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# Aboriginal and Torres Strait Islander Health Performance Framework 2017 report

## Victoria





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## 2017 report

Victoria

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### Abbreviations

ABS	Australian Bureau of Statistics
ACCHO	Aboriginal Community Controlled Health Organisation
ACT	Australian Capital Territory
AGPAL	Australian General Practice Accreditation Limited
AHMAC	Australian Health Ministers' Advisory Council
AIHW	Australian Institute of Health and Welfare
COAG	Council of Australian Governments
ESKD	end-stage kidney disease
FTE	full-time equivalent
GP	general practitioner
GPA+	General Practice Accreditation Plus
GPMP	General Practice Management Plan
HbA1C	glycated haemoglobin (A1c)
HIB	Haemophilus influenzae type B
HIV/AIDS	human immunodeficiency virus/acquired immunodeficiency syndrome
ISHP	Indigenous-specific health service
ISPHS	Indigenous Specific Primary Health Services
MBS	Medicare Benefits Schedule
NACCHO	National Aboriginal Community Controlled Health Organisation
NAPLAN	National Assessment Program—Literacy and Numeracy
NDA	National Disability Agreement
NMDS	national minimum data set
NSSC	National Schools Statistics Collection
NSW	New South Wales
NT	Northern Territory
OECD	Organisation for Economic Co-operation and Development
PBS	Pharmaceutical Benefits Scheme
PHN	Primary Health Network
Qld	Queensland
RPBS	Repatriation Schedule of Pharmaceutical Benefits
RHD	rheumatic heart disease
SA	South Australia
SEIFA	Socio-Economic Indexes for Areas

sudden infant death syndrome
sudden unexpected death in infancy
sexually transmissible infections
Tasmania
Team Care Arrangement
Vocational education and training
Victoria
Western Australia
World Health Organization

## **Symbols**

	not applicable
<	less than
e.g.	for example
n.a.	not available
n.e.c.	not elsewhere classified
n.p.	not published because of small numbers, confidentiality, or other concerns about the quality of the data

## Summary

The Aboriginal and Torres Strait Islander Health Performance Framework 2017 report for Victoria finds areas of improvement in the health of Aboriginal and Torres Strait Islander people living in Victoria, and areas of concern.

Areas of improvement for Victoria include:

- The rate for low birthweight singleton babies born to Indigenous mothers decreased from 13.9% in 2000 to 11.1% in 2014 (Table 1.01.3).
- Rates of being a current smoker for Indigenous Australians aged 15 and over decreased from 59% in 1994 to 41% in 2014–15 (Table 2.15.1).
- There was a significant increase in the number of Indigenous-specific MBS health checks claimed for Indigenous Australians, from 21 per 1,000 in 2006–07 to 164 per 1,000 in 2015–16 (Table 3.04.3).
- Immunisation coverage rates for Indigenous children aged 5 are among the highest in Australia at 96%, at 31 December 2015 (Table 3.02.4).
- The gap in literacy and numeracy attainment between Indigenous and non-Indigenous Year 9 students in 2016 was smaller across all the domains than at the national level: 12 percentage points for reading; 19 for writing; 15 for spelling; 15 for grammar and punctuation; and 11 for numeracy, (tables 2.04.1, 2.04.3, 2.04.5, 2.04.7–2.04.9).

Areas of concern for Victoria include:

- The rate of singleton babies born to Indigenous mothers with a low birthweight was 2.3 times higher than singleton babies born to non-Indigenous mothers, 11% compared with 5% in 2014 (Table 1.01.1).
- The age-standardised rate of Indigenous women who smoked during pregnancy was 3 times the rate for non-Indigenous women 44% compared with 15% in 2014 (Table 2.21.1).
- Indigenous mothers had a lower rate of accessing antenatal care services in the first trimester of pregnancy (37%) compared with non-Indigenous mothers (49%), in 2014 (Table 3.01.10).
- The age-standardised incidence rate for end-stage kidney disease for Indigenous Australians was more than 4.5 times the rate for non-Indigenous Australians in 2012–2014, 47 compared with 10 per 100,000 (Table 1.10.11).
- The age-standardised hospitalisation rate for Indigenous Australians for injury due to assault from July 2013 to June 2015, was almost 5 times as high as the rate for non-Indigenous Australians, 2.4 compared with 0.5 per 1,000 (Table 2.10.5).
- A higher proportion of Indigenous Australians aged 15 and over reported being a victim of physical or threatened violence in 2014–15 (20%) compared with non-Indigenous Australians (7%) (Table 2.10.25).
- The employment rate for those aged 15–64 continues to be lower for Indigenous Australians than for non-Indigenous Australians (53% compared with 72%) in 2014–15 (Table 2.07.5).

		National		Victoria	
Topic Measure		Indigenous <sup>(a)</sup>	Age-standardised gap <sup>(b)</sup>	Indigenous <sup>(a)</sup>	Age-standardised gap <sup>(b)</sup>
Health status and outcome	95				
Low birthweight	Low birthweight live born babies per 100 live births (2014)	11.8	5.6*	13.2	6.8*
Hospitalisations	Total hospitalisations (excluding dialysis) per 1,000 population (July 2013 to June 2015)	320.9	82.9 <sup>(c)</sup>	264.3	12.1 <sup>(c)</sup>
Disease incidence and prevalence	Percentage of persons reporting circulatory disease as a long-term condition (2012–13)	12.7	3.7 <sup>(c)</sup>	10.0	-0.1 <sup>(c)</sup>
	Age-standardised percent 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 (2008–12)	483.9 <sup>(d)</sup>	44.8 <sup>(c)(d)</sup>	504.3	99.3 <sup>(c)</sup>
	Age-standardised rate of treated end-stage kidney disease per 100,000 population (2012–14)	58.8	52.1*	46.7	36.4*
Social and emotional wellbeing	Percentage 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	Percentage n of persons with a disability or restrictive long-term health condition (2014–15)	45.1	20.1*	48.7	22.5 <sup>(c)</sup>
Mortality	Life expectancy at birth, males (2010–12)	67.4 <sup>(e)</sup>	-12.4 <sup>(c)(e)</sup>	n.a.	n.a.
	Life expectancy at birth, females (2010–12)	72.3 <sup>(e)</sup>	-10.9 <sup>(c)(e)</sup>	n.a.	n.a.
	Age-standardised mortality per 100,000 population (2011–15)	991.7	411.7*	n.p.	n.p.
	Age-standardised mortality rate for avoidable and preventable deaths (0–74) per 100,000 population (2011–15)	345.2	239.8*	n.p.	n.p.
	Age-standardised mortality rate for circulatory diseases per 100,000 population (2011–15)	271.4	98.1*	n.p.	n.p.
	Child 0–4 mortality per 100,000 population (2011–15)	164.9	84.8*	n.p.	n.p.
	Infant mortality per 1,000 live born infants (2011–15)	6.1	2.8*	n.p.	n.p.

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

(continued)

Table S1 (continued): Key measures of Aboriginal and Torres Strait Islander health, nationa	I and Victoria
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		Nat	ional	Victoria		
Торіс	Measure	Indigenous <sup>(a)</sup>	Age-standardised gap <sup>(b)</sup>	Indigenous <sup>(a)</sup>	Age-standardised gap <sup>(b)</sup>	
Determinants of health						
Housing	Percentage of persons living in overcrowded households (2014–15)	20.7	15.2 <sup>(c)</sup>	11.7	6.0 <sup>(c)</sup>	
Environmental tobacco smoke	Percentage of children aged 0–14 living in households with daily smokers who smoke at home indoors (2014–15)	useholds with daily 15) 13.3 n.a. <sup>(c)</sup>		12.6	n.a.	
Education	Percentage of Year 7 students achieving reading benchmark (2016)	77.4	-18.2 <sup>(c)</sup>	84.7	-10.9 <sup>(c)</sup>	
	Percentage of Year 7 students achieving writing benchmark (2016)	63.5	-27.8 <sup>(c)</sup>	75.6	-17.6 <sup>(c)</sup>	
	Percentage of Year 7 students achieving numeracy benchmark (2016)	79.4	-17.1 <sup>(c)</sup>	84.3	-12.1 <sup>(c)</sup>	
	Apparent retention rate Year 7/8 to Year 12 (2015)	59.4	-25.8 <sup>(c)</sup>	69.7	-16.9 <sup>(c)</sup>	
Employment	Labour force participation rate, persons aged 15-64 (2014-15)	61.1	-16.0 <sup>(c)</sup>	63.9	-12.4 <sup>(c)</sup>	
	Employment rate (percentage of population employed), persons aged 15–64 (2014–15)	48.4	-24.2 <sup>(c)</sup> *	52.7	-18.8 <sup>(c)</sup>	
	Unemployment rate, persons aged 15-64 (2014-15)	20.8	15.0 <sup>(c)</sup> *	16.4	10.1 <sup>(c)</sup>	
Income	Percentage of persons aged 18 and over in the bottom 20% of equivalised gross weekly household income (2014–15)	36.5	19.9 <sup>(c)</sup>	29.4	13.2 <sup>(c)</sup>	
Transport	Percentage of persons aged 15 and over with access to a motor vehicle (2014–15)	75.4	-9.7 <sup>(c)</sup>	76.3	-8.6 <sup>(c)</sup>	
Community safety	Imprisonment per 100,000 adults (2013)	2,345.9	1,875.8 <sup>(c)</sup>	1,661.5	1,431.5 <sup>(c)</sup>	
	Age-standardised hospitalisation rate for assault per 1,000 population (July 2013—June 2015)	8.9	8.3 <sup>(c)</sup>	2.4	1.9 <sup>(c)</sup>	

(continued)

		National		Victoria	
Торіс	Measure	Indigenous <sup>(a)</sup>	Age-standardised gap <sup>(b)</sup>	Indigenous <sup>(a)</sup>	Age-standardised gap <sup>(b)</sup>
Health behaviours	Percentage of persons aged 15 and over who are current smokers (2014–15)	41.9	26.5 <sup>(c)</sup>	40.6	26.1 <sup>(c)</sup>
	Percentage of persons aged 18 and over who drank at risky/high-risk levels on any occasion during last 12 months (2014–15)	57.1	6.6 <sup>(c)</sup>	62.4	10.7 <sup>(c)</sup>
	Percentage of mothers who smoked during pregnancy (2014)	46.0	33.1*	45.2	29.2 <sup>(c)</sup>
Overweight and obesity	Percentage of persons aged 15 and over who are obese (2012–13)	37.4	14.8*	34.1	n.p.
Health system performance					
Early detection and prevention, health promotion	Percentage of mothers who attended an antenatal care session during the first trimester of pregnancy (2014)	53.9	-7.0*	35.6	-11.8*
	Percentage of 5 year olds fully vaccinated (31 December 2015)	95.1	2.0	95.8	2.2
	Age-standardised percent of women aged 50–69 who participated in BreastScreen Australia programs (2013–14)	36.5	-17.3 <sup>(c)</sup>	34.3	-20.1 <sup>(c)</sup>
	Child 0–14 health checks, per 1,000 population (2015–16)	256.1		157.8	
	Adult 15–54 health assessments, per 1,000 population (2015–16)	251.9		154.8	
	Adult 55+ health assessments, per 1,000 population (2015–16)	383.1		234.3	
Chronic disease management/care planning	General Practice Management Plans (GPMPs), per 100 type 2 diabetes patients (May 2015)	51.2		40.2	
	Team Care Arrangements (TCAs), per 100 type 2 diabetes patients (May 2015)	48.3		37.4	
	MBS allied health services provided, age-standardised per 1,000 population (2015–16)	412.9	-33.8 <sup>(c)</sup>	531.8	10.1 <sup>(c)</sup>
Access to hospital procedures	Age-standardised proportion of hospitalisations (excluding dialysis) with a procedure recorded (2011–12 to 2012–13)	61.9	-19.0 <sup>(c)</sup>	74.6	-8.9 <sup>(c)</sup>

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

(continued)

	Table S1 (	(continued):	Key measures of	Aboriginal and	<b>Torres Strait Isla</b>	ander health,	national and Victoria
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		Nat	tional	Victoria		
Торіс	Measure	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, age-standardised per 1,000 population (2015–2016)	6,622.5	782.6	7,428.4	1,395.1	
	Age-standardised community mental health care service contacts, per 1,000 population (2014–15)	1,155.4	829.1 <sup>(c)</sup>	865.1	582.1	
	Percentage of presentations to emergency departments which were after-hours (2014–15 to 2015–16)	58.7	2.7 <sup>(c)</sup>	59.3	2.5 <sup>(c)</sup>	
Workforce, training and resources	People in the health workforce (per 100,000 population) (2014)	613.3	-1,567.3 <sup>(c)</sup>	1,214.2	-1,060.3 <sup>(c)</sup>	
	Percentage of undergraduates enrolled in health-related courses who were Indigenous (2015)	1.9		np		
	Percentage of VET students enrolled in health-related courses who were Indigenous (2015)	4.7		1.4		
Expenditure	State and territory government health expenditure per person (2013–14)	4,889.5	2,464.9 <sup>(c)</sup>	4,473.0	2,328.6 <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) The age-standardised gap is the 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, life expectancy, housing, employment, education, motor vehicles, income, and children in households with daily smokers, child health checks, emergency department presentations, health workforce, expenditure and higher education data. The age-standardised gap is positive (+) when Indigenous rate is higher than the non-Indigenous rate and negative (-) when Indigenous rate is lower than the non-Indigenous rate.

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

(d) Data are reported for New South Wales, Victoria, Queensland, Western Australia and the Northern Territory only.

(e) National life expectancy estimates presented in this table enable effective comparison with state and territory estimates. However estimates in measure 1.19 have been calculated using a different method and enable comparison across 2 time points.

### Introduction

This is the 5th report in a series that 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 2017 report, detailed analyses*, the sixth in a series of reports against the Aboriginal and Torres Strait Islander Health Performance Framework 2017 report, detailed analyses, the sixth 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

<www.aihw.gov.au/reports/indigenous-health-welfare/health-performance-framework/content s>.

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, assess 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 <a href="http://www.safetyandquality.gov.au">http://www.safetyandquality.gov.au</a>.

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 2017 policy report (AHMAC 2017).

Tier 1—Health status and outcomes									
Health conditions1.01Low birthweight1.02Top reasons for hospitalisation1.03Injury and poisoning1.04Respiratory disease1.05Circulatory disease1.06Acute rheumatic fever and rheumatic heart disease1.07High blood pressure1.08Cancer1.09Diabetes1.10Kidney disease1.11Oral health1.12HIV/AIDS, hepatitis and sexually transmissible infections	Human function1.13Community functioning1.14Disability1.15Ear health1.16Eye healthLife expectancy and wellbeing1.17Perceived health status1.18Social and emotional wellbeing1.19Life expectancy at birth	Deaths         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									
Environmental factors 2.01 Housing 2.02 Access to functional housing with utilities 2.03 Environmental tobacco smoke  Socioeconomic factors 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	Community capacity 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	Health behaviours2.15Tobacco use2.16Risky alcohol consumption2.17Drug and other substance use including inhalants2.18Physical activity2.19Dietary behaviour2.20Breastfeeding practices2.21Health behaviours during pregnancyPerson-related factors2.22Overweight and obesity							
Tier 3–	-Health system performance								
Effective/appropriate/efficient 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  Responsive 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	Accessible 3.14 Access to services compared with need 3.15 Access to prescription medicines 3.16 Access to after-hours primary health care Continuous 3.17 Regular GP or health service 3.18 Care planning for chronic diseases	<ul> <li>Capable</li> <li>3.19 Accreditation</li> <li>3.20 Aboriginal and Torres Strait Islander people training for health-related disciplines</li> <li>Sustainable</li> <li>3.21 Expenditure on Aboriginal and Torres Strait Islander health compared with need</li> <li>3.22 Recruitment and retention of staff</li> </ul>							

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

### **Demographic information**

The preliminary estimated resident Aboriginal and Torres Strait Islander population of Victoria at 30 June 2016 was about 57,800 people (ABS 2017), accounting for 7.2% 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 (3.3%) (Table 1 Vic).

Table 1 Vic: Preliminary estimated resident population by Indigenous status,	Victoria and
Australia, 30 June 2016	

	Indigenous		Non-Indige	Non-Indigenous Total				
	Number	%	Number	%	Number	%	% Indigenous	% Non-Indigenous
Victoria	57,782	7.2	6,121,467	26.1	6,179,249	25.5	0.9	99.1
Australia <sup>(a)</sup>	798,381	100.0	23,412,428	100.0	24,210,809	100.0	3.3	96.7

(a) Includes territories other than New South Wales, Victoria, Queensland, South Australia, Western Australia, Tasmania, the Northern Territory and the Australian Capital Territory.

Source: AIHW analysis of ABS preliminary population estimates based on 2016 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 comprised only 4.6% of the Indigenous population in Victoria, compared with 15% of the non-Indigenous population (Figure 2).

The 2016 Estimated Resident Population by remoteness categories was not available at the time of publication of this report. In 2011 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).

	Indigenous Non-Indigenous			Total				
	Number	%	Number	%	Number	%	% Indigenous	% Non-Indigenous
Victoria								
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
Victoria	47,333	100.0	5,490,484	100.0	5,537,817	100.0	0.9	99.1
				Australia	a			
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
Australia	669,881	100.0	21,670,143	100.0	22,340,024	100.0	3.0	97.0

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

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 of 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 Health Performance Framework reports for Victoria. More graphs are included, and key findings for Australia are presented in each measure to enable comparison of Indigenous Australians in South Australia with Indigenous Australians nationally. In each measure, where available, trend data are highlighted in the text, and, where possible, the analysis focuses on the gap between Indigenous and non-Indigenous Australians.

Detailed Excel tables to support the analyses presented in this report can be found at <www.aihw.gov.au/reports/indigenous-health-welfare/health-performance-framework/contents>.

### Interpreting the data in this report

#### Data sources and limitations

Data in this report come from various 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, while a more detailed description of all data sources and comments on data quality can be found at </www.aihw.gov.au/reports/indigenous-health-welfare/health-performance-framework/

contents>. The data in this report was progressively collected and different data sources have different date ranges. The most recent data in this report is 2016. The data in this report was progressively collected and different data sources have different date ranges. The most recent data in this report data in this report is 2016.

#### Administrative data sources

Health-related administrative data sets used for this report include the AIHW'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. As a result, data analysis using these sources has been limited to jurisdictions with adequate identification of Indigenous Australians, and this has been noted in relevant measures. Time-series analyses might also be affected by changes in the quality of Indigenous identification over time.

For current hospitalisation results (July 2013 – June 2015), 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 2014–15), data from New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory are used. For longer-term trends (1998–99 to 2014–15), data from only Queensland, Western Australia, South Australia and the Northern Territory are used. For longer-term trends (1998–99 to 2014–15), data from only Queensland, Western Australia, South Australia and the Northern Territory are used.

Admission practices can differ across jurisdictions, which might affect comparisons between state and territories. Time series analyses for emergency department data might also be affected by changes in admission practices.

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, and the National Aboriginal and Torres Strait Islander Social Survey. Data from the Census of Population and Housing have also been used.

Surveys are also subject to various 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) contain footnotes 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 Australian Aboriginal and Torres Strait Islander Health Survey and the 2011–12 Australian Health Survey (which provides a non-Indigenous comparison) are referred to as being 2012–13 data.

#### Methods used for analysis

#### **Comparison 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, as 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 are more similar to those specified as not Indigenous than to

those specified as Indigenous. So these may be grouped 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 Australians and those of unknown Indigenous status. Text, tables and figures in this report clearly note whether 'non-Indigenous Australians' or 'other Australians' are the comparison population.

#### **Population data**

Population data are required when computing rates. The 2016 preliminary estimated resident population (ERP) is the latest available data that gives an estimate of the number of Aboriginal and Torres Strait Islander people in the population (ABS 2017). Because the 2016 ERP was released shortly before publication of this report, it was not available for use with the data. Therefore, unless otherwise noted, denominators used to calculate Indigenous Australian rates in this report are based on the ABS backcast Indigenous population estimates, and projections from 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 estimated resident population. 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 estimated resident population for 2011 is computed using this enumerated figure, and adjusted for under-count based on results from the Post-Enumeration Survey, as well as for non-response to the Indigenous status question (ABS 2013a).

Estimates of the Indigenous estimated resident population at June 2011, based on the 2011 Census, are about 30 per cent as high as estimates of the 2006 Indigenous estimated resident population, based on the 2006 Census. This increase involved a 21% rise in the Census count (mostly at age groups under 19 years), and an increase in the measured under-count (influenced by improved Post-Enumeration Survey questions on Indigenous status). As a result, historical rates presented in this report will be different to those presented in previous Health Performance Framework 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 Australians) relative to the population 'at risk' (for example, all Indigenous Australians). No age adjustments are made when calculating such a rate.

Crude rates might 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, which take 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 enable valid comparison of age-standardised rates between the sexes.

Two 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 might 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. As a result, percentages cited in the text might 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 Australians minus the rate for non-Indigenous Australians.

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 Australians divided by the rate for non-Indigenous Australians, and is interpreted as follows:

- A rate ratio of 1 indicates there is no difference between the rates.
- A rate ratio of less than 1 indicates the rate is lower in the Indigenous population.
- A rate 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 given around the rate difference or rate ratio. If these show that the rate difference is statistically significantly different from 0, 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 (see Glossary).

A similar method has been used in tables that 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.

In tables, proportions, rates, rate ratios and rate differences that are statistically different from each other at the p < 0.05 level are marked with an asterisk (\*). Footnotes in each table specify which results are being compared. Where results of significance testing differ between rate ratios and rate differences, results should be interpreted with caution.

#### 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 when calculated around the rates separately. Footnotes in the tables indicate when linear regression analysis was used. 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 than 0 then the data are said to have significantly risen over the period; if less than 0, then data have significantly fallen. 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 Health Performance Framework publications before the 2014 edition, 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 1 data point to the next leading to highly variable percentage and annual change estimates. As a result, the time-trend results in this report should not be compared with Health Performance Framework publications prior to 2014.

Because percentage change is the change from the starting point (of the trend line), and the values of the starting points are generally different, the estimates presented for Indigenous and non-Indigenous Australians should not be compared with each other. 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 have an 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 done in the 2016 Health Performance Framework, as the accuracy of this testing might be low. As rate ratios often do not rise or fall in a linear manner, applying linear regression to rate ratios might not accurately reflect the change over time.

#### Significance testing

Annual change and percent change were only calculated for a series of 4 or more data points. The 95% confidence intervals (CIs) for the standard error of the slope estimate (annual change) based on linear regression are used to determine whether the apparent increases or decreases in the data are statistically significant at the p < 0.05 level. The formula used to calculate the CIs for the standard error of the slope estimate is: 95% CI (x) = x ± t \* (n-2) x SE (x) where x is the annual change (slope estimate), t\* (n-2) is the 97.5th quintile of the tn-2 distribution. If the upper and lower 95% confidence intervals do not include zero, then it can be concluded that there is statistical evidence of an increasing or decreasing trend in the data over the study period. Significant changes are denoted with a \* against the annual change statistics included in relevant tables.

#### Testing rate differences and rate ratios

If the 95% CIs of the difference in rates do not include zero, then it can be concluded that there is statistical evidence of a difference in rates. If the 95% CIs of the rate ratio do not include 1, then it can be concluded that there is statistical evidence of a difference in the rates contributing to the rate ratio. Tables include a \* next to the rate ratio and rate difference to indicate that rates for the Indigenous and non-Indigenous populations are statistically different from each other at the p < 0.05 level (based on 95% CIs). Where results of

significance testing differed between rate ratios and rate differences, caution should be exercised in the interpretation of the tests.

#### **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 2011 Census estimated resident populations, so should not be compared with rates calculated using estimated resident populations 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 from 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).

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, the phrase 'deaths due to injury and poisoning' is used in this report, 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 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. The activities cover the key data sets required for Indigenous reporting under the National Indigenous Reform Agreement, including mortality data, morbidity data, perinatal data, and population estimates.

Major data development activities done or in progress by the AIHW are described in this section. Those achieved by the ABS include:

- improvements to the Census Indigenous enumeration procedures and expansion of the Census Post-Enumeration Survey
- timing of the National Aboriginal and Torres Strait Islander Social Survey and Australian Aboriginal and Torres Strait Islander Health Survey scheduled at 6-yearly cycles to provide 3-yearly estimates for key statistics collected in both surveys
- 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 Health Performance Framework policy report technical appendix (AHMAC 2017).

#### Perinatal National Minimum Data Set

AIHW is working with the states and territories to develop an improved Perinatal National Minimum Data Set (NMDS), with improvements including the following:

- Nationally consistent data items on smoking during the first 20 weeks and after the first 20 weeks of pregnancy until the birth, were included in the Perinatal NMDS from 1 July 2010.
- A data item for the Indigenous status of the baby was added to the Perinatal NMDS from 1 July 2012.
- A data item on the estimated duration of pregnancy at the first visit for antenatal care was added to the Perinatal NMDS from 1 July 2010.
- A data item on the number of antenatal visits was included in the Perinatal NMDS from 1 July 2013.
- New voluntary data items have been added to the Perinatal Data Set Specifications (birth year), including:
  - reasons for caesarean section (2014–15)
  - maternal height and weight (2014–15)
  - diabetes, diabetes mellitus during pregnancy, and type of diabetes (2014–15)
  - hypertensive disorder during pregnancy (2014–15)
  - primary postpartum haemorrhage, blood transfusion for postpartum haemorrhage, and estimated postpartum haemorrhage blood loss (2014–15)
  - indication for induction of labour (2015–16)
  - baby head circumference (2016–17).

- The AIHW is currently consulting jurisdictions about including and developing psychosocial data items for screening during antenatal visits, which might include information about alcohol use during pregnancy, antenatal anxiety and depression, and illicit substance use in pregnancy.
- The Maternity Model of Care Data Set Specification was approved by National Health Information Standards and Statistics Committee, and added to the National Health Data Dictionary in May 2015. The AIHW has started collecting maternity models of care data from 91 registered users from participating maternity services in Australia.

#### Improving Indigenous identification in data sets

The AIHW released national best-practice guidelines for collecting Indigenous status in health data sets in April 2010. The AIHW provides continuing support for better Indigenous identification through its National Indigenous Data Improvement Support Centre's helpdesk, which gives advice and assistance to health providers on issues relating to collecting and recording Indigenous status. The centre also supports better Indigenous data collection, by providing resources and training materials.

The ABS continues to conduct various engagement and education activities, liaise with government departments about best practice in Indigenous data collections, and conduct data linkage programs to assess and improve Indigenous identification status.

The ABS also has in place an Indigenous Community Engagement Strategy to improve the collection and dissemination of statistics, in partnership with Aboriginal and Torres Strait Islander communities. Through the use of Indigenous Engagement Managers in ABS offices across Australia, the ABS is building relationships with communities to improve the quality and relevance of Aboriginal and Torres Strait Islander statistics.

More information on ABS key directions in Aboriginal and Torres Strait Islander statistics can be obtained in the ABS's 2012–13 annual report (ABS 2013c).

# 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 for linking Indigenous data 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* were released on 9 July 2012, with 2 attachments released on 14 June 2013. The attachments review the current and recent body of data linkage activities relating to Aboriginal and Torres Strait Islander body of data linkage activities. In describing and comparing data linkage practices to date, these documents provide an evidence base for the national data linkage guidelines.

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

The AIHW has published reports on the assessment of the quality of Indigenous identification in labour force data collections, community services data collections, the National Cancer Registry, the National Diabetes Register, the national Key Performance Indicator data collection and in hospital separations data.

#### Improving estimates of Indigenous mortality

The AIHW's Enhanced Mortality Database project aimed to improve information on Indigenous status on the registered deaths data set, by linking it to several additional data sources that contain information on deaths and Indigenous identification—namely admitted hospital records, perinatal records, and residential aged care data. This enables more accurate estimates of Aboriginal and Torres Strait Islander mortality and life expectancy.

The AIHW published a final report on the results of the project, *Trends in Indigenous mortality and life expectancy: evidence from the Enhanced Mortality Database*, 2001–2013, in December 2016. A permanent and ongoing AIHW data collection, the Enhanced Indigenous Mortality Data Collection, is now being established based on the Enhanced Mortality Database project method, to extend and continue this work.

#### Implementation Plan for the National Aboriginal and Torres Strait Islander Health Plan

Following on from the COAG targets, the Australian Government worked with Aboriginal and Torres Strait Islander people to produce the National Aboriginal and Torres Strait Islander Health Plan 2013–2023. This sets out a 10-year plan for the direction of Indigenous health policy and provides a long-term, evidence-based policy framework to close the gap in Indigenous disadvantage. The vision outlined in the Health Plan around health system effectiveness is that the Australian health system delivers primary health care that is evidence-based, culturally safe, high quality, responsive and accessible to all Aboriginal and Torres Strait Islander people (DoH 2013).

An Implementation Plan sits alongside the Health Plan, detailing the actions to be taken by the Australian Government and other key stakeholders to implement the Health Plan (DoH 2015). It identifies 20 goals to support the achievement of the COAG targets around the effectiveness of the health system and priorities across the life course, from maternal health and parenting, childhood health and development, adolescent and youth health, healthy adults and healthy ageing. A technical companion document to the Implementation Plan outlines these goals and how they will be measured (AIHW 2015a).

The second stage of the Implementation Plan will be released in 2018 and will further develop actions and goals in the domain of social and cultural determinants of health and health system effectiveness. It will also seek to increase engagement between Australian Government agencies, state, territory and local governments, the Aboriginal community-controlled health sector, the non-government sector and the corporate/private sector (DoH 2017).

Progress on achieving the Implementation Plan goals will be reported every two years in line with the release of the Aboriginal and Torres Strait Islander Health Performance Framework. The findings will be incorporated into the Department of Health's Annual Report and will inform the Prime Minister's annual Closing the Gap report. Progress on the goals will also be publicly reported on the DoH and AIHW websites from mid-2017 (DoH 2015).

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

The AIHW Linked Perinatal, Births, Deaths Data set Project aims to create a national, ongoing, linked perinatal, birth and death data set to obtain more accurate estimates of Indigenous infant and child mortality, and to analyse the factors affecting infant and child health outcomes in Australia. Infant and child death rates are important markers of population health.

At the national level, combined data show significant differences in infant and child death rates within Australia by factors such as Indigenous status, sociodemographics, and maternal health status. But these factors are not able to be analysed simultaneously, as they are dispersed across various data sources.

An initial data set is being created by linking unit record level data across jurisdictions from perinatal data collections, birth records, and death records. It covers all births from 2003 to 2010, and deaths within this birth cohort that occurred up to age 5.

National linkage, including all relevant births and all deaths occurring up to mid-2016 was completed in late 2016, and the resulting data are now being analysed. The first report from the project, which uses unlinked perinatal data to look at factors associated with poor birth outcomes, will be published by the AIHW in 2017.

#### Including Indigenous status in pathology data

The AIHW's 2013 report *The inclusion of Indigenous status on pathology request forms* (AIHW 2013) outlines work towards including Indigenous status on pathology request forms to improve Indigenous identification in national cancer, communicable disease and cervical screening registries.

#### Other relevant activities

#### **Closing the Gap Clearinghouse**

The AIHW in collaboration 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. It focuses on 7 subject areas: early childhood, schooling, health, economic participation, healthy homes, safe communities, and governance and leadership.

The Clearinghouse supports policymakers and service providers involved in overcoming Indigenous disadvantage, by providing access to and synthesising the evidence on particular topics. As the contract for the Clearinghouse ended in June 2014, no new material is being added, though all resources and publications already published continue to be available.

#### **National Prisoner Health Data Collection**

The National Prisoner Health Data Collection was first conducted in 2009, based on a set of indicators aligned to the National Health Performance Framework, and designed to monitor the health of prisoners. Subsequent data collections were held in 2010, 2012 and 2015.

The collection provides information on the health of people entering prison (prison entrants), health conditions managed at prison clinics, medications administered at the clinics, the health of people about to be released from prison (prison dischargees), and operations of the clinics. Major reports relating to each data collection have been released by the AIHW, supplemented by smaller bulletins focused on topics such as mental health. All of these reports include analysis of the health of Aboriginal and Torres Strait Islander prisoners.

#### Mapping of health services and need

The AIHW has completed a series of projects looking at 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 developing an area-based index that measures access to general practitioners (GPs), relative to the need for primary health care for both the Indigenous and non-Indigenous populations. *Access to primary health care relative to need for Indigenous Australians* (AIHW 2014a) shows that, on average, for both population groups, access to GPs and access to GPs relative to need reduces with increasing remoteness, but that the effect appears to be greater for the Indigenous population.

The 2nd project, reported in *Spatial variation in Aboriginal and Torres Strait Islander people's access to primary health care* (AIHW 2015b), aimed to identify areas with critical service gaps for the Indigenous population in relation to their access to primary health care. Areas with potential service gaps were defined as 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.

The 3rd report, *Spatial distribution of the supply of the clinical health workforce 2014: relationship to the distribution of the Indigenous population* (AIHW 2016a), uses a new measure developed by the AIHW—the Geographically-adjusted Index of Relative Supply—to look at the geographic supply of the clinical health workforce in 7 key professions with particular relevance to Indigenous Australians.

These professions were general practitioners, nurses, midwives, pharmacists, dentists, psychologists, and optometrists. Areas with lower scores under the index are more likely to face workforce supply challenges than those with higher scores.

The Geographically-adjusted Index of Relative Supply is an important resource for policy discussions on improving the supply of health services.

The 4th project is looking at 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 find gaps and look at whether the supply of these services is associated with relevant health outcomes (for example, low birthweight, smoking during pregnancy, antenatal care use) at low geographic levels. This project is expected to be published in 2017.

#### **Closing the Gap initiatives**

With the 10th anniversary of Closing the Gap approaching in 2018, the COAG has agreed to work together, and with Indigenous Australians, to refresh the Closing the Gap agenda.

The AIHW has contributed to this work, and investigated when the Closing the Gap health initiatives are likely to have an impact on the Indigenous child mortality target. This work involved looking at the main drivers affecting 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 the outcomes that have been achieved.

The report, *Timing impact assessment for COAG Closing the Gap targets: child mortality* (AIHW 2014b), suggests that the full effect of the COAG maternal and child health initiatives might not be evident for many years.

#### Indigenous 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. It aims to identify the extent and distribution of health problems in Australia, and quantify the contribution of key health risks.

Estimates of the fatal and non-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 2011* (AIHW 2016b). That report also includes estimates of the gap in disease burden between Indigenous and non-Indigenous Australians. The disease groups causing the most burden among Indigenous Australians in 2011 were mental and substance use disorders, injuries, cardiovascular diseases, cancer and respiratory diseases. Indigenous Australians experienced a burden of disease that was 2.3 times the rate of non-Indigenous Australians. More than one-third of the overall disease burden experienced by Indigenous Australians could be prevented by removing exposure to risk factors such as tobacco and alcohol use, high body mass, physical inactivity and high blood pressure.

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### **Tier 1—Health status and outcomes**

### 1.01 Low birthweight

#### Why it is important

This measure reports on low birthweight among live born babies of Indigenous mothers.

Low birthweight (newborns weighing less than 2,500 grams) is associated with being born early (pre-term) or being small for gestational age, which indicates possible growth restriction within the uterus. Low birthweight infants are at a greater risk of dying during their first year of life; and are prone to ill-health in childhood and the development of chronic diseases as adults including cardiovascular disease, high blood pressure, kidney disease and type 2 diabetes (Arnold et al. 2015; Hoy & Nicol 2010; Luyckx et al 2013; OECD 2011; Scott 2014; White et al. 2010; Zhang et al. 2013).

#### Key findings

**Overall:** In 2014 in Victoria, and considering live born babies only, low birthweight was more than twice as common among babies born to Indigenous mothers compared with those born to non-Indigenous mothers (13.2% compared with 6.4%). Low birthweight is associated with multiple births (AIHW 2016c). After excluding multiple births, the proportions were 11.1% compared with 4.9%.

Nationally, low birthweight was also almost twice as common among all live born babies born to Indigenous mothers compared with those born to non-Indigenous mothers (11.8% compared with 6.2%). After excluding multiple births, the proportions were 10.5% and 4.7%, respectively (Table 1.01.1, Figure 1.01.1).

**Mean birthweight:** Nationally, the mean birthweight for infants born to Indigenous mothers in 2014 was less than babies of non-Indigenous mothers, 3,217 compared with 3,356 grams (Table 1.01.5).

**Trend over time:** The numbers of multiple births have increased (although rates have decreased) from 2004 to 2014. This is due to factors such as increased use of fertility treatments and delays in child bearing that result in higher proportions of older mothers (AIHW 2015c). Because of this, multiple births are often excluded from statistics that present trends in birthweight.

Between 2000 and 2014 in Victoria, the low birthweight rate for singleton babies born to Indigenous mothers declined by 23.6%, from 13.9% in 2000 to 11.1% in 2014. The rates for non-Indigenous mothers who gave birth to babies with low birthweight were 4.7% in 2000 and 4.9% in 2014.

There were 6 jurisdictions that had data of adequate quality to report long-term trends. In NSW, Vic, Qld, WA, SA and the NT combined, the low birthweight rate for singleton babies born to Indigenous mothers declined by 12.6% between 2000 and 2014, from 11.7% to 10.5% (Table 1.01.3, Figure 1.01.2).

**Age of Indigenous mothers:** Nationally in 2014, the proportion of low birthweight singleton births was highest for Indigenous mothers in the 35 and over age group (12.5%). For non-Indigenous mothers it was highest in the under 20 age group (7.6%) (Table 1.01.7, Figure 1.01.3).


Source: Table 1.01.1.





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, 2000–2014



# **1.02** Top reasons for hospitalisation

#### Why it is important

This measure reports on the leading causes of hospitalisation. Rates indicate the occurrence in a population of serious illnesses and conditions that require hospitalisation, and use of hospitals by people with such conditions. Rates are based on the number of hospital episodes rather than the number of individual people who are hospitalised. Rates don't necessarily reflect the level of occurrence of an illness in the population (AHMAC 2017).

## Key findings

**Overall:** The age-standardised hospitalisation rate (excluding dialysis) for Indigenous Australians in Victoria from July 2013 to June 2015, was 359 per 1,000. This was the same as the rate for non-Indigenous Australians.

Nationally, the age-standardised hospitalisation rate (excluding dialysis) for Indigenous Australians was 417 per 1,000. This was 1.2 times the rate for non-Indigenous Australians. After adjusting for Indigenous under-identification, the hospitalisation rate for Indigenous Australians was 1.3 times the rate for non-Indigenous Australians (Table 1.02.1).

**Top reasons for hospitalisation:** The age-standardised rate for care involving dialysis was the leading reason for hospitalisation for Indigenous Australians in Victoria (252 per 1,000). The next most common reasons were pregnancy and childbirth (51 per 1,000) and diseases of the digestive system (38 per 1,000).

Nationally, the age-standardised rate for care involving dialysis was the most common reason for hospitalisation (472 per 1,000), followed by pregnancy and childbirth (59 per 1,000) and injury and poisoning (47 per 1,000) (Table 1.02.5 Vic, Figure 1.02.1).

**Trend over time:** In Victoria, the age-standardised hospitalisation rate (excluding dialysis) increased at a faster rate between 2004–05 and 2014–15, for Indigenous Australians than for non-Indigenous Australians: an increase of 92% (from 191 to 371 per 1,000) compared with 4% (from 332 to 351 per 1,000). Until 2009–10, the hospitalisation rate was lower for Indigenous Australians than for non-Indigenous Australians, but this changed in 2010–11 when the difference peaked at 22 per 1,000.

For NSW, Vic, Qld, WA, SA and the NT combined, the age-standardised rate increased from 2004–05 to 2014–15 by 37% for Indigenous Australians, from 317 to 433 per 1,000. The rate for non-Indigenous Australians increased by 14% over this time (from 294 to 339 per 1,000) (Table 1.02.4 NSW, Figure 1.02.2).

**Age group:** The hospitalisation rate in Victoria from July 2013 to June 2015 was similar for Indigenous Australians and non-Indigenous Australians. The largest difference was for those aged 25–34, where the rate for Indigenous Australians was 1.2 times the rate for non-Indigenous Australians.

Nationally, for all age groups under 65, the hospitalisation rate was higher for Indigenous Australians than for non-Indigenous Australians. The largest difference was for those aged 45–54, where the rate for Indigenous Australians was 1.6 times the rate for non-Indigenous Australians (Table 1.02.2 Vic, Figure 1.02.3).



# Figure 1.02.1: Age-standardised hospitalisation rate, by principal diagnosis and Indigenous status, Victoria and Australia, July 2013 to June 2015



Source: Table 1.02.4 Vic.

# Figure 1.02.2: Age-standardised hospitalisation rate (excluding dialysis), Victoria and NSW, Vic, Qld, WA, SA and NT combined, 2004–05 to 2014–15



Victoria and Australia, July 2013 to June 2015

# 1.03 Injury and poisoning

#### Why it is important

This measure reports on injury and poisoning. Injury and poisoning can cause long-term disability and disadvantage, including reduced opportunities for education and employment, communication impairment and burden on caregivers (Stephens et al. 2014).

## Key findings

**Overall:** In Victoria between July 2013 and June 2015, the age-standardised hospitalisation rate for injury and poisoning was 29 per 1,000 for Indigenous Australians. This was 1.2 times the rate for non-Indigenous Australians (23 per 1,000).

Nationally, the age-standardised rate of hospitalisation was 47 per 1,000 for Indigenous Australians. This was 1.8 times the rate for non-Indigenous Australians (25 per 1,000) (Table 1.03.3, Figure 1.03.1).

**Age group:** In Victoria between July 2013 and June 2015, the rate of hospitalisation for injury and poisoning for Indigenous and non-Indigenous Australians was highest for those aged 65 and over: 43 compared with 57 per 1,000.

Nationally, the rate of hospitalisation for injury and poisoning was highest for Indigenous Australians aged 35–44 (60 per 1,000). The highest rate for non-Indigenous Australians was for those aged 65 and over (58 per 1,000) (Table 1.03.2 Vic, Figure 1.03.2).

**Leading cause:** Between July 2013 and June 2015 in Victoria, falls were the leading cause of injury and poisoning requiring hospitalisation for Indigenous Australians (21%).

Nationally, assault was the highest cause of injury and poisoning requiring hospitalisation for Indigenous Australians (20.1%), followed by falls (19.7%) (Table 1.03.7 Vic).

**Injuries in last 4 weeks:** In 2012–13 in Victoria, 27% of Indigenous Australians surveyed reported having an injury in the last 4 weeks. Remote area data for Victoria are not available for publication.

Nationally, 19% of Indigenous Australians surveyed reported having an injury in the last 4 weeks. The proportion was higher in *Non-remote* areas (20%) than in *Remote* areas (14%) (Table 1.03.10).

**Trend over time:** In Victoria, the age-standardised rate of hospitalisation for injury and poisoning for Indigenous Australians increased by 46%, from 20 per 1,000 in 2004–05 to 29 per 1,000 in 2014–15. The gap between Indigenous and non-Indigenous Australians increased from 1 per 1,000 in 2008–09 to 5 per 1,000 in 2014–15: a rate increase of 1.0 per 1,000 per year.

In NSW, Vic, Qld, WA, SA and the NT combined, the age-standardised rate of hospitalisation for injury and poisoning for Indigenous Australians increased by 38%, from 36 per 1,000 in 2004–05 to 48 per 1,000 in 2014–15. The rate difference between Indigenous and non-Indigenous Australians increased by 79% from 14 per 1,000 in 2004–05 to 23 per 1,000 in 2014–15: a rate increase of 1.0 per 1,000 per year (Table 1.03.5 Vic, Figure 1.03.3).



Source: Table 1.03.3.





Source: Table 1.03.2 Vic.

Figure 1.03.2: Age-specific hospitalisation rate for injury and poisoning, by Indigenous status, Victoria and Australia, July 2013 to June 2015



Figure 1.03.3: Age-standardised hospitalisation rate for injury and poisoning, by Indigenous status, Victoria and NSW, Vic, Qld, WA, SA and NT combined, 2004–05 to 2014–15

# 1.04 Respiratory diseases

#### Why it is important

This measure reports on deaths, hospitalisation and prevalence of respiratory diseases.

Aboriginal and Torres Strait Islander peoples experience higher mortality and morbidity from respiratory diseases such as asthma, chronic obstructive pulmonary disease (COPD) (including bronchitis and emphysema), pneumonia and invasive pneumococcal disease than other Australians (AHMAC 2017).

## **Key findings**

**Overall prevalence:** In 2012–13, 38% of Indigenous Australians in Victoria reported having a respiratory disease that had lasted, or was likely to last for 6 months or more. This was 1.4 times the rate that non-Indigenous Australians reported having respiratory diseases. Remote area data for Victoria are not available for publication.

Nationally in 2012–13, 31% of Indigenous Australians reported having a respiratory disease that had lasted, or was likely to last, 6 months or more. A higher proportion of Indigenous Australians living in *Non-remote* areas reported having respiratory diseases than those living in *Remote* areas: 35% and 18%, respectively (Table 1.04.2, Figure 1.04.1).

**Hospitalisation:** The age-standardised hospitalisation rate for Indigenous Australians for respiratory diseases between July 2013 and June 2015 in Victoria was 26 per 1,000. This was 1.6 times the rate for non-Indigenous Australians (16 per 1,000) (Table 1.04.7). Rates for Indigenous Australians were highest in the youngest and oldest age groups: 45 per 1,000 for those aged 0–4, and 74 per 1,000 for those aged 65 and over (Table 1.04.8 Vic).

Nationally, the age-standardised hospitalisation rate for Indigenous Australians for respiratory diseases was 39 per 1,000. This was 2.4 times the rate for non-Indigenous Australians (17 per 1,000) (Table 1.04.7). Hospitalisation rates for Indigenous Australians for respiratory diseases were similar to Victoria in all age groups: 78 per 1,000 for those aged 0–4, and 101 per 1,000 for those aged 65 and over (Table 1.04.8 Vic, Figure 1.04.2).

**Trend over time:** The age-standardised hospitalisation rate for Indigenous Australians in Victoria for respiratory diseases increased from 17 per 1,000 in 2004–05 to 27 per 1,000 in 2014–15: an increase of 68% over the period. The rate for non-Indigenous Australians remained relatively stable (around 16 per 1,000). Indigenous Australians consistently had higher rates of hospitalisation for respiratory disease than non-Indigenous Australians. The rate difference between Indigenous and non-Indigenous Australians increased from 1 per 1,000 in 2004–05 to 11 per 1,000 in 2014–15.

In NSW, Vic, Qld, WA, SA and the NT combined, the age-standardised rate of hospitalisation for respiratory diseases for Indigenous Australians increased by 18% (from 36 to 42 per 1,000), and the rate for non-Indigenous Australians increased by 8% (from 16 to 17 per 1,000). The rate difference between Indigenous and non-Indigenous Australians increased by 26%, from 20 to 25 per 1,000 (Table 1.04.11 Vic, Figure 1.04.3).







Source: Table 1.04.8 Vic.

Figure 1.04.2: Age-specific hospitalisation rate for respiratory diseases, by Indigenous status, Victoria and Australia, July 2013 to June 2015



# 1.05 Circulatory diseases

#### Why it is important

This measure reports on prevalence, incidence, deaths and hospitalisations caused by circulatory diseases. Circulatory diseases are a major cause of morbidity and mortality for Indigenous Australians. They are more common among Indigenous than non-Indigenous Australians, and tend to occur at younger ages (AIHW 2015d; Bradshaw et al. 2011; Brown et al. 2012; Katzenellenbogen et al. 2014).

## **Key findings**

**Overall:** Based on self-reported data in 2012–13 in Victoria, 10% of Indigenous Australians had a heart/circulatory condition (Table 1.05.1). The age-standardised rate for Indigenous Australians with heart/circulatory conditions was the same as for non-Indigenous Australians (16%).

Nationally, 13% of Indigenous Australians had a heart/circulatory condition (Table 1.05.1). The age-standardised rate for Indigenous Australians was higher than for non-Indigenous Australians (20% compared with 16%). The rate was also higher in *Remote* than *Non-remote* areas (26% compared with 18%) (Table 1.05.2, Figure 1.05.1).

**Hospitalisation:** From July 2013 to June 2015 in Victoria, the age-standardised rate for hospitalisation for circulatory diseases for Indigenous Australians was 1.3 times the rate for non-Indigenous Australians (23 per 1,000 compared with 18 per 1,000). The rate of hospitalisation was higher for Indigenous males (26 per 1,000) than for Indigenous females (21 per 1,000).

Nationally, the age-standardised rate for hospitalisation for circulatory diseases for Indigenous Australians was 1.8 times the rate for non-Indigenous Australians (32 per 1,000 compared with 18 per 1,000). The rate of hospitalisation was higher for Indigenous males (35 per 1,000) than for Indigenous females (29 per 1,000) (Table 1.05.7).

**Age:** In Victoria, from July 2013 to June 2015, hospitalisation rates for circulatory diseases increased with age and were highest in the 65 and over age group for both Indigenous and non-Indigenous Australians (87 per 1,000 and 89 per 1,000).

Nationally, hospitalisation rates for circulatory disease increased with age and were highest in the 65 and over age group for both Indigenous and non-Indigenous Australians (107 per 1,000 and 89 per 1,000) (Table 1.05.6 Vic, Figure 1.05.2).

**Trend over time:** In Victoria, between 2004–05 and 2014–15, there has been a 79% increase in the rate of age-standardised hospitalisation for Indigenous Australians for circulatory diseases (from 13 per 1,000 to 23 per 1,000). For non-Indigenous Australians there was a 19% decline (from 22 per 1,000 to 18 per 1,000).

In NSW, Vic, Qld, WA, SA and the NT combined, there was a 17% increase in the age-standardised rate of hospitalisation for Indigenous Australians for circulatory diseases (from 28 per 1,000 in 2004–05 to 33 per 1,000 in 2014–15). For non-Indigenous Australians there was a 12% decline (from 21 per 1,000 to 18 per 1,000) (Table 1.05.11 Vic, Figure 1.05.3).



Source: Table 1.05.2.





Source: Table 1.05.6 Vic.

Figure 1.05.2: Age-specific hospitalisation rate for circulatory diseases, by Indigenous status, Victoria and Australia, July 2013 to June 2015



Figure 1.05.3: Age-standardised hospitalisation rate for circulatory diseases, by Indigenous status, Victoria and NSW, Vic, Qld, WA, SA and NT combined, 2004–05 to 2014–15

# 1.06 Acute rheumatic fever and rheumatic heart disease

#### Why it is important

This measure reports on the incidence and prevalence of acute rheumatic fever (ARF) and rheumatic heart disease (RHD). ARF is a disease caused by an autoimmune reaction to an infection with the bacterium group A streptococcus (GAS). ARF is a short illness, but can result in permanent damage to the heart, which is RHD.

ARF and RHD are associated with environmental factors such as poverty and poor living conditions. ARF and RHD are now rare diseases in populations with good living conditions and easy access to quality medical care (He et al. 2016). Indigenous Australians remain at risk of ARF/RHD because of socioeconomic disadvantage and barriers to accessing health care (AHMAC 2017).

## Key findings

Acute rheumatic fever and rheumatic heart disease: ARF and RHD data are not available for Victoria.

**Hospitalisation:** From July 2013 to June 2015 in Victoria, 17 Indigenous Australians were hospitalised for ARF or RHD. The crude rate of hospitalisation for Indigenous Australians for ARF or RHD was 0.2 per 1,000 population. For non-Indigenous Australians, the crude hospitalisation rate for ARF or RHD was 0.1 per 1,000.

Nationally, the rate of hospitalisation for Indigenous Australians for ARF or RHD was 7 times the rate for non-Indigenous Australians. The age-standardised rates were 0.7 and 0.1 per 1,000, respectively (Table 1.06.17, Figure 1.06.1).

**Hospitalisation by age:** Numbers and rates of hospitalisations are not published by jurisdiction and age due to small numbers.

Nationally, from July 2013 to June 2015, the highest proportion of hospitalisation for Indigenous Australians for ARF or RHD were for those aged 10–14, at 1.6 per 1,000. This differed for non-Indigenous Australians, where the highest hospitalisation rate was for those aged 65 and over, at 0.5 per 1,000 (Table 1.06.18, Figure 1.06.2).

**Mortality:** Numbers and rates of deaths due to RHD are not published by jurisdiction due to small numbers.

In 2011–2015 in NSW, Qld, WA, SA and the NT combined, there were 108 deaths of Indigenous Australians due to RHD, which accounted for 3.4% of deaths due to circulatory diseases (Table 1.23.8). The age-standardised rate was 6.4 per 100,000, which was 4.7 times the rate for non-Indigenous Australians (1.4 per 100,000). Age-standardised mortality rates for Indigenous males were lower than rates for Indigenous females: 4.5 per 100,000 compared with 8.1 per 100,000 (Table 1.23.8, Figure 1.06.3).

The number of deaths of Indigenous Australians due to RHD increased with age, and the majority occurred in those aged 35 and older (81%) (Table 1.23.9).



Source: Table 1.06.17.





Source: Table 1.06.18.

Figure 1.06.2: Hospitalisations with a principal diagnosis of acute rheumatic fever or rheumatic heart disease, by Indigenous status and age, Australia, July 2013 to June 2015.



Figure 1.06.3: Deaths from rheumatic heart disease, by Indigenous status and sex, NSW, Qld, WA, SA and NT combined, 2011–2015

# 1.07 High blood pressure

#### Why it is important

This measure reports on the prevalence (self-reported and measured) of high blood pressure (also referred to as hypertension). High blood pressure is a major risk factor for stroke, coronary heart disease, heart failure, kidney disease, deteriorating vision, and peripheral vascular disease which leads 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 2017).

## Key findings

**Overall:** In 2012–13 in Victoria, based on a measured and self-reported survey data, 21% of Indigenous adults had high blood pressure (Table 1.07.4). The age-standardised proportion of Indigenous Australians with high blood pressure was 28% compared with 30% for non-Indigenous Australians (Table 1.07.7, Figure 1.07.1).

Nationally, based on a combination of self-reported and measured high blood pressure, 27% of Indigenous adults had high blood pressure (Table 1.07.4). The age-standardised proportion of Indigenous Australians with high blood pressure was higher than for non-Indigenous Australians (33% compared with 29%). Rates were also higher in *Remote* areas (40%) than *Non-remote* areas (31%) (Table 1.07.7, Figure 1.07.1).

**Hospitalisation overall:** From July 2013 to June 2015 in Victoria, the age-standardised rate of hospitalisation for high blood pressure was higher for Indigenous Australians than for non-Indigenous Australians (0.5 per 1,000 compared with 0.4 per 1,000).

Nationally, age-standardised hospitalisation rates for high blood pressure were higher for Indigenous than for non-Indigenous Australians (0.9 per 1,000 compared with 0.4 per 1,000) (Table 1.07.10, Figure 1.07.2).

**Hospitalisation by sex:** From July 2013 to June 2015 in Victoria, the age-standardised rate of hospitalisation for high blood pressure for Indigenous males was higher than for Indigenous females (0.4 per 1,000 compared with 0.2 per 1,000).

Nationally, the age-standardised rate of hospitalisation for high blood pressure for Indigenous females was higher than for Indigenous males (1.1 per 1,000 compared with 0.7 per 1,000) (Table 1.07.10, Figure 1.07.3).

**Hospitalisation by age:** From July 2013 to June 2015 in Victoria, the largest difference between Indigenous and non-Indigenous Australians hospitalised for high blood pressure was for those aged 25–34. The rate for Indigenous Australians for this age group was 5.6 times the rate for non-Indigenous Australians (0.5 per 1,000 compared with 0.1 per 1,000).

Nationally, the largest difference between Indigenous and non-Indigenous Australians hospitalised for high blood pressure was for those aged 45–54. The rate for Indigenous Australians for this age group was 4.5 times the rate for non-Indigenous Australians (1.4 per 1,000 compared with 0.3 per 1,000) (Table 1.07.9 Vic).







Source: Table 1.07.10.





Victoria and Australia, July 2013 to June 2015

## 1.08 Cancer

#### Why it is important

Data are presented on incidence, mortality and hospitalisations for selected cancers and all cancers combined. Indigenous Australians have higher rates of death due to cancer, and higher incidence of certain screen-detectable and many preventable cancers. They are also diagnosed at more advanced stages, and often with more complex comorbidities (Cunningham et al. 2008).

## **Key findings**

**Overall:** In 2008–2012 in Victoria, the age-standardised incidence rate of cancer (based on registrations of newly diagnosed cancers) was higher for Indigenous Australians (504 per 100,000) than for non-Indigenous Australians (405 per 100,000).

In NSW, Vic, Qld, WA and the NT combined, the age-standardised incidence rate of cancer was higher for Indigenous Australians (484 per 100,000) than for non-Indigenous Australians (439 per 100,000) (Table 1.08.3, Figure 1.08.1).

**Type of cancer:** In 2008–2012 in Victoria, the age-standardised incidence rate of breast cancer in females was lower for Indigenous than for non-Indigenous Australians (101 compared with 105 per 100,000). Incidence rates of bowel, digestive system (excluding bowel), lung, and cervical cancers were higher for Indigenous than for non-Indigenous Australians.

In NSW, Vic, Qld, WA and the NT combined, the age-standardised incidence rate of lung, digestive system (excluding bowel) and cervical cancer were higher for Indigenous than for non-Indigenous Australians. Rates of bowel cancer and breast cancer in females were lower for Indigenous than for non-Indigenous Australians (Table 1.08.3, Figure 1.08.1).

**Hospitalisation:** From July 2013 to June 2015 in Victoria, the age-standardised hospitalisation rate for cancer was lower for Indigenous than for non-Indigenous Australians (15 compared with 18 per 1,000).

Nationally, the age-standardised rate was lower for Indigenous Australians, at 12 per 1,000, compared with 16 per 1,000 for non-Indigenous Australians (Table 1.08.12, Figure 1.08.2).

**Mortality:** Data are not available for Victoria, because the jurisdiction is not considered to have an adequate level of Indigenous identification in mortality data.

In NSW, Qld, WA, SA and the NT combined, the age-standardised mortality rate for all cancers combined was 232 per 100,000 for Indigenous Australians, compared with 172 per 100,000 for non-Indigenous Australians (Table 1.23.2).

**Trend over time:** From 2004–05 to 2014–15, the age-standardised rate of hospitalisation for cancer for Indigenous Australians in Victoria increased from 6 per 1,000 to 15 per 1,000. For non-Indigenous Australians, the rate increased from 17 per 1,000 in 2004–05 to 19 per 1,000 in 2009–10, and then decreased to 18 per 1,000 in 2014–15.

In NSW, Vic, Qld, WA, SA and the NT combined, the age-standardised rate of hospitalisation for cancer for Indigenous Australians increased from 8 per 1,000 to 13 per 1,000. For non-Indigenous Australians, the rate increased from 16 per 1,000 in 2004–05 to 17 per 1,000 in 2009–10, and decreased to 16 per 1,000 in 2014–15 (Table 1.08.15 Vic, Figure 1.08.3). See Measure 1.23 for the cancer mortality trend over time.







Source: Table 1.08.12.

# Figure 1.08.2: Age-standardised hospitalisation rate for cancer by Indigenous status and sex, Victoria and Australia, July 2013 to June 2015



## 1.09 Diabetes

#### Why it is important

This measure reports on the prevalence of diabetes. Diabetes is a long-term chronic condition where blood glucose levels become too high. Over time, high blood glucose levels can damage various parts of the body, especially the heart and blood vessels, eyes, kidneys and nerves, resulting in permanent disability, mental health problems, reduced quality of life and premature death (Burrow et al. 2016; AIHW 2015d). High blood glucose levels cause complications for both the mother and baby during pregnancy.

Type 2 diabetes is a significant contributor to morbidity and mortality for Indigenous Australians (AIHW 2015d).

## Key findings

**Overall:** Data from the Australian Aboriginal and Torres Strait Islander Health Survey 2012–13 and Australian Health Survey 2011–12 are not available for Victoria due to the small numbers involved. The prevalence of diabetes was based on biomedical results and self-reported information on diabetes.

Nationally, the age-standardised rate for Indigenous Australians aged 18 and over who had diabetes was 18%. This was 3.5 times as high as the proportion for non-Indigenous Australians (5%) (Table 1.09.2).

**Hospitalisation overall:** From July 2013 to June 2015 in Victoria, the age-standardised hospitalisation rate for Indigenous Australians for diabetes was 3 times the rate for non-Indigenous Australians (4.4 per 1,000 compared with 1.6 per 1,000).

Nationally, the age-standardised hospitalisation rate for Indigenous Australians for diabetes was 4 times the rate for non-Indigenous Australians (6.6 per 1,000 compared with 1.6 per 1,000) (Table 1.09.8, Figure 1.09.1).

**Hospitalisation by age:** From July 2013 to June 2015 in Victoria, the hospitalisation rates for diabetes for Indigenous Australians increased with age, from 1.0 per 1,000 in those aged 5–14, to 12 per 1,000 in those aged 65 and over. Hospitalisation rates for non-Indigenous Australians also increased with age, from 0.2 per 1,000 in those aged 0–4, to 6 per 1,000 in those aged 65 and over.

Nationally, the hospitalisation rate increased with age from 0.2 per 1,000 in those aged 0–4, to 18 per 1,000 in those aged 65 and over. The hospitalisation rate also increased with age for non-Indigenous Australians, from 0.3 per 1,000 in those aged 0–4, to 5 per 1,000 for those aged 65 and over (Table 1.09.7 Vic, Figure 1.09.2).

**Hospitalisation by sex:** From July 2013 to June 2015 in Victoria, the age-standardised hospitalisation rate for diabetes for Indigenous males was higher than for Indigenous females (4.7 compared with 4.0 per 1,000). The hospitalisation rate for non-Indigenous males was higher than for non-Indigenous females (2.0 compared with 1.3 per 1,000).

Nationally, the age-standardised hospitalisation rate for diabetes for Indigenous males was higher than for Indigenous females (7.3 compared with 6.1 per 1,000). The hospitalisation rate for non-Indigenous males was higher than for non-Indigenous females (1.9 compared with 1.3 per 1,000) (Table 1.09.8 Vic, Figure 1.09.3).







Source: Table 1.09.7 Vic.

Figure 1.09.2: Age-specific hospitalisations for diabetes, by Indigenous status and age group, Victoria and Australia, July 2013 to June 2015



Victoria and Australia, July 2013 to June 2015

# 1.10 Kidney disease

#### Why it is important

This measure reports on prevalence, deaths and hospitalisation for chronic kidney disease, and incidence of treated end–stage kidney disease. Kidney disease can be a disease in its own right, or can be caused by the kidneys being permanently damaged by various acute illnesses or by progressive damage from other chronic conditions (AIHW 2011). If the kidneys cease functioning, this can cause death unless the person has regular dialysis or a new kidney is provided by transplant (AHMAC 2017).

## Key findings

**Overall:** Data on kidney diseases from Australian Aboriginal and Torres Strait Islander Health Survey 2012–13 and Australian Health Survey 2011–12 are not available for Victoria.

Nationally in 2011–13, based on biomedical results, the age-standardised rate of Indigenous Australians aged 18 and over with chronic kidney disease was 22%. This was twice the proportion for non-Indigenous Australians (10%) (Table 1.10.1).

**Hospitalisation:** From July 2013 to June 2015 in Victoria, the age-standardised hospitalisation rate for chronic kidney disease (excluding dialysis) for Indigenous Australians was 1.7 times the rate for non-Indigenous Australians (2.6 compared with 1.6 per 1,000) (Table 1.10.7). The hospitalisation rate for Indigenous Australians increased with age, peaking in the 55–64 age group (4.9 per 1,000). This was 2.1 times the rate for non-Indigenous Australians (2.3 per 1,000) (Table 1.10.6 Vic, Figure 1.10.1).

Nationally, the age-standardised hospitalisation rate for Indigenous Australians for chronic kidney disease (excluding dialysis) was 3.6 times the rate for non-Indigenous Australians (5.6 compared with 1.6 per 1,000) (Table 1.10.7). The hospitalisation rate for Indigenous Australians increased with age, peaking in the 55–64 age group (12.6 per 1,000). This was 5.8 times the rate for non-Indigenous Australians (2.2 per 1,000) (Table 1.10.6 Vic, Figure 1.10.1).

**End-stage kidney disease:** In 2012–2014, the age-standardised incidence rate of treated end-stage kidney disease (ESKD) for Indigenous Australians in Victoria was 4.5 times the rate for non-Indigenous Australians (47 compared with 10.3 per 100,000). The rate for Indigenous females was 3.8 times the rate for non-Indigenous females (30 compared with 7.8 per 100,000). The rate for Indigenous males was 5.1 times the rate for non-Indigenous males (64 compared with 13 per 100,000).

Nationally, the age-standardised incidence rate of treated ESKD for Indigenous Australians was 8.7 times the rate for non-Indigenous Australians (59 compared with 6.8 per 100,000). The rate for Indigenous females was 13 times the rate for non-Indigenous females (64 compared with 5 per 100,000). The rate for Indigenous males was 6.3 times the rate for non-Indigenous males (53 compared with 8.4 per 100,000) (Table 1.10.11, Figure 1.10.2).

**Trend over time:** The incidence rate of treated ESKD for Indigenous Australians in Victoria increased between 1997 and 2014, from 15.3 per 100,000 to 24 per 100,000.

Nationally, the incidence rate of treated ESKD for Indigenous Australians increased by 39% between 1996 and 2014, from 22 per 100,000 to 36 per 100,000 (Table 1.10.15, Figure 1.10.3).



Source: Table 1.10.6 Vic.

Figure 1.10.1: Age-specific hospitalisation rate for chronic kidney disease (excluding dialysis) by Indigenous status, Victoria and Australia, July 2013 to June 2015



Source: Table 1.10.11.

Figure 1.10.2: Age-standardised rate of incidence of end-stage kidney disease, by Indigenous status and sex, Victoria and Australia, 2012–2014



Source: Table 1.10.15.

Figure 1.10.3: Incidence (crude rate) of end-stage kidney disease of Indigenous Australians, Victoria and Australia, 1996–2014

# 1.11 Oral health

#### Why it is important

This measure reports on teeth and gum problems and hospitalisations for dental problems.

The 2 most common oral diseases are tooth decay and gum disease. If left untreated, these can cause discomfort and tooth loss, affecting a person's ability to eat, speak, and socialise (Williams et al. 2011). Oral diseases can exacerbate other chronic diseases (Jamieson et al. 2010) and are associated with cardiovascular diseases, diabetes, stroke and pre-term low birthweight (Roberts-Thomson et al. 2008; Williams et al. 2011).

## Key findings

**Overall:** In 2014–15 in Victoria, 32% of Indigenous children aged 0–14 who were surveyed, reported teeth or gum problems. Compared with 2008, there has been a reduction in teeth or gum problems (from 38%).

Nationally, 28% of Indigenous children aged 0–14 who were surveyed, reported teeth or gum problems. Compared with 2008, there has been a decrease in teeth or gum problems (from 32%) (Table 1.11.1, Figure 1.11.1).

**Tooth loss:** In 2012–13 in Victoria, 7.9% of Indigenous Australians aged 15 and over reported complete tooth loss (note that wisdom teeth are excluded from this category).

Nationally, 4.7% of Indigenous Australians aged 15 and over reported complete tooth loss (note that wisdom teeth are excluded from this category) (Table 1.11.10, Figure 1.11.2).

Remoteness: Remote area data for Victoria are not available for publication.

Nationally in 2012–13, a higher proportion of Indigenous Australians in *Non-remote* areas reported complete tooth loss (5.1%) than in *Remote* areas (3.3%) (Table 1.11.10).

**Hospitalisation (overall):** From July 2013 to June 2015 in Victoria, the age-standardised hospitalisation rate for dental problems for Indigenous Australians was 1.2 times the rate for non-Indigenous Australians (1.9 compared with 1.6 per 1,000).

Nationally, the age-standardised hospitalisation rate for dental problems for Indigenous Australians was 1.2 times the rate for non-Indigenous Australians (1.8 per 1,000 compared with 1.5 per 1,000) (Table 1.11.21 Vic).

**Hospitalisation (age):** In Victoria, from July 2013 to June 2015, the hospitalisation rate for dental problems was highest for those in the 5–14 age group for both Indigenous and non-Indigenous Australians. The rate for Indigenous children was 1.6 times the rate for non-Indigenous children (6.4 compared with 4.1 per 1,000).

Nationally, the hospitalisation rate for dental problems for Indigenous Australians was highest for those in the 0–4 age group (6.9 per 1,000). This was almost double the rate for non-Indigenous children of the same age (3.6 per 1,000). For non-Indigenous Australians the rate was highest in the 5–14 age group (4.5 per 1,000), while for Indigenous Australians this was the second highest age group (6.0 per 1,000) (Table 1.11.21 Vic, Figure 1.11.3).







Source: Table 1.11.10.

# Figure 1.11.2: Proportion of Indigenous Australians (aged 15 and over) reporting complete tooth loss, Victoria and Australia, 2012–13



Figure 1.11.3: Age-specific hospitalisation for dental problems, by Indigenous status, Victoria and Australia, July 2013 to June 2015

# 1.12 HIV/AIDS, hepatitis and sexually transmissible infections

#### Why it is important

This measure reports on the rates hepatitis B and C and some bacterial sexually transmissible infections. The bacterial sexually transmissible infections included are notified cases of chlamydia, gonorrhoea and non-congenital syphilis. These infections can have potentially serious consequences if left untreated. Hepatitis causes serious illness and can also progress to cirrhosis of the liver, cancer and premature death (ASHA 2016). Sexually transmissible infections can have serious long-term consequences (Bowden et al. 2002). Several of these infections can cause miscarriage (Campbell et al. 2011).

## Key findings

Data for Victoria are presented for those conditions where the data set has an adequate level of Indigenous identification.

**Non-congenital syphilis:** In 2013–2015, the age-standardised notification rate for non-congenital syphilis for Indigenous Australians in Victoria was 1.9 times the rate for other Australians (48 compared with 24 per 100,000). The notification rate for non-congenital syphilis for Indigenous females was 3.2 times the rate for other females. The rate for Indigenous males was 1.8 times the rate for other males.

Nationally, the age-standardised notification rate for non-congenital syphilis for Indigenous Australians was 4.6 times the rate for other Australians (72 compared with 15 per 100,000). The notification rate for non-congenital syphilis for Indigenous females was 16 times the rate for other females. The notification rate for non-congenital syphilis for Indigenous males was 2.9 times the rate for other males (Table 1.12.1, Figure 1.12.1).

**Gonorrhoea:** In 2013–2015, the age-standardised notification rate for gonorrhoea for Indigenous Australians in Victoria was less than the rate for other Australians (53 compared with 64 per 100,000). The notification rate for gonorrhoea for Indigenous females was 1.9 times the rate for other females (39 compared with 21 per 100,000). The notification rate for gonorrhoea for Indigenous males was lower than the rate for other males (68 compared with 106 per 100,000).

Nationally, the age-standardised notification rate for gonorrhoea for Indigenous Australians was 14 times the rate for other Australians (732 compared with 51 per 100,000). The notification rate for gonorrhoea for Indigenous females was 37 times the rate for other females. The notification rate for gonorrhoea for Indigenous males was 8.2 times the rate for other males (Table 1.12.1, Figure 1.12.2).

**HIV:** In 2013–2015 in Victoria, there were 892 notifications of HIV. Indigenous Australians made up 1.9% of these notifications and 98% were other Australians.

Nationally, there were 3,137 notifications of HIV during this time, which was an age-standardised rate of 5.5 per 100,000 for Indigenous Australians, compared with 4.5 per 100,000 for other Australians (Table 1.12.8, Figure 1.12.3).

Trend over time: Trend data are not available for Victoria for this measure.







Figure 1.12.2: Age-standardised notification rates for gonorrhoea, by Indigenous status and sex, Victoria and Vic, QId, WA, SA, Tas, ACT and NT, 2013–2015



Figure 1.12.3: Proportion of notification rates for HIV, by Indigenous status, Victor Australia, 2013–2015

# 1.13 Community functioning

#### Why it is important

This measure reports on factors to describe community functioning for Indigenous Australians. This is the ability and freedom of community members and communities to determine the context of their lives and translate capability into action (AHMAC 2017).

## **Key findings**

**Connectedness to Country, land and history; culture and identity:** In 2014–15 in Victoria, 69% of Indigenous Australians aged 15 and over reported that they recognised their homelands, 57% identified with a clan or language group, and 52% had attended an Indigenous cultural event in the last 12 months.

Nationally, 74% of Indigenous Australians reported that they recognised their homelands, 62% identified with a clan or language group, and 63% had attended an Indigenous cultural event in the last 12 months (Table 1.13.12, Figure 1.13.1).

**Resilience:** In 2014–15 in Victoria, 88% of Indigenous Australians aged 15 and over reported that they did not avoid situations due to past discrimination, 85% agreed that their doctor could be trusted and 67% agreed that the local school could be trusted, 96% had participated in sport, social or community activities in the last 12 months, and 33% of employed people said work allowed them to fulfil cultural responsibilities.

Nationally, 86% of Indigenous Australians reported that they did not avoid situations due to past discrimination, 81% agreed that their doctor could be trusted and 70% agreed that the local school could be trusted, 97% had participated in sport, social or community activities in the last 12 months, and 41% of employed people said work allowed them to fulfil cultural responsibilities (Table 1.13.12, Figure 1.13.2).

**Having a role, structure and routine:** In 2014–15 in Victoria, 33% of Indigenous Australians 15 and over reported that they had lived in 1 dwelling in the last 12 months.

Nationally, 32% of Indigenous Australians reported that they had lived in 1 dwelling in the last 12 months (Table 1.13.12).

**Feeling safe:** In 2014–15 in Victoria, 79% of Indigenous Australians aged 15 and over reported that they had not experienced physical or threatened violence in the last 12 months, 86% felt safe at home alone after dark, and 63% felt safe walking alone in the local area after dark.

Nationally, 78% of Indigenous Australians reported that they had not experienced physical or threatened violence in the last 12 months, 87% felt safe at home alone after dark, and 68% felt safe walking alone in the local area after dark (Table 1.13.12, Figure 1.13.3).

**Vitality:** In 2014–15 in Victoria, 40% of Indigenous Australians aged 15 and over self-assessed their health status as excellent or very good, 62% had experienced low/moderate levels of psychological distress in the 4 weeks before the survey, 76% could easily get to places as needed and 91% accessed the internet in the last 12 months.

Nationally, 40% of Indigenous Australians self-assessed their health status as excellent or very good, 67% experienced low/moderate levels of psychological distress in the 4 weeks before the survey, 75% could easily get to places as needed and 79% used the internet in the last 12 months (Table 1.13.12).







Source: Table 1.13.12.

Figure 1.13.2: Proportion of Indigenous Australians aged 15 and over: resilience, Victoria and Australia, 2014–15



Figure 1.13.3: Proportion of Indigenous Australians aged 15 and over: feeling safe, Victoria and Australia, 2014–15

# 1.14 Disability

#### Why it is important

This measure reports on the prevalence of disability for Indigenous Australians, 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 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. Indigenous Australians are at greater risk of disability due to increased exposure to factors such as low birthweight, chronic disease, infectious diseases, injury and substance use (AHMAC 2017).

## Key findings

**Overall:** In 2014–15 in Victoria, 49% of Indigenous Australians aged 15 and over reported having a disability or restrictive long-term health condition (Table 1.14.2). The age-standardised rate for Indigenous Australians reporting having a disability or restrictive long-term health condition was 54% compared with 31% of non-Indigenous Australians (Table 1.14.1, Figure 1.14.1).

Nationally, 45% of Indigenous Australians aged 15 and over reported having a disability or restrictive long-term health condition (Table 1.14.2). The age-standardised rate for Indigenous Australians reporting having a disability or restrictive long-term health condition was 50%, compared with 30% of non-Indigenous Australians (Table 1.14.1, Figure 1.14.1).

**Assistance with core-activities:** In 2011, Census data showed that 6.9% of Indigenous Australians in Victoria needed assistance with a core-activity (self-care, mobility or communication) some or all of the time. The age-standardised rate for Indigenous Australians needing assistance with core-activities was 9.4%, compared with 4.6% for non-Indigenous Australians.

Nationally in 2011, 5.7% of Indigenous Australians needed assistance with a core-activity. The age-standardised rate for Indigenous Australians was 2 times the rate for non-Indigenous Australians (9.2% compared with 4.5%) (Table 1.14.12, Figure 1.14.2).

**Users of disability support services:** In 2014–15 in Victoria, the age-standardised rate for Indigenous Australians aged under 65 who had used disability support services was 50 per 1,000. This was 2.9 times the rate for non-Indigenous Australians (17 per 1,000). The rate for Indigenous males was higher than for Indigenous females (54 and 46 per 1,000). The rate for non-Indigenous males was higher than for non-Indigenous females (20 and 15 per 1,000).

Nationally in 2014–15, the age-standardised rate for Indigenous Australians aged under 65 who had used disability support services was 28 per 1,000. This was 1.9 times the rate for non-Indigenous Australians (15 per 1,000). The rate for Indigenous males was higher than for Indigenous females (33 and 23 per 1,000), as was the rate for non-Indigenous males compared with non-Indigenous females (17 and 12 per 1,000) (Table 1.14.16, Figure 1.14.3).

Trend over time: Comparable trend data are not available for individual jurisdictions.











and Indigenous status, Victoria and Australia, 2014–15

# 1.15 Ear health

#### Why it is important

This measure reports on hearing health in children and adults, including prevalence rates for ear and hearing problems; hospitalisation rates for disease of the ear and mastoid process; and rates of ear and hearing problems managed at consultations with GPs. Hearing loss, especially in childhood may reduce educational achievements and have lifelong consequences (Williams et al. 2009).

## **Key findings**

**Overall:** In 2012–13 in Victoria, the age-standardised rate for Indigenous Australians reporting an ear or hearing problem was 1.4 times the rate for non-Indigenous Australians (17.3% compared with 12.0%).

Nationally, the age-standardised rate for Indigenous Australians reporting an ear or hearing problem was 1.3 times the rate for non-Indigenous Australians (16.0% compared with 12.2%) (Table 1.15.5, Figure 1.15.1).

**Remoteness:** Nationally in 2012–13, the rate for Indigenous Australians (all ages) reporting ear and hearing problems was similar in *Remote* and *Non-remote* areas (12% and 13%, respectively) (Table 1.15.4). However, in *Very remote* areas, Indigenous children aged 0–14 were hospitalised at 2.7 times the rate of non-Indigenous children for diseases of the ear and mastoid process (15 per 1,000 compared with 5.5 per 1,000). The hospitalisation rate for children in *Major cities* was similar for Indigenous and non-Indigenous children (6.2 and 6.8 per 1,000) (Table 1.15.14).

**Children aged 0–14:** In 2014–15 of Indigenous children in Victoria, 7.0% were reported to have had an ear or hearing problem (Table 1.15.9). From July 2013 to June 2015, the age-standardised hospitalisation rate for diseases of the ear and mastoid process for Indigenous children was lower than for non-Indigenous children (4.9 compared with 6.7 per 1,000). The age-standardised hospitalisation rate for Indigenous males was higher than for Indigenous females (5.4 compared with 4.3 per 1,000) (Table 1.15.10, Figure 1.15.2).

Nationally, 8.4% of Indigenous children were reported to have had an ear or hearing problem (Table 1.15.9). The age-standardised hospitalisation rate for diseases of the ear and mastoid process was higher for Indigenous than for non-Indigenous children (7.5 compared with 6.7 per 1,000). The rate for Indigenous males was higher than for Indigenous females (8.0 compared with 7.0 per 1,000) (Table 1.15.10, Figure 1.15.2).

**Trend over time:** The age-standardised hospitalisation rate for diseases of the ear and mastoid process for Indigenous Australians (all ages) in Victoria increased from 1.4 per 1,000 in 2004–05 to 2.2 per 1,000 in 2014–15. The rate for non-Indigenous Australians was relatively steady, at 2.8 per 1,000 in 2004–05 compared with 2.7 per 1,000 in 2014–15.

For NSW, Vic, Qld, WA, SA and the NT combined, the age-standardised hospitalisation rate for diseases of the ear and mastoid process for Indigenous Australians (all ages) increased from 2.4 in 2004–05 to 3.2 per 1,000 in 2014–15. The rate for non-Indigenous Australians did not change (2.6 per 1,000) (Table 1.15.15 Vic, Figure 1.15.3).







Figure 1.15.2: Age-standardised rate of hospitalisation for diseases of the ear and mastoid process, children aged 0–14, by Indigenous status and sex, Victoria and Australia, July 2013 to June 2015



Figure 1.15.3: Age-standardised rate of hospitalisation for diseases of the ear and mastoid process, by Indigenous status, Victoria and NSW, Vic, Qld, WA, SA and NT combined, 2004–05 to 2014–15

# 1.16 Eye health

#### Why it is important

This measure reports on prevalence of eye health problems, including low vision, blindness, refractive error, cataract, diabetic retinopathy and trachoma for Indigenous Australians.

The partial or full loss of vision affects all dimensions of life. Vision loss and 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. Indigenous Australians experience higher rates of cataract, diabetic retinopathy and trachoma compared with non-Indigenous Australians (AHMAC 2017).

## Key findings

**Overall:** In 2014–15 in Victoria, 23% of Indigenous Australians aged 15 and over reported having eye/sight problems.

Nationally, 19% of Indigenous Australians aged 15 and over reported eye/sight problems (Table 1.16.5, Figure 1.16.1).

**Reported eye and sight problems:** In 2012–13 in Victoria, the age-standardised rate for Indigenous Australians who reported having eye or sight problems was similar to the rate for non-Indigenous Australians (53% compared with 51%).

Nationally in 2012–13, the age-standardised rate for Indigenous Australians who reported having eye or sight problems was 0.9 times the rate for non-Indigenous Australians (48% compared with 52%) (Table 1.16.6, Figure 1.16.2).

**Hospitalisation:** From July 2013 to June 2015 in Victoria, the age-standardised hospitalisation rate for Indigenous Australians for diseases of the eye and adnexa was 6.8 per 1,000, compared with 12 per 1,000 for non-Indigenous Australians. The hospitalisation rates for Indigenous Australians for diseases of the eye and adnexa increased with age, from 1.0 per 1,000 for those aged 0–4 to 36 per 1,000 for those aged 65 and over.

Nationally, the age-standardised hospitalisation rate for Indigenous Australians for diseases of the eye and adnexa was 10 per 1,000, compared with 13 per 1,000 for non-Indigenous Australians. The hospitalisation rate for diseases of the eye and adnexa increased with age for Indigenous Australians, from 1.5 per 1,000 for those aged 0–4 to 51 per 1,000 for those aged 65 and over (Table 1.16.12 Vic).

**Trend over time:** In Victoria, the age-standardised hospitalisation rate for Indigenous Australians for diseases of the eye and adnexa increased from 4.2 per 1,000 in 2004–05 to 7.7 per 1,000 in 2014–15. The hospitalisation rate for diseases of the eye and adnexa rate for non-Indigenous Australians increased from 8.9 per 1,000 in 2004–05 to 12 per 1,000 in 2014–15.

In NSW, Vic, Qld, WA, SA and the NT combined, the age-standardised hospitalisation rate for Indigenous Australians for diseases of the eye and adnexa increased from 5.4 to 11 per 1,000. The rate for non-Indigenous Australians increased from 9.5 to 14 per 1,000 (Table 1.16.18 Vic, Figure 1.16.3).







Source: Table 1.16.6.

# Figure 1.16.2: Age-standardised proportion reporting eye/sight problems, by Indigenous status, Victoria and Australia, 2012–13



# 1.17 Perceived health status

#### Why it is important

This measure reports on self-assessed health status. 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. Self-assessed health status is dependent on an individual's awareness and expectations regarding their health. It is influenced by various factors, including access to health services and information, the extent to which health conditions have been diagnosed and level of education (Delpierre et al. 2009).

## Key findings

**Overall:** In 2014–15 in Victoria, 40% of Indigenous Australians self-assessed their health as excellent/very good, 31% as good, and 29% as fair/poor.

Nationally in 2014–15, 40% of Indigenous Australians who self-assessed their health as excellent/very good, 35% as good, and 26% as fair/poor (Table 1.17.8, Figure 1.17.1).

**Excellent/very good health:** In 2014–15 in Victoria, after adjusting for age, the proportion of Indigenous Australians who self-assessed their health as excellent/very good was 0.6 times the rate for non-Indigenous Australians (37% compared with 57%).

Nationally in 2014–15, the age-standardised rate for Indigenous Australians who self-assessed their health as excellent/very good was 0.6 times the rate for non-Indigenous Australians (35% compared with 57%) (Table 1.17.9, Figure 1.17.2).

**Good health:** In 2014–15 in Victoria, the age-standardised proportion of Indigenous Australians who self-assessed their health as good was 1.1 times the rate for non-Indigenous Australians (30% compared with 28%).

Nationally in 2014–15, the age-standardised proportion of Indigenous Australians who self-assessed their health as good was 1.2 times the rate for non-Indigenous Australians (35% compared with 29%) (Table 1.17.9, Figure 1.17.2).

**Fair/poor health:** In Victoria in 2014–15, the age-standardised rate for Indigenous Australians who self-assessed their health as fair/poor was 34%, which was 2.3 times the proportion for non-Indigenous Australians (15%).

Nationally in 2014–15, the age-standardised rate for Indigenous Australians who self-assessed their health as fair/poor was 31%, which was 2.2 times the proportion for non-Indigenous Australians (14%) (Table 1.17.9, Figure 1.17.2).

**Trend over time:** In Victoria in 2002 and 2014–15, the proportion of Indigenous Australians who self-assessed their health as excellent/very good was higher in 2004–05 and 2008 (both years at 48%). The proportion decreased to 42% in 2012–13 and 40% in 2014–15.

Nationally in 2014–15, the age-standardised rate for Indigenous Australians who self-assessed their health as excellent/very good decreased slightly by 4 percentage points between 2002 and 2014–15, from 44% to 40% (Table 1.17.8, Figure 1.17.3).









Figure 1.17.2: Aged-standardised rate of self-assessed health status, Australians aged 15 and over, by Indigenous status, Victoria and Australia, 2014–15



Figure 1.17.3: Self-assessed health status of Indigenous Australians aged 15 and over, Victoria and Australia, 2002 to 2014–15

## 1.18 Social and emotional wellbeing

#### Why it is important

This measure reports on the social and emotional wellbeing of Indigenous Australians. This is a holistic concept. For Indigenous Australians, health is not just the physical wellbeing of the individual but the social, emotional and cultural wellbeing of the whole community (Dudgeon et al. 2014; Gee et al. 2014; SHRG 2004).

## Key findings

**Overall:** In 2012–13 in Victoria, the age-standardised rate for Indigenous Australians aged 18 and over who reported high or very high levels of psychological distress was 32%, compared with 11% for non-Indigenous Australians

Nationally, the age-standardised rate for Indigenous Australians aged 18 and over who reported high or very high levels of psychological distress in 2012–13 was 30%, compared with 11% for non-Indigenous Australians (Table 1.18.3, Figure 1.18.1).

**Hospitalisation:** From July 2013 to June 2015, the age-standardised hospitalisation rate for Indigenous Australians in Victoria for mental health-related conditions was 23 per 1,000, compared with 15 per 1,000 for non-Indigenous Australians. The highest hospitalisation rate for Indigenous Australians was in the 35–44 age group, at 44 per 1,000, compared with 20 per 1,000 for non-Indigenous Australians for this age group.

Nationally, the age-standardised hospitalisation rate for mental health related conditions was 29 per 1,000 Indigenous Australians, compared with 16 per 1,000 for non-Indigenous Australians. The highest rate was in the 35–44 age group, at 52 per 1,000 for Indigenous Australians, compared with 22 per 1,000 for non-Indigenous Australians (Table 1.18.14 Vic, Figure 1.18.2).

**Deaths:** Death data for intentional self-harm for Indigenous Australians in Victoria are not available.

For NSW, Qld, WA, SA and the NT combined in 2011–2015, the age-standardised death rate for Indigenous Australians for intentional self-harm was 23 deaths per 100,000. This was 2.1 times the rate for non-Indigenous Australians, at 11 deaths per 100,000 (Table 1.18.30).

**Trend over time:** The age-standardised hospitalisation rate for mental health-related conditions for Indigenous Australians in Victoria increased by 22% between 2004–05 and 2014–15, from 19 to 24 per 1,000. The rate for non-Indigenous Australians decreased by 24%, from 18 to 16 per 1,000.

For NSW, Vic, Qld, WA, SA and the NT combined, the age-standardised hospitalisation rate for Indigenous Australians for mental health-related conditions increased by 46% between 2004–05 and 2014–15, from 21 to 29 per 1,000. The hospitalisation rate for non-Indigenous Australians also increased by 6% over this time, from 15 to 16 per 1,000 (Table 1.18.20 Vic, Figure 1.18.3).



Source: Table 1.18.3.





Source: Table 1.18.14 Vic.

Figure 1.18.2: Age-specific hospitalisation rates for mental health-related conditions, by Indigenous status, Victoria and Australia, July 2013 to June 2015



# 1.19 Life expectancy at birth

#### 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.

Life expectancy at birth is widely used internationally as a measure of the general health of populations. There is currently a large gap in life expectancy between Indigenous and non-Indigenous Australians. Social and economic factors such as poverty, racism, stressors, educational exposure and employment status impact on the individual's propensity to engage in health risk behaviours and on their access to the health system. These factors combined lead to increased risk of circulatory disease (Dong et al. 2004) and cancer (Kelly-Irving et al. 2013), the leading causes of death.

## Key findings

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

**Overall:** Nationally 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. In comparison, 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).

**Remoteness:** Life expectancy estimates that are disaggregated by remoteness are not available for individual jurisdictions.

Nationally in 2010–2012, life expectancy for Indigenous males living in *Outer regional*, *Remote* and *Very remote* areas combined, was estimated to be 0.7 years lower than for Indigenous males living in the combined areas of *Major cities* and *Inner regional* (67.3 compared with 68.0 years). For Indigenous females living in the combined areas of *Outer regional*, *Remote* and *Very remote*, life expectancy was 0.8 years lower than for Indigenous females living in *Major cities* and *Inner regional* areas combined (72.3 years compared with 73.1 years) (AHMAC 2017) (Figure 1.19.2).

**Over time:** Nationally, life expectancy between 2005–2007 and 2010–2012 increased for both Indigenous males and females, by 1.6 and 0.6 years, respectively. The gap between Indigenous Australians and non-Indigenous Australians decreased from 11.4 to 10.6 years for Indigenous males, and from 9.6 to 9.5 years for Indigenous females (Table 1.19.1, Figure 1.19.3). National life expectancy estimates presented in this measure were calculated using a different method to the estimates in Table S1. The estimates in this measure are comparable across 2 time points. The estimates in Table S1 enable comparison between the national and jurisdiction estimates (ABS 2013a).






# Figure 1.19.2: Life expectancy at birth, Indigenous Australians, by remoteness and sex, Australia, 2010–2012



Figure 1.19.3: Life expectancy at birth, by Indigenous status and sex, Australia, 2005–2007 (revised) and 2010–2012 (life expectancy in years)

# 1.20 Infant and child mortality

#### Why it is important

This measure reports on the mortality rates of Indigenous infants and children aged 0–4 years, by cause of death. Infant mortality is a long established measure of child health, as well as the overall health of the population and its physical and social environment (AHMAC 2017).

### Key findings

Data are not available for Victoria, because the jurisdiction is not considered to have an adequate level of Indigenous identification in mortality data.

**Overall:** In 2011–2015 for NSW, Qld, WA, SA, and the NT combined, the mortality rate for Indigenous children aged 0–4 years was 2.1 times the rate for non-Indigenous children (165 compared with 80 per 100,000) (Table 1.20.1, Figure 1.20.1).

**Causes of death:** The most common causes of death for Indigenous children aged 1–4 years in 2011–15 (for NSW, Qld, WA, SA, and the NT combined) were injury and poisoning, which accounted for 54% of deaths in this age group. The rate for these was 3.9 times the rate for non-Indigenous children (20.1 per 1,000 compared with 5.1 per 1,000) (Table 1.20.14).

**Infant mortality:** In 2011–2015 for NSW, Qld, WA, SA, and the NT combined, the mortality rate for Indigenous infants was 1.9 times the rate for non-Indigenous infants (6.1 compared with 3.3 per 1,000 live births) (Table 1.20.4, Figure 1.20.2).

**Causes of infant mortality:** In 2011–15 for NSW, Qld, WA, SA, and the NT combined, the most common underlying cause of death for Indigenous infants were conditions originating in the perinatal period, which accounted for just over half (51%) of Indigenous infant deaths. The rate for Indigenous infants was 1.8 times the rate for non-Indigenous infants (3.1 per 1,000 compared with 1.7 per 1,000) (Table 1.20.13).

**SIDS and SUDI mortality:** In 2011–2015 for NSW, Qld, WA, SA, and the NT combined, the sudden infant death syndrome (SIDS) mortality rate for Indigenous infants was 3.1 times the rate for non-Indigenous infant (0.5 per 1,000 live births compared with 0.2 per 1,000 live births). The Sudden Unexpected Death in Infancy (SUDI) mortality rate for Indigenous infants in 2011–2015 was 4.1 times the rate for non-Indigenous infants (0.8 per live 1,000 live births compared with 0.2 per 1,000 live births) (Table 1.20.6).

**Trend over time:** For NSW, Qld, WA, SA, and the NT combined, the mortality rate for Indigenous infants decreased from 13.5 per 1,000 in 1998 to 6.3 per 1,000 in 2015 (deaths are presented in 3-year groupings because of small numbers in each year). The gap decreased significantly, from 9.1 in 1998 to 3.0 in 2015 (Table 1.20.8, Figure 1.20.3).

For NSW, Qld, WA, SA, and the NT combined, there was a 35% significant decrease in the mortality rate for Indigenous children aged 0–4 between 1998 and 2015 (from 202 to 156 per 100,000). For non-Indigenous children, there was a 37% significant decrease (from 104 to 70 per 100,000) (Table 1.20.17)

SIDS and SUDI mortality rates for Indigenous infants between 1998 and 2015 have declined by 70%, from 3.7 per 1,000 in 1998 to 1.3 per 1,000 in 2015. Rates for non-Indigenous infants also declined by 36% over this time, from 0.6 per 1,000 to 0.4 per 1,000 (Table 1.20.10).







Source: Table 1.20.4.





# 1.21 Perinatal mortality

#### Why it is important

This measure reports on the number of Indigenous babies who die in the perinatal period.

The perinatal mortality rate includes fetal deaths (stillbirths) and deaths of live born babies within the first 28 days after birth. Perinatal mortality reflects 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 are also significant (AHMAC 2017).

### **Key findings**

Overall: Data are not available for Victoria for this measure.

In 2011–2015 in NSW, Qld, WA, SA and the NT combined, the perinatal mortality rate for Indigenous babies was 1.2 times the rate for non-Indigenous babies (9.2 per 1,000 births compared with 7.7 per 1,000 births) (Table 1.21.4, Figure 1.21.1).

The main conditions contributing to perinatal mortality for Indigenous babies were other conditions originating in the perinatal period, and disorders related to length of gestation and fetal growth, which contributed 44% and 30%, respectively (Table 1.21.5).

Fetal deaths: Data are not available for Victoria for this measure.

In 2011–2015 in NSW, Qld, WA, SA and the NT combined, fetal deaths (stillbirths) accounted for 59% of perinatal deaths for Indigenous babies and 70% for non-Indigenous babies (Table 1.21.4, Figure 1.21.2).

Neonatal deaths: Data are not available for Victoria for this measure.

In 2011–2015 in NSW, Qld, WA, SA and the NT combined, the rate of neonatal deaths for Indigenous babies was 1.6 times the rate for non-Indigenous babies (3.8 per 1,000 compared with 2.3 per 1,000). Neonatal deaths accounted for 41% of perinatal deaths (Table 1.21.4, Figure 1.21.2).

Trend over time: Data are not available for Victoria for this measure.

In NSW, Qld, WA, SA and the NT combined, the perinatal mortality rate for Indigenous babies in 2011–2015 was significantly lower than the rate in 2006–2010 (9.2 compared with 11.3 per 1,000 births). For non-Indigenous babies, the perinatal mortality rate in 2011–2015 was similar to the rate in 2006–2010 (7.7 compared with 7.9 per 1,000 births) (Table 1.21.4).

Over the longer term, in NSW, Qld, WA, SA and the NT combined, the fetal mortality rate for Indigenous babies decreased from 10.4 per 1,000 in 1998 to 6.0 per 1,000 in 2015, a reduction of 53%. The neonatal mortality rate for Indigenous babies also decreased over this time (by 60%), from 7.7 per 1,000 in 1998 to 3.9 per 1,000 in 2015 (Table 1.21.3, Figure 1.21.3).







Source: Table 1.21.4.

Figure 1.21.2: Fetal and neonatal mortality (percentage of perinatal deaths), by Indigenous status, NSW, Qld, WA, SA and NT combined, 2011–2015



## **1.22** All causes age-standardised death rates

#### Why it is important

This measure reports on the death rate. The death rate of a population provides a summary measure of the overall health status of that population. Death rates are a useful measure with which to compare the overall health status of different populations and to monitor changes in overall health status of populations over time. The rate for Indigenous Australians is 1.7 times that for non-Indigenous Australians, indicating that the overall health status is worse for Indigenous Australians. Mortality rates are also used as an annual progress measure for the COAG target to close the gap in life expectancy by 2031, as life expectancy estimates are only available every 5 years (AHMAC 2017).

### **Key findings**

**Overall:** Data are not available for Victoria, because the jurisdiction is not considered to have an adequate level of Indigenous identification in mortality data.

In 2011–2015 in NSW, Qld, WA, SA, and the NT combined, the age-standardised death rate for Indigenous Australians was 1.7 times the rate for non-Indigenous Australians (992 compared with 580 per 100,000) (Table 1.22.3, Figure 1.22.1).

**Gap between Indigenous and non-Indigenous Australians:** Data are not available for Victoria, because the jurisdiction is not considered to have an adequate level of Indigenous identification in mortality data.

In 2011–2015 in NSW, Qld, WA, SA and the NT combined, the age-standardised gap in the death rate between Indigenous and non-Indigenous Australians was 412 per 100,000 (Table 1.22.3).

**Trend over time, age-standardised death rate:** Data are not available for Victoria, because the jurisdiction is not considered to have an adequate level of Indigenous identification in mortality data.

From 1998 to 2015 in NSW, Qld, WA, SA, and the NT combined, there was a 15% significant decrease in the age-standardised death rate for Indigenous Australians (from 1,180 to 1,000 per 100,000). For non-Indigenous Australians there was a 17% significant decrease (from 700 per 100,000 to 579 per 100,000) (Table 1.22.5, Figure 1.22.2).

**Trend over time, gap between Indigenous and non-Indigenous Australians:** Data are not available for Victoria, because the jurisdiction is not considered to have an adequate level of Indigenous identification in mortality data.

From 1998 to 2015 in NSW, Qld, WA, SA, and the NT combined, the gap in the age standardised death rate between Indigenous and non-Indigenous Australians varied between 479 in 1998 to 421 per 100,000 in 2015. However, this was not a statistically significant difference (Table 1.22.5).

**Trajectory for closing the gap in mortality:** Death rates relate to the COAG target to close the gap in life expectancy within a generation. Figure 1.22.3 shows no improvement in mortality rates for Indigenous Australians in Australia over the long-term, and a considerable decrease required to reach the target in 2031.



Source: Table 1.22.3.





Figure 1.22.2: Age-standardised mortality rate, by Indigenous status, NSW, Qld, WA, SA and NT combined, 1998–2015



# **1.23 Leading causes of mortality**

#### Why it is important

This measure reports on causes of death. Death rates are a useful measure of the overall health status of a population, or to measure improvements over time. The gap between the Indigenous and non-Indigenous populations for particular causes of death provides an indication of the prevention, prevalence and management of particular diseases for Indigenous Australians. This provides a useful indication of the diseases that have a greater impact on Indigenous Australians (AHMAC 2017).

### Key findings

**Overall:** Data are not available for Victoria for this measure, because it is not considered to have adequate levels of Indigenous identification in death data.

For NSW, Qld, WA, SA and the NT combined, the age-standardised rates for the most common causes of death among Indigenous and non-Indigenous Australians were: circulatory diseases (271 compared with 173 per 100,000); neoplasms (232 compared with 172 per 100,000); respiratory diseases (101 compared with 50 per 100,000); endocrine, metabolic and nutritional disorders (101 compared with 23 per 100,000); and external causes (81 compared with 38 per 100,000) (Table 1.23.2, Figure 1.23.1).

**Chronic disease death:** Data are not available for Victoria for this measure, because it is not considered to have adequate levels of Indigenous identification in death data.

In 2011–2015 in NSW, Qld, WA, SA and the NT combined, the age-standardised death rate for chronic diseases for Indigenous Australians aged 0–74 was 2.8 times the rate for non-Indigenous Australians (447 compared with 159 per 100,000) (Table 1.23.5).

The death rates for chronic disease differed by age group. The age group with the highest death rate for chronic disease was 65–74 years for both Indigenous and non-Indigenous Australians (2,466 compared with 1,087 per 100,000) (Table 1.23.5). However, the age group with the biggest gap was 35–44 years. The age-standardised death rate for chronic diseases for Indigenous Australians aged 35–44 was 5 times the rate for non-Indigenous Australians (245 compared with 49 per 100,000) (Table 1.23.5).

**Trend over time, circulatory disease:** Data are not available for Victoria for this measure, because it is not considered to have adequate levels of Indigenous identification in death data.

From 1998 to 2015 in NSW, Qld, WA, SA and the NT combined, the age-standardised death rate for Indigenous Australians for circulatory diseases decreased by 43% (from 462 to 263 per 100,000). The gap decreased by 42% (from 169 to 98 per 100,000) (Table 1.23.8, Figure 1.23.2).

**Trend over time, cancer:** Data are not available for Victoria for this measure, because it is not considered to have adequate levels of Indigenous identification in death data.

From 1998 to 2015 in NSW, Qld, WA, SA and the NT combined, the age-standardised death rate for Indigenous Australians for cancer increased by 21% (from 185 to 241 per 100,000). The rate for non-Indigenous Australians decreased by 13% (from 194 to 168 per 100,000) (Table 1.23.9, Figure 1.23.3).











## **1.24** Avoidable and preventable deaths

#### Why it is important

This measure reports on the number of potentially avoidable deaths of Indigenous Australians aged 0–74. Avoidable death refers to deaths from conditions that are considered avoidable, given timely and effective health care (including disease prevention and population health initiatives) (AIHW 2010b; Page et al. 2006). Avoidable deaths have been used in various studies to measure the quality, effectiveness and 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 (AHMAC 2017).

### **Key findings**

**Overall:** Data are not available for Victoria, because the jurisdiction is not considered to have an adequate level of Indigenous identification in mortality data.

In 2011–2015 in NSW, Qld, WA, SA and the NT combined, the age-standardised avoidable death rate for Indigenous Australians was 3.3 times the rate for non-Indigenous Australians (345 compared with 105 per 100,000) (Table 1.24.4, Figure 1.24.1).

**Gap between Indigenous and non-Indigenous Australians:** Data are not available for Victoria, because the jurisdiction is not considered to have an adequate level of Indigenous identification in mortality data.

In NSW, Qld, WA, SA and the NT combined, the gap in the age-standardised death rate between Indigenous and non-Indigenous Australians for avoidable causes was 240 per 100,000 (Table 1.24.4).

**Trend over time:** For NSW, Qld, WA, SA and the NT combined, the age-standardised avoidable mortality rate for Indigenous Australians decreased from 497 per 100,000 in 1998 to 345 per 100,000 in 2015. The age-standardised avoidable mortality rate for non-Indigenous Australians decreased from 178 per 100,000 in 1998 to 104 per 100,000 in 2015 (Table 1.24.2, Figure 1.24.2).







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# **Tier 2—Determinants of health**

# 2.01 Housing

#### Why it is important

This measure reports on the housing circumstances of Indigenous Australians, including overcrowding (based on the Canadian National Occupancy Standard for Housing Appropriateness), tenure type and homelessness. Housing circumstances affect health and wellbeing (Andersen et al. 2016). There are complex relationships between housing circumstances, health and socioeconomic factors such as education, income and employment (Thomson et al. 2013).

### Key findings

**Home owners:** In 2014–15 in Victoria, 44% of Indigenous Australians aged 18 and over reported owning their own homes, compared with 71% of non-Indigenous Australians.

Nationally, 29% of Indigenous Australians owned their own homes, compared with 69% of non-Indigenous Australians (Table 2.01.17, Figure 2.01.1).

**Renters:** In 2014–15 in Victoria, 55% of Indigenous Australians reported that they rented, compared with 26% of non-Indigenous Australians. A higher proportion of Indigenous Australians (16%) than non-Indigenous Australians (2%) rented through state housing authorities (organisations subsidised by public funds). For other organisations (such as housing cooperatives, church groups and Indigenous housing organisations), the rates for Indigenous and non-Indigenous Australians were 9.3% and 0.3%, respectively.

Nationally, 70% of Indigenous Australians rented, compared with 29% of non-Indigenous Australians. A higher proportion of Indigenous Australians rented through state or territory housing authorities (23% for Indigenous Australians and 3% for non-Indigenous Australians) or other organisations (12% and 0.5%, respectively) (Table 2.01.17, Figure 2.01.1).

**Overcrowding:** In 2014–15 in Victoria, 12% of Indigenous Australians reported living in overcrowded households, compared with 6% of non-Indigenous Australians.

Nationally, 21% of Indigenous Australians lived in overcrowded households, compared with 6% of non-Indigenous Australians. A higher proportion of Indigenous Australians in *Remote* areas reported living in overcrowded households (41%) compared with *Non-remote* areas (15%) (Table 2.01.2, Figure 2.01.2).

**Specialist homelessness services:** In 2014–15 in Victoria, the rate of specialist homelessness services use by Indigenous Australians (all ages) was 10.7 times the rate for non-Indigenous Australians (1,502 compared with 140 per 10,000).

Nationally, the rate of specialist homelessness services use by Indigenous Australians (all ages) was 8.7 times the rate for non-Indigenous Australians (693 compared with 80 per 10,000) (Table 2.01.30, Figure 2.01.3).

**Trend over time:** Between 2004–05 and 2014–15 in Victoria, the proportion of Indigenous Australians reporting that they live in overcrowded households varied between a maximum of 14% and a minimum of 12%.

Nationally between 2004–05 and 2014–15, the proportion of Indigenous Australians living in overcrowded households decreased from 27% to 21% (Table 2.01.24).







Source: Table 2.01.2.

# Figure 2.01.2: Proportion of Australians living in overcrowded households, by Indigenous status, Victoria and Australia, 2014–15



Figure 2.01.3: Rate of service use by specialist homelessness services clients, by Indigenous status, Victoria and Australia, 2014–15

# 2.02 Access to functional housing with utilities

#### Why it is important

This measure reports on connection to water, sewerage and electricity, and the overall functionality of Indigenous housing facilities needed for healthy living. Housing is important for health and wellbeing. Functional housing encompasses basic services and 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; Nganampa Health Council et al. 1987).

### **Key findings**

**Overall:** In 2014–15 in Victoria, 19% of Indigenous Australians reported living in dwellings of an unacceptable standard.

Nationally, 18% of Indigenous Australians reported living in dwellings of an unacceptable standard (Table 2.02.6).

**Major structural problems:** In 2014–15 in Victoria, 27% of Indigenous Australians reported living in dwellings with major structural problems, compared with 16% of non-Indigenous Australians. The most common structural problems were major cracks in walls/floors (11.3%).

Nationally, 26% of Indigenous Australians reported living in dwellings with major structural problems, compared with 14% of non-Indigenous Australians. The most common structural problems were major cracks in walls/floors (10.5%) (Table 2.02.1, Figure 2.02.1).

**Access to household facilities:** In 2014–15 in Victoria, 5.8% of Indigenous Australians reported they did not have access to facilities for washing people, 9.5% did not have access to facilities for washing clothes and bedding, 8.3% did not have access to facilities for preparing food, and 5.6% did not have access to working sewerage facilities.

Nationally, 3.3% of Indigenous Australians reported they did not have access to facilities for washing people, 8.7% did not have access to facilities for washing clothes and bedding, 8.0% did not have access to facilities for preparing food, and 3.5% did not have working sewerage facilities (Table 2.02.3, Figure 2.02.2).

**Trend over time:** Between 2008 and 2014–15 in Victoria, the proportion of Indigenous Australians reported living in dwellings of an unacceptable standard increased from 16% to 19%.

Nationally, between 2008 and 2014–15, the proportion of Indigenous Australians who reported living in dwellings of an unacceptable standard varied between 22% and 17% (Table 2.02.6, Figure 2.02.3).



Source: Table 2.02.1.





Source: Table 2.02.3.

# Figure 2.02.2: Proportion of Indigenous households without working facilities to support healthy living, Victoria and Australia, 2014–15



standard, Victoria and Australia, 2008, 2012–13 and 2014–15

## 2.03 Environmental tobacco smoke

#### Why it is important

This measure reports Indigenous children aged 0–14 who live in households with daily smokers and daily indoor smokers. Environmental tobacco smoke (also known as second-hand smoke) is a significant cause of morbidity and mortality. There is strong and consistent evidence that second-hand smoke causes lung cancer and ischaemic heart disease, and is associated with an increased risk of respiratory disease in adults. It increases the risk of sudden infant death syndrome and exacerbates asthma and ear infections such as otitis media in children (Thomas & Stevens 2014). Exposure to second-hand smoke during pregnancy is associated with an increased risk in neural tube defects (Wang et al. 2014a).

### Key findings

**Overall:** In 2014–15 in Victoria, 51% of Indigenous children aged 0–14 were reported to live in households with daily smokers, compared with 20% of non-Indigenous children (Table 2.03.3, Figure 2.03.1). For 13% of Indigenous children, smoking occurred indoors (Table 2.03.4, Figure 2.03.2).

Nationally, 57% of Indigenous children aged 0–14 were reported to live in households with daily smokers, compared with 21% of non-Indigenous children (Table 2.03.3, Figure 2.03.1). Nationally, 13% of Indigenous children lived in households where smoking occurred indoors (Table 2.03.4, Figure 2.03.2) and, for most of these children (76%), smoking indoors occurred on a daily basis (Table 2.03.2).

**Remoteness:** Nationally in 2014–15, the proportion of Indigenous children living in households with a daily smoker was reported to be highest for those in *Very remote* areas (76%) and lowest for those in *Major cities* (49%). For non-Indigenous children, the proportion was highest in *Outer regional* (32%) areas and lowest in *Major cities* (18%) (Table 2.03.5). Data are not available for non-Indigenous children for *Very remote* areas.

Nationally, smoking was reported to occur indoors at a higher rate for Indigenous children living in *Very remote* and *Inner regional* areas (20% and 14%) and was lowest among those living in *Major cities* (11%) (Table 2.03.6).

**Socioeconomic characteristics:** Nationally in 2014–15, 49% of Indigenous children living with regular daily smokers were reported to be from households with an income in the lowest quintile. The proportion of Indigenous children who were living in the lowest income quintile households, were exposed to smoking indoors at 6.6 times the proportion for those living in the highest 2 income quintiles (19% compared with 3%). Of Indigenous children living with regular daily smokers, 82% lived in a rented household and 29% experienced overcrowding (Table 2.03.8).

**Trend over time:** Nationally, the proportion of Indigenous children who were reported to live in a household with a daily smoker decreased from 68% in 2004–05 to 57% in 2014–15. For non-Indigenous children the proportion decreased from 35% in 2004–05 to 21% in 2014–15 (Table 2.03.7, Figure 2.03.3).







Source: Table 2.03.4.

# Figure 2.03.2: Indigenous children aged 0–14 living in households where smoking occurs indoors, Victoria and Australia, 2014–15



## 2.04 Literacy and numeracy

#### Why it is important

This measure reports on Year 3, 5, 7 and 9 students achieving national benchmarks.

### **Key findings**

**Reading:** In 2016 in Victoria, 87% of Indigenous students met or exceeded the Year 3 national minimum standard in reading, 85% for Year 5 students, 85% for Year 7 and 82% for Year 9. For non-Indigenous students, the proportions were 96% for Year 3, 95% for Year 5, 96% for Year 7 and 94% for Year 9.

Nationally, 81% of Indigenous students met or exceeded the Year 3 national minimum standard in reading, 71% for Year 5, 77% for Year 7 and 74% for Year 9. For non-Indigenous students, the proportions were 96% for Year 3, 94% for Year 5, 96% for Year 7 and 94% for Year 9 (Table 2.04.1, Figure 2.04.1).

**Writing:** In 2016 in Victoria, 90% of Indigenous students met or exceeded the Year 3 national minimum standard for writing, 86% for Year 5 students, 76% for Year 7 and 68% for Year 9. For non-Indigenous students, the proportions were 97% for Year 3, 95% for Year 5, 93% for Year 7 and 88% for Year 9.

Nationally, 85% of Indigenous students met or exceeded the national minimum standard for writing in Year 3, 74% for Year 5, 64% for Year 7 and 53% for Year 9. For non-Indigenous students, the proportions were 97% for Year 3, 94% for Year 5, 91% for Year 7 and 85% for Year 9 (Table 2.04.3, Figure 2.04.1).

**Spelling:** In 2016 in Victoria, 84% of Indigenous students met or exceeded the Year 3 national minimum standard for spelling, 83% for Year 5 students, 80% for Year 7 and 76% for Year 9. For non-Indigenous students, the proportions were 95% for Year 3, 94% for Year 5, 94% for Year 7 and 91% for Year 9.

Nationally, 78% of Indigenous students met or exceeded the national minimum standard for spelling in Year 3, 74% for Year 5, 75% for Year 7, and 70% for Year 9. For non-Indigenous students, the proportions were 95% for Year 3, 94% for Year 5, 94% for Year 7 and 92% for Year 9 (Table 2.04.5, Figure 2.04.2).

**Grammar and punctuation:** In 2016 in Victoria, 88% of Indigenous students met or exceeded the Year 3 national minimum standard for grammar and punctuation, 83% for Year 5 students, 77% for Year 7, and 76% for Year 9. For non-Indigenous students, the proportions were 96% for Year 3, 95% for Year 5, 94% for Year 7 and 92% for Year 9.

Nationally, 82% of Indigenous students met the standard in Year 3, 74% for Year 5, 70% for Year 7, and 67% for Year 9. For non-Indigenous students, the proportions were 96% for Year 3, 95% for Year 5, 94% for Year 7 and 92% for Year 9 (Table 2.04.7, Figure 2.04.2).

**Numeracy:** In 2016 in Victoria, 88% of Indigenous students met or exceeded the Year 3 national minimum standard for numeracy, 86% for Year 5 students, 84% for Year 7, and 85% for Year 9. For non-Indigenous students, the proportions were around 96% for Year 3, 5, 7 and 9.

Nationally, 83% of Indigenous students met the standard for numeracy in Year 3, 76% for Year 5, 79% for Year 7, and 80% for Year 9. For non-Indigenous students, the proportions were around 96% for Year 3, 5, and 9 and 97% for Year 7 (Table 2.04.9, Figure 2.04.3).



Figure 2.04.1: Proportion of Indigenous Year 3, 5, 7 and 9 students at or above the national minimum standard for reading and writing, Victoria and Australia, 2016



Sources: Tables 2.04.5, 2.04.7.

Figure 2.04.2: Proportion of Indigenous Year 3, 5, 7 and 9 students at or above the national minimum standard for spelling, and grammar and punctuation, Victoria and Australia, 2016



Figure 2.04.3: Proportion of Indigenous Year 3, 5, 7 and 9 students at or above the national minimum standard for numeracy, Victoria and Australia, 2016

## 2.05 Education outcomes for young people

#### Why it is important

This measure reports on the rates of Indigenous students who stay in education through Year 10 and Year 12, as well as Indigenous students Year 12 attainment rates. Higher levels of education are associated with better health outcomes through greater health literacy as well as better prospects for socioeconomic status (including income and employment), which supports better access to safe and healthy housing, as well as healthy lifestyle choices such as regularly eating fruit and vegetables, and not smoking (Clark & Utz 2014).

Research in the US found that mortality declined at a faster pace for those with more education, with a 7-year increase in life expectancy for college-educated students (Wong et al. 2002). International literature also documents that increased levels of maternal education leads to lower child mortality, due to various factors, including a better understanding of health services and a greater willingness to access them.

### Key findings

**Apparent retention:** In 2015 in Victoria, the apparent retention rate from Year 7/8 to Year 12 was 70% for Indigenous students and 87% for other students. The apparent retention rate from Year 10 to Year 12 was 67% for Indigenous students and 85% for other students.

Nationally, the apparent retention rate from Year 7/8 to Year 12 was 59% for Indigenous students and 85% for other students. The apparent retention rate from Year 10 to Year 12 was 61% for Indigenous students and 84% for other students (Table 2.05.2, Figure 2.05.1).

**School attendance:** In 2014–15 in Victoria, 95% of Indigenous children aged 4–14 were reported to usually attend school (Table 2.05.10, Figure 2.05.2), and 34% of Indigenous children missed days at school, preschool or kindergarten in the week before the survey (Table 2.05.10).

Nationally, 96% of Indigenous children aged 4–14 were reported to usually attend school (Table 2.05.10, Figure 2.05.2), and 28% of Indigenous children missed days at school, preschool or kindergarten in the week before the survey (Table 2.05.10).

**Unfairness:** In 2014–15 in Victoria, 9.1% of Indigenous children aged 2–14 were reported to have been treated unfairly at school. This included the current school or previous schools the child had attended.

Nationally, 8.7% of Indigenous children aged 2–14 were reported to have been treated unfairly at school (Table 2.05.13).

**Year 12 or equivalent:** In 2014–15 in Victoria, 69% of Indigenous Australians aged 20–24 reported they had attained Year 12 or equivalent, or Certificate II or above, and 65% had attained Year 12 or equivalent, or Certificate III or above. For non-Indigenous Australians, the proportions were 89% and 87%, respectively.

Nationally, 62% of Indigenous Australians aged 20–24 reported they had attained Year 12 or equivalent, or Certificate II or above, and 54% had attained Year 12 or equivalent, or Certificate III or above. This compared with 86% and 85% for non-Indigenous Australians (Table 2.05.14, Figure 2.05.3).







Source: Table 2.05.10.





Figure 2.05.3: Proportion of 20–24 year olds having attained at least Year 12 or equivalent, or Certificate II or above, by Indigenous status, Victoria and Australia, 2014–15

## 2.06 Educational participation and attainment of adults

#### Why it is important

This measure reports on educational participation by adults (undertaking formal education or training) and educational attainment (completion of 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). The employment gap between Indigenous and non-Indigenous Australians declines as the level of education attainment increases. The transition from education to work is usually smoother for vocational education and training (VET) and university graduates, and salaries are higher than for those who enter the workforce directly from school (Lamb & McKenzie 2001).

### Key findings

**Overall:** In 2014–15 in Victoria, 24% of Indigenous Australians aged 15 and over reported that they were currently studying at an educational institution, compared with 18% of non-Indigenous Australians. Of those who were studying, the highest proportion of Indigenous students (37%) were at secondary school, but the highest proportion of non-Indigenous students (40%) were at a university or other higher education institution.

Nationally, 22% of Indigenous Australians aged 15 and over reported that they were currently studying at an educational institution, compared with 18% of non-Indigenous Australians. Of those who were studying, the highest proportion of Indigenous students (36%) were at secondary school, but the highest proportion of non-Indigenous students were studying at university or another higher education institution (39%) (Table 2.06.3, Figure 2.06.1).

**Highest level of school completed:** In 2014–15 in Victoria, 31% of Indigenous adults (aged 18 and over) reported that Year 12 or equivalent was the highest level of school completed, compared with 62% of non-Indigenous adults.

Nationally, 28% of Indigenous adults (aged 18 and over) reported that Year 12 or equivalent was the highest level of school completed, compared with 58% of non-Indigenous adults (Table 2.06.7, Figure 2.06.2).

**Non-school qualification:** In 2014–15 in Victoria, 61% of Indigenous Australians aged 20–64 reported they either had a Certificate III or above, or were studying at any level, compared with 76% of non-Indigenous Australians.

Nationally, 47% of Indigenous Australians aged 20–64 reported they either had a Certificate III or above, or were studying at any level, compared with 70% of non-Indigenous Australians (Table 2.06.11, Figure 2.06.3).

**Trend over time:** Nationally, the proportion of Indigenous Australians aged 15 and over who reported that they were currently studying has increased over time, from 18% in 2002 to 22% in 2014–15. This included studying at secondary schools, institutions for technical or further education, and universities or other higher education institutions (Table 2.06.20).







Source: Table 2.06.7.





Figure 2.06.3: Highest level of non-school qualification at Certificate III or above and/or currently studying, persons aged 20–64, by Indigenous status, Victoria and Australia, 2014–15

# 2.07 Employment

#### Why it is important

This measure reports on the employment status of Indigenous Australians 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; Gray et al. 2014). Conversely, being sick or disabled, or looking after someone in poor health acts as a barrier to labour force participation (Belachew & Kumar 2014). Health risks from being unemployed include mental health and stress related health impacts such as heart disease (Wilkinson & Pickett 2009), being unable to afford necessities such as food, security, safe neighbourhoods and adequate housing (Bambra 2011), and the effects from adopting unhealthy coping behaviours (Dooley et al. 1996). Experiencing extended and repeated periods of unemployment compound these effects (Taulbut et al. 2013).

### Key findings

**Labour force participation:** In 2014–15 in Victoria, 64% of Indigenous Australians of working age (15–64) reported they were in the labour force, compared with 76% of non-Indigenous Australians (in 2014).

Nationally, 61% of Indigenous Australians of working age (15–64) reported they were in the labour force, compared with 77% of non-Indigenous Australians (Table 2.07.5, Figure 2.07.1). The largest difference between Indigenous and non-Indigenous Australians in the labour force was for those aged 45–54, where the proportions were 59% compared with 84% (Table 2.07.3).

**Employment:** In 2014–15 in Victoria, 53% of the Indigenous working age population reported they were employed (Table 2.07.5, Figure 2.07.2), 30% were working full-time and 23% part-time. For non-Indigenous Australians in 2014, 72% of the working age population were employed, 49% were working full-time and 22% part-time (Table 2.07.5).

Nationally, 48% of the Indigenous working age population were reported they were employed (Table 2.07.5, Figure 2.07.2), 29% were working full-time and 19% part-time. For non-Indigenous Australians, 73% of the working age population were employed, 51% were working full-time and 21% part-time (Table 2.07.5).

**Unemployment:** In 2014–15 in Victoria, the reported unemployment rate for Indigenous Australians was 16%, compared with 6.3% for non-Indigenous Australians (in 2014).

Nationally, the reported unemployment rate for Indigenous Australians was 21%, compared with 5.8% for non-Indigenous Australians (Table 2.07.5, Figure 2.07.3).

**Difficulty in finding work:** Nationally, 92% of Indigenous Australians who were unemployed, reported difficulties in finding work. The most common reasons provided were that there were no jobs in the local area or line of work (41%), and transport problems/distance (32%) (Table 2.07.10).











## 2.08 Income

#### Why it is important

This measure reports on equivalised gross household and individual income. Studies across different countries have found a gradient in health outcomes associated with income (Marmott 2002). Income itself is highly correlated with educational attainment, employment and various social indicators (Deaton 2003). The relationship between income and health is complex, and is linked to other factors such as the capacity to live a healthy life, including being able to afford nutritious food and quality housing (AHMAC 2017).

### Key findings

**Equivalised gross weekly household income (lowest quintile):** In 2014–15 in Victoria, 29% of Indigenous adults (aged 18 and over) reported they were living in households in the lowest equivalised weekly household income quintile, compared with 16% of non-Indigenous adults. Nationally, more than one-third (37%) of Indigenous adults reported they were living in households in the lowest income quintile. This was over twice the proportion for non-Indigenous adults (17%) (Table 2.08.1, Figure 2.08.1).

**Equivalised gross weekly household income (highest quintile):** In 2014–15 in Victoria, 7.1% of Indigenous adults reported they lived in households with a weekly household income in the highest quintile, compared with 23% of non-Indigenous Australians.

Nationally, 6.2% of Indigenous adults reported they lived in households with a weekly income in the highest quintile, compared with 22% of non-Indigenous Australians (Table 2.08.1).

**Median equivalised gross weekly household income:** In 2014–15 in Victoria, the reported median equivalised gross weekly household income for Indigenous adults was \$570, compared with \$818 for non-Indigenous adults.

Nationally, the reported median equivalised gross weekly household income for Indigenous adults was \$542, compared with \$852 for non-Indigenous adults (Table 2.08.3).

**To raise \$2,000 in a week:** In 2014–15 in Victoria, 38% of Indigenous Australians reported they were living in households that could not raise \$2,000 within a week in an emergency (indicating financial stress).

Nationally, 50% of Indigenous Australians reported they were living in households that could not raise \$2,000 within a week in an emergency (Table 2.08.6, Figure 2.08.2).

**Trend over time:** In Victoria, the reported median equivalised gross weekly household income (in 2014–15 dollars) for people aged 18 and over increased from \$461 in 2002 to \$570 in 2014–15 for Indigenous Australians. For non-Indigenous Australians, the gross weekly household income increased from \$749 in 2002 to \$818 in 2014–15.

Nationally, the reported median equivalised gross weekly household income for adults significantly increased from \$402 in 2002 to \$542 in 2014–15 for Indigenous Australians. For non-Indigenous Australians, it increased from \$751 in 2002 to \$907 in 2012–13, and then declined to \$852 in 2014–15 (Table 2.08.3, Figure 2.08.3).



Source: Table 2.08.1.

# Figure 2.08.1: Proportion of adults (aged 18 or over) with equivalised gross weekly household income in the lowest quintile, by Indigenous status, Victoria and Australia, 2014–15



Source: Table 2.08.6.

# Figure 2.08.2: Indigenous Australians in households reporting they were not able to raise \$2,000 in a week, Victoria and Australia, 2014–15



# 2.09 Index of disadvantage

### Why it is important

This measure reports on the relative disadvantage for Indigenous Australians compared with non-Indigenous Australians. It is based on the Index of Relative Socio-Economic Advantage and Disadvantage (SEIFA), and shows the distribution of the Indigenous population across areas of advantage and disadvantage. The areas are grouped into quintiles (5 categories of advantage or disadvantage, with 1 being the lowest socioeconomic status (SES) and 5 being the highest SES) under the Socio-Economic Indexes for Areas (SEIFA). Results from the 2011 Census showed that Indigenous Australians had higher levels of socioeconomic disadvantage than non-Indigenous Australians across all remoteness areas. In Australia, there were no areas where the Indigenous population had greater or equal economic outcomes compared with the non-Indigenous population (Biddle 2013).

### Key findings

In 2011 in Victoria, 39% of the total Indigenous population lived in the most disadvantaged areas (quintile 1), and 5% lived in areas of most advantage (quintile 5). For non-Indigenous Australians in Victoria, 17% lived in the most disadvantaged areas, 19% to 23% lived in the middle 3 areas (quintiles 2–4) and 18% lived in the most advantaged areas (quintile 5).

Nationally, a higher proportion of Indigenous Australians lived in areas of most disadvantage (quintile 1) than Indigenous Australians living in Victoria (52% compared with 39%). The same proportion (5%) lived in areas the most advantaged areas (quintile 5). For non-Indigenous Australians nationally proportions ranged from 19% in quintile 1 to 21% in quintile 5 (Table 2.09.2, Figure 2.09.1).



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# 2.10 Community safety

#### Why it is important

This measure reports on experience of personal injury or death as a result of violence, threatened violence or a social setting in which violence is common, and social settings where there is a lack of security and a perception of danger (AHMAC 2015). The level of violence experienced by Indigenous Australians is also experienced in a context of discrimination and markers of disadvantage such as low income, unemployment and substance abuse (Day et al. 2013).

### **Key findings**

**Feeling safe:** In 2014–15 in Victoria, 63% of Indigenous Australians aged 15 and over reported they felt safe or very safe when they walked alone in the local area after dark, and 25% felt unsafe or very unsafe. In terms of feeling safe at home after dark, 86% felt safe or very safe, 8% felt unsafe or very unsafe.

Nationally, 68% of Indigenous Australians aged 15 and over reported they felt safe or very safe when they walked alone in the local area after dark, and 20% felt unsafe or very unsafe. In terms of feeling safe at home after dark, 87% felt safe or very safe, and 8% felt unsafe or very unsafe (Table 2.10.2, Figure 2.10.1).

**Neighbourhood or community problems:** In 2014–15 in Victoria 78% of Indigenous Australians aged 15 and over reported that they were aware of neighbourhood or community problems; 50% were aware of theft, including burglaries, theft from homes, motor vehicle theft and other theft; 47% were aware dangerous or noisy driving; 41% were aware of illegal drugs; 34% were aware of vandalism, graffiti or damage to property; and 34% were aware of problems with alcohol.

Nationally in 2014–15 71% of Indigenous Australians aged 15 and over reported that they were aware of neighbourhood or community problems; 45% were aware of theft, including burglaries, theft from homes, motor vehicle theft and other theft; 42% were aware of dangerous or noisy driving; 39% were aware of problems with alcohol; 38% were aware of illegal drugs; and 32% were aware of problems involving youth, such as youth gangs or lack of youth activities (Table 2.10.2, Figure 2.10.2).

**Victims of violence:** In 2014–15 in Victoria, the age-standardised rate for Indigenous Australians aged 18 and over reporting that they were a victim of physical or threatened violence in the last 12 months was 20%. Data for non-Indigenous Australians is available for 2014 only, where the rate was 7.2%.

Nationally, the age-standardised rate was 20%, which was 2.5 times the rate for non-Indigenous Australians (8.1%) (Table 2.10.25).

**Trend over time:** In Victoria, the age-standardised rate of Indigenous Australians aged 18 and over who reported they were a victim of physical or threatened violence in the last 12 months decreased from 26% in 2002 to 21% in 2014–15. For non-Indigenous Australians the rate increased from 8.2% in 2002 to 9.7% in 2008 then decreased to 7.2% in 2014–15.

Nationally, the age-standardised rate of Indigenous Australians aged 18 and over who reported they were a victim of physical or threatened violence in the last 12 months was 20% in 2002, 2008 and 2014–15. For non-Indigenous Australians the rate was 8.9% in 2002, 10.8% in 2008 and 8.1% in 2014–15. (Table 2.10.25, Figure 2.10.3).



# Figure 2.10.1: Proportion of Indigenous Australians aged 15 and over feeling safe at home alone after dark, Victoria and Australia, 2014–15



# Figure 2.10.2: Proportion of Indigenous Australians aged 15 and over who were aware of neighbourhood or community problems, by selected problems, Victoria and Australia, 2014–15



Figure 2.10.3: Age-standardised proportion of people who were victims of physical or threatened violence in the last 12 months (aged 18 and over), by Indigenous status, Victoria and Australia, 2002, 2008 and 2014–15

## 2.11 Contact with the criminal justice system

#### Why it is important

This measure reports on the prevalence of Indigenous Australians 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 also affects family, children and the broader community. It increases stress, affects relationships and has adverse employment and financial consequences (AHMAC 2017).

#### Key findings

**Youth justice supervision:** In Victoria, on an average day in 2014–15, of Indigenous Australians aged 10–17, 137 per 10,000 were under youth justice supervision, compared with 12 per 10,000 for non-Indigenous Australians.

Nationally, of Indigenous Australians aged 10–17, 180 per 10,000 were under youth justice supervision, compared with 12 per 10,000 for non-Indigenous Australians (Table 2.11.1, Figure 2.11.1).

**Prison custody:** On 30 June 2016 in Victoria, 8% of people in prison custody were Indigenous. The age-standardised rate of Indigenous adults in prison custody was 11.7 times the rate for non-Indigenous Australians (1,565 compared with 133 per 100,000) (Table 2.11.8, Figure 2.11.2). For Indigenous Australians, the number of males in prison custody was 11 times higher than the number of females (491 compared with 44 per 100,000). For non-Indigenous Australians, the number of males in prison custody was 14 times higher than the number of females (5,593 compared with 387 per 100,000) (Table 2.11.8).

Nationally, the age-standardised rate of adults in prison custody was 2,039 per 100,000 for Indigenous Australians, compared with 163 per 100,000 for non-Indigenous Australians (Table 2.11.8, Figure 2.11.2). The number of Indigenous males in prison custody was 9 times the number of Indigenous females (9,534 compared with 1,062 per 100,000). For non-Indigenous Australians, the number of males in prison custody was 13 times the number of females (26,190 compared with 2,033 per 100,000) (Table 2.11.8).

**Trend over time:** In Victoria, the rate of Indigenous young people aged 10–17 who were under youth justice supervision on an average day increased from 123 per 10,000 in 2006–07 to 137 per 10,000 in 2014–15. The rate remained stable for non-Indigenous Australians, at 12 per 10,000 (Table 2.11.1, Figure 2.11.1). The age-standardised imprisonment rate for Indigenous adults increased from 524 per 100,000 in 2000 to 1,565 per 100,000 in 2016. The rate increased for non-Indigenous adults from 86 to 133 per 100,000 (Table 2.11.12, Figure 2.11.3).

Nationally, the rate of Indigenous young people aged 10–17 who were under youth justice supervision on an average day decreased from 197 per 10,000 in 2006–2007 to 180 per 10,000 in 2014–15. The rate decreased by 18% for non-Indigenous Australians (from 14 to 12 per 10,000) (Table 2.11.1, Figure 2.11.1). From 2000 to 2016, the age-standardised imprisonment rate for Indigenous adults rose from 1,100 to 2,039 per 100,000. For non-Indigenous adults, the rate of increase was lower, from 129 to 163 per 100,000 (Table 2.11.12, Figure 2.11.3).



Source: Table 2.11.1.





Source: Table 2.11.8.

Figure 2.11.2: Age-standardised adult imprisonment rate, by Indigenous status, Victoria and Australia, 30 June 2016



# 2.12 Child protection

#### Why it is important

This measure reports on the number and rate for children who were the subject of substantiated child protection notifications, on care and protection orders, and in out-of-home care.

Maltreatment (physical, emotional and psychological abuse, neglect, sexual abuse and witnessing family violence) during childhood has serious and long-term effects on social and emotional wellbeing and health (Emerson et al. 2015).

### Key findings

**Overall:** In 2014–15 in Victoria, the rate for Indigenous children who were the subject of a substantiated child protection notification was 67 per 1,000. This was 7.2 times the rate for non-Indigenous children (9.4 per 1,000).

Nationally in 2014–15, the rate for Indigenous children who were the subject of a substantiated child protection notification was 40 per 1,000. This was 6.7 times the rate for non-Indigenous children (5.9 per 1,000) (Table 2.12.3, Figure 2.12.1).

**Trend over time:** In Victoria, the rate for Indigenous children who were the subject of substantiated child protection notification increased from 35 per 1,000 in 2008–09 to 67 per 1,000 in 2014–15.

Nationally, the rate for Indigenous children also increased, from 29 per 1,000 in 2008–09 to 40 per 1,000 per 1,000 in 2014–15 (Table 2.12.5, Figure 2.12.2).

**Care and protection orders:** At 30 June 2015 in Victoria, the rate for Indigenous children (aged 0–17) on care and protection orders was 81 per 1,000. This rate was 12 times the rate for non-Indigenous children (6.6 per 1,000).

Nationally, the rate for Indigenous children on care and protection orders was 58 per 1,000. This was 9 times the rate for non-Indigenous children (6.3 per 1,000) (Table 2.12.7, Figure 2.12.1).

**Trend over time:** In Victoria, the rate for Indigenous children who were on care and protection orders increased from 42 per 1,000 at 30 June 2009 to 81 per 1,000 at 30 June 2015. The rate for non-Indigenous children who were on care and protection orders increased from 4.4 per 1,000 at 30 June 2009 to 6.6 per 1,000 at 30 June 2015.

Nationally, the rate also increased, from 37 per 1,000 at 30 June 2009 to 58 per 1,000 at 30 June 2015. The rate for non-Indigenous children increased from 5.3 per 1,000 at 30 June 2009 to 6.3 per 1,000 at 30 June 2015 (Table 2.12.11, Figure 2.12.3).

**Out-of-home care:** At 30 June 2015 in Victoria, the rate for Indigenous children in out-of-home care was 72 per 1,000. This was 13 times the rate for non-Indigenous children (5.5 per 1,000).

Nationally, the rate for Indigenous children in out-of-home care was 53 per 1,000. This was 10 times the rate for non-Indigenous children (5.5 per 1,000) (Table 2.12.12, Figure 2.12.1).


Figure 2.12.1: Children aged 0–17 on care and protection orders, 2015, in out-of-home care, 2015 and subjects of substantiated notifications, 2014–15, by Indigenous status, Victoria and Australia



Figure 2.12.2: Indigenous children aged 0–17 who were the subject of substantiated notifications, Victoria and Australia, 2008–09 to 2014–15



### 2.13 Transport

### Why it is important

This measure reports on the use of transport, including walking, access to motor vehicles and perceived difficulty with transport for Indigenous Australians. Transport is key to enabling access to health care, goods and services, and supports Indigenous people to achieve education and employment outcomes and maintain cultural obligations to travel to family commitments (Helps et al. 2010; Ivers et al. 2016). Indigenous Australians face various barriers to accessing appropriate health care, including logistics, cost and reliability of transport options (Lee et al. 2014). Having limited or no public transport options significantly affects the capacity to access health care, particularly for patients with chronic health conditions (Teng et al. 2014) those needing birthing services (Parker et al. 2014), and those in rural and remote areas (Kelly et al. 2014).

### Key findings

**Overall:** In 2014–15 in Victoria, 76% of Indigenous Australians aged 15 and over reported they can easily get to places needed, compared with 82% of non-Indigenous Australians. An estimated 6% of Indigenous Australians reported that they were unable to get to places needed, never went out or were housebound, compared with 1% for non-Indigenous Australians. Australians.

Nationally, 75% of Indigenous Australians aged 15 and over reported they can easily get to places needed, compared with 84% of non-Indigenous Australians. An estimated 8% of Indigenous Australians reported that they were unable to get to places needed, never went out or were housebound, compared with 1% for non-Indigenous Australians (Table 2.13.4, Figure 2.13.1).

Access to a motor vehicle: In 2014–15 in Victoria, 76% of Indigenous Australians aged 15 and over reported that they had access to a motor vehicle. This was 0.9 times the proportion for non-Indigenous Australians (85%).

Nationally, 75% of Indigenous Australians 15 and over reported that they had access to a motor vehicle, which was also 0.9 times the proportion for non-Indigenous Australians (85%) (Table 2.13.8, Figure 2.13.2).

**Use of public transport:** In 2014–15 in Victoria, 41% of Indigenous Australians aged 15 and over (who were not housebound) reported they had used public transport in the last 2 weeks.

Nationally, 29% of Indigenous Australians (who were not housebound) reported they had used public transport in the last 2 weeks (Table 2.13.9).

Access to public transport: In 2014–15 in Victoria, public transport was available to 94% of Indigenous Australians aged 15 and over. Of those who could access it, 75% reported they preferred to use their own transport or walk.

Nationally, public transport was available to 75% of Indigenous Australians aged 15 and over. Of those who could access it, 79% reported they preferred to use their own transport or walk (Table 2.13.10, Figure 2.13.3).



Source: Table 2.13.4.





Source: Table 2.13.8.

# Figure 2.13.2: Proportion of Australians aged 15 and over with access to a motor vehicle, by Indigenous status, Victoria and Australia, 2014–15



Figure 2.13.3: Proportion of Indigenous persons aged 18 and over who did not use public transport in last 2 weeks in local areas where public transport was available, by reasons, Victoria and Australia, 2014–15

# 2.14 Indigenous people with access to their traditional lands

#### Why it is important

This measure reports on the proportion of Indigenous Australians living on or visiting traditional areas of land with which they have ancestral or cultural links. Connection to family and community, land and sea, and cultural identity are integral to health from an Aboriginal perspective (NAHSWP 1989). Ongoing access to traditional lands also offers socio-political, economic and environmental benefits (Weir et al. 2011). Access to traditional lands is 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 found the role of Country helps strengthen self-esteem, self-worth, pride, cultural and spiritual connection, and positive states of wellbeing (Kingsley et al. 2013).

### Key findings

**Overall:** In 2014–15 in Victoria, 69% of Indigenous Australians aged 15 and over reported that they recognised homelands or traditional Country.

Nationally, 74% of Indigenous Australians aged 15 and over reported that they recognised homelands or traditional Country (Table 2.14.6). The proportion of Indigenous Australians was higher in *Remote* than *Non-remote* areas of Australia (89% compared with 70%) (Table 2.14.1, Figure 2.14.1).

**Living on homelands or traditional Country:** In 2014–15 in Victoria, 19% of Indigenous Australians aged 15 and over reported that they lived on their homelands or traditional Country.

Nationally, 23% of Indigenous Australians aged 15 and over reported that they lived on their homelands or traditional Country (Table 2.14.6, Figure 2.14.2).

**Visiting homelands or traditional Country:** In 2014–15 in Victoria, 48% of Indigenous Australians aged 15 and over reported that they were allowed to visit their homelands or traditional Country, and less than 1% were not allowed to visit.

Nationally, 50% of Indigenous Australians aged 15 and over were allowed to visit their homelands or traditional Country, and 1% reported not being allowed to visit (Table 2.14.6, Figure 2.14.2).

**Identifying with clan, tribal or language group:** In 2014–15 in Victoria, a higher proportion of Indigenous Australians aged 15 and over reported that they identified with a clan, tribal or language group (57%). The proportion that didn't identify was 44%.

Nationally the proportion of Indigenous Australians aged 15 and over who reported that they identified with a clan, tribal or language group was higher than the proportion for Victoria: 62% compared with 57% (Table 2.14.6, Figure 2.14.3).



# Figure 2.14.1: Recognition of homelands or traditional Country, by remoteness, Indigenous Australians aged 15 and over, Australia, 2014–15



Source: Table 2.14.6.

Figure 2.14.2: Access to homelands or traditional Country, Indigenous Australians aged 15 and over, Victoria and Australia, 2014–15



Australians aged 15 and over, Victoria and Australia, 2014–15

### 2.15 Tobacco use

#### Why it is important

This measure reports on the proportion of Indigenous Australians who smoke daily, at least once a week and less than weekly. The health impact of smoking is evident in the high rates of hospitalisation and deaths from tobacco-related conditions (for example, chronic lung disease, cardiovascular disease and many forms of cancer) (Marley et al. 2014; Pircher et al. 2012). Maternal smoking during pregnancy increases the risk of poor outcomes for babies and children. Second-hand smoke also has adverse health effects for those exposed to it (AHMAC 2017).

### Key findings

**Overall:** In 2014–15 in Victoria, 41% of Indigenous Australians reported they were current smokers (Table 2.15.1). After adjusting for age structure 41% of Indigenous Australians aged 15 and over reported being a current smoker, 30% were ex-smokers and 30% had never smoked.

Nationally, 42% of Indigenous Australians reported they were current smokers (Table 2.15.1). After adjusting for age structure, 42% of Indigenous Australians aged 15 and over reported being a current smoker, 26% were ex-smokers and 32% had never smoked (Table 2.15.7, Figure 2.15.1).

**Remoteness:** Nationally in 2014–15, the age-standardised rate for Indigenous Australians aged 15 and over reporting to be a current smoker was higher in *Remote* areas than in *Non-remote* areas by 11 percentage points (51% compared with 40%). The rate for non-Indigenous Australians who were current smokers was also higher in *Remote* areas than in *Non-remote* areas (19% compared with 15%) (Table 2.15.8).

**Current smokers:** In 2014–15 in Victoria, the age-standardised rate for Indigenous Australians aged 15 and over reporting to be a current smoker was 2.7 times the rate for non-Indigenous Australians (41% compared with 15%).

Nationally, the age-standardised rate for Indigenous Australians aged 15 and over reporting to be a current smoker was also 2.7 times the rate for non-Indigenous Australians (42% compared with 15%) (Table 2.15.7, Figure 2.15.2).

**Quitting status:** In 2014–15 in Victoria, 72% of Indigenous Australians aged 15 and over who reported being a current smoker had tried to quit or reduce smoking.

Nationally, the rate was similar 69% of Indigenous Australians who reported being a current smoker had tried to quit or reduce smoking (Table 2.15.10).

**Trend over time:** The rate of Indigenous Australians in Victoria aged 15 and over that reported being a current smoker declined by 18 percentage points over time, from 59% in 1994 to 41% in 2014–15.

Nationally the rate for Indigenous Australians also declined, from 52% in 1994 to 42% in 2014–15 (Table 2.15.1, Figure 2.15.3).



Source: Table 2.15.7.





Figure 2.15.2: Proportion of current smokers aged 15 and over by Indigenous status, Victoria and Australia, 2014–15



### 2.16 Risky alcohol consumption

#### Why it is important

This measure reports on the consumption of alcohol at risky or high-risk levels. Excessive consumption is associated with health and social problems in most populations. Long-term excessive consumption is a major risk factor for conditions such as liver disease, pancreatitis, heart disease, stroke, diabetes, obesity and cancer. Binge drinking contributes to injuries, suicide, transport accidents, violence, burns and falls (AHMAC 2017).

### Key findings

Non-Indigenous comparisons for single occasion and lifetime risk are not available for 2014–15 because the data were not collected as part of the ABS General Social Survey 2014.

**Single occasion risk:** In 2014–15 in Victoria, an estimated 28% of Indigenous Australians aged 15 and over reported exceeding the single occasion alcohol risk guidelines in the last 12 months.

Nationally, an estimated 31% of Indigenous Australians aged 15 and over reported exceeding the single occasion alcohol risk guidelines in the last 12 months (Table 2.16.19, Figure 2.16.1).

**Lifetime risk:** In 2014–15 in Victoria, an estimated 11% of Indigenous Australians aged 15 and over reported exceeding the lifetime risk alcohol guidelines.

Nationally, an estimated 15% of Indigenous Australians aged 15 and over reported exceeding the lifetime risk alcohol guidelines (Table 2.16.20, Figure 2.16.1).

**Remoteness:** Nationally in 2012–13, the age-standardised rate of Indigenous Australians aged 18 and over who reported that they had engaged in short-term or single occasion risky drinking was 53% in *Non-remote* areas, compared with 45% of non-Indigenous Australians. In *Remote* areas the rate was lower for Indigenous Australians and higher for non-Indigenous Australians (47% and 55%, respectively) (Table 2.16.2, Figure 2.16.1).

**Trend over time:** Between 2004–05 and 2014–15, the age-standardised rate of hospitalisation relating to alcohol use for Indigenous Australians in Victoria generally decreased, from 6.3 per 1,000 in 2004–05 to 4.3 per 1,000 in 2014–15, however rates varied over this time. For non-Indigenous Australians, the rate was similar over time (2.1 per 1,000 in 2004–05 and 2014–15) except for a slight increase in 2009–10 to 2.8 per 1,000.

For NSW, Vic, Qld, WA, SA and the NT combined, the age-standardised rate of hospitalisation related to alcohol use for Indigenous Australians increased from 7.2 per 1,000 in 2004–05 to 9.0 per 1,000 in 2014–15. For non-Indigenous Australians, the rate increased from 1.9 to 2.3 per 1,000 over the same period (Table 2.16.13 Vic, Figure 2.16.3).



## Figure 2.16.1: Indigenous persons who exceeded single occasion alcohol risk guideline, and who exceeded lifetime risk alcohol guideline, aged 15 and over, Victoria and Australia, 2014–15



Source: Table 2.16.2.

## Figure 2.16.2: Age-standardised rate, persons aged 18 and over reporting short-term/single occasion alcohol risk, by Indigenous status and remoteness, Australia, 2012–13



# 2.17 Drug and other substance use including inhalants

#### Why it is important

This measure reports on the use of drugs and other substances, including inhalants. 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 2014). 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). For communities, there is increased potential for social disruption, such as domestic violence, crime and assaults (Franks 2006). Alcohol and substance use has been found to be a factor in assault (Mitchell 2011; Mouzos & Makkai 2004). Risky sexual behaviour is also associated with alcohol and illicit drug use, leading to increased sexually transmitted infections among younger people (Wand et al. 2016). Drugs and other substance use play a significant role in Indigenous people's involvement in the criminal justice system (AHMAC 2017).

### Key findings

Non-Indigenous comparisons for substance use are not available for 2014–15 because the data were not collected as part of the ABS General Social Survey 2014.

**Overall:** In 2014–15 in Victoria, an estimated 40% of Indigenous Australians aged 15 and over reported using substances in the last 12 months. Substance use was more prevalent for Indigenous males than for females (51% compared with 31%).

Nationally, an estimated 31% of Indigenous Australians aged 15 and over reported using substances in the last 12 months. The proportion was higher for Indigenous males than for females (34% compared with 27%) (Table 2.17.3, Figure 2.17.1).

Nationally in 2014–15, the highest rates for Indigenous Australians reporting substance use in the last 12 months were for males aged 18–34, and for females aged 25–34 (40% and 35%, respectively) (Table 2.17.3).

Nationally in 2014–15, one quarter (25%) of Indigenous males reported using marijuana (hashish or cannabis resin) in the previous 12 months. For Indigenous females, the rate was 19% (Table 2.17.4).

**Hospitalisations:** Nationally, from July 2013 to June 2015, the age-standardised hospitalisation rate related to drug use was higher for Indigenous Australians who lived in *Major cities* than in other areas of Australia (8.1 per 1,000). The rate was 3.6 times the rate for non-Indigenous Australians in *Major cities* (2.3 per 1,000) (Table 2.17.8, Figure 2.17.2).

**Use during pregnancy:** In 2014–15 in Victoria, an estimated 4% of mothers of Indigenous children aged 0–3 reported illicit drug or substance use during pregnancy.

Nationally, the rate was the same as for Victoria: 4% of mothers of Indigenous children aged 0–3 reported illicit drug or substance use during pregnancy (Table 2.17.13, Figure 2.17.3).

**Police detainees:** There are no national or Victoria-specific data for urinalysis test results for detainees over time because data are only collected in Adelaide, Sydney, Brisbane and Perth.



Source: Table 2.17.3.





Source: Table 2.17.8.

Figure 2.17.2: Hospitalisations with a principal diagnosis related to drug use, by Indigenous status and remoteness, Australia, July 2013 to June 2015



### 2.18 Physical activity

### Why it is important

This measure reports on the levels of physical activity among Indigenous Australians (low, moderate or high). 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 among Indigenous Australians. These diseases include cardiovascular disease, cancer, stroke, hypertension, and diabetes (AIHW 2012; Gray et al. 2013; Wilmot et al. 2012). Physical inactivity is also related to being overweight and obese, another important risk factor for multiple preventable diseases (AHMAC 2017).

Results for adults are presented by whether a person (aged 18–64) had met the recommended guidelines for sufficient physical activity to gain a health benefit (150–300 minutes of moderate activity per week, or 75–150 minutes of vigorous activity per week) (ABS 2016). For children, results are presented in terms of time taken for physical activity and the number of days children were active.

### Key findings

**Adult physical activity:** In 2012–13 in *Non-remote* areas of Victoria, 39% of Indigenous adults reported they had undertaken a sufficient level of physical activity in the last week (ABS 2014b). Please note that this proportion had a margin of error greater than 10 percentage points, which should be considered when using this information. The age-standardised rate for Indigenous adults who met sufficient activity levels in the last week was 0.8 times the rate for non-Indigenous adults (36% compared with 43%) (ABS 2014b; Figure 2.18.1).

Nationally in *Non-remote* areas, 38% of Indigenous adults reported they had undertaken a sufficient level of physical activity for health in the last week (ABS 2014b). The age-standardised rate for Indigenous adults who met sufficient activity levels in the last week was 0.8 times the rate for non-Indigenous adults (35% compared with 43%) (ABS 2014b; Figure 2.18.1).

**Children's daily activity:** In 2014–15 in Victoria, 70% of Indigenous children aged 4–14 were reported to undertake at least 60 minutes of physical activity every day. In 2008, the estimate was 67%.

Nationally in 2014–15, 76% of Indigenous children aged 4–14 were reported to undertake at least 60 minutes of physical activity every day. In 2008, this estimate was 74% (Table 2.18.3, Figure 2.18.2).

**Days of physical activity:** In 2014–15 in Victoria, 70% of Indigenous children aged 4–14 were reported to be physically active every day of the previous week, and 15% were active on 4–6 days. An estimated 3% had days where they were not physically active in the previous week.

Nationally, 76% of Indigenous children aged 4–14 were reported to be physically active every day of the previous week, and 13% were active on 4–6 days. Almost 3% had days where they were not physically active in the last week (Table 2.18.2, Figure 2.18.3).







Source: Table 2.18.3.





### 2.19 Dietary behaviour

#### Why it is important

This measure reports on dietary behaviour, including fruit and vegetable consumption. Many of the principal causes of ill-health among Indigenous Australians 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).

### Key findings

**Consumption of fruit:** In 2014–15 in Victoria, 29% of Indigenous Australians (aged 12 and over) reported eating less than 1 serve of fruit a day.

Nationally in 2014–15, 25% of Indigenous Australians aged 12 and over reported eating less than 1 serve of fruit a day. The rate for Indigenous Australians living in *Non-remote* areas was similar to the rate for those living in *Remote* areas (25% and 24%, respectively) (Table 2.19.2, Figure 2.19.1).

**Consumption of vegetables:** In 2014–15 in Victoria, 16% of Indigenous Australians (aged 12 and over) reported eating less than 1 serve of vegetables a day.

Nationally in 2014–15, 12% of Indigenous Australians aged 12 and over reported eating less than 1 serve of vegetables per day. The proportion of Indigenous Australians who ate less than 1 serve of vegetables per day was lower in *Non-remote* than *Remote* areas (11% compared with 15%, respectively) (Table 2.19.3, Figure 2.19.2).

**Children's consumption of fruit:** In 2014–15 in Victoria, 29% of Indigenous children aged 2–14 were reported to eat 1, or less than 1, serve of fruit a day.

Nationally, one-third (33%) of Indigenous children aged 2–14 were reported to eat 1, or less than 1, serve of fruit a day (Table 2.19.9, Figure 2.19.3).

**Children's consumption of vegetables:** In 2014–15 in Victoria, 41% of Indigenous children aged 2–14 were reported to eat 1, or less than 1, serve of vegetables a day. Almost 27% ate 2 serves and 31% ate 3 or more. An estimated 4% reported not usually eating vegetables.

Nationally, 39% of Indigenous children aged 2–14 were reported to eat 1, or less than 1, serve of vegetables a day, 30% ate 2 serves and 28% ate 3 or more. An estimated 3% were reported to not usually eat vegetables (Table 2.19.9, Figure 2.19.3).



Source: Table 2.19.2.





Source: Table 2.19.3.





### 2.20 Breastfeeding practices

### Why it is important

This measure reports on the breastfeeding status of infants, including: breastfeeding duration, breastfeeding and other sources of food, and the reasons mothers stopped breastfeeding. Breastfeeding is 1 of the most important human 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 also offers protection against many conditions, including sudden infant death syndrome, diarrhoea, respiratory infections, middle ear infections and the development of diabetes in later life (Annamalay et al. 2012; Horta et al. 2015).

### Key findings

All comparisons between Indigenous and non-Indigenous infants are for ages 0–2 due to the scope of the ABS National Health Survey 2014–15.

**Children aged 0–3 years:** In 2014–15 in Victoria, 74% of Indigenous children aged 0–3 were reported to have been, or were currently, breastfed. About 30% of Indigenous children were never breastfed or their breastfeeding status was not known. This was higher than the national proportion.

Nationally, 80% of Indigenous children aged 0–3 were reported to have been, or were currently, breastfed, and 20% had never been breastfed, or breastfeeding status was not known (Table 2.20.2, Figure 2.20.1).

**Children aged 0–2 years:** In 2014–15 in Victoria, 75% of Indigenous children aged 0–2 were reported to have been breastfed, compared with 85% of non-Indigenous children.

Nationally, a smaller proportion of Indigenous than non-Indigenous children were reported to have been breastfed (82% and 86%, respectively) (Table 2.20.6).

**Time breastfed (children aged 0–2 years):** In 2014–15 in Victoria, of Indigenous children who were reported to have been breastfed, the most common duration of feeding was 1 month to less than 6 months (25%). The proportion was 17% for non-Indigenous children.

Nationally, the most common duration of feeding was 1 month to less than 6 months (24%). The proportion was similar for non-Indigenous children (26%) (Table 2.20.6, Figure 2.20.2).

**Remoteness (children aged 0–2 years):** Nationally, in 2014–15, the proportion of Indigenous children aged 0–2 who were reported to be currently or previously breastfed was highest in *Very remote* areas (91%) and lowest in *Major cities* (73%). For non-Indigenous children, the highest proportion was in *Outer Regional* areas (91%) and the lowest was in *Inner Regional* areas (80%) (Table 2.20.5).

**Trend over time (children aged 0–3 years):** Nationally, the rate of breastfeeding of Indigenous infants varied from 2004–05 to 2014–15, and no clear trend is discernable. Higher rates of breastfeeding were consistently reported in *Remote* areas (85% in 2004–05 to 87% in 2014–15) than in *Non-remote* areas (79% in 2004–05 and 2014–15) (Table 2.20.4, Figure 2.20.3).







Source: Table 2.20.6.

Figure 2.20.2: Time breastfed, infants aged 0–2 years, by Indigenous status, Victoria and Australia, 2014–15



### 2.21 Health behaviours during pregnancy

### Why it is important

This measure reports on the use of tobacco, alcohol, illicit substances and other health-related behaviours 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 and birth, as well as for children later in life (AHMAC 2017). Smoking tobacco, drinking alcohol and using illicit drugs while pregnant increases the risk of complications and poor perinatal outcomes (England et al. 2004; Hodyl et al. 2014; Laws et al. 2005; Pringle et al. 2015; Wills & Coory 2008). Nutrition before and during pregnancy is critical to fetal development (McDermott et al. 2009; Wen et al. 2010). Drinking alcohol while pregnant has been shown to result in potentially lifelong physical, mental, behavioural and learning issues, collectively referred to as fetal alcohol spectrum disorders (France et al. 2010; Mutch et al. 2015; Srikartika & O'Leary 2015).

### Key findings

**Smoking:** In 2014 in Victoria, 45% of women who gave birth in 2014 reported that they smoked during pregnancy. The age-standardised rate for Indigenous women (44%) was 3 times the rate for non-Indigenous women (15%).

Nationally, the age-standardised rate for women who gave birth in 2014, who reported that they smoked during pregnancy, were 46% for Indigenous women and 13% for non-Indigenous women (Table 2.21.1, Figure 2.21.1).

**Smoking by remoteness:** Nationally in 2014–15, among mothers of Indigenous children aged 0–3 years who lived in *Non-remote* areas, 38% reported using tobacco during pregnancy, compared with 42% of Indigenous mothers in *Remote* areas (Table 2.21.7).

**Alcohol consumption:** In 2014–15 in Victoria, 92% of mothers of Indigenous children aged 0–3 reported that they did not consume alcohol during pregnancy.

Nationally in 2014–15, 91% of mothers of Indigenous children aged 0–3 reported that they did not consume alcohol during pregnancy (Table 2.21.6, Figure 2.21.2).

**Illicit drug or substance use:** In 2014–15 in Victoria, 91% of mothers of Indigenous children aged 0–3, who provided information about illicit drug or substance use, reported that they did not use illicit drugs or substances during pregnancy.

Nationally in 2014–15, 96% of mothers of Indigenous children aged 0–3 reported they did not use illicit drugs or substances during pregnancy (Table 2.21.6, Figure 2.12.3).

**Remoteness:** Nationally, in 2014–15, mothers of Indigenous children aged 0–3 who lived in *Remote* areas reported higher proportions of alcohol consumption during their pregnancy than mothers who lived in *Non-remote* areas (13% compared with 9%). They also reported higher proportions of tobacco use during pregnancy (42% compared with 38%) and lower proportions of use of illicit drugs during pregnancy (2.4% compared with 4.8%) (Table 2.21.7).



Source: Table 2.21.1.





Figure 2.21.2: Alcohol consumption by women during pregnancy, mothers of Indigenous children aged 0–3, Victoria and Australia, 2014–15



### 2.22 Overweight and obesity

#### Why it is important

This measure reports on the prevalence of overweight and obesity among Indigenous Australians. Overweight and obesity is a global health problem (OECD 2014). Being overweight or obese increases the risk of various health conditions, including coronary heart disease, type 2 diabetes, some cancers, respiratory problems, joint problems, sleep disorders, and social problems. 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 between Indigenous and non-Indigenous Australians in the Northern Territory (Zhao et al. 2013).

### Key findings

**Overall:** In 2012–13 in Victoria, based on measured data, 66% of Indigenous Australians aged 15 and over were overweight or obese (32% overweight and 34% obese).

Nationally, based on measurements taken at interview, 66% of Indigenous Australians aged 15 and over were overweight or obese (29% overweight and 37% obese) (ABS 2014b; Figure 2.22.1).

**Remoteness:** In 2012–13 in Victoria, based on measurements taken at interview, Indigenous Australians aged 18 and over in *Outer regional* areas had the lowest age-standardised rate of overweight individuals (72% in both *Major cities* and *Inner regional* areas, 62% in *Outer regional* areas).

Nationally, based on measurements taken at interview, the age-standardised rate of Indigenous Australians aged 18 or over who were overweight or obese was lower in *Remote* than *Non-remote* areas. The rates were 74% in *Major cities*, 76% in *Inner regional* areas, 72% in *Outer regional areas*, 72% in *Remote* areas and 65% in *Very remote* areas (Table 2.22.3, Figure 2.22.2).

**Selected socioeconomic characteristics:** Nationally in 2012–13, based on measured data, the rate of obesity for Indigenous Australians aged 15 and over who were living in the most advantaged areas (SEIFA quintile 5) was 40%. This was higher than the rate for those living in the most disadvantaged areas (SEIFA quintile 1), which was 37%. The rate of obesity was higher for people who are employed than those who are unemployed (38% compared with 33%). The rate was higher for those with a non-school qualification, than for those without (42% compared with 34%) (Table 2.22.1, Figure 2.22.3).

**Physical activity:** Nationally in 2012–13, a higher proportion of Indigenous Australians (aged 18 and over) who were obese reported they did not meet the physical activity guidelines than those who were not obese (36% compared with 64%) (Table 2.22.2).







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



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# **Tier 3—Health system performance**

### 3.01 Antenatal care

### Why it is important

This measure reports the total number of antenatal visits, duration of pregnancy at first antenatal visit and types of antenatal services used. Antenatal care is especially important for Indigenous women because 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 2017; de Costa & Wenitong 2009). The World Health Organization recommends receiving antenatal care at least 4 times during pregnancy. The Australian Antenatal Guidelines (AHMAC 2012) recommend that the first antenatal visit occur within the first 10 weeks of pregnancy and that first-time mothers with an uncomplicated pregnancy attend 10 visits (7 visits for subsequent uncomplicated pregnancies).

### Key findings

Overall: Data about the number of antenatal visits were not collected in Victoria in 2014.

Nationally, 99% of Indigenous mothers accessed antenatal care services at least once during their pregnancy. The age-standardised proportions were similar for Indigenous and non-Indigenous mothers (98.8% and 99.9%, respectively) (Table 3.01.20, Figure 3.01.1).

**First antenatal visit:** In Victoria in 2014, an aged standardised rate of 37% of Indigenous mothers had their first antenatal visit in the first trimester of pregnancy, which was 0.8 times the rate for non-Indigenous mothers (49%). The rate for Indigenous mothers who had their first antenatal visit at 20 or more weeks was 1.5 times the rate for non-Indigenous mothers (32% compared with 21%).

Nationally, the age-standardised rate for Indigenous mothers who had their first antenatal visit in the first trimester was 0.9 times the rate for non-Indigenous mothers (53% compared with 60%). The rate for Indigenous mothers who had their first antenatal visit at 20 or more weeks was 1.5 times the rate for non-Indigenous mothers (24% compared with 16%) (Table 3.01.10, Figure 3.01.2).

**Regular care:** In 2014–15, in Victoria, 95% of mothers of Indigenous children aged 0–3 years reported they had regular pregnancy check-ups, and 40% of mothers had sought advice or information about pregnancy or childbirth.

Nationally, in 2014–15, 94% of mothers of Indigenous children aged 0–3 reported they had regular pregnancy check-ups, and 51% of mothers had sought advice or information about pregnancy or childbirth (Table 3.01.18, Figure 3.01.3).

**Trend over time:** In NSW, Qld, SA and the NT combined, from 2007 to 2014, the average aged-standardised rate of Indigenous mothers who had attended at least 1 antenatal visit during their pregnancy was 99.0%. The rate for non-Indigenous mothers was 99.9% over the same period (Table 3.01.08).



Source: Table 3.01.1.

#### Figure 3.01.1: Age-standardised rate of women who gave birth at 32 weeks' gestation or more, by number of antenatal visits and Indigenous status, Australia, 2014



Figure 3.01.2: Age-standardised rate of mothers attending their first antenatal session, by stage of pregnancy and Indigenous status, Victoria and Australia, 2014



Figure 3.01.3: Proportion of mothers of Indigenous children aged 0-3 who had regular pregnancy check-ups and sought advice or information about pregnancy or childbirth, Victoria and Australia, 2014-15

### 3.02 Immunisation

#### Why it is important

This measure reports on vaccination coverage rates for children aged 1, 2 and 5. Vaccination is highly effective in reducing morbidity and mortality caused by vaccine-preventable diseases. Vaccinations have been effective in reducing the disease disparities between Indigenous and non-Indigenous Australians (Menzies & Singleton 2009).

### Key findings

**Overall:** At 31 December 2015 in Victoria, the rate for Indigenous children aged 1 who were fully immunised was lower than the rate for other Australian children (91% compared with 93%) (Table 3.02.2, Figure 3.02.1). At age 2, 86% of Indigenous children were fully immunised compared with 91% of other Australian children (Table 3.02.3, Figure 3.02.2). By age 5, the rate for Indigenous Australians was higher than for other children (96% compared with 94%) (Table 3.02.4, Figure 3.02.3).

Nationally, vaccination coverage for Indigenous children aged 1 was 90%, compared with 93% for other Australian children (Table 3.02.2, Figure 3.02.1). At age 2, 87% of Indigenous children were fully immunised, compared with 90% for other children (Table 3.02.3, Figure 3.02.2). By age 5, the rate for Indigenous children was higher than for other Australian children (95% compared with 93%) (Table 3.02.4, Figure 3.02.3).

**At age 1:** In Victoria at 31 December 2015, for Indigenous children aged 1, the vaccination rate for hepatitis B, DTP, polio vaccine, HIB and pneumococcal were lower for Indigenous children (91% for all vaccinations) than for other Australian children (94% for all vaccinations).

Nationally, the vaccination rates for hepatitis B, DTP, polio vaccine, HIB and pneumococcal for Indigenous children were lower than for other children (90% for all compared with 94% for all) (Table 3.02.2, Figure 3.02.1).

At age 2: In Victoria at 31 December 2015, the vaccination rates for children aged 2 for hepatitis B, DTP and polio vaccine were higher for Indigenous children (97% for all) than for other children (96% for all). For HIB the rates were 96% for Indigenous children compared with 95% for other children. The rates for MMR and varicella were lower for Indigenous children (89% for both) than for other children (92% for both).

Nationally, the rates for hepatitis B and polio vaccine were higher for Indigenous children than for other children (96% compared with 95%). For DTP the rate for both Indigenous and other children was 96% and for HIB the rate was 95% for both. The rates for MMR and varicella were lower for Indigenous children (89% for both) than for other children (92% for both) (Table 3.02.3, Figure 3.02.2).

**At age 5:** In Victoria at 31 December 2015, the vaccination rates for DTP and polio vaccine for Indigenous children aged 5 were higher than for other children (96% for both compared with 94% for both). For MMR the rates were 97% and 94%, respectively.

Nationally, the rates for Indigenous children for DTP and polio vaccine were both 95% which was higher than the rates for other children (94% for both). The MMR rate was higher for Indigenous than for other children (96% compared with 94%) (Table 3.02.4, Figure 3.02.3).



Figure 3.02.1: Vaccination coverage estimates for selected diseases for children at age 1, by Indigenous status, Victoria and Australia, at 31 December 2015



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 2015



### 3.03 Health promotion

#### 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. Indigenous Australians experience higher levels of morbidity and mortality from potentially avoidable conditions than other Australians (AHMAC 2017). Health promotion is the process of enabling people to increase control over their health and its determinants, and improve their health as a result (WHO 2005). 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).

### Key findings

**Overall:** In Victoria in 2012–13, 87% of Indigenous Australians aged 15 and over reported they had consulted a doctor in the last 12 months. Of those who had consulted a doctor, 49% reported they had discussed lifestyle issues with a GP or health professional.

Nationally, 83% of Indigenous Australians aged 15 and over reported they had consulted a doctor in the last 12 months. Of those who had consulted a doctor, 46% reported they had discussed lifestyle issues with a GP or health professional (Table 3.03.4, Figure 3.03.1).

**Lifestyle information:** In Victoria in 2012–13, Indigenous Australians aged 15 and over reported that the most common lifestyle issues discussed with a GP or health professional was reducing or quitting smoking (48%), reaching a healthy weight (47%), eating healthy food or improving their diet (41%) and increasing physical activity (28%).

Nationally, Indigenous Australians aged 15 and over reported that the most common lifestyle issues discussed with a GP or health professional by Indigenous Australians were reaching a healthy weight (50%), eating healthy food or improving their diet (44%), reducing or quitting smoking (43%) and increasing physical activity (30%) (Table 3.03.4, Figure 3.03.2).

**Programs and activities:** In Victoria, from 1 June 2014 to 31 May 2015, when data was combined from all Indigenous-specific health-care services, the most common type of health promotion activities and programs provided by Aboriginal and Torres Strait Islander primary health-care organisations were physical activity or healthy weight programs and activities (96%), women's groups (87%), men's groups (83%) and living skills groups such as cooking or nutrition groups (78%).

Nationally, from 1 June 2014 to 31 May 2015, the most common type of health promotion activities and programs provided by Aboriginal and Torres Strait Islander primary health-care organisations were physical activity or healthy weight programs and activities (73%), men's groups (64%), women's groups (63%), and living skills groups, such as cooking or nutrition groups (61%) (Table 3.03.10, Figure 3.03.3).



# Figure 3.03.1: Proportion of Indigenous Australians aged 15 and over who discussed lifestyle with a GP or health professional, Victoria and Australia, 2012–13



Figure 3.03.2: Type of lifestyle issues discussed with a GP or health professional in the last 12 months (multiple responses allowed), by Indigenous Australians aged 15 and over, Victoria and Australia, 2012–13



activity, Victoria and Australia, 1 June 2014 to 31 May 2015

### **3.04** Early detection and early treatment

### Why it is important

This measure reports on the early detection and early treatment of disease. Early detection is the discovery of a disease or condition at an early stage, usually before symptoms occur. This means the disease can be treated much earlier, which results in better health outcomes for patients. Medicare Benefits Schedule (MBS) health assessment items for Indigenous Australians encourage early detection, diagnosis and intervention for common and treatable conditions that cause morbidity and early mortality. Screening programs are designed to detect cancer early (breast and bowel) or prevent its occurrence in the first place by detecting pre-cancerous changes (bowel and cervical) (AHMAC 2017; AIHW 2016d).

### **Key findings**

**Medicare health assessments:** In 2015–16 in Victoria, the rate of Indigenous-specific health checks claimed (MBS item 715) was 164 per 1,000. The rate in all age groups was lower for Indigenous Australians in Victoria than the equivalent national rates described below. By age group, the rates were 158 per 1,000 for ages 0–14, 155 per 1,000 for ages 15–54 and 234 per 1,000 for ages 55 and older.

Nationally in 2015–16, the rate of Indigenous-specific health checks claimed (MBS item 715) was 267 per 1,000. By age group, the rates were 256 per 1,000 for ages 0–14, 252 per 1,000 for ages 15–54 and 383 per 1,000 for ages 55 and older (Table 3.04.1, Figure 3.04.1).

**Breast cancer screening:** In 2013–2014 in Victoria, the age-standardised rate for Indigenous women aged 50–69 who had been screened was 34%, compared with 54% for non-Indigenous women.

Nationally, the age-standardised rate for Indigenous women aged 50–69 was 37%, compared with 54% for non-Indigenous women (Table 3.04.9, Figure 3.04.2).

**Pap smear test:** In 2012–13 in Victoria, 76% of Indigenous women aged 20–69 reported they had regular pap smear tests.

Nationally, 70% of Indigenous women aged 20–69 reported they had regular pap smear tests (Table 3.04.13).

**Bowel cancer screening:** In 2012–13 in Victoria, 24% of Indigenous males and 9% of Indigenous females aged 50–74 reported participating in bowel cancer screening tests.

Nationally, 18% of Indigenous males and 11% of Indigenous females aged 50–74 reported participating in bowel cancer screening tests (Table 3.04.17).

**Trend over time:** From 2006–07 to 2015–16 in Victoria, the rate of Indigenous-specific health checks claimed (MBS item 715) increased from 21 to 164 per 1,000 (Table 3.04.3). Increases were evident in all age groups, but higher increases were observed in those aged 55 and over (tables 3.04.5, 3.04.6, 3.04.7; Figure 3.04.3).

Nationally, the rate of Indigenous-specific health checks claimed (MBS item 715) for all age groups increased, from 37 per 1,000 in 2006–07 to 267 per 1,000 in 2015–16 (Table 3.04.3). Increases were evident in all age groups, but the largest increase was observed in those aged 55 and over (tables 3.04.5, 3.04.6, 3.04.7; Figure 3.04.3).







Source: Table 3.04.9.

Figure 3.04.2: Age-standardised participation rates in BreastScreen Australia programs for women aged 50 to 69, by Indigenous status, Victoria and Australia, 2013–2014



### 3.05 Chronic diseases management

### Why it is important

This measure reports on the management of chronic diseases. Chronic diseases are the leading causes of illness, disability and death among Indigenous Australians and are estimated to be responsible for 70% of the health gap between Indigenous and non-Indigenous Australians (AIHW 2016b). Effective management of chronic diseases is key in meeting the target of closing the life expectancy gap between Indigenous and non-Indigenous Australians within a generation. Effective management of chronic diseases can delay the progression of the disease, improve quality of life, increase life expectancy and decrease the need for high cost interventions leading to net savings (Thomas et al. 2014; Zhao et al. 2014).

### Key findings

**Blood tests and foot checks:** In 2012–13 in Victoria, of all Indigenous Australians with current and long-term diabetes or high sugar levels, 72% reported having undergone HbA1C testing in the last 12 months, compared with 58% for non-Indigenous Australians (Table 3.05.13, Figure 3.05.1). Blood glucose levels were checked for 98% of Indigenous Australians, compared with 94% for non-Indigenous Australians. Feet were checked for 65% of Indigenous Australians compared with 72% for non-Indigenous Australians (Table 3.05.13).

Nationally, of Indigenous Australians with current and long-term diabetes or high sugar levels, 69% reported having undergone HbA1C testing in the last 12 months, compared with 72% for non-Indigenous Australians (Table 3.05.13, Figure 3.05.1). Blood glucose levels were checked for 95% of Indigenous Australians, compared with 97%% for non-Indigenous Australians. Feet were checked for 68% of Indigenous Australians compared with 74% for non-Indigenous Australians (Table 3.05.13).

Actions taken: In Victoria in 2012–13, Indigenous Australians reported that actions they had taken to manage current and long-term diabetes or high sugar levels included: a lifestyle action such as diet, weight loss or exercise (74%); taking medicine or tablets (60%); and using insulin (35%).

Nationally, Indigenous Australians reported that actions they had taken to manage current and long-term diabetes or high sugar levels included: a lifestyle action such as diet, weight loss or exercise (80%); taking medicine or tablets (64%); and using insulin (30%) (Table 3.05.13, Figure 3.05.2).

**Trend over time:** For Victoria and Tasmania combined, the proportion of Indigenous clients of Indigenous Specific Primary Health Services (ISPHS) with type 2 diabetes who had a GP management plan (GPMP) in the past 2 years increased from 37% in 2012 to 40% in 2015. A similar pattern was seen for ISPHS clients with a team care arrangement (TCA): the proportion increased from 35% in 2012 to 37% in 2015.

Nationally, the proportion of all ISPHS clients in Australia with type 2 diabetes who had a GPMP in the past 2 years increased from 41% in 2012 to 51% in 2015. The proportion of ISPHS clients with a TCA) also increased, from 36% in 2012 to 48% in 2015 (Table 3.18.1, Figure 3.05.3).



Figure 3.05.1: People with diagnosed, current and long-term diabetes or high sugar levels who had an HbA1C test in the last 12 months, by Indigenous status, Victoria and Australia, 2012–13



Source: Table 3.05.13.

Figure 3.05.2: Actions taken by Indigenous Australians to manage diabetes or high sugar levels, Victoria and Australia, 2012–13



TCA in the last 2 years, Indigenous primary health-care services, Victoria and Tasmania combined, and Australia, December 2012 to May 2015

### 3.06 Access to hospital procedures

### Why it is important

This measure reports on the key hospital procedure differences between Indigenous and non-Indigenous Australians for hospitalisation with the same principal diagnosis. Studies have shown that, although Indigenous Australians are more likely to be hospitalised than non-Indigenous Australians, they are less likely to receive a medical or surgical procedure while in hospital. The disparities are not explained by diagnosis, age, sex or place of residence (ABS & AIHW 2008; Cunningham 2002). Research has shown that the most significant factors were: whether the hospital was public or private hospital, the number of principal and additional diagnoses, state/territory of usual residence, Indigenous status, age group, remoteness of usual residence, and sex (AHMAC 2017).

### Key findings

**Overall:** From July 2013 to June 2015 in Victoria, the age-standardised rate of hospitalisations where a procedure was recorded was 75% for Indigenous Australians, compared with 83% for non-Indigenous Australians. This was a rate difference of 9 percentage points.

Nationally, an age-standardised rate of 62% of hospitalisations for Indigenous Australians had a procedure recorded, compared with 81% for non-Indigenous Australians. This was a rate difference of 19 percentage points (Table 3.06.1, Figure 3.06.1).

**Procedures by age:** Nationally from July 2013 to June 2015, the rate of hospitalisations for Indigenous Australians where a procedure was reported increased with age, from 47% for ages 0–4, to 70% for ages 65 and over. For non-Indigenous Australians, proportions were higher at every age group, for example 54% for ages 0–4 and 86% for ages 65 and over (Table 3.06.4).

**Main diagnosis:** From July 2013 to June 2015 in Victoria, the age-standardised rate for hospitalisations where a procedure was recorded was highest for diseases of the eye for both Indigenous and non-Indigenous Australians (98% and 99%, respectively). These were followed by hospitalisations for congenital malfunctions (97% for Indigenous Australians and 96% for non-Indigenous Australians) and cancers (neoplasms), (96% compared with 97%).

Nationally, the age-standardised rate for hospitalisations where a procedure was recorded was highest for diseases of the eye for both Indigenous and non-Indigenous Australians (93% and 99% respectively). These were followed by hospitalisations for cancers (91% for Indigenous Australians and 96% for non-Indigenous Australians) and diseases of the blood (89% for Indigenous Australians and 94% for non-Indigenous Australians) (Table 3.06.2 Vic, Figure 3.06.2).

**Trend over time:** Nationally, the age-standardised rate of hospitalisations for Indigenous Australians where a procedure was reported increased by 13%, from 53% in 2004–05 to 63% in 2014–15. The difference between Indigenous and non-Indigenous Australians decreased by 29%, from 26% in 2004–05 to 17% in 2014–15 (Table 3.06.11).



Figure 3.06.1: Age-standardised proportion of hospitalisations with a procedure recorded, by Indigenous status, Victoria and Australia, July 2013 to June 2015



Figure 3.06.2: Age-standardised rate of hospitalisation with a procedure recorded, by principal diagnosis and Indigenous status, Victoria and Australia, July 2013 to June 2015

# 3.07 Selected potentially preventable hospital admissions

### Why it is important

This measure reports on the number of hospitalisations for potentially preventable conditions. Systematic differences in hospitalisation rates for Indigenous and non-Indigenous Australians could indicate gaps in the provision of population health interventions (such as vaccination), primary care services (for example, early interventions to detect and treat chronic disease) and continuing care support (for example, care planning for people with chronic illnesses, such as congestive heart failure) (AHMAC 2017).

### Key findings

**Overall:** In Victoria from July 2013 to June 2015, the age-standardised rate for potentially preventable hospitalisations for Indigenous Australians was 1.9 times the rate for non-Indigenous Australians (44 per 1,000 compared with 23 per 1,000). The rate for Indigenous males was 42 per 1,000, which was lower than the rate for Indigenous females (46 per 1,000). For non-Indigenous Australians, the rates for males and females were similar (23.1 and 23.3 per 1,000) (Table 3.07.2, Figure 3.07.1).

Nationally, the age-standardised rate for potentially preventable hospitalisations for Indigenous Australians was 3 times the rate for non-Indigenous Australians (69 per 1,000 compared with 23 per 1,000). The rate for Indigenous males was 66 per 1,000, which was lower than the rate for Indigenous females (73 per 1,000). For non-Indigenous Australians the rates for males and females were similar (23.7 and 23.4 per 1,000) (Table 3.07.1, Figure 3.07.1).

**Reason for hospitalisation:** From July 2013 and June 2015 in Victoria, the majority of age-standardised potentially preventable hospitalisations for Indigenous Australians were for chronic conditions (24 per 1,000), acute conditions (17 per 1,000) and vaccine-preventable conditions (4 per 1,000). Potentially preventable hospitalisations for non-Indigenous Australians in Victoria were lower, at 11 per 1,000 for both chronic and acute conditions, and 2 per 1,000 for vaccine-preventable conditions.

Nationally, from July 2013 to June 2015, the age-standardised rates for potentially preventable hospitalisations for Indigenous Australians were 34 per 1,000 for chronic conditions, 28 per 1,000 for acute conditions and 8 per 1,000 for vaccine-preventable conditions. For non-Indigenous Australians, the rates were 11 per 1,000 for both chronic and acute conditions, and 1 per 1,000 for vaccine-preventable conditions (Table 3.07.4 Vic, Figure 3.07.2).

**Age:** From July 2013 to June 2015, the rate of potentially preventable hospitalisations for Indigenous Australians in Victoria was highest for those aged 65 and over (128 per 1,000). For non-Indigenous Australians the rate was also highest in the 65 and over age group (79 per 1,000).

Nationally, from July 2013 to June 2015, the rate for Indigenous Australians was highest for those aged 65 and over (171 per 1,000). For non-Indigenous Australians, the rate was also highest for the 65 and over age group (78 per 1,000) (Table 3.07.1 Vic, Figure 3.07.3).


# Figure 3.07.1: Age-standardised hospitalisation rate for potentially preventable hospitalisations, by sex and Indigenous status, Victoria and Australia, July 2013 to June 2015



Source: Table 3.07.4 Vic.

# Figure 3.07.2: Age-standardised hospitalisation rate for potentially preventable hospitalisations, by Indigenous status, Victoria and Australia, July 2013 to June 2015



Figure 3.07.3: Age-specific hospitalisation rate for potentially preventable hospitalisations, by Indigenous status, Victoria and Australia, July 2013 to June 2015

## 3.08 Cultural competency

#### 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 Indigenous Australians' 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 can be measured directly (self-reporting on patient experience) or indirectly (for example, discharge against medical advice—see Measure 3.09—and employment of Indigenous health workers) (AHMAC 2017). However, there is limited data available on the cultural competence of health services (Paradies et al. 2014) or on effectiveness of interventions to address cultural competency in health care for Indigenous people (Clifford et al. 2015; Truong et al. 2014).

#### Key findings

**Overall:** In 2012–13 in Victoria, 37% of Indigenous Australians aged 2 and over were reported to have not seen a health provider when it was necessary. The dentist was the most common service not accessed when needed (23%), with cost the most common reason (38%). For Indigenous Australians of all ages, other services that were not accessed when needed included doctors (20%), other health professionals (14%) and hospitals (8%). For those aged 18 and over, 15% didn't access counsellors.

Nationally, 30% of Indigenous Australians aged 2 and over were reported to have not seen a health provider when it was necessary. The dentist was the most common service not accessed when needed (21%), with cost the most common reason (43%). For Indigenous Australians of all ages, other services not accessed when needed included doctors (14%), other health professionals (9%) and hospitals (6%). For those aged 18 and over, 9% didn't access counsellors (Table 3.08.4, Figure 3.08.1).

**Barriers:** In 2012–13, 31% of all Indigenous Australians in Victoria reported that they didn't access a health provider due to logistical reasons (including waiting time was too long or not available at time required, transport or distance, and service was not available in the area). Further, 43% of Indigenous Australians didn't access a health service for reasons relating to the cultural appropriateness of the service (discrimination or language problems, dislike of the service or professional; was embarrassed or afraid, felt the service would be inadequate, or didn't trust the service).

Nationally, 40% of all Indigenous Australians reported that they didn't access a health service for logistical reasons, and 32% for reasons relating to the cultural appropriateness of the service (Table 3.08.4, Figure 3.08.2).

**Patient experience:** In 2012–13, in non-remote areas in Victoria, Indigenous Australians aged 15 and over responded with 'always/usually' when asked how often doctors: spent enough time with the patient (86%); explained things in a way that could be understood (88%); listened (87%); and showed respect for what was said (89%).

Nationally in 2012–13 in non-remote areas, Indigenous Australians aged 15 and over responded with 'always/usually' to how often doctors: spent enough time with the patient (85%); explained things in a way that could be understood (87%); listened (89%); and showed respect for what was said (89%) (Table 3.08.7, Figure 3.08.3).



Source: Table 3.08.4.

# Figure 3.08.1: Proportion of Indigenous Australians who didn't 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 didn't access a health provider when needed who reported this was due to logistical reasons or cultural appropriateness of service, by health provider type, Victoria and Australia, 2012–13



and Australia, 2012–13

## 3.09 Discharge against medical advice

#### Why it is important

This measure reports on the rate at which Indigenous Australians leave hospital against medical advice or are discharged at their own risk. People who take their own leave from hospital are more likely to present again at emergency departments, and have higher death rates. The reasons for which Indigenous Australians take their own leave from hospital include: institutionalised racism, a lack of cultural safety, a distrust of the health system, family and social obligations, isolation and loneliness, a lack of understanding of the treatment they were receiving and feeling that the treatment had finished, and communication and language barriers between staff and patient (AHMAC 2017; Shaw 2016).

#### Key findings

**Overall:** From July 2013 to June 2015 in Victoria, the proportion of hospitalisations of Indigenous Australians where patients left against medical advice or were discharged at their own risk was 2.5%. The age-standardised rate where Indigenous patients left against medical advice, or were discharged at their own risk was at 5.9 times the rate of non-Indigenous patients (2.1% compared with 0.3%).

Nationally, the proportion of hospitalisations of Indigenous Australians where patients left against medical advice or were discharged at their own risk was 4.3%. The age-standardised rate where Indigenous patients left against medical advice, or were discharged at their own risk, was 7.1 times the rate for non-Indigenous patients (3.4% compared with 0.5%) (Table 3.09.3, Figure 3.09.1).

**Age groups:** From July 2013 to June 2015 in Victoria, higher proportions of Indigenous Australians than non-Indigenous Australians (in all age groups) left hospital against medical advice or were discharged at their own risk. Indigenous Australians aged 35–44 had the highest proportion of hospitalisations where patients left hospital against medical advice or were discharged at their own risk (4.5%). For non-Indigenous Australians the highest proportion was for those aged 15–24 (0.7%).

Nationally, higher proportions of Indigenous Australians than non-Indigenous Australians (in all age groups) left hospital against medical advice or were discharged at their own risk. Indigenous Australians aged 35–44 had the highest proportion of hospitalisations where patients left hospital against medical advice or were discharged at their own risk (8.1%). For non-Indigenous Australians, the highest proportion was for those aged 15–24 (1.0%) (Table 3.09.1 Vic, Figure 3.09.2).

**Principal diagnosis:** For Indigenous patients in Victoria from July 2013 to June 2015, the highest age-standardised rate of hospitalisations where patients left hospital against medical advice or was discharged at their own risk was endocrine, nutritional and metabolic disorders (for example, type 2 diabetes) (5.5%), and diseases of the skin (for example, sunburn) (4.1%).

Nationally, the highest age-standardised rate of hospitalisations where Indigenous patients left hospital or were discharged at their own risk was for endocrine, nutritional and metabolic disorders (6.4%), and diseases of the skin (5.6%) (Table 3.09.7 Vic, Figure 3.09.3).



Source: Table 3.09.3.

Figure 3.09.1: Age-standardised rate of hospitalisation where the patient left against medical advice or was discharged at own risk, by Indigenous status, Victoria and Australia, 2013–14 to 2014–15



Source: Table 3.09.1 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, July 2013 to June 2015



Figure 3.09.3: Age-standardised rate of hospitalisations for Indigenous Australians, where patients left against medical advice or were discharged at own risk, by principal diagnosis, Victoria and Australia, July 2013 to June 2015

## 3.10 Access to mental health services

#### Why it is important

This measure 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. Indigenous Australians experience higher rates of mental health issues than other Australians, with deaths from suicide twice as high, hospitalisation rates for intentional self-harm 2.7 times as high, and rates of high/very high psychological distress 2.6 times as high as for other Australians (AHMAC 2017). 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 2017).

#### Key findings

**Community service contacts:** In 2014–15 in Victoria, community mental health services reported 39,606 service contacts for Indigenous clients. The age-standardised rate for Indigenous clients was 3.1 times the rate for non-Indigenous clients (865 per 1,000 compared with 283 per 1,000).

Nationally in 2014–15, the age-standardised rate for community mental health services contacts for Indigenous clients was 1,155 per 1,000, which was 3.5 times the rate for non-Indigenous clients (326 per 1,000) (Table 3.10.4, Figure 3.10.1).

**Residential mental health-care episodes:** In 2014–15 in Victoria, there were 103 residential mental health-care episodes reported for Indigenous clients. The age-standardised rate of residential mental health-care episodes for Indigenous Australians was 3.4 times the rate for non-Indigenous Australians (24 per 10,000 compared with 6.8 per 10,000).

Nationally in 2014–15, the age-standardised rate for residential mental health-care episodes for Indigenous Australians was 6.2 per 10,000. For non-Indigenous Australians the rate was 3.2 per 10,000 (Table 3.10.5, Figure 3.10.2).

**Psychiatric hospital beds:** In 2013–14 in Victoria, the rate of available psychiatric beds in public psychiatric hospitals was 2.7 per 100,000, which was lower than the national rate.

Nationally in 2013–14, the rate of available psychiatric beds in public psychiatric hospitals was 7.6 per 100,000 (Table 3.10.10).

**Trend over time:** In Victoria, the age-standardised hospitalisation rate for mental health-related conditions for Indigenous Australians increased by 22%, from 19 per 1,000 in 2004–05 to 24 per 1,000 in 2014–15. Conversely, the hospitalisation rate for non-Indigenous Australians in Victoria decreased by 24%, from 18 per 1,000 in 2004–05 to 16 per 1,000 in 2014–15.

For NSW, Vic, Qld, WA, SA, and the NT combined, the age-standardised hospitalisation rate for mental health related conditions increased by 46% for Indigenous Australians, from 21 per 1,000 in 2004–05 to 29 per 1,000 in 2014–15. The rate for non-Indigenous Australians increased by 6%, from 15 per 1,000 in 2004–05 to 16 per 1,000 in 2014–15 (Table 3.10.9 Vic, Figure 3.10.3).



Source: Table 3.10.4.

# Figure 3.10.1: Age-standardised rate of community mental health service contacts, by Indigenous status, Victoria and Australia, 2014–15



Source: Table 3.10.5.

# Figure 3.10.2: Age-standardised rate of residential mental health-care episodes, by Indigenous status, Victoria and Australia, 2014–15



Figure 3.10.3: Age-standardised hospitalisation rate, mental health-related conditions, Victoria and NSW, Vic, Qld, WA, SA and NT combined, 2004–05 to 2014–15

## 3.11 Access to alcohol and drug services

#### Why it is important

This measure reports on access to alcohol and drug services. Alcohol and substance misuse causes a wide range of harms including: mental health issues, chronic disease (for example, liver disease), bloodborne virus spread, injuries from motor vehicle accidents and assaults, incarceration, and social disruptions including family breakdown. Alcohol and substance-use services provide various interventions and support that seek to tackle harmful alcohol and other drug use, and restore the physical, social and emotional wellbeing of clients and families (NIDAC 2014).

#### Key findings

**Substance use:** In 2014–15 in Victoria, 40% of Indigenous Australians reported using substances in the last 12 months. Substance abuse was more prevalent for Indigenous males than females (51% compared with 31%).

Nationally, an estimated 31% of Indigenous Australians reported using substances in the last 12 months. The proportion was higher for Indigenous males than females (34% compared with 27%) (Table 2.17.3, Figure 3.11.1).

**Pharmacotherapy:** In NSW, Qld, SA and the ACT combined, 3,129 Indigenous Australians were receiving pharmacotherapy in 2015, an increase from 1,662 in 2006. There was also an increase for non-Indigenous Australians receiving pharmacotherapy, from 16,354 in 2006 to 24,190 in 2015 (Table 3.11.4). Note that for 2006, Indigenous data was not available for South Australia and for 2016, data had not yet been published for the Australian Capital Territory.

**Primary health-care services:** Between June 2014 and May 2015 in Victoria, 57% of Aboriginal and Torres Strait Islander primary health-care organisations provided alcohol use treatment or prevention groups and 57% provided tobacco use treatment or prevention groups.

Nationally, 40% of Aboriginal and Torres Strait Islander primary health-care organisations provided alcohol use treatment or prevention groups and 56% provided tobacco use treatment or prevention groups (Table 3.03.10, Figure 3.11.2).

**Hospitalisations:** In Victoria, from July 2013 to June 2015, the age-standardised rate of Indigenous Australians who were hospitalised for reasons relating to alcohol use was 1.8 times the rate for non-Indigenous Australians (3.8 compared with 2.1 per 1,000). The rate was higher for Indigenous males (4.8 per 1,000) than for females (2.8 per 1,000). The rate was also higher for non-Indigenous males (2.3 per 1,000) than for non-Indigenous females (1.9 per 1,000).

Nationally, the age-standardised rate for Indigenous Australians who were hospitalised for reasons relating to alcohol use was 3.9 times the rate for non-Indigenous Australians (9 per 1,000 compared with 2.3 per 1,000). The rate was higher for Indigenous males (11 per 1,000) than for Indigenous females (7.2 per 1,000). It was also higher for non-Indigenous males (2.6 per 1,000) than for females (2.0 per 1,000) (Table 2.16.15, Figure 3.11.3).



# Figure 3.11.1: Indigenous persons aged 15 and over reporting substance use in the last 12 months, by sex, Victoria and Australia, 2014–15



Figure 3.11.2: Proportion of Aboriginal and Torres Strait Islander primary health-care organisations providing health promotion, by type of program/activity, Victoria and Australia, 1 June 2014 to 31 May 2015



Figure 3.11.3: Hospitalisations related to alcohol use, by sex and Indigenous status, Victoria and Australia, July 2013 to June 2015

# 3.12 Aboriginal and Torres Strait Islander people in the health workforce

#### Why it is important

This measure reports on Indigenous Australians employed in the health workforce. Indigenous Australians are significantly under-represented in the health workforce, which potentially contributes to reduced access to health services for the broader Indigenous Australian population. The Indigenous workforce is integral to ensuring that the health system can address the needs of Indigenous Australians. Indigenous health professionals can align their unique technical and sociocultural skills to improve patient care, improve access to services and ensure culturally appropriate care in the services that they and their non-Indigenous colleagues deliver (Anderson et al. 2009; West et al. 2010).

#### Key findings

**Overall:** Based on data from 2014 and 2015, in Victoria, there were 635 Indigenous Australians employed in registered health professions, compared with 133,870 non-Indigenous Australians. The rate of Indigenous Australians employed in registered health professions was 1,214 per 100,000, compared with 2,274 per 100,000 for non-Indigenous Australians.

Nationally, of those who identified as being Indigenous, there were 4,471 Indigenous Australians employed in registered health professions, compared with 502,667 non-Indigenous Australians. The rate for Indigenous Australians employed in registered health professions was 613 per 100,000, compared with 2,181 per 100,000 for non-Indigenous Australians (Table 3.12.4, Figure 3.12.1).

**Medical practitioners:** In Victoria in 2015, there were 73 Indigenous Australians employed as medical practitioners, which was 0.4% of employed medical practitioners in Victoria (Table 3.12.6). The rates for Indigenous and non-Indigenous Australians employed as medical practitioners were 140 and 342 per 100,000, respectively: a difference of 203 per 100,000 (Table 3.12.4, Figure 3.12.2).

Nationally, there were 409 Indigenous Australians employed as medical practitioners, which was 0.5% of the employed medical practitioners in Australia (Table 3.12.6). The rates for Indigenous and non-Indigenous Australians employed as medical practitioners were 56 and 353 per 100,000, respectively: a difference of 297 per 100,000 (Table 3.12.4, Figure 3.12.2).

**Nurses and midwives:** In 2015 in Victoria, 444 Indigenous Australians were employed as nurses and midwives, which was 0.5% of employed nurses and midwives in Victoria (Table 3.12.9). The rate difference between Indigenous and non-Indigenous Australians employed as nurses and midwives was 535 per 100,000 (849 per 100,000 for Indigenous Australians and 1,384 per 100,000 for non-Indigenous Australians) (Table 3.12.4, Figure 3.12.3).

Nationally, 3,187 Indigenous Australians were employed as nurses and midwives, which was 1.1% of employed nurses and midwives in Australia (Table 3.12.9). The rate difference between Indigenous and non-Indigenous Australians employed as nurses and midwives was 858 per 100,000 (437 per 100,000 for Indigenous Australians and 1,295 per 100,000 for non-Indigenous Australians) (Table 3.12.4, Figure 3.12.3).



Note: Medical practitioners and nurses/midwives data are from 2015 and other types of health professions are from 2014.

Source: Table 3.12.4.





Source: Table 3.12.4.





#### Figure 3.12.3: Rate of employed nurses and midwives, by Indigenous status, Victoria and Australia, 2015

## 3.13 Competent governance

#### Why it is important

This measure reports on governance in Indigenous-specific and mainstream health services. Governance refers to the evolving processes, relationships, institutions and structures by which a group of people, community or society organise themselves collectively to achieve things that matter to them (Hunt et al. 2008). The way governance functions are done has a direct impact on the wellbeing of individuals and communities (AHMAC 2017).

#### Key findings

**Indigenous primary health-care organisations:** From 1 June 2014 to 31 May 2015 in Victoria, there were 22 Indigenous primary health-care organisations with a governing committee or board. For all of the organisations, the frequency of meetings met the requirement of the constitution, and all had income and expenditure statements presented on at least 2 occasions. For 16 of the organisations (73%), all of the members were Indigenous Australians, and 17 (77%) received training on governing committee or board functions. (Table 3.13.3 Vic, Figure 3.13.1).

Nationally, of the 203 Indigenous primary health-care organisations, 163 (80%) reported having a governing committee or board. Of these, 159 (98%) had met the requirement of the constitution for the frequency of meetings, and 159 (98%) had income and expenditure statements presented on at least 2 occasions. Almost three-quarters (120 or 74%) of the members were Indigenous Australians and 128 (79%) received training on governing committee or board functions (Table 3.13.3, Figure 3.13.1).

**Indigenous substance-use services:** From 1 June 2014 to 31 May 2015 in Victoria, there were 4 substance-use services with a governing committee or board. All of them met the requirement of the constitution for the frequency of meetings and all had income and expenditure statements presented on at least 2 occasions. For 2 of the committees (50%), all of the members were Indigenous Australians, and 3 (75%) received training on governing committee or board functions (Table 3.13.4 Vic, Figure 3.13.2).

Nationally, of 67 Indigenous substance-use services, 65 reported have a governing committee or board. Of these, 64 (99%) had met the requirement of the constitution for the frequency of meetings, and all had income and expenditure statements presented on at least 2 occasions. Over half (36 or 55%) of the committees or boards were entirely comprised of Indigenous Australian members and 53 (82%) received training on governing committee or board functions (Table 3.13.4, Figure 3.13.2).

**Mainstream processes participation:** From 1 June 2014 to 31 May 2015 in Victoria, there were 23 Indigenous health services. Of these, 15 (65%) had representatives on external boards (for example, hospitals), and 21 (91%) participated in regional health planning processes (Table 3.13.5 Vic, Figure 3.13.3).

Nationally, of the 203 Indigenous health services, 128 (63%) had representatives on external boards (for example, hospitals) and 175 (86%) participated in regional health planning processes (Table 3.13.5, Figure 3.13.3).







Figure 3.13.2: Aboriginal and Torres Strait Islander substance-use services, governing committee or board information, Victoria and Australia, 1 June 2014 to 31 May 2015



participating in mainstream processes, Victoria and Australia, 1 June 2014 to 31 May 2015

### 3.14 Access to services compared with need

#### 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 have significantly poorer health status than non-Indigenous Australians. Inequalities in health-care access and use may further exacerbate inequalities in health status (OECD 2009). As a result, access to health care when needed is essential to closing the gap in life expectancy.

#### Key findings

**Self-reported use of services:** In 2012–13 in Victoria, 49% of Indigenous Australians were reported to have accessed health care in the previous 2 weeks. In this period, 27% had consulted a doctor or specialist; 5% had visited casualty or outpatient services; and 5% (of those aged over 2) had seen a dentist. In the previous 12 months, 20% had been admitted to hospital.

Nationally, 44% of Indigenous Australians were reported to have accessed health care in the previous 2 weeks. In this period, 22% had consulted a doctor or specialist, 5% had visited casualty or outpatient services, and 5% (of those aged over 2) had seen a dentist. In the previous 12 months, 18% had been admitted to hospital (Table 3.14.3, Figure 3.14.1).

**Services claimed through Medicare:** In 2015–16 in Victoria, the rate of claimed MBS services for Indigenous Australians was 13,172 per 1,000 (Table 3.14.30). The age-standardised rate of claims for Indigenous was 1.1 times the rate for non-Indigenous Australians (16,319 and 15,394 per 1,000, respectively) (Table 3.14.31, Figure 3.14.2).

Nationally in 2015–16, the rate of claimed MBS services for Indigenous Australians was 11,787 per 1,000 (Table 3.14.30). The age-standardised rate of claims were 14,622 per 1,000 for Indigenous Australians and 15,063 per 1,000 for non-Indigenous Australians (Table 3.14.31, Figure 3.14.2).

**Hospitalisation for palliative care:** In 2013–2014 to 2014–2015 in Victoria, the age-standardised rate of hospitalisation for palliative care for Indigenous Australians was 1.7 per 1,000. This was 1.4 times the rate for non-Indigenous Australians (1.2 per 1,000). For both Indigenous and non-Indigenous Australians, the rate for males was higher than the rate for females.

Nationally, the age-standardised rate of hospitalisation for palliative care for Indigenous Australians was 2.7 per 1,000. This was 1.9 times the rate for non-Indigenous Australians (1.5 per 1,000) (Table 3.14.48, Figure 3.14.3). For both Indigenous and non-Indigenous Australians, the rate for males was higher than the rate for females.

**Elective surgery:** From July 2013 to June 2015 in Victoria, 3.1% of Indigenous elective surgery patients had a waiting time of more than 1 year, compared with 2.8% for non-Indigenous patients.

Nationally (excluding the Australian Capital Territory because data was not available at time of reporting), 2.5% of Indigenous elective surgery patients had a waiting time of more than 1 year, compared with 2% of non-Indigenous patients (Table 3.14.51).







Figure 3.14.2: Age-standardised rate of total MBS services claimed, by Indigenous status, Victoria and Australia, 2015–16



## 3.15 Access to prescription medicines

#### Why it is important

This measure reports on expenditure on pharmaceuticals, the Pharmaceutical Benefits Scheme (PBS) and reasons Indigenous Australians might not access prescription medicines. Essential medicines save lives and improve health when they are available, affordable and quality-assured, and properly used. Affordable access to medicines is important for many acute and chronic illnesses. For chronic illnesses, such as diabetes, hypertension, heart disease and renal failure, multiple medications might be required for many years to avoid complications (WHO 2004). It is important to ensure that Indigenous Australians, who experience high rates of acute and chronic illnesses, are able to access appropriate prescription medications when required (AHMAC 2017).

#### Key findings

**Expenditure per person:** Nationally in 2013–14, total expenditure (government and non-government) on pharmaceuticals per person for Indigenous Australians was two-thirds of the amount spent per person for non-Indigenous Australians (\$579 compared with \$857) (Table 3.15.1).

**Pharmaceutical Benefits Scheme:** Nationally in 2013–14, expenditure by the Australian Department of Health through the PBS was \$195 per person for Indigenous Australians. This was less than the PBS expenditure per person for non-Indigenous Australians (\$374). Drugs supplied under Section 100 arrangements (this allows for PBS medicines to be provided to remote area Aboriginal and Torres Strait Islander primary health-care services) accounted for \$48 per person of the total PBS expenditure for Indigenous Australians (Table 3.15.2).

Access to prescription medicines: In Victoria in 2012–13, 21% of Indigenous Australians aged 15 and over in *Non-remote* areas reported they had a prescription that did not get filled in the last 12 months. The most common reasons reported by Indigenous Australians for not having a prescription filled were: they decided they didn't need it (41%); cost (32%); transport issues, lost the prescription or other (17%); didn't want to (15%); and too busy (11%).

Nationally, 19% of Indigenous Australians aged 15 and over in *Non-remote* areas reported they had a prescription that did not get filled in the last 12 months (Table 3.15.5, Figure 3.15.1). The most common reasons reported by Indigenous Australians for not having a prescription filled were: they decided they didn't need it (35%); cost (34%); transport issues, lost the prescription or other (19%); didn't want to (14%); and too busy (11%) (Table 3.15.5, Figure 3.15.2).

**Trend over time:** Nationally, from 2010–11 to 2014–15, Australian Government expenditure on mainstream PBS and the Repatriation Schedule of Pharmaceutical Benefits (RPBS) for Indigenous Australians increased by 11.7%, from \$106 to \$119 per person. For non-Indigenous Australians, expenditure decreased by 10.8% from \$362 to \$323 per person. Note, state and territory governments do not provide funds for the PBS or RPBS (Table 3.15.4, Figure 3.15.3).



Source: Table 3.15.5.





Source: Table 3.15.5.

Figure 3.15.2: Reasons for not filling prescriptions, Indigenous Australians aged 15 and over in *Non-remote* areas, Victoria and Australia, 2012–13



by Indigenous status, 2010–11 to 2014–15

## 3.16 Access to after-hours primary health care

#### Why it is important

This measure reports on access to after-hours primary health care. 'After hours' refers to services provided on Sundays, before 8 am and/or after 12 pm on a Saturday, or at any time other than 8 am to 6 pm on weekdays. An important component of comprehensive primary health-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 might delay seeking care (AHMAC 2017).

#### Key findings

**After hours GP:** In 2012–13 in Victoria, 10% of all Indigenous Australians living in *Non-remote* areas reported accessing a doctor for medical care outside normal business hours in the previous 12 months.

Nationally, 9% of Indigenous Australians living in *Non-remote* areas reported accessing a doctor outside normal business hours in the previous 12 months (Table 3.16.1, Figure 3.16.1).

**Medicare:** The rate for MBS services claimed by Indigenous Australians in Victoria for after-hours care items in 2015–16 in Victoria was 570 per 1,000. The age-standardised rate for Indigenous Australians was 0.9 times the rate for non-Indigenous Australians (551 compared with 607 per 1,000) (Table 3.16.3, Figure 3.16.2).

Nationally, the rate for MBS services claimed by Indigenous Australians for after-hours care items was 400 per 1,000. The age-standardised rate for Indigenous Australians was 0.8 times the rate for non-Indigenous Australians (390 compared with 474 per 1,000) (Table 3.16.3, Figure 3.16.2).

**Emergency department presentations (overall):** From 2014–15 to 2015–16 in Victoria, 59% of emergency department presentations for Indigenous patients occurred after hours. This proportion was similar for non-Indigenous patients (57%).

Nationally, 59% of emergency department presentations for Indigenous patients occurred after hours. This proportion was similar for non-Indigenous patients (56%) (Table 3.16.10, Figure 3.16.3).

**Emergency department presentations (semi-urgent or non-urgent):** From 2014–15 to 2015–16 in Victoria, 55% of emergency department presentations for Indigenous patients that occurred after-hours were classified as semi-urgent or non-urgent (triage categories 4 and 5). This was similar to the proportion for non-Indigenous patients for after-hours emergency department episodes of care (52%).

Nationally, 55% of emergency department presentations for Indigenous patients that occurred after-hours were classified as semi-urgent or non-urgent (triage categories 4 and 5). This was slightly higher than the proportion for non-Indigenous patients for after-hours emergency department episodes of care (50%) (Table 3.16.11).







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, 2015–16



Figure 3.16.3: Proportion of emergency department presentations that were after hours, by Indigenous status of the patient, Victoria and Australia, 2014–15 to 2015–16

## 3.17 Regular GP or health service

#### Why it is important

This measure reports on people 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 & Shi 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 & Starfield 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, particularly for people with complex health-care needs (Hollander et al. 2009).

#### **Key findings**

**Overall:** In 2012–13 in Victoria, 88% of Indigenous Australians (all ages) reported they had a usual place to go for health problems and advice.

Nationally, 86% of Indigenous Australians reported they had a usual place to go for health problems and advice (Table 3.17.1).

**Regular health-care:** In 2012–13 in Victoria, Indigenous Australians reported that they usually went to a doctor or GP if they had a problem with their health (66%), followed by an Aboriginal Medical Service (AMS) (16%) and a community clinic (4%).

Nationally, 54% of Indigenous Australians reported they usually went to a doctor or GP, 17% went to an AMS, 10% went to a community clinic and 5% went to hospital (Table 3.17.1, Figure 3.17.1).

**Health care available in local area:** In 2012–13 in Victoria, 95% of Indigenous Australians reported that a doctor or GP was locally available, 77% had a hospital available, and 48% had an AMS available.

Nationally, 83% of Indigenous Australians reported that a doctor or GP was locally available, 71% had a hospitals available, and 48% had an AMS available (Table 3.17.1, Figure 3.17.2).

**Preferred health care:** In 2012–13 in Victoria, 64% of Indigenous Australians reported that they preferred to go to a doctor or GP for health problems or advice, followed by an AMS (24%) and hospital (6%).

Nationally, 53% of Indigenous Australians reported they preferred to go to a doctor or GP for health problems or advice, followed by an AMS (26%) and hospital (10%) (Table 3.17.1, Figure 3.17.3).









## 3.18 Care planning for chronic diseases

#### Why it is important

This measure reports on care planning for the management of chronic disease. Chronic diseases are major causes of illness, disability and death among Indigenous Australians. An estimated 70% of the health gap between Indigenous and non-Indigenous Australians is attributed to chronic diseases (AIHW 2016b). Effective management of chronic diseases can delay the progression of disease, reduce the need for high-cost interventions, improve quality of life and increase life expectancy. Good quality care for people with chronic diseases generally involves multiple health-care providers across multiple settings. As a result, care plans are one way the client and primary health-care provider can ensure appropriate care is arranged and coordinated. GPs are encouraged to develop care plans through several items under the Medicare Benefits Schedule, including a GP Management Plan (GPMP) and a Team Care Arrangement (TCA) (AHMAC 2017).

#### Key findings

**GP Management Plan:** In May 2015 in Victoria and Tasmania combined, 40% of Indigenous clients of Indigenous primary health-care services with type 2 diabetes claimed a GPMP in the last 2 years.

Nationally, 51% of Indigenous clients of Indigenous primary health-care services with type 2 diabetes claimed a GPMP in the last 2 years (Table 3.18.1, Figure 3.18.1).

**Team Care Arrangement:** In May 2015 in Victoria and Tasmania combined, 37% of Indigenous clients of Indigenous primary health-care services with type 2 diabetes claimed a TCA in the last 2 years.

Nationally, 48% of Indigenous clients of Indigenous primary health-care services with type 2 diabetes claimed a TCA in the last 2 years (Table 3.18.1, Figure 3.18.1).

**Trend over time (GPMP):** In Victoria and Tasmania combined, the proportion of Indigenous clients of Indigenous primary health-care services with type 2 diabetes that claimed a GPMP increased from 37% in December 2012 to 40% in May 2015.

Nationally, the proportion of Indigenous clients of Indigenous primary health-care services with type 2 diabetes that claimed a GPMP increased from 41% in December 2012 to 51% in May 2015 (Table 3.18.1, Figure 3.18.2).

**Trend over time (TCAs):** In Victoria and Tasmania combined, the proportion of Indigenous clients of Indigenous primary health-care services with type 2 diabetes that had a TCA increased from 35% in December 2012 to 37% in May 2015.

Nationally, the proportion of Indigenous clients of Indigenous primary health-care services with type 2 diabetes that had a TCA increased from 36% in December 2012 to 48% in May 2015 (Table 3.18.1, Figure 3.18.3).



Figure 3.18.1: Proportion of Indigenous regular clients with type 2 diabetes that had a GPMP or TCA in the last 2 years, Indigenous primary health-care services, Victoria and Tasmania combined and Australia, May 2015



Figure 3.18.2: Proportion of Indigenous regular clients with type 2 diabetes that had a GPMP in the last 2 years, Indigenous primary health-care services, Victoria and Tasmania combined and Australia, December 2012 to May 2015



Tasmania combined and Australia, December 2012 to May 2015

## 3.19 Accreditation

#### Why it is important

This measure reports on the proportion of accredited public hospitals and accredited general medical practices. 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 consider 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 2017). Public and private hospitals are accredited against the National Safety and Quality Health Service Standards. Accreditation in general practice involves assessment against standards set by the Royal Australian College of General Practitioners. There are 2 registered general practice accreditation providers: Australian General Practice Accreditation Limited (AGPAL) and General Practice Accreditation Plus (GPA+) (AHMAC 2017).

#### **Key findings**

**Hospitals:** In 2014–2015 in Victoria, there were 21,887 hospitalisations in public hospitals for Indigenous Australians. Of these, 91% occurred in the 137 accredited hospitals. For non-Indigenous Australians, there were 1,551,182 hospitalisations and 94% of these occurred in accredited hospitals.

Nationally there were 400,068 hospitalisations in public hospitals for Indigenous Australians. Of these, 92% occurred in the 647 accredited hospitals. For non-Indigenous Australians, there were 5,528,913 hospitalisations and 93% occurred in accredited hospitals (tables 3.19.3, 3.19.7, Figure 3.19.1).

**General practices (overall):** In 2014–15 in Victoria, there were 1,431 general practices registered for accreditation through AGPAL or GPA+. Of these, 93% had been accredited.

Nationally there were 5,879 general practices registered for accreditation through AGPAL or GPA+. Of these, 92% had been accredited (Table 3.19.5, Figure 3.19.2).

**General practices (Primary Health Network):** In 2014–15 in Victoria, the proportion of general practices registered within a Primary Health Network (PHN) with GPA+ or AGPAL that were fully accredited by the respective organisation ranged from 90% (344 practices) in North Western Melbourne to 95% (312 practices) in Eastern Melbourne (Table 3.19.8).

**General practices (proportion of the population that is Indigenous within a PHN):** In 2014–15 in Victoria, the proportion of practices that were accredited varied from 92% for practices in PHNs where Indigenous Australians make up less than 1% of the population, to 94% in PHNs where 2 to less than 3% of the population is Indigenous (Table 3.19.5 Vic, Figure 3.19.3).

Nationally, the proportion of practices that were accredited ranged from 91% for practices in PHNs where Indigenous Australians make up between 2 and 3% of the population, to 95% in PHNs where 10% or more of the population is Indigenous (Table 3.19.5, Figure 3.19.3).



Sources: Tables 3.19.1, 3.19.3.





Sources: Tables 3.19.5, 3.19.5 Vic.





Figure 3.19.3: Proportion of general practices registered for accreditation through AGPAL or GPA+ that had been accredited, by percentage of the population that is Indigenous, Victoria and Australia, 2014–2015

# 3.20 Aboriginal and Torres Strait Islander peoples training for health-related disciplines

#### Why it is important

This measure reports on the proportion of Indigenous Australians in tertiary education for health-related disciplines. Indigenous Australians are significantly under-represented in the health workforce. 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 2017).

#### **Key findings**

**Tertiary education completion:** In 2015 in Victoria, there were 22 undergraduate domestic health-related courses completions for Indigenous students. This represents a rate of 6.4 per 10,000 for Indigenous Australians aged 15 and over. This was 0.7 times the rate for non-Indigenous Australians (8.7 per 10,000).

Nationally, there were 270 undergraduate domestic health-related courses completions for Indigenous students. This represents a rate of 5.6 per 10,000 for Indigenous Australians aged 15 and over. This was 0.5 times the rate for non-Indigenous Australians (10.5 per 10,000) (Table 3.20.27, Figure 3.20.1).

**Vocational education and training enrolment:** In 2015 in Victoria, 412 Vocational education and training (VET) students aged 15 and over enrolled in health-related courses were Indigenous. This represents 1.4% of total VET students aged 15 and over enrolled in health-related courses.

Nationally, 3,021 VET students aged 15 and over enrolled in health-related courses were Indigenous. This represents 4.7% of total VET students enrolled in health-related courses (Table 3.20.12, Figure 3.20.2).

**Vocational education and training completion:** In 2015 in Victoria, 68 VET students aged 15 and over who completed health-related courses were Indigenous. This represents 0.8% of total completions.

Nationally, 799 VET students aged 15 and over who completed health-related courses were Indigenous. This represents 3.8% of total completions (Table 3.20.36).

**Vocational education and training load pass rate:** In 2015 in Victoria, for VET students aged 15 and over in health-related courses, the load pass rate was 58% for Indigenous students and 83% for non-Indigenous students.

Nationally, the load pass rate for VET students aged 15 and over in health-related courses was 78% for Indigenous students and 84% for non-Indigenous students (Table 3.20.15, Figure 3.20.3).







Source: Table 3.20.12.

Figure 3.20.2: Proportion of Indigenous vocational education and training (VET) students aged 15 and over enrolled in health-related courses, Victoria and Australia, 2015



Figure 3.20.3: Vocational education and training (VET) load pass rate in health-related courses, for students aged 15 and over, by Indigenous status, Victoria and Australia, 2015

# 3.21 Expenditure on Aboriginal and Torres Strait Islander health compared to need

#### Why it is important

This measure reports on health-related expenditure. A basic principle of equity is that health expenditure should reflect the relative needs for health services (Braveman & Gruskin 2003; 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 2017).

#### Key findings

**Overall:** In 2013–14 in Victoria, the state government health expenditure per person for Indigenous Australians was \$4,473. This was 2.1 times the health expenditure per person for non-Indigenous Australians (\$2,145).

Nationally, the average state or territory government health expenditure per person for Indigenous Australians was \$4,890. This was twice the health expenditure per person for non-Indigenous Australians (\$2,425) (Table 3.21.3, Figure 3.21.1).

**Public hospital services:** In 2013–14 in Victoria, health expenditure per person on public hospital services was 2.2 times higher for Indigenous Australians than for non-Indigenous Australians (\$4,049 compared with \$1,815).

Nationally, health expenditure per person on public hospital services was 2.1 times as high for Indigenous Australians as for non-Indigenous Australians (\$3,959 compared with \$1,868) (Table 3.21.3, Figure 3.21.2).

**Community health services:** In 2013–14 in Victoria, health expenditure per person on community health services was \$107 for both Indigenous and non-Indigenous Australians.

Nationally, health expenditure per person on community health services for Indigenous Australians was 1.3 times the rate for non-Indigenous Australians (\$372 compared with \$284) (Table 3.21.3).

**Patient transport services:** In 2013–14 in Victoria, health expenditure per person on patient transport services for Indigenous Australians was 1.9 times the rate for non-Indigenous Australians (\$215 compared with \$116).

Nationally, expenditure per person on patient transport services was 2.2 times as high for Indigenous as for non-Indigenous Australians (\$255 compared with \$115) (Table 3.21.3).

**Public health services:** Public health services are provided or funded by governments, and are aimed at protecting and promoting the health, and preventing illness or injury in the whole population or specific population subgroups. In 2013–14 in Victoria, health expenditure per person on public health services for Indigenous Australians was 0.9 times the rate for non-Indigenous Australians (\$60 compared with \$64).

Nationally in 2013–14, health expenditure per person on public health services for Indigenous Australians was 1.7 times the rate for non-Indigenous Australians (\$121 compared with \$71) (Table 3.21.3, Figure 3.21.3).



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, 2013–14



Source: Table 3.21.3.

# Figure 3.21.2: Public hospital services expenditure per person for Indigenous and non-Indigenous Australians, Victoria and Australia, 2013–14



## 3.22 Recruitment and retention of staff

#### Why it is important

This measure reports on the recruitment and retention of qualified clinical and management staff to provide effective health care. 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 regional, rural and remote areas because 65% of Indigenous Australians live outside the major cities (AHMAC 2017). Aboriginal Community Controlled Health Organisations (ACCHO) are non-government organisations operated by local Aboriginal and Torres Strait Islander communities to deliver health care to communities that control them (NACCHO 2015). There are more ACCHOs than any other type of health service organisations in all remoteness areas, making them an ideal indicator for the scope of health-care services for Indigenous Australians (AIHW 2016e).

#### Key findings

**Medical practitioners:** In 2015 in Victoria, there were 23,675 medical practitioners (which includes general practitioners, specialists, hospital non-specialists, specialists in training and non-clinicians). Of these, 93% were employed in medicine.

Nationally in 2015, there were 97,466 medical practitioners registered. Of these, 90% were employed in medicine (Table 3.22.1, Figure 3.22.1).

**Nurses and midwives:** In 2015 in Victoria, there were 95,042 nurses and midwives. Of these, 93% were employed in nursing or midwifery.

Nationally in 2015, there were 360,008 nurses or midwives. Of these, 93% were employed in nursing or midwifery (Table 3.22.10, Figure 3.22.1).

**General practitioners employed in Indigenous specific health services (ISHP):** In Victoria, between June 2014 and May 2015, there were 1.0 full-time equivalent (FTE) general practitioners per 1,000 clients in the ACCHOs. For other ISHPs, there were less than 1.0 FTE general practitioners per 1,000 clients.

Nationally between June 2014 and May 2015, there were 1.3 FTE general practitioners per 1,000 clients in the ACCHOs. For other ISHPs, there were 0.8 FTE general practitioners per 1,000 clients (AIHW 2016e, Figure 3.22.2).

**Vacant full-time medical positions in ISHPs:** In Victoria, between June 2014 and May 2015 there were 0.4 vacant full-time positions per 1,000 clients in the ACCHOs. For other ISHPs, there were 2.4 vacant full-time positions per 1,000 clients.

Nationally, between June 2014 and May 2015, there were 0.6 vacant full-time positions (including visiting staff) per 1,000 clients in the ACCHOs. For other ISHPs, there were 0.9 vacant full-time positions per 1,000 clients (AIHW 2016e, Figure 3.22.3).







Source: AIHW 2016e.





organisation, Victoria and Australia, June 2014 to May 2015

# **Appendix A: Data sources**

The data in this report are drawn from the national data collections and surveys. Table A1 shows all data sources and the Aboriginal and Torres Strait Islander Health Performance Framework measures that they relate to.

For a description of the data sources used in this report and links to data quality statements see

<www.aihw.gov.au/reports/indigenous-health-welfare/health-performance-framework/content s>.

# Table A1: Data sources and the Aboriginal and Torres Strait Islander Health Performance Framework measures they relate to

Data source	Relevant measures
Alcohol and Other Drug Treatment Services National Minimum Data Set	3.11
Australia and New Zealand Dialysis and Transplant Registry	1.10
Australian Aboriginal and Torres Strait Islander Health Survey	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, 2.06, 2.07, 2.08, 2.15, 2.16, 2.17, 2.19, 2.22, 3.02, 3.03, 3.04, 3.05, 3.08, 3.10, 3.14, 3.15, 3.16, 3.17
Australian Cancer Database	1.08
Australian Immunisation Register	3.02
Australian General Practice Accreditation Limited	3.19
Australian Government Department of Health data	1.16, 3.21
Australian Health Survey	1.05, 1.07, 1.08, 1.09, 1.10, 1.15, 1.16, 1.17, 1.18, 2.01, 2.03, 2.06, 2.07, 2.08, 2.16, 2.19, 2.22, 3.05
BreastScreen Australia	3.04
Causes of Death, Australia	1.20
Census of Population and Housing	1.14, 2.01, 2.09
Child Dental Health Survey	1.11
Child Health Check Initiative Dental data	1.11, 1.15
Child Protection Collection	2.12
Deadly Ears Program	1.15
Disability Services National Minimum Data Set	1.14
Drug Use Monitoring in Australia Survey	2.17
Family Medicine Research Centre, University of Sydney, BEACH data	1.03, 1.05, 1.07, 1.08, 1.09, 1.15, 1.16, 1.18, 3.03, 3.16
GPA Accreditation Plus	3.19
General Practice Statistics	3.22
General Social Survey	1.14, 1.18, 2.01, 2.06, 2.07, 2.08, 2.10, 2.13
Health Expenditure Database	3.03, 3.15, 3.21
Healthy for Life data collection	3.05
Higher Education Statistics Collection	2.06
Indigenous Primary Health-care National Key Performance Indicators data collection	1.01, 2.15, 2.21, 2.22, 3.01, 3.02, 3.04, 3.05, 3.18
Juvenile Justice National Minimum Dataset	2.11
Life tables, states, territories and Australia	1.19
Medical Labour Force Survey	3.12
Medicare data	3.02, 3.04, 3.05, 3.10, 3.14, 3.16
National Aboriginal and Torres Strait Islander Health Survey	1.16, 1.17, 1.18, 2.01, 2.03, 2.06, 2.07, 2.08, 2.15, 2.16, 2.17, 2.19, 3.02, 3.14

(continued)

# Table A1 (continued): Data sources and the Aboriginal and Torres Strait Islander Health Performance Framework measures they relate to

Data source	Relevant measures
National Aboriginal and Torres Strait Islander Social Survey	1.11, 1.13, 1.14, 1.15, 1.16, 1.17, 1.18, 2.01, 2.02, 2.03, 2.04, 2.05, 2.06, 2.07, 2.08, 2.10, 2.11, 2.12, 2.13, 2.14, 2.15, 2.16, 2.17, 2.18, 2.19, 2.2, 2.21, 3.01, 3.08
National Aboriginal and Torres Strait Islander Survey	2.07, 2.15
National Assessment Program—Literacy and Numeracy tests	2.04
National Community Mental Health Care Database	3.10
National Deaths in Custody Program	2.11
National Elective Surgery Waiting Times Data Collection	3.14
National Health Survey	1.15, 1.16, 1.17, 1.18, 2.01, 2.03, 2.06, 2.07, 2.08, 2.13, 2.15, 2.20, 3.02, 3.14
National Health Workforce Dataset	3.10, 3.12, 3.22
National HIV Registry	1.12
National Homicide Monitoring Program	2.10
National Hospital Morbidity Database	1.02, 1.03, 1.04, 1.05, 1.06, 1.07, 1.08, 1.09, 1.10, 1.11, 1.15, 1.16, 1.18, 2.10, 2.16, 2.17, 3.06, 3.07, 3.09, 3.10, 3.14, 3.19
National Indigenous Eye Health Survey	1.16
National Mental Health Establishments Database	3.10
National Mortality Database	1.03, 1.04, 1.08, 1.10, 1.18, 1.20, 1.21, 1.22, 1.23, 1.24, 2.10, 2.16
National Non-admitted Patient Emergency Department Care Database	3.09, 3.14, 3.16
National Notifiable Diseases Surveillance System	1.04, 1.12
National Opioid Pharmacotherapy Statistics Annual Data collection	3.11
National Perinatal Data Collection	1.01, 1.20, 1.22, 2.21, 3.01
National Prisoner Census	2.11
National Public Hospitals Establishment Database	3.19
National Schools Statistics Collection	2.05
National VET in Schools Collection	3.20
National VET Provider Collection	2.06, 3.20
New Zealand Ministry of Health	1.01, 1.20, 1.22
Northern Territory Rheumatic Heart Disease Program data	1.06
Office of the Registrar of Indigenous Corporations	3.13
Online Services Report data collection	3.03, 3.08, 3.11, 3.13, 3.14, 3.16, 3.18, 3.19, 3.22
Queensland Rheumatic Heart Disease Register	1.06
Rural Workforce Agencies National Minimum Data Set	3.22
Selected Higher Education Statistics	3.20
Service Activity Reporting	3.14, 3.22
South Australian Rheumatic Heart Disease Register	1.06
Specialist Homelessness Services Collection	2.01
Statistics Canada: Vital statistics—birth database	1.01
Stronger Futures in the Northern Territory data	1.11, 1.15
Survey of Education and Work	2.05, 2.07
Trachoma surveillance report	1.16
United States Centres for Disease Control and Prevention, National Centre for Health Statistics	1.01, 1.20
Western Australian Rheumatic Heart Disease Register	1.06

# Glossary

**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 who are 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 that 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 the 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 live 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) 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 on) 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**.

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## **Related publications**

Earlier editions of this report can be downloaded for free from </www.aihw.gov.au/reports-statistics/population-groups/indigenous-australians/overview>. The website also includes information on ordering printed copies.

The earlier editions are:

- AIHW 2007. Aboriginal and Torres Strait Islander Health Performance Framework 2006 report: detailed analyses. Cat. no. IHW 20. Canberra: AIHW.
- AIHW 2009. Aboriginal and Torres Strait Islander Health Performance Framework 2008 report: detailed analyses. Cat. no. IHW 22. Canberra: AIHW.
- AIHW 2011. Aboriginal and Torres Strait Islander Health Performance Framework 2010: detailed analyses. Cat. no. IHW 53. Canberra: AIHW.
- AIHW 2011. Aboriginal and Torres Strait Islander Health Performance Framework 2010 report: Victoria. Cat. no. IHW 64. Canberra: AIHW.
- AIHW 2013. Aboriginal and Torres Strait Islander Health Performance Framework 2012: detailed analyses. Cat. no. IHW 94. Canberra: AIHW.
- AIHW 2013. Aboriginal and Torres Strait Islander Health Performance Framework 2012 report: Victoria. Cat. no. IHW 86. Canberra: AIHW.
- AIHW 2015. Aboriginal and Torres Strait Islander Health Performance Framework 2014 report: detailed analyses. Cat. no. IHW 167. Canberra: AIHW.
- AIHW 2015. Aboriginal and Torres Strait Islander Health Performance Framework 2014 report: Victoria. Cat. no. IHW 160. Canberra: AIHW.



This report gives the latest information on how Aboriginal and Torres Strait Islander people in Victoria are faring according to various 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.