income and employment (Clarke & Utz 2014). Research in the US (Wong et al. 2002) found that mortality has declined at a faster pace for those with more education, with a 7-year increase in life expectancy for college-educated students. International literature also documents improvements in child mortality associated with increased levels of maternal education and attributes this to a variety of factors, including improved understanding of and greater willingness to access health services (Gakidou et al. 2010).

Apparent retention rates are the percentage of full-time students of a given cohort group who continue from the beginning of secondary schooling to a specified year level. Care should be exercised in the interpretation of apparent retention rates; 'apparent' is used as the retention rate does not account for students repeating a year of school or migrating in or out of the Australian school student population or between states/territories.

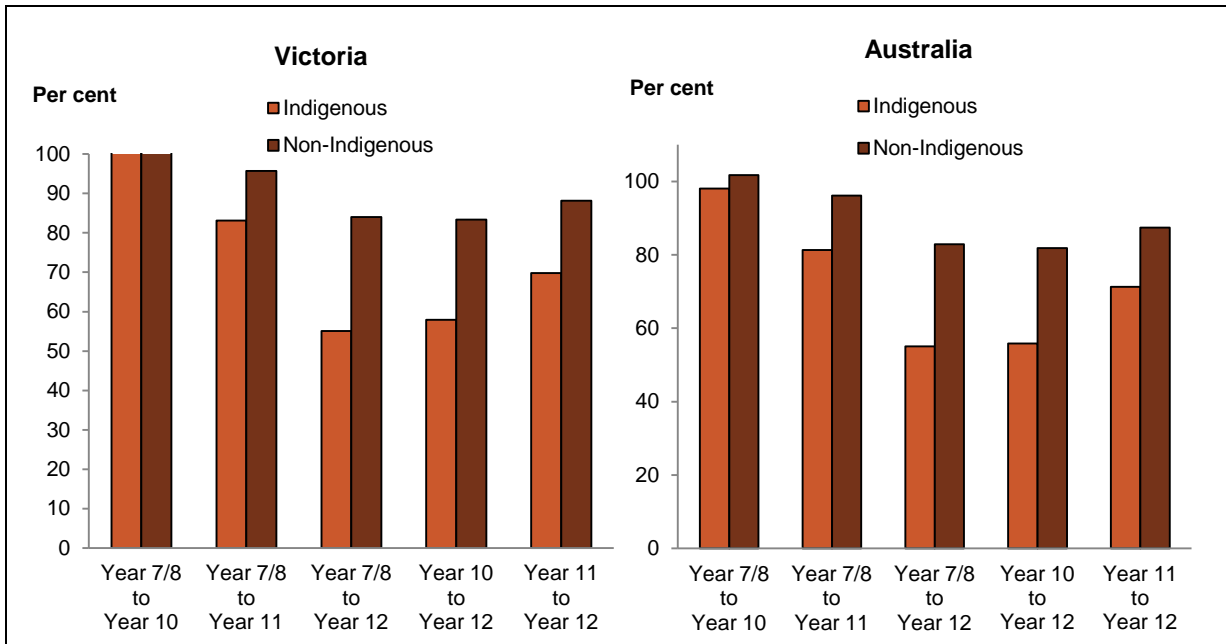
Attainment rates are the proportion of people who have achieved at least Year 12 or equivalent. This may be reported as the proportion of a given cohort of students who went on to achieve a Year 12 certificate or the proportion of the population (or a particular age group) who have achieved this level of education (AHMAC 2015).

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### Key findings for Victoria

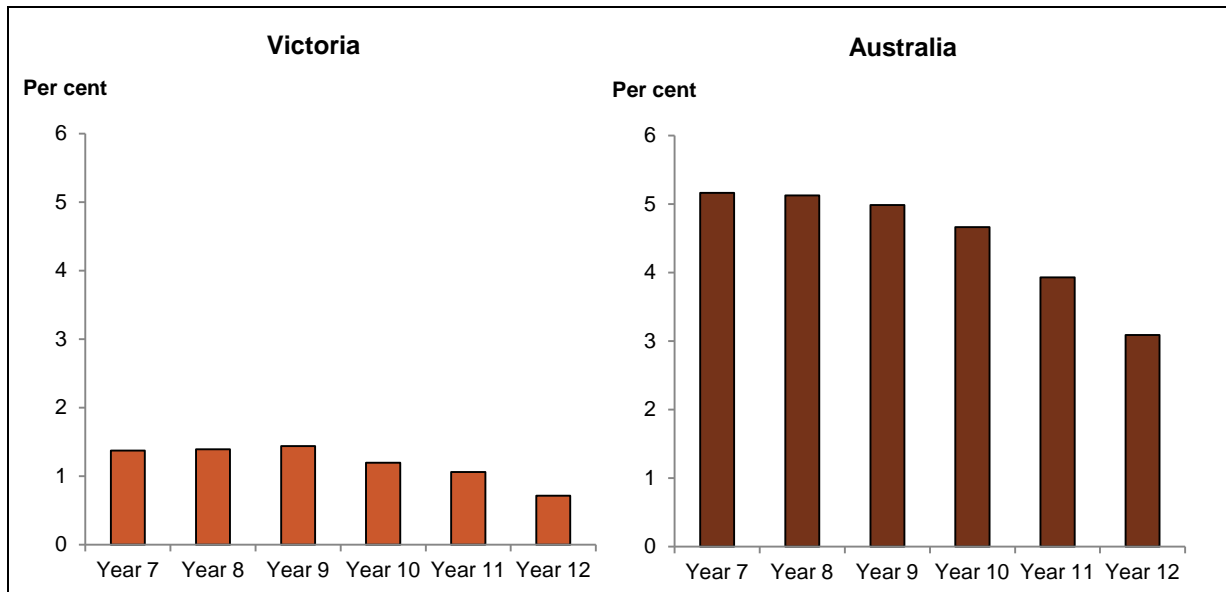
Data from the National Schools Statistics Collection show that in 2013 in Victoria:

- The retention rate from Year 7/8 to Year 10 was 104% for Indigenous students and 102% for other students.
- The gap in the retention rate between Indigenous and other students was:
  - 13 percentage points from Year 7/8 to Year 11 (83% and 96%, respectively)
  - 29 percentage points from Year 7/8 to Year 12 (55% and 84%, respectively)
  - 25 percentage points from Year 10 to Year 12 (58% and 83%), respectively (Table 2.05.2).
- The proportion of Indigenous students in Year 7 was 1.4%, and this decreased to 0.7% in Year 12 (Table 2.05.4).



Source: Table 2.05.2.

**Figure 2.05.1: Apparent retention rates, by Indigenous status, Victoria and Australia, 2013**



Source: Table 2.05.4.

**Figure 2.05.2: Proportions of Indigenous students, Year 7 to Year 12, Victoria and Australia, 2013**

## Key findings for Australia

According to the National Schools Statistics Collection, in 2013:

- Retention of Indigenous students from Year 7/8 to Year 10 was 98%, compared with full retention of other students (Table 2.05.1).
- The proportion of Indigenous students retained from the start of high school through to Year 11 was 81%. Retention of other students was 96%.
- The proportion of Indigenous students retained from the start of high school through to Year 12 was 55%. Retention of other students was 83%.
- 56% of Indigenous Year 10 students remained in Year 12, compared with 82% of other students.
- The gap between the apparent retention rate of Indigenous and other students from the start of high school widened with each grade. The gap was:
  - 4 percentage points difference for those staying until Year 10
  - 15 percentage points difference for those staying until Year 11
  - 28 percentage points difference for those staying until Year 12.
- The gap in apparent retention rates between Indigenous and other students from Year 10 and Year 11 to Year 12 was:
  - 26 percentage points difference in those staying from Year 10 to Year 12
  - 16 percentage points difference in those staying from Year 11 to Year 12 (Table 2.05.2, Figure 2.05.1).

## Trend

Data from the National Schools Statistics Collection show that from 1999 to 2013:

- The retention rates of Indigenous students from Year 7/8 to Years 10, 11 and 12 have all significantly increased (20%, 47% and 55% increase). Retention rates have also significantly increased from Year 10 and 11 to Year 12 (30% and 6% increase, respectively).
- Other students have also experienced significant, but smaller, increases for all grades except Year 11 to Year 12, where there was a non-significant increase of 1%.
- The gap between the retention rate for Indigenous and other students decreased for all grades:
  - Year 7/8 to Year 10 decreased from 16 to 4 percentage point difference
  - Year 7/8 to Year 11 decreased from 30 to 15 percentage point difference
  - Year 7/8 to Year 12 decreased from 39 to 28 percentage point difference
  - Year 10 to Year 12 decreased from 32 to 26 percentage point difference
  - Year 11 to Year 12 decreased from 19 to 16 percentage point difference (Table 2.05.3).

## 2.06 Educational participation and attainment of adults

### What is measured and why it is important

This measure reports on educational participation (persons undertaking formal education or training) and educational attainment (persons who have completed a particular level of school education or non-school qualification).

Adult learning is a powerful tool in achieving better health, education and economic outcomes (Chandola & Jenkins 2014). There are strong associations between formal educational attainment (particularly Year 12), parental educational attainment and measures of health literacy (ABS 2008). Lower health literacy is a barrier to acquiring health education information and accessing treatment (ACSQHC 2013).

The success rate for higher educational institutions is based on the proportion of units passed within a year compared with the total number of units enrolled.

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### Key findings for Victoria

According to the Census of Population and Housing, in 2011 in Victoria:

- Around 21% of Indigenous Australians aged 15 and over were currently studying, compared with 15% of non-Indigenous Australians. The rate at which Indigenous Australians were studying was 1.4 times the rate for non-Indigenous Australians, compared with 1.2 times nationally (Table 2.06.4, Figure 2.06.1).
- Year 12 was the highest level of school completed by 33% of Indigenous Australians aged 18 and over, compared with 57% of non-Indigenous Australians. The rate for Indigenous Australians was 0.6 times the rate for non-Indigenous Australians, compared with 0.5 times nationally (Table 2.06.10, Figure 2.06.2).
- Around 46% of Indigenous Australians aged 25–64 reported that they had a non-school qualification, compared with 62% of non-Indigenous Australians. The gap was 16%, compared with a gap of 24% nationally (Table 2.06.19).
- Around 11% of Indigenous Australians reported that they had a Bachelor degree or above, compared with 29% of non-Indigenous Australians. The rate for Indigenous Australians was 0.4 times the rate for non-Indigenous Australians, compared with 0.3 times nationally (Table 2.06.19).

Data from the 2012–13 AATSIHS show that:

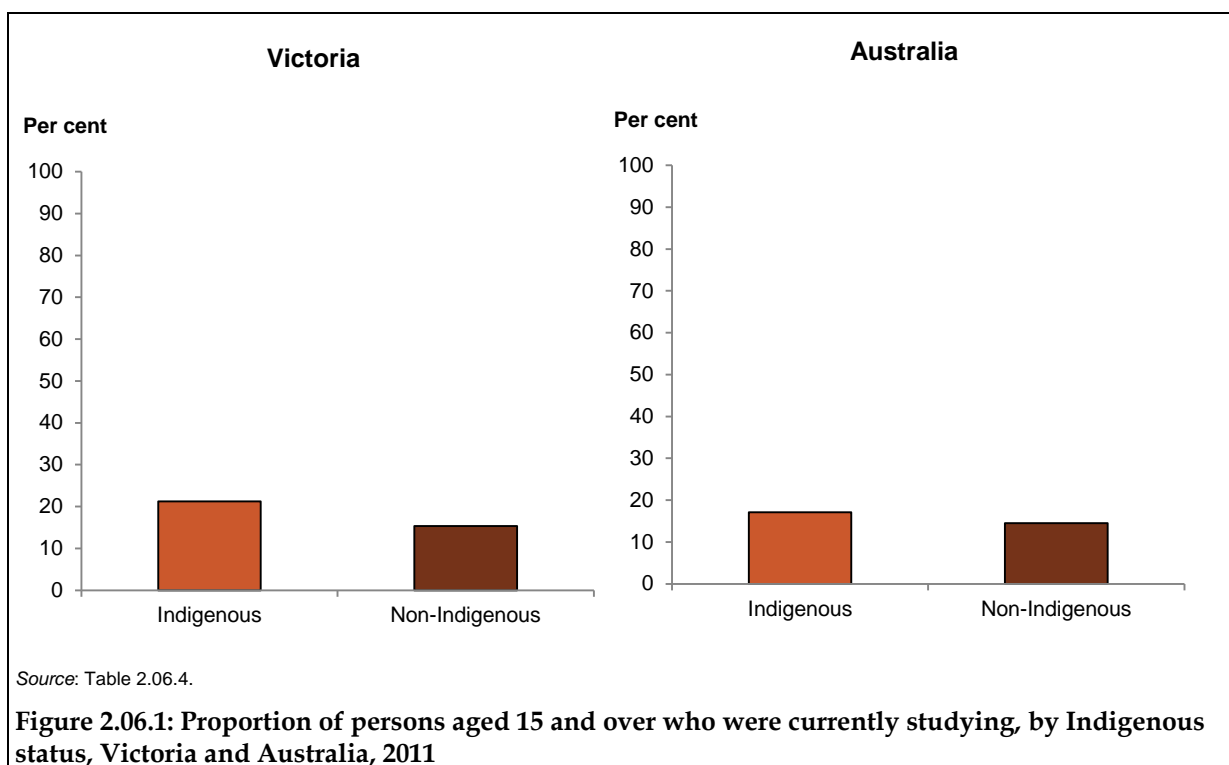
- An estimated 73% of Indigenous Australians aged 20–24 had attained at least a Year 12 or equivalent or Australian Qualifications Framework (AQF) Certificate II or above. This was higher than the national proportion for Indigenous Australians (59%) (Table 2.06.7).

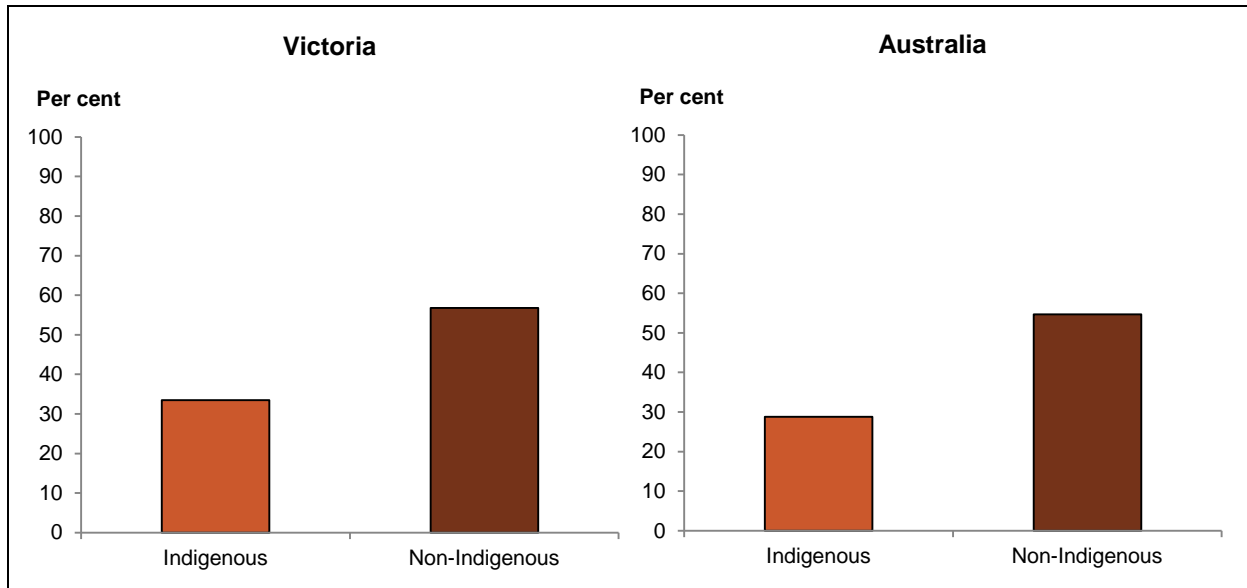
According to the National VET Provider Collection, in 2012:

- Around 4% of Indigenous Australians in Victoria completed a course in the vocational education and training (VET) sector, similar to the proportion for other Australians. At the national level, the proportion was around 3% for Indigenous and other Australians (Table 2.06.24).

Data from the Higher Education Statistics Collection show that in 2012:

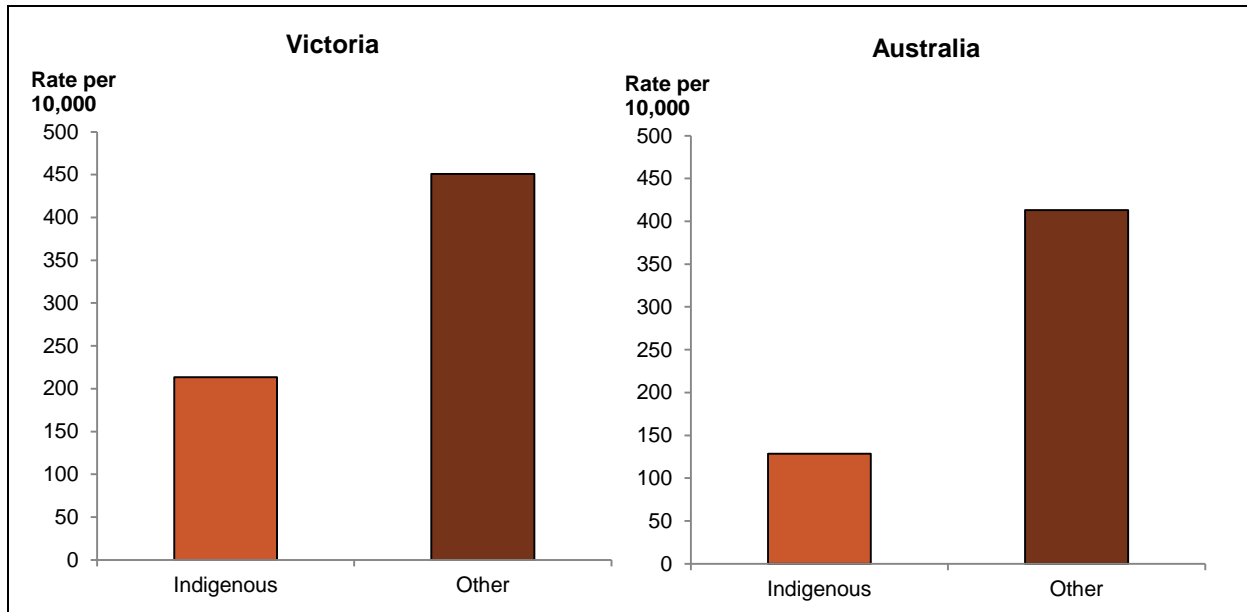
- Around 0.8% of Indigenous Australians in Victoria completed a course in the higher education sector, compared with 1.9% of other Australians (Table 2.06.28).
- The higher education success rate for Indigenous students in Victoria was 213 per 10,000, compared with 451 per 10,000 for other Australians. The gap was 238 per 10,000, compared with 285 per 10,000 nationally (Table 2.06.30, Figure 2.06.3).





Source: Table 2.06.10.

**Figure 2.06.2: Proportion of persons aged 18 and over who had completed Year 12 education, by Indigenous status, Victoria and Australia, 2011**



Source: Table 2.06.30.

**Figure 2.06.3: Higher education success rates, by Indigenous status, Victoria and Australia, 2012**



## Key findings for Australia

According to the 2012–13 AATSIHS:

- An estimated 20% of Indigenous Australians aged 15 and over were currently studying, compared with 17% of non-Indigenous Australians. Indigenous Australians aged 15–24 were less likely to be studying than non-Indigenous Australians of the same age group (40% compared with 61%) (Table 2.06.1).
- Year 12 was the highest level of school completed by 27% of Indigenous Australians aged 18 and over, compared with 54% of non-Indigenous Australians (Table 2.06.6).
- An estimated 59% of Indigenous Australians aged 20–24 had attained at least Year 12 or equivalent or AQF Certificate II or above (Table 2.06.7).

Data from the National Vocational Education and Training Provider Collection show that in 2012:

- There were over 20,300 course completions in the VET sector by Indigenous Australians aged 15 and over. This was 5% of the Indigenous population aged 15 and over, compared with 3% for other Australians (Table 2.06.23).

According to the Higher Education Statistics Collection, in 2012:

- Around 0.4% of Indigenous Australians completed a course in the higher education sector, compared with 0.9% of other Australians (domestic graduates only). In the 22–24 year age group, these proportions were 0.7% and 5.2%. (Table 2.06.27).

## Trend

- Data from the AATSIHS and previous surveys show that, from 2002 to 2012–13, the proportion of Indigenous Australians aged 18 and over who completed Year 12 increased from 19% to 27%. The proportion of non-Indigenous Australians aged 18 and over who completed Year 12 increased from 40% to 54% (Table 2.06.6, AIHW 2013a: Table 2.06.9).
- According to the National Vocational Education and Training Provider Collection, from 1996 to 2012, the rate of Indigenous Australians aged 15 and over who completed a VET course increased significantly (from 0.5% to 4.6%). The rate for other Australians also increased (from 0.7% to 3.1%) (Table 2.06.26).
- Data from the Higher Education Statistics Collection suggest that, between 1996 and 2012, there was no significant change in the rate of higher education award completions by Indigenous students. The rate among other Australians increased 66% (Table 2.06.29).

## 2.07 Employment

### What is measured and why it is important

This measure reports on the employment status of Aboriginal and Torres Strait Islander people aged 15–64.

Participation in employment has important consequences for health, social and emotional wellbeing and living standards for individuals, families and communities (Bambra 2011). Conversely, being sick or disabled, or looking after someone in poor health acts as a barrier to labour force participation (ABS 2014b). In addition to poor health outcomes, reasons for Indigenous Australians having lower employment rates include lower levels of education and training, higher levels of contact with the criminal justice system, experiences of discrimination and lower levels of job retention (Gray et al. 2012).

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### Key findings for Victoria

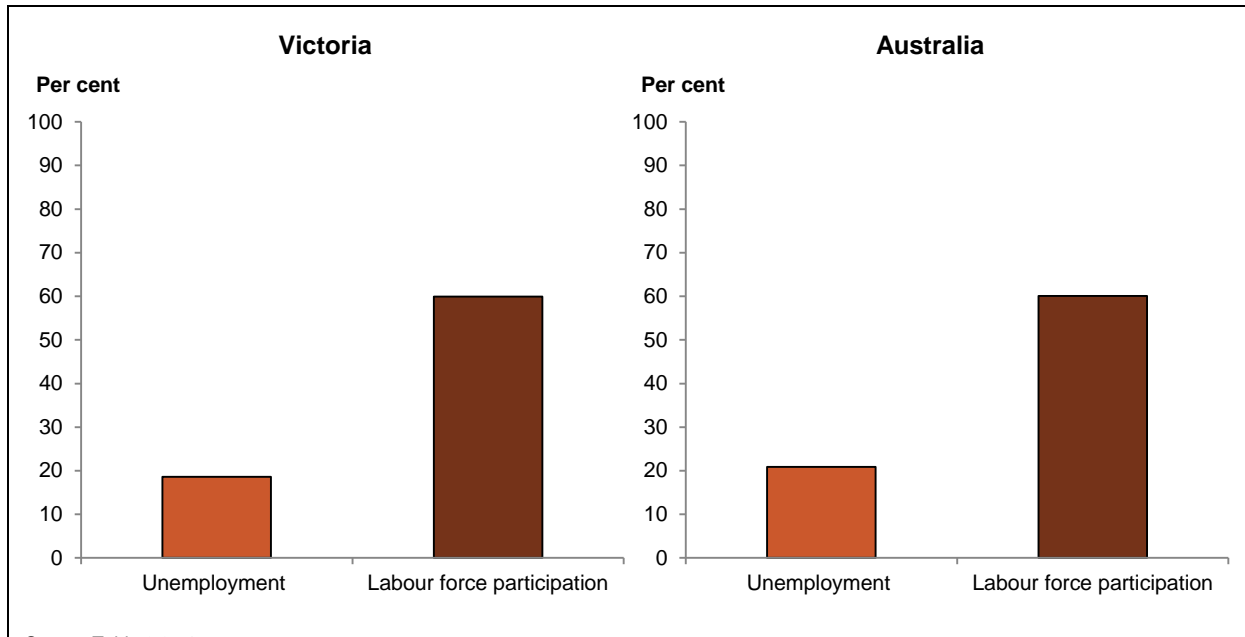
According to the AATSIHS, in 2012–13 in Victoria:

- The employment rate (proportion of population employed) among Indigenous Australians aged 15–64 was 49% (ABS 4727.0.55.006: Table 17.3).
- The unemployment rate among Indigenous Australians aged 15–64 was 19%, compared with the national rate among Indigenous Australians of 21% (Table 2.07.1).
- The labour force participation rate among Indigenous Australians aged 15–64 was 60%, which was similar to the national rate among Indigenous Australians (Table 2.07.1, Figure 2.07.1).
- The proportion of employed people aged 18–64 who were engaged in full-time work was 67% for Indigenous Australians and 69% for non-Indigenous Australians. Nationally, these proportions were 65% and 70%, respectively (Table 2.07.27).
- The most common industry of employment among employed Indigenous Australians aged 18–64 was health care and social assistance (16%), followed by public administration and safety (12%). These were also the most common industries of employment among Indigenous Australians at the national level (14% and 13%, respectively) (Table 2.07.20, Figure 2.07.2).

### Trend

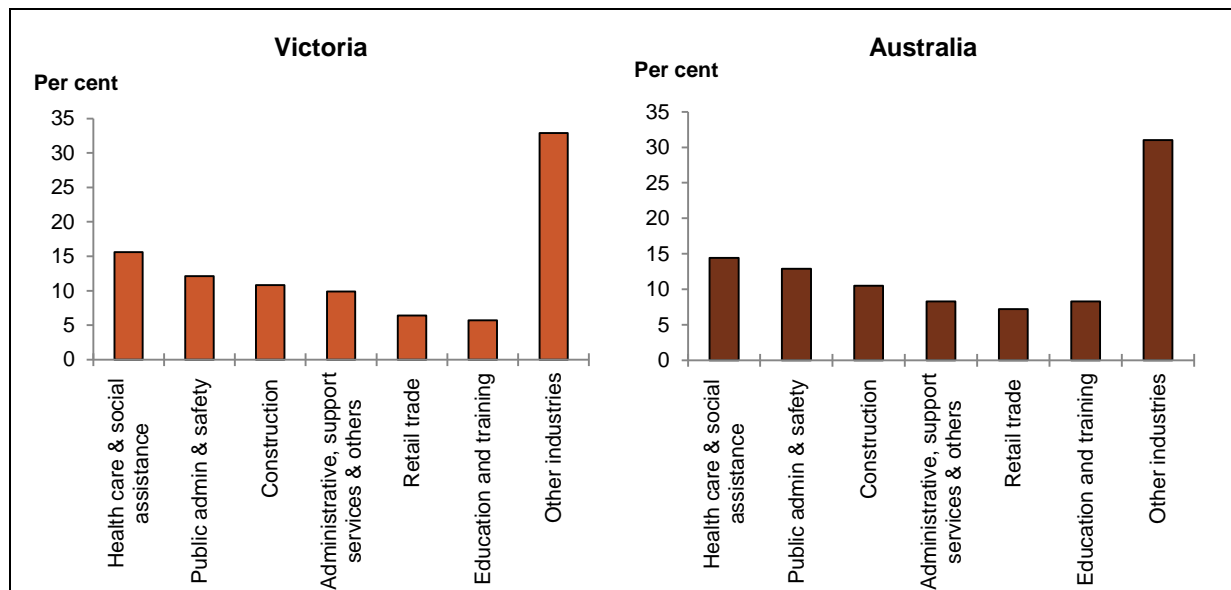
Data from the AATSIHS and previous surveys show that between 2004–05 and 2012–13 in Victoria:

- The proportion of employed Indigenous Australians aged 18–64 who were employed full-time increased from 58% in 2004–05 to 67% in 2012–13. The proportion of non-Indigenous Australians employed full-time remained at about 70%. Nationally, the proportion of employed Indigenous Australians who were employed full-time increased from 60% in 2004–05 to 64% in 2008 and 65% in 2012–13 (Table 2.07.27, Figure 2.07.3).



Source: Table 2.07.1.

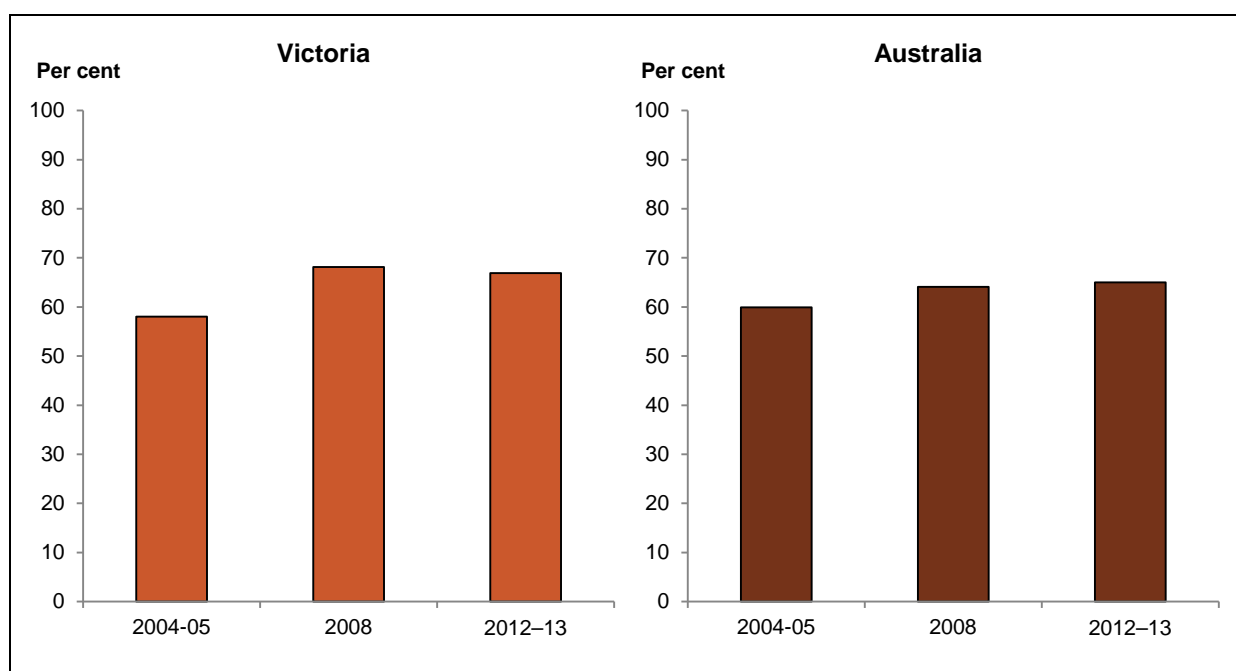
**Figure 2.07.1: Indigenous people in the labour force, unemployment and labour force participation (15–64 years olds), Victoria and Australia, 2012–13**



Note: Other industries include agriculture, forestry and fishing; mining; electricity, gas, water and waste services; wholesale trade; accommodation and food services; transport, postal and warehousing; information media and telecommunications; finance and insurance services; professional, scientific and technical services; and arts and recreation services.

Source: Table 2.07.20.

**Figure 2.07.2: Employed Indigenous people aged 18–64, by 2006 ANZSIC classification of industry, Victoria and Australia, 2012–13**



Source: Table 2.07.27.

**Figure 2.07.3: Proportion of employed Indigenous people aged 18–64 who were employed full-time, Victoria and Australia, 2004–05 to 2012–13**

## Key findings for Australia

According to the AATSIHS, in 2012–13:

- An estimated 40% of Indigenous youth aged 17–24 were fully engaged in study or work, almost half the non-Indigenous rate of 76% (Table 2.07.4). An estimated 60% of Indigenous Australians aged 15–64 were in the labour force (Table 2.07.1).
- The unemployment rate among Indigenous Australians aged 15–64 was 21% (Table 2.07.1). Long-term unemployment was higher among Indigenous Australians living in *Remote* areas (42% of unemployed persons) compared with those living in *Non-remote* areas (29% of unemployed persons) (Table 2.07.21).
- The employment rate among Indigenous Australians aged 15–64 was 48%. The rate was higher for Indigenous males (53%) compared with Indigenous females (42%) (ABS 4727.0.55.006: Table 16.3). An estimated 65% of employed Indigenous Australians aged 18–64 were employed full time, compared with 70% of employed non-Indigenous Australians aged 18–64 (Table 2.07.27).

Data from the Census of Population and Housing show that, in 2011:

- Indigenous Australians were less likely to be employed as professionals than non-Indigenous Australians (13% and 22%, respectively). Indigenous Australians were more likely than non-Indigenous Australians to work as labourers (18% compared with 9%) or as community and personal service workers (17% compared with 10%) (Table 2.07.26).



## Trend

According to the AATSIHS and previous surveys, between 2008 and 2012-13:

- The employment rate for Indigenous Australians decreased from 54% to 48%. The gap in the employment rate between Indigenous and non-Indigenous Australians increased by 7 percentage points, from 21% in 2008 to 28% in 2012-13 (Table 2.07.2).

Between 2002 and 2012-13:

- The proportion of the Indigenous labour force aged 18-64 in long-term unemployment was stable; it went from 5.7% to 6% (Table 2.07.21).
- There was an increase in the proportion of employed Indigenous Australians aged 18-64 who were employed full time; it went from 55% to 65% (Table 2.07.27).

## 2.08 Income

### What is measured and why it is important

This measure reports on equivalised gross household and individual income of Aboriginal and Torres Strait Islander people.

There is strong evidence from Australia and other developed countries that low socioeconomic status is associated with poor health (Marmot et al. 2010; Turrell & Mathers 2000). People with a lower socioeconomic status bear a significantly higher burden of disease (Begg et al. 2007). The level of income inequality within a society has been identified as a determinant of differential health outcomes (Wolfson et al. 1999).

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### Key findings for Victoria

Data from the AATSIHS show that in 2012–13 in Victoria:

- There was a higher proportion of Indigenous adults with incomes in the bottom 20% of equivalised gross weekly household incomes than non-Indigenous Australian adults (37% and 19%, respectively). The gap was 18%, compared with 26% nationally (Table 2.08.1, Figure 2.08.1).
- The median equivalised gross weekly household income was lower for Indigenous adults than for non-Indigenous adults (\$537 a week compared with \$822 a week). The gap between Indigenous and non-Indigenous Australians was \$285 a week.
  - Nationally, the gap between Indigenous and non-Indigenous Australians for median equivalised household income was larger than in Victoria (\$404 a week) (Table 2.08.3).
- A higher proportion of Indigenous Australians aged 18–64 received a government cash pension or allowance as their main source of income, compared with non-Indigenous Australians of the same age group (46% compared with 13%) (Table 2.08.4).
- 47% of Indigenous Australians living in *Non-remote* areas were living in households that could not raise \$2,000 within a week in an emergency (Table 2.08.6).

### Trend

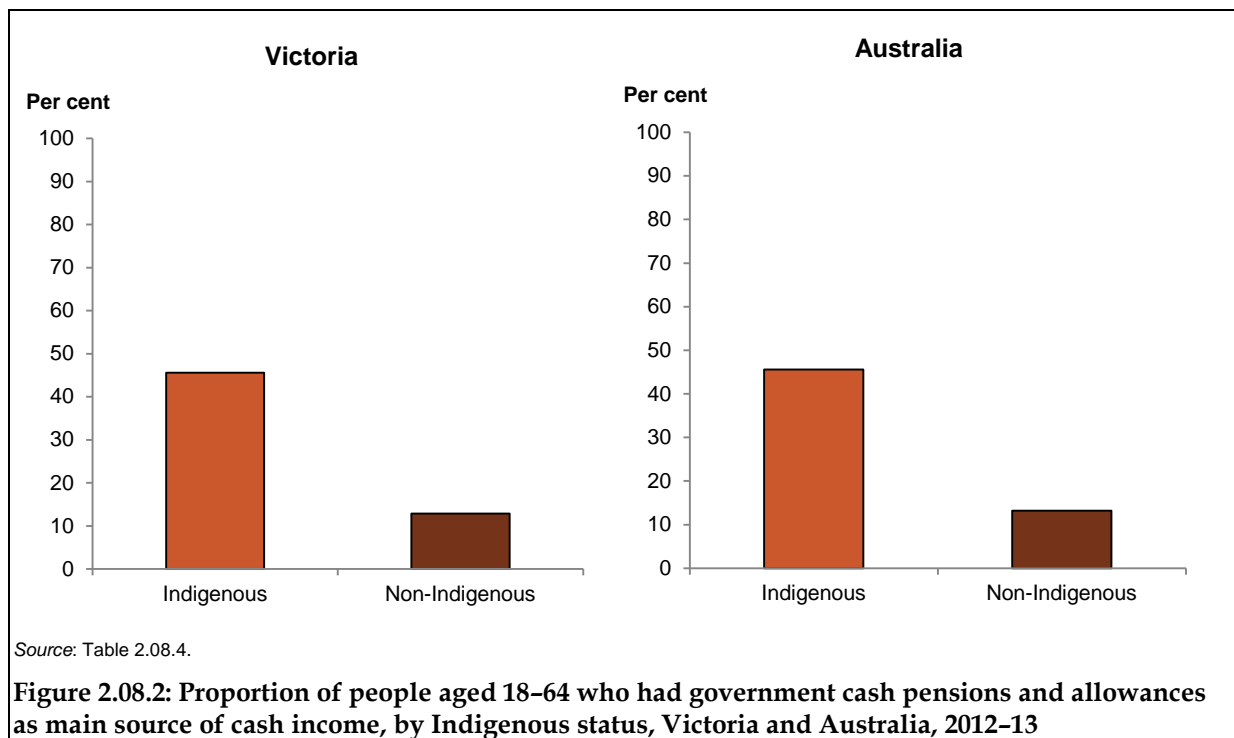
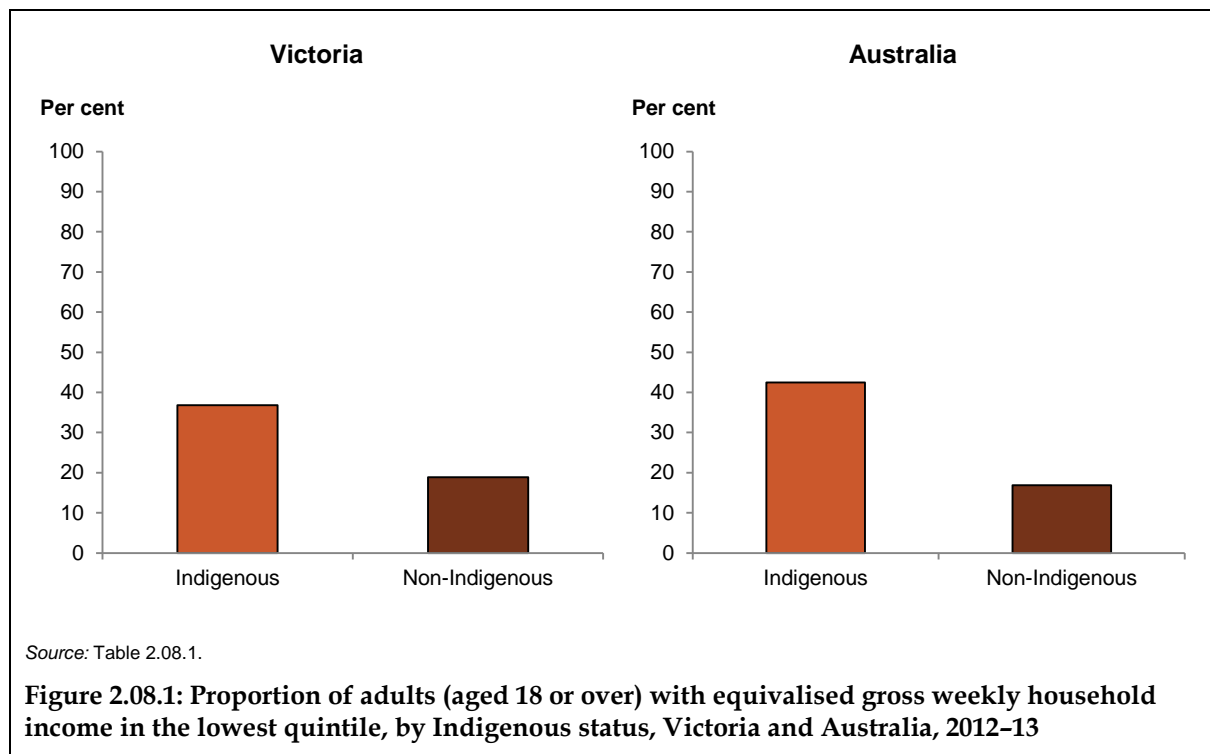
According to the AATSIHS and previous surveys, in the periods 2004–05, 2008 and 2012–13 in Victoria:

- The proportion of Indigenous adults in the lowest quintile of equivalised gross weekly household income varied. It increased from 38% in 2004–05 to 44% in 2008, and then decreased to 37% in 2012–13 (Table 2.08.1).

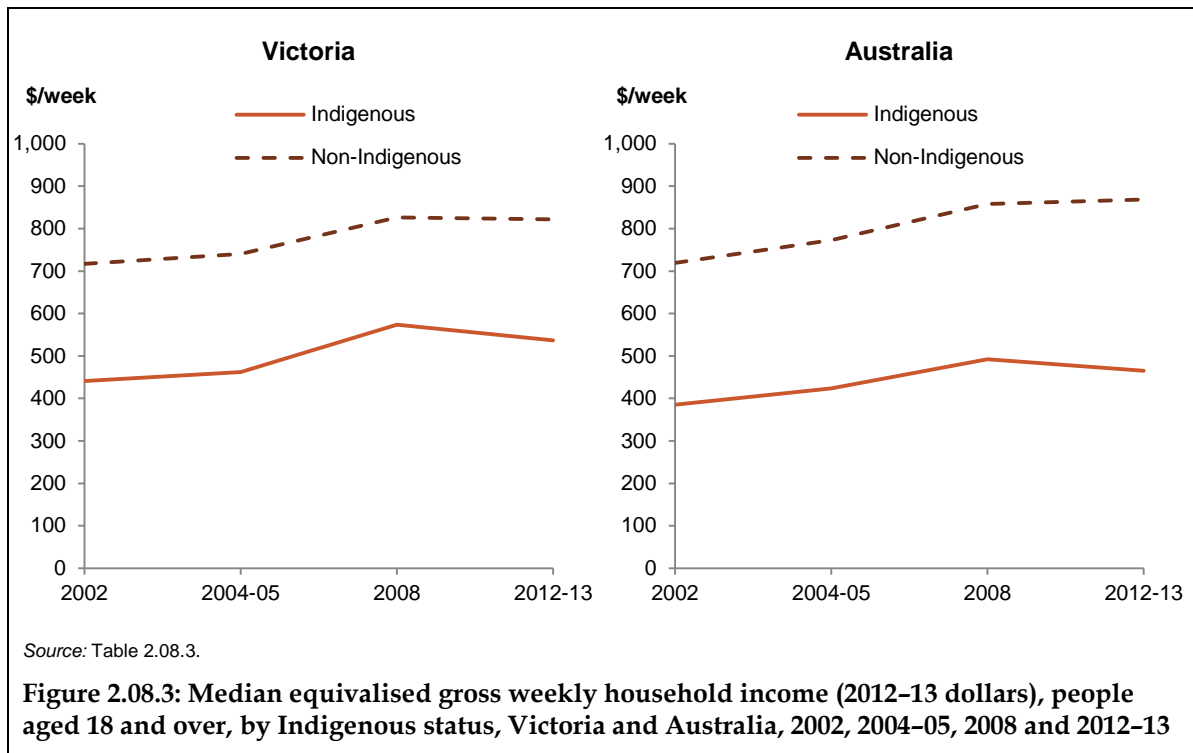
In the periods 2002, 2004–05, 2008 and 2012–13 in Victoria:

- There was an increase in the median equivalised gross weekly household income for Indigenous Australians. It increased from \$441 a week in 2002 to \$537 a week in 2012–13. The gap between the median weekly income for Indigenous and non-Indigenous

Australians varied between \$253 a week in 2008 and \$285 a week in 2012-13 (Table 2.08.3, Figure 2.08.2).







## Key findings for Australia

According to the AATSIHS, in 2012-13:

- There were a higher proportion of Indigenous adults with incomes in the bottom 20% of equivalised gross weekly household Australians incomes than non-Indigenous adults (43% and 17%, respectively). The gap was 26% (Table 2.08.1).
- The median equivalised gross weekly household income was lower for Indigenous adults than for non-Indigenous adults (\$465 compared with \$869). The median equivalised gross weekly household income for Indigenous Australians was lower in *Very remote areas* (\$364) than in *Major cities* (\$516) (Table 2.08.3).
- A higher proportion of Indigenous Australians aged 18-64 received a government cash pension or allowance as their main source of income than non-Indigenous Australians of the same age group (46% compared to 13%) (Table 2.08.4).

## Trend

Data from the AATSIHS and previous surveys show that in the periods 2004-05, 2008 and 2012-13:

- There was an increase in the proportion of Indigenous adults in the lowest quintile between 2004-05 and 2008 (41% to 49%) and then a drop between 2008 and 2012-13 (49% to 43%), leading to no significant change over the whole period (Table 2.08.1).

In the periods 2002, 2004-05, 2008 and 2012-13:

- After adjusting for inflation, between 2002 and 2008 there was an increase of \$107 (28%) in the median equivalised gross household income for Indigenous adults (\$385 to \$492). There was little change between 2008 and 2012-13. Between 2008 and 2012-13 there was little change in the gap between Indigenous and non-Indigenous adults (Table 2.08.3).

## 2.09 Index of disadvantage

### What is measured and why it is important

This measure reports on the relative disadvantage within the Aboriginal and Torres Strait Islander population and compared with the non-Indigenous population.

Socioeconomic disadvantage is a major determinant of health. The links between different forms of disadvantage such as poverty, unemployment, poor education, racism, stress, social exclusion, and poor health are well documented (AIHW 2014d; Marmot 2005; Paradies 2006; Sassi 2009; Saunders & Davidson 2007; Wilkinson & Marmott 2003). A recent study in the Northern Territory found that socioeconomic disadvantage accounted for one-third to one-half of the gap in life expectancy between Indigenous and non-Indigenous Australians (Zhao et al. 2013).

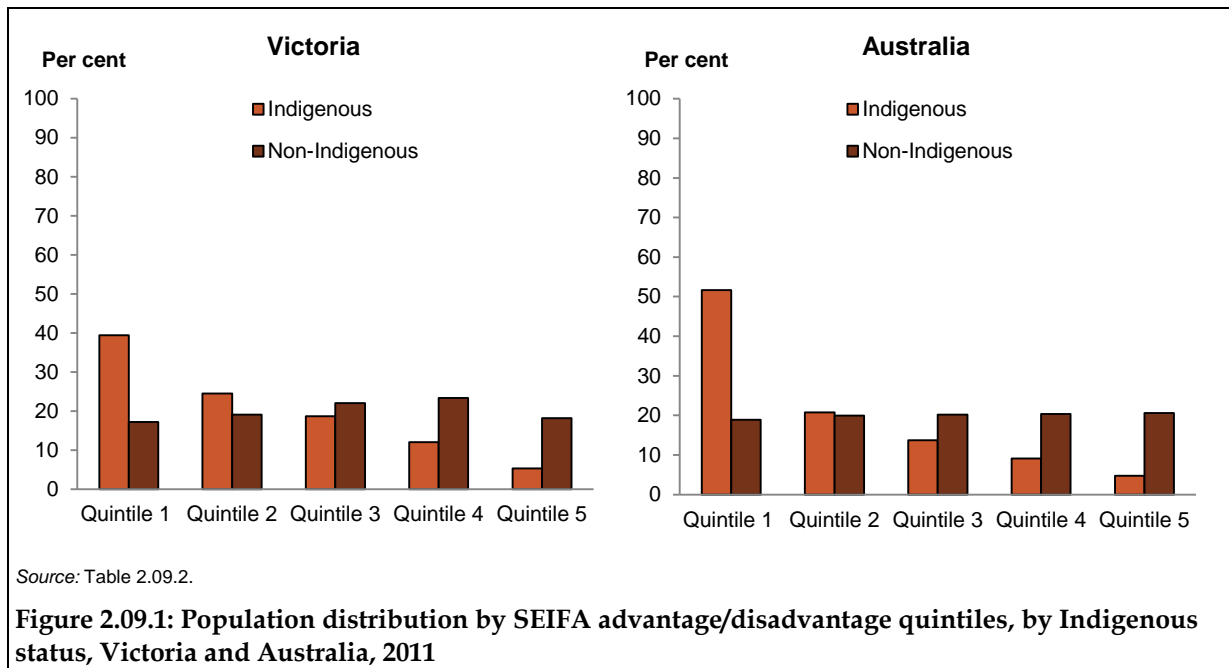
Socioeconomic indexes for areas bring together a composite measure of advantage and disadvantage at the regional level. They provide a broad basis for tracking progress in addressing Indigenous disadvantage across the spectrum of determinants of health (AHMAC 2015).

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### Key findings for Victoria

Data from the 2011 Census of Population and Housing show that in Victoria:

- 39% of the Indigenous population resided in the most disadvantaged areas (1st quintile), compared with 17% of the non-Indigenous population.
  - At the national level, 51% of the Indigenous population and 19% of the non-Indigenous population resided in the most disadvantaged areas.
- 5% of the Indigenous population were in the most advantaged areas (5th quintile), compared with 18% of the non-Indigenous population.
  - At the national level, 5% of the Indigenous population and 21% of the non-Indigenous population resided in the most advantaged areas.
- The gap between the proportion of Indigenous and non-Indigenous Australians in the most disadvantaged areas was 22 percentage points (Table 2.09.2, Figure 2.09.1).



## Key findings for Australia

According to the 2011 Census of Population and Housing:

- 37% of Indigenous Australians resided in the most disadvantaged areas (1st decile), only 2% were in the most advantaged (10th decile).
- The gap between the proportion of Indigenous and non-Indigenous Australians in the most disadvantaged areas was 28 percentage points (Table 2.09.1).

Analysis of the Indigenous indexes of socioeconomic outcomes found that for Indigenous Australians, there is a clear gradient of disadvantage by remoteness. *Capital city* regions ranked relatively well while *Remote* regions ranked relatively poorly. Income, employment and education correlated geographically while other areas of wellbeing showed more complex patterns (Biddle 2009; Biddle 2013).

## 2.10 Community safety

### What is measured and why it is important

This measure reports on:

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

Experiencing threats of violence, being in an environment where personal safety is at risk, or in a social setting where violence is common, has negative health effects (AHMAC 2015). The level of violence experienced by Indigenous Australians is also experienced in the context of colonisation, discrimination and subsequent markers of disadvantage such as low income, unemployment, lack of access to traditional lands and substance use (Day et al. 2013). Safe communities are places in which people are more likely to experience empowerment, security, pride, wellbeing and resilience (AHMAC 2015).

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

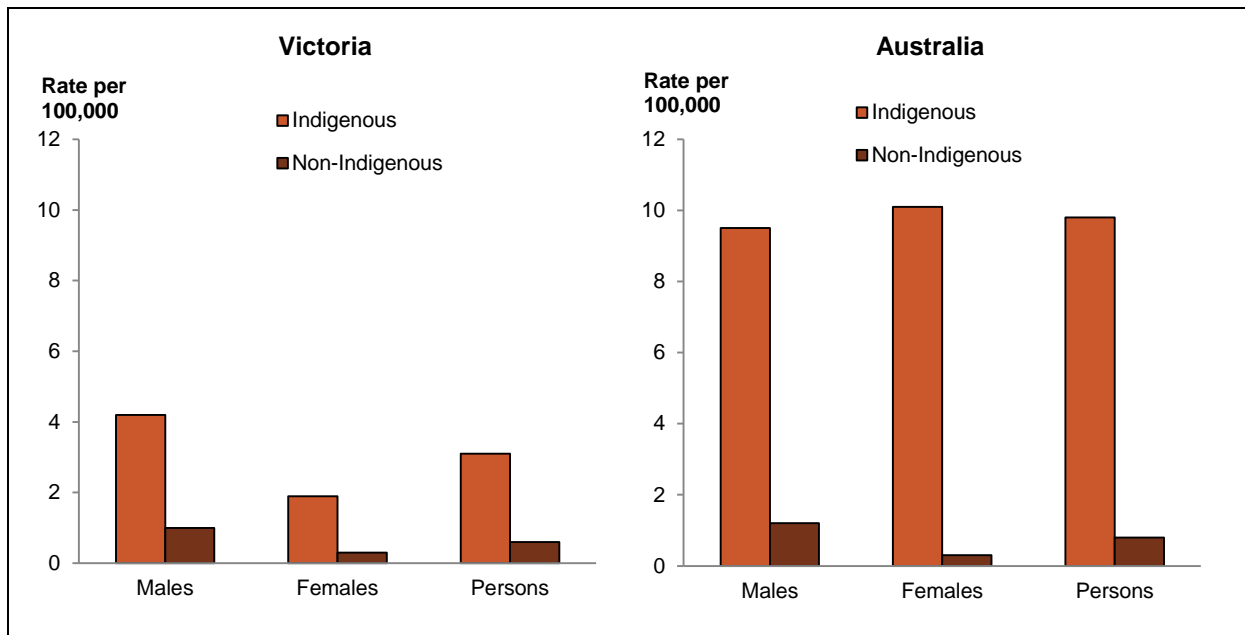
### Key findings for Victoria

Data from the National Hospital Morbidity Database show that in 2011–12 to 2012–13 in Victoria:

- After adjusting for differences in age structure, the rate of hospitalisation for assault for Indigenous Australians was 3 per 1,000, compared with 0.6 per 1,000 for non-Indigenous Australians. Indigenous Australians were 4.9 times as likely as non-Indigenous Australians to be hospitalised due to assault. The rate difference was 2.5 per 1,000. At the national level, the rate of hospitalisation due to assault for Indigenous Australians was 10 per 1,000, and the rate ratio was 13.
- The rate ratio for Indigenous to non-Indigenous females was 63, compared with 9 for males (Table 2.10.6, Figure 2.10.1).

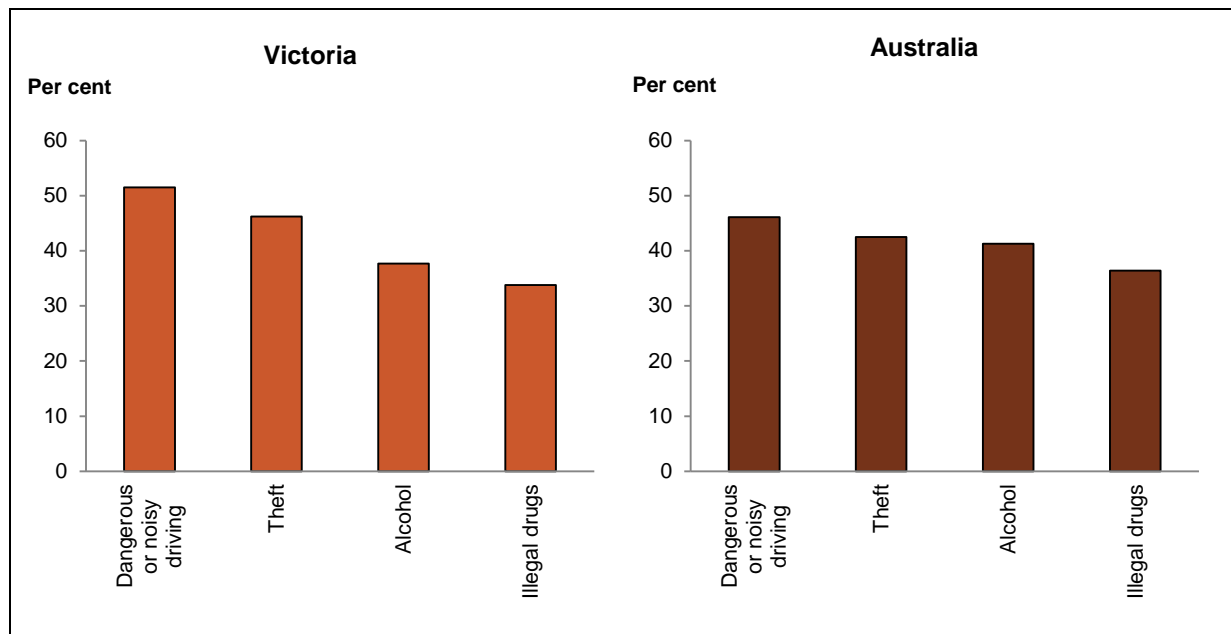
In the 2008 NATSISS:

- 73% of Indigenous Australians aged 15 and over in Victoria reported community problems. The main problems identified were dangerous or noisy driving (51%), theft (46%), alcohol (38%) and illegal drugs (34%).
- At the national level, 74% of Indigenous Australians aged 15 and over reported community problems. The main problems identified were dangerous or noisy driving (46%), theft (43%), alcohol (41%) and illegal drugs (36%) (Table 2.10.16, Figure 2.10.3).



Source: Table 2.10.21.

**Figure 2.10.1: Age-standardised hospitalisation rate with a principal diagnosis of injury and poisoning and the first reported external cause of assault, by sex and Indigenous status, Victoria and Australia, 2011–12 to 2012–13**



Source: Table 2.10.16.

**Figure 2.10.2: Proportion of Indigenous persons aged 15 and over reporting neighbourhood/community problems, Victoria and Australia, 2008**

## Key findings for Australia

According to the 2008 NATSISS:

- An estimated 24% of Indigenous Australians aged 18 and over reported that they were a victim of physical or threatened violence in the last 12 months (Table 2.10.7). After adjusting for age differences between the 2 populations, this was 2 times the rate for non-Indigenous Australians (Table 2.10.4).

In the 2012–13 AATSIHS:

- An estimated 8% of Indigenous Australians aged 15 and over reported stressors relating to feeling unsafe or being a witness to violence and 7% reported stressors relating to abuse/violent crime (Table 2.10.2).
- An estimated 17% of Indigenous Australians reported being injured in the previous 4 weeks (Table 2.10.19).

Data from the National Hospital Morbidity Database show that during 2011–12 and 2012–13:

- After adjusting for age, Indigenous Australians were hospitalised for assault at a rate of 10 per 1,000. Indigenous Australians were 13 times as likely as non-Indigenous Australians to be hospitalised for assault. The rate difference was 9 per 1,000 (Table 2.10.20).

According to the National Mortality Database, in 2008–2012 in New South Wales, Queensland, Western Australia, South Australia and the Northern Territory combined:

- The mortality rate for assault for Indigenous Australians was 7 per 100,000. After adjusting for age differences between the 2 populations, Indigenous Australians were 7.3 times as likely as non-Indigenous Australians to die of assault. The gap was 7 per 100,000 (Table 2.10.24).

## Trend

Data from the National Hospital Morbidity Database show that from 1998–99 to 2012–13 in Queensland, Western Australia, South Australia and the Northern Territory combined:

- The rate of hospitalisation of Indigenous Australians for assault changed little. The rate difference also changed little (Table 2.10.23).

According to the National Mortality Database, in New South Wales, Queensland, Western Australia, South Australia and the Northern Territory combined:

- There was no significant change in the mortality rate for assault for Indigenous Australians and no significant change in the gap, over either the long term (1998 to 2012) or more recently (2006 to 2012) (Table 2.10.27).

## 2.11 Contact with the criminal justice system

### What is measured and why it is important

This measure reports on the prevalence of Aboriginal and Torres Strait Islander people in prison custody, and those who have other contact with the criminal justice system, including police custody and juvenile justice. It also reports on relationships with health and social factors.

Indigenous Australians experience higher rates of arrest and incarceration than non-Indigenous Australians. Imprisonment affects family, children and the broader community. It can increase stress, affect relationships and have adverse employment and financial consequences (AHMAC 2015).

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### Key findings for Victoria

According to the National Prisoner Census, at 30 June 2013 in Victoria:

- There were 388 adult prisoners who identified as Aboriginal and Torres Strait Islander, representing 7% of total prisoners. The imprisonment rate of Indigenous Australians was 1,195 per 100,000 population.
- After adjusting for differences in age structure, the imprisonment rate for Indigenous Australians was 10.3 times the rate for non-Indigenous Australians, compared with 13 times nationally (Table 2.11.8, Figure 2.11.1).

According to the National Deaths in Custody Program, in 2012–13 in Victoria:

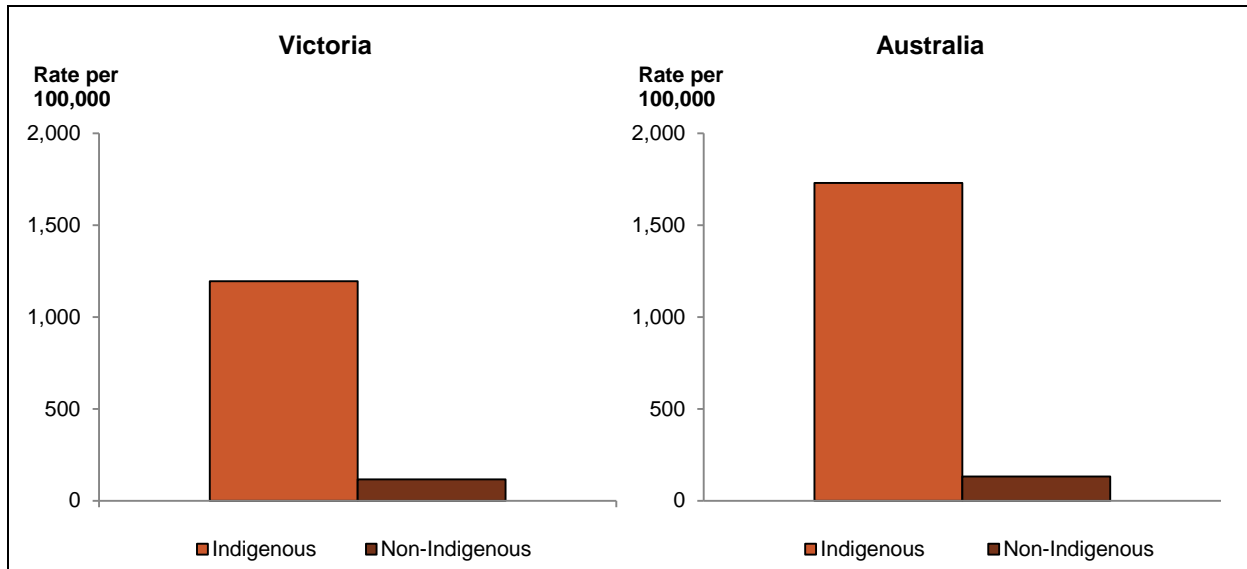
- There was 1 Indigenous death in custody (police and prison), compared with 14 deaths for non-Indigenous Australians (Table 2.11.22).

### Trend

According to the National Prisoner Census, between 2000 and 2013 in Victoria:

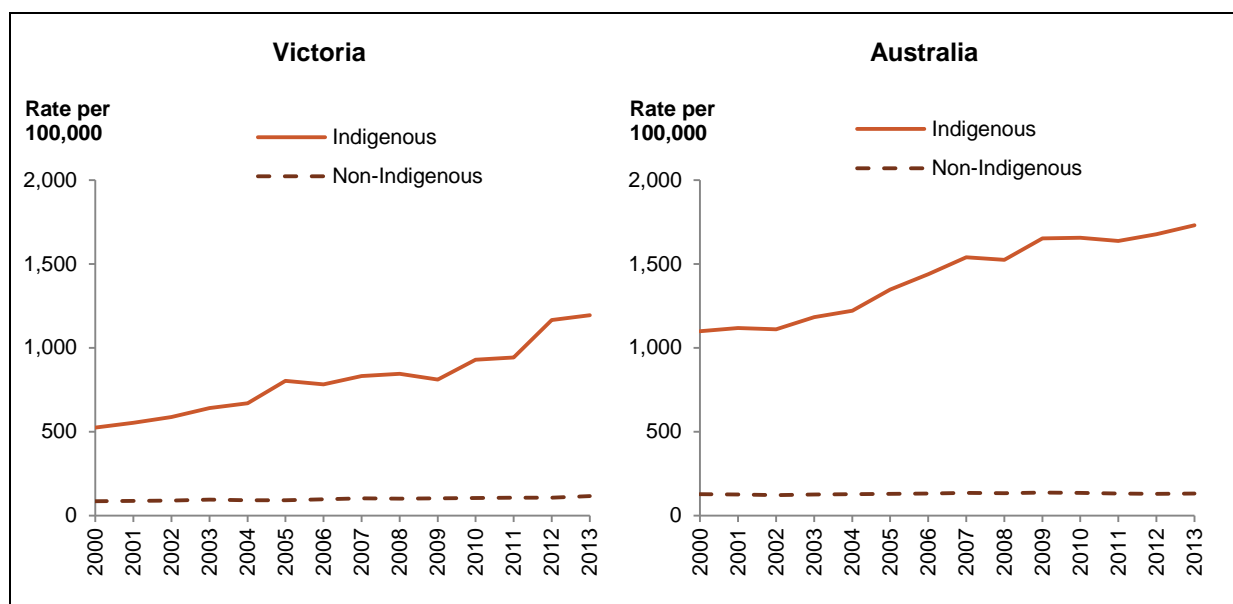
- After adjusting for differences in age structure, the imprisonment rate for Indigenous Australians increased significantly by 124%. Nationally, the rate increased significantly by 68%.
- The gap between imprisonment rates of Indigenous and non-Indigenous Australians increased significantly by 143%, from 438 per 100,000 to 1,078 per 100,000, compared with a significant increase of 76% nationally (Table 2.11.12, Figure 2.11.2).





Source: Table 2.11.8.

**Figure 2.11.1: Age-standardised imprisonment rates, by Indigenous status, Victoria and Australia, 2013**



Source: Table 2.11.12.

**Figure 2.11.2: Age-standardised imprisonment rates, by Indigenous status, Victoria and Australia, 2000-2013**

## Key findings for Australia

According to the Juvenile Justice National Minimum Dataset, in 2012–13, on an average day:

- 40% of those under youth justice supervision were Indigenous (around 2,600 out of 6,300) (including estimates for WA and the NT) (AIHW 2014t).
- The rate of Indigenous Australians aged 10–17 under youth justice supervision was 188 per 10,000. This was 14 times as high as the non-Indigenous rate (13 per 10,000) (Table 2.11.1).
- There were 198 Indigenous young people in unsentenced detention in Australia (excluding WA and NT) (Table 2.11.2). The rate of Indigenous young people on remand (20 per 10,000) was 20.5 times the rate for non-Indigenous youth (less than 1 per 10,000), a gap of 19 per 10,000 (Table 2.11.3).

According to the National Prisoner Census, as at 30 June 2013:

- There were 8,430 adult prisoners who identified as Indigenous Australians, representing more than 27% of total prisoners. The Indigenous imprisonment rate was 2,040 per 100,000 population (Table 2.11.7).
- After adjusting for age, the imprisonment rate of Indigenous Australians was 13 times the rate for non-Indigenous Australians. The median age of adult Indigenous prisoners was 31 compared with 35 for non-Indigenous prisoners (Table 2.11.7).

Data from the National Deaths in Custody Program show that in 2012–13:

- Of 71 deaths in custody (police and prison), 13 (18%) were Indigenous and 58 (82%) were non-Indigenous (Table 2.11.22).

## Trend

Data from the Juvenile Justice National Minimum Dataset show that between 2006–07 and 2012–13:

- The rate for Indigenous youth aged 10–17 under supervision on an average day declined by 5%, although the decline was not significant. The rate for non-Indigenous youth aged 10–17 under supervision on an average day changed very little. The rate difference decreased by 6%, although the decline was not significant (Table 2.11.1).

According to the National Prisoner Census, from 2000 to 2013:

- The imprisonment rate for Indigenous Australians increased by 68%. The gap between Indigenous and non-Indigenous imprisonment rates increased by 76%, from 971 per 100,000 to 1,598 per 100,000 (Table 2.11.12).

Data from the National Deaths in Custody Program show that between 2000 and 2013:

- Deaths in prison custody decreased by 74% for Indigenous Australians, from 3.4 deaths per 1,000 to 1.1 deaths per 1,000. The rate difference decreased by 433% (Table 2.11.23).

## 2.12 Child protection

### What is measured and why it is important

This measure reports on the number and rate of children who were: the subject of a substantiated notification; on care and protection orders; and in out-of-home care.

Child protection services receive and assess allegations of child abuse and neglect, and/or harm to children and young people; provide and refer clients to family support and other relevant services; and intervene to protect children (AIHW 2014i). Aboriginal and Torres Strait Islander children are over-represented in the child protection system. The reasons for this are complex, and include the intergenerational effects of separation from family and culture, and the relative socioeconomic disadvantage of Indigenous Australians (HREOC 1997; Stanley et al. 2003).

Tables referenced are available from <http://www.aihw.gov.au/indigenous-data/health-performance-framework/>.

### Key findings for Victoria

All data cited in this measure are drawn from the AIHW Child Protection Collection.

#### Substantiated notifications

In 2012–13 in Victoria:

- There were a total of 1,067 Indigenous children with substantiated notifications, a rate of 52 per 1,000, which was 7 times as high as the rate for non-Indigenous children (7 per 1,000) (Table 2.12.2, Figure 2.12.1).
- The rate for Indigenous children in Victoria was higher than the national rate of 38 per 1,000 Indigenous children.
- The gap between Indigenous and non-Indigenous children with substantiated notifications (calculated as Indigenous rate minus non-Indigenous rate) was 45 per 1,000 (Table 2.12.3).
- The largest number of children were in the age group 1–4 years.
- Emotional abuse was the most common type of substantiated notification for Indigenous children, accounting for 61% of notifications. In comparison, 34% of substantiated notifications across Australia were for emotional abuse (Table 2.12.4).

#### Trend

From 2008–09 to 2012–13 in Victoria:

- The rate of substantiated notifications for Indigenous children increased from 35 per 1,000 in 2008–09 to 52 per 1,000 in 2012–13 (a 55% increase), leading to a widening of the gap (Table 2.12.5, Figure 2.12.2).



## Care and protection orders

At 30 June 2013 in Victoria:

- There were 1,283 Indigenous children on care and protection orders, a rate of 62 children per 1,000, which was 12 times as high as the rate for non-Indigenous children (5 per 1,000) (Table 2.12.7, Figure 2.12.1).
- The rate for Indigenous children in Victoria was higher than the national rate (50 per 1,000).
- The gap between Indigenous and non-Indigenous children on care and protection orders (calculated as Indigenous rate minus non-Indigenous rate) was 57 per 1,000.
- The largest proportion of children on care and protection orders was aged 5–9 years (Table 2.12.6).
- Of the orders for Indigenous children, 26% lasted 1 to 2 years (Table 2.12.9).
- Finalised guardianship or custody orders were the most common orders (71% of all Indigenous children on a care and protection order) (Table 2.12.8).

## Trend

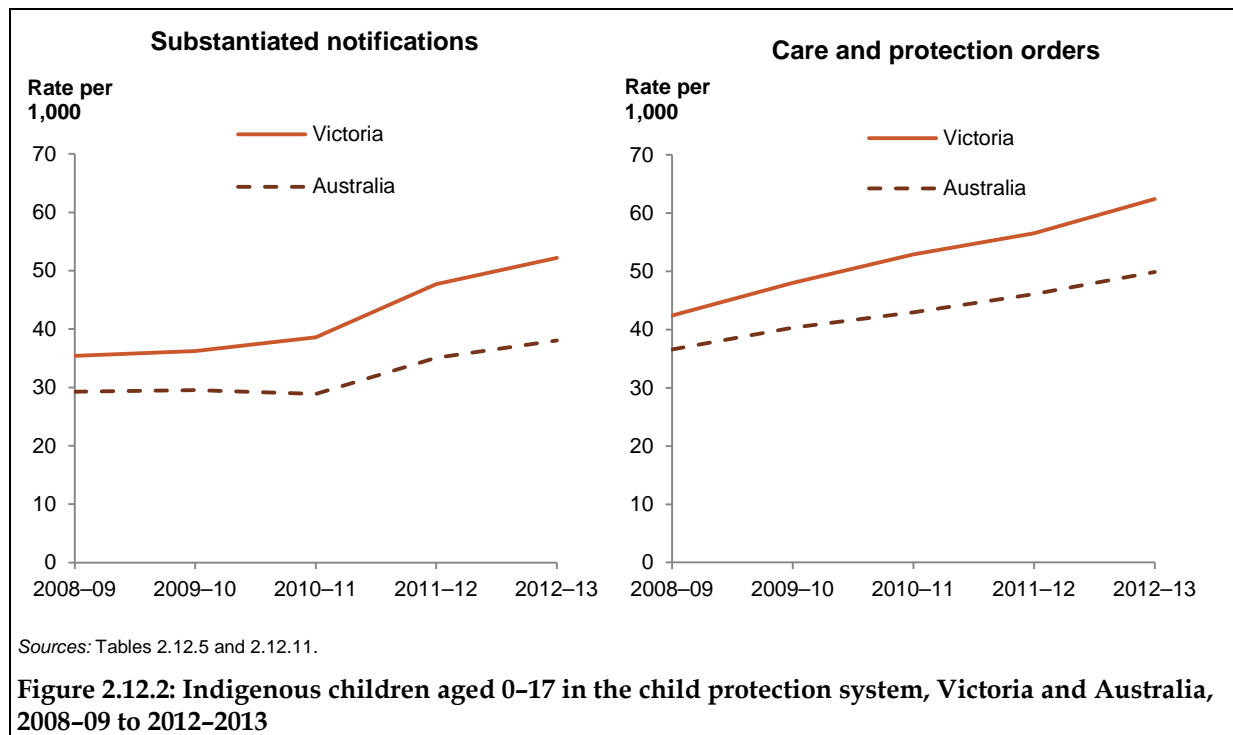
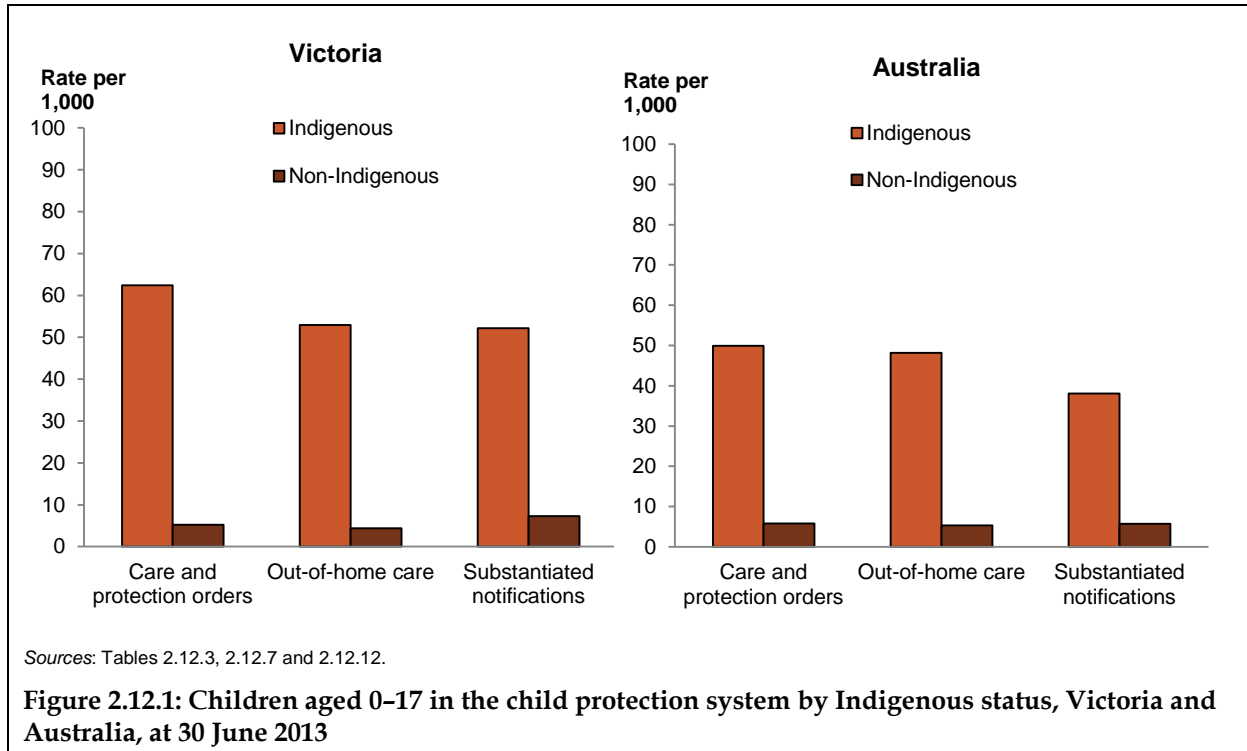
From 2009 to 2013 in Victoria

- The rate of Indigenous children on care and protection orders increased from 42 per 1,000 at 30 June 2009 to 62 per 1,000 at 30 June 2013 (a 46% increase).
- In the same period, the rate of non-Indigenous children on care and protection orders also increased from 4 per 1,000 to 5 per 1,000, leading to a widening of the gap (Table 2.12.10, Figure 2.12.2).

## Out-of-home care

At 30 June 2013 in Victoria:

- The number of Indigenous children in out-of-home care was 1,083, a rate of 53 children per 1,000, which was 12 times as high as the rate for non-Indigenous children (4 per 1,000) (Table 2.12.12, Figure 2.12.1).
- The rate for Indigenous children in Victoria was higher than the national rate (48 per 1,000).
- The gap between Indigenous and non-Indigenous children in out-of-home care was 49 per 1,000 (Table 2.12.12).
- 49% of Indigenous children were not placed with relatives or kin, with other Indigenous caregivers, or in Indigenous residential care (Table 2.12.12).



## Key findings for Australia

All data cited in this measure are drawn from the AIHW Child Protection Collection.

### Substantiated notifications

- In 2012–13, 38 per 1,000 Indigenous children aged 0–17 were the subject of substantiated notifications (10,991 Indigenous children) compared to 6 non-Indigenous children per 1,000 (Table 2.12.3).
- The rate of Indigenous children with substantiated notifications increased from 29 per 1,000 in 2008–09 to 38 per 1,000 in 2012–13, a 34% increase over the period. The rate for non-Indigenous children increased slightly but at a slower rate than for Indigenous children, leading to a widening of the gap (Table 2.12.1).

### Care and protection orders

- At 30 June 2013, 50 per 1,000 Indigenous children aged 0–17 were on care and protection orders (14,455 Indigenous children) compared to 6 non-Indigenous children per 1,000 (Table 2.12.7).
- The rate of Indigenous children on care and protection orders increased from 37 per 1,000 in at 30 June 2009 to 50 per 1,000 at 30 June 2013, a 35% increase over the period. The rate for non-Indigenous children increased by 8%, leading to a widening of the gap (Table 2.12.1).

### Out-of-home care

- At 30 June 2013, there were 48 per 1,000 Indigenous children in out-of-home care (13,952 Indigenous children), compared to 5 non-Indigenous children per 1,000 (Table 2.12.1).
- The rate of Indigenous children in out-of-home care increased from 37 per 1,000 at 30 June 2009 to 48 per 1,000 at 30 June 2013, a 29% increase over the period. The rate for non-Indigenous children increased by 9%, leading to a widening of the gap (Table 2.12.1).

## 2.13 Transport

### What is measured and why it is important

Data are presented on the use of transport, including walking, access to motor vehicles and perceived difficulty with transport among Aboriginal and Torres Strait Islander people.

Indigenous Australians face various barriers to accessing appropriate health care including logistics, cost, and reliability of transport options. These challenges have a broader effect on social and economic circumstances of health consumers who need to travel significant distances while unwell, along with carers who support attendance at services for antenatal care, young children, people with disability, or people suffering from chronic health conditions, mental health or substance-use issues (Lee et al. 2014). Limited or no public transport options affect the capacity to access specialist health care, particularly for patients with chronic health conditions (Teng et al. 2014) or requiring birthing services (Parker et al. 2014) in rural and remote areas (Kelly et al. 2014).

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### Key findings for Victoria

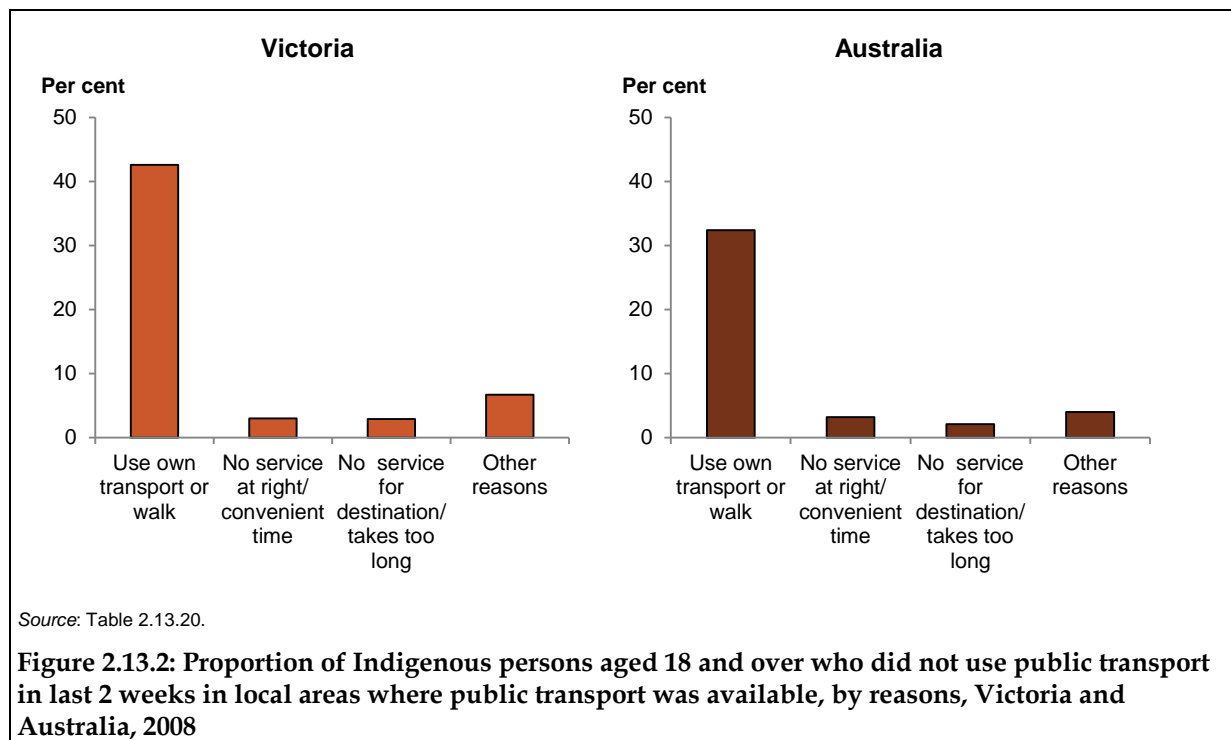
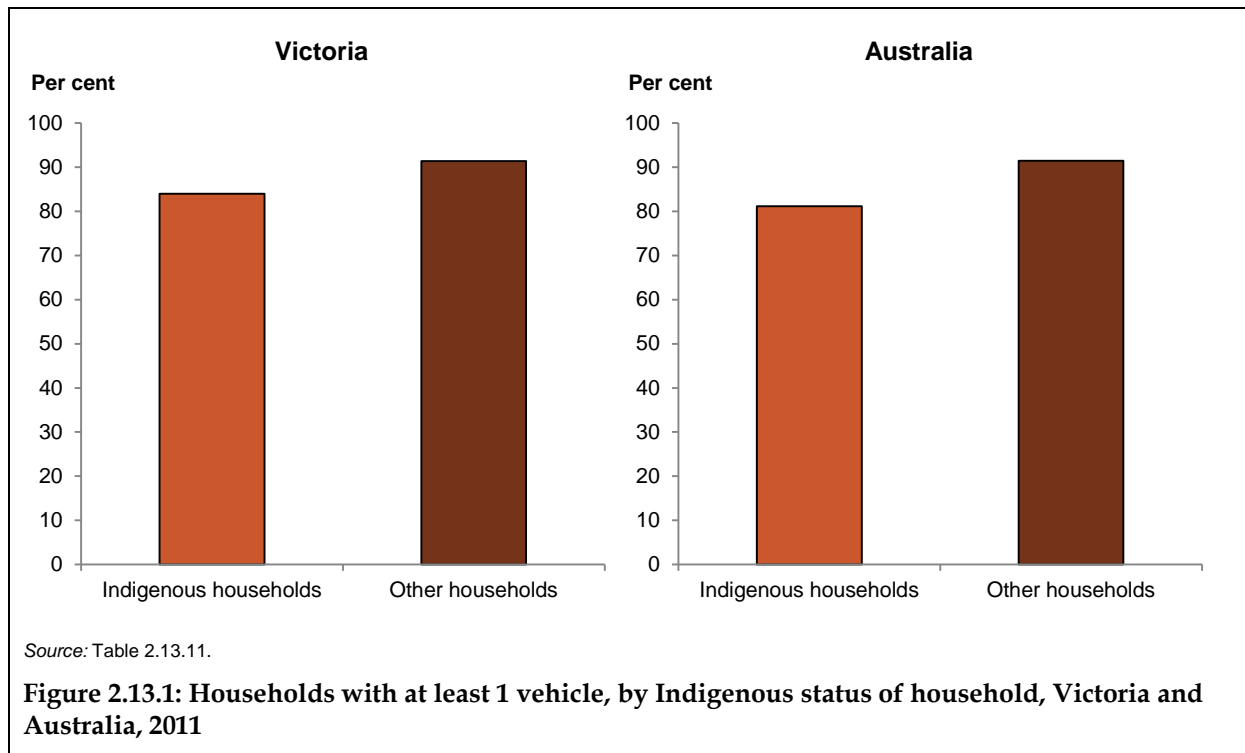
Data from the Census of Population and Housing show that in 2011 in Victoria:

- There was a difference of 7 percentage points between Indigenous and other households in the proportion with at least 1 vehicle (84% of Indigenous households compared with 91% of other households). This was smaller than the gap of 10 percentage points nationally (81% compared with 91%) (Table 2.13.11, Figure 2.13.1).
- The ratio of persons aged 17 and over to vehicles was 1.3 among Indigenous households, compared with 1.2 among other households (Table 2.13.11).

In the 2008 NATSISS, in Victoria:

- In areas where public transport was available, the leading reason that Indigenous Australians aged 18 and over chose not to use public transport was because they preferred to use their own transport or walk (43%). This was also the leading reason nationally (32%) (Table 2.13.20, Figure 2.13.2).
- Among Indigenous Australians aged 18 and over, 36% used public transport in the last 2 weeks, compared with 26% nationally (Table 2.13.21).







## Key findings for Australia

In the 2012–13 AATSIHS:

- 16% of Indigenous Australians who needed to see a health provider did not due to transport/ distance. This proportion was significantly higher among those in *Remote* than *non-remote* areas (22% and 15%, respectively), and among females than males (18% and 13%, respectively) (Table 2.13.1).

According to the 2011 Census of Population and Housing:

- 81% of Indigenous households had at least one vehicle compared with 91% of other households – a gap of 10 percentage points (Table 2.13.11)

In the 2008 NATSISS:

- The proportion of Indigenous Australians who could not, or often could not, get to places due to difficulty with transport (11%) was 2.6 times as high as that for non-Indigenous Australians (4%) (Table 2.13.2).
- Where public transport was available in the local area, the leading reason that public transport was not used was because they preferred to use their own transport or walk (32%). About 32% did not have access to public transport in the local area (Table 2.13.18).

### Trend

According to the Census of Population and Housing, between 2001 and 2011:

- The ratio of persons aged 17 and over per motor vehicle for Indigenous households were consistently higher than that of other households at each Census since 2001.
- The ratio of persons aged 17 and over to vehicles increased for both Indigenous and other households (from 1.29 to 1.44 for Indigenous households, and from 1.07 to 1.16 for other households) (Table 2.13.17).



## 2.14 Indigenous people with access to their traditional lands

### What is measured and why it is important

This measure reports on the proportion of Aboriginal and Torres Strait Islander people living on or visiting traditional areas of land with which they have ancestral and/or cultural links.

Connection to family and community, land and sea, culture and identity has been identified as integral to health from an Aboriginal perspective (NAHSWP 1989). As stated by Anderson (1996:15):

Our identity as human beings remains tied to our land, to our cultural practices, our systems of authority and social control, our intellectual traditions, our concepts of spirituality, and to our systems of resources ownership and exchange. Destroy this relationship and you damage – sometimes irrevocably – individual human beings and their health.

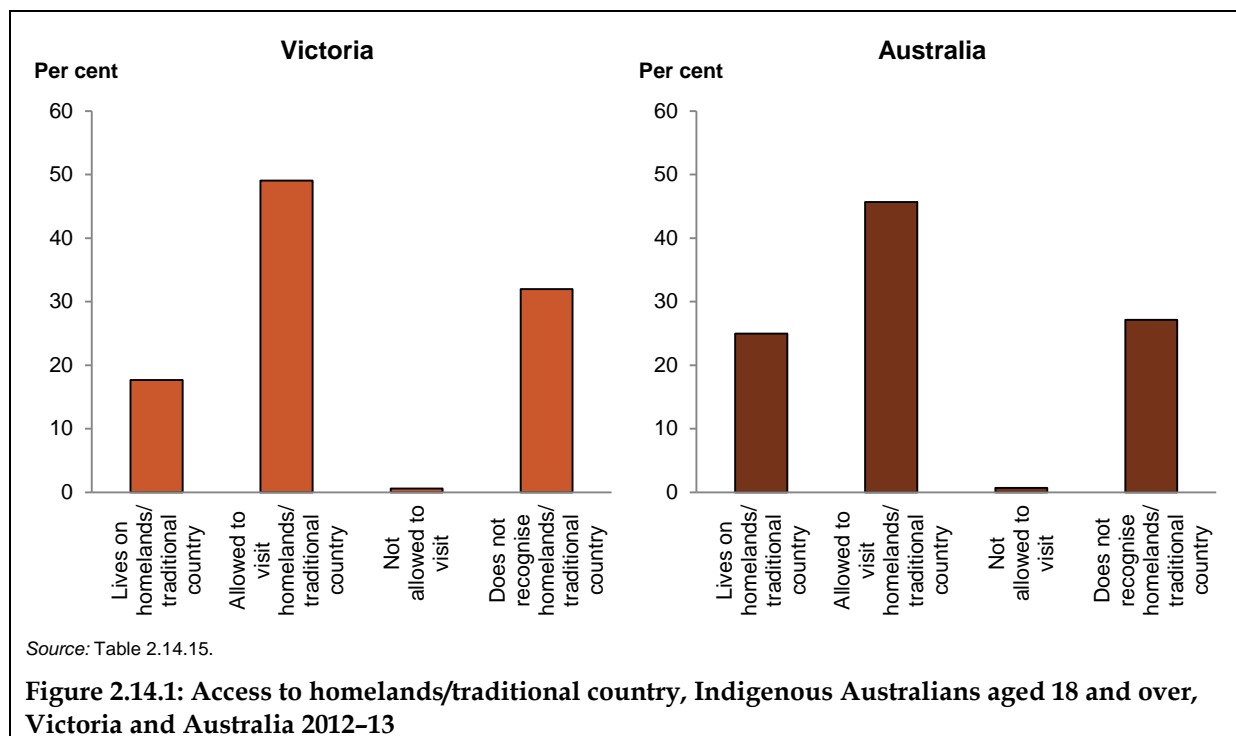
Access to traditional lands is not only a determinant of health in remote contexts where Indigenous Australians are more likely to have ownership and control over their Country; it is also a determinant of health for those living in *Non-remote* and *urban* areas. Research in Victoria has highlighted the role of Country in strengthening self-esteem, self-worth, pride, cultural and spiritual connection and positive states of wellbeing (Kingsley et al. 2013).

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### Key findings for Victoria

According to the 2012–13 AATSIHS:

- 18% of Indigenous Australians aged 18 and over live on their homelands/traditional country.
- 49% of Indigenous Australians are allowed to visit their traditional country.
- 32% of Indigenous Australians do not recognise homelands/traditional country (Table 2.14.15, Figure 2.14.1).



## Key findings for Australia

### Living on or access to homelands

In the 2012-13 AATSIHS:

- An estimated 73% of Indigenous Australian adults reported that they recognised their homeland or traditional country.
- An estimated 25% lived on their homelands, 46% did not live on homelands but were allowed to visit and less than 1% were not allowed to visit their homelands/traditional country (Table 2.14.1).
- Those who lived in *Remote* areas were more likely to live on homelands/traditional country (46%) than those in *Non-remote* areas (19%) (Table 2.14.2).

### Trend

According to the AATSIHS and previous surveys:

- In 2002, 70% of Indigenous Australians aged 15 and over recognised their homelands/traditional country. The proportion was 71% in 2008 and 73% in 2012-13 (Table 2.14.1).



## Relationships between access to land and other factors

In the 2012–13 AATSIHS:

- Indigenous Australian adults who lived on homelands/traditional country were more likely to have no current long-term health condition compared with those who did not recognise homelands (23% and 15%, respectively).
- Indigenous Australian adults who lived on homelands/traditional country were less likely to report having a profound, severe or moderate core-activity limitation (11% compared with 14%), and less likely to report having a high/very high level of psychological distress (25% compared with 29%), than those who did not recognise homelands/traditional country (Table 2.14.8).
- Indigenous Australian adults who lived on homelands/traditional country were more likely to have abstained from alcohol in the last 12 months than those who did not recognise homeland/country (30% compared with 17%). There was also less likely to have consumed 5 or more standard drinks on any day over the last 12 months (55% compared with 61%) (Table 2.14.5).
- Indigenous Australian adults that recognised homelands/traditional country were less likely to report no family stressors in the last 12 months (22%) than those that did not recognise homelands/traditional country (32%) (Table 2.14.9).
- Indigenous Australians who recognised homelands/traditional country were more likely than those who do not recognise homelands/traditional country to report having had community safety related stressors in the last 12 months (38% compared with 29%); the death of a family member or close friend (42% compared with 25%); and having overcrowding at home (11% compared with 7%) (Table 2.14.9).

## 2.15 Tobacco use

### What is measured and why it is important

This measure reports on the proportion of Indigenous Australians who are current regular smokers.

Tobacco is one of the leading contributors to the burden of disease among Aboriginal and Torres Strait Islander people. Tobacco has been estimated to contribute 12% of the burden and 17% of the gap in health outcomes between Indigenous and non-Indigenous Australians (Vos et al. 2009).

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### Key findings for Victoria

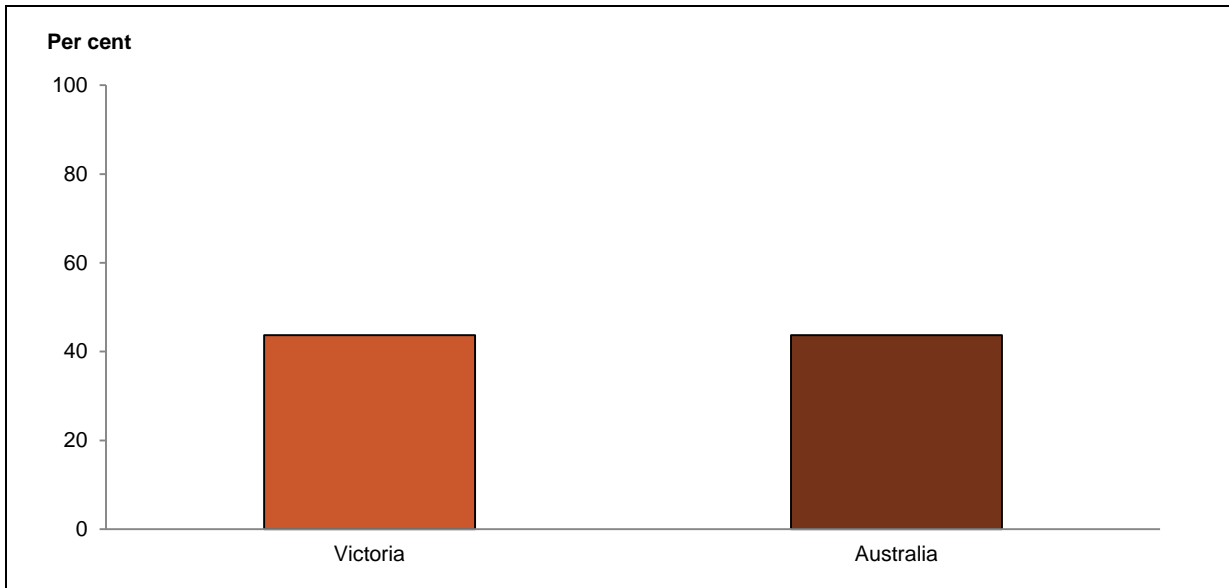
In the 2012–13 AATSIHS:

- An estimated 44% of Indigenous Australians aged 15 and over in Victoria reported being a current smoker, compared with 44% nationally (Table 2.15.1, Figure 2.15.1).

### Trend

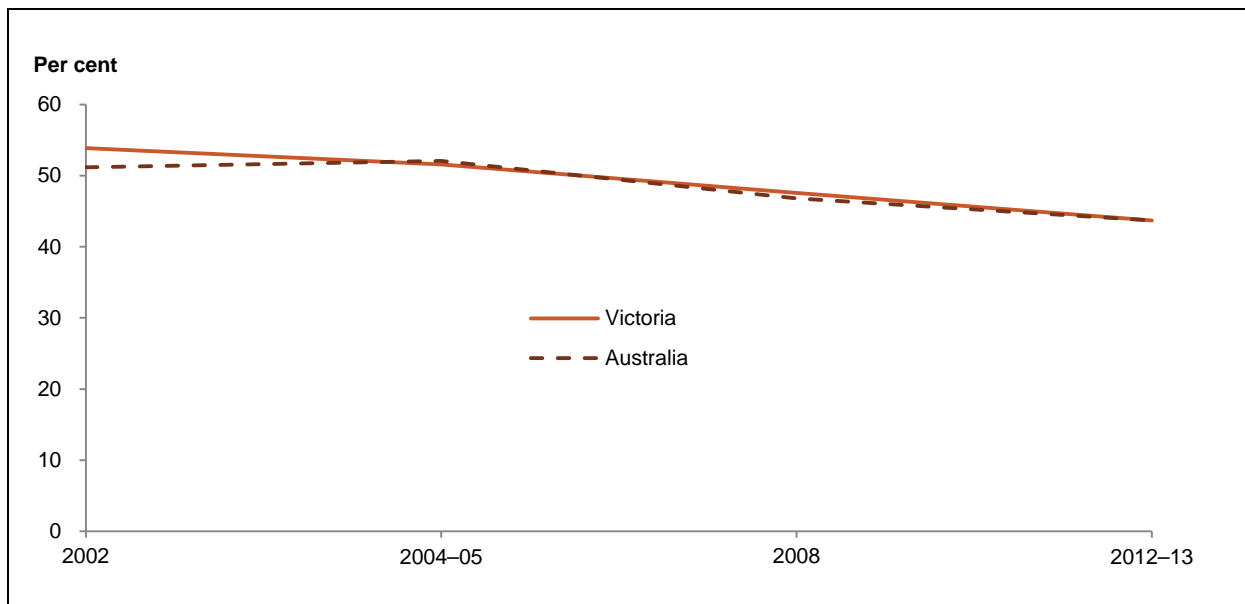
According to the AATSIHS and previous surveys, between 2002 and 2012–13 in Victoria:

- Current smoking rates declined significantly by 10 percentage points from 54% in 2002 to 44% in 2012–13 for Indigenous Australians aged 15 and over. This compares with a 7 percentage point decrease from 51% to 44% for Indigenous Australians aged 15 and over at the national level (Table 2.15.1, Figure 2.15.2).



Source: Table 2.15.1.

**Figure 2.15.1: Proportion of current smokers, Indigenous Australians aged 15 and over, Victoria and Australia, 2012-13**



Source: Table 2.15.1.

**Figure 2.15.2: Proportion of current smokers, Indigenous Australians aged 15 and over, Victoria and Australia, 2002 to 2012-13**



## Key findings for Australia

In the 2012–13 AATSIHS:

- An estimated 44% of Indigenous Australians aged 15 and over reported being a current smoker. After adjusting for age, Indigenous Australians aged 15 and over were 2.5 times as likely to smoke as non-Indigenous Australians. The gap was 25 percentage points.
- Smoking rates for Indigenous Australians were highest in the 25–34 age group (54%) and lowest among those aged 15–17 (19%). For non-Indigenous Australians, smoking rates were also highest among those aged 25–34 (23%) and lowest among those aged 15–17 (5%). This was a gap of 32 percentage points for those aged 25–34 and 14 percentage points for those aged 15–17 (ABS 4727.0.55.006 Table 10.3).
- High blood cotinine levels, which can indicate smoking or exposure to tobacco (for example, second-hand smoke) were found in 95% of Indigenous reported current smokers aged 18 and over, 14% of ex-smokers and 6% of those who had never smoked (ABS 4727.0.55.003 Table 5.3).
- Indigenous Australians aged 15 and over were significantly more likely to report being a non-smoker if they were employed (62%) than unemployed (42%), had completed Year 12 (70%) than not (53%), or had an excellent/very good/good self-assessed health status (58%) than fair/poor (51%) (Table 2.15.3).
- Indigenous Australians aged 15 and over living in *Non-remote* areas were less likely to be a current smoker than those living in *Remote* areas (41% compared with 53%) (ABS 4727.0.55.006 Table 11.3).

### Trend

Data from the AATSIHS and previous surveys show that between 2002 and 2012–13:

- Current smoking rates for Indigenous Australians aged 15 and over declined significantly by 7 percentage points from 51% to 44% (Table 2.15.1).
- The proportion of Indigenous Australians aged 15 and over who reported being a current smoker decreased from 50% to 41% in *Non-remote* areas and remained stable at 53% in *Remote* areas (4727.0.55.006 Table 11.3).

## 2.16 Risky alcohol consumption

### What is measured and why it is important

This measure reports on the proportion of Aboriginal and Torres Strait Islander people who consume alcohol at risky or high-risk levels.

Excessive consumption of alcohol is associated with health and social problems in most populations. Long-term excessive alcohol consumption is a major risk factor for conditions such as liver disease, pancreatitis, heart disease, stroke, diabetes, obesity and cancer (AHMAC 2015). It is also linked to social and emotional wellbeing, mental health and other drug issues (NHMRC 2009). Where mothers have consumed alcohol during pregnancy, babies may be born with fetal alcohol spectrum disorders (FASD) (TifCH 2009).

Binge drinking contributes to injuries and death due to suicide, transport accidents, violence, burns and falls. For the general population, one-third of suicides for men and women and one-third of motor vehicle deaths for men have been linked to alcohol consumption. Alcohol abuse can also affect families and communities. It has the potential to lead to antisocial behaviour, violence, assault, imprisonment and family breakdown (NHMRC 2009).

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

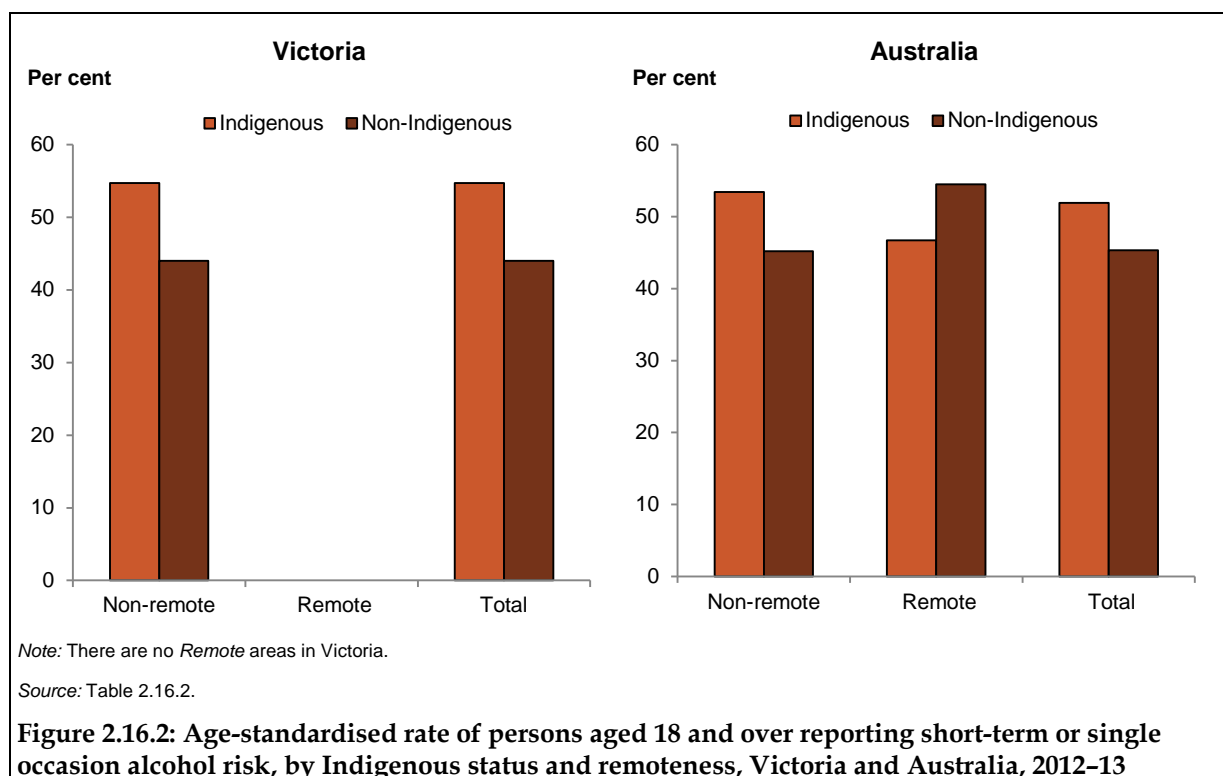
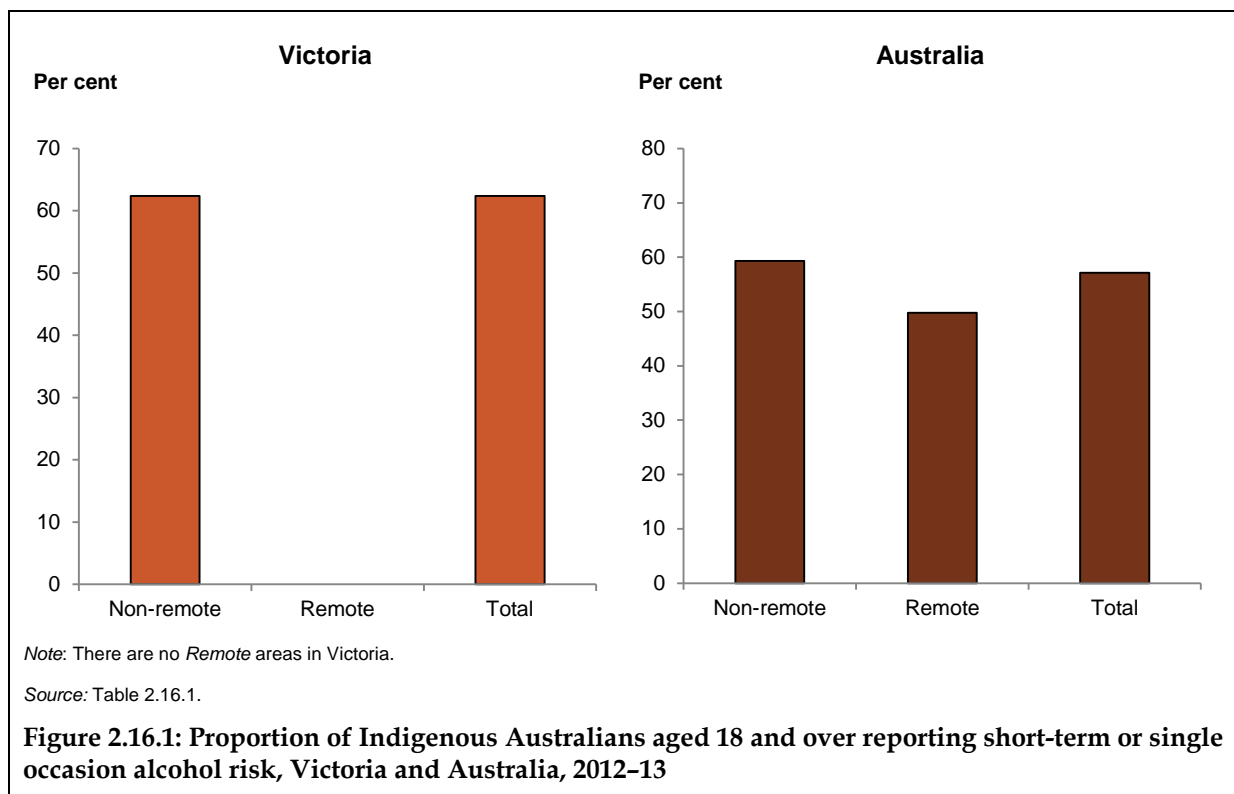
### Key findings for Victoria

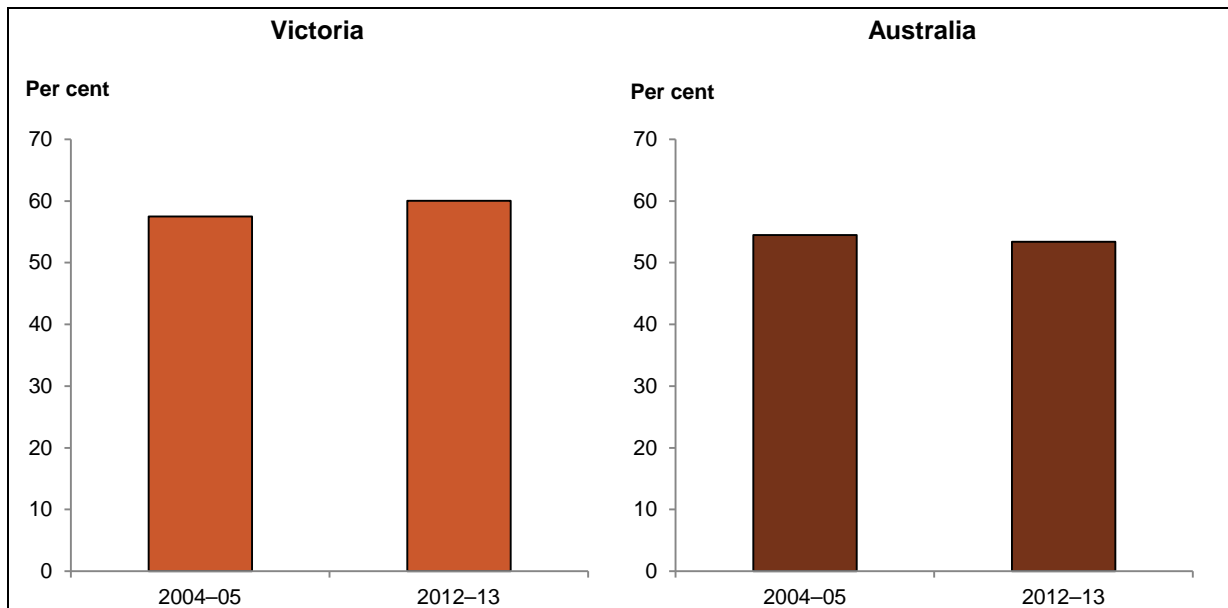
According to the AATSIHS, in 2012–13 in Victoria:

- An estimated 59% of Indigenous Australians aged 15 and over reported short-term or single occasion risky drinking, compared with 54% nationally (ABS 4727.0.55.001: Table 3.3).
- An estimated 19% of Indigenous Australians aged 15 and over drank at rates that exceeded the 2009 NHMRC lifetime risk guidelines, compared with 18% nationally (ABS 4727.0.55.001: Table 3.3).
- An estimated 40% of Indigenous Australians aged 18 and over reported short-term or single occasion risky drinking (consuming 5 or more standard drinks on at least 1 occasion in the previous 12 months) (Table 2.16.1, Figure 2.16.1).
- After adjusting for differences in age structure, the rate of Indigenous Australians aged 18 and over who engaged in short-term or single occasion risky drinking was 1.2 times as high as for non-Indigenous Australians, compared with 1.1 times nationally (Table 2.16.2).
- In *Non-remote* areas, an estimated 55% of Indigenous Australians and 44% of non-Indigenous Australians aged 18 and over reported short-term or single occasion risky drinking. (Table 2.16.2, Figure 2.16.2).

### Trend

- Data from the AATSIHS and previous surveys suggest that there was no significant change in the rate of short-term risky or high-risk alcohol consumption for Indigenous Australians aged 18 and over between 2004–05 and 2012–13 (Table 2.16.7, Figure 2.16.3).





Source: Table 2.16.7.

**Figure 2.16.3: Indigenous Australians aged 18 and over reporting short-term risky or high-risk alcohol consumption, Victoria and Australia, 2004-05 and 2012-13**

## Key findings for Australia

In the 2012-13 AATSIHS:

- An estimated 54% of Indigenous Australians aged 15 and over reported short-term or single-occasion risky drinking (consuming 5 or more standard drinks on at least 1 occasion in the previous 12 months) – 1.1 times the rate for non-Indigenous Australians (Table 2.16.9; ABS 4727.0.55.001 Table 14.3).
- An estimated 26% of Indigenous Australians aged 15 and over reported abstaining from alcohol in the last 12 months – 1.6 times the non-Indigenous rate (Table 2.16.3; ABS 4727.0.55.001 Table 14.3).
- An estimated 18% of Indigenous Australians aged 15 and over drank at rates that exceeded the 2009 NHMRC lifetime risk guidelines, similar to the rate for non-Indigenous Australians (ABS 4727.0.55.001 Table 13.3).

According to the National Mortality Database, over the period 2008-2012, in New South Wales, Queensland, Western Australia, South Australia and the Northern Territory combined:

- The alcohol-related mortality rate for Indigenous Australians was 20 per 100,000 – 5 times the rate for non-Indigenous Australians. The gap was 16 per 100,000 (Table 2.16.10).

Data from the National Hospital Morbidity Database show that in the period 2011-12 to 2012-13:

- There were 9,995 hospitalisations of Indigenous Australians with a principal diagnosis related to alcohol use. After adjusting for age, the rate was 9 per 1,000, 4.1 times the rate for non-Indigenous Australian rate. The rate difference was 7 per 1,000 (Table 2.16.11).



## Trend

Data from the AATSIHS and previous surveys suggest that:

- Between 2004–05 and 2012–13, there was no significant change in the rate of short-term risky/high-risk alcohol consumption for Indigenous Australians aged 18 and over in *Non-remote* areas, *Remote* areas, or Australia (Table 2.16.7).
- Between 2001 and 2012–13, there was no significant change in lifetime risky drinking for Indigenous Australians aged 18 and over (ABS 4727.0.55.001 Table 1.3).

According to the National Mortality Database:

- Between 2003–07 and 2008–12, after adjusting for differences in the age structure between the 2 populations, the alcohol-related mortality rate among Indigenous Australians fell from 28 deaths per 100,000 to 22 deaths per 100,000. The gap between Indigenous Australians and non-Indigenous Australians narrowed (SCRGSP 2014a).

According to the National Hospital Morbidity Database, between 2004–05 and 2012–13:

- The rate of hospitalisation for diagnoses related to alcohol use for Indigenous Australians increased by 37%, at a rate of 0.3 per 1,000 per year. The rate for non-Indigenous Australians also increased, but at a slower rate of 0.1 per 1,000 per year, leading to an increase in the rate difference of 44% (Table 2.16.14).

Between 1998–99 and 2012–13:

- The rate of hospitalisations for diagnoses related to alcohol use for Indigenous Australians increased by 52%, at a rate of 0.2 per 1,000 per year. The rate for non-Indigenous Australians also increased, but at a slower rate of 0.1 per 1,000 per year, leading to an increase in the rate difference of 43% (Table 2.16.13).

## 2.17 Drug and other substance use including inhalants

### What is measured and why it is important

This measure reports on the use of drugs and other substances, including inhalants, among Aboriginal and Torres Strait Islander people.

Drug and other substance use is a contributing factor to illness and disease, accident and injury, violence and crime, family and social disruption and workplace problems (SCRGSP 2014b). Estimates of the burden of disease and injury in Aboriginal and Torres Strait Islander peoples attribute 3.4% of the total burden to illicit drug use (Vos et al. 2007).

Substance use is often associated with mental health problems (Catto & Thomson 2008) and has been found to be a factor in suicides (Robinson et al. 2011) and other medical conditions.

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

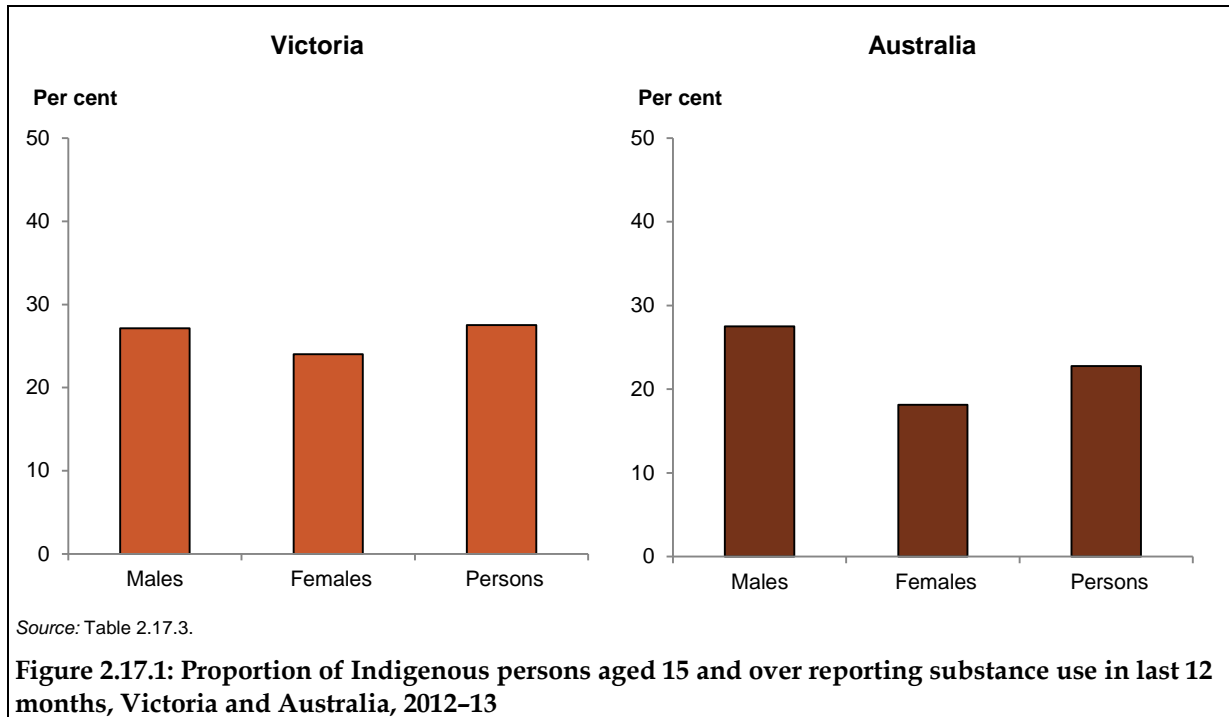
### Key findings for Victoria

According to the AATSIHS, in 2012–13 in Victoria:

- An estimated 28% of Aboriginal and Torres Strait Islander Australians aged 15 and over reported having used substances in the last 12 months. This compared with 23% nationally.
- Self-reported substance use in the last 12 months was more prevalent among Indigenous males than Indigenous females (27% compared with 24%) (Table 2.17.3, Figure 2.17.1).

Data from the NATSISS show that in 2008 in Victoria:

- An estimated 9% of mothers of Indigenous children aged 0–3 reported illicit drug or substance use during pregnancy. At the national level, this rate was lower at 5% (Table 2.17.17).



## Key findings for Australia

In the 2012-13 AATSIHS:

- An estimated 23% of Aboriginal and Torres Strait Islander Australians aged 15 and over reported using substances in the last 12 months. A similar proportion (23%) reported having used substances, but not in the last 12 months.
- The rate of substance use reported by Indigenous Australians aged 15 and over in the last 12 months in *Remote* areas was lower than in *Non-remote* areas (19% compared with 24%) (Table 2.17.1).
- The estimated proportion that reported using a substance in the last 12 months was higher for Indigenous males (28%) than Indigenous females (18%) (Table 2.17.3). The estimated proportion that reported ever having used substances was also higher for Indigenous males (53%) than Indigenous females (40%) (Table 2.17.4).

According to the National Drug Strategy Household Survey, in 2013:

- After adjusting for age differences between the 2 populations, Indigenous Australians aged 14 and over were 1.5 times as likely to report using substances in the last 12 months compared with non-Indigenous Australians (AIHW 2014n).

Data from the National Hospital Morbidity Database show that in 2011-12 to 2012-13:

- There were 6,926 hospitalisations of Indigenous Australians for drug use.
- Indigenous Australians were hospitalised due to drug use at a rate 2.5 times as high as non-Indigenous Australians. The rate difference was 3.2 per 1,000 (Table 2.17.10).





According to the Drug Use Monitoring in Australia survey, in 2013:

- The proportion of detainees who tested positive to at least 1 drug was higher for Indigenous detainees than non-Indigenous detainees in all sites surveyed (Table 2.17.14).

## **Trend**

Data from the AATSIHS and previous surveys suggest that between 2002 and 2012–13 in *Non-remote* areas:

- There was a decline in the proportion of Indigenous Australians who reported using substances in the last 12 months (from 26% to 24%).
- There was an increase in the proportion of Indigenous Australians who reported ever having used substances (from 44% to 49%) (Table 2.17.1).

## 2.18 Physical activity

### What is measured and why it is important

This measure reports on the proportions of the Aboriginal and Torres Strait Islander adult and child populations classified as having sedentary, low, moderate or high physical activity levels.

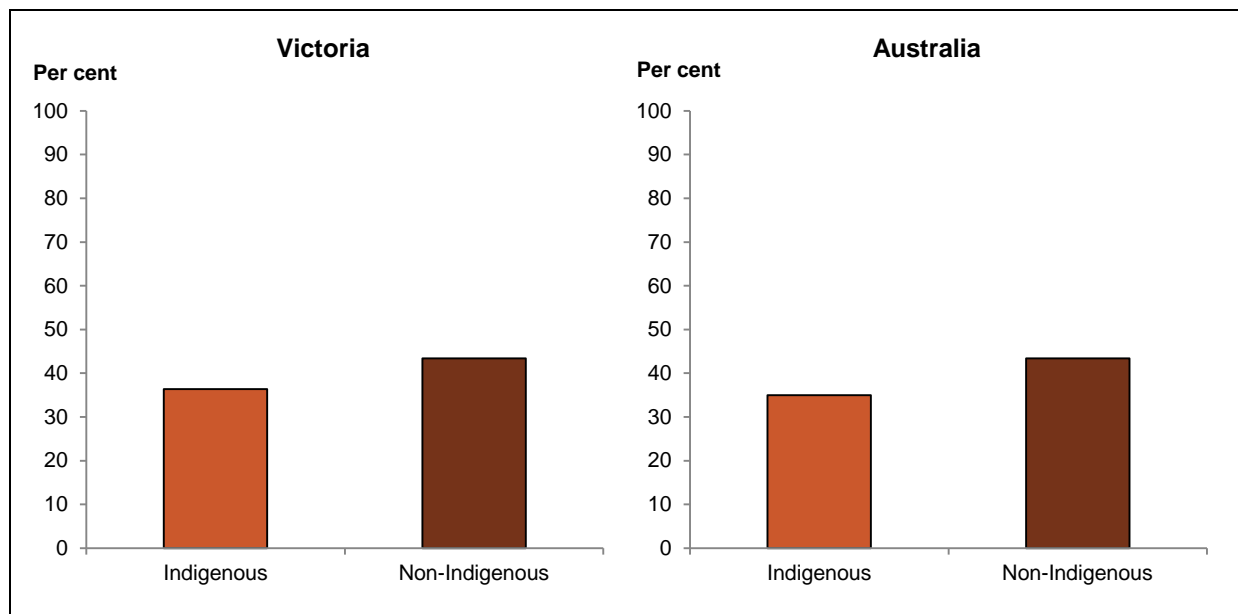
Physical activity can be defined as a bodily movement produced by the muscles resulting in energy expenditure, and can include organised or incidental activity (AIHW 2010a). Physical inactivity is an important modifiable risk factor associated with several potentially preventable chronic diseases that are prevalent in the Aboriginal and Torres Strait Islander population. These diseases include cardiovascular disease, cancer, stroke, hypertension and diabetes (AIHW 2012b; Gray et al. 2013; Wilmot et al. 2012).

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### Key findings for Victoria

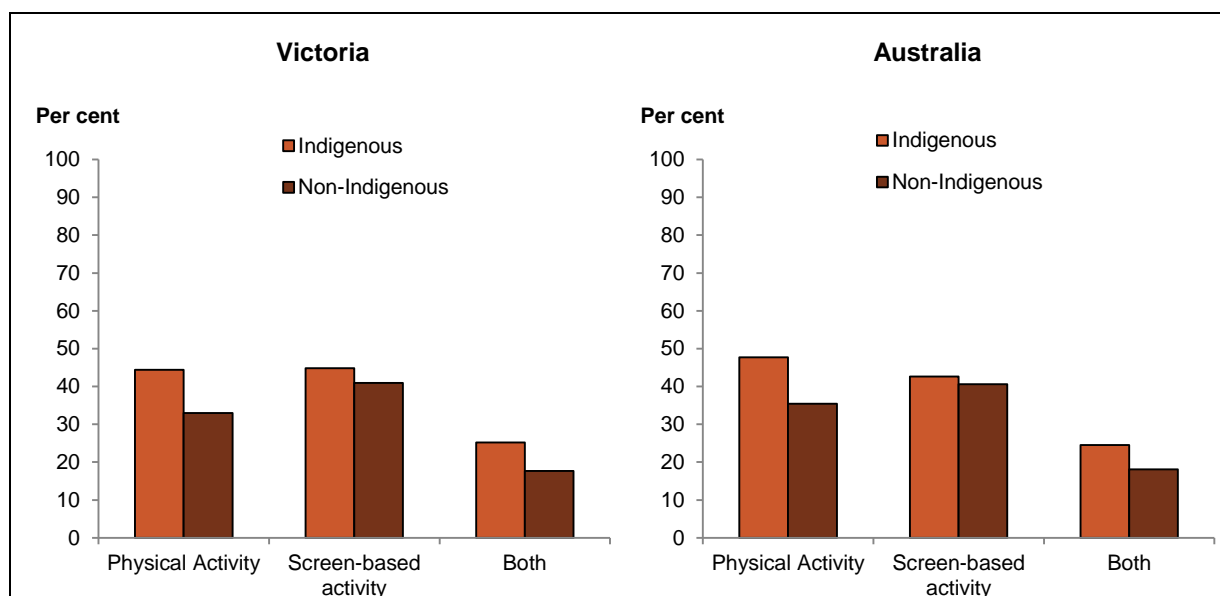
According to the AATSIHS, in the period 2012–13 in *Non-remote* areas of Victoria:

- 39% of Indigenous adults had undertaken a sufficient level of physical activity in the last week. (Note: This proportion had a margin of error greater than 10 percentage points which should be considered when using this information.) Nationally, the proportion was 38% of Indigenous adults (ABS 4727.0.55.004: Table 1.1).
- After adjusting for differences in age structure, Indigenous adults were less likely than non-Indigenous adults to have met sufficient activity levels in the last week (0.8 times). (Note: The Indigenous proportion had a margin of error greater than 10 percentage points which should be considered when using this information.) Nationally, the ratio was also 0.8 (ABS 4727.0.55.004: Table 1.4, Figure 1.18.1).
- 44% of Indigenous children aged 5–17 met the physical activity recommendation in all 3 days before interview, compared with 33% of non-Indigenous children, and 45% of Indigenous children aged 5–17 met the screen-based activity recommendation in all 3 days before interview, compared with 41% of non-Indigenous children (ABS 4727.0.55.004: Table 9.3, Figure 2.18.2).



Source: ABS 4727.0.55.004: Table 1.4.

**Figure 2.18.1: Age-standardised proportion of persons aged 18 and over in *Non-remote* areas with sufficient physical activity, by Indigenous status, Victoria and Australia, 2012-13**



Source: ABS 4727.0.55.004: Table 9.3.

**Figure 2.18.2: Proportion of children aged 5 to 17 who met physical and screen-based activity recommendations, by Indigenous status, Victoria and Australia, 2012-13**



## Key findings for Australia

Data from the AATSIHS show that in 2012–13 in *Non-remote* areas:

- 38% of Indigenous adults had undertaken a sufficient level of physical activity in the last week (ABS 4727.0.55.004: Table 1.1).
- After adjusting for age, the rate for Indigenous adults who met sufficient activity levels in the last week was 0.8 times that for non-Indigenous adults. The gap was 8 percentage points (ABS 4727.0.55.004: Table 1.4).
- An estimated 82% of Indigenous children aged 2–4 met the recommendation of at least 3 hours of physical activity per day, similar to 81% for non-Indigenous children aged 2–4 (ABS 4727.0.55.004: Table 16.3).
- An estimated 48% of Indigenous children aged 5–17 met the recommended physical activity guidelines, compared with 35% of non-Indigenous children aged 5–17 (ABS 4727.0.55.004: Table 9.3).
- After adjusting for age, on average, Indigenous adults spent more time walking for transport (1.7 times) and less time walking for fitness, recreation or sport than non-Indigenous adults (0.8 times). Indigenous adults also spent less time doing moderate (0.7 times) or vigorous physical activity (0.8 times) compared with non-Indigenous adults (ABS 4727.0.55.004: Table 4.1).

## 2.19 Dietary behaviour

### What is measured and why it is important

This measure reports on the dietary behaviour of Aboriginal and Torres Strait Islander people, including fruit and vegetable consumption, type of milk consumed and salt intake.

Many of the principal causes of ill health among Aboriginal and Torres Strait Islander people are nutrition-related diseases, such as heart disease, type 2 diabetes and renal disease. While a diet high in saturated fats and refined carbohydrates increases the likelihood of developing these diseases, regular exercise and intake of fibre-rich foods, such as fruit and vegetables, can have a protective effect against disease (Wang et al. 2014b). The National Health and Medical Research Council revised their Australian Dietary Guidelines in 2013. The guidelines specify recommendations for adequate minimum daily intake of fruit and vegetables according to age and sex (ABS 2014c; NHMRC 2013).

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

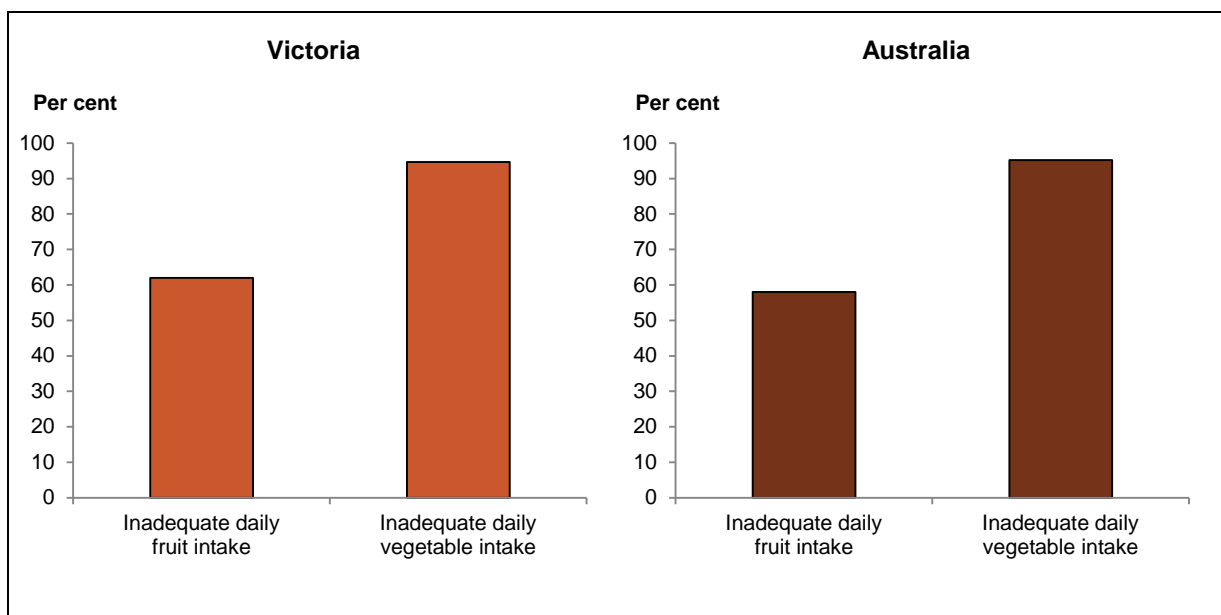
### Key findings for Victoria

In the 2012–13 AATSIHS, in Victoria, among Indigenous Australians:

- Of those aged 15 and over:
  - An estimated 62% reported inadequate daily fruit consumption according to the 2013 NHMRC guidelines. This was higher than the national proportion for Indigenous Australians (58%).
  - An estimated 95% reported inadequate daily vegetable consumption according to the 2013 NHMRC guidelines, which was similar to the national proportion for Indigenous Australians (95%) (ABS 4727.0.55.003: Table 3.3, Figure 2.19.1 Vic).
- Of those aged 12 and over:
  - An estimated 33% reported eating less than 1 serve of fruit a day in the past 12 months, which was higher than the national proportion for Indigenous Australians (27%) (Table 2.19.2).
  - An estimated 9% reported eating less than 1 serve of vegetables a day in the past 12 months, which was slightly higher than the national proportion for Indigenous Australians (9%) (Table 2.19.3).

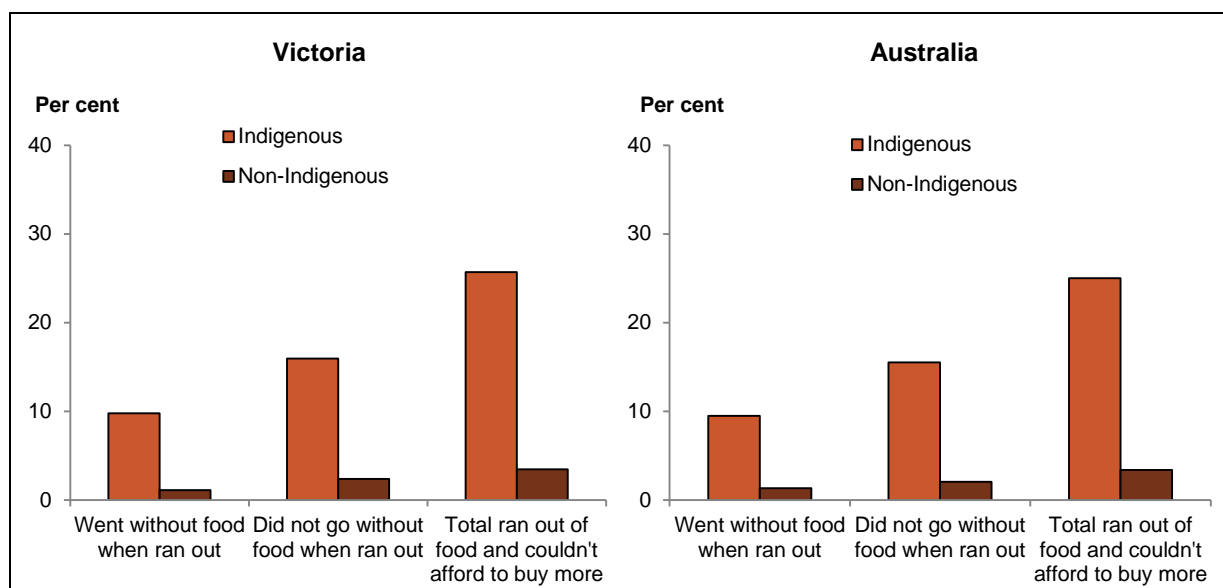
In the 2012–13 AATSIHS, among Indigenous Australians aged 15 and over in Victoria:

- 26% lived in households that ran out of food and could not afford to buy more in the last 12 months, compared with 3% of non-Indigenous Australians in Victoria. The gap was 23 percentage points. The proportion for Indigenous Australians in Victoria was higher than nationally (26% compared with 25%).
- 10% went without food when the household they lived in could not afford to buy more; this was similar to the national proportion for Indigenous Australians (10%) (Table 2.19.12, Figure 2.19.2).



Source: ABS 4727.0.55.006 Table 3.3.

**Figure 2.19.1: Inadequate daily fruit and vegetable intake among Indigenous Australians aged 15 and over in Non-remote areas (2013 NHMRC guidelines), Victoria and Australia, 2012-13**



Source: Table 2.19.12.

**Figure 2.19.2: Persons aged 15 or over living in households that ran out of food and could not afford to buy more in the last 12 months, by Indigenous status, Victoria and Australia, 2012-13**

## Key findings for Australia

In the 2012–13 AATSIHS:

- An estimated 15% of Indigenous Australians aged 2–14 and 3% of those aged 15 and over reported adequate daily fruit and vegetable intake, according to the 2013 NHMRC guidelines.
  - For those aged 15 and over, 42% had the recommended daily intake of fruit (2 serves) and 5% had the recommended daily intake of vegetables (5–6 serves).
  - For Indigenous children aged 2–14, 78% had the recommended fruit intake for this age group and 16% had the recommended vegetable intake (ABS 4727.0.55.006 Table 13.3).
- Indigenous Australians aged 12 and over were 1.4 times as likely as non-Indigenous Australians to report having less than 1 serve of fruit daily (27% and 19%, respectively) and 1.9 times as likely to report less than 1 serve of vegetables (9% and 5%, respectively) (Table 2.19.6).
- Indigenous Australians aged 18 and over in the lowest quintile of income were significantly more likely than Indigenous Australians in the 2 highest quintiles of household income to report less than 1 serve of fruit daily (30% compared with 27%) and less than 1 serve of vegetables daily (10% compared with 6%) (Table 2.19.11).
- Among Indigenous Australians aged 15 and over, those who were unemployed were significantly less likely to eat the recommended serves of fruit (39%) than those who were employed (43%) (Table 2.19.7).
- In the previous 12 months, Indigenous Australians aged 15 and over were 7 times as likely as non-Indigenous Australians to live in households that ran out of food and could not afford to buy more (25% of Indigenous Australians compared with 3% of non-Indigenous Australians) (Table 2.19.12).

## Trend

According to the AATSIHS and previous surveys, between 2004–05 and 2012–13, in *Non-remote* areas:

- There was a significant increase in the proportion of Indigenous Australians aged 15 and over with inadequate vegetable intake according to the 2013 NHMRC guidelines (from 92% in 2004–05 to 95% in 2012–13) but no difference in the proportion with inadequate fruit intake (both 59%) (ABS 4727.0.55.006 Table 1.3).



## 2.20 Breastfeeding practices

### What is measured and why it is important

This measure reports on the breastfeeding status of Aboriginal and Torres Strait Islander infants including: breastfeeding duration; breastfeeding and other sources of food; and reasons mothers stopped breastfeeding.

Breastfeeding is one of the most important health behaviours for the survival, growth, development and health of infants and young children. Early initiation (within the first hour after birth) and exclusive breastfeeding during the first month is associated with a reduced risk of neonatal morbidity and mortality (Khan et al. 2014).

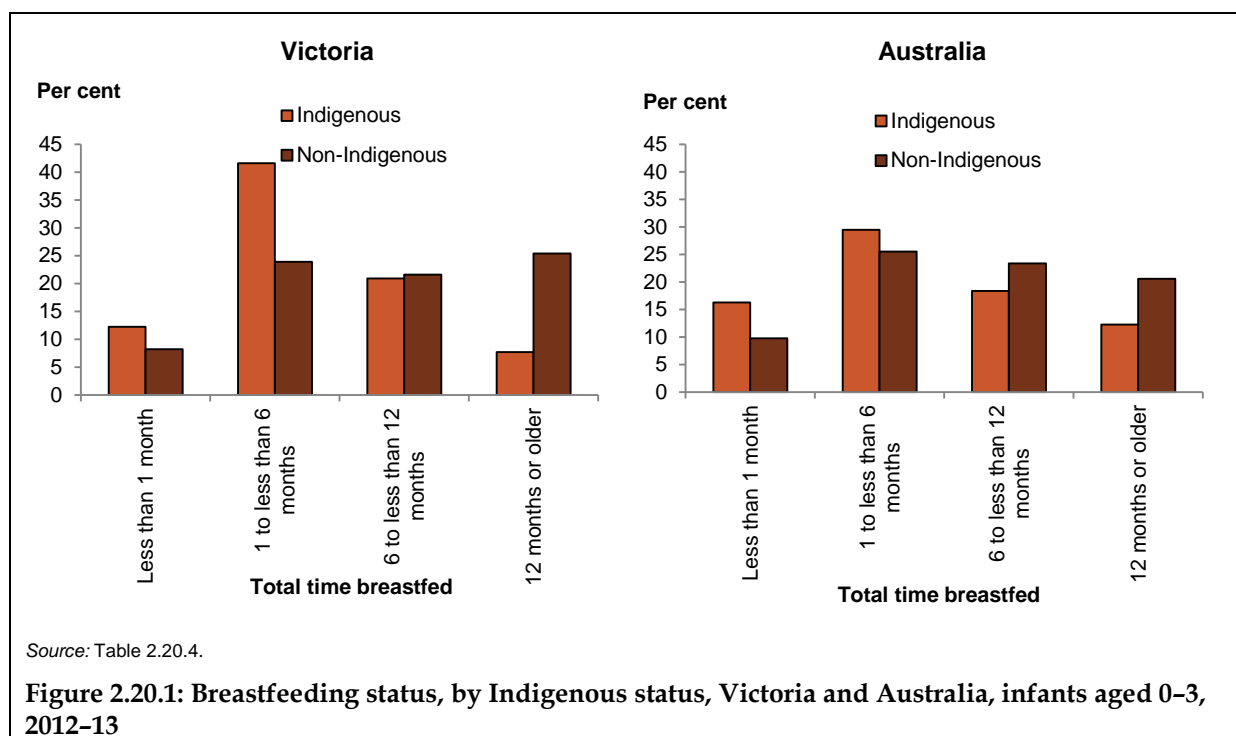
Breastfeeding offers protection against many conditions, including SIDS, diarrhoea, respiratory infections, middle ear infections and the development of diabetes in later life (Annamalay et al. 2012). Breastfeeding is associated with a lower risk of obesity later in childhood, and also provides health benefits for mothers including reduced risk of breast and ovarian cancer in premenopausal women (NHMRC 2012).

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### Key findings for Victoria

According to the AATSIHS, in 2012–13 in Victoria:

- 84% of Indigenous children aged 0–3 had been breastfed, compared with 93% of non-Indigenous children. Indigenous children nationally were slightly less likely than those in Victoria to have been breastfed (83%) (Table 2.20.4).
- Of children aged 0–3 in Victoria who had been breastfed:
  - Indigenous children were more likely than non-Indigenous children to be breastfed for a total time of less than 1 month (12% compared with 8%), compared with national proportions of 16% and 10% respectively.
  - Indigenous children were more likely than non-Indigenous children to be breastfed for a total time of 1–6 months (42% compared with 24%). This was similar nationally, where Indigenous children were more likely to be breastfed than non-Indigenous children (30% compared with 26%).
  - Indigenous children were less likely than non-Indigenous children to be breastfed for a total time of 6–12 months (21% compared with 22%). In comparison, national proportions were 18% and 23% respectively.
  - Indigenous children were less likely than non-Indigenous children to be breastfed for a total time of 12 months or more (8% compared with 25%). This was similar nationally, where Indigenous children were also less likely to be breastfed than non-Indigenous children (12% compared with 21%) (Table 2.20.4, Figure 2.20.1).



## Key findings for Australia

According to the 2012-13 AATSIHS:

- 83% of Indigenous children aged 0-3 had been breastfed, compared with 93% of non-Indigenous children. Indigenous children aged 0-3 were 2.3 times as likely as non-Indigenous infants to have never been breastfed (17% compared with 7%).
- Of children aged 0-3 who had been breastfed, Indigenous infants were more likely than non-Indigenous infants to have been breastfed for less than 1 month (16% compared with 10%, respectively). Indigenous infants were less likely than non-Indigenous infants to have been breastfed for 12 months or more (12% compared with 21%, respectively).
- Breastfeeding rates for Indigenous children aged 0-3 did not vary significantly by remoteness, with 82% in *Non-remote* areas and 84% in *Remote* areas having been breastfed (Table 2.20.1).

According to the Australian National Infant Feeding Survey, in 2010:

- Rates of exclusive breastfeeding were similar for Indigenous and non-Indigenous infants aged less than 1 month (59% and 61% respectively).
- As infants increased in age, the proportion of exclusive breastfeeding declined for both Indigenous and non-Indigenous children, but the decline occurred at earlier ages for Indigenous children. By the recommended age of up to 6 months, 7% of Indigenous infants were exclusively breastfed, compared with 16% of non-Indigenous infants – a gap of 8 percentage points (Table 2.20.7).

## 2.21 Health behaviours during pregnancy

### What is measured and why it is important

This measure reports on the use of tobacco, alcohol, illicit substances and other health issues during pregnancy.

Many lifestyle factors contribute to, and can have adverse effects on, the health and wellbeing of a woman and her baby during pregnancy, birth and beyond:

- Smoking tobacco increases the risk of complications such as miscarriage, ectopic pregnancy, placental abruption and gestational diabetes (England et al. 2004; Laws & Sullivan 2005) and is associated with low birthweight, fetal growth restriction, pre-term birth, congenital anomalies and perinatal death (Sullivan et al. 2006; World Health Organization et al. 2012).
- Drinking alcohol while pregnant may result in low birthweight, pre-term birth and perinatal death (Crane et al. 2011) and has been shown to result in fetal alcohol spectrum disorders (Fitzpatrick et al. 2012; France et al. 2010; National Health and Medical Research Council 2009).
- Use of drugs during pregnancy can involve health risks to the mother as well as significant obstetric, fetal and neonatal complications (Kulaga et al. 2009; Wallace et al. 2007).
- Nutrition before and during pregnancy is critical to fetal development (McDermott et al. 2009; Wen et al. 2010).

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### Key findings for Victoria

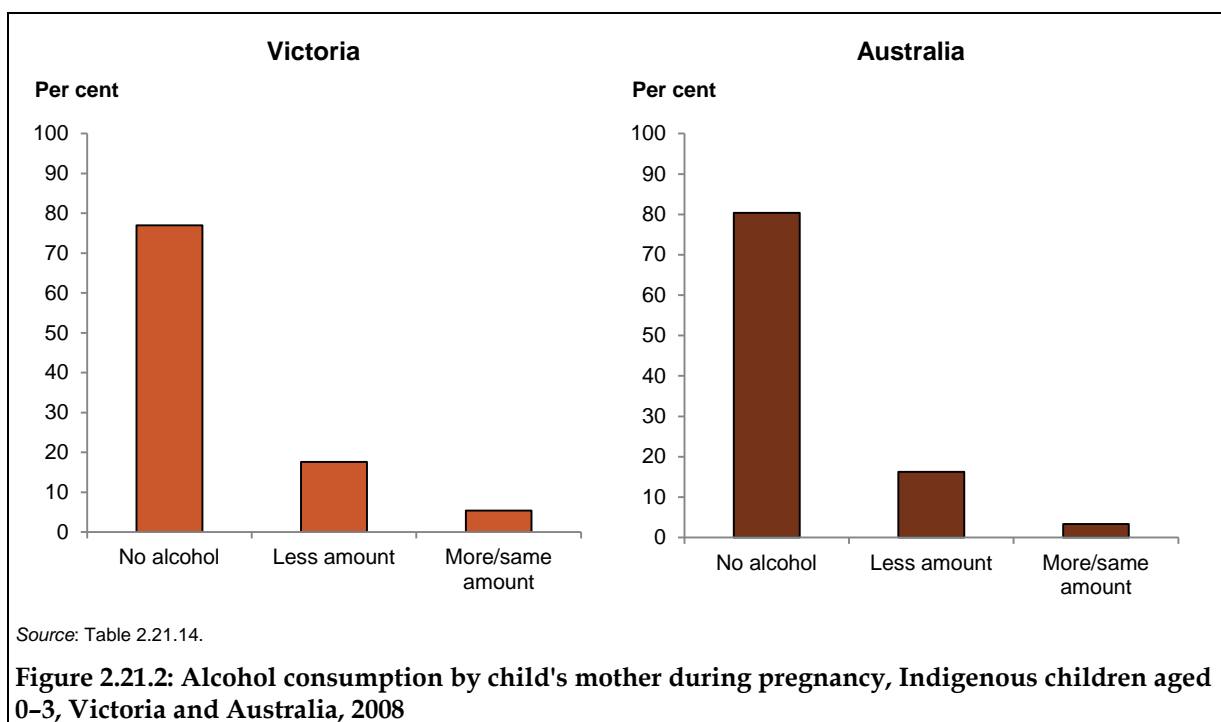
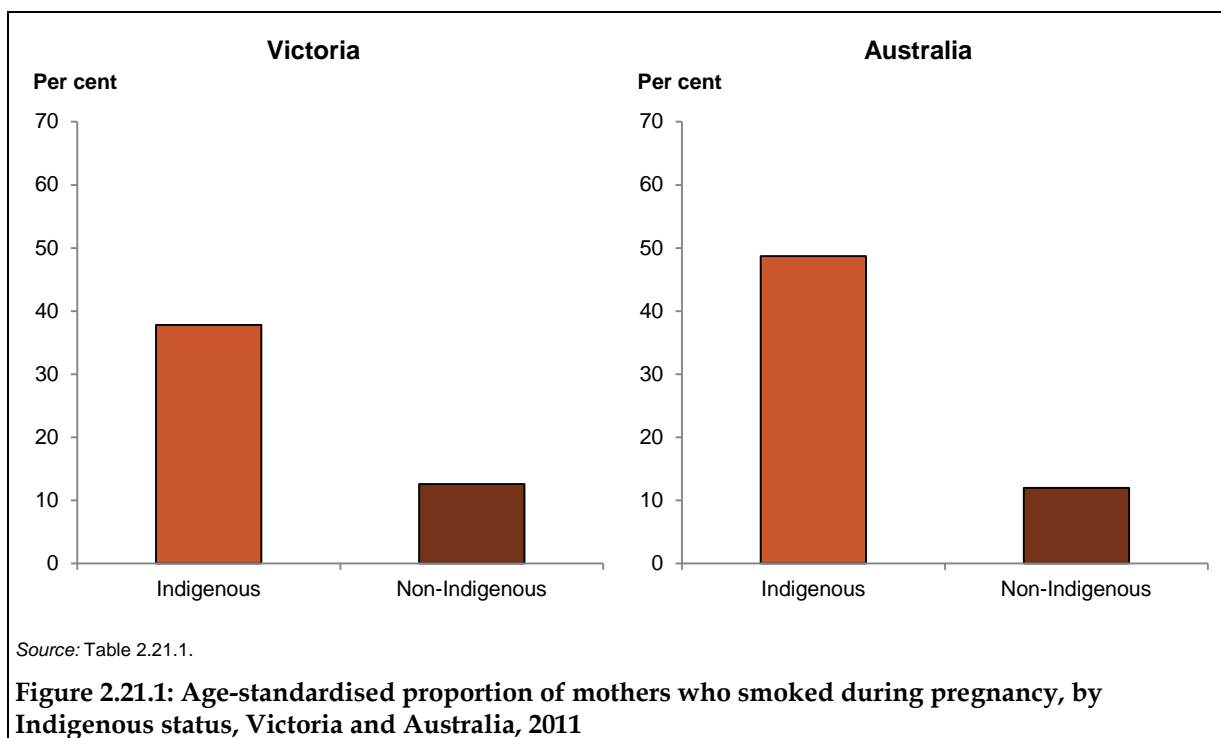
According to the National Perinatal Data Collection, in 2011 in Victoria:

- 42% of Indigenous mothers smoked during pregnancy. After adjusting for differences in age structure, Indigenous mothers were 3 times as likely as non-Indigenous mothers to smoke during pregnancy, and the gap was 25 percentage points. Nationally, the gap was lower (37 percentage points) (Table 2.21.1, Figure 2.21.1).

Data from the 2008 NATSISS show that, in Victoria:

- Among mothers of Indigenous children aged 0–3, 77% abstained from drinking alcohol during pregnancy, 18% drank less alcohol during pregnancy, and 5% drank the same amount or more. Nationally, a higher proportion did not consume alcohol during pregnancy (80%), a lower proportion drank less alcohol during pregnancy (16%), and a lower proportion drank the same amount or more (3%) (Table 2.21.14).
- Among mothers of Indigenous children aged 0–3, 9% used illicit drugs or substances during pregnancy, compared with 5% nationally (Table 2.21.15).
- About 61% of Indigenous mothers sought advice or information about pregnancy or childbirth. Nationally, about 45% of Indigenous mothers sought advice or information about pregnancy or childbirth (Table 2.21.17).

- About 61% of Indigenous mothers took folate before or during their pregnancy. Nationally, about 52% of Indigenous mothers took folate before or during their pregnancy (Table 2.21.17).





## Key findings for Australia

According to the National Perinatal Data Collection, in 2011:

- Half (50%) of all Indigenous mothers smoked – 4 times the rate among non-Indigenous mothers, with a gap of 37 percentage points (Table 2.21.1, Figure 2.21.1).
- Excluding pre-term and multiple births, 51% of low birthweight births to Indigenous mothers were attributable to smoking during pregnancy, compared with 19% for other Australian mothers (Table 1.01.7).

In the 2008 NATSISS, among mothers of Indigenous children aged 0–3:

- About 80% did not consume alcohol during pregnancy, 16% drank less alcohol during pregnancy, and 3% drank the same amount or more (Table 2.21.14, Figure 2.21.2).
- About 5% used illicit drugs or substances during pregnancy (Table 2.21.15).
- About 45% of Indigenous mothers sought advice or information about pregnancy or childbirth. About 52% of Indigenous mothers took folate before or during their pregnancy (Table 2.21.17).

## 2.22 Overweight and obesity

### What is measured and why it is important

This measure reports on the prevalence of overweight and obesity among Aboriginal and Torres Strait Islander adults and children.

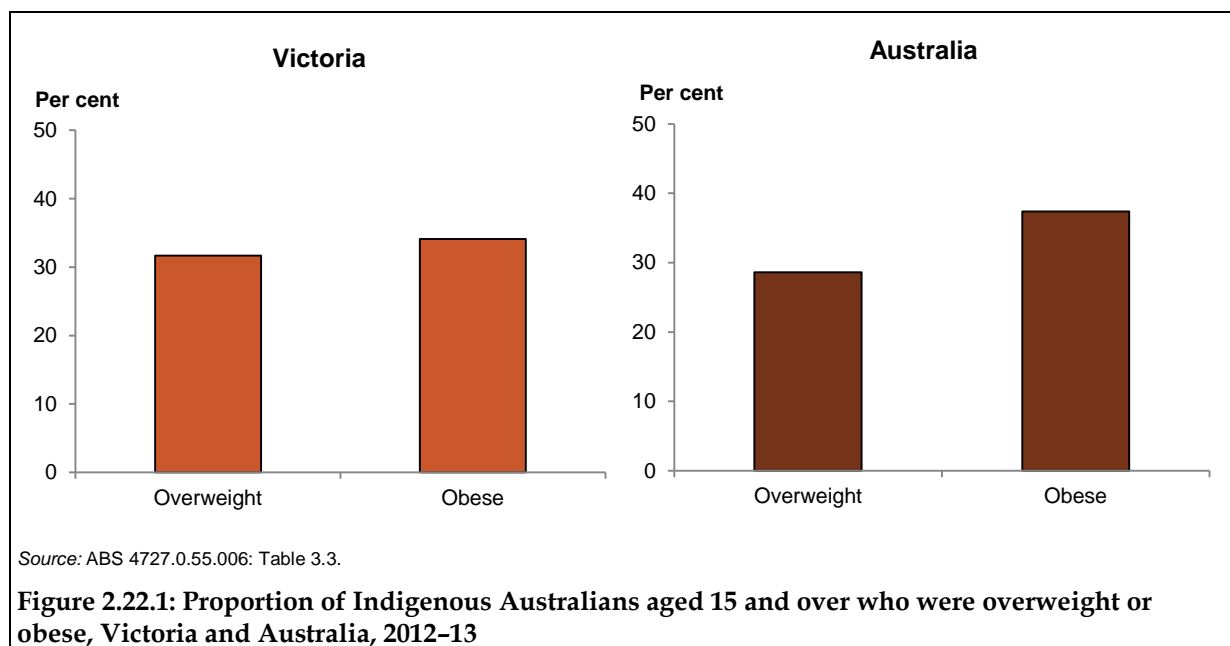
Overweight and obesity is a global health problem (OECD 2014). The excess burden of obesity in the Indigenous population is estimated to explain 1 to 3 years (9% to 17%) of the life expectancy gap in the Northern Territory (Zhao et al. 2013). Obesity is estimated to contribute 16% of the health gap between Aboriginal and Torres Strait Islander people and the total Australian population, in particular through diabetes (half of the obesity burden) and ischaemic heart disease (40%) (Vos et al. 2007).

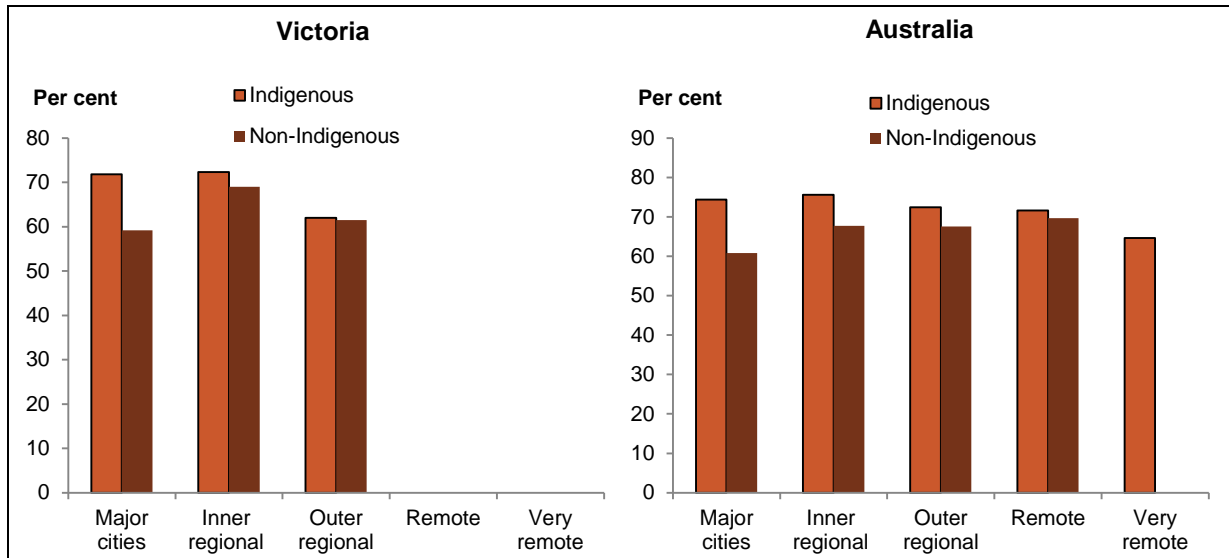
Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### Key findings for Victoria

According to the AATSIHS, in 2012–13 in Victoria:

- 66% of Indigenous Australians aged 15 and over were overweight or obese (32% overweight and 34% obese). This was higher than the national level of 66% (29% overweight and 37% obese) (ABS 4727.0.55.006: Table 3.3, Figure 2.22.1).
- Indigenous Australians aged 18 years or over in *Major cities* were more likely than non-Indigenous Australians to be overweight or obese (72% compared with 59%) (Table 2.22.3, Figure 2.22.2).





Note: There are no Remote or very remote areas in Victoria. There are no non-Indigenous data available for Very remote areas.

Source: Table 2.22.3.

**Figure 2.22.2: Age-standardised rates (per 100 population) of overweight or obese people aged 18 or over, by remoteness and Indigenous status, Victoria and Australia, 2012-13**

## Key findings for Australia

According to the 2012-13 AATSIHS:

- Two-thirds (66%) of Indigenous Australians aged 15 and over had a measured body mass index (BMI) score in the overweight or obese range (29% overweight and 37% obese). After adjusting for age, Indigenous adults were 1.6 times as likely to be obese as non-Indigenous Australians (ABS 4727.0.55.006: Table 8.3).
- Rates of obesity for Indigenous Australians were highest in *Inner regional* areas (40%) and lowest in *Very remote* areas (32%). Rates were similar in *Major cities* (37%) and in *Outer regional* and *remote* areas (38%) (ABS 4727.0.55.006 Table 2.3).
- Indigenous women had higher rates of obesity (40%) and were overweight at lower rates (26%) than Indigenous men (34% and 31% respectively) (ABS 4727.0.55.006: Table 8.3).
- Rates of being overweight/obese increased with age, from 35% of Indigenous Australians aged 15-17, to 80% of Indigenous Australians aged 55 and over. A similar pattern was seen for non-Indigenous Australians (ABS 4727.0.55.006: Table 8.3).
- About 30% of Indigenous children aged 2-14 were overweight or obese, compared with 25% of non-Indigenous children (ABS 4727.0.55.006: Table 9.3).



## 3.01 Antenatal care

### What is measured and why it is important

This measure reports on the number and rate of Indigenous women who received antenatal care by the total number of antenatal visits, duration of pregnancy at first antenatal visit, types of antenatal services used, and selected health issues during pregnancy. It also shows relationships between antenatal care and selected pregnancy and birth outcomes.

Antenatal care may be particularly important for Aboriginal and Torres Strait Islander women, as they are at higher risk of giving birth to pre-term and low birthweight babies and have greater exposure to other risk factors and complications such as anaemia, poor nutritional status, chronic illness, hypertension, diabetes, genital and urinary tract infections, smoking, and high levels of psychosocial stressors (AHMAC 2012; de Costa & Wenitong 2009). Given this information, it is important to collect data on the number of antenatal care sessions attended by mothers, the timing of these sessions throughout pregnancy and how these relate to risk factors and outcomes such as smoking, births of low birthweight and pre-term babies, and perinatal deaths.

Data from the National Perinatal Data Collection are presented for the 2011 calendar year. Data on the number of antenatal care services provided are available for New South Wales, Queensland, South Australia, Tasmania, the Australian Capital Territory and the Northern Territory. Data on duration of pregnancy at first antenatal visit are presented for all states and territories. Data for the financial year 2010–11 are presented for mothers who were regular clients of Healthy for Life services and who gave birth to Indigenous babies. NATSISS data are not available by jurisdiction.

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

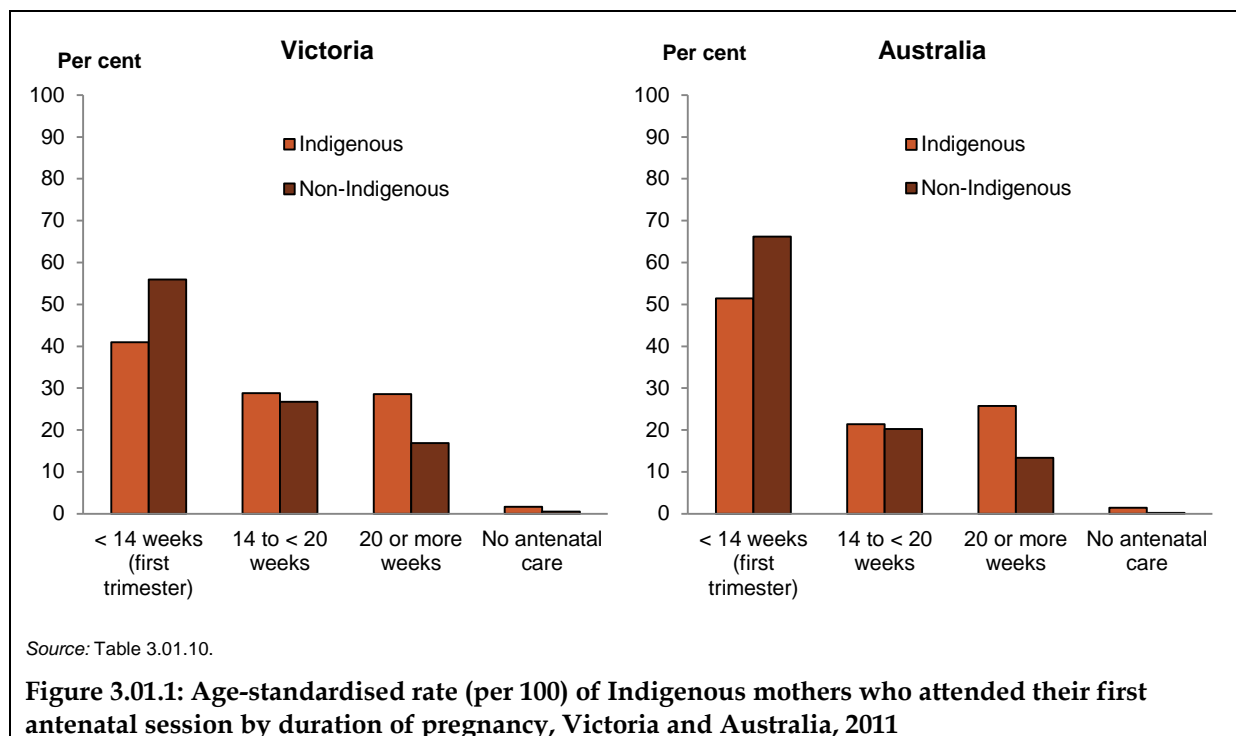
### Key findings for Victoria

According to the National Perinatal Data Collection, in 2011 in Victoria:

- 39% of Indigenous mothers attended their first antenatal session in the first trimester. After adjusting for differences in age structure, this was significantly lower than for non-Indigenous mothers, a gap of 15 percentage points (Table 3.01.10, Figure 3.01.1).

Data from the Healthy for Life data collection show that in 2010–11 in Victoria and Tasmania combined:

- Among the 150 women who were regular clients of Healthy for Life services and who gave birth to an Indigenous baby in 2010–11, just under half (44%) had their first antenatal visit before 13 weeks of pregnancy, and around two-thirds (65%) before 20 weeks of pregnancy (Table 3.01.19).



## Key findings for Australia

According to the National Perinatal Data Collection, in 2011, in New South Wales, Queensland, South Australia, Tasmania, the Australian Capital Territory and the Northern Territory combined:

- Of 8,798 Indigenous mothers, 99% attended at least 1 antenatal session. This was almost the same as non-Indigenous mothers (100%). However, the age-standardised proportion of Indigenous mothers who attended 5 or more antenatal sessions (83%) was significantly lower than non-Indigenous mothers (95%), a gap of 12 percentage points (Table 3.01.1). Accounting for women who gave birth at 32 weeks gestation or more, the proportions were 84% and 95% respectively (AIHW 2014e).
- Among Indigenous mothers, patterns in the number of antenatal sessions attended were generally similar between age groups. However, among Indigenous mothers aged 40 and over, 5% did not attend antenatal sessions (compared with around 1% for other age groups) (Table 3.01.3).
- Half of Indigenous mothers had their first antenatal visit within the first trimester of pregnancy, compared with two-thirds of non-Indigenous mothers. This was a significant gap of 15 percentage points (Table 3.01.10).
- The later a mother received antenatal care, the more likely she was to have a pre-term or low birthweight baby. Compared with women who received care in the first trimester, women who received no antenatal care were 3 times as likely to have a pre-term or low birthweight baby and 6–7 times as likely to have a pregnancy that resulted in perinatal death (tables 3.01.14–16).



## Trend

Data from the National Perinatal Data Collection show that, from 1998 to 2011 in New South Wales, Queensland and South Australia combined:

- There was a statistically significant increase (4%) in the proportion of Indigenous mothers who accessed antenatal services at least once during their pregnancy. There was also a significant 67% decrease in the gap between Indigenous and non-Indigenous mothers who attended at least 1 antenatal care session, from a rate difference of -3.1% in 1998 to -0.7% in 2011 (Table 3.01.9).

From 2007 to 2011, in New South Wales, Queensland, South Australia and the Northern Territory combined:

- There was a significant decrease in the gap between Indigenous and non-Indigenous mothers who attended at least 1 antenatal care session. There was a rate difference of -25 per 1,000 in 2007 and a rate difference of -15 per 1,000 in 2011 (Table 3.01.8, Figure 3.01.3).

## 3.02 Immunisation

### What is measured and why it is important

This measure reports on vaccination coverage rates among Aboriginal and Torres Strait Islander Australian children and adults.

Immunisation is highly effective in reducing morbidity and mortality caused by vaccine-preventable diseases. Since the introduction of childhood vaccination in Australia, deaths from vaccine-preventable diseases have fallen for the general population by 99%.

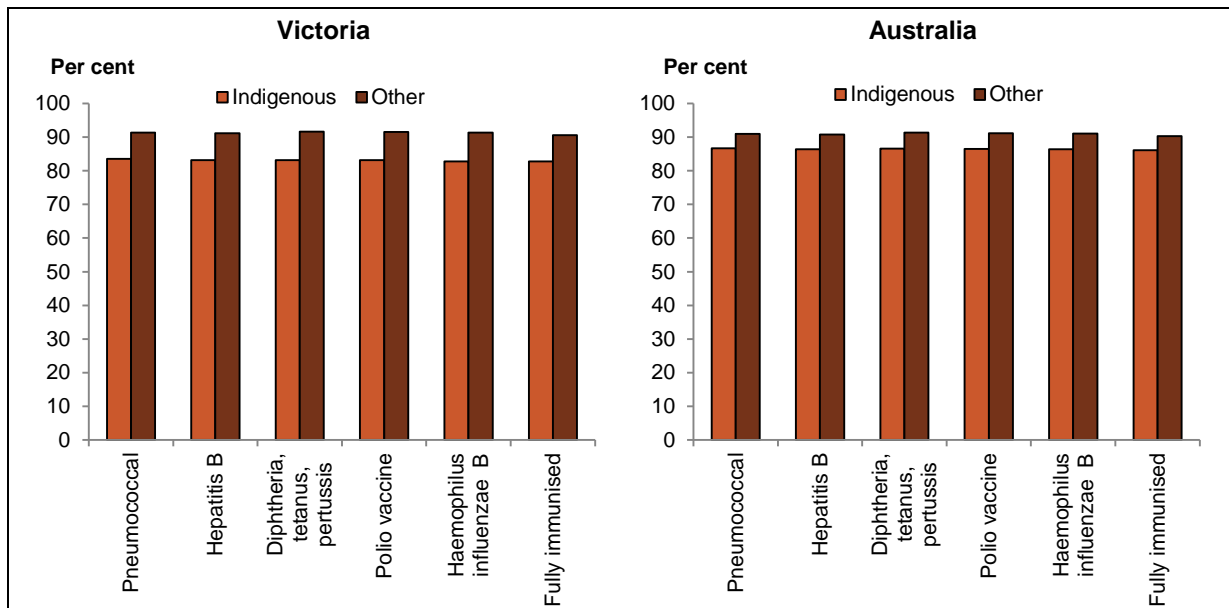
Vaccinations are estimated to have saved some 78,000 Australian lives over this time (Burgess 2003).

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### Key findings for Victoria

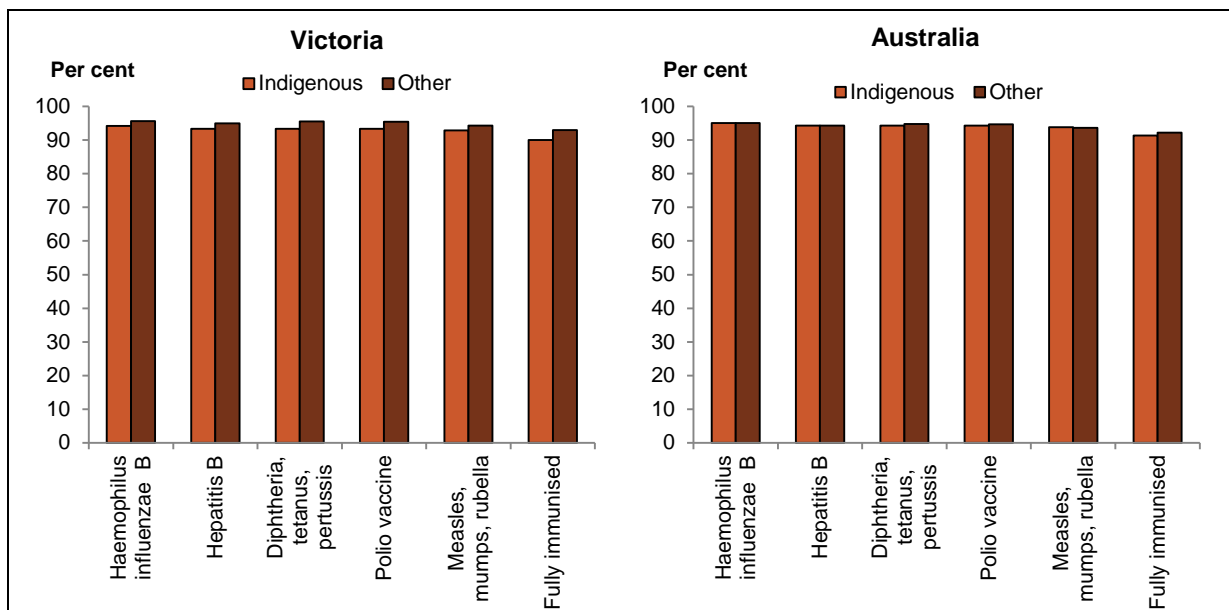
According to the Australian Childhood Immunisation Register, at 31 December 2013 in Victoria:

- 83% of Indigenous children were fully immunised at age 1, compared with 91% of other Australian children. This was a 8 percentage point gap in the immunisation coverage rate. At the national level, the difference in immunisation rates between Indigenous and other Australian children was 4 percentage points (86% and 90% respectively).
  - Across all selected types of vaccines, the proportion of Indigenous children who had been immunised is lower, around 8 percentage points, than the proportion of other children. A similar pattern is also seen at the national level, but with the gap at around 5 percentage points (Table 3.02.2, Figure 3.02.1).
- 90% of Indigenous children were fully immunised at age 2, compared with 93% of other Australian children. At the national level, immunisation rates for Indigenous and other Australian children were 91% and 92%, respectively.
  - Across all selected types of vaccines, the proportion of Indigenous children who had been immunised is slightly lower, around 2 percentage points, than the proportion of other children. At the national level, the proportions of Indigenous children and other children were similar (Table 3.02.3, Figure 3.02.2).
- 93% of Indigenous children were fully immunised at age 5, compared with 92% of other Australian children. This was similar to rates at the national level (93% and 92% respectively).
  - Across all selected types of vaccines, the proportion of Indigenous children who had been immunised is slightly higher than the proportion of other children. A similar pattern can be seen at the national level (Table 3.02.4, Figure 3.02.3).



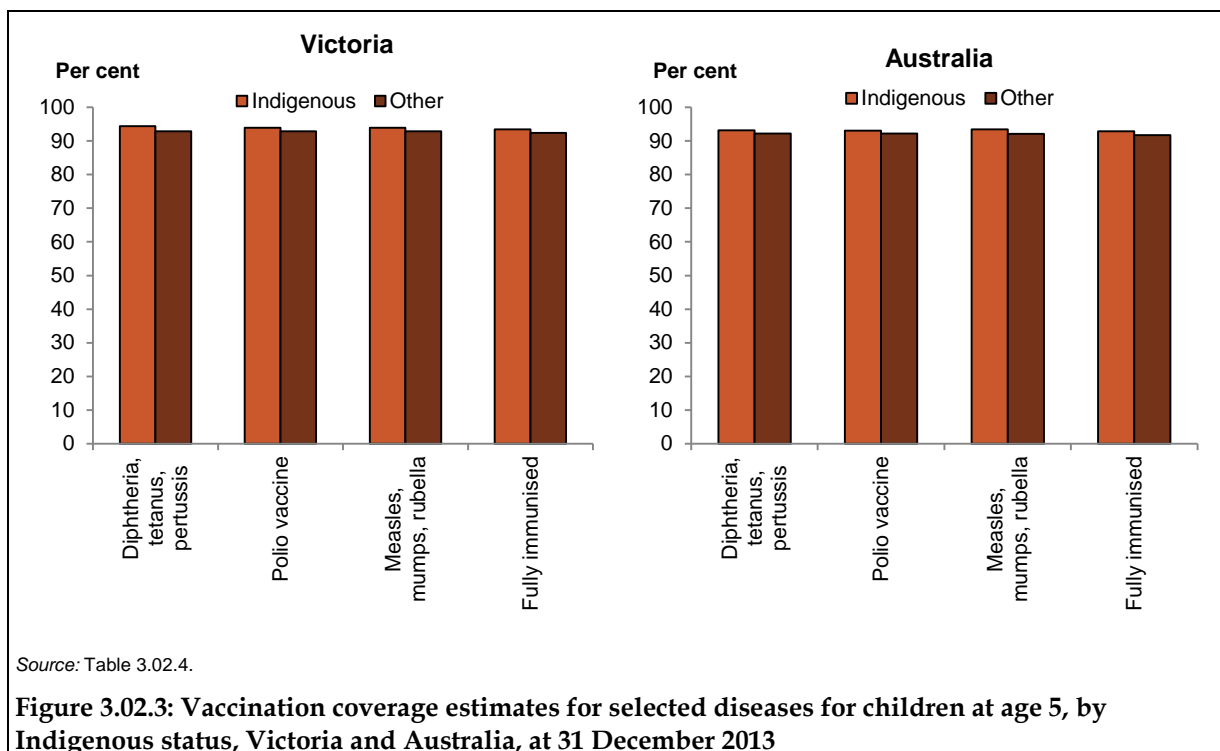
Source: Table 3.02.2.

**Figure 3.02.1: Vaccination coverage estimates for selected diseases for children at age 1, by Indigenous status, Victoria and Australia, at 31 December 2013**



Source: Table 3.02.3.

**Figure 3.02.2: Vaccination coverage estimates for selected diseases for children at age 2, by Indigenous status, Victoria and Australia, at 31 December 2013**



## Key findings for Australia

According to the Australian Childhood Immunisation Register, at 31 December 2013:

- 86% of Indigenous Australian children aged 1 were fully immunised compared with 90% of other Australian children, a gap of 4 percentage points.
- 93% of Indigenous Australian children aged 5 were fully immunised compared with 92% of other Australian children (Table 3.02.1).


Data from the 2012–13 AATSIHS suggests that for Indigenous Australians aged 50 and over:

- 51% of those aged 50–64, and 74% of those aged 65 and over were vaccinated against influenza in the last 12 months.
- 23% of those aged 50–64 and 44% of those aged 65 and over were vaccinated against pneumococcus in the last 12 months (Table 3.02.7).

## Trend

Data from the Australian Childhood Immunisation Register suggest that between 2001 and 2013 in New South Wales, Victoria, Western Australia, South Australia and the Northern Territory combined:

- The percentage of children who were fully immunised at age 1 remained stable for Indigenous and other Australian children.
- The percentage of children who were fully immunised at age 2 increased significantly for Indigenous and other Australian children (by 5% and 4%, respectively).



Between 2002 and 2007 in the 5 jurisdictions combined:

- The percentage of children who were fully immunised at age 6 was stable for Indigenous children but increased significantly for other Australian children (by 9%).

Between 2008 and 2013 in the 5 jurisdictions combined:

- The percentage of children who were fully immunised at age 5 increased significantly for Indigenous and other Australian children (by 23% and 16%, respectively) (Table 3.02.5).



## 3.03 Health promotion

### What is measured and why it is important

This measure reports on interventions provided by clinicians and health promotion initiatives funded by governments and provided by a range of health professionals in the wider community for the Aboriginal and Torres Strait Islander population.

Health promotion activities are designed to improve or protect health within social, physical, economic and political contexts. Health promotion includes: public policy interventions (for example, packaging of cigarettes, seat belt laws); information to support healthy lifestyles (for example, smoking, alcohol and drug use, physical activity and diet); social marketing (for example, sunscreen use); and mass media campaigns (for example, drink-driving, road safety) (AHMAC 2015).

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

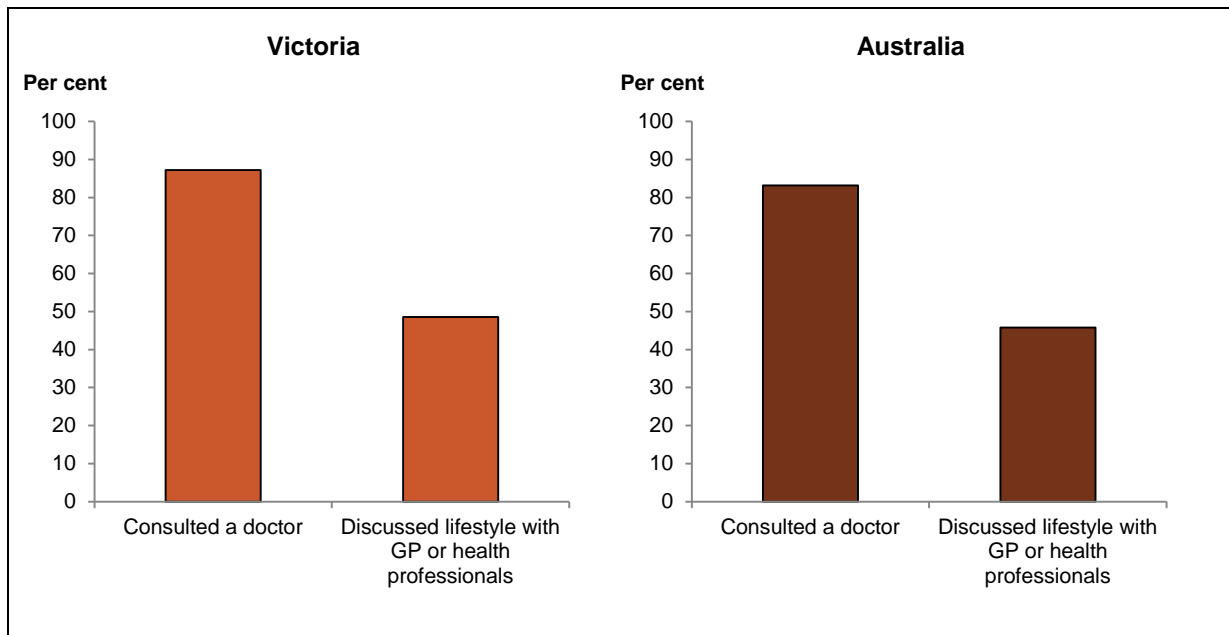
### Key findings for Victoria

Data from the AATSIHS suggests that in 2012–13 in Victoria:

- 87% of Indigenous Australians aged 15 and over consulted a doctor, similar to the national proportion (Table 3.03.4, Figure 3.03.1).
- 49% of Indigenous Australians aged 15 and over who consulted a doctor discussed lifestyle issues with a GP or health professional, compared with 46% nationally (Table 3.03.4, Figure 3.03.1).
- Of those Indigenous Australians who discussed lifestyle issues with a GP or health professional, the most common issue discussed was reducing or quitting smoking (48%). Nationally, a lower proportion of Indigenous Australians discussed this issue (43%) (Table 3.03.4).
- Of those Indigenous Australians in Victoria who consulted a doctor, 47% discussed reaching a healthy weight. This proportion was lower than for Indigenous Australians nationally (50%) (Table 3.03.4).

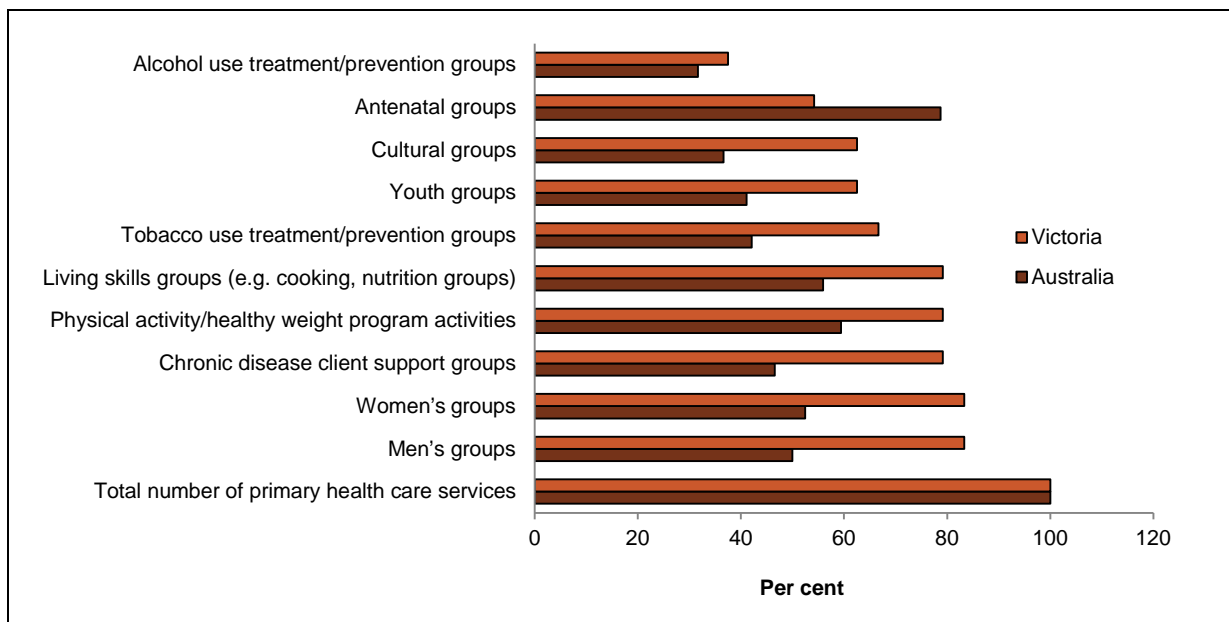
According to the Online Services Report data collection, in 2012–13 in Victoria:

- The most common type of health promotion or prevention group activities provided by Aboriginal and Torres Strait Islander primary health-care services were women's groups and men's groups (both 83%). In contrast, nationally, 53% of Aboriginal and Torres Strait Islander primary health-care services ran women's groups and 50% ran men's groups.
- Other common group activities were chronic disease client support groups (79%), physical activity/healthy weight program activities (79%) and living skills groups (79%) (Table 3.03.11 Vic, Figure 3.03.2).



Source: Table 3.03.4.

**Figure 3.03.1: Proportion of Indigenous Australians aged 15 and over who consulted a doctor or discussed lifestyle with GP/health professionals, Victoria and Australia, 2012-13**



Source: Table 3.03.11 Vic.

**Figure 3.03.2: Proportion of Aboriginal and Torres Strait Islander primary health-care services that ran health promotion/prevention group activities, Victoria and Australia, 2012-13**

## Key findings for Australia

The Health Expenditure Database shows that in 2010–11:

- Expenditure on public health for selected health promotion activities by state and territory governments was estimated to be around \$41 for each Indigenous Australian and \$15 for each non-Indigenous Australian. Per person expenditure for Indigenous Australians was 2.7 times as high as for non-Indigenous Australians (Table 3.03.1).

Self-reported data from the 2012–13 AATSIHS suggest that:

- 46% of Indigenous Australians aged 15 and over who had consulted a doctor during this period reported discussing lifestyle issues. Indigenous females were significantly more likely to have discussed lifestyle issues with a doctor than males (50% and 41%, respectively) (Table 3.03.3).

Data collected through the BEACH program in the period from April 2008–March 2009 to April 2012–March 2013 show that:

- GPs provided selected clinical treatments relating to counselling, advice, education and family planning (health promotion) at similar rates to Indigenous Australians and other Australians (186 per 1,000 encounters, a rate 1.1 times as high as that for other Australians).
- After adjusting for age, the rate at which GPs provided counselling/advice about smoking was 2.4 times as high and counselling/advice about alcohol was 2 times as high, for Indigenous patients than at those with other Australians (Table 3.03.6).

According to the OSR data collection, in 2012–13:

- Nearly all (99.5%) Aboriginal and Torres Strait Islander primary health-care services offered preventive health care and screening activities. The most common preventive health-care programs were maternal and child health care (88%), antenatal care (86%) and child immunisation (85%) (Table 3.03.9).
- Aboriginal and Torres Strait Islander primary health-care services offered a range of health promotion/prevention activities, including antenatal groups (78%), physical activity/healthy weight program activities (59%), and living skills groups (for example dietary and nutrition) (55%) (Table 3.03.11).

## 3.04 Early detection and early treatment

### What is measured and why it is important

This measure reports on the early detection and early treatment of disease among the Indigenous population, measured by the health assessment and disease screening of Aboriginal and Torres Strait Islander people.

Early detection is the discovery of a disease or condition at an early stage of its development or onset, usually before symptoms occur. Early detection may occur for individual patients, where clinically indicated, or for all members of a population through screening programs. (Medicare Benefits Schedule (MBS) health assessment items for Aboriginal and Torres Strait Islander Australians aim to encourage early detection, diagnosis and intervention for common and treatable conditions that cause morbidity and early mortality (AHMAC 2105)).

Breast, bowel and cervical cancer screening programs are designed to detect cancer early (breast and bowel cancer) or prevent its occurrence in the first place (bowel and cervical cancer). National programs for breast and cervical screening were implemented in Australia in the early 1990s and the national program for bowel cancer screening was first implemented in 2006. Lowered mortality rates for each of these cancers have been attributed, at least in part, to these programs (AIHW 2014h; AIHW 2014m; DoHA 2009). Research shows that biennial bowel cancer screening can save up to 500 lives annually (Pignone et al. 2011).

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### Key findings for Victoria

#### Medicare health assessments

According to the Medicare database, in 2013–14 in Victoria:

- The rate of Medicare health assessments (all ages, excluding 4-year-old health checks) for Indigenous Australians was 129 per 1,000. Nationally, the rate of Medicare health assessments provided for Indigenous Australians was 213 per 1,000 (Table 3.04.1, Figure 3.04.1).
- The rate of 4-year-old health checks provided for Indigenous children in Victoria was 15 per 1,000. After adjusting for differences in age structure, the gap was about 7 per 1,000. Nationally, the gap was larger (13 per 1,000) (Table 3.04.3).

#### Trend

Between 2006–07 and 2013–14 in Victoria:

- The rate of Medicare health assessments (all ages, excluding 4-year-old health checks) for Indigenous Australians increased significantly, from 21 per 1,000 to 129 per 1,000, a change of 15 per 1,000 per year. Nationally, the rate also increased significantly (26 per 1,000 per year) (Table 3.04.5, Figure 3.04.3).

Between 2009–10 and 2013–14 in Victoria:

- The rate of Medicare health assessments (all ages, excluding 4-year-old health checks) for Indigenous Australians increased significantly by 166%, from 53 per 1,000 to 129 per 1,000, a change of 19 per 1,000 per year. Nationally, the rate also increased significantly (35 per 1,000 per year) (Table 3.04.5, Figure 3.04.3).

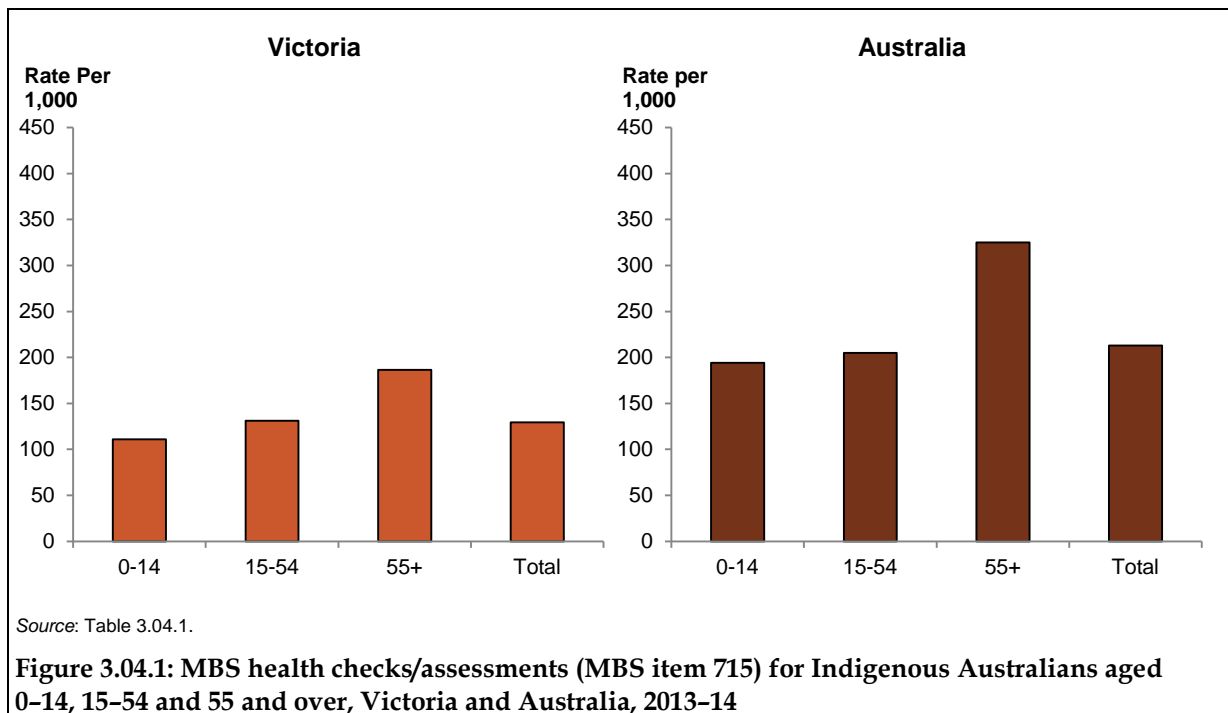
## Cancer screening

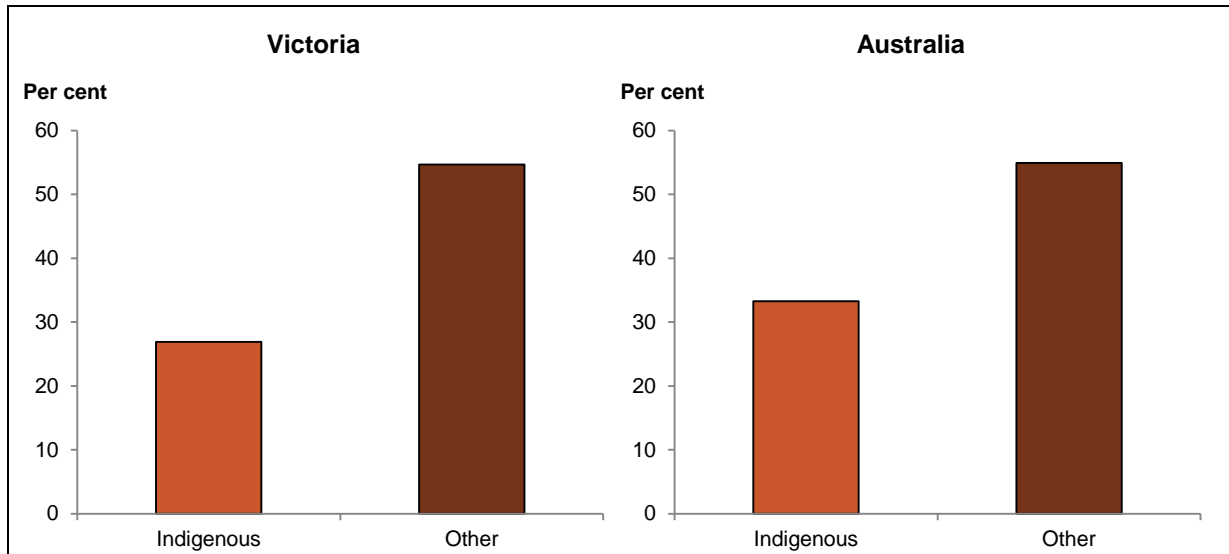
Data from the BreastScreen Australia database suggest that in 2011–2012 in Victoria:

- 27% of Indigenous women aged 50–69 years participated in a BreastScreen Australia program, compared with 55% of other Australian women. The gap was 28 percentage points. Nationally, the gap was 22 percentage points (Table 3.04.11, Figure 3.04.2).

According to the AATSIHS, in 2012–13 in Victoria:

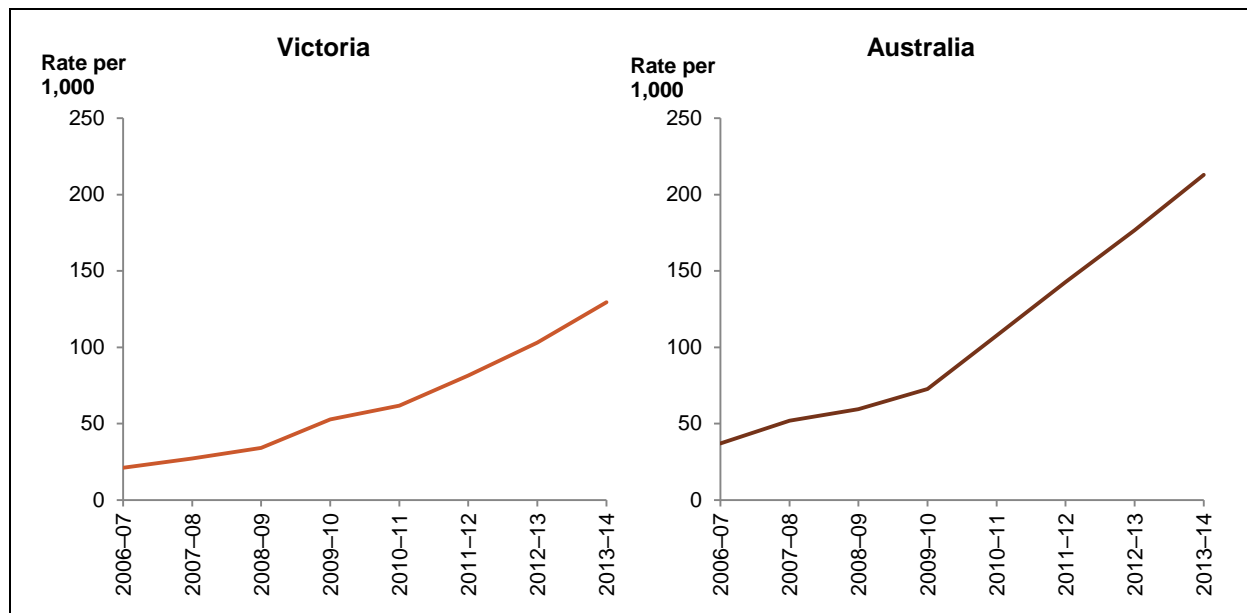
- An estimated 78% of Indigenous women aged 50–69 years reported ever having had a mammogram, compared with 79% nationally (Table 3.04.13).
- An estimated 64% of Indigenous women aged 20–69 years reported having a Pap smear test at least every 2 years, compared with 58% nationally (Table 3.04.15).
- 76% of Indigenous men and 91% of Indigenous women between the ages of 50 and 74 reported that they either had never participated in a bowel screening test or did not know if they had, compared with 82% and 89%, respectively, at the national level (Table 3.04.21).
- An estimated 77% of Indigenous males aged 50 and over reported ever having participated in a prostate cancer screening test, compared with 64% nationally (Table 3.04.23).





Source: Table 3.04.11.

**Figure 3.04.2: Age-standardised participation rates in BreastScreen Australia programs of women aged 50 to 69, by Indigenous status, Victoria and Australia, 2011-2012**



Source: Table 3.04.5.

**Figure 3.04.3: Rate of MBS health checks/assessments for Indigenous Australians (MBS item 715), all ages, Victoria and Australia, 2006-07 to 2013-14**



## Key findings for Australia

### Medicare health assessments

According to the Medicare database, in 2013–14:

- Around 47,400 Medicare health assessments were provided for Indigenous Australians aged 0–14 – a rate of 194 per 1,000.
- Around 22,300 Medicare health assessments were provided for Indigenous Australians aged 55 and older – a rate of 325 per 1,000 (Table 3.04.1).
- There were 4,440 MBS Healthy Kids Checks claimed for Indigenous children – a rate of 27 per 1,000, 0.7 times the rate for non-Indigenous Australians. The gap was 13 claims per 1,000 (Table 3.04.3).

### Trend

Between 2006–07 and 2013–14:

- The rate of Medicare health assessments (for all ages, excluding 4-year-old health checks) for Indigenous Australians increased significantly by 965%, from 37 per 1,000 to 213 per 1,000, with an annual change of 26 per 1,000 (Table 3.04.5).

Between 2009–10 and 2013–14:

- The rate of Medicare health assessments (all ages, excluding 4-year-old health checks) for Indigenous Australians increased significantly by 193%, from 73 per 1,000 to 213 per 1,000, with an annual change 35 per 1,000 (Table 3.04.5).

### Cancer screening

Data from the BreastScreen Australia database show that in 2011–12:

- 33% of Indigenous women aged 50–69 participated in a BreastScreen Australia program compared with 55% of other women. The gap was 22 percentage points (Table 3.04.11).

In the 2012–13 AATSIHS:

- An estimated 79% of Indigenous women aged 50–69 reported ever having had a mammogram (Table 3.04.12).
- An estimated 58% of Indigenous women aged 20–69 reported having a pap smear test at least every 2 years (Table 3.04.15).
- An estimated 18% of Indigenous males and 11% of Indigenous females aged 50–74 reported ever having participated in a bowel cancer screening test (Table 3.04.21).
- An estimated 64% of Indigenous males aged 50 and over reported ever having participated in a prostate cancer screening test (Table 3.04.23).

According to the National Cervical Screening Program registers, in 2011–12:

- 58% of all Australian women aged 20–69 participated in the National Cervical Screening Program (AIHW 2014h).





Data from the National Bowel Cancer Screening Program Register show that in 2012–13:

- 2,018 people aged 50, 55 or 65 in the National Bowel Cancer Screening Program identified as Indigenous. This represented 0.6% of those with known Indigenous status compared with an estimated 1.6% of the general population (Table 3.04.19).
- Indigenous participants were more likely to receive a positive (that is, potentially abnormal) fecal occult blood test (FOBT) result than non-Indigenous participants (11% and 7%, respectively). For those who received a positive FOBT test result, rates of colonoscopy follow-up were lower for Indigenous than non-Indigenous participants (59% and 71%, respectively) (Table 3.04.20).

## **Trend**

According to the BreastScreen Australia database, between 1999–2000 and 2011–2012:

- The participation rate in BreastScreen Australia screening programs among Indigenous women aged 50–69 significantly increased by 4%, from 30 per 100 to 33 per 100. The rate for other Australian women aged 50–69 significantly decreased by 4%, from 57 per 100 to 55 per 100 (Table 3.04.14).

## 3.05 Chronic disease management

### What is measured and why it is important

This measure reports on the management of chronic disease among the Aboriginal and Torres Strait Islander population.

Chronic diseases are the major causes of morbidity and mortality among Australian and Torres Strait Islander peoples (see measures 1.02 and 1.23). Better management of these conditions is a key factor in meeting the target of closing the life expectancy gap between Indigenous and non-Indigenous Australians within a generation. Chronic disease is estimated to be responsible for 70% of the health gap (Vos et al. 2007). Effective management of chronic disease can delay the progression of disease, improve quality of life, increase life expectancy, and decrease the need for high-cost interventions leading to net savings (Thomas et al. 2014).

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### Key findings for Victoria

Data from the AATSIHS suggest that in the period 2012–13 in Victoria:

- HbA1c tests were conducted to check diabetes control for 72% of Indigenous Australians with diabetes in the previous 12 months; this was higher than the rate for non-Indigenous Australians (58%). The proportion for Indigenous Australians was higher in Victoria than nationally (69%) (Table 3.05.14, Figure 3.05.1).
- Feet were checked for 65% of Indigenous Australians with diabetes in the previous 12 months, compared with 72% of non-Indigenous Australians. The proportion of Indigenous Australians who had their feet checked was lower in Victoria than nationally (68%) (Table 3.05.14).

According to the National Key Performance Indicators for Aboriginal and Torres Strait Islander primary health care (nKPI) data collection, as at December 2013 in Victoria and Tasmania combined:

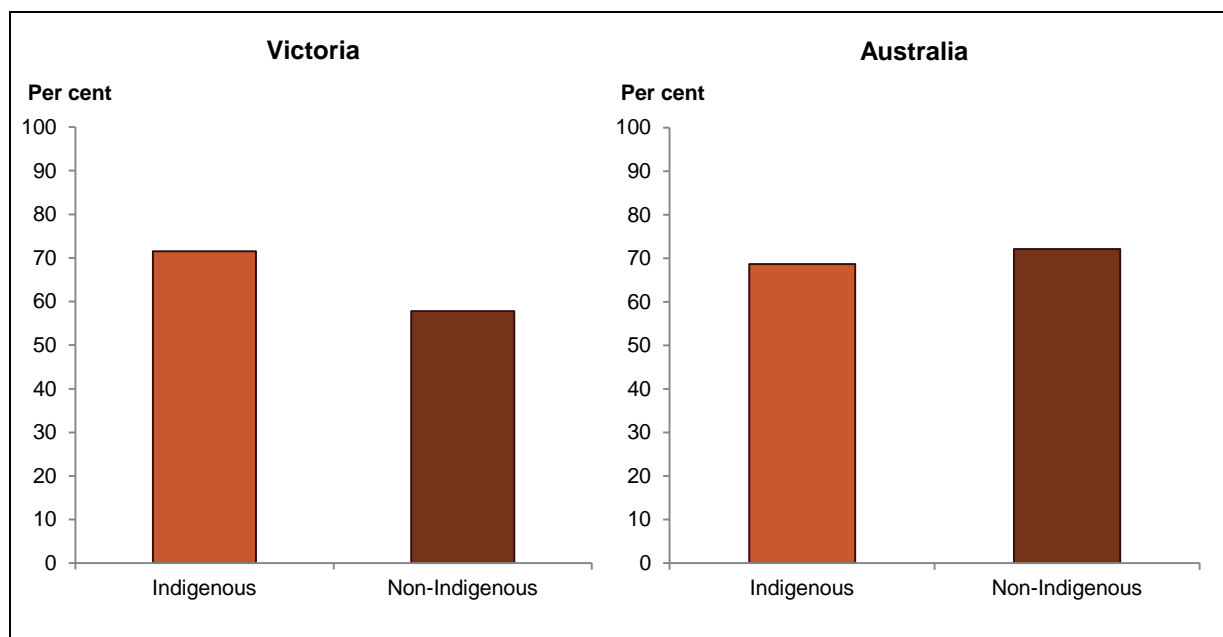
- 41% of Indigenous clients of Indigenous primary health-care services had general practitioner management plans for type 2 diabetes in the last 2 years. This compares with 47% nationally.
- 39% of Indigenous clients of Indigenous primary health-care services had team care arrangements for type 2 diabetes within the last 2 years. This compares with 44% nationally (Table 3.18.1).

### Trend

According to the nKPI data collection, between December 2012 and December 2013 in Victoria and Tasmania combined:

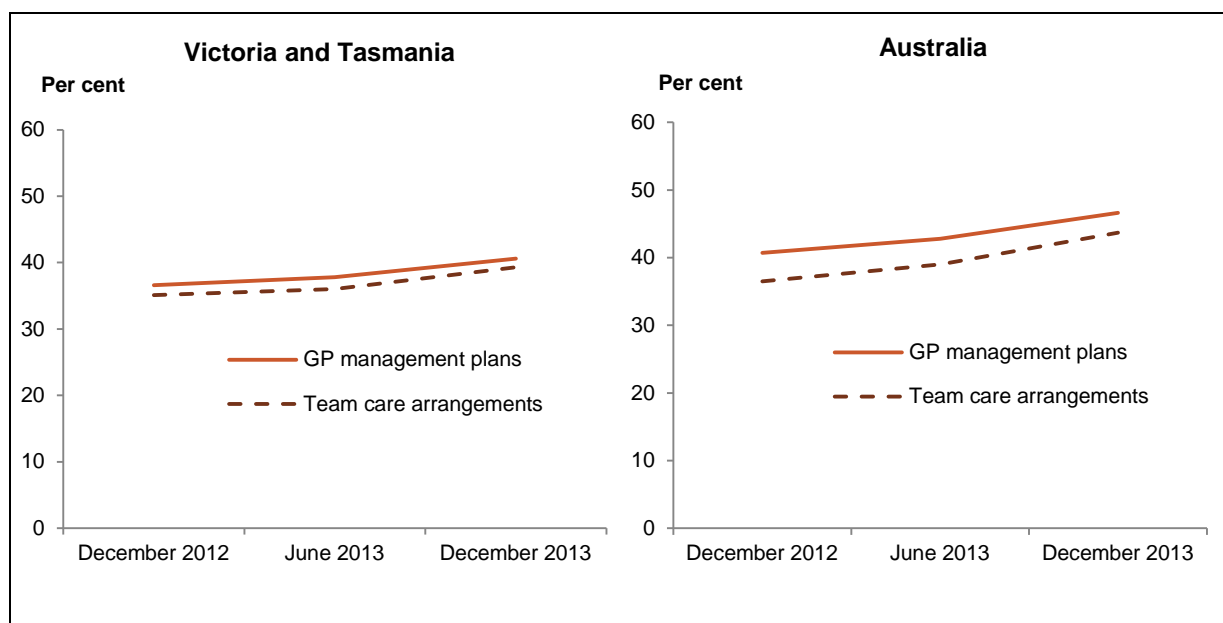
- The proportion of Indigenous clients of Indigenous primary health-care services with type 2 diabetes who had a GP management plan increased from 37% in December 2012 to 41% in December 2013, and the proportion who had a team care arrangement

increased from 35% in December 2012 to 39% in December 2013. A similar pattern was seen nationally (Table 3.18.1, Figure 3.05.2).



Source: Table 3.05.14.

**Figure 3.05.1: Persons with diagnosed, current and long-term diabetes or high sugar levels who had a HbA1C test in the last 12 months, by Indigenous status, Victoria and Australia, 2012-13**



Source: Table 3.18.1.

**Figure 3.05.2: Proportion of Indigenous regular clients with type 2 diabetes who had a GPMP or TCA in the last 2 years, Indigenous primary health-care services, Victoria and Tasmania combined and Australia, December 2012, June 2013 and December 2013**

## Key findings for Australia

Data from the Medicare database show that in 2013–14:

- There were around 53,600 GP management plan claims (76 claims per population). After adjusting for age, the rate for Indigenous Australians was 1.6 times as high as for non-Indigenous Australians. The gap was 42 claims per 1,000 population.
- There were around 44,400 team care arrangement claims for Indigenous Australians (63 claims per 1,000 population). After adjusting for age, the rate for Indigenous Australians was 1.7 times as high as for non-Indigenous Australians. The gap was 38 claims per 1,000 population (Table 3.05.1).

According to the nKPI data collection, in 2012–13:

- As at December 2013, 47% of Indigenous clients of Indigenous primary health-care services had general practitioner management plans for type 2 diabetes and 44% had TCAs for type 2 diabetes in the last 2 years (Table 3.18.1).

Self-reported data from the 2012–13 AATSIHS suggest that in the previous 12 months among people with diagnosed, current and long-term diabetes or high sugar levels:

- HbA1C tests were conducted to check diabetes control in 69% of Indigenous Australians compared with 72% of non-Indigenous Australians.
- Feet were checked in 68% of Indigenous Australians compared with 74% of non-Indigenous Australians (Table 3.05.14).

In the previous 12 months among people with diagnosed, current and long-term heart and circulatory conditions:

- Blood pressure was checked for 86% of Indigenous Australians aged 18–44 compared with 82% of non-Indigenous Australians – a gap of 3 percentage points. Among those aged 45 and over, a similar proportion of Indigenous and non-Indigenous Australians had their blood pressure checked (95% and 96%, respectively).
- Cholesterol levels were assessed in 56% of Indigenous Australians aged 18–44 compared with 48% of non-Indigenous Australians – a gap of 7 percentage points. Among those aged 45 and over, 78% of Indigenous Australians and 81% of non-Indigenous Australians had their cholesterol levels assessed – a gap of 3 percentage points (Table 3.05.15).

## Trend

According to the Medicare database, from 2009–10 to 2012–13:

- The age-standardised rate of services for GPMPs claimed by Indigenous Australians increased significantly by 98% from 55 per 1,000 to 114 per 1,000. The gap increased significantly by 373%.
- The age-standardised rate of services for TCAs claimed by Indigenous Australians increased significantly by 106% from 44 per 1,000 to 96 per 1,000. The gap increased significantly by 462% (Table 3.05.1).



According to the nKPI data collection:

- The proportion of Indigenous clients of Indigenous primary health-care services with type 2 diabetes who had a GP management plan increased from 41% in December 2012 to 47% in December 2013 and the proportion who had a team care arrangement increased from 37% in December 2012 to 44% in December 2013 (Table 3.18.1).

## 3.06 Access to hospital procedures

### What is measured and why it is important

This measure reports on the key hospital procedure differentials between Aboriginal and Torres Strait Islander people and other Australians as measured through age-standardised rates, ratios and rate differences in hospital separations with the same principal diagnosis.

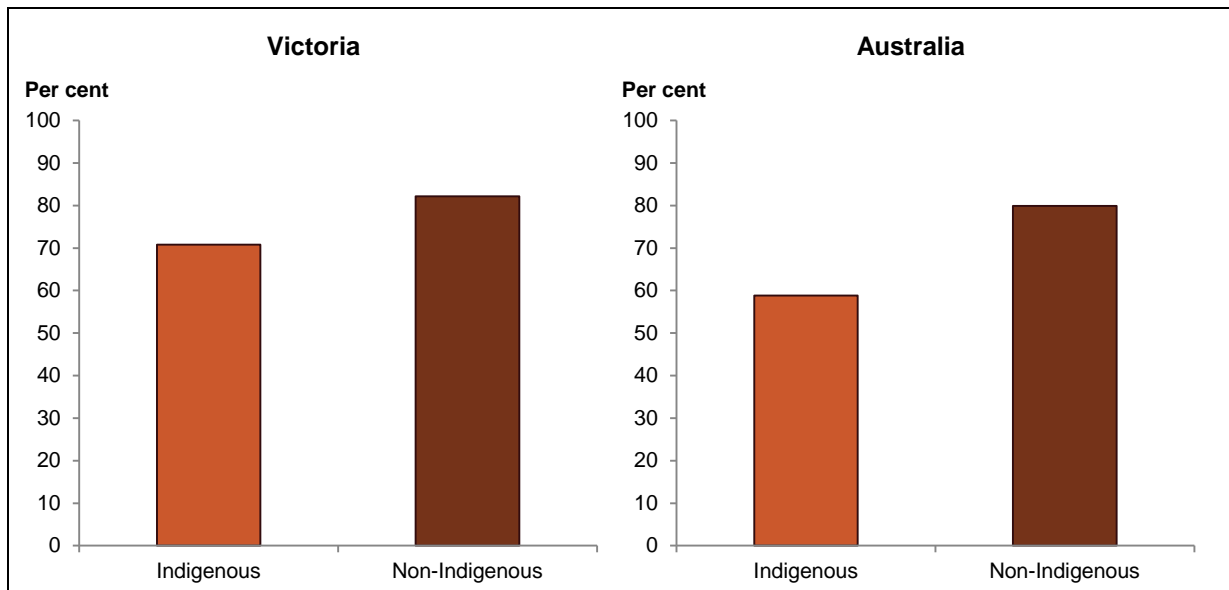
Studies have shown that although Indigenous Australians are more likely to be hospitalised than other Australians, they are less likely to receive a medical or surgical procedure while in hospital (ABS & AIHW 2008; Cunningham 2002). The disparities are not explained by diagnosis, age, sex or place of residence (Cunningham 2002).

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### Key findings for Victoria

According to the National Hospital Morbidity Database, in 2011–12 to 2012–13 in Victoria:

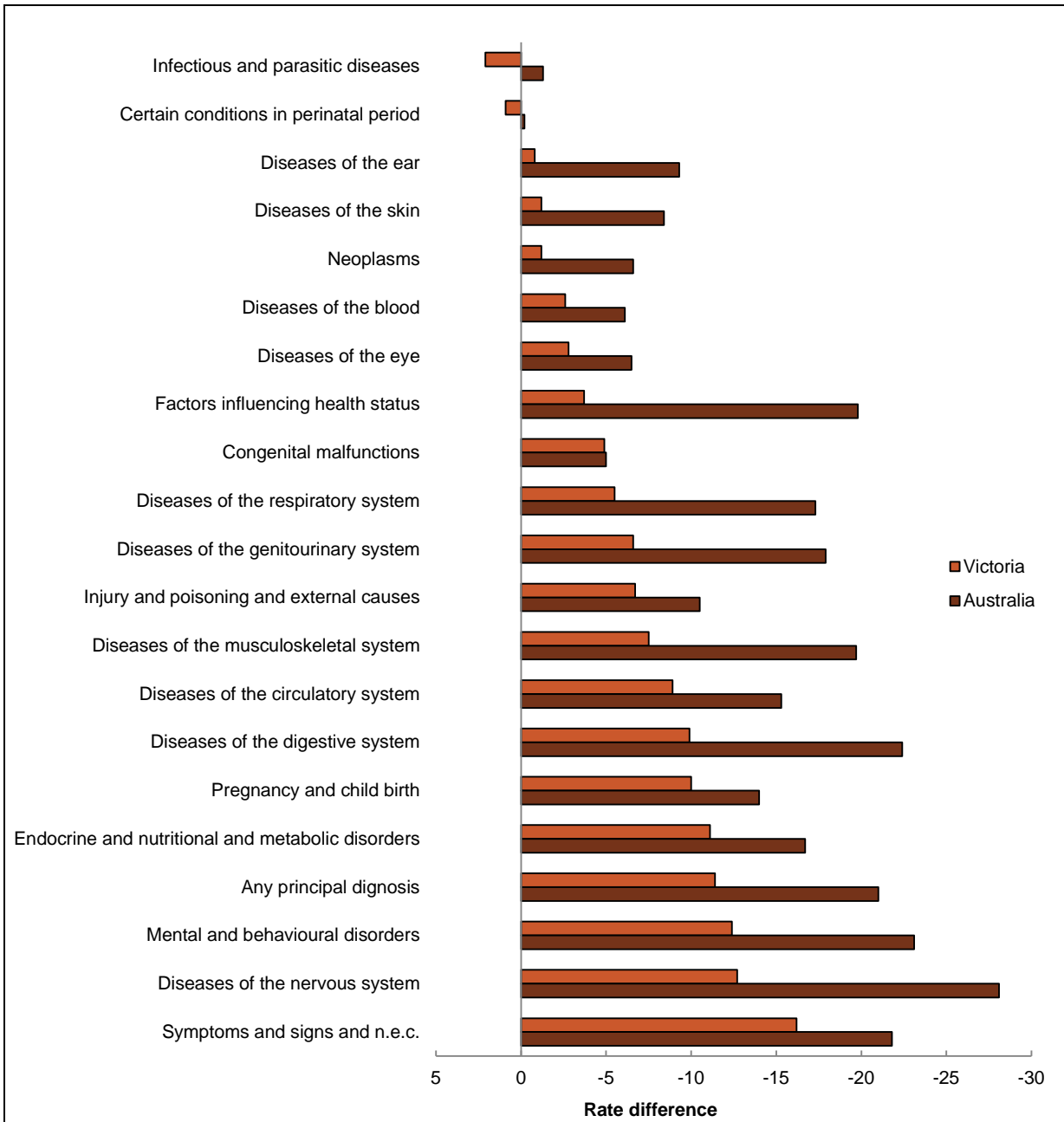
- Excluding hospitalisations for care involving dialysis, 71% of hospitalisations for Indigenous Australians had a procedure recorded, compared with 82% of hospitalisations for non-Indigenous Australians. The rate difference was 11 percentage points (Table 3.06.1, Figure 3.06.1).
- The largest rate difference in the percentage of hospitalisations with a procedure recorded between Indigenous and non-Indigenous patients was for symptoms and signs not elsewhere classified (16 percentage points). Nationally, the largest rate difference was for diseases of the nervous system (28 percentage points).
- A higher proportion of hospitalisations for Indigenous than for non-Indigenous Australians had a procedure recorded for infectious and parasitic diseases (a rate difference of 2 percentage points), and certain conditions in the perinatal period (a rate difference of 1 percentage point) (Table 3.06.2 Vic, Figure 3.06.2).



Source: Table 3.06.1.

**Figure 3.06.1: Age-standardised proportion of hospitalisations with a procedure recorded, by Indigenous status, Victoria and Australia, 2011-12 to 2012-13**





Note: Rate difference is calculated as the Indigenous proportion minus the non-Indigenous proportion.

Source: Table 3.06.1F Vic.

**Figure 3.06.2: Rate difference of hospitalisations with a procedure reported, by principal diagnosis, Victoria and Australia, 2011-12 to 2012-13**



## Key findings for Australia

Data from the National Hospital Morbidity Database show that in the period July 2011 to June 2013:

- Excluding hospitalisations for care involving dialysis, 59% of hospitalisations for Indigenous Australians had a procedure recorded, compared with 80% of hospitalisations for non-Indigenous Australians. The rate difference was 21 percentage points.
- For Indigenous Australians, 7% of hospitalisations with a procedure recorded occurred in private hospitals compared with 53% for non-Indigenous Australians.
- The rate difference between the proportions of Indigenous and non-Indigenous Australians receiving a hospital procedure is highest in *Remote* areas (19%) and lowest in *Very remote* areas (13%) (Table 3.06.1).
- Indigenous patients with diseases of the eye had the highest proportion receiving a procedure (92%). The largest rate difference between Indigenous and non-Indigenous patients was for diseases of the nervous system (28 percentage points) (Table 3.06.2).

### Trend

- From 1998–00 to 2012–13 in 4 jurisdictions combined (Queensland, Western Australia, South Australia and the Northern Territory), the rate of hospitalisation with a procedure recorded increased by 40% for Indigenous Australians. The rate for non-Indigenous Australians increased at a slower pace. The rate difference narrowed by 43% (Table 3.06.11, Figure 3.06.2).
- From 2004–05 to 2012–13 in 6 jurisdictions combined (New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory), the rate of hospitalisation with a procedure recorded increased by 39% for Indigenous Australians. The rate for non-Indigenous Australians increased at a slower pace. The rate difference narrowed by 58% (Table 3.06.12).

## 3.07 Selected potentially preventable hospital admissions

### What is measured why it is important

This measure reports on the number of Indigenous and non-Indigenous hospitalisations for potentially preventable conditions.

Potentially preventable conditions are conditions that can be effectively treated in a non-hospital setting. They are usually grouped into 3 categories:

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

Potentially preventable hospitalisations include conditions for which hospitalisation could be avoided through effective preventive measures or early diagnosis and treatment in primary health care (Page et al. 2007). Systematic differences in hospitalisation rates for Indigenous and non-Indigenous Australians could indicate gaps in the provision of population health interventions (such as immunisation), primary care services (such as early interventions to detect and treat chronic disease), and continuing care support (such as care planning for people with chronic illnesses) (AHMAC 2015).

All data for this measure are sourced from the National Hospital Morbidity Database.

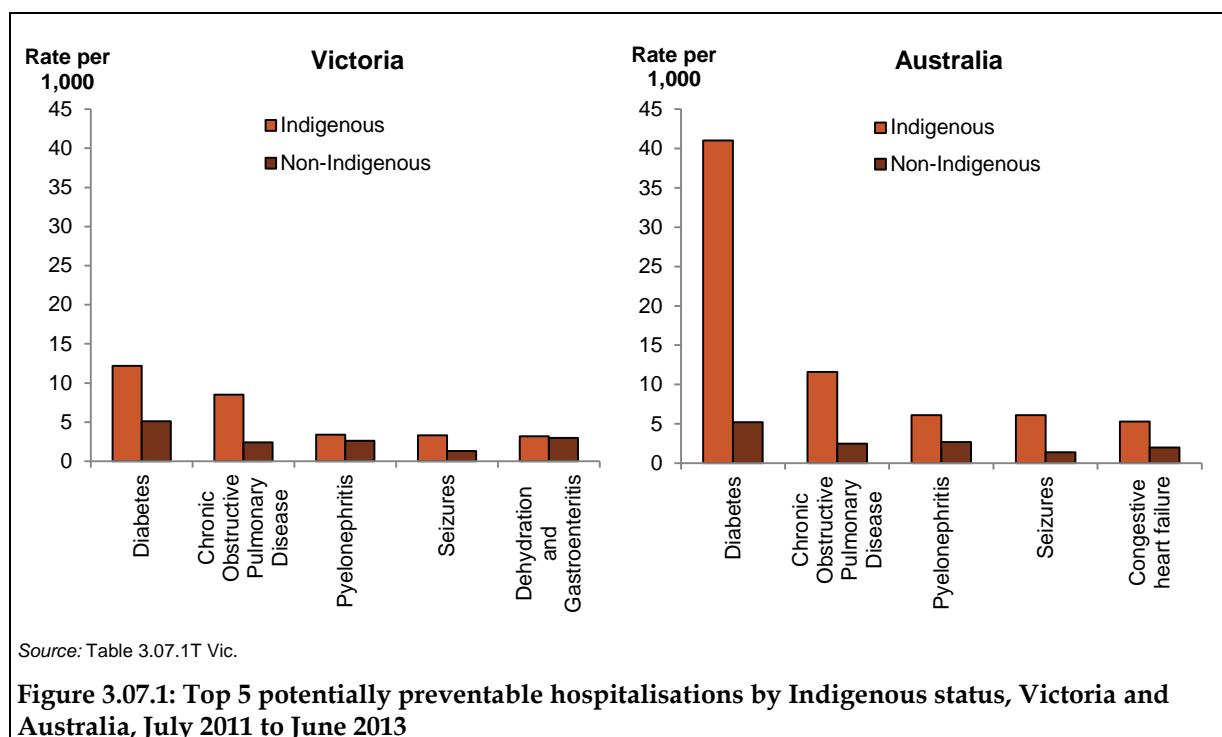
Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

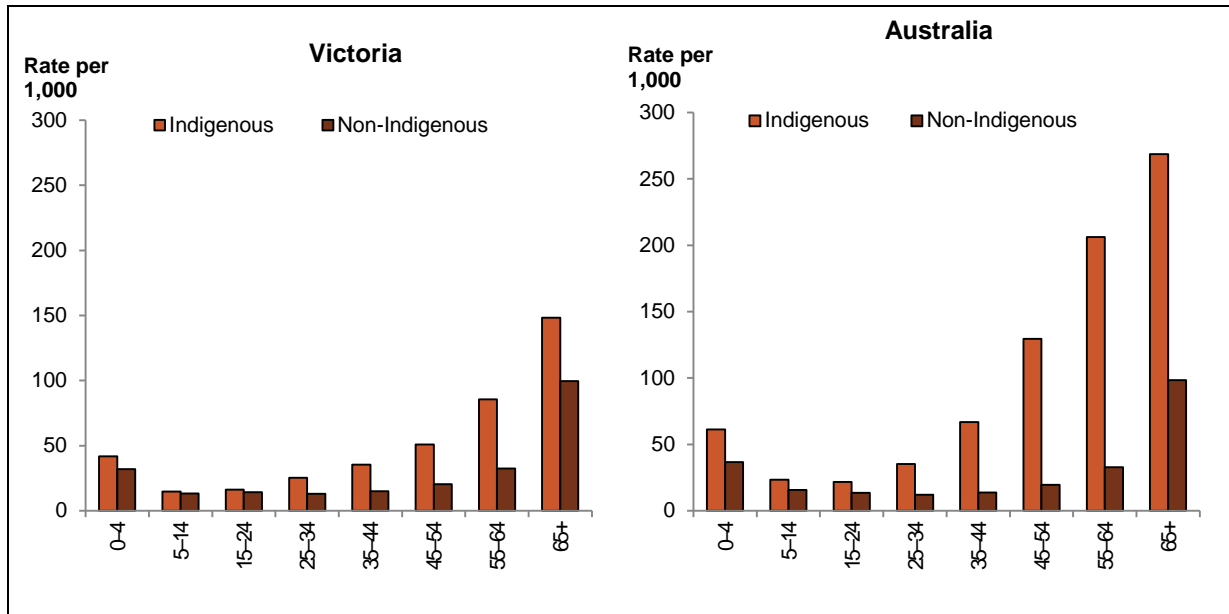
### Key findings for Victoria

In 2011–12 to 2012–13 in Victoria:

- After adjusting for differences in age structure, hospitalisation rates for potentially preventable conditions were higher among Indigenous than non-Indigenous Australians, with 50 per 1,000 and 29 per 1,000, respectively – a rate difference of 21 per 1,000 (Table 3.07.2). This compares with national rates of 97 per 1,000 and 29 per 1,000, respectively, and a rate difference of 68 per 1,000 (Table 3.07.1).
- Hospitalisation rates for potentially preventable conditions were higher for Indigenous females than Indigenous males (51 per 1,000 and 48 per 1,000, respectively), while for non-Indigenous Australians the opposite was true (29 per 1,000 for males and 28 per 1,000 for females). The rate difference was larger for females (23 per 1,000) than males (19 per 1,000) (Table 3.07.2).
- For the top 5 potentially preventable hospital admission types, the rate difference in Victoria was largest for diabetes complications (7 per 1,000) and chronic obstructive pulmonary disease (6 per 1,000) (Table 3.07.1T Vic, Figure 3.07.1).

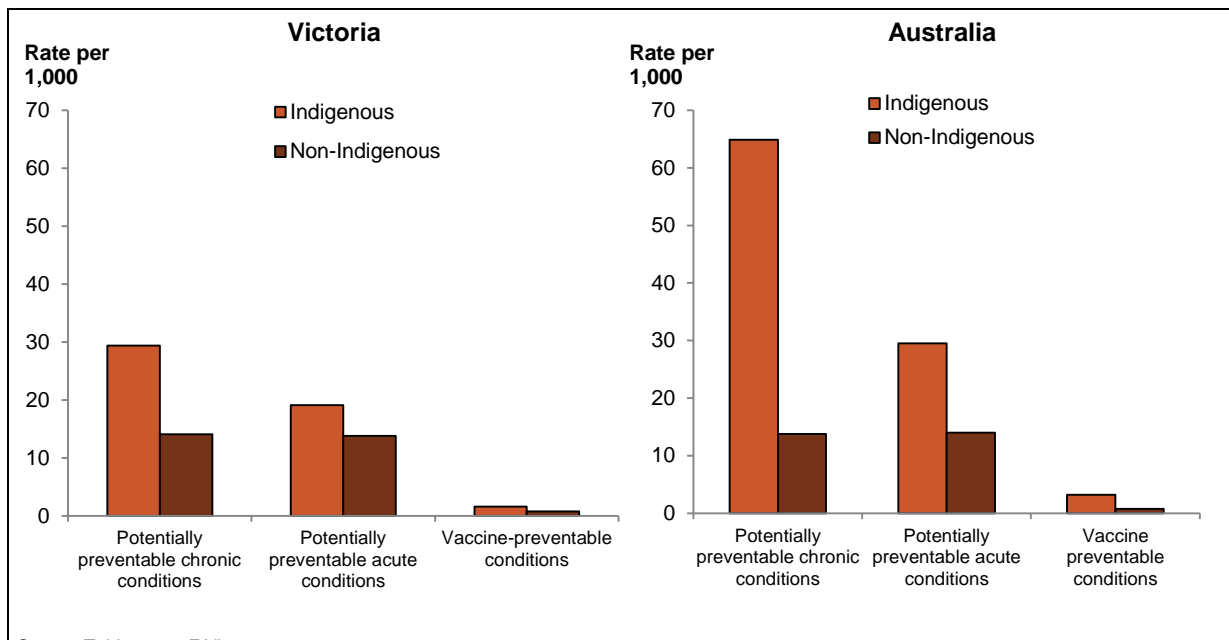
- Potentially preventable hospitalisation rates were highest among people aged 65 and over for Indigenous and non-Indigenous Australians (148 per 1,000 and 100 per 1,000, respectively).
  - Patterns by age group for Victoria were similar to those nationally for both Indigenous and non-Indigenous Australians; however, the rates for Indigenous Australians in most age groups were considerably lower in Victoria than nationally (Table 3.07.1F Vic, Figure 3.07.2).
- Potentially preventable hospitalisation rates in Victoria were higher for Indigenous than non-Indigenous Australians, for all 3 condition categories (vaccine-preventable, acute and chronic).
  - The rate difference was greatest for potentially preventable chronic conditions, at 15 per 1,000, with rates of 29 per 1,000 for Indigenous Australians and 14 per 1,000 for non-Indigenous Australians (Table 3.07.2F Vic, Figure 3.07.3).





Source: Table 3.07.1F Vic.

**Figure 3.07.2: Age-specific hospitalisation rates for potentially preventable hospitalisations, by Indigenous status, Victoria and Australia, 2011-12 to 2012-13**



Source: Table 3.07.2F Vic.

**Figure 3.07.3: Age-standardised hospitalisation rates for potentially preventable hospitalisations, by Indigenous status, Victoria and Australia, July 2011 to June 2013**



## Key findings for Australia

- In 2011–12 to 2012–13, the age-standardised hospitalisation rate for potentially preventable conditions for Indigenous Australians was 97 per 1,000, compared with 29 per 1,000 for non-Indigenous Australians – a rate difference of 68 per 1,000 (Table 3.07.1).
- Indigenous Australians experienced higher rates of hospitalisation than non-Indigenous Australians across all 3 categories of potentially preventable conditions:
  - vaccine-preventable conditions (3 per 1,000 compared with 1 per 1,000, respectively)
  - potentially preventable acute conditions (30 per 1,000 compared with 14 per 1,000)
  - potentially preventable chronic conditions (65 per 1,000 compared with 14 per 1,000) (Table 3.07.4, Figure 3.07.3).
- The rate difference between Indigenous and non-Indigenous Australians for potentially preventable hospitalisations was largest for diabetes complications (36 per 1,000) followed by chronic obstructive pulmonary disease (9 per 1,000) (Table 3.07.5, Figure 3.07.1).
- From 1998–99 to 2012–13, in Queensland, Western Australia, South Australia and the Northern Territory combined, there was little change in hospitalisation rates for vaccine-preventable conditions among either Indigenous or non-Indigenous Australians (Table 3.07.7).
- From 2004–05 to 2012–13, in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, there was a 76% increase in the rate difference between Indigenous and non-Indigenous Australians in hospitalisation rates for vaccine-preventable conditions, from 1.6 to 2.7 per 1,000 (Table 3.07.8).

## 3.08 Cultural competency

### What is measured and why it is important

This measure reports on aspects of cultural competency including discrimination and barriers to accessing services for Indigenous Australians.

Improving the cultural competency of health-care services can increase Aboriginal and Torres Strait Islanders' access to health care, increase the effectiveness of care that is received and improve the disparities in health outcomes (Freeman et al. 2014). Cultural competency requires that organisations have a defined set of values and principles, and demonstrate behaviours, attitudes, policies and structures that enable them to work effectively cross-culturally (Dudgeon et al. 2010). Seven key aspects of cultural competency are: respect and trust, transport, flexibility, time, support, outreach and working together (Liaw et al. 2011).

Cultural competency can be measured directly (self-reporting on patient experience) or indirectly (discharge against medical advice). However, there is limited data available on the cultural competence of health services (Paradies et al. 2014) or on the effectiveness of interventions to address cultural competency (Truong et al. 2014).

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### Key findings for Victoria

Self-reported data from the 2012–13 AATSIHS suggest that:

- An estimated 37% of Indigenous Australians in Victoria did not see a health provider when it was necessary, compared with 30% of Indigenous Australians nationally. The proportion of Indigenous Australians who did not see specialised health providers in Victoria and nationally, respectively, were as follows: 23% and 21% for dentists, 20% and 14% for doctors, 8% and 6% for hospitals, 15% and 9% for counsellors, and 14% and 9% for other health professionals (Table 3.08.4, Figure 3.08.1).
- Reasons that Indigenous Australians did not see a health provider when necessary included logistical issues (for example, transport or lack of service in area) and cultural appropriateness of service (for example, discrimination, language problems or lack of trust) (Figures 3.08.2 and 3.08.3).

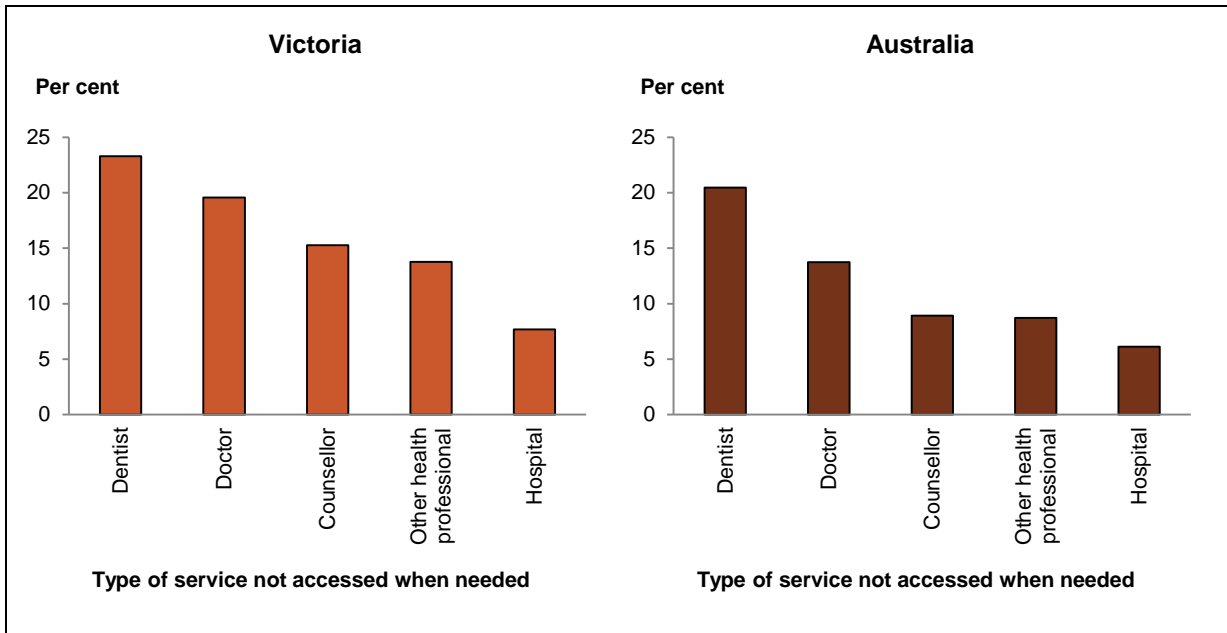
According to the OSR data collection, at 30 June 2013 in Victoria:

- 13% of all full-time equivalent (FTE) positions within Aboriginal and Torres Strait Islander primary health-care services in Victoria were Aboriginal health workers. This was similar to the national proportion (14%) (AIHW 2014a).

Data from the National Hospital Morbidity Database show that in the period July 2011 to June 2013 in Victoria:

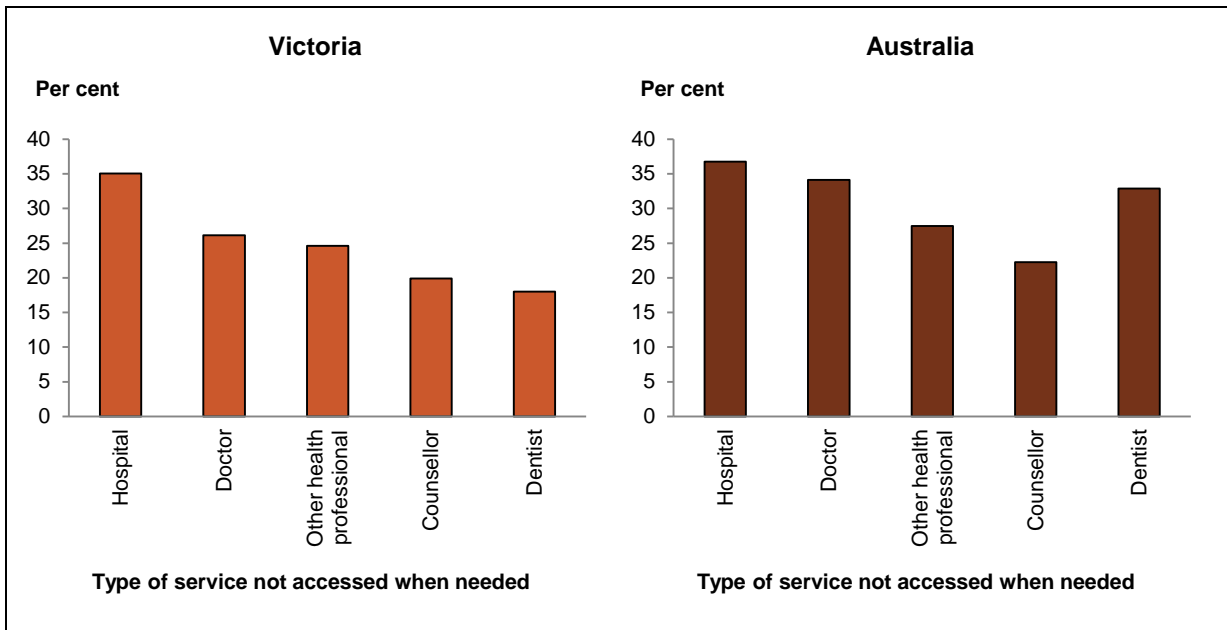
- In about 2% of hospitalisations for Indigenous Australians, the patient left against medical advice or was discharged at their own risk. After adjusting for differences in age structure, the proportion was 2% for Indigenous Australians, compared with less than 1% for non-Indigenous Australians, a gap of 1.5%. The proportion for Indigenous Australians nationally (4%) was higher than in Victoria (Table 3.09.3).





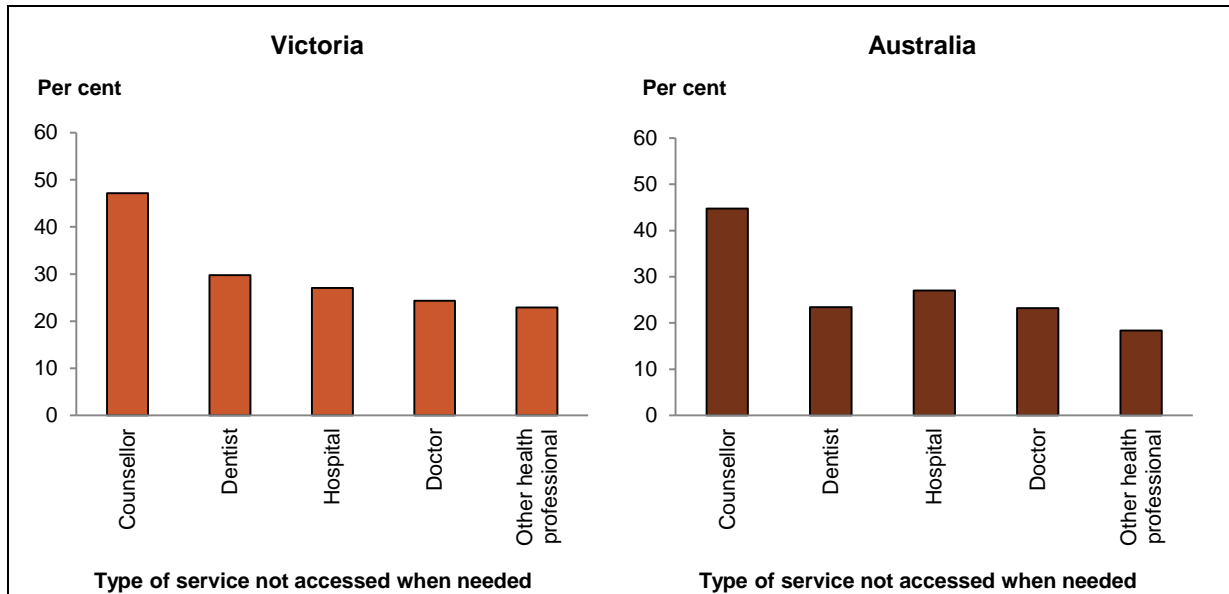
Source: Table 3.08.4.

**Figure 3.08.1: Proportion of Indigenous Australians who did not access a health provider when needed, by health provider type, Victoria and Australia, 2012-13**



Source: Table 3.08.4.

**Figure 3.08.2: Proportion of Indigenous Australians who did not access a health provider when needed who reported this was due to logistical reasons, by health provider type, Victoria and Australia, 2012-13**



Source: Table 3.08.4.

**Figure 3.08.3: Proportion of Indigenous Australians who did not access a health provider when needed who reported this was due to cultural appropriateness reasons, by health provider type, Victoria and Australia, 2012-13**

## Key findings for Australia

In the 2012-13 AATSIHS:

- An estimated 16% of Indigenous Australians felt they were treated badly in the last 12 months because they were Indigenous. Of these, 20% felt they were treated badly by doctors, nurses or other hospital staff (Table 3.08.1).
- An estimated 30% of those Indigenous Australians who needed to see a health professional in the last 12 months did not see a health provider when needed (Table 3.08.4).

Data from the National Hospital Morbidity Database show that in the period July 2011 to June 2013:

- In around 5% of hospitalisations for Indigenous Australians, the patient left hospital against medical advice or was discharged at their own risk. After adjusting for age, Indigenous patients were 8 times as likely as non-Indigenous patients to leave hospital against medical advice or be discharged at their own risk. The gap was 3 percentage points (Table 3.09.1).

According to the OSR data collection:

- In 2012-13, of 205 Aboriginal and Torres Strait Islander primary health-care services, 45% of services included cultural competency in staff performance appraisal processes and 88% ran a cultural orientation for non-Indigenous staff members (Table 3.08.14).
- As at 30 June 2013, 14% of all FTE positions in Aboriginal and Torres Strait Islander primary health-care services were Aboriginal health workers (Table 3.22.11).
- Indigenous Australians filled 54% of paid FTE positions in Australian Government-funded Aboriginal and Torres Strait Islander primary health-care services (AIHW 2014a).



## Trend

Data from the Census of Population and Housing show that between 1996 and 2011:

- The rate of Indigenous Australians aged 15 and over who were employed in the health workforce increased from 96 to 155 per 10,000. This was a significant increase of 70% over the period (Table 3.12.1).

## 3.09 Discharge against medical advice

### What is measured and why it is important

Data are presented on the rate at which Aboriginal and Torres Strait Islander people leave hospital against medical advice or are discharged at their own risk.

It is important to closely monitor consumer satisfaction, as it is believed to affect health-related behaviours. For example, satisfied consumers may be more likely to cooperate with treatment, continue using services, maintain a relationship with a specific provider, and actively participate in their own treatment. The data in this measure on hospitalisations where patients left hospital against medical advice/discharged at their own risk may provide indirect evidence of the extent to which hospital services are responsive to Indigenous Australian patients' needs (AHMAC 2015).

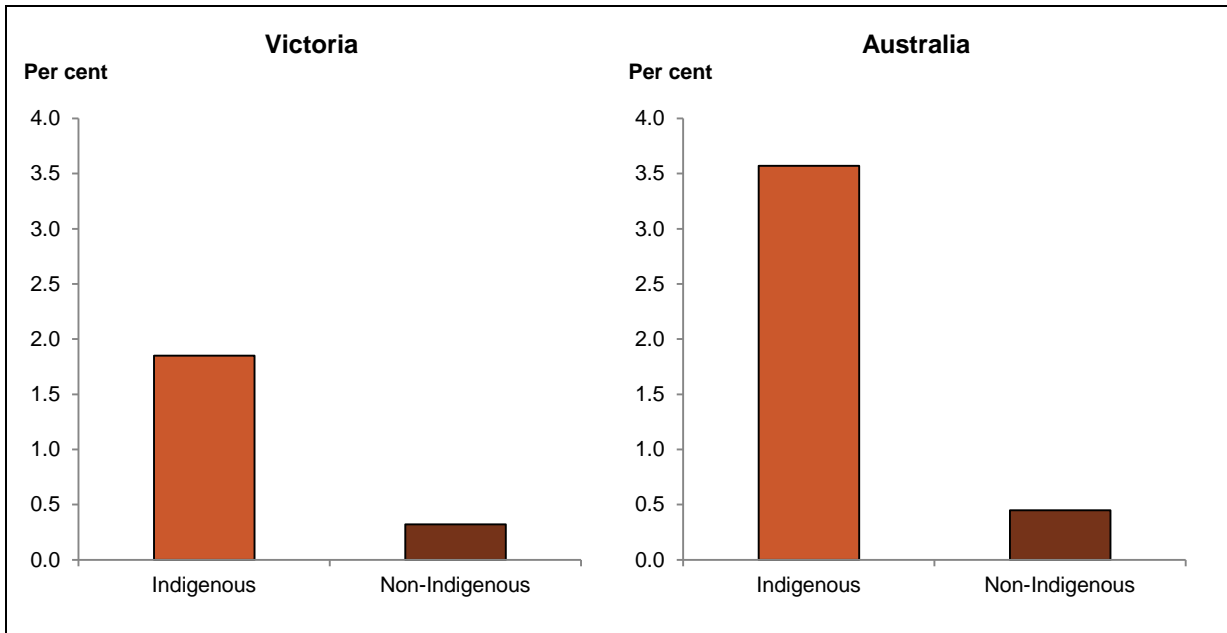
All data in this measure are drawn from the National Hospital Morbidity Database.

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### Key findings for Victoria

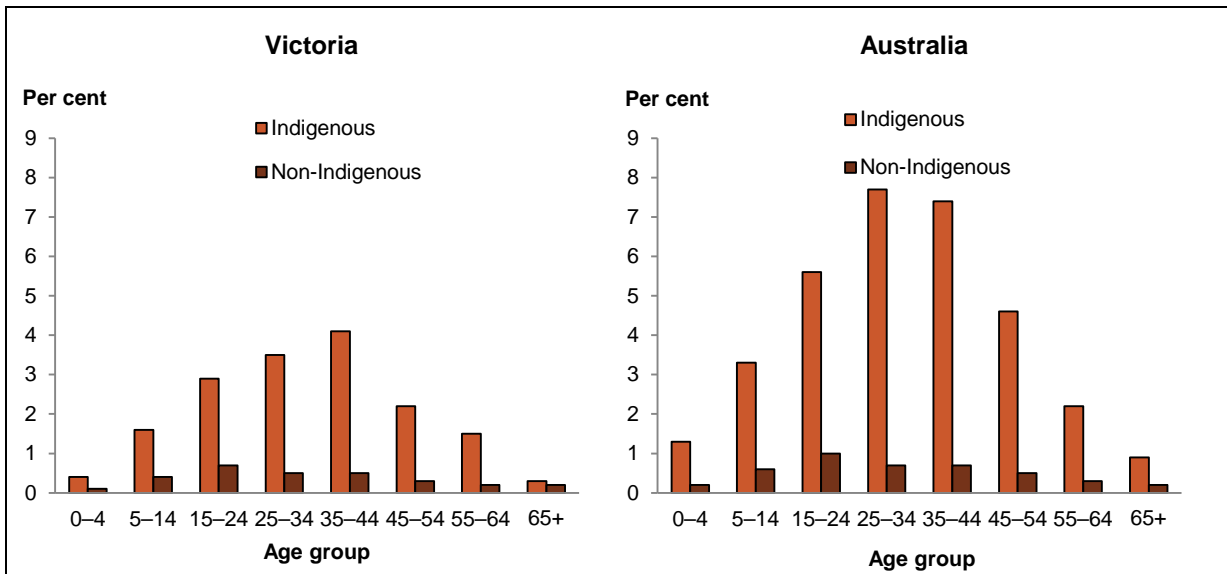
In 2011–12 to 2012–13 in Victoria:

- The proportion of hospitalisations where Indigenous patients left against medical advice or were discharged at their own risk was 2%. This was lower than the proportion for Indigenous Australians at the national level (5%).
- After adjusting for differences in age structure, the ratio between the rates for Indigenous and non-Indigenous Australians was 6, compared with 8 nationally (Table 3.09.3, Figure 3.09.1).
- Indigenous Australians aged 25–34 and 35–44 had the highest proportions of hospitalisations where patients left hospital against medical advice or were discharged at their own risk (both 4%). These age groups also had the highest proportion at the national level (8% and 7% respectively) (Table 3.09.1F Vic, Figure 3.09.2).
- For Indigenous Australians, the principal diagnosis with the highest proportion of hospitalisations where the patient left hospital against medical advice or was discharged at their own risk were endocrine, nutritional and metabolic disorders (4%) and injury, poisoning and external cases (4%). These were lower than the proportions for Indigenous Australians at the national level (6% and 5% respectively) (Table 3.09.2F Vic, Figure 3.09.3).



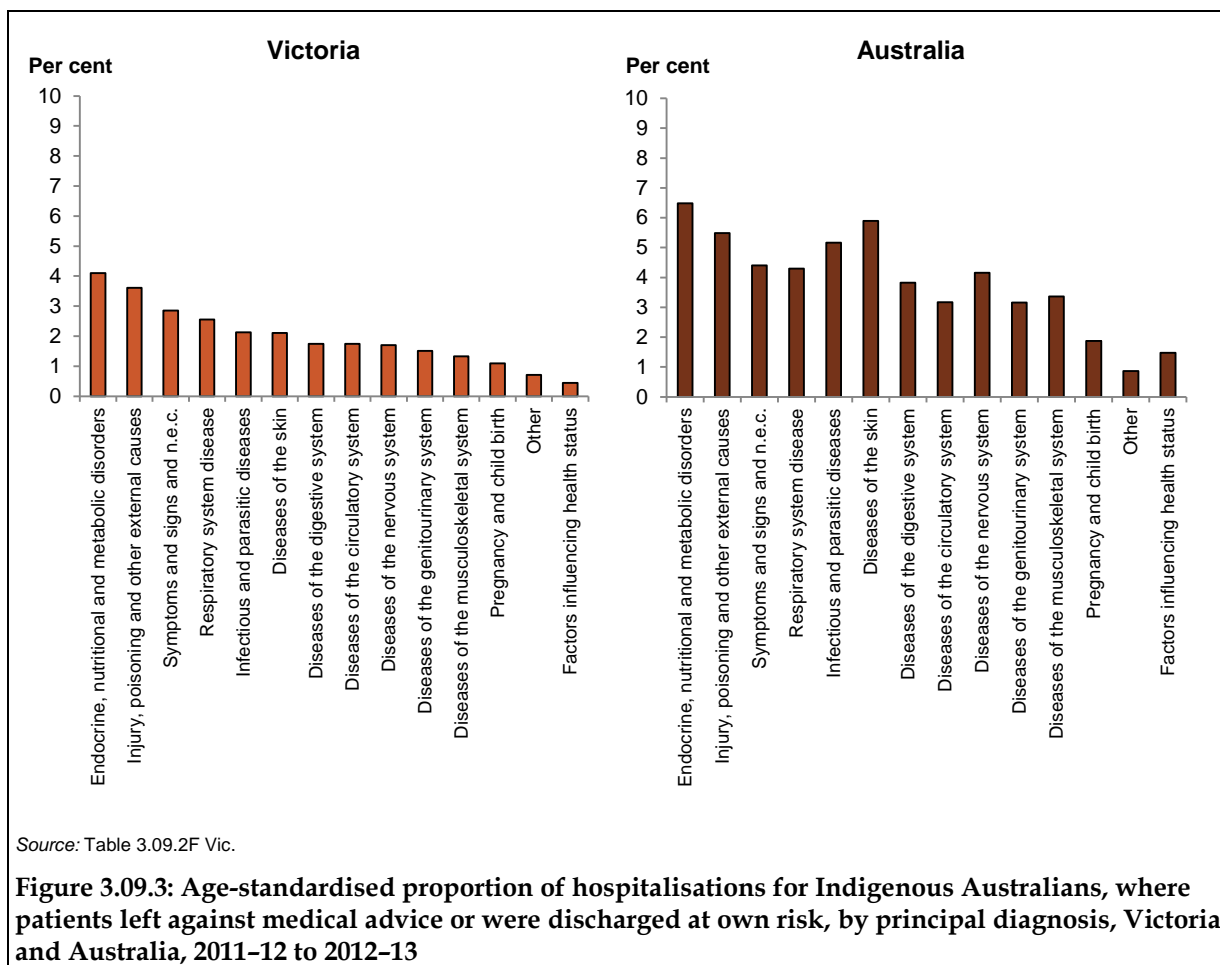
Source: Table 3.09.3.

**Figure 3.09.1: Age-standardised percentage of hospitalisations where the patient left against medical advice or was discharged at own risk, by Indigenous status, Victoria and Australia, 2011-12 to 2012-13**



Source: Table 3.09.1F Vic.

**Figure 3.09.2: Proportion of hospitalisations where the patient left against medical advice or was discharged at own risk, by Indigenous status and age group, Victoria and Australia, 2011-12 to 2012-13**



## Key findings for Australia

In 2011-12 to 2012-13:

- After adjusting for age, Indigenous patients were 8 times as likely as non-Indigenous patients to leave hospital against medical advice or be discharged at their own risk (3.6% compared with 0.5%). The difference was 3.1 percentage points (Table 3.09.2).
- The percentage point difference generally increased with remoteness, from 2 in *Major cities* to 6 in *Very remote* areas (Table 3.09.4).
- The proportion of hospitalisations where Indigenous Australians left hospital against medical advice or were discharged at their own risk was greatest for principal diagnoses in the category 'injury, poisoning, and other certain consequences of external causes' (7%) (Table 3.09.8).
- Results from multivariate logistic regression analysis showed that Indigenous status contributed the most to the model of likelihood of a patient leaving hospital against medical advice or being discharged at their own risk, followed by remoteness of the hospital (Table 3.09.10).



## Trend

- From 1998–99 to 2012–13, for Queensland, Western Australia, South Australia and the Northern Territory combined, the gap between Indigenous and non-Indigenous Australians in the proportion of hospitalisations where the patient left against medical advice or was discharged at their own risk increased 39%, from 14 to 19 per 1,000 (Table 3.09.6).
- From 2004–05 to 2012–13 for New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, the difference increased by 35%, from 11 to 15 per 1,000 (Table 3.09.7).



## 3.10 Access to mental health services

### What is measured and why it is important

This indicator reports on access to mental health-care services such as hospitals, community mental health care, doctors and Aboriginal and Torres Strait Islander primary health-care services by Aboriginal and Torres Strait Islander people.

Aboriginal and Torres Strait Islander people experience higher rates of mental health issues and use mental health services at higher rates than other Australians. However, it is not known if this is fully meeting the underlying needs (AHMAC 2015).

Mental health care may be provided by specialised mental health-care services (for example, private psychiatrists; and specialised hospital, residential or community services) or by general health-care services that supply mental health-related care (for example, GPs and Indigenous primary health-care organisations) (AHMAC 2015).

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### Key findings for Victoria

According to the National Residential Mental Health Care Database, in 2012–13 in Victoria:

- There were 44 residential mental health care episodes reported for Indigenous clients. The rate of residential mental health care episodes was 2.4 times as high for Indigenous Australians (13 per 10,000) as for non-Indigenous Australians (5 per 10,000), compared with 1.5 times nationally (Table 3.10.6, Figure 3.10.1).

According to the National Hospital Morbidity Database, in the period 2011–12 to 2012–13 in Victoria:

- After adjusting for differences in age structure, the hospitalisation rate for mental health-related conditions for Indigenous Australians was 1.7 times the rate for non-Indigenous Australians (23 per 1,000 compared with 14 per 1,000), compared with 1.9 times nationally (Table 3.10.8, Figure 3.10.2).
  - The hospitalisation rate for mental health-related conditions for Indigenous men was 2 times the rate for non-Indigenous men. The rate for Indigenous women was 1.5 times the rate for non-Indigenous women.

According to the National Mental Health Establishments Database, in 2011–12 in Victoria:

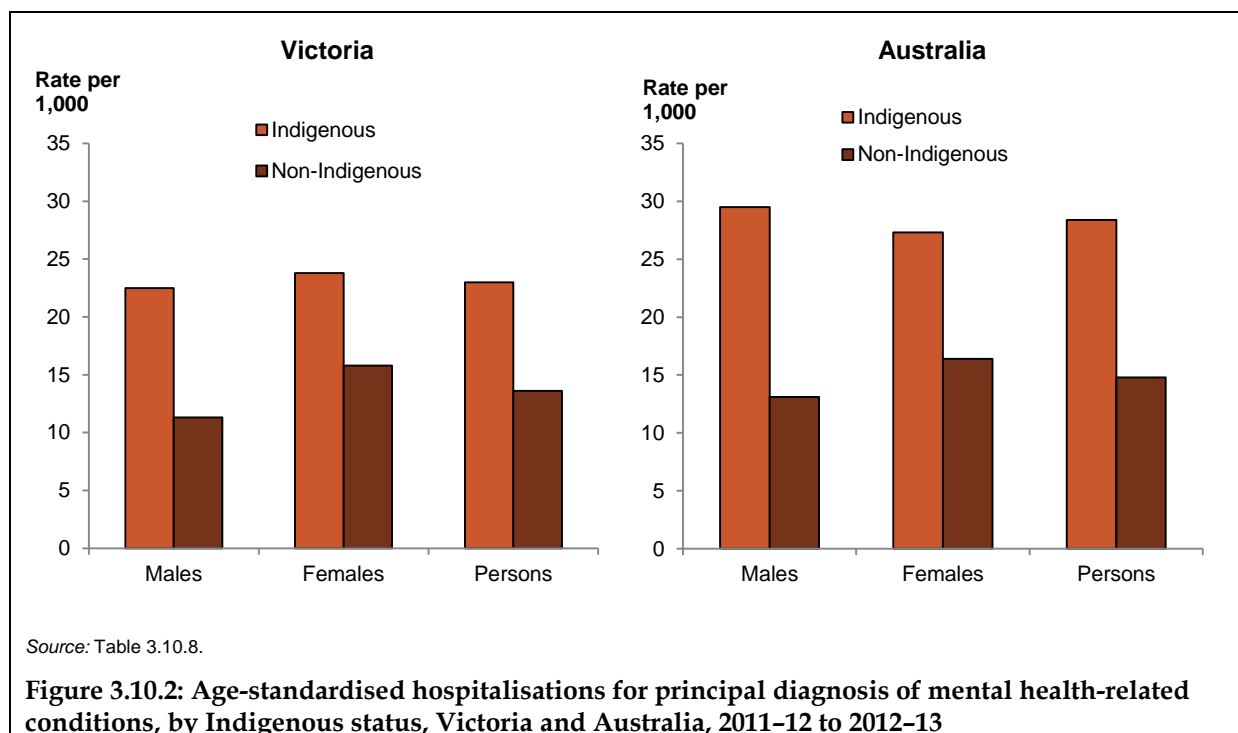
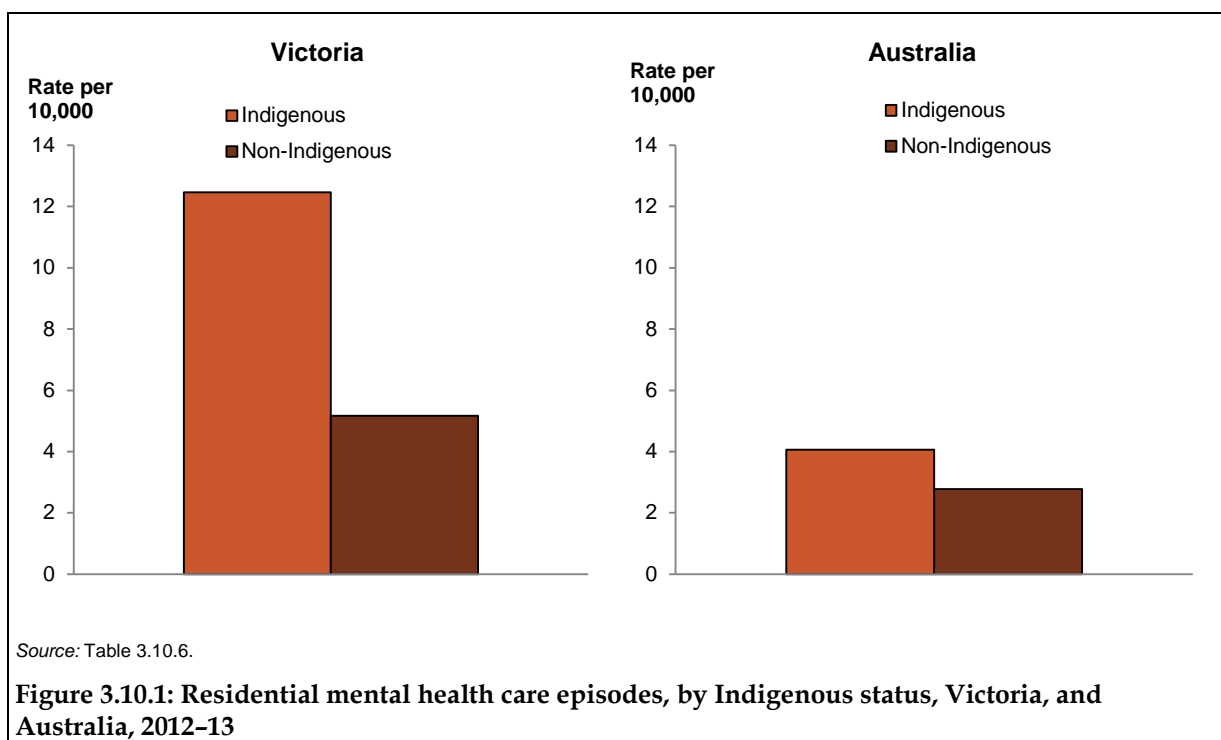
- The rate of available psychiatric beds in public psychiatric hospitals was 3 per 100,000 (Table 3.10.13).

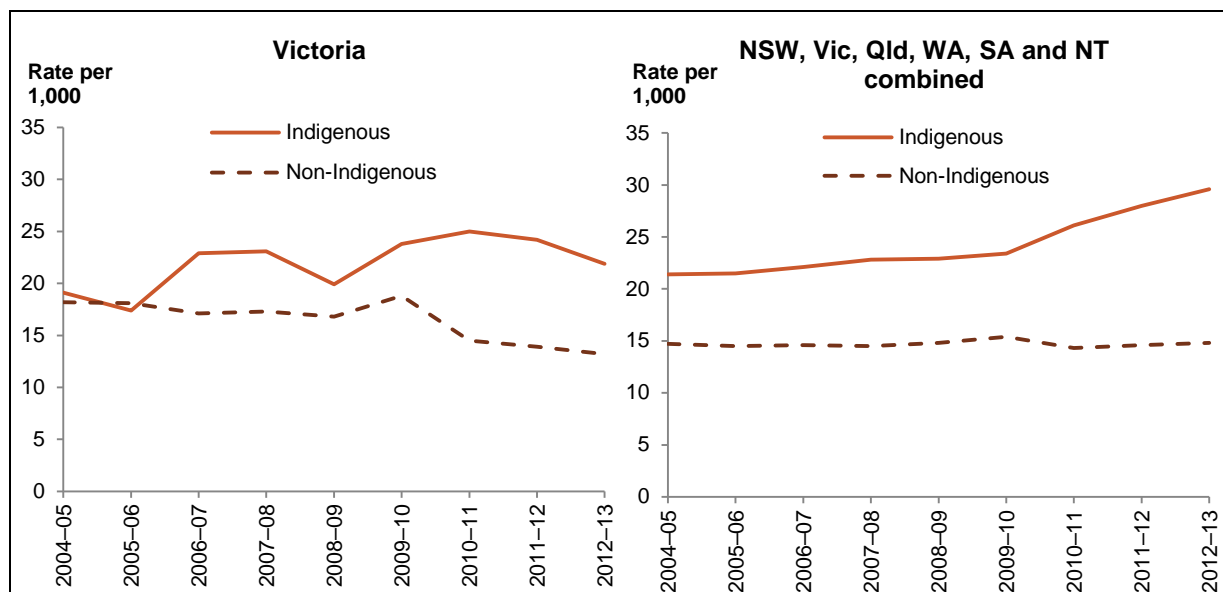
### Trend

Data from the National Hospital Morbidity Database show that from 2004–05 to 2012–13 in Victoria:

- Hospitalisation rates for mental health-related conditions for Indigenous Australians increased 25%, from 19 per 1,000 to 22 per 1,000. The rate for non-Indigenous Australians

declined 26%. The rate difference between Indigenous and non-Indigenous Australians increased (tables 3.10.2T Vic, 1.18.3F Vic, Figure 3.10.3).






Source: Table 3.10.2T Vic.

**Figure 3.10.3: Age-standardised hospitalisation rates, mental health-related conditions, Victoria, and NSW, Vic, Qld, WA, SA and NT combined, 2004-05 to 2012-13**

## Key findings for Australia

- In the 2012-13 AATSIHS, 27% of Indigenous adults with reported high/very high levels of psychological distress had seen a health professional about their distress in the last 4 weeks (Table 3.10.1).
- According to the Medicare database, in 2013-14, after adjusting for age, the rates of MBS services claimed for psychologists and psychiatrists among Indigenous Australians were 108 per 1,000 and 48 per 1,000, respectively, lower than for non-Indigenous Australians (172 per 1,000 and 94 per 1,000 respectively) (Table 3.10.2).
- In 2012-13, 8% of Indigenous and non-Indigenous Australians accessed Medicare-subsidised clinical mental health-care services (SCRGSP 2015).
- Data collected through the BEACH program in the period April 2008-March 2009 to April 2012-March 2013 suggest that, after adjusting for age, GPs managed mental health-related problems in encounters with Indigenous patients at 1.3 times the rate for other Australians (Table 3.10.3).
- According to the National Community Mental Health Care Database, after adjusting for age, the rate of community mental health service contacts for Indigenous Australians was 3.2 times the rate for non-Indigenous Australians (999 per 1,000 population compared with 313 per 1,000) (Table 3.10.4).
- According to the National Residential Mental Health Care database, after adjusting for age, the rate of residential mental health-care episodes was 1.5 times as high for Indigenous Australians (4 per 10,000) as non-Indigenous Australians (3 per 10,000) (Table 3.10.6).
- Data from the National Hospital Morbidity Database show that, in the period 2011-12 to 2012-13, after adjusting for age, the hospitalisation rate for mental health-related



conditions for Indigenous Australians was 1.9 times the rate for non-Indigenous Australians (28 per 1,000 compared with 15 per 1,000) (Table 3.10.8).

## **Trend**

According to the National Hospital Morbidity Database, between 1998–99 and 2012–13 in Queensland, Western Australia, South Australia and the Northern Territory:

- After adjusting for age, hospitalisation rates for mental health-related conditions for Indigenous Australians increased by 50%. The rate difference between Indigenous and non-Indigenous Australians increased by 188% (Table 3.10.11).

Between 2004–05 and 2012–13 in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory:

- After adjusting for age, the hospitalisation rate for mental health-related conditions for Indigenous Australians increased by 40%. The rate difference between Indigenous and non-Indigenous Australians increased by 143% (Table 3.10.12, Figure 3.10.3).

## 3.11 Access to alcohol and drug services

### What is measured and why it is important

Data are presented on access to alcohol and drug services by Aboriginal and Torres Strait Islander Australians, expressed as percentages, rates, rate ratios and rate differences.

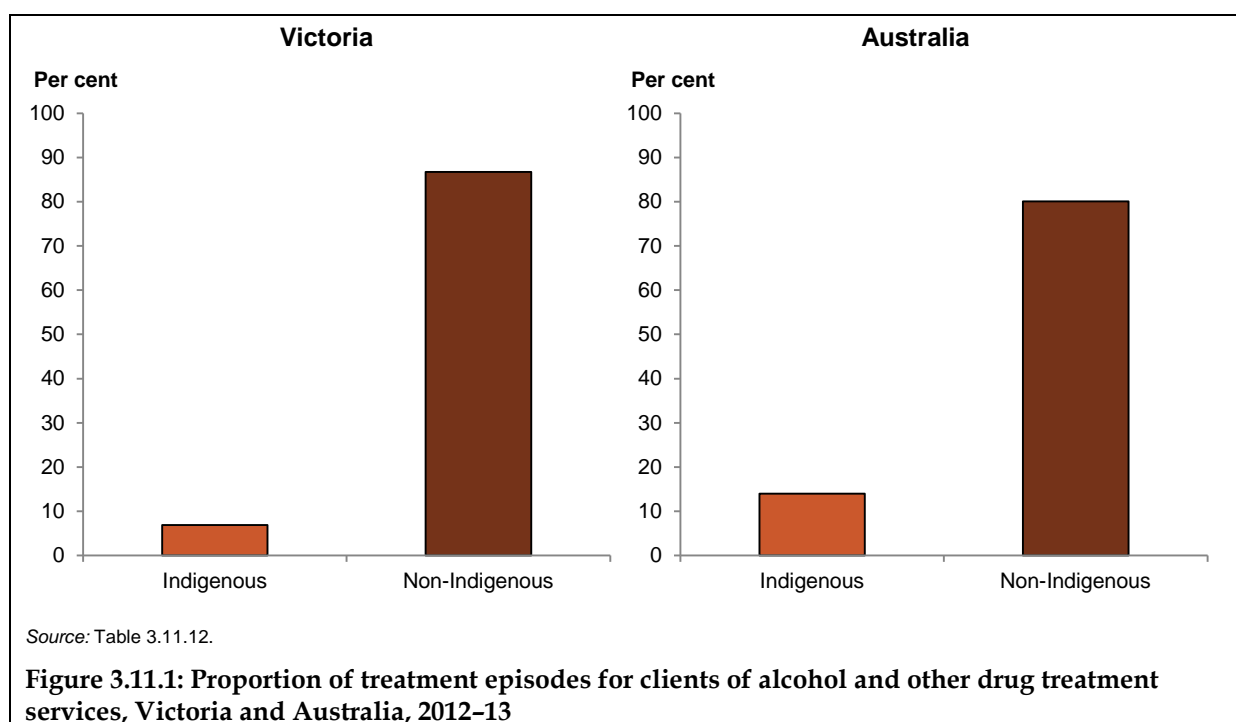
Access to these services by Aboriginal and Torres Strait Islander people may be affected by: geography (for example, physical distance to health services; availability of transport and quality of roads); the cultural competency of services (see measure 3.08); affordability (for example, of services, pharmaceuticals, travel); and availability of services and health professionals. Extra barriers concerning alcohol and drug use include shame associated with seeking treatment, concern about getting into trouble with the law and fear of losing custody of children (NIDAC 2014).

Alcohol and substance use services provide a variety of interventions and support that seek to address harmful alcohol and other drug use, and restore the physical, social and emotional wellbeing of clients and their families (NIDAC 2014). The term 'other drugs' includes illegal drugs (for example, heroin and cannabis), misuse of medicines (for example, pain-killers), and use of psychoactive substances in a harmful way (for example, petrol inhalation). Services are delivered in residential and non-residential settings, in stand-alone facilities or as part of primary care services. Treatment types include detoxification and rehabilitation programs, information and education courses, counselling and pharmacotherapy (AIHW 2014c).

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### Key findings for Victoria

- Data from the OSR data collection show that there were 4 Aboriginal and Torres Strait Islander substance-use organisations in Victoria. This is 6% of all Aboriginal and Torres Strait Islander substance-use organisations nationally (Table 3.11.5).
- According to the Alcohol and Other Drug Treatment Services National Minimum Data Set, there were 3,734 treatment episodes for Indigenous clients of alcohol and other drug treatment services in Victoria in 2012–2013, accounting for 7% of the total number of treatment episodes. At the national level, Indigenous clients accounted for 14% of all treatment episodes (Table 3.11.12, Figure 3.11.1).



## Key findings for Australia

- According to the AODTS-NMDS, there were around 22,700 episodes of care involving Indigenous clients of alcohol and other drug treatment services in 2012-13 (Table 3.11.1).
- The OSR data collection shows that there were at least 272,000 episodes of care involving Indigenous clients of Aboriginal and Torres Strait Islander substance use services in 2012-13 (Table 3.11.2).
- All Aboriginal and Torres Strait Islander substance use services reported alcohol use in their 5 most important substance use issues in terms of staff time and organisational resources. 97% reported cannabis/marijuana and 64% reported tobacco/nicotine (Table 3.11.8).
- According to the National Opioid Pharmacotherapy Statistics Annual Data collection, on a snapshot day in 2013, for jurisdictions where data on Indigenous status were available (NSW, Qld, SA, ACT, Tas and NT combined), there were 2,822 Indigenous Australian pharmacotherapy clients (clients receiving methadone, buprenorphine, and buprenorphine/naloxone) (AIHW 2014q).
- Data from the National Hospital Morbidity Database suggest that, in the period July 2011 to June 2013, Indigenous Australians were hospitalised at more than 4 times the rate of non-Indigenous Australians for alcohol-related conditions (see measure 2.16, Table 2.16.11), and 2.5 times the rate of non-Indigenous Australians for drug-related conditions (see measure 2.17, Table 2.17.12).



## Trend

- Data from the OSR data collection show that the percentage of *Very remote* clients of Aboriginal and Torres Strait Islander substance use services increased each year from 3% in 2008–09 to 15% in 2012–13 (Table 3.11.3). Note, though, that the trend may have been affected by new organisations with a large client base that began reporting in 2012–13.
- The National Opioid Pharmacotherapy Statistics Annual Data collection suggests that the number of Indigenous clients receiving pharmacotherapy treatment for opioid dependence in NSW, Qld, SA and the ACT combined increased from 1,768 on a snapshot day in 2007 to 2,562 on a snapshot day in 2012 (Table 3.11.11).



## 3.12 Aboriginal and Torres Strait Islander people in the health workforce

### What is measured and why it is important

This measure reports on the number and rate of Aboriginal and Torres Strait Islander Australians and non-Indigenous Australians employed in health-related occupations.

Indigenous Australians are significantly under-represented in the health workforce, which may potentially contribute to reduced access to health services. An Indigenous health workforce is critical to ensuring that the health system has the capacity to address the needs of Indigenous Australians. Indigenous health professionals may be able to better ensure culturally appropriate care in the services they deliver and improve the patient care of Indigenous Australians (Anderson et al. 2009).

All data for this measure are drawn from the Census of Population and Housing.

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### Key findings for Victoria

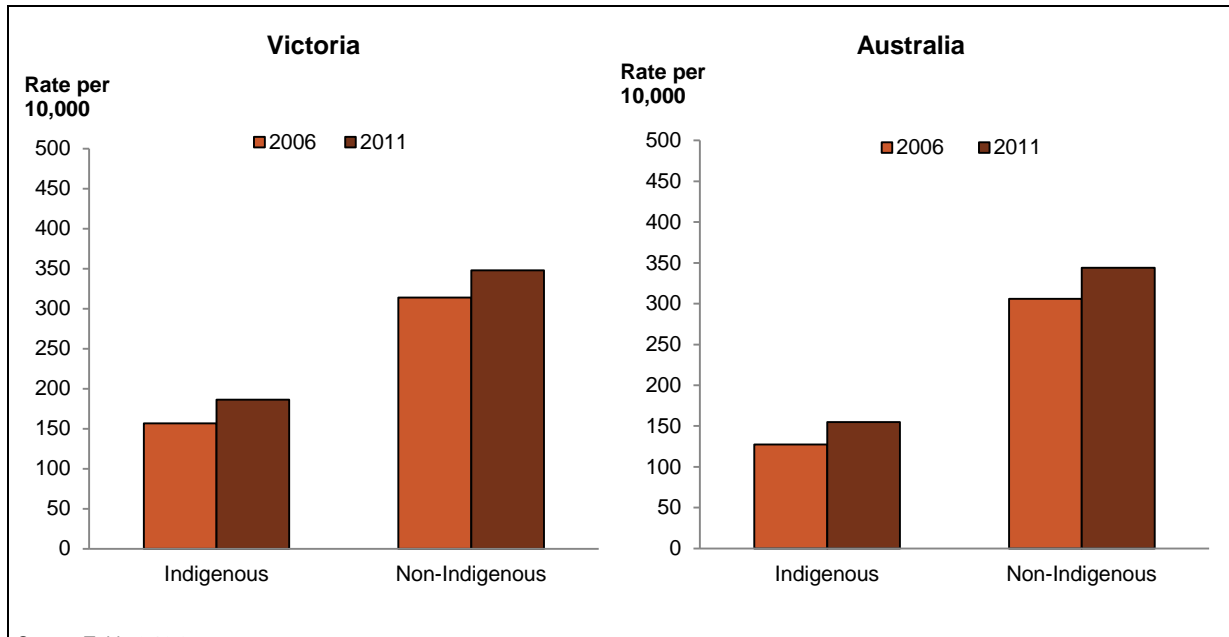
According to the Census of Population and Housing, in 2011 in Victoria:

- There were 703 Indigenous Australians in Victoria employed in selected health-related occupations, a rate of 186 per 10,000 Indigenous Australians (Table 3.12.2).
- There were 175,708 non-Indigenous Australians employed in selected health-related occupations, a rate of 348 per 10,000 non-Indigenous Australians (Table 3.12.2).
- The gap in employment between Indigenous and non-Indigenous Australians for selected health-related occupations was 162 per 10,000 (Table 3.12.2).

### Trend

According to the Census of Population and Housing, in Victoria between 2006 and 2011:

- The rate of Indigenous Australians employed in selected health-related occupations increased from 157 per 10,000 in 2006 to 186 per 10,000 in 2011, an increase of 19% over the period (Table 3.12.2).
- The rate of non-Indigenous Australians employed in selected health-related occupations increased from 314 per 10,000 in 2006 to 348 per 10,000 in 2011, an increase of 11% over the period (Table 3.12.2).
- The gap in the rate of employment in selected health-related occupations between Indigenous and non-Indigenous Australians widened from 158 per 10,000 to 162 per 10,000 (Figure 3.12.1).



Source: Table 3.12.2.

**Figure 3.12.1: Indigenous and non-Indigenous Australians in selected health-related occupations (number per 10,000 population), Victoria and Australia, 2006 and 2011**

## Key findings for Australia

In 2011:

- There were about 8,460 Indigenous Australians employed in selected health-related occupations (Table 3.12.1).
- 1.6% of the Indigenous population (as identified and counted in the 2011 Census) was employed in health-related occupations, less than in the non-Indigenous population (3.4%).
- 1.2% of the total health workforce were Indigenous Australians.
- Three-quarters (76%) of the Indigenous health workforce were female, a similar proportion (75%) to that of the overall health workforce (Table 3.12.3).

## Trend

- The rate of Indigenous Australians employed in selected health-related occupations increased from 96 per 10,000 in 1996 to 155 per 10,000 in 2011, an increase of 70% over the period (Table 3.12.1).

## 3.13 Competent governance

### What is measured and why it is important

Data are presented on measures of competent governance in mainstream and Indigenous-specific health services, including management of service delivery, compliance and accountability of services, and cultural responsiveness of service delivery for Indigenous clients.

Governance involves having the processes and institutional capacity to be able to exercise control through making and applying rules, mobilising and managing resources, and sound decision-making. 'Competent governance' requires the means to establish good governance arrangements with the ultimate aim of achieving the social, cultural and economic developments sought by constituents (de Alcántara 1998; Dodson & Smith 2003; Hawkes 2001; Westbury 2002).

The governance model of Aboriginal Community Controlled Health Organisations (ACCHO) are an important provider of comprehensive primary health-care services for Aboriginal and Torres Strait Islander people (DoHA 2001; Larkins et al. 2006). Although the capabilities and capacity of ACCHOs vary, this model of care provides important options for Indigenous Australians (Moran et al. 2014).

The Office of the Registrar of Indigenous Corporations (ORIC) helps to administer the *Corporations (Aboriginal and Torres Strait Islander) (CATSI) Act 2006*. This Act supersedes the *Aboriginal Councils and Associations (ACA) Act 1976*. For more information, see measure 3.08.

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

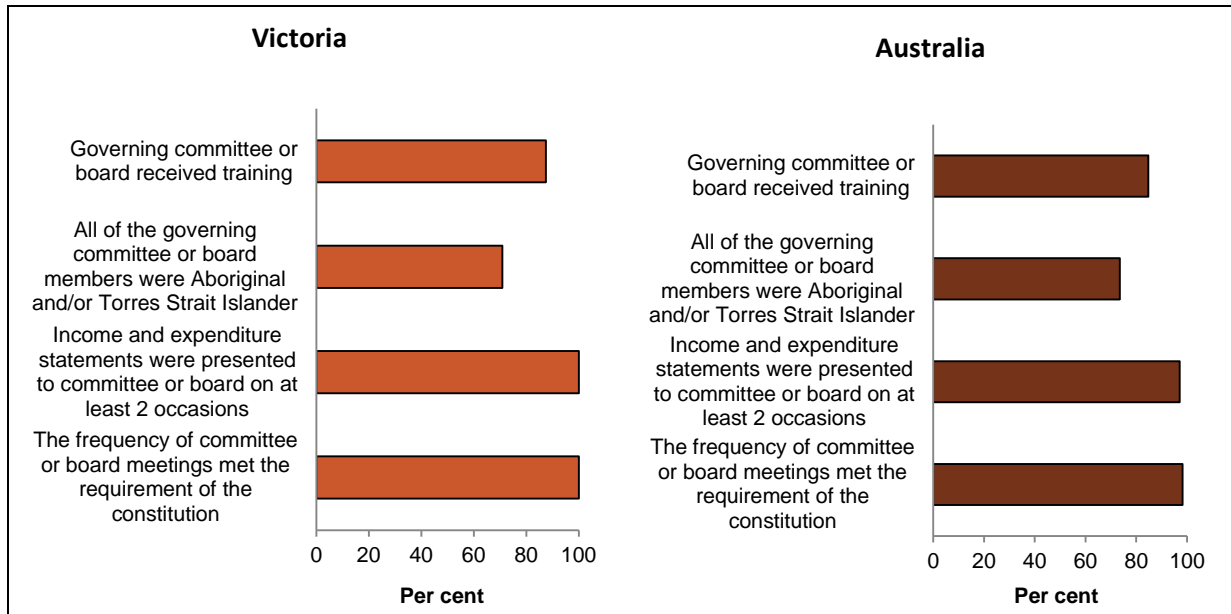
### Key findings for Victoria

According to the OSR data collection, in 2012–13 in Victoria:

- 71% of Indigenous primary health-care services had exclusively Aboriginal and/or Torres Strait Islander board members (Table 3.13.3 Vic, Figure 3.13.1).
- 50% of Indigenous primary health-care services had representation on external boards, such as hospitals, and 83% participated in regional health planning processes (Table 3.13.5 Vic, Figure 3.13.2).

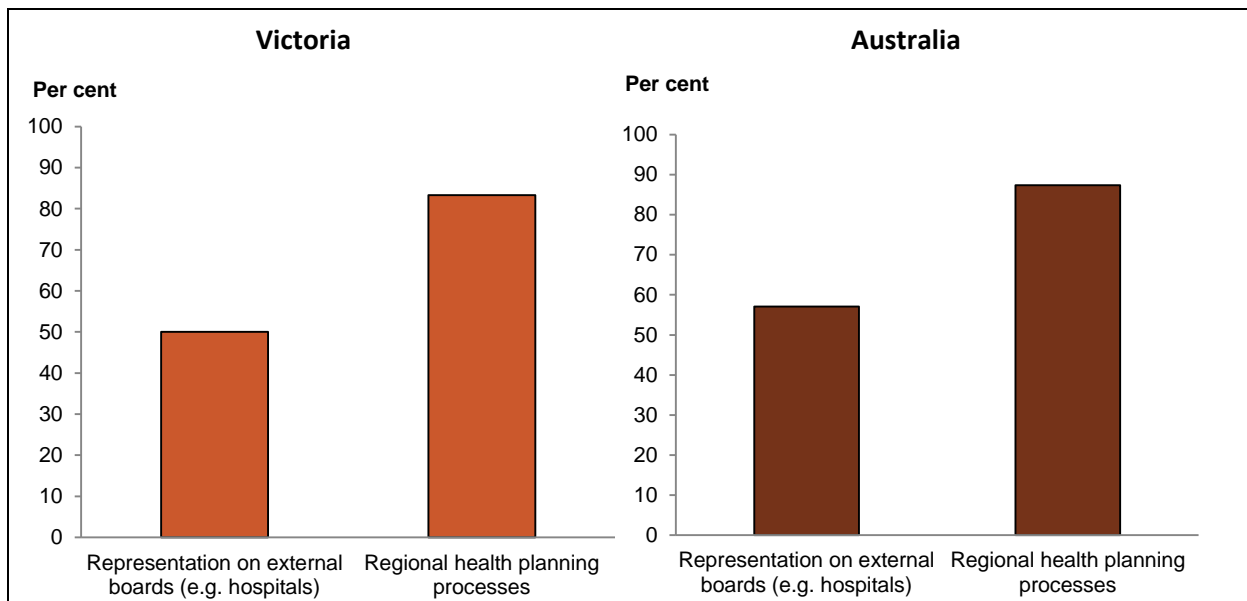
The 2012–13 AATSIHS shows that:

- Of Indigenous Australians aged 15 and over living in *Non-remote* areas of Victoria and who had seen a GP or specialist in the previous 12 months, 87% reported that the doctor always or usually listened carefully to them, and 89% reported that the doctor showed them respect (see measure 3.08, Table 3.08.7).



Sources: Tables 3.13.3, 3.13.3 Vic.

**Figure 3.13.1: Governing committee/board characteristics, Aboriginal and Torres Strait Islander primary health-care services, Victoria and Australia, 2012-13**



Sources: Tables 3.13.5, 3.13.5 Vic.

**Figure 3.13.2: Proportion of Aboriginal and Torres Strait Islander primary health-care services participating in mainstream processes, Victoria and Australia, 2012-13**

## Key findings for Australia

According to the ORIC, in 2012–13:

- 98% (91 of 93) of health corporations incorporated under the CATSI Act were compliant (Table 3.13.1).

Data from the OSR data collection show that in 2012–13:

- 74% of governing committees or boards in Indigenous primary health-care services had exclusively Aboriginal and/or Torres Strait Islander (Indigenous) members (Table 3.13.3).
- Of the Indigenous-specific substance-use services surveyed, 53% had exclusively Indigenous board or committee members (3.13.4).
- 57% of Aboriginal and Torres Strait Islander primary health-care services had representation on external boards such as hospitals, while 87% of services participated in regional health planning processes (Table 3.13.5).

In the 2012–13 AATSIHS:

- 89% of Indigenous Australians aged 15 and over who saw a GP or specialist in the previous 12 months reported that the doctor always or usually listened carefully to them and showed them respect (see measure 3.08, Table 3.08.7).

In the 2008 NATSISS:

- The percentage of Indigenous Australians aged 15 and over who agreed or strongly agreed with the statement 'Your doctor can be trusted' was higher in *Non-remote* areas (81%) compared with *Remote* areas (77%) (Table 3.13.8).
- The percentage of Indigenous Australians 15 and over who agreed or strongly agreed with the statement 'Hospitals can be trusted to do the right thing by you' was higher in *Remote* areas (74%) compared with *Non-remote* areas (59%) (Table 3.13.9).

## Trend

Data from the ORIC suggest that the proportion of compliant health corporations has remained relatively consistent from 2000–01 to 2012–13 (between 94% and 99%) (Table 3.13.2). According to the Healthy for Life data collection, in the period from 2009 to 2011:

- The number of services participating in the former Healthy for Life program that had complaints mechanisms increased from 78% in 2009 to 86% in 2011 (Table 3.13.6).
- The number of services with quality improvement strategies included in their current business plan increased from 65% in 2009 to 79% in 2011 (Table 3.13.7).
- The number of services using client satisfaction surveys increased from 53% in 2009 to 79% in 2011 (Table 3.13.6).

## 3.14 Access to services compared with need

### What is measured and why it is important

This measure reports on the use of various types of health services (for example, primary care, hospital, dental and allied health and post-acute care and palliative care) and potential barriers to accessing these services.

Indigenous Australians currently experience significantly poorer health status than non-Indigenous Australians. The health system can help with prevention through population health programs, provide an immediate response to acute illness and injury and protect good health through screening, early intervention and treatment (Dwyer et al. 2004). Access to health care when needed is essential to closing the gap in life expectancy between Indigenous and non-Indigenous Australians (AHMAC 2015; Griew 2008).

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### Key findings for Victoria

#### Self-reported use of services

According to the AATSIHS, in 2012–13 in Victoria:

- 49% of Indigenous Australians accessed health care in the 2 weeks before they were surveyed, or were admitted to hospital in last the 12 months, compared with 44% nationally.
- In the 2 weeks prior to being surveyed, 27% of Indigenous Australians had consulted a doctor or specialist, 24% had consulted other health professionals, 5% had visited casualty/outpatient services, and 6% had seen a dentist. In the last 12 months, 20% had been admitted to hospital.
  - Nationally, in the 2 weeks before they were surveyed, 22% had consulted a doctor or specialist, 19% had consulted other health professionals, 5% had visited casualty/outpatient services, and 5% had seen a dentist. In the last 12 months, 18% had been admitted to hospital (Table 3.14.3, Figure 3.14.1).

#### Services claimed through Medicare

Data from the Medicare database show that in 2013–14 in Victoria:

- Indigenous Australians had 628,973 Medicare claims, of which 306,754 were for non-referred GP services (Table 3.14.36).
- The age-standardised rate of total Medicare claims for Indigenous Australians (15,758 per 1,000) was higher than for non-Indigenous Australians (14,904 per 1,000). Rates for Indigenous and non-Indigenous Australians in Victoria were higher than the national rates (13,710 per 1,000 and 14,533 per 1,000 respectively).



- The rate of Medicare claims for non-referred GP services for Indigenous Australians was higher than for non-Indigenous Australians (7,064 per 1,000 compared with 5,775 per 1,000, respectively). Nationally, the rate for Indigenous Australians was higher than the rate for non-Indigenous Australians (6,115 per 1,000 compared with 5,583 per 1,000, respectively) (Table 3.14.38).
- Age-standardised rates for chronic disease management items (GP management plans and team care arrangements) were higher for Indigenous Australians than for non-Indigenous Australians, with rate differences of 24 per 1,000 and 17 per 1,000, respectively. Nationally, rates were also higher for Indigenous Australians, with rate differences of 42 per 1,000 and 38 per 1,000, respectively (Table 3.14.40, Figure 3.14.2).

## Hospital care

Data from the National Hospital Morbidity Database suggest that in the period July 2011 to June 2013 in Victoria:

- After adjusting for differences in age structure, the rate of hospitalisation for Indigenous Australians (341 per 1,000) was similar to the rate for non-Indigenous Australians (343 per 1,000). The rate difference between Indigenous and non-Indigenous Australians was 2 hospitalisations per 1,000. The comparable (that is, unadjusted) national rate difference was 66 hospitalisations per 1,000 (Table 1.02.1).

## Palliative care

According to the National Hospital Morbidity Database, in the period July 2011 to June 2013 in Victoria:

- After adjusting for differences in age structure, the rate of hospitalisation for palliative care for Indigenous Australians (1.8 per 1,000) was 1.4 times as high as for non-Indigenous Australians (1.2 per 1,000), compared with 1.5 times as high nationally (Table 3.14.55, Figure 3.14.3).

## Self-reported barriers

Data from the AATSIHS show that in 2012–13 in Victoria:

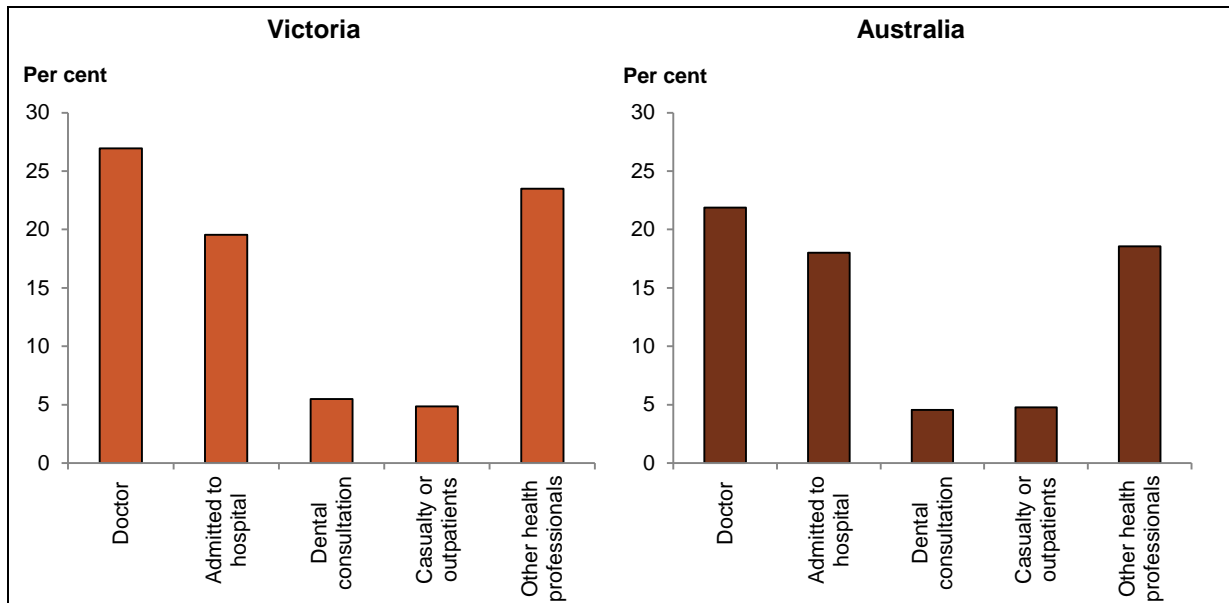
- About 37% of Indigenous Australians needed to go to a health provider in the last 12 months but did not, compared with 30% nationally (Table 3.08.4).

## Patient experience

According to the AATSIHS, in 2012–13 in Victoria:

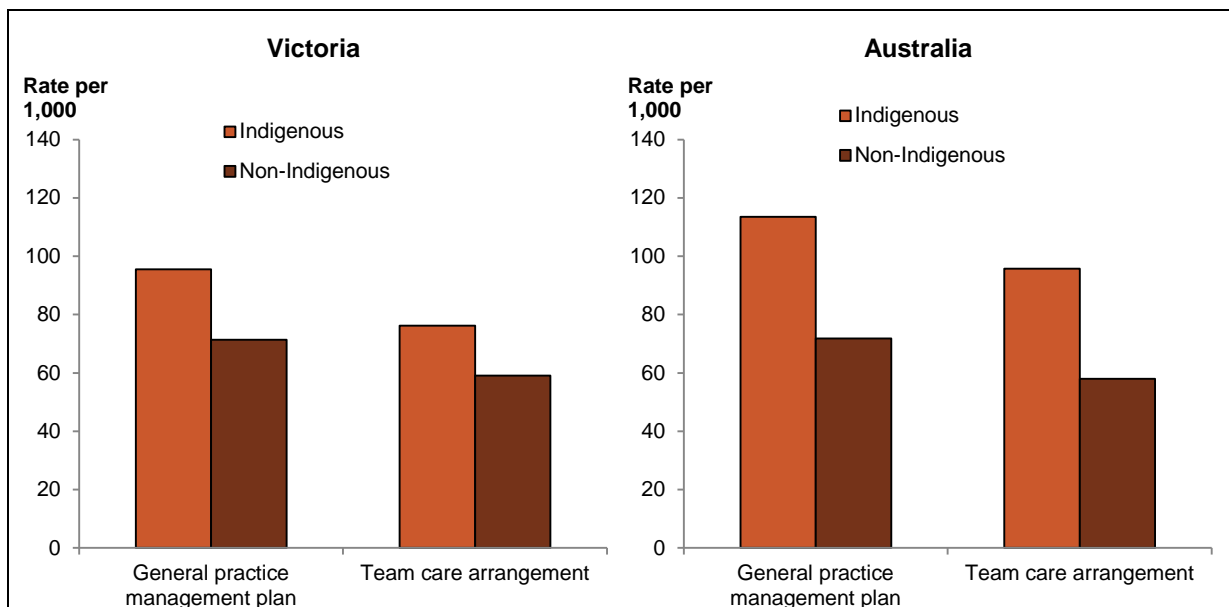
- Most Indigenous Australians aged 15 and over living in *Non-remote* areas who saw a GP or specialist in the previous 12 months reported that the doctor always or usually listened carefully to them (87%), showed respect for what was said (89%) and spent enough time with them (86%) (Table 3.08.7).





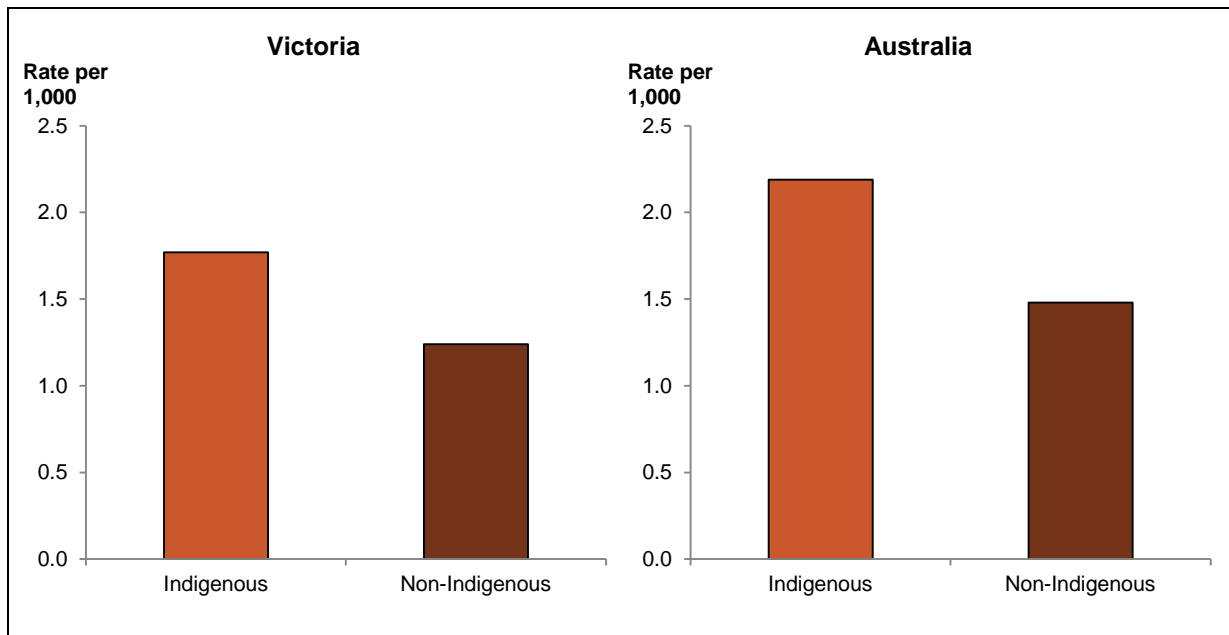
Source: Table 3.14.3.

**Figure 3.14.1: Self-reported rate of Indigenous Australians accessing health-care services, Victoria and Australia, 2012-13**



Source: Table 3.14.38.

**Figure 3.14.2: Age-standardised rate of GPMPs and TCAs claimed per 1,000 population, by Indigenous status, Victoria and Australia, 2013-14**



Source: Table 3.14.55.

**Figure 3.14.3: Age-standardised hospitalisations for palliative care, by Indigenous status, Victoria and Australia, 2011–12 to 2012–13**

## Key findings for Australia

### Self-reported use of services

In the 2012–13 AATSIHS:

- 44% of Indigenous Australians accessed health care in the 2 weeks before they were surveyed or were admitted to hospital in the last 12 months (Table 3.14.1).

### Services claimed through Medicare

According to the Medicare database, in 2013–14:

- Indigenous Australians had 7.6 million Medicare claims, of which 3.6 million were for non-referred GP services. After adjusting for the different age structures between the 2 populations, the rate of total Medicare claims for Indigenous Australians was 13,710 per 1,000, lower than for non-Indigenous Australians (14,533 per 1,000). The gap was 824 per 1,000 (Table 3.14.26).
- The age-standardised rate of claims for non-referred GP services was higher for Indigenous Australians (6,115 claims per 1,000) than non-Indigenous Australians (5,583 claims per 1,000). The gap was 532 per 1,000 (Table 3.14.29).

### Trend

Between 2003–04 and 2013–14:

- The age-standardised rate of total Medicare claims increased by 149% for Indigenous Australians. The gap between Indigenous and non-Indigenous Australians narrowed significantly from –5,476 per 1,000 in 2003–04 to –824 per 1,000 in 2013–14.

- The age-standardised rate for non-referred GP Medicare items claimed by Indigenous Australians increased from 2,977 per 1,000 in 2003–04 to 6,115 per 1,000 in 2013–14. The rate difference between Indigenous and non-Indigenous Australians decreased from a gap of -1,950 per 1,000 in 2003–04 to a lead of 532 per 1,000 in 2013–14 (Table 3.14.26).

## Indigenous primary health-care services

According to the OSR data collection:

- In 2012–13, there were 205 Australian Government-funded Indigenous primary health-care organisations and 3.1 million episodes of health care were provided by these organisations (Table 3.14.53).

## Trend

Between 1999–00 and 2012–13:

- The number of Australian Government-funded Indigenous primary health-care organisations increased significantly, from 108 organisations in 1999–00 to 205 in 2012–13. The number of episodes of health care provided to clients of these organisations increased significantly by 152% from 1.2 million to 3.1 million episodes (Table 3.14.53).

## Hospital care

Data from the National Hospital Morbidity Database show that during the period July 2011 to June 2013:

- The hospitalisation rate for Indigenous Australians was 331 per 1,000, a total of about 453,000 hospitalisations (after adjustment for Indigenous under-identification). Indigenous Australians were hospitalised at 1.3 times the rate of non-Indigenous Australians. The rate difference between Indigenous and non-Indigenous Australians was 94 hospitalisations per 1,000 over the 2-year period.
- Before adjustment for Indigenous under-identification, Indigenous Australians were hospitalised at 1.2 times the rate of non-Indigenous Australians. The rate difference between Indigenous and non-Indigenous Australians was 66 hospitalisations per 1,000 (Table 1.02.1).

## Palliative care

According to the National Hospital Morbidity Database, during the period July 2011 to June 2013:

- After adjusting for differences in the age structure between the 2 populations, Indigenous Australians were hospitalised for palliative care at 1.5 times the rate for non-Indigenous Australians. Indigenous Australians accounted for 1.6% of all hospitalisations for palliative care (Table 3.14.55).

## Elective surgery

According to the National Hospital Morbidity Database, in 2012–13:

- The overall rate of elective surgery for Indigenous Australians (59 per 1,000) was lower than for other Australians (88 per 1,000) (AIHW 2014f).

## Emergency care

Data from the National Non-Admitted Patient Emergency Department Care Database show that in 2013–14:

- 73% of Indigenous Australians who presented to an emergency department were treated within national benchmarks for emergency department waiting times compared with 74% of other Australians (AIHW 2014g).

## Self-reported barriers

According to the 2012–13 AATSIHS:

- 30% of Indigenous Australians needed to but did not see a health-care provider in the previous 12 months. In particular, the percentages were 21% for not seeing a dentist, 14% for not seeing a doctor, 9% for not seeing a counsellor, 9% for not seeing other health professionals, and 6% for not going to hospital (Table 3.14.14).

## Service/provider availability

- A geographic index of access and need developed by the AIHW showed that, for Indigenous Australians, access to GPs relative to need worsened with increasing remoteness (AIHW 2014b).

Data from the National Health Workforce Dataset show that in 2013:

- There was a decline in FTE medical practitioners as remoteness increased, from 426 per 100,000 in *Major cities* to 257 per 100,000 in *Remote/very remote* areas (AIHW 2015b).
- For nurses, the FTE per 100,000 population ranged from 1,265 in *Very remote* areas to 1,111 in *Outer regional* areas (AIHW 2015c).

## Private health insurance

According to the 2012–13 AATSIHS:

- In *Non-remote* areas, 20% of Indigenous Australians were covered by private health insurance (Table 3.14.23).

Data from the National Hospital Morbidity Database show that during the period July 2011 to June 2013:

- 7% of hospitalisations with a procedure recorded for Indigenous Australians occurred in private hospitals compared with 53% for non-Indigenous Australians (Table 3.06.1).

## Patient experience

In the 2012–13 AATSIHS:

- An estimated 16% of Indigenous Australians reported that they had been treated badly in the previous 12 months because they are Aboriginal or Torres Strait Islander (Table 3.08.1).



## **Prisoners' use of health services**

According to the National Prisoner Health Data Collection, in 2012:

- 68% of Indigenous prison entrants had consulted a health professional in the community in the previous 12 months and 66% had consulted a health professional in prison. These rates were lower than for non-Indigenous prison entrants (78% and 69%, respectively) (Table 3.14.58).

## 3.15 Access to prescription medicines

### What is measured and why it is important

Data are presented on: expenditure on pharmaceuticals and Pharmaceutical Benefits Scheme (PBS) benefits for Indigenous Australians; the size and distribution of the pharmacy labour force by the proportion of the population that is Indigenous; and reasons Indigenous Australians may not access prescription medicines.

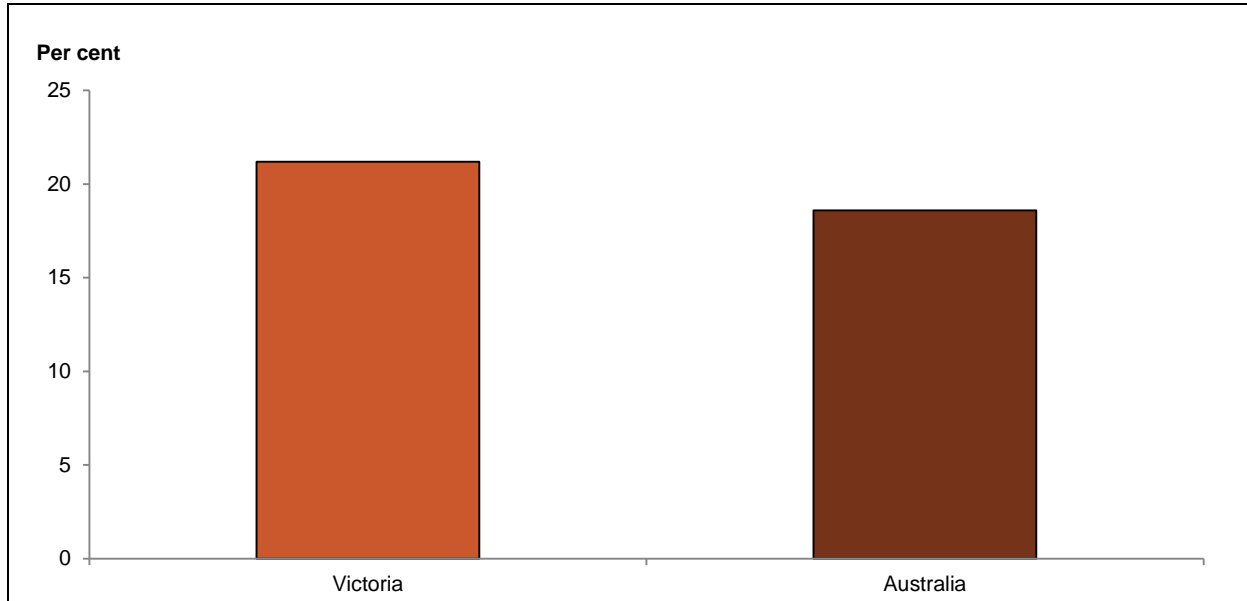
Access to affordable medicines is important for many acute and chronic illnesses. For chronic illnesses such as diabetes, hypertension, heart disease and renal failure, multiple medications may be required for many years to avoid complications (WHO 2004b). It is important to ensure that Aboriginal and Torres Strait Islander Australians, who experience high rates of acute and chronic illnesses, are able to access appropriate prescription medications when they are required (AHMAC 2015).

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### Key findings for Victoria

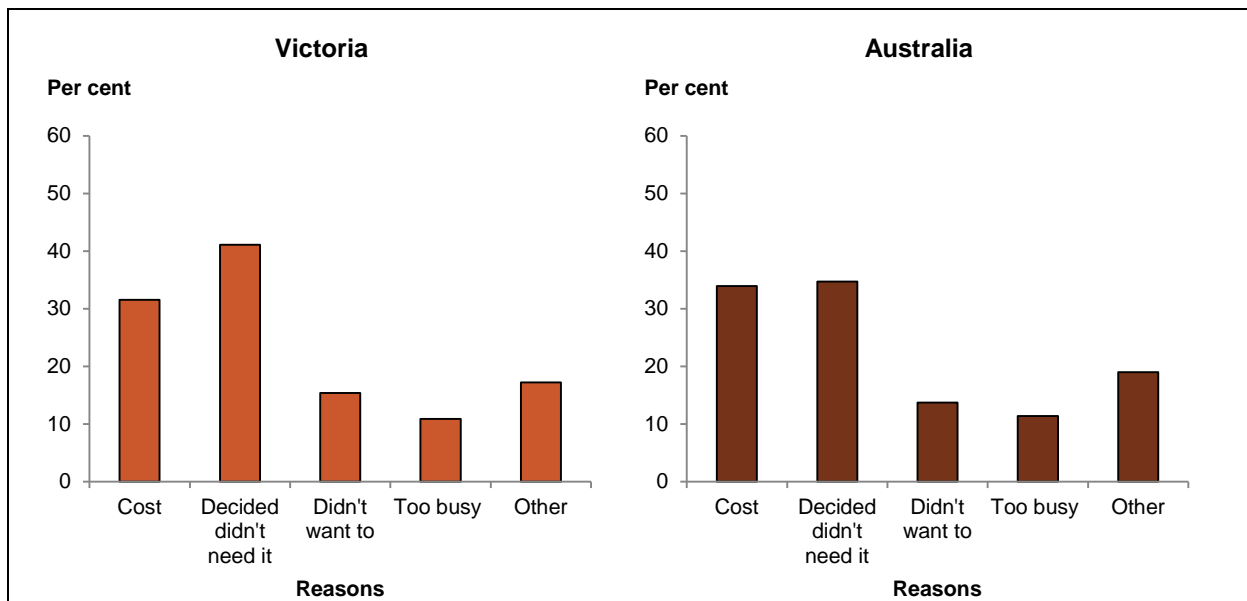
According to the AATSIHS, in 2012–13, among Indigenous Australians aged 15 and over in *Non-remote* areas of Victoria:

- 21% had prescriptions that did not get filled in the last 12 months, compared with 19% nationally (Table 3.15.6, Figure 3.15.1).
- 32% reported that they did not have a prescription filled in the last 12 months because of the cost, and 41% decided that they did not need it. By contrast, nationally the highest proportions did not have a prescription filled because of the cost (34%) and because they decided that they did not need it (35%) (Table 3.15.6, Figure 3.15.2).



Source: Table 3.15.6.

**Figure 3.15.1: Proportion of Indigenous Australians aged 15 and over who had prescriptions not filled, Victoria and Australia (Non-remote only), 2012-13**



Source: Table 3.15.6.

**Figure 3.15.2: Reasons for not filling prescription medicines, Indigenous Australians aged 15 and over, Victoria and Australia (Non-remote only), 2012-13**



## Key findings for Australia

According to the Health Expenditure Database, in 2010–11:

- Total expenditure on pharmaceuticals per Indigenous person was around 44% of the amount spent per non-Indigenous person (\$369 compared with \$832) (Table 3.15.1).
- Total PBS benefits to Indigenous Australians were estimated at \$166 million. The average pharmaceutical benefits expenditure per Indigenous Australian (\$291) was 0.8 times that of non-Indigenous Australians (\$366) (Table 3.15.2).

According to the National Health Workforce Dataset, in 2013:

- The number and rate of FTE employed pharmacists decreased as the proportion of the Indigenous population increased. In areas where less than 1% of the population was Indigenous, there were 9,532 FTE pharmacists. This decreased to 174 FTE pharmacists (55 per 100,000) in areas where 20% or more of the population was Indigenous (Table 3.15.5).

In the 2012–13 AATSIHS, among Indigenous Australians aged 15 and over in *Non-remote* areas:

- 19% had prescriptions that did not get filled in the last 12 months.
- 35% did not have a prescription filled in the last 12 months because they decided they did not need it, 34% because of the cost, 14% did not want to have prescriptions filled, and 11% were too busy (Table 3.15.6).

## Trend

The Health Expenditure Database shows that:

- From 2001–02 to 2010–11, there was a narrowing of the gap between Indigenous and non-Indigenous Australians in the average PBS health expenditure per person by the Australian Government.
- In 2001–02, there was a difference in PBS health expenditure between Indigenous and non-Indigenous Australians of \$153 per person (\$75 and \$228, respectively). In 2010–11, this decreased to a gap of \$74 per person between Indigenous and non-Indigenous Australians (\$291 and \$366, respectively) (Table 3.15.4).

## 3.16 Access to after-hours primary health care

### What is measured and why it is important

This measure reports on access to after-hours primary health care by Aboriginal and Torres Strait Islander people.

An important component of comprehensive primary care services is the capacity for patients to access services after hours. In the absence of after-hours primary health care, patients with more urgent needs may delay seeking care. After-hours services are usually services provided on Sunday, before 8 am and/or after 12 pm on Saturday, or at any time other than 8 am to 6 pm on weekdays (AHMAC 2015).

Tables referenced are available from <http://www.aihw.gov.au/indigenous-data/health-performance-framework/>.

### Key findings for Victoria

The 2012–13 AATSIHS shows that among Indigenous Australians living in *Non-remote* areas of Victoria:

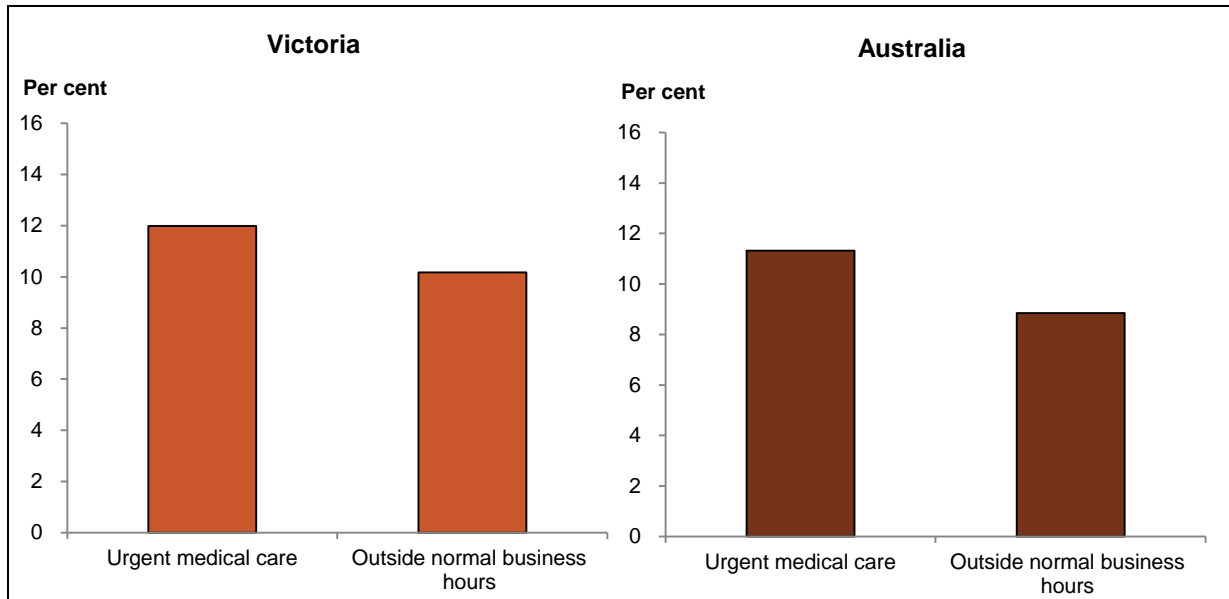
- An estimated 10% reported visiting a doctor/GP outside of normal business hours in the previous 12 months, compared with 9% nationally (Table 3.16.1, Figure 3.16.1).

According to the Medicare database, in 2013–14:

- The rate of Medicare Benefit Schedule services claimed by Indigenous Australians for after-hours care items was higher in Victoria (448 per 1,000 population) than nationally (318 per 1,000 population).
- The gap between the rate for Indigenous and non-Indigenous Australians was lower in Victoria than nationally (50 per 1,000 population compared with 72 per 1,000 population) (Table 3.16.3).

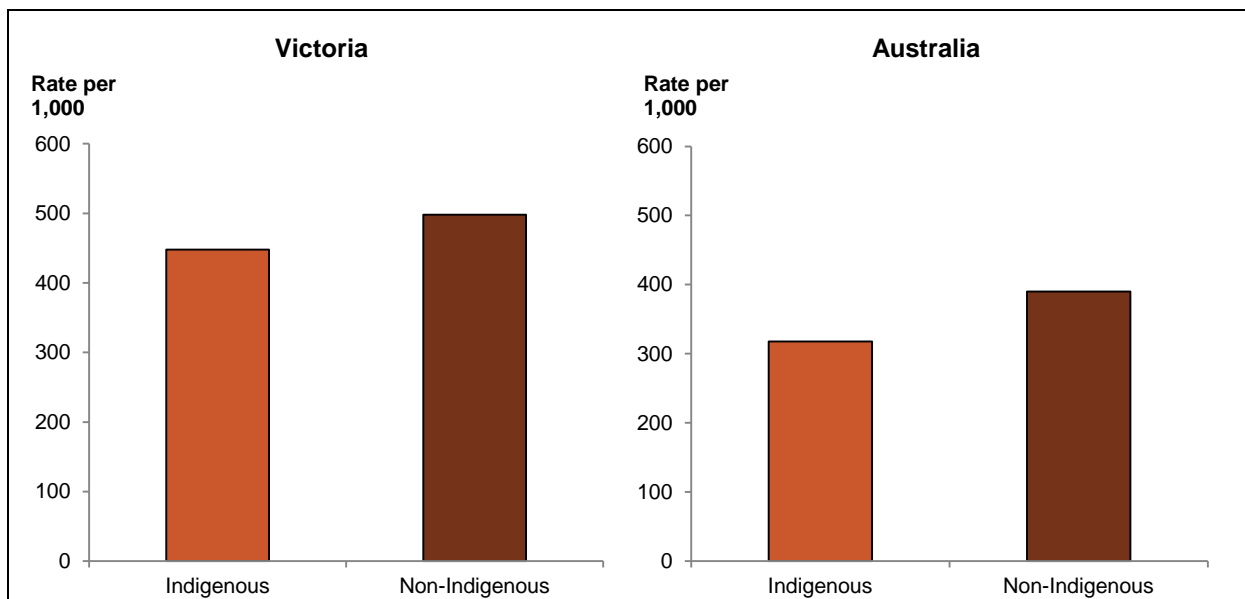
Data from the National Non-Admitted Patient Emergency Department Care Database show that in the period from July 2011 to June 2013 in Victoria:

- 59% of emergency department presentations by Indigenous Australians occurred after-hours, compared with 56% of presentations by non-Indigenous Australians. The gap was 3 percentage points, compared with 3 percentage points nationally (Table 3.16.10, Figure 3.16.1).



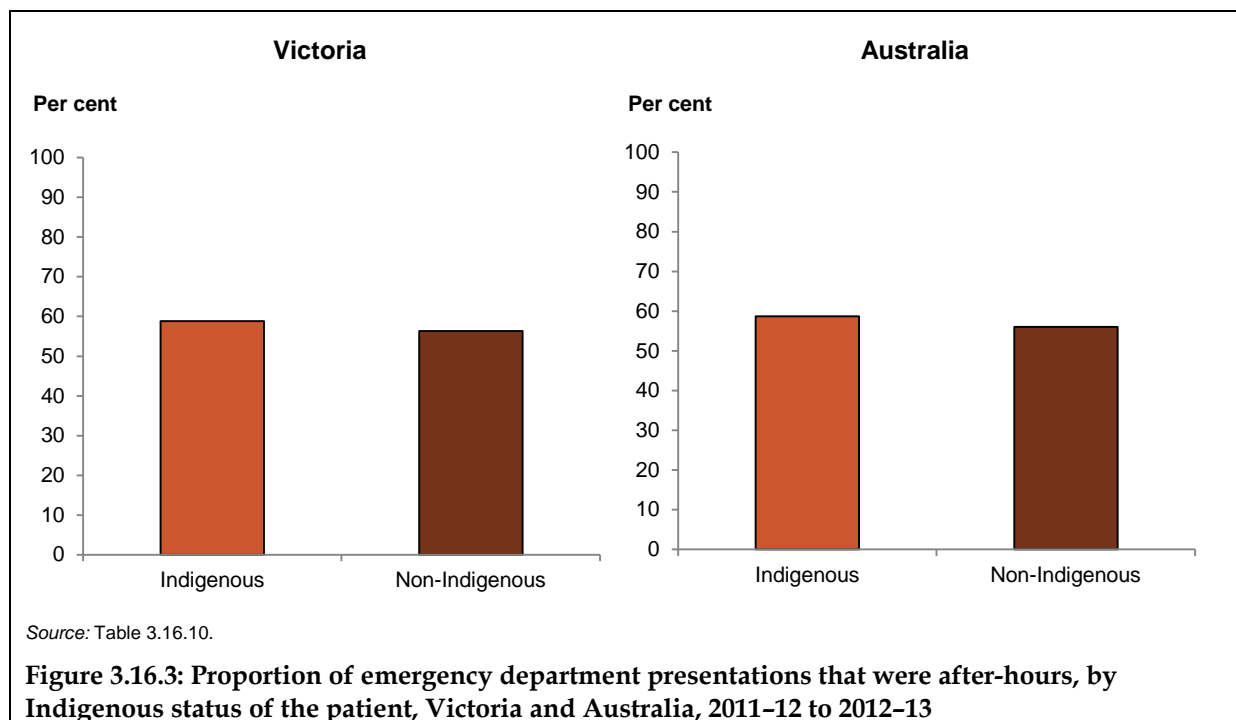
Source: Table 3.16.1.

**Figure 3.16.1: Proportion of Indigenous Australians reporting access to urgent and after-hours doctor/GP (Non-remote), Victoria and Australia, 2012-13**



Source: Table 3.16.3.

**Figure 3.16.2: Age-standardised rate of MBS services claims for after-hours care, by Indigenous status, Victoria and Australia, 2013-14**



## Key findings for Australia

In the 2012-13 AATSIHS:

- An estimated 9% of Indigenous Australians living in *Non-remote* areas reported visiting a doctor/GP outside of normal business hours in the previous 12 months (Table 3.16.1, Figure 3.16.1).

According to the Medicare database, in 2013-14:


- After adjusting for age, the rate of Medicare Benefit Schedule services claimed for after-hours care items was significantly lower for Indigenous Australians (318 per 1,000 population) than for non-Indigenous Australians (390 per 1,000 population) (Figure 3.16.2).
- The gap was 72 per 1,000 population. The gap was 26 per 1,000 population in *Non-remote* areas, but Indigenous Australians had a lead of 40 per 1,000 population in *Remote* areas (Table 3.16.3).

Data collected through the BEACH program during the period from April 2008-March 2009 to April 2012-March 2013 show that:

- The rate of GP encounters with Indigenous Australians that were at practices with no after-hours arrangements was significantly higher than the rate for encounters with other Australians (134 per 1,000 compared with 28 per 1,000, respectively) (Table 3.16.4).

According to the OSR data collection, in 2012-13:

- 45% of Aboriginal and Torres Strait Islander primary health-care services provided after-hours services (Table 3.16.5).



Data from the National Non-Admitted Patient Emergency Department Care Database show that in the period from July 2011 to June 2013:

- 59% of emergency department presentations by Indigenous Australians occurred after hours compared with 56% of presentations by non-Indigenous Australians (Table 3.16.8).

## 3.17 Regular GP or health service

### What is measured and why it is important

This measure reports on the number and proportion of individuals who have a regular GP or health service.

Having a usual primary health-care provider is associated with good communication between the patient and provider, greater levels of trust and satisfaction with providers (Mainous et al. 2001; Schers et al. 2005) and better health outcomes for patients (Starfield 1998; Starfield et al. 2004).

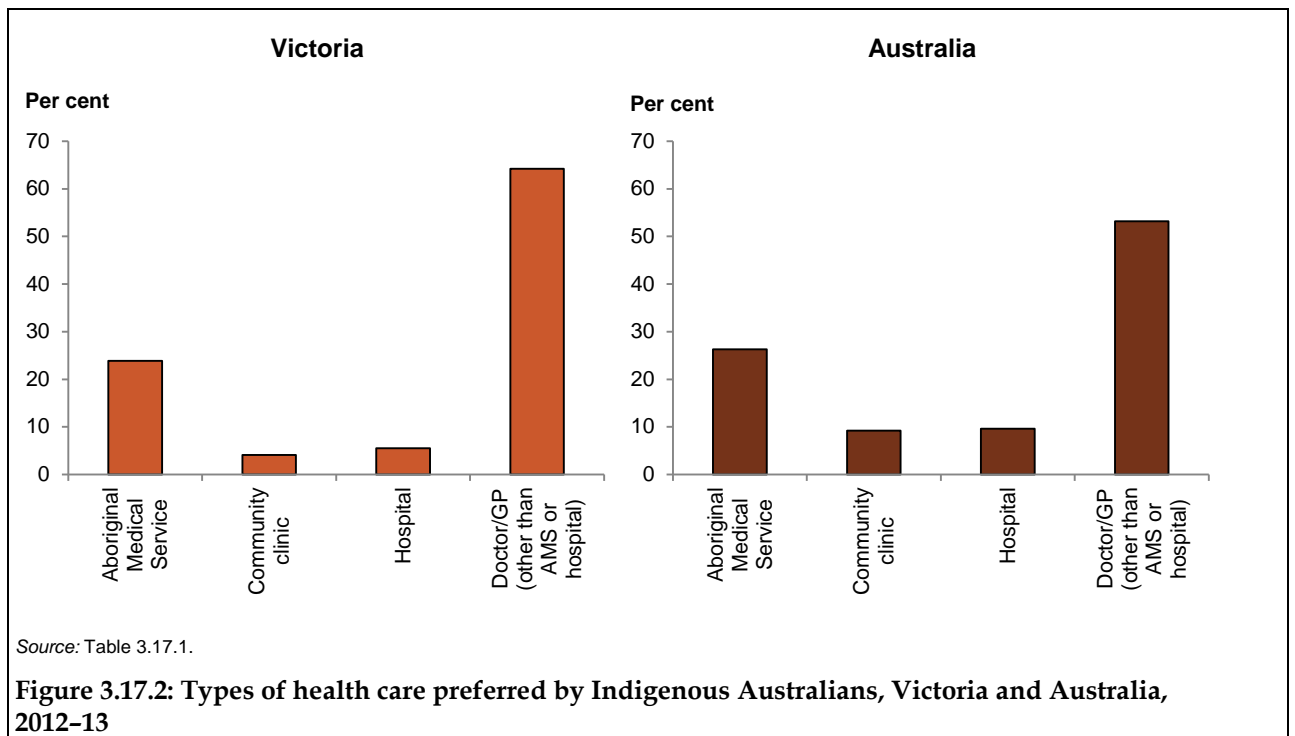
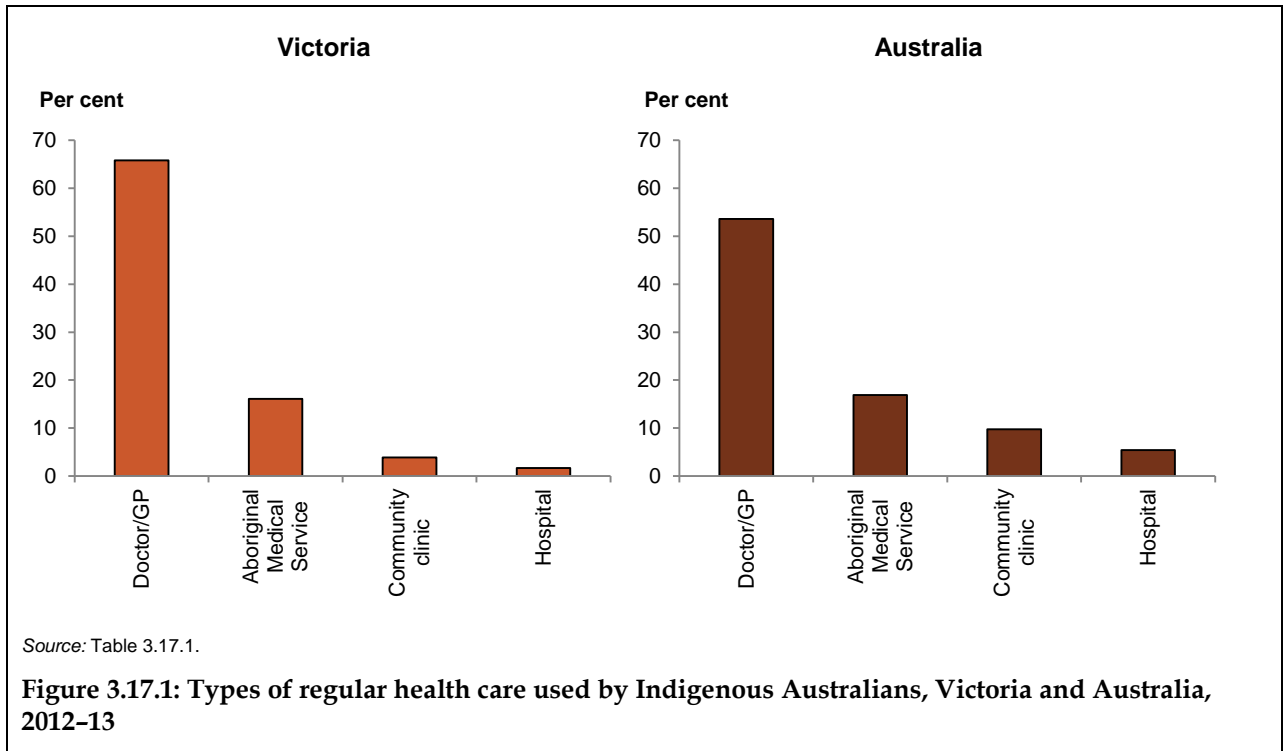
Those with a usual primary care provider are more likely to receive care based on guidelines, preventive care and better coordination of care with other providers to meet patient need (Atlas et al. 2009; Forrest et al. 1996). Other benefits of having a continuous doctor–patient relationship include improved diagnoses, better medication management, avoidance of repeat tests or other interventions, and fewer hospitalisations (Hollander et al. 2009).

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### Key findings for Victoria

According to the AATSIHS, in 2012–13 in Victoria:

- 88% of Indigenous Australians had a usual place to go for health problems and advice. This was similar to the national proportion (86%).
- 20% of Indigenous Australians usually attended an Aboriginal Medical Service (AMS) or community clinic for health problems and advice, and 66% usually saw a doctor or GP. At the national level, 27% usually attended an AMS or community clinic, and 54% usually attended a doctor or GP for health problems and advice (Table 3.17.1, Figure 3.17.1).
- An estimated 95% of Indigenous Australians reported that a doctor or GP was locally available (other than at an AMS or hospital), compared with 83% nationally (Table 3.17.1).
- An estimated 48% of Indigenous Australians reported that an AMS was locally available, compared with 48% nationally. An estimated 52% of Indigenous Australians reported that a community clinic was locally available, compared with 42% nationally (Table 3.17.1).
- An estimated 64% of Indigenous Australians reported that they would prefer to go to a doctor or GP for health problems or advice, compared with 53% nationally. An estimated 28% of Indigenous Australians reported that they would prefer to go to an AMS or community clinic, compared with 36% nationally (Table 3.17.1, Figure 3.17.2).





## Key findings for Australia

According to the 2012–13 AATSIHS:

- 87% of Indigenous Australians had a usual place to go for health problems and advice, with similar proportions in *Non-remote* (86%) and *Remote* areas (88%). Indigenous Australians usually visited a doctor for health problems and advice (54%), followed by AMS (17%), community clinics (10%) and hospitals (5%) (Table 3.17.2).
- An estimated 53% of Indigenous Australians reported that they would prefer to go to a doctor/GP for health problems and advice, 26% to an AMS and 9% to a community clinic (Table 3.17.1).
- The proportion of Indigenous Australians who preferred to go to a doctor/GP was higher in *Major cities* (68%) than in *Very remote* areas (10%). The proportion of Indigenous Australians who preferred to go to an AMS or community clinic was higher in *Very remote* areas (66%) than in *Major cities* (25%).
- An estimated 95% of Indigenous Australians living in *Major cities* reported that a doctor/GP was locally available, compared with 31% in *Very remote* areas.
- AMS were reported as being locally available by 61% of Indigenous Australians living in *Outer regional* areas and 26% of those living in *Very remote* areas.
- An estimated 77% of Indigenous Australians living in *Very remote* areas reported that community clinics were available, compared to 33% of those living in *Major cities* (Table 3.17.2).
- Indigenous Australians with a regular GP reported higher rates of satisfaction with health care received in the last 12 months than those with no usual GP/medical service (73% reporting excellent/very good compared with 61% respectively) (Table 3.08.8).
- 16% of Indigenous Australians reported being treated badly in the previous 12 months because of their Indigenous status. Of those, 20% reported being unfairly treated by doctors, nurses or other staff in hospitals or doctors' surgeries (Table 3.08.1).

In the 2008 NATSISS:

- 80% of Indigenous Australians aged 15 and over agreed or strongly agreed with the statement, 'Your doctor can be trusted' (Table 3.13.8).

## 3.18 Care planning for chronic diseases

### What is measured and why it is important

This measure reports on care planning for the management of chronic disease among the Aboriginal and Torres Strait Islander population.

Effective management of chronic disease may delay the progression of disease, decrease the need for high-cost interventions, improve quality of life, and increase life expectancy. As good-quality care for people with chronic disease generally involves multiple health-care providers across multiple settings, the development of care plans is one way in which the client and primary health-care provider can ensure appropriate care is arranged and coordinated.

GPs are encouraged to develop care plans through a number of items under the MBS. These include GPMPs, and TCAs where planning involves a broader team (AHMAC 2015).

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### Key findings for Victoria

According to the nKPI data collection, as at December 2013 in Victoria and Tasmania combined:

- 41% of Indigenous clients of Indigenous primary health-care services with type 2 diabetes had a GPMP in the last 2 years, compared with 47% nationally.
- 39% of Indigenous clients of Indigenous primary health-care services with type 2 diabetes had a TCA within the last 2 years, compared with 44% nationally (Table 3.18.1).

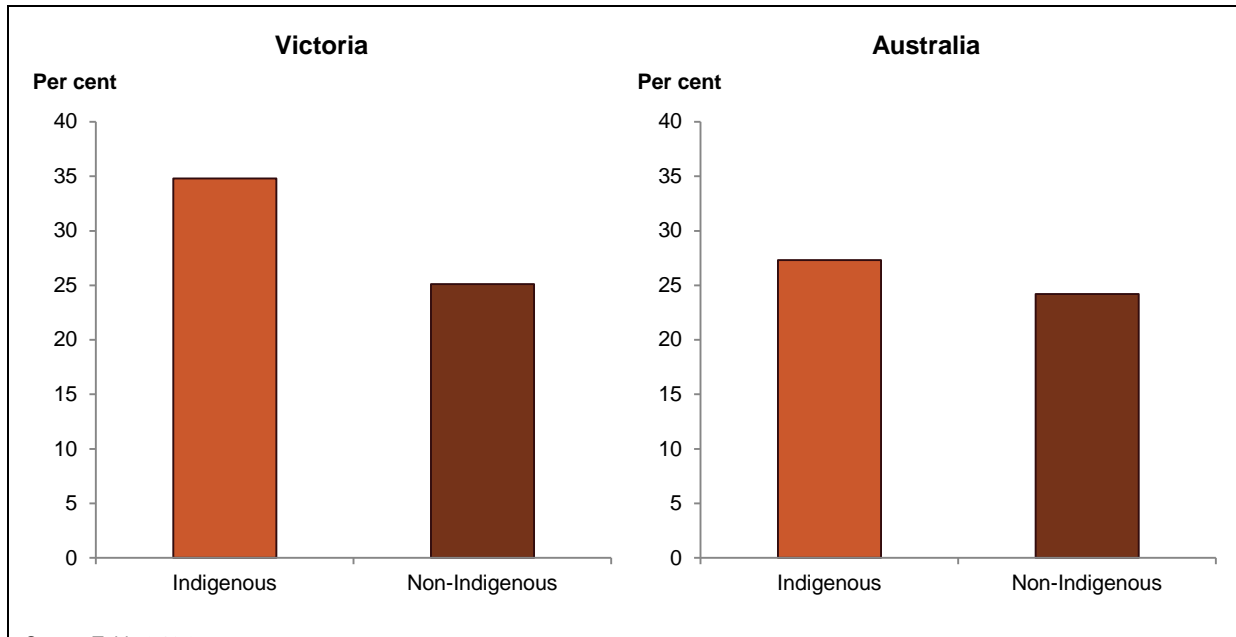
Data from the AATSIHS show that in 2012–13 in *Non-remote* areas of Victoria:

- After adjusting for differences in age structure, 35% of Indigenous Australians with asthma had a written asthma action plan, compared with 25% of non-Indigenous Australians with asthma. This was a difference of 10 percentage points, compared with 3 percentage points in *Non-remote* areas nationally (Table 3.18.9, Figure 3.18.1).

### Trend

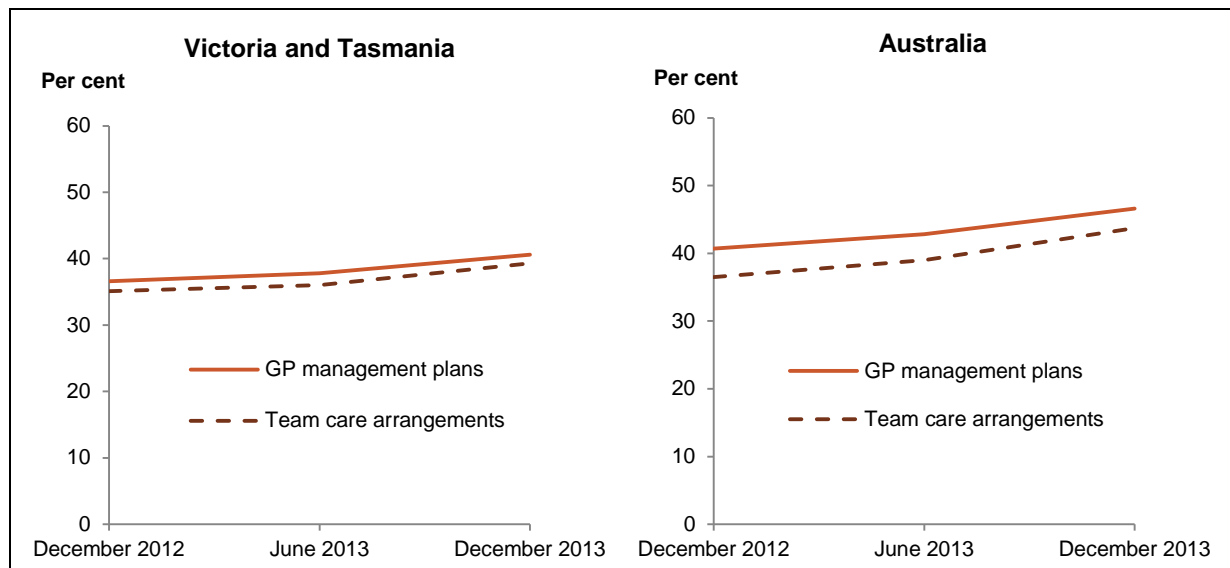
According to the nKPI data collection, between December 2012 and December 2013 in Victoria and Tasmania combined:

- At Indigenous primary health-care services, the proportion of Indigenous clients with type 2 diabetes and who had a GPMP increased from 37% to 41%. The proportion who had a TCA increased from 35% to 39%. A similar pattern was seen nationally (Table 3.18.1, Figure 3.18.2).



Source: Table 3.18.9.

**Figure 3.18.1: Proportion of persons with asthma who had a written asthma action plan, by Indigenous status, Victoria and Australia (Non-remote areas), 2012-13**



Source: Table 3.18.1.

**Figure 3.18.2: Proportion of Indigenous regular clients with type 2 diabetes who had a GPMP or TCA in the last 2 years, Indigenous primary health-care services, Victoria and Tasmania combined and Australia, December 2012, June 2013 and December 2013**

## Key findings for Australia

According to the Medicare database, in 2013–14:

- The age-standardised rate of MBS GPMP claims for Indigenous Australians (114 claims per 1,000 population) was higher than for non-Indigenous Australians (72 claims per 1,000 population), a lead of 42 claims per 1,000 population (Table 3.05.1).
- The age-standardised rate of MBS TCA claims for Indigenous Australians (96 claims per 1,000 population) was higher than for non-Indigenous Australians (58 claims per 1,000 population), a lead of 38 claims per 1,000 population (Table 3.05.1).

Data from the nKPI data collection show that as at December 2013:

- 47% of Indigenous clients of Indigenous primary health-care services with type 2 diabetes had a GPMP and 44% had a TCA within the last 2 years (Table 3.18.1).

According to the Healthy for Life data collection, as at June 2011:

- 34% of Indigenous clients of Indigenous primary health-care services with coronary heart disease had a GPMP (Table 3.18.4).

Data from the 2012–13 AATSIHS suggest that:

- Similar proportions of Indigenous and non-Indigenous Australians with asthma in *Non-remote* areas had a written asthma action plan (27% and 24%, respectively), after adjusting for differences in the age structure between the 2 populations (Table 3.18.8).

## Trend

According to the Medicare database, between 2009–10 and 2013–14:

- The age-standardised rate of services for GPMPs claimed by Indigenous Australians increased significantly by 98% from 55 per 1,000 to 114 per 1,000. The gap increased significantly by 373% (Table 3.05.1).
- The age-standardised rate of services for TCAs claimed by Indigenous Australians increased significantly by 106% from 44 per 1,000 to 96 per 1,000. The gap increased significantly by 462% (Table 3.05.1).

According to the nKPI data collection, between December 2012 and December 2013:

- The proportion of Indigenous primary health-care services Indigenous clients, who have type 2 diabetes and who had a GPMP, increased from 41% to 47% and the proportion who had a TCA increased from 37% to 44% (Table 3.18.1).

Data from the Healthy for Life data collection show that between June 2009 and June 2011:

- Of those Indigenous primary health-care services that could be compared over time, the proportion of Indigenous clients with coronary heart disease who had a GPMP increased from 20% to 33% (Table 3.18.5).

## 3.19 Accreditation

### What is measured and why it is important

This measure reports on the proportion of:

- accredited public hospital Indigenous separations and patient days as a percentage of all Indigenous separations and patient days in public hospitals
- accredited general medical practices by proportion of Medicare Local population that is Indigenous.

Accreditation is a process, usually voluntary, through which a recognised external body assesses the extent to which a health-care organisation meets applicable quality standards. Quality standards typically address issues such as governance of the organisation, management of safety issues such as infection control, handling of care processes such as discharge planning, general management issues such as human resource management, quality of the physical infrastructure, and issues such as handling of patient complaints (AHMAC 2015).

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### Key findings for Victoria

#### Public hospital accreditation

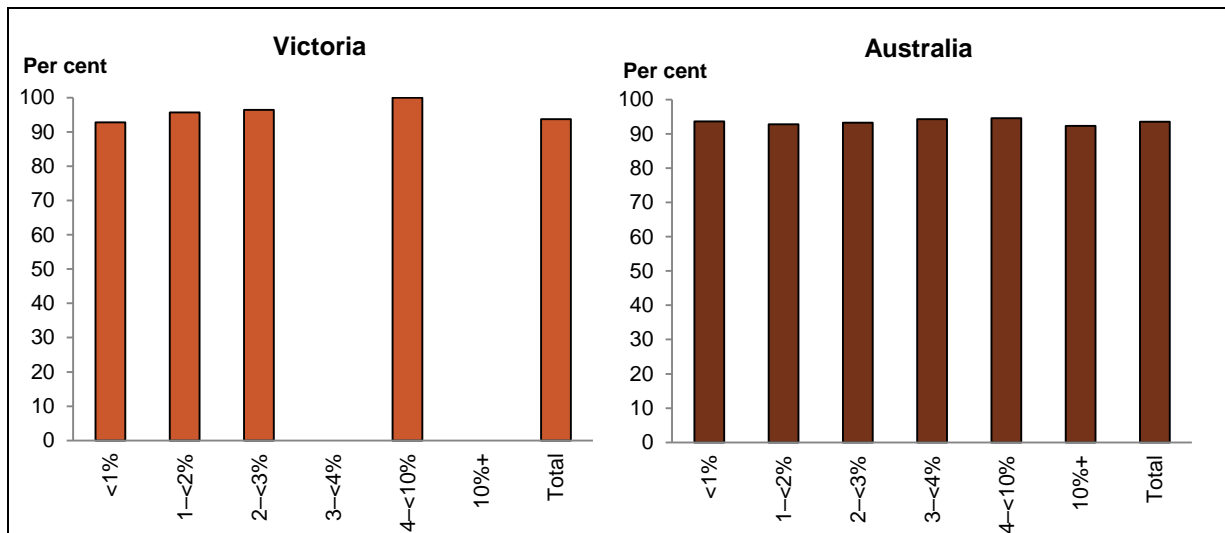
Analysis of data from the National Hospital Morbidity Database and the National Public Hospitals Establishment Database shows that in the period July 2011 to June 2013:

- In Victoria, for both Indigenous and non-Indigenous Australians, 100% of public hospital separations and public hospital patient days occurred in accredited hospitals (tables 3.19.1–2).
- Nationally, 99% of public hospital separations for Indigenous and non-Indigenous patients occurred in accredited hospitals, as did 98% of Indigenous public hospital patient days and 99% of non-Indigenous public hospital patient days (tables 3.19.1–2).

#### General practice accreditation

According to data from Australian General Practice Accreditation Limited (AGPAL) and General Practice Accreditation Plus (GPA+), in 2012–13 in Victoria:

- An estimated 94% of general practices registered for accreditation through AGPAL or GPA+ had been accredited (tables 3.19.6, 3.19.6 Vic, Figure 3.19.1).
- Approximately 93% of general practices in areas where less than 1% of the population was Indigenous were accredited. In areas where between 1% and 3% of the population were Indigenous, 96% of general practices were accredited. In areas where between 4% and 10% of the population were Indigenous, 100% of general practices were accredited (Table 3.19.6 Vic, Figure 3.19.1).



Note: There were no Medicare Local areas in Victoria where Indigenous Australians made up 3-4% or 10%+ of the total population.

Sources: Tables 3.19.6, 3.19.6 Vic.

**Figure 3.19.1: Number of general practices accredited through AGPAL and GPA+ in Victoria and Australia, by per cent of the population that is Indigenous, 2012-2013**

## Key findings for Australia

- Analysis of data from the National Hospital Morbidity Database and the National Public Hospitals Establishment Database shows that in the period July 2011 to June 2013, 99% of public hospital separations for Indigenous and non-Indigenous Australians occurred in accredited hospitals (Table 3.19.1).
- According to data from AGPAL and GPA+, in 2012-13, an estimated 94% of general practices registered for accreditation through AGPAL or GPA+ had been accredited. The proportion was generally similar between areas with different proportions of the population that were Indigenous. It ranged from 92% in areas where 10% or more of the population was Indigenous, to 95% in areas where 4 to less than 10% of the population is Indigenous (Table 3.19.6).

## Trend

According to the National Hospital Morbidity Database and the National Public Hospitals Establishment Database, from 1998-99 to 2012-13 in Queensland, Western Australia, South Australia and the Northern Territory combined:

- The proportion of hospital separations provided to Indigenous Australians in accredited public hospitals increased by 59%, from 59% in 1998-99 to almost all hospital separations (99%) in 2012-13. This closed the gap between Indigenous and non-Indigenous Australians (Table 3.19.5).



## 3.20 Aboriginal and Torres Strait Islander Australians training for health-related disciplines

### What is measured and why it is important

Data are presented on the proportion of Aboriginal and Torres Strait Islander Australians in tertiary education for health-related disciplines.

Indigenous Australians are substantially under-represented in the health workforce (see measure 3.12). Improving and supporting the participation of Indigenous Australians in tertiary education for health-related disciplines is vital to increasing Indigenous Australians' participation in the health workforce (AHMAC 2015).

The progress rate for higher educational institutions is based on the proportion of units passed within a year compared with the total number of units enrolled.

Vocational Education and Training (VET) load pass rates are calculated as the number of nominal hours supervised in assessable modules or units of competency completed with a pass assessment divided by the total nominal hours supervised in assessable modules or units of competency.

Tables referenced are available from <http://www.aihw.gov.au/indigenous-data/health-performance-framework/>.

### Key findings for Victoria

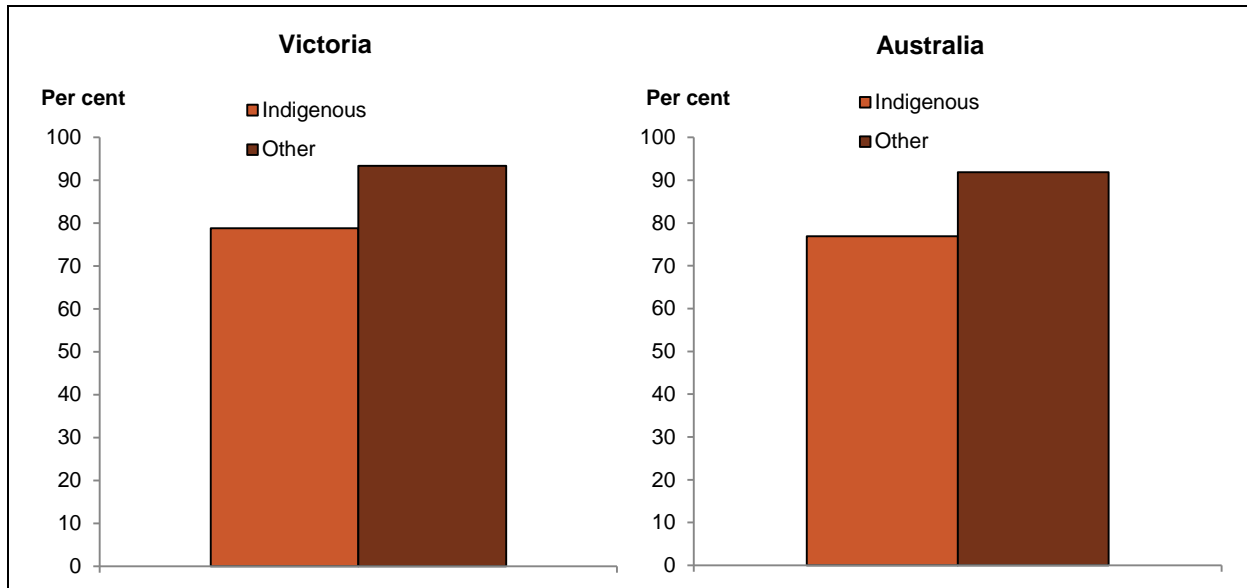
According to the Higher Education Student Statistics Collection, in 2012 in Victoria:

- There were 153 Indigenous students enrolled in undergraduate health-related courses. This was 1% of the total enrolments in undergraduate health-related courses for Victoria (Table 3.20.3).
- The progress rate for Indigenous students in Victoria was 79%, compared with 93% for other Australian students. This was a gap of 15 percentage points (Table 3.20.6, Figure 3.20.1).

Data from the National VET Provider Collection show that in 2012 in Victoria:

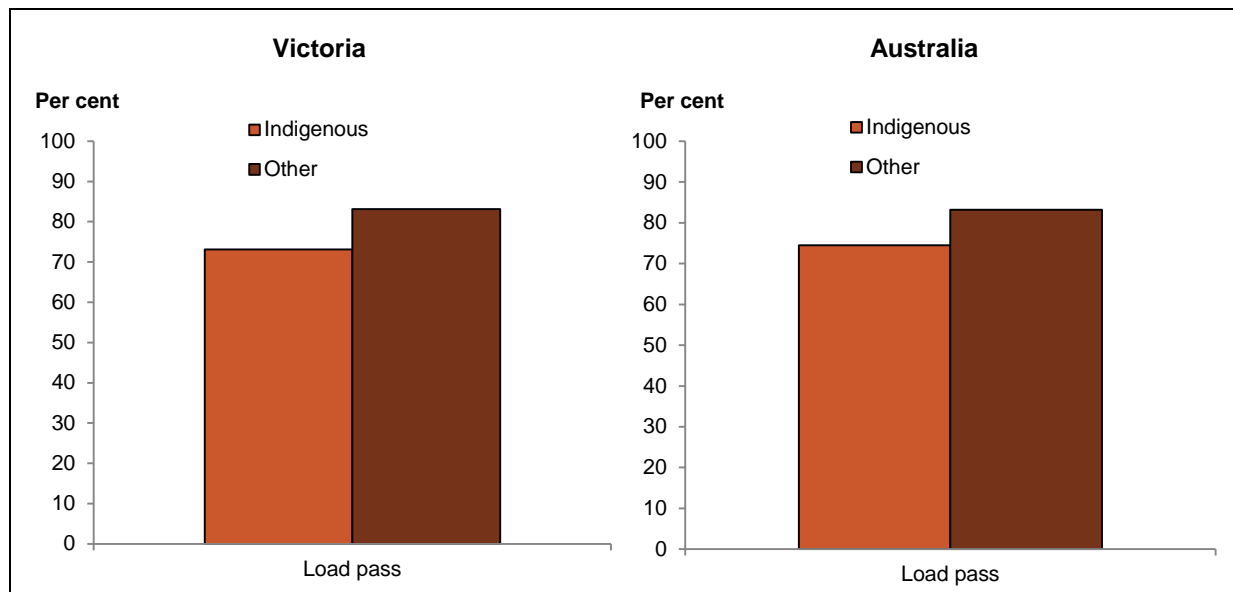
- There were 323 enrolments for Indigenous students in VET health-related courses in Victoria. This was 1% of the total enrolments in VET health-related courses for the state (Table 3.20.10).
- The load pass rate for health-related courses for Indigenous students was 73%, compared with 83% for other Australian students. The gap was 10 percentage points (Table 3.20.13, Figure 3.20.2).





Source: Table 3.20.6.

**Figure 3.20.1: Progress rates for undergraduate students studying health-related courses, by Indigenous status, Victoria and Australia, 2012**



Source: Table 3.20.13.

**Figure 3.20.2: Load pass rates for VET students studying health-related courses, by Indigenous status, Victoria and Australia, 2012**

## Key findings for Australia

The Higher Education Student Statistics Collection shows that in 2012:

- There were 2,037 enrolments in health-related courses for Indigenous students (46 per 10,000), compared with 140,645 for non-Indigenous students (78 per 10,000). The gap was 32 per 10,000 (Table 3.20.2).
- There were 353 completions of health-related courses for Indigenous students (8 per 10,000), compared with 33,776 for non-Indigenous students (19 per 10,000). The gap was 11 per 10,000 (Table 3.20.4).
- The progress rate in health-related undergraduate courses was 77% for Indigenous students, compared with 92% for other Australian students (Table 3.20.6, Figure 3.20.1).

Data from the National VET Provider Collection show that in 2012:

- There were 5,078 enrolments for Indigenous students aged 15–64 in vocational health-related courses, a rate of 121 per 10,000. There were 100,808 enrolments for other Australians aged 15–64 in vocational health-related courses, a rate of 68 per 10,000. This was a lead of 53 per 10,000 (Table 3.20.9).
- There were 901 completions for Indigenous students aged 15–64 in vocational health-related courses, a rate of 22 per 10,000. There were 21,970 completions for other Australians aged 15–64 in vocational health-related courses, a rate of 15 per 10,000. This was a lead of 7 per 10,000 (Table 3.20.11).
- Indigenous students had lower load pass rates in health-related courses than other Australian students (75% compared with 83% respectively), a gap of 9% (Table 3.20.13, Figure 3.20.2).

## Trend

According to the Higher Education Student Statistics Collection, from 2001 to 2012:

- There was a significant 75% increase in the rate of Indigenous students enrolled in health-related undergraduate courses, from 29 per 10,000 in 2001 to 46 per 10,000 in 2012. For non-Indigenous students, there was a significant 67% increase in the enrolment rate, from 49 per 10,000 to 78 per 10,000. The gap increased 56%.
- Completion rates for Indigenous students increased significantly by 68%, from 6 per 10,000 to 8 per 10,000. Completion rates for non-Indigenous students increased significantly by 56%, from 13 per 10,000 to 19 per 10,000. The gap increased 48% (Table 3.20.7).

The National VET Provider Collection shows that from 2003 to 2012:

- The rate of enrolments in vocational health-related courses by Indigenous Australians declined significantly by 8%, from 145 per 10,000 to 117 per 10,000. There was a significant 24% decline for other Australian students, from 82 per 10,000 to 57 per 10,000. The rate difference increased (tables 3.20.16–17).
- Completion rates for Indigenous students increased significantly by 298%, from 8 per 10,000 to 21 per 10,000. Completion rates for other Australian students increased significantly by 223%, from 5 per 10,000 to 12 per 10,000. The rate difference increased (tables 3.20.18–3.20.19).

## 3.21 Expenditure on Aboriginal and Torres Strait Islander health compared with need

### What is measured and why it is important

Data are presented on health-related expenditure for Aboriginal and Torres Strait Islander Australians. This measure is presented on a total population and per capita basis, and disaggregated to reflect expenditure on acute health care, primary health care and population health.

A basic principle of equity is that health expenditure should reflect the relative needs for health services (Whitehead 1992). Health expenditure for population groups with higher levels of need should be proportionately higher. A broad assessment of how well this principle is implemented is provided by comparing differentials in health status with differences in per capita health expenditure (AHMAC 2015).

Regular reporting of health expenditure is central to understanding the needs of the Indigenous population and how they are being met.

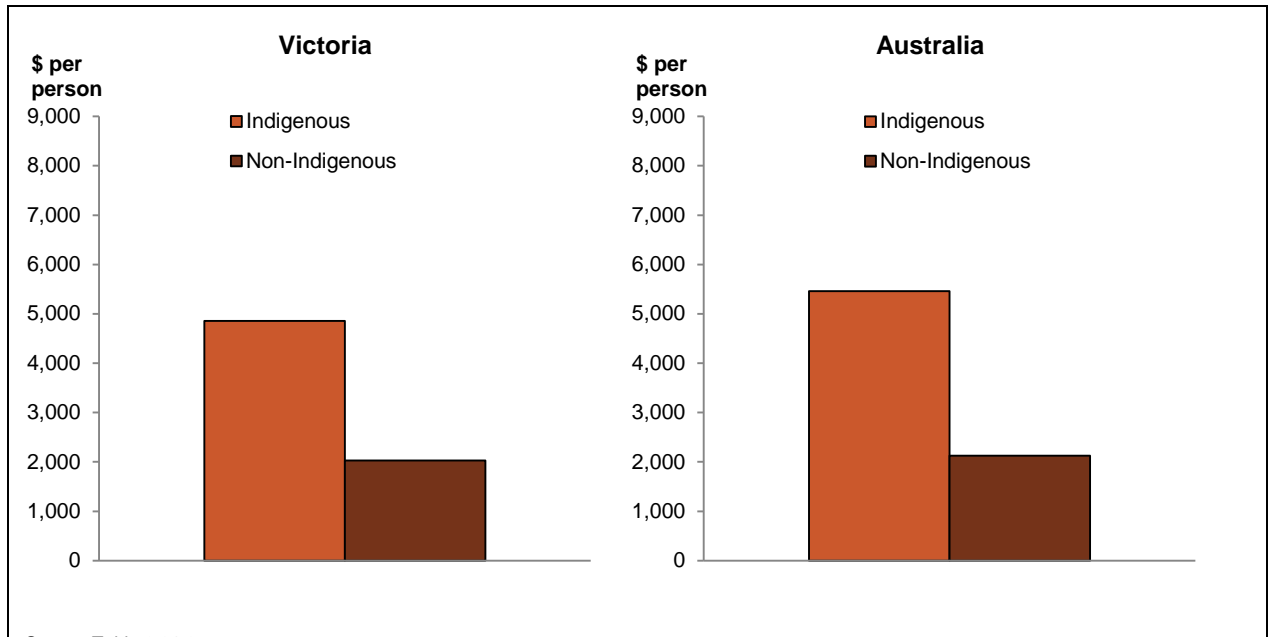
All data for this measure are drawn from the Health Expenditure Database.

Tables referenced are available from <<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

### Key findings for Victoria

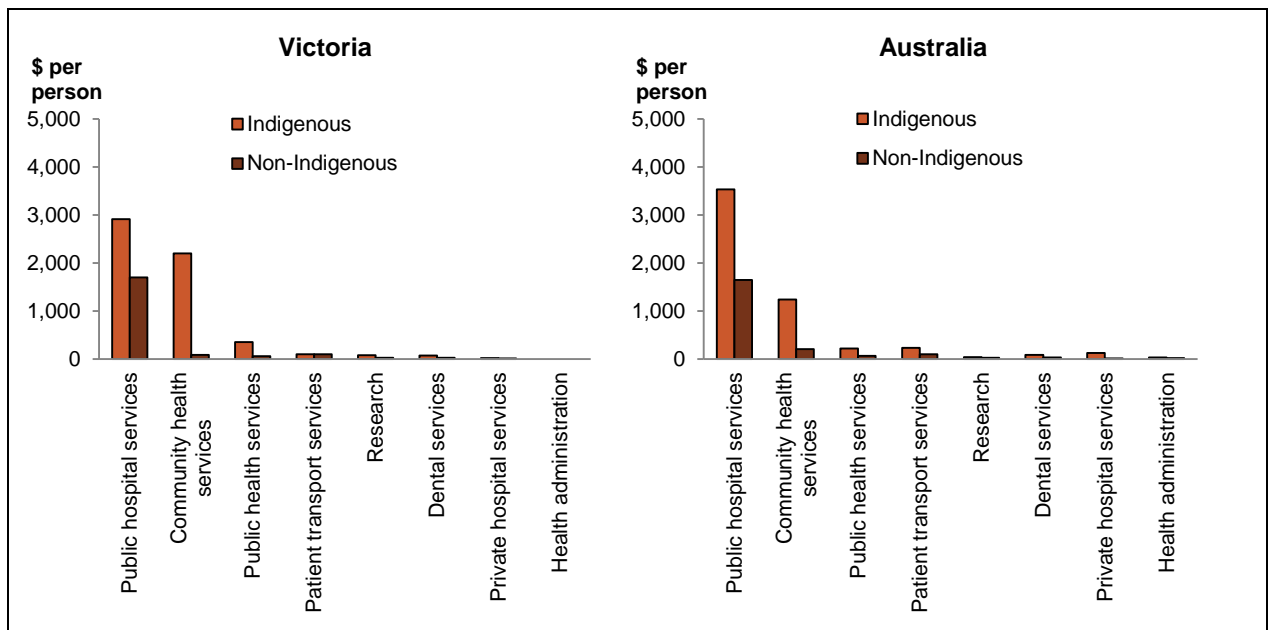
In 2010–11 in Victoria:

- The Victorian Government spent \$181 million on Indigenous health (AIHW 2013b). Per person health expenditure was 2.4 times as high for Indigenous as non-Indigenous Australians (\$4,856 compared with \$2,030), compared with 2.6 times nationally (Table 3.21.3, Figure 3.21.1).
- Per person health expenditure on public hospital services was 1.7 times as high for Indigenous as non-Indigenous Australians (\$2,919 compared with \$1,703), compared with 2.1 times nationally.
- Per person health expenditure on community health services was 25 times as high for Indigenous as non-Indigenous Australians (\$2,200 compared with \$88), compared with 6 times nationally.
- Per person health expenditure on public health services was 5.8 times as high for Indigenous as non-Indigenous Australians (\$353 compared with \$61), compared with 3.3 times nationally (Table 3.21.3, Figure 3.21.2).



Source: Table 3.21.3.

**Figure 3.21.1: State and territory government health expenditure per person for Indigenous and non-Indigenous Australians, Victoria and Australia, 2010-11**



Source: Table 3.21.3.

**Figure 3.21.2: Areas of health expenditure per person for Indigenous and non-Indigenous Australians, Victoria and Australia, 2010-11**

## Key findings for Australia

In 2010–11:

- Total recurrent health expenditure on Indigenous Australians was \$4,552 million. Per person health expenditure on Indigenous Australians was 1.5 times expenditure for non-Indigenous Australians (\$7,995 and \$5,437, respectively) (Table 3.21.1).
- For Indigenous Australians, governments funded 91.4% of health expenditure, and non-government expenditure (including out-of-pocket expenses by users and payments by private health insurers and injury compensation insurers) contributed 8.6%. In contrast, for non-Indigenous Australians, governments funded 68.1% of health expenditure, and non-government expenditure contributed nearly a third (31.9%) (Table 3.21.2).
- Publicly provided services such as public hospital services and community health services were the areas of greatest health expenditure for Indigenous Australians (45% and 25%, respectively). Per person expenditure on public hospital services was \$3,631 for Indigenous Australians compared with \$1,683 for non-Indigenous Australians. Similarly, per person expenditure on community health services was \$1,967 for Indigenous Australians compared with \$236 for non-Indigenous Australians (Table 3.21.1).
- For health services with greater out-of-pocket expenses, per person expenditure was generally lower for Indigenous Australians compared with non-Indigenous Australians. For example, per person expenditure for dental services was \$149 for Indigenous Australians, compared with \$355 for non-Indigenous Australians. Similarly, per person expenditure for medications was \$369 for Indigenous Australians, compared with \$831 for non-Indigenous Australians (Table 3.21.1).
- Per person primary services expenditure was \$3,602 for Indigenous Australians compared with \$2,447 for non-Indigenous Australians (Table 3.21.6). Per person expenditure for secondary/tertiary services (excluding high-level residential care) was \$4,113 for Indigenous Australians compared with \$2,339 for non-Indigenous Australians (Table 3.21.6).
- For the main health programs, expenditure was \$6,616 per Indigenous person in *Remote/very remote* areas, \$4,460 in *Outer regional*, \$3,835 in *Inner regional*, and \$3,899 in *Major cities* (Table 3.21.7).

### Trend

Note that some of the change seen over time may be due to improvements in data collection and methodology rather than actual change.

Between 2001–02 and 2010–11:

- After adjusting for inflation, the ratio between per person Indigenous and non-Indigenous health expenditure increased from 1.2 times as high to 1.5 (AIHW 2013b, Table 3.21.1).
- After adjusting for inflation, government per person Indigenous health expenditure has increased 65% (Table 3.21.4).

## 3.22 Recruitment and retention of staff

### What is measured and why it is important

This measure reports on the recruitment and retention of qualified clinical and management staff to provide effective health care to meet Aboriginal and Torres Strait Islander health-care needs.

The capacity to recruit and retain appropriate staff is critical to the appropriateness, continuity and sustainability of health services including Aboriginal and Torres Strait Islander primary health-care services. Staff recruitment and retention is particularly important in rural and remote areas, as 65% of Indigenous Australians live outside the major cities (AHMAC 2015).

Tables referenced are available from <http://www.aihw.gov.au/indigenous-data/health-performance-framework/>.

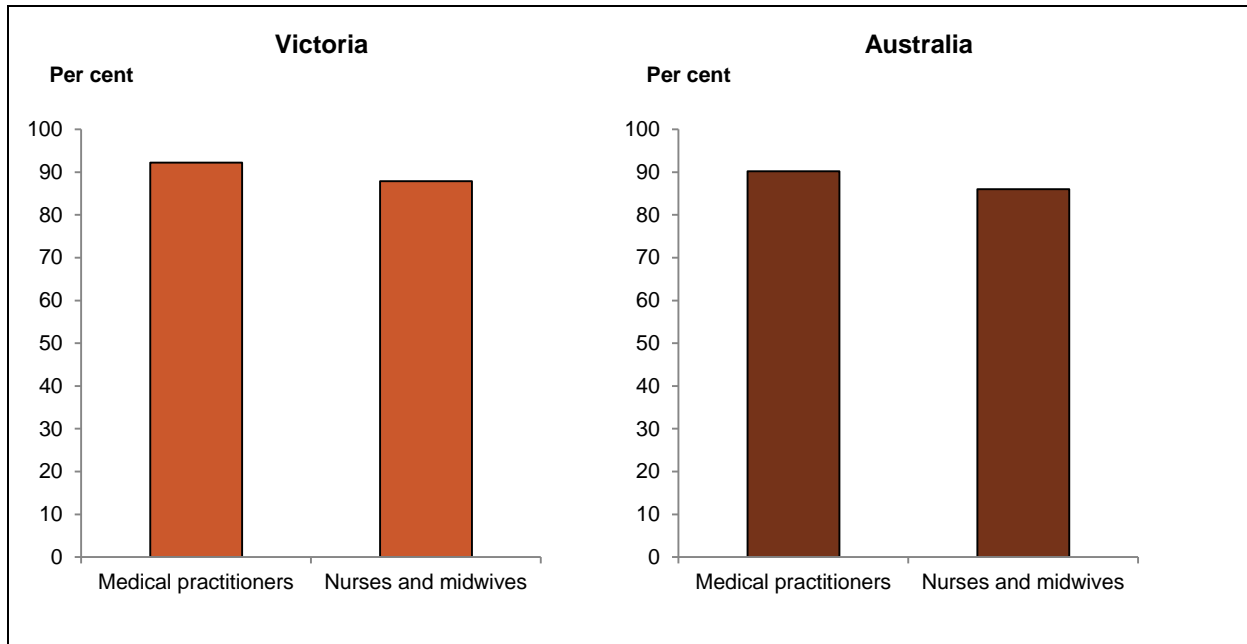
### Key findings for Victoria

According to the National Health Workforce Data Set, in 2013 in Victoria:

- There were 21,912 registered medical practitioners, and 92% were employed in their field. The proportion nationally was 90% (Table 3.22.1, Figure 3.22.1).
- There were 91,104 registered or enrolled nurses and midwives, and 88% were employed in their field. The proportion nationally was 86%. (Table 3.22.10, Figure 3.22.1).

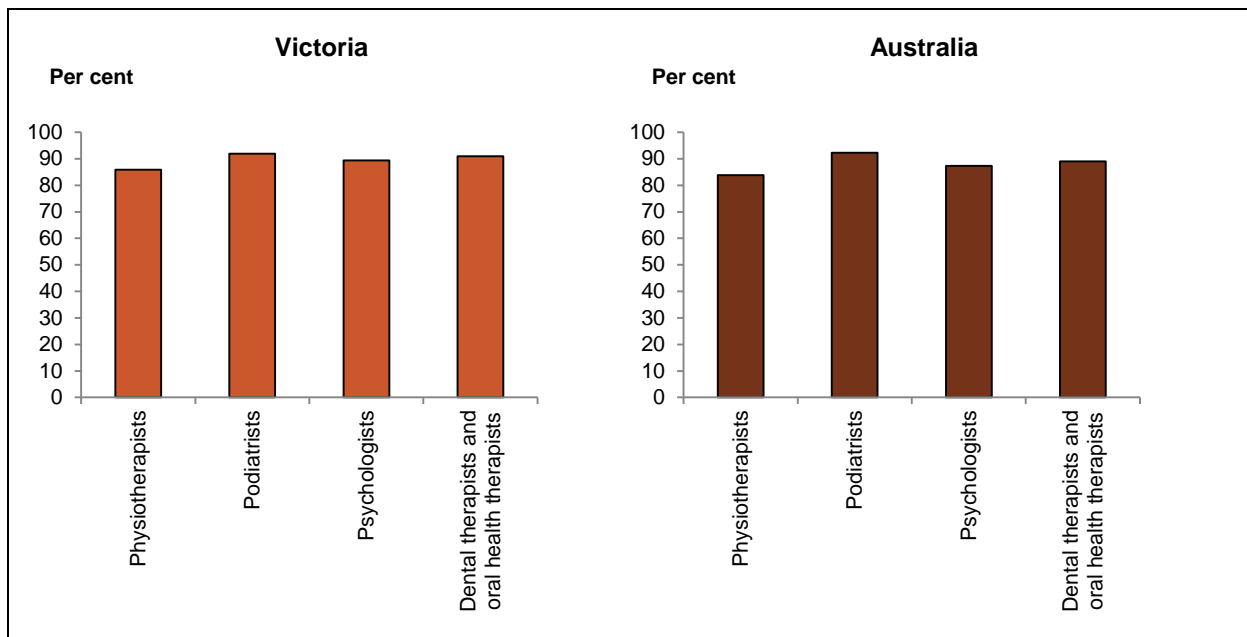
In 2012:

- The number of other registered health professionals and percentage of those employed in their respective fields in Victoria were:
  - 5,972 physiotherapists (86%) (Table 3.22.5, Figure 3.22.2)
  - 1,222 podiatrists (92%) (Table 3.22.6, Figure 3.22.2)
  - 6,675 psychologists (89%) (Table 3.22.7, Figure 3.22.2)
  - 355 dental and oral health therapists (91%) (Table 3.22.8, Figure 3.22.2).
- For comparison, the percentages of health professionals employed in their fields nationally were: medical practitioners 90%, nurses and midwives 86%, physiotherapists 84%, podiatrists 92%, psychologists 87% and dental therapists and oral health therapists 89% (tables 3.22.5–8, Figure 3.22.2).



Source: Tables 3.22.1, 3.22.10.

**Figure 3.22.1: Proportion of medical practitioners and nurses/midwives employed in their field, Victoria and Australia, 2013**



Sources: Tables 3.22.5–8.

**Figure 3.22.2: Proportion of other health professionals employed in their field, Victoria and Australia, 2012**



## Key findings for Australia

The National Health Workforce Data Set shows that in 2013:

- There were 91,467 medical practitioners registered in Australia, and 90% were employed in medicine (Table 3.22.1). The supply of employed medical practitioners was greater in *Major cities* (426 FTE per 100,000) than in *Remote/very remote areas* (257 FTE per 100,000) (AIHW 2014).
- There were 344,190 registered or enrolled nurses and midwives, 86% employed in nursing and midwifery (Table 3.22.10).
- The rate of employed FTE psychologists and pharmacists were lowest in areas with higher proportions of Indigenous Australians in the population. There were 48 psychologists and 55 pharmacists per 100,000 population in areas with 20% or more Indigenous Australians compared with 111 psychologists and 105 pharmacists per 100,000 in areas with a population of less than 1% Indigenous Australians (tables 3.10.7, 3.15.5).

In 2012:

- The proportion of other registered health professionals employed in their respective fields was: physiotherapists 84%, podiatrists 92%, psychologists 87% and dental therapists and oral health therapists 89%. In New South Wales, Victoria, Tasmania, Australian Capital Territory and the Northern Territory combined, 92% of occupational therapists were employed in their field (tables 3.22.5–9).

According to the OSR data collection, as at 30 June 2013:

- In Aboriginal and Torres Strait Islander primary health-care organisations, out of 4,282 FTE health/clinical positions, 263 (6%) were vacant. Out of 2,690 FTE administrative and support staff positions, 52 (2%) were vacant (Table 3.22.11).

## Trend

According to the OSR and previous data collections:

- Between 1999–00 and 2012–13, there was a significant increase of 238% in the number of FTE staff at Australian Government-funded Aboriginal and Torres Strait Islander health-care services (Table 3.14.53).
- Between 1999–00 and 2012–13, there was no significant change in the proportion of FTE health/clinical and administrative/support staff vacancies in Aboriginal and Torres Strait Islander primary health-care organisations (Table 3.22.13).

## Appendix 1: Data sources

The data in this report are drawn from national data collections and surveys. The main data sources are described below. Table A1 shows all data sources and the Aboriginal and Torres Strait Islander Health Performance Framework measures that they relate to.

### **Australian Aboriginal and Torres Strait Islander Health Survey**

The 2012–13 Australian Aboriginal and Torres Strait Islander Health Survey (AATSIHS) included a sample of 12,000 Indigenous Australians for the core sample and sub-samples for various components of the survey, such as voluntary biomedical data for adults. The AATSIHS sample was specifically designed to select a representative sample of Indigenous Australians and therefore overcome the problem inherent in most national surveys (that is, small and unrepresentative Indigenous samples). Information recorded in this survey is as reported by respondents. Responses may be affected by imperfect recall or individual interpretation of survey questions. Any data that are self-reported are also likely to underestimate circumstances about which the respondent is unaware, or may be reluctant to report (for example, certain health conditions, weight or drug use).

### **The National Aboriginal and Torres Strait Islander Social Survey**

The 2008 National Aboriginal and Torres Strait Islander Social Survey (NATSISS) was conducted between August 2008 and April 2009. Information was collected by personal interview from approximately 13,300 Indigenous Australians; 5,500 aged 0–14 and 7,800 aged 15 and over in both *Non-remote* and *remote* parts of Australia. The NATSISS sample was specifically designed to select a representative sample of Indigenous Australians. The NATSISS uses the standard Indigenous status question to identify Aboriginal and Torres Strait Islander households from which the sampling process is then undertaken. Information recorded in this survey is as reported by respondents, or from child proxies (usually parents), on behalf of selected children aged 0–14.


### **Census of Population and Housing**

The Census uses the standard Indigenous status question and it is asked for each household member.

There are 4 principal sources of error in Census data: respondent error, processing error, partial response and undercount.

The Census form may be completed by 1 household member on behalf of others. Incorrect answers can be introduced to the Census form if the respondent does not understand the question or does not know the correct information about other household members.

The processing of information from Census forms is now mostly automated. Quality assurance procedures are used during Census processing to ensure processing errors are



minimised. Sample checking is undertaken during coding operations, and corrections are made where necessary.

When completing their Census form, some people do not answer all the questions that apply to them. In these instances, a 'not stated' code is allocated during processing, with the exception of non-response to age, sex, marital status and place of usual residence.

Other Census data issues relate to the accuracy of the Census count itself, for example, whether people are counted more than once, or not at all.

Following each Census, assumptions are made about past levels of mortality to produce back cast population estimates.

## National Perinatal Data Collection

Birth notification forms are completed for all births of 20 weeks or more gestation, or a birthweight of 400 grams or more. The Perinatal National Minimum Data Set includes all births in Australia in hospitals, birth centres and the community. Jurisdictional-level data in the HPF are based on place of mother's usual residence rather than place where birth occurred. A standard data item for Indigenous status is specified in the Perinatal National Minimum Data Set for the mother. Work is underway to include the Indigenous status of the baby with data released from 2015. Data on Indigenous status are not reported for Tasmania prior to 2005, as the 'not stated' category for Indigenous status was included with the non-Indigenous category. Numbers are small in jurisdictions such as ACT and Tasmania and therefore need to be interpreted with caution.

All jurisdictions are working towards improving the quality of Indigenous status in perinatal data collections. States and territories have agreed to improve procedures for collecting Indigenous data in key data collections including implementation of the *Best Practice Guidelines for the collection of Indigenous status in health data sets*.


## National Hospital Morbidity Data

This data collection includes all completed admitted patient episodes in public and private hospitals across Australia. For 2012–13, almost all public hospitals provided data for the NHMD. The exception was a mothercraft hospital in the ACT. The great majority of private hospitals also provided data, the exceptions being the private free-standing day hospital facilities in the ACT, the single private free-standing day hospital in the NT, and a private free-standing day hospital in Victoria.

The number and pattern of hospitalisations can be affected by differing admission practices among the jurisdictions and from year to year, and differing levels and patterns of service delivery. Some jurisdictions have slightly different approaches to the collection and storage of the standard Indigenous status question and categories in their hospital collections.

The incompleteness of Indigenous identification means the number of hospital separations recorded as Aboriginal and Torres Strait Islander is an under-estimate of hospitalisations involving Indigenous Australians.

Time-series analysis may be affected by changes in the quality of Indigenous identification over time. Time-series presentations in this report include data from both public and private hospitals across several jurisdictions, so the overall effect of changes in Indigenous



identification over time is unclear. This should be taken into account when interpreting the results of time-series analysis.

Between 2009–10 and 2010–11, there were significant changes in the coding of diagnoses for diabetes and obstetrics and for imaging procedures. There were also significant changes made to coding practices for diabetes and related conditions for the 2012–13 year, resulting in increased counts for these conditions. Caution should be used in comparing 2011–12 and 2012–13 data with data from previous HPF reports.

## National Mortality Database

The count of deaths for Indigenous Australians can be influenced by the accuracy of identification of Indigenous deaths, late registration of deaths, as a result of coronial inquiry, and changes to death forms and/or processing systems. Due to the small size of the Indigenous population, these factors can significantly impact on trends over time and between jurisdictions.

All jurisdictions broadly comply with the standard wording for the Indigenous status question for their death registration forms. However, the response categories tend to differ between a number of jurisdictions, most notably Western Australia provides an additional 'Unknown' response category, and the Northern Territory does not provide clear instructions on how to select both Aboriginal and Torres Strait Islander origin (for example, by ticking both boxes) (ABS & AIHW 2005).

Almost all deaths in Australia are registered. However, the Indigenous status of the deceased is not always recorded/reported and/or recorded correctly. The incompleteness of Indigenous identification means the number of deaths registered as Aboriginal and Torres Strait Islander is an underestimate of deaths occurring in the Indigenous population (ABS 2013c). As a result, the observed differences between Indigenous and non-Indigenous mortality are under-estimates of the true differences. Although the identification of Indigenous Australians in deaths data is incomplete in all state and territory registration systems, 5 jurisdictions (New South Wales, Queensland, Western Australia, South Australia and the Northern Territory) have been assessed by the ABS and the AIHW as having adequate identification. Longer-term mortality trend data are presented for these jurisdictions from 1998 onwards. The ABS calculated the identification rate of Indigenous deaths for the period 2011–12 through data linkage between the Census and death registration records to examine differences in reporting of Indigenous status across the 2 datasets (ABS 2013d).

## Medicare

A Voluntary Indigenous Identifier was introduced into the Medicare database from November 2002. By July 2014, a total of 415,730 people had identified as Aboriginal, Torres Strait Islander, or both.

**Table A1: Data sources and the Aboriginal and Torres Strait Islander Health Performance Framework measures they relate to**

<b>Data source</b>	<b>Relevant measures</b>
AIHW Health Expenditure Database	3.03, 3.14, 3.15, 3.21
Alcohol and Other Drug Treatment Services National Minimum Data Set (AODTS-NMDS)	3.11
Australia and New Zealand Dialysis and Transplant Registry (ANZDATA)	1.10
Australian Aboriginal and Torres Strait Islander Health Survey (AATSIHS)	1.03, 1.04, 1.05, 1.07, 1.08, 1.09, 1.10, 1.11, 1.14, 1.15, 1.16, 1.17, 1.18, 2.01, 2.02, 2.03, 2.05, 2.06, 2.07, 2.08, 2.10, 2.13, 2.14, 2.15, 2.16, 2.17, 2.18, 2.19, 2.20, 2.22, 3.02, 3.03, 3.04, 3.05, 3.08, 3.10, 3.13, 3.14, 3.15, 3.16, 3.17, 3.18
Australian Cancer Database (ACD)	1.08
Australian Childhood Immunisation Register (ACIR)	3.02
Australian General Practice Accreditation Limited (AGPAL)	3.19
Australian Health Survey (AHS)	1.10, 2.01, 2.05, 2.07, 2.08, 2.19, 2.22, 3.05, 3.18
Australian National Infant Feeding Survey (ANIFS)	2.20
Bettering the Evaluation and Care of Health (BEACH) survey	1.03, 1.05, 1.07, 1.08, 1.09, 1.15, 1.16, 1.18, 3.03, 3.10, 3.11, 3.16
BreastScreen Australia	3.04
Census of Population and Housing	1.14, 2.01, 2.06, 2.07, 2.08, 2.09, 2.13, 3.08, 3.12
Child Dental Health Survey	1.11
Deadly Ears Program	1.15
Department of Education Higher Education Student Statistics Collection	2.06, 3.20
Department of Health data	3.21
Department of Health General Practice Statistics	3.14, 3.22
Disability Services National Minimum Data Set (DS NMDS)	1.14
Drug Use Monitoring in Australia Survey	2.17
GPA Accreditation Plus	3.19
Healthy for Life (HfL) data collection	1.01, 2.21, 3.01, 3.03, 3.05, 3.13, 3.18, 3.19
Juvenile Justice National Minimum Dataset (JJ NMDS)	2.11
Medicare data	1.11, 3.04, 3.05, 3.10, 3.14, 3.16, 3.18
National Aboriginal and Torres Strait Islander Health Survey (NATSIHS)	2.20, 3.08, 3.14
National Aboriginal and Torres Strait Islander Social Survey (NATSISS)	1.11, 1.13, 1.15, 1.17, 1.18, 2.01, 2.02, 2.03, 2.04, 2.05, 2.06, 2.07, 2.08, 2.10, 2.11, 2.13, 2.14, 2.15, 2.16, 2.17, 2.19, 2.20, 2.21, 3.01, 3.08, 3.13, 3.14, 3.17
National Assessment Program – Literacy and Numeracy tests (NAPLAN)	2.04
National Bowel Cancer Screening Register	3.04
National Centre for Vocational Education Research (NCVER) data	2.06, 3.20
National Child Protection Data Collection	2.12
National Community Mental Health Care Database (NCMHCD)	3.10
National Deaths in Custody Program (NDICP)	2.11
National Health Survey (NHS)	2.20
National Health Workforce Dataset (NHWDS)	3.10, 3.15, 3.22
National HIV Registry	1.12

*(continued)*



**Table A1 (continued): Data sources and the Aboriginal and Torres Strait Islander Health Performance Framework measures they relate to**

<b>Data source</b>	<b>Relevant measures</b>
National Homicide Monitoring Program (NHMP)	2.10
National Hospital Morbidity Database (NHMD)	1.02, 1.03, 1.04, 1.05, 1.06, 1.07, 1.08, 1.09, 1.10, 1.15, 1.16, 1.18, 2.10, 2.16, 2.17, 3.06, 3.07, 3.08, 3.09, 3.10, 3.11, 3.14, 3.19
National Indigenous Eye Health Survey (NIEHS)	1.16
National Key Performance Indicators (nKPIs) for Aboriginal and Torres Strait Islander primary health care data collection	3.05, 3.18
National Mental Health Establishments Database (NMHED)	3.10
National Mortality Database (NMD)	1.03, 1.04, 1.05, 1.08, 1.09, 1.10, 1.18, 1.19, 1.20, 1.21, 1.22, 1.23, 1.24, 2.10, 2.16
National Non-admitted Patient Emergency Department Care Database (NNAPEDCD)	3.16
National Notifiable Diseases Surveillance System (NNDSS)	1.04, 1.12
National Opioid Pharmacotherapy Statistics Annual Data (NOPSAD) collection	3.11
National Perinatal Data Collection (NPDC)	1.01, 2.21, 3.01
National Prisoner Census	2.11
National Prisoner Health Data Collection (NPHDC)	2.11, 3.14, 3.18
National Public Hospitals Establishment Database (NPHED)	3.19
National Residential Mental Health Care Database (NRMHCD)	3.10
National Schools Statistics Collection (NSSC)	2.05
National Trachoma Surveillance	1.16
Office of the Registrar of Indigenous Corporations (ORIC)	3.13
Online Services Report (OSR) data collection	3.03, 3.05, 3.08, 3.11, 3.13, 3.14, 3.16, 3.18, 3.22
Population estimates from the 2011 Census of Population and Housing	1.19
Rheumatic Heart Disease (RHD) Program registers	1.06
Rural Workforce Agencies National Minimum Data Set	3.22
Specialist Homelessness Services Collection (SHSC)	2.01
Stronger Futures in the Northern Territory (SFNT) data collection (previously Northern Territory Emergency Response (NTER) Child Health Check Initiative (CHCI) – dental data collection)	1.11
Stronger Futures in the Northern Territory (SFNT) hearing health data collection (previously Northern Territory Emergency Response (NTER) Child Health Check Initiative(CHCI) – hearing health data collection)	1.15
Survey of Education and Work (SEW)	2.07
Western Australian Aboriginal Child Health Survey (WAACHS)	1.18

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- AIHW 2013. Aboriginal and Torres Strait Islander Health Performance Framework 2012 report: Victoria. Cat. no. IHW 86. Canberra: AIHW.  
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- AIHW 2013. Aboriginal and Torres Strait Islander Health Performance Framework 2012: detailed analyses. Cat. no. IHW 94. Canberra: AIHW.  
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- AIHW 2011. Aboriginal and Torres Strait Islander Health Performance Framework 2010 report: Victoria. Cat. no. IHW 64. Canberra: AIHW.  
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- AIHW 2011. Aboriginal and Torres Strait Islander Health Performance Framework 2010: detailed analyses. Cat. no. IHW 53. Canberra: AIHW.  
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- AIHW 2009. Aboriginal and Torres Strait Islander Health Performance Framework 2008 report: detailed analyses. Cat. no. IHW 22. Canberra: AIHW.  
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<<http://www.aihw.gov.au/publication-detail/?id=6442467995>>.





This report gives the latest information on how Aboriginal and Torres Strait Islander people in Victoria are faring according to a range of measures of health status and outcomes, determinants of health and health system performance. Indicators are based on the Aboriginal and Torres Strait Islander Health Performance Framework. The report highlights the main areas of improvement and continuing concern.