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# C Health preface

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### **Attachment tables**

Attachment tables are identified in references throughout this Indigenous Compendium by an 'A' suffix (for example, in this preface, table HPA.3). As the data are directly sourced from the 2010 Report, the Compendium also notes where the original table, figure or text in the 2010 Report can be found. For example, where the Compendium refers to '2010 Report, p. E.15' this is page 15 of preface E of the 2010 Report, and '2010 Report, table EA.2' is attachment table 2 of attachment EA of the 2010 Report. A full list of attachment tables is provided at the end of this chapter, and the attachment tables are available from the Review website at ([www.pc.gov.au/gsp](http://www.pc.gov.au/gsp)).

Health services are concerned with promoting, restoring and maintaining a healthy society. They involve illness prevention, health promotion, the detection and treatment of illness and injury, and the rehabilitation and palliative care of individuals who experience illness and injury. Broadly defined, the health system also includes a range of activities that raise awareness of health issues, thereby reducing the risk and onset of illness and injury.

Health services in Australia are delivered by a variety of government and non-government providers in a range of service settings (box HP.1). The *Report on Government Services 2010* (2010 Report) primarily concentrates on the performance of public hospitals (chapter 10), primary and community health

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services (including general practice) (chapter 11) and the interactions among different service mechanisms for dealing with two health management issues: mental health and breast cancer (chapter 12). These services are selected for reporting as they:

- make an important contribution to the health of the community
- reflect government priorities, for example, they fall within the National Health Priority Areas
- represent significant components of government recurrent expenditure on health care
- have common objectives across jurisdictions.

There is a complex relationship between health behaviours, health outcomes, and the socioeconomic and physical environment in which they occur. It has been well documented that Indigenous people are at a higher risk of experiencing social and economic disadvantage, which may impact negatively on health behaviours and outcomes. It is a priority of the Steering Committee to improve reporting on the performance of government provided health care services for Indigenous people and for residents in regional and remote Australia.

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### Box HP.1 Some common health terms

**Community health services:** health services for individuals and groups delivered in a community setting, rather than via hospitals or private facilities.

**General practitioners:** medical practitioners who, for the purposes of Medicare, are vocationally registered under s. 3F of the *Health Insurance Act 1973* (Cwlth), hold fellowship of the Royal Australian College of General Practitioners or equivalent, or hold a recognised training placement.

**Medicare:** covers Australian Government funding of private medical and optometrical services (the Medicare Benefits Schedule [MBS]); selected medications (under the Pharmaceutical Benefits Scheme [PBS]); and public hospital funding (under the National Healthcare Agreement [NHA]), aimed at providing public hospital services free of charge to public patients.

**Primary health care:** services that:

- provide the first point of contact with the health system
- have a particular focus on prevention of illness and/or early intervention
- are intended to maintain people's independence and maximise their quality of life through care and support at home or in local community settings.

**Public health:** an organised social response to protect and promote health, and to prevent illness, injury and disability. The starting point for identifying public health issues, problems and priorities, and for designing and implementing medical interventions, is the population (or subgroups). Public health is characterised by a focus on the health of the population (and particular at-risk groups) and complements clinical provision of health care services.

**Public hospital:** a hospital that provides treatment free of charge and accommodation to eligible admitted people who elect to be treated as public patients. It also provides services free of charge to eligible non-admitted patients and may provide (and charge for) treatment and accommodation services to private patients. Charges to non-admitted patients and admitted patients on discharge may be levied in accordance with the NHA (for example, charges for aids and appliances).

The Council of Australian Governments (COAG) has agreed six National Agreements to enhance accountability to the public for the outcomes achieved or outputs delivered by a range of government services, (see 2010 Report, chapter 1 for more detail on reforms to federal financial relations). The NHA covers the area of Health, while the National Indigenous Reform Agreement (NIRA) establishes specific outcomes for reducing the level of disadvantage experienced by Indigenous Australians. The agreements include sets of performance indicators, for which the Steering Committee collates annual performance information for analysis by the COAG Reform Council (CRC).

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The measurement details of relevant National Agreement reporting were under development at the time of preparing this Report. It is anticipated that the information reported in this preface will be revised to align with the performance indicators in the National Agreements for the 2011 Report.

The Australian Government's health services activities include funding Indigenous-specific primary health

State and Territory governments contribute funding for, and deliver, a range of health care services, including services specifically for Indigenous people.

### **Indigenous data in the Health preface**

The Health preface in the 2010 Report contains the following information on Indigenous people:

- an overview of Indigenous health, including information on government policy and programs, expenditure on health services in 2004-05, and data quality
- Indigenous health workforce, 2006
- mortality rates, 2003–2007
- infant mortality rates, 2005–2007
- causes of death, 2003–2007
- life expectancy, 2005–2007
- median age at death, 2007
- birthweight of babies, 2006.

### *Overview of Indigenous health*

The Steering Committee has placed a high priority on reporting on government services to Indigenous people. Data on health outcomes and the provision of health services for Indigenous people are included, where possible, in this Report. This overview is designed to assist interpretation of these data and provide a broader understanding of Indigenous health issues.

Australian Indigenous people are more likely to experience disability and significantly lower quality of life due to poorer health, and to have shorter life expectancies than the rest of the Australian population (SCRGSP 2009). These patterns are reflected in Australian data on: mortality, life expectancy and birthweight (later in this preface); hospital separation rates; fetal, neonatal and perinatal death rates (chapter 10); and suicide (chapter 12).

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A number of recent publications include more comprehensive data on the health status of Indigenous people and Indigenous health-related factors. These include *Aboriginal and Torres Strait Islander Health Performance Framework — 2008 Report* (DoHA 2008), *The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples* [Australian Bureau of Statistics (ABS) and AIHW 2008], *Australia's Health 2008* (AIHW 2008b) *Overcoming Indigenous Disadvantage: Key Indicators 2009* (SCRGSP 2009) and *National Aboriginal and Torres Strait Islander Social Survey, 2008* (ABS 2009c).

### *Contributing factors*

Many Indigenous Australians live today in conditions of clear social and economic disadvantage, which, along with other geographic, environmental and cultural factors, may contribute to poor health.

Educational attainment levels are relatively low for the Indigenous population compared with all Australians. School retention rates for Indigenous school students remain considerably lower than those for non-Indigenous school students, although the disparity between the two groups is slowly lessening (ABS and AIHW 2008). In 2008, the apparent retention rate for Indigenous full-time students from years 7 or 8 to year 10 was 89.2 per cent and to year 12 was 46.5 per cent. This compares with apparent retention rates for non-Indigenous students of 99.8 per cent to year 10 and 75.6 per cent to year 12. Apparent retention rates for Indigenous students from the beginning of secondary school to year 12 increased from 39.8 per cent in 2004 to 46.5 per cent in 2008, while the rate for non-Indigenous Australians remained steady at around 76 per cent (SCRGSP 2009).

Indigenous people have relatively low employment and income levels that may create financial barriers to accessing health services. Average weekly income for Indigenous people was \$549 in 2006, while the weekly income for non-Indigenous people was \$769 (see Statistical appendix tables AA3 and AA7 and 2010 Report, AA.2 and AA.16). Between 2001 and 2006, for those aged 15–64 years the employment to population ratio increased for Indigenous people from 43 per cent to 48 per cent, and for non-Indigenous people from 68 per cent to 72 per cent. The gap remained around 25 percentage points. In the same time period, the unemployment rate for Indigenous people aged 15–64 years decreased from 20 per cent to 16 per cent. However, the unemployment rate for Indigenous Australians was still three times the rate for non-Indigenous Australians (16 per cent compared with 5 per cent), similar to the rate ratios from the 2001 Census (20 per cent compared with 7 per cent) (SCRGSP 2009).

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There are high imprisonment rates among Indigenous people. Indigenous prisoners represented 25 per cent of the total prisoner population in 2008-09 (see chapter 8, table 8A.1). After adjusting for age differences, Indigenous adults were 13 times as likely as non-Indigenous adults to be imprisoned in 2008, compared to 10 times in 2000. The Indigenous juvenile detention rate increased by 27 per cent between 2001 and 2007. As at 30 June 2007, Indigenous juveniles were 28 times as likely as non-Indigenous juveniles to have been detained. High imprisonment rates may contribute to the poorer health status of Indigenous people (SCRGSP 2009).

There are close associations between socioeconomic factors and exposure to health risk factors. Indigenous Australians have relatively high rates for some health risk factors such as obesity, substance abuse and violence. In 2008, 47 per cent of Indigenous people aged 18 years and over were daily cigarette smokers (ABS 2009c). Indigenous adults were less likely than non-Indigenous adults to have consumed alcohol in the week prior to interview in 2004-05 (53 per cent compared with 36 per cent). Among those who drank alcohol, rates of long-term risky/high risk alcohol consumption were similar for Indigenous and non-Indigenous Australians after adjusting for age. However, Indigenous adults were twice as likely to consume alcohol at short-term risky/high risk levels at least once a week over the previous 12 month period. Hospitalisation rates for all alcohol-related conditions were higher for Indigenous people than non-Indigenous people in 2006-07 (SCRGSP 2009).<sup>1</sup>

Geographic distance to health services, particularly in remote and very remote areas, contributes to the health disadvantage of Indigenous people. In 2006, a total of 417 (35 per cent) discrete Indigenous communities<sup>2</sup>, with a combined population of 25 486, were located 100 kilometres or more from the nearest Aboriginal Primary Health Care Centre and of those, 92 (22 per cent) were larger communities with a population of 50 or more people. A total of 372 discrete Indigenous communities (31 per cent) were located 100 kilometres or more from the nearest other (State-funded) health centre and of these, 90 (24 per cent) were larger communities. A total of 755 (64 per cent) discrete Indigenous communities were located 100 kilometres or more from the nearest hospital. On a population basis, 25 per cent of Indigenous people living in communities were 100 kilometres or more from the nearest hospital (ABS 2007).

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<sup>1</sup> Short term risk is the risk of harm associated with given levels of alcohol consumption on any one occasion. Long term risk is associated with regular daily patterns of alcohol consumption and defined by the average daily intake of alcohol over 7 days of the reference week.

<sup>2</sup> A geographic location, bounded by physical or cadastral (legal) boundaries, and inhabited or intended to be inhabited predominantly (that is, greater than 50 per cent of usual residents) by Indigenous people, with housing or infrastructure that is managed on a community basis.

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Many Indigenous people live in inadequate and overcrowded housing, particularly in remote and very remote areas. Indigenous people were around five times as likely as non-Indigenous people to live in overcrowded housing in 2006. Overcrowding was highest in very remote areas (65.1 per cent) and lowest in major cities (15.1 per cent) (SCRGSP 2009). There were around 20 700 overcrowded Indigenous households (14 per cent), and 102 400 Indigenous people (27 per cent) living in overcrowded conditions in 2006 (ABS and AIHW 2008). There has been some improvement in housing overcrowding, with the proportion of Indigenous people living in overcrowded housing falling from 31 per cent to 27 per cent between 2001 and 2006 (SCRGSP 2009).

### *Government policies and programs*

The majority of government expenditure on Indigenous health is made through mainstream health programs (AIHW 2008a). In addition, the Australian, State and Territory governments fund Indigenous-specific health programs and undertake coordination and research activities. Indigenous people are high users of public hospital and community health services, and comparatively low users of medical, pharmaceutical, dental and other health services, the majority of which are privately provided.

Most Australian Government expenditure on Indigenous-specific health programs is directed to primary health. State and Territory governments fund a range of community and public health programs that specifically target Indigenous people within their jurisdictions (see chapter 11).

In October 2008, COAG agreed to six long-term targets for closing the gap between Indigenous and non-Indigenous Australians on health, early childhood development, education, housing, and economic outcomes. The NIRA provides the overarching framework for the six closing the gap targets across the Indigenous-specific National Partnership Agreements (NPAs), and is underpinned by key performance indicators and benchmarks. These performance indicators and benchmarks will be used to monitor progress through annual public reporting and analysis by the COAG Reform Council from 2009-10.

The Australian Government recognises that a multifaceted and sustained approach addressing factors both within and beyond the health system is required to address Indigenous disadvantage. COAG has identified seven ‘building blocks’ which are the strategic platforms that need to be in place in order to comprehensively address the current state of Indigenous disadvantage, and they include:

- healthy homes

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- safe communities
  - health
  - early childhood
  - schooling
  - economic participation
  - governance and leadership.

The ‘building block’ approach integrates policy reforms and implementation to comprehensively address Indigenous disadvantage.

On 29 November 2008, COAG agreed to a \$1.6 billion investment through the National Partnership on Closing the Gap in Indigenous Health Outcomes to help close the gap in life expectancy between Indigenous and non-Indigenous Australians. The Australian Government’s contribution of \$805.5 million (over 4 years) from 2009-10 will address chronic disease risk factors; encourage better management of chronic disease in primary health care services; improve follow up care; and increase the capacity of the primary care workforce to deliver effective health care to Indigenous people.

The Australian Government has established the National Indigenous Health Equality Council (NIHEC) to provide advice on strategic priorities that contribute towards achieving more equitable and sustainable health outcomes for Indigenous people.

All State and Territory governments and the Australian Government are developing an implementation plan under the National Strategic Framework. Taking a whole of government approach, these plans detail information on existing and planned action by each government to improve health outcomes for Indigenous people. They outline programs and policy approaches which are the primary responsibility of each government both within the health department and in other portfolios. Each jurisdiction reports to health ministers on health portfolio progress under the plan every year and on the whole of government contribution every 2 years.

The Aboriginal and Torres Strait Islander Health Performance Framework has been developed under auspices of the Australian Health Ministers’ Advisory Council to monitor progress in Indigenous health. The Health Performance Framework is designed to inform policy analysis, planning and program implementation. The first *Aboriginal and Torres Strait Islander Health Performance Framework — 2006 Report* (DoHA 2006) was released in late 2006 and the *Aboriginal and Torres Strait Islander Health Performance Framework — 2008 Report* (DoHA 2008) was released in December 2008.



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## *Expenditure*

It is not always possible to make accurate estimates of health expenditure for Indigenous people, and their corresponding service use. For example, Indigenous status is not always clearly stated or recorded. Data on Indigenous status are often unavailable for privately funded services (although they are available for many publicly funded health services).

The scope and definition of health expenditure also have some limitations. For the Indigenous health expenditure data presented below, health covers those services that are directed mainly towards improving health and/or reducing the effects of illness or injury. This is a relatively narrow definition which excludes a number of supportive ‘welfare’ services and the impact of living conditions on health, for example, housing, sanitation and nutrition. There are also other (non-health) agency contributions to health expenditure, such as those incurred within education departments and prisons, that are not included.

Indigenous health expenditure can also be difficult to identify, as the majority of health expenditure on Indigenous people is allocated through mainstream health programs — admitted and non-admitted patient services, community health services, medical and medications health services, and public health services. A small proportion of health expenditure is allocated through programs directly targeting Indigenous people, the most significant being the Aboriginal and Torres Strait Islander Health Care Services. In total, approximately one-fifth of the estimated health expenditure for Indigenous people in 2004-05 came from programs that were specifically designed for them. There may also be some inconsistencies across data providers resulting from limitations of financial reporting systems and different reporting mechanisms (AIHW 2008a).

The most recent estimates of health services expenditure for Indigenous people are for 2004-05 (AIHW 2008a). Between 1995-96 and 2004-05 there has been little change in the per person health expenditure ratio for Indigenous people compared to non-Indigenous people. Total recurrent government and non-government expenditure on health services for Indigenous people was estimated at \$2304 million in 2004-05 or 2.8 per cent of national expenditure on health services, the same proportion as for 2001-02. In 2004-05, \$1.17 per person was spent on Indigenous health for every \$1.00 spent on the health of non-Indigenous Australians. Average total health expenditure per Indigenous person was \$4718 compared with \$4019 per person estimated for non-Indigenous Australians (table HP.1). The three largest categories of health expenditure were hospitals, medical services and medications. Together they accounted for 66.7 per cent of all

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Australian health expenditure in 2004–05 and 58.8 per cent of the spending that was allocated to Indigenous people (table HP.1).

Expenditure per person on public hospitals for Indigenous people was around twice that for non-Indigenous people for both admitted and non-admitted patient services. Conversely, expenditure on medical services, dental and other health practitioners and medications was less than half that for non-Indigenous people. Expenditure on aids and appliances was 29 per cent of the non-Indigenous average. However, spending on community health services was over 6.5 times that for other Australians and expenditure for both patient transport and public health were well above the national average (table HP.1). Indigenous people tend to rely disproportionately on public hospitals for reasons of access, cost and culture as well as health. In many of the areas where Indigenous people live, hospital admission is the only practical way of receiving anything but the simplest services, and hospital emergency rooms are the most accessible source of affordable medical treatment, including GP-type care. Indigenous people were admitted to public hospitals at nearly 2.5 times the rate for non-Indigenous Australians (AIHW 2008a). More detailed data on Indigenous health expenditure will be reported in the Indigenous Expenditure Report forthcoming in 2010.

**Table HP.1 Total expenditure on health services for Indigenous and non-Indigenous people, by type of health good or service, current prices, Australia, 2004-05**

<i>Health good or service type</i>	<i>Total expenditure (\$ million)</i>			<i>Expenditure per person (\$)</i>		
	Indigenous	Non-Indigenous	Indigenous share (%)	Indigenous	Non-Indigenous	Ratio
Hospitals	1 080.7	27 337.6	3.8	2 213	1 386	1.60
Public hospital <sup>a</sup>	1 048.6	21 042.7	4.7	2 147	1 067	2.01
Admitted patient services	799.4	16 226.8	4.7	1 637	823	1.99
Non-admitted patient services	249.2	4 815.8	4.9	510	244	2.09
Private hospital	32.1	6 295.0	0.5	66	319	0.21
High-level residential care	41.7	6 283.4	0.7	85	319	0.27
Patient transport	103.5	1 369.9	7.0	212	69	3.05
Medical services	164.6	14 483.5	1.1	337	734	0.46
Community health services	497.8	3 052.7	14.0	1 019	155	6.59
Dental and other health practitioners	78.0	7 811.8	1.0	160	396	0.40
Medications	109.4	11 056.4	1.0	224	561	0.40
Aids and appliances	18.6	2 591.4	0.7	38	131	0.29
Public health	88.9	1 350.3	6.2	182	68	2.66
Research	46.0	1 669.0	2.7	94	85	1.11
Health administration (nec)	74.6	2 254.5	3.2	153	114	1.34
<b>Total</b>	<b>2 304.0</b>	<b>79 260.4</b>	<b>2.8</b>	<b>4 718</b>	<b>4 019</b>	<b>1.17</b>
<b>Population (2004-05 estimate)</b>	..	..	..	<b>488 335</b>	<b>19 721 423</b>	<b>2.5</b>

<sup>a</sup> Public hospital services exclude any dental services, community health services, patient transport services, public health and health research undertaken by the hospital. .. Not applicable.

Source: AIHW (2008) *Expenditure on Health for Aboriginal and Torres Strait Islander Peoples 2004-05*, Cat. no. HWE 40, Health and Welfare Expenditure Series no. 32, Canberra; Report 2010, table E.1, p. E.19.

Ninety-three per cent of spending was through programs managed by governments, of which 67 per cent was managed by State and local governments. Indigenous people made proportionally lower use of purely private services. This was an entirely different pattern from that for non-Indigenous Australians, for whom the three sources of supply were almost equally important (table HP.2).

**Table HP.2 Total expenditure on health for Indigenous people, by program, 2004-05**

<i>Management</i>	<i>Indigenous</i>		<i>Non-Indigenous</i>	
	<i>Total expenditure (\$ million)</i>	<i>Per cent</i>	<i>Total expenditure (\$ million)</i>	<i>Per cent</i>
Through State and local government programs	1 537.1	66.7	26 844.1	33.9
Through Australian Government programs <sup>a</sup>	604.7	26.2	28 163.4	35.5
<i>Total through Government programs</i>	<i>2 141.8</i>	<i>93.0</i>	<i>55 007.4</i>	<i>69.4</i>
Through non-government arrangements	162.2	7.0	24 253.0	30.6
<b>Total</b>	<b>2 304.0</b>	<b>100.0</b>	<b>79 260.4</b>	<b>100.0</b>

<sup>a</sup> Patient co-payments under Medicare and PBS (\$19.2 million Aboriginal and Torres Strait Islander peoples, \$2766.4 million non-Indigenous).

Source: AIHW (2008) *Expenditure on Health for Aboriginal and Torres Strait Islander Peoples 2004-05*, Cat. no. HWE 40, Health and Welfare Expenditure Series no. 32, Canberra; Report 2010, table E.2, p. E.20.

Spending through Australian Government programs was slightly lower per person for Indigenous people than for other Australians, while spending through State and local government programs for Indigenous people was 2.3 times that for non-Indigenous people. This reflects Indigenous people's greater reliance on public hospitals and community health services than on the services of private medical and pharmaceutical providers with which the Australian Government is more involved (table HP.3).

**Table HP.3 Expenditure per person on health services, by program, 2004-05**

<i>Management</i>	<i>Indigenous</i>	<i>Non-Indigenous</i>	<i>Ratio</i>
Through State and local government programs	3 148	1 361	2.31
Through Australian Government programs <sup>a</sup>	1 238	1 428	0.87
<i>Total through Government programs</i>	<i>4 386</i>	<i>2 789</i>	<i>1.57</i>
Through non-government arrangements	332	1 230	0.27
<b>Total</b>	<b>4 718</b>	<b>4 019</b>	<b>1.17</b>

<sup>a</sup> Patient co-payments under Medicare and PBS (\$39 per Aboriginal and Torres Strait Islander person, \$140 per non-Indigenous person) are included here, but note they are shown elsewhere in this report as expenditure incurred by the non-government sector.

Source: AIHW (2008) *Expenditure on Health for Aboriginal and Torres Strait Islander Peoples 2004-05*, Cat. no. HWE 40, Health and Welfare Expenditure Series no. 32, Canberra; Report 2010, table E.3, p. E.20.

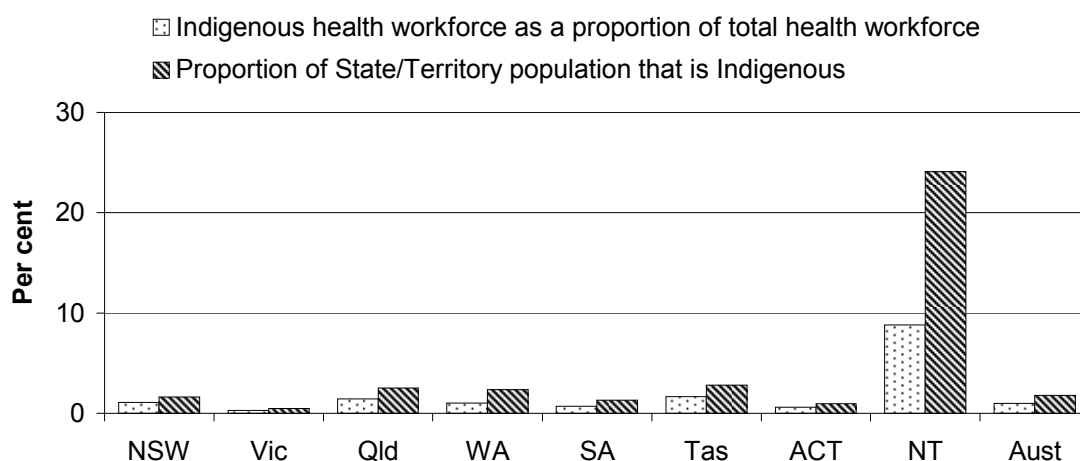
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### Indigenous health workforce

Indigenous people aged 15 years and over were under-represented in almost all health-related occupations, in 2006 (ABS and AIHW 2008). This can potentially contribute to Indigenous peoples' reduced access to health services. One patient satisfaction survey found that the presence of an Indigenous doctor at a community health centre was one of the main reasons for Indigenous people attending the clinic. In addition, the number of Indigenous patients attending the clinic increased markedly following the arrival of the Indigenous doctor and other changes in the service designed to make it more welcoming. Patients reported that an Indigenous doctor was 'more understanding of their needs' (DoHA 2008).

In 2006, Indigenous people accounted for 1.0 per cent of the health workforce, but comprised 1.8 per cent of the total population (aged 15 years and over). Indigenous health workers are under-represented in each State and Territory (figure HP.1). There have, however, been some improvements over time with increases in the number of Indigenous Australians in the health workforce as a proportion of the total health workforce (DoHA 2008).

**Figure HP.1 Indigenous health workforce as a proportion of total health workforce, by jurisdiction, 2006<sup>a, b, c</sup>**



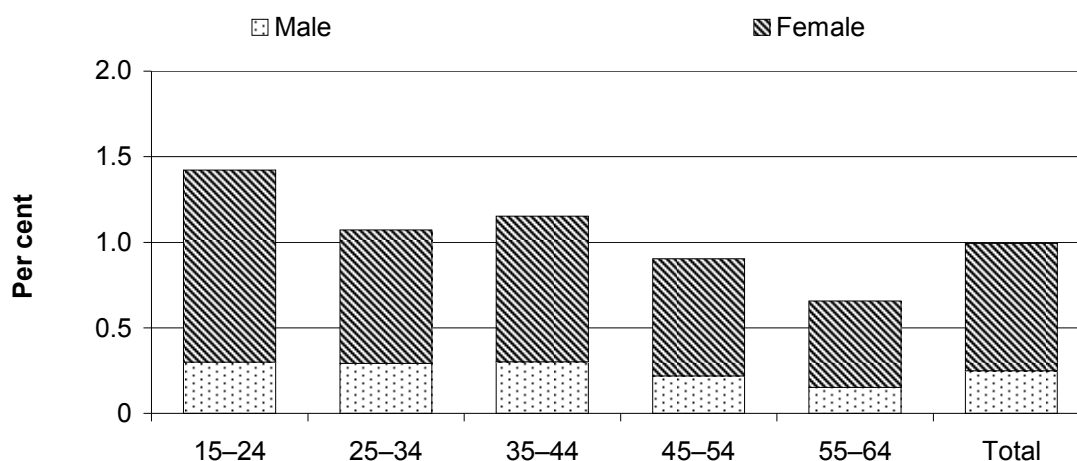
<sup>a</sup> Aged 15 years and over. <sup>b</sup> Cells in this table have been randomly adjusted to avoid the release of confidential data. <sup>c</sup> Australian total data include other territories.

Source: ABS (unpublished), ABS (2007) *2006 Census of Population and Housing*, Canberra; table HPA.1; 2010 Report, figure E.7, p. E.21.

For younger age-groups, Indigenous people make up a higher proportion of the health workforce — 1.4 per cent of the workforce aged 15–24 years and 1.1 per cent of the workforce aged 25–34 years. Indigenous females represented a higher

proportion of the health workforce than Indigenous males across all age-groups (figure HP.2).

**Figure HP.2 Indigenous health workforce as a proportion of total health workforce, by age-group and sex, 2006<sup>a</sup>**



<sup>a</sup> Total includes data for the 65 plus age group.

Source: ABS (unpublished), 2006 Census of Population and Housing; table HPA.2; 2010 Report, figure E.8, p. E.22.

### *Indigenous health workforce by occupation*

In 2006, there were 100 Indigenous people working as medical practitioners and 1223 Indigenous people working as midwifery and nursing professionals (table HP.4).

After nursing, Indigenous people in the health workforce were most commonly employed as Aboriginal and Torres Strait Islander health workers (965 people). Aboriginal and Torres Islander health workers may be employed as specialists in areas such as alcohol, mental health, diabetes, eye and ear health, sexual health, or they may work as generalist members of primary care teams, or as hospital liaison officers (table HPA.3).

**Table HP.4 Indigenous persons employed in selected health-related occupations (per cent), 2006<sup>a, b</sup>**

	<i>Indigenous people</i>	<i>All persons</i>	<i>Per cent of Indigenous people in selected health-related occupations</i>
Health and welfare services managers	141	10 807	1.3
Psychologists	39	13 437	0.3
Health diagnostic and promotion professionals	648	48 079	1.3
Health therapy professionals	321	64 597	0.5
Medical practitioners	100	55 075	0.2
Midwifery and nursing professionals	1 223	200 400	0.6
Health and welfare support workers	2 413	99 957	2.4
Aboriginal and Torres Strait Islander health worker	965	1 010	95.5
<b>Total aged 15 years and over</b>	<b>4 891</b>	<b>492 342</b>	<b>1.0</b>

<sup>a</sup> Aged 15 years and over. <sup>b</sup> Further information on the data included in this table and/or its interpretation is provided in table HPA.3.

Source: ABS (unpublished), *2006 Census of Population and Housing*; table HPA.3; 2010 Report, table E.4, p. E.23.

### *Self-assessed health*

Results from the 2007-08 National Health Survey indicate that the majority of Australians (85 per cent) aged 15 years or over reported their health as either good, very good or excellent (ABS 2009a). In the 2008 National Aboriginal and Torres Strait Islander Social Survey, 78 per cent of Indigenous people reported their health as either good, very good or excellent (ABS 2009c). There was a significant decline in Indigenous people reporting their health as fair or poor from 2001 (down from 26 per cent in 2001 to 22 per cent in 2008) (ABS 2009a).

Indigenous people were less likely than non-Indigenous people to report very good or excellent health and the difference between the two populations was greatest in the older age groups (DoHA 2008). Taking into account differences in age structure between the Indigenous and non-Indigenous populations, Indigenous people overall were almost twice as likely to report their health as fair or poor, than non-Indigenous Australians in 2004-05 (ABS 2006). Indigenous females were more likely to report their health as fair or poor than Indigenous males (24 per cent compared with 19 per cent) (DoHA 2008).

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## *Data quality*

Good quality data are needed to assess the effectiveness of programs and to evaluate policies designed to improve health services and outcomes for Indigenous people. Despite recent improvements, the quality of estimates of Indigenous health information is limited by problems with the underlying data. Some of the problems associated with Indigenous health data are outlined in (ABS 2008a), and (ABS and AIHW 2008) including:

- Indigenous people are not always accurately or consistently identified in administrative health data collections (such as hospital records and birth and death registrations) because of variation in definitions, different data collection methods and inaccurate or incomplete recording of Indigenous status. Data on hospital separations, mortality and disease notifications are therefore likely to be underestimated for the Indigenous population.
- Inconsistent data definitions and differences in the accuracy of identifying Indigenous people have led to problems making comparisons between jurisdictions, and over time.
- Problems in accurately estimating the Indigenous population; there is an undercount of the Indigenous population in the Census, particularly in remote areas, and there are data quality problems with the births and deaths statistics which are used to adjust the Census data to produce population estimates and projections.

As part of the development of the Aboriginal and Torres Strait Islander Health Performance Framework, key priorities for data development have been identified to support an ongoing work program of data improvements.

The ABS has implemented a program of three yearly Indigenous household surveys with sample sizes designed to support the production of reliable State and Territory level data, so every three years, some health status and health risk factors are measured. Every six years, and in parallel with the National Health Survey, more detailed Indigenous health status information is collected, together with health service use, health actions, health-related aspects of lifestyle and other health risks. This also enables Indigenous to non-Indigenous comparisons for relevant variables. Other health-related surveys, which may include an Indigenous identifier, do not necessarily provide reliable data on Indigenous people, because of small sample size, limited geographic coverage or survey design.

Experimental estimates of the Indigenous population are re-based by the ABS every five years following availability of new Census data. Once new Indigenous population estimates and projections have been produced by the ABS, revisions



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may be required to various rates and rate ratios used in previous editions of the Report where those rates data are to be carried forward in new reports. The Indigenous population estimates and projections are re-based for this Report.

In July 2009, COAG endorsed a \$46.4 million package of Indigenous data development over 4 years as part of *the Integrated Strategy for Closing the Gap in Indigenous Disadvantage*.

### **Framework of performance indicators**

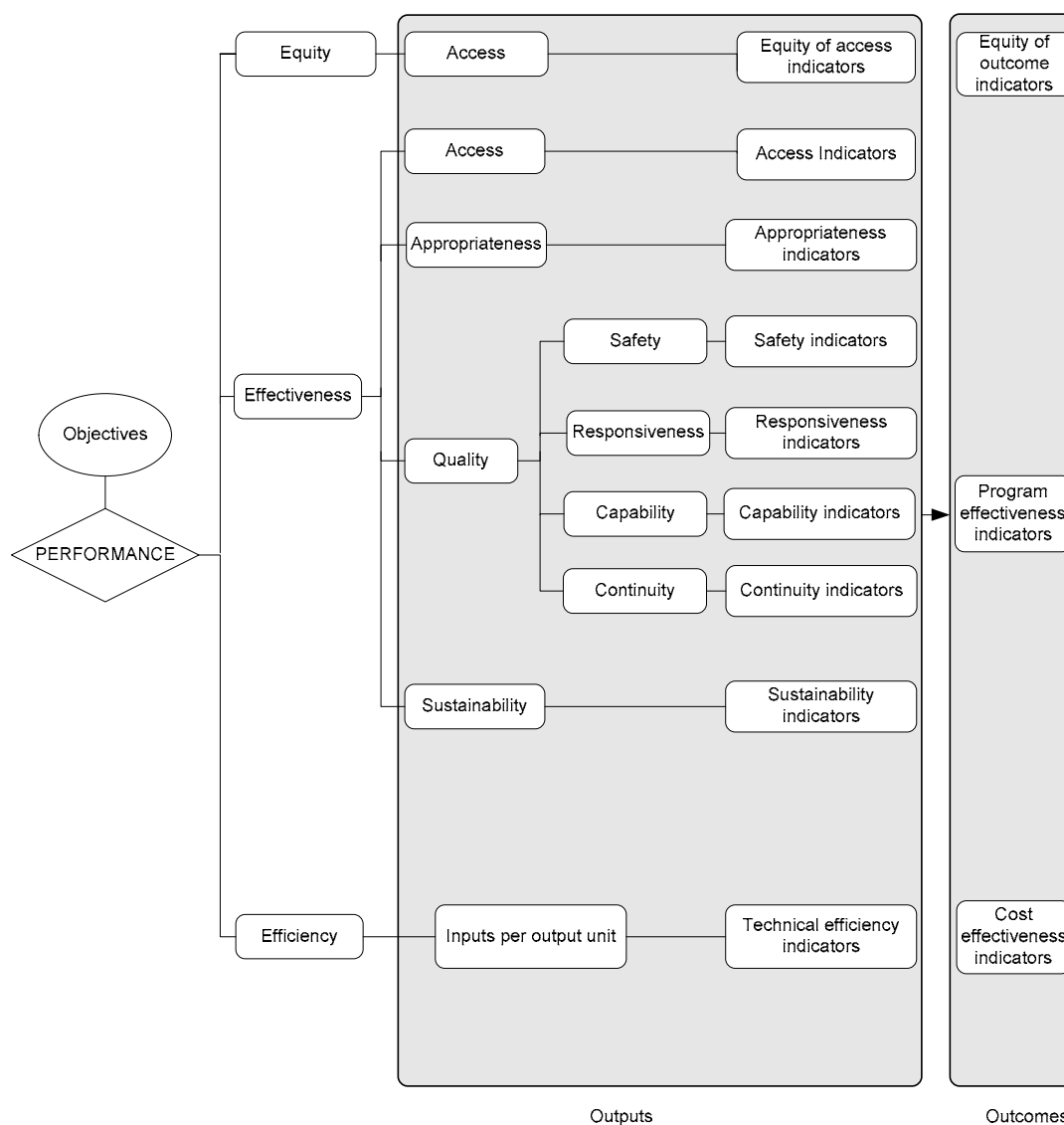
Data for Indigenous people are reported for a subset of the performance indicators for children's services in the 2010 Report. It is important to interpret these data in the context of the broader performance indicator framework outlined in figure HP.3. The performance indicator framework shows which data are comparable in the 2010 Report. For data that are not considered directly comparable, the text includes relevant caveats and supporting commentary.

The Report's statistical appendix contains data that may assist in interpreting the performance indicators presented in this chapter. These data cover a range of demographic and geographic characteristics, including age profile, geographic distribution of the population, income levels, education levels, tenure of dwellings and cultural heritage (including Indigenous and ethnic status) (appendix A).

The Council of Australian Governments (COAG) has agreed six National Agreements to enhance accountability to the public for the outcomes achieved or outputs delivered by a range of government services, (2010 Report, chapter 1 provides more detail on reforms to federal financial relations). The National Healthcare Agreement covers the area of health, while the National Indigenous Reform Agreement (NIRA) establishes specific outcomes for reducing the level of disadvantage experienced by Indigenous Australians. The agreements include sets of performance indicators, for which the Steering Committee collates annual performance information for analysis by the COAG Reform Council.

The measurement details of relevant National Agreement reporting were under development at the time of preparing this Report. It is anticipated that the performance indicator results reported in this preface will be revised to align with the performance indicators in the National Agreements for the 2011 Report.

**Figure HP.3 Performance indicator framework for health services**



Source: 2010 Report, figure E.12, p. E.31.

### **Selected indicators of health outcomes**

It is difficult to isolate the effect of health care services on the general health of the population. Socioeconomic factors (such as residential location, income levels and employment rates) and the provision of non-health care government services (such as clean water, sewerage, nutrition, education and public housing) each contribute to overall health outcomes. The outcomes and effectiveness of health services are also influenced by population factors external to governments' control, including geographic dispersion, age and ethnicity profiles, and socioeconomic status.

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Appendix A summarises some of the demographic and socioeconomic factors that can influence health outcomes and government expenditure.

Data on health outcomes presented in this preface include mortality rates (for infants and all people), causes of death, life expectancy at birth, median age at death and birthweight. Where possible, data are presented for Indigenous people as well as the Australian population as a whole.

### *Mortality rates*

Most components of the health system can influence mortality rates, although there may be a delay of decades between the action and the effect. A public health campaign to reduce smoking by young people, for example, may reduce premature deaths due to smoking-related conditions some years in the future. Factors external to the health system also have a strong influence on mortality rates.

Data on Indigenous mortality are collected through State and Territory death registrations. The completeness of the identification of Indigenous Australians in these collections varies significantly across states and territories so care is required when making comparisons.

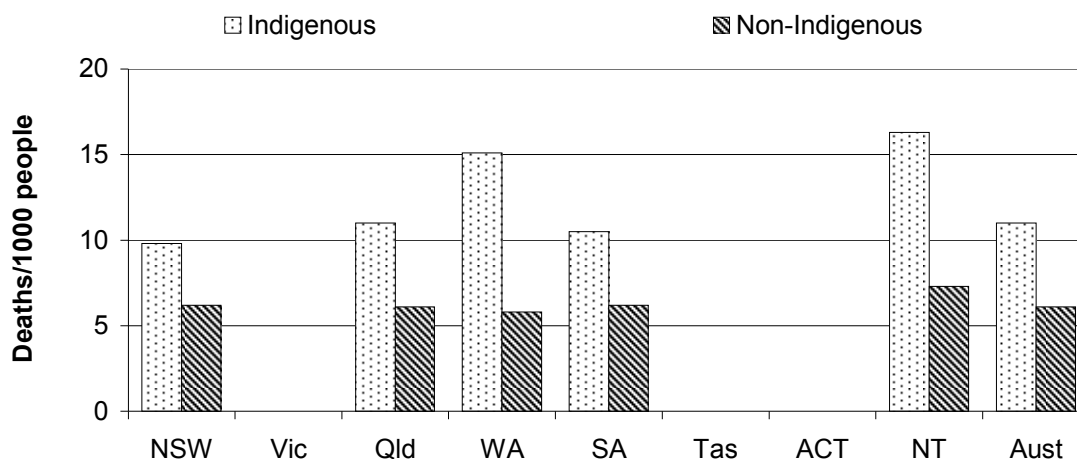
Due to the relatively small number of Indigenous deaths and the consequent volatility in annual mortality rates, the data are presented for the five year period 2003–2007. To improve the comparability of age-related mortality rates, indirect age standardisation methods have been used for both the Indigenous and total population rates.

NSW, Queensland, WA, SA and NT are currently generally considered to have the best coverage of death registrations for Indigenous people (ABS 2009b).<sup>3</sup> For these five jurisdictions combined, the overall rates of mortality for Indigenous people were nearly twice as high as mortality rates for non-Indigenous people based on data for 2003–2007 (figure HP.4 and table HPA.4). Given issues with identification, mortality rates presented here are likely to be under-estimates of the true mortality of Indigenous Australians (ABS and AIHW 2008).

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<sup>3</sup> The term ‘coverage’ refers to the number of Indigenous deaths registered as a percentage of the number of expected deaths based on experimental Indigenous population estimates and projections from the 2006 Census.

Figure HP.4 **Mortality rates, age standardised, by Indigenous status, five year average, 2003–2007<sup>a, b, c, d</sup>**



<sup>a</sup> Deaths are based on year of registration of death. <sup>b</sup> Deaths per 1000 standard population. Standardised death rates use total persons in the 2001 Australian population as the standard population. <sup>c</sup> The Australian totals for Indigenous and non-Indigenous data includes all states and territories. <sup>d</sup> Calculations of rates for the Indigenous population are based on *ABS Experimental Projections, Aboriginal and Torres Strait Islander Australians 1991 to 2009* (ABS cat. no. 3238.0, low series, 2001 base). There are no comparable population data for the non-Indigenous population. Calculations of rates for comparison with the Indigenous population are derived by subtracting Indigenous population projections from total Estimated Resident Population and should be used with care, as these data include deaths and population units for which Indigenous status were not stated. ERP used in calculations are final ERP based on 2006 Census.

Source: ABS (unpublished) *Deaths Australia, 2007*; table HPA.4; 2010 Report, figure E.14, p. E.34.

### Infant mortality rates

The infant mortality rate is defined as the number of deaths of children under 1 year of age in a calendar year per 1000 live births in the same year. Infant mortality rates are presented in this Report as an average over three years to reduce the volatility inherent in the annual rates due to small numbers and annual fluctuations. The infant mortality rate in Australia declined from 5.0 deaths per 1000 live births over the period 2001–2003 to an average of 4.6 deaths per 1000 live births over the period 2005–2007 (2010 Report, figure E.15, p. E.35).

For the period 2005–2007, the average infant mortality rate for Indigenous children was 8.9 per cent for NSW, 9.1 per cent for Queensland, 10.2 per cent for WA, 8.9 per cent for SA and 15.7 per cent for the NT (tables HPA.5 and HPA.6). For WA, SA and the NT, longer-term trends suggest that the mortality rate for Indigenous infants decreased by 47 per cent between 1991 and 2006. Despite this significant improvement in infant mortality for Indigenous children, rates are still markedly higher than for non-Indigenous Australians (ABS 2008a).

## Causes of death for Indigenous people

In the jurisdictions for which age standardised death rates are available by Indigenous status (NSW, Queensland, WA, SA and the NT) death rates were significantly higher for Indigenous Australians than for non-Indigenous Australians during the period 2003–2007. In particular, Indigenous people died: from diabetes at a rate of up to 7.1 times that for non-Indigenous people; from cirrhosis and other diseases of the liver at a rate of up to 6.4 times that for non-Indigenous people; and from diseases of the urinary system at a rate of 4.2 times that for non-Indigenous people. The standardised death rate per 100 000 people for all causes was 2.3 times higher for Indigenous people than for non-Indigenous people (tables HP.5 and HPA.7).

**Table HP.5 Leading causes of death, indirect age-standardised death rate ratio of Indigenous to non-Indigenous population, 2003–2007 (per 100 000 standard population)<sup>a, b, c, d</sup>**

	NSW	Qld	WA	SA	NT	Aust <sup>e</sup>
<i>Underlying causes of death</i>						
Trachea and lung cancers	1.9	1.8	1.9	1.7	2.3	1.9
Diabetes	4.2	9.9	11.7	7.7	7.9	7.1
Ischaemic heart diseases	2.2	2.6	3.3	3.2	3.4	2.6
Strokes	1.8	1.8	3.1	1.7	3.1	2.0
Influenza and pneumonia	1.9	2.4	6.4	3.4	8.2	3.1
Chronic lower respiratory diseases	3.1	2.9	4.6	2.7	4.1	3.4
Cirrhosis and other diseases of liver	4.3	5.1	10.5	5.5	9.1	6.4
Diseases of the urinary system	2.5	4.1	5.7	3.9	9.7	4.2
Certain conditions originating in the perinatal period	1.3	2.0	2.9	2.5	3.0	1.9
Symptoms, signs and ill-defined conditions	3.3	1.8	6.4	4.1	2.0	3.5
Land transport accidents	1.4	1.8	4.0	2.0	2.7	2.7
Intentional self-harm (suicide)	1.3	2.4	2.2	4.4	2.7	2.2
<b>All causes</b>	<b>1.8</b>	<b>2.3</b>	<b>3.3</b>	<b>2.4</b>	<b>3.3</b>	<b>2.3</b>

<sup>a</sup> Indirect standardised death rate per 100 000 population. <sup>b</sup> Denominators used in the calculation of rates for the Indigenous population are *Experimental Estimates and Projections, Aboriginal and Torres Strait Islander Australians* (ABS Cat. no. 3238.0, series B, 2006 base). There are no comparable population data for the non-Indigenous population. Denominators used in the calculation of rates for comparison with the Indigenous population have been derived by subtracting Indigenous population estimates/projections from total estimated resident population and should be used with care, as these data include population units for which Indigenous status was not stated. <sup>c</sup> Data on deaths of Aboriginal and Torres Strait Islander Australians are affected by differing levels of coverage of deaths identified as Indigenous across states and territories. Care should be exercised in analysing these data, particularly in making comparisons across states and territories and between the Indigenous and non-Indigenous data. <sup>d</sup> Ratio is determined as the number of Indigenous deaths for each non-Indigenous death. To calculate rate ratio, divide the Indigenous death rate by the non-Indigenous death rate. <sup>e</sup> Includes Victoria, Tasmania, Australian Capital Territory and Other Territories. Rates for these jurisdictions are not available.

Source: ABS (unpublished) *Causes of Death Australia, 2007*; table HPA.7; 2010 Report, table E.6, p. E.37.

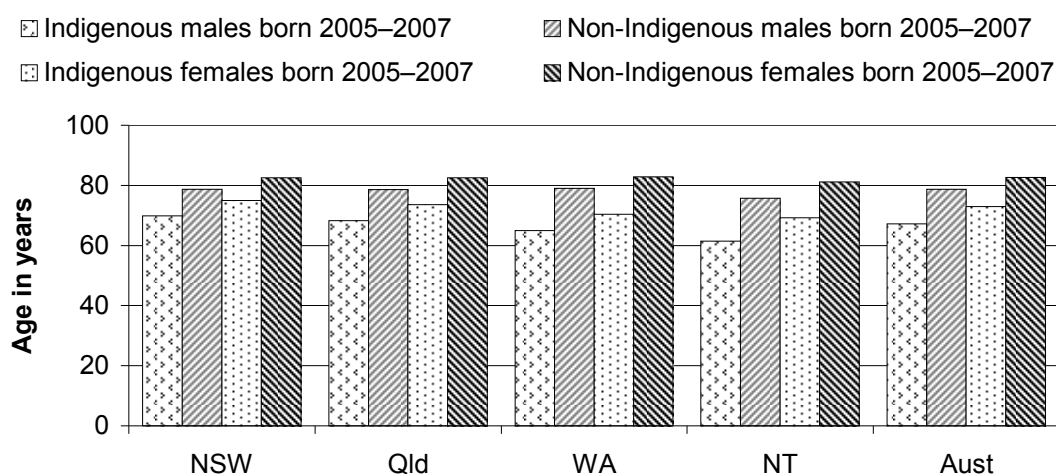
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## Life expectancy

The life expectancy of Australians improved dramatically during the twentieth century and so far during the twenty-first century. The average life expectancy at birth in the period 1901–1910 was 55.2 years for males and 58.8 years for females (ABS 2008b). It has risen steadily in each decade since, reaching 79.0 years for males and 83.7 years for females in 2005–2007 (2010 Report, figure E.16, p. E.38).

The life expectancies of Indigenous Australians are considerably lower than those of non-Indigenous Australians. ABS experimental estimates indicate a life expectancy at birth of 67.2 years for Indigenous males and 72.9 years for Indigenous females born from 2005 to 2007 (figure HP.5 and table HPA.8). In the same time period, life expectancy at birth for non-Indigenous males was 78.7 and for non-Indigenous females was 82.6 years (figure HP.5 and table HPA.8). The methodology used for estimating Indigenous life expectancy has changed since 2009 Report.

**Figure HP.5 Indigenous and non-Indigenous life expectancy at birth (years)<sup>a, b, c, d</sup>**



<sup>a</sup> Due to significant changes in methodology, estimates of life expectancy at birth for 2005–2007 are not comparable to previously published estimates. <sup>b</sup> Data are not available for all jurisdictions. <sup>c</sup> Estimates of life expectancy at birth for the total population presented in the ABS Cat. no. 3106.0.55.003 differ from estimates in *Deaths, Australia, 2006* (Cat no. 3302.0). <sup>d</sup> Australia includes all states and territories.

Source: ABS (2009), *Experimental Life Tables for Aboriginal and Torres Strait Islander Australians 2005–2007*, Australia, Cat. no. 3302.0.55.003, Canberra; table HPA.8; 2010 Report, figure E.17, p. E.39.

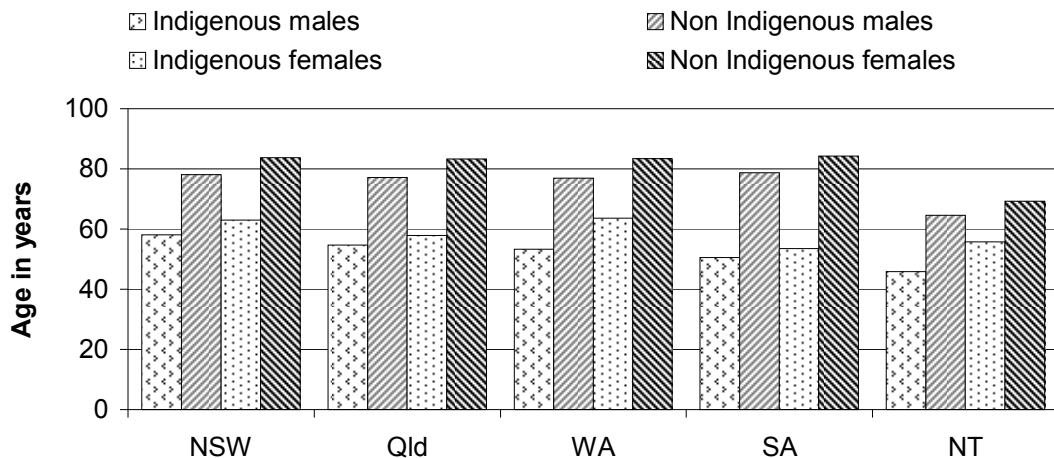
## Median age at death

The median age at death represents the age at which exactly half the deaths registered (or occurring) in a given time period were deaths of people above that

age and half were deaths below that age. Comparisons of the median age at death for Indigenous and non-Indigenous people are affected by different age structures in the populations and by differences in the extent of identification of Indigenous deaths across jurisdictions and across age groups. Identification of Indigenous status for infant deaths is high, but it falls significantly in older age groups. The median age of death for Indigenous people is, therefore, likely to be an underestimate.

For all Australian males and females in 2007, the median age at death was 77.7 and 83.6 years of age, respectively (figure HP.6 and table HPA.9). In the jurisdictions for which data were available for Indigenous people the median age at death for male Indigenous Australians was between 45.9 and 58.1 years of age. The median age at death for female Indigenous Australians was between 55.7 and 63.0 years of age (figure HP.6 and table HPA.9).

**Figure HP.6 Median age at death, by sex and Indigenous status, 2007<sup>a</sup>**



<sup>a</sup> Median age at death by Indigenous status is not available for Victoria, Tasmania and the ACT due to data quality issues. <sup>b</sup> The accuracy of Indigenous mortality data is variable as a result of varying rates of coverage across jurisdictions and age groups, and of changes in the estimated Indigenous population caused by changing rates of identification in the Census and births data.

Source: ABS (2008) *Deaths Australia, 2007*, Cat. no. 3302.0, Canberra; table HPA.9; 2010 Report, figure E.18, p. E.40.

### *Birthweight of babies*

The birthweight of a baby is an important indicator of its health status and future wellbeing. In 2006, 91.8 per cent of liveborn babies in Australia weighed between 2500 and 4499 grams (Laws and Hilder 2008). The average birthweight for all live births was 3370 grams. In 2006, the average birthweight of liveborn babies of Indigenous mothers was 3169 grams (table HPA.10 and 2010 Report, table EA.22).

This was 209 grams lighter than the average of 3378 grams for liveborn babies of non-Indigenous mothers (Laws and Hilder 2008).<sup>4</sup>

Babies are defined as low birthweight if they weigh less than 2500 grams, very low birthweight if they weigh less than 1500 grams and extremely low birthweight if they weigh less than 1000 grams (Laws and Hilder 2008). In 2006, 6.4 per cent of all liveborn babies in Australia weighed less than 2500 grams (figure HP.7). This included 1.1 per cent of babies who weighed less than 1500 grams (2010 Report, table EA.22).

Among live babies born to Indigenous mothers in 2006, the proportions with low birthweight (12.4 per cent) and very low birthweight (2.3 per cent) were around twice the proportions born to all Australian mothers (figure HP.7 and table HPA.10).

**Figure HP.7 Low birthweight babies (under 2500 grams), by Indigenous status, 2006<sup>a, b</sup>**



<sup>a</sup> Proportion of live births with birthweights under 2500 grams. <sup>b</sup> In the ACT, 16.3 per cent of women who gave birth were non-ACT residents. Care must be taken when interpreting percentages. For example, the proportion of liveborn low birthweight babies born in the ACT to ACT resident Indigenous women in 2006 where the birthweight was less than 2500 grams was 10.8 per cent.

Source: Laws, P. and Hilder, L. (2008) *Australia's Mothers and Babies 2006*, AIHW Cat. no. PER 46, National Perinatal Statistics Unit (Perinatal Statistics Series no. 22), AIHW, Sydney; table HPA.10 and 2010 Report, table EA.22; 2010 Report, figure E.19, p. E.41.

<sup>4</sup> Figures for births to Indigenous mothers exclude Tasmania.



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## Future directions

Improving reporting on Indigenous health is a priority across all of the health chapters. This work is informed by the new Aboriginal and Torres Strait Islander Health Performance Framework and by National Health Agreement reporting.

### *COAG developments*

#### *Report on Government Services alignment with National Agreement reporting*

Future editions of the Health preface will align with applicable NHA indicators and the NIRA. Further alignment between the Report and National Agreement indicators, and other reporting changes, might result from future developments in National Agreement and National Partnership reporting.

## Attachment tables

Attachment tables for data within this preface are contained in the attachment to the Compendium. These tables are identified in references throughout this preface by an 'A' suffix (for example, table HPA.1 is table 1 in the Health attachment). Attachment tables are on the Review website ([www.pc.gov.au/gsp](http://www.pc.gov.au/gsp)). Users without access to the website can contact the Secretariat to obtain the attachment tables (see contact details on the inside front cover of the Compendium). The tables included in the attachment are listed below.

<b>Table HPA.1</b>	Indigenous health workforce, by State/Territory, 2006
<b>Table HPA.2</b>	Indigenous people in health workforce as a proportion of total health workforce, by age group and sex, 2006
<b>Table HPA.3</b>	Indigenous persons employed in selected health-related occupations, 2006
<b>Table HPA.4</b>	Mortality rates, age standardised for all causes (per 1000 people)
<b>Table HPA.5</b>	Infant mortality rate, three year average (per 1000 live births)
<b>Table HPA.6</b>	Indigenous infant mortality rates, three year average
<b>Table HPA.7</b>	Leading causes of death, indirect age standardised death rate ratio, 2003–2007 (per 100 000 standard population)
<b>Table HPA.8</b>	Indigenous and non-Indigenous life expectancy at birth (years)
<b>Table HPA.9</b>	Median age at death (years)
<b>Table HPA.10</b>	Birthweights of babies of Indigenous mothers, live births, by State and Territory 2006

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- 2007, *Housing and Infrastructure in Aboriginal and Torres Islander Communities 2006, Australia, (Reissue)*, Cat. no. 4710.0, Canberra.
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