
C Health preface

Part C: Health preface

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 2009* (2009 Report) primarily concentrates on the performance of public hospitals (chapter 10), primary and community health 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
- are a priority of governments, 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.

High level residential aged care services and patient transport services (ambulance services including pre-hospital care, treatment and transport services) are not covered in the health chapters of the 2009 Report, but are reported separately in chapter 9 ('Emergency management') and chapter 13 ('Aged care').

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 pharmaceuticals (under the Pharmaceutical Benefits Scheme (PBS)); and public hospital funding (under the Australian Health Care Agreements (AHCAs)), 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 free treatment and accommodation to eligible admitted people who elect to be treated as public patients. It also provides free services 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 AHCAs (for example, charges for aids and appliances).

Other major areas of government involvement in health provision not covered in the health chapters, or elsewhere in the 2009 Report, include:

- public health programs, other than those for breast cancer and mental health
- funding for specialist medical practitioners.

Other government services — such as education, public housing, sanitation and water supply — also influence health outcomes. These are not formally part of Australia's health system and are not the subject of the health chapters. Education

(chapters 4 and 5) and public housing (chapter 16) are included in other chapters of the Report.

Indigenous people and people in rural and remote areas often have different health care needs and may experience poorer health outcomes than those of the general community. It is a priority of the Review to improve reporting on the performance of government provided health care services for Indigenous people and for residents in regional Australia.

Indigenous data in the health preface

The health preface in the 2009 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, 2002–2006
- infant mortality rates, 2004–2006
- causes of death, 2002–2006
- life expectancy, 1996–2001
- median age at death, 2006
- birthweight of babies, 2006.

Attachment tables

Attachment tables for data within the ‘Health preface’ of this compendium are contained in attachment HPA of the compendium. These tables are identified in references throughout this chapter by an ‘A’ suffix (for example, table HPA.3 is table 3 in the ‘Health preface’ attachment). As the data are directly sourced from the 2009 Report, the compendium also notes where the original table, figure or text in the 2009 Report can be found. For example, where the compendium refers to ‘2009 Report, p. HP.15’ this is page 15 of the ‘Health preface’ of the 2009 Report, and ‘2009 Report, table HPA.2’ is attachment table 2 of the ‘Health preface’ attachment of the 2009 Report.

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.

Data are reported against several of these indicators for Indigenous Australians as well as for all Australians. The completeness of Indigenous identification in hospital admitted patient data varies across states and territories. The AIHW (2005) report *Improving the Quality of Indigenous Identification in Hospital Separations Data* found that Indigenous patient data was of acceptable quality for analytical purposes only for Queensland, WA, SA, and public hospitals in the NT. Following new assessments of the quality of Indigenous identification in 2007, the National E-Health Information Principal Committee (NEHIPC) has approved NSW Indigenous patient data as acceptable in quality for analytical purposes, from the 2004-05 reference year. NEHIPC has also approved Victorian data as acceptable from 2004-05, but data were not reported for the years prior to 2006-07. Efforts to improve Indigenous identification across states and territories are ongoing.

The reported data are not necessarily representative of other jurisdictions. Because of improvements in data quality over time, caution also should be used in time series analysis of the data.

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 2007). These patterns are reflected in Australian data on: mortality, life expectancy and birthweights (later in this preface); hospital separation rates; hospitalisation rates for diabetes, assault and infectious pneumonia; fetal, neonatal and perinatal death rates (chapter 10); and suicide (chapter 12).

A number of recent publications include more comprehensive data on the health status of Indigenous people and Indigenous health-related factors. These include *The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples* [Australian Bureau of Statistics (ABS) and AIHW 2008], *Aboriginal and Torres Strait Islander Health Performance Framework 2006 Report: Detailed Analysis* (AIHW 2007), *Overcoming Indigenous Disadvantage: Key Indicators 2007* (SCRGSP 2007) and *Australia's Health 2008* (AIHW 2008a).

Contributing factors

The physical and social environments in which Indigenous people live affect their opportunities to have productive lives that are relatively free of serious illness. Many Indigenous people live today in conditions of clear social and economic disadvantage, which, along with other geographic, environmental and cultural factors, contributes to poor health in many groups of Indigenous people.

There are relatively low education levels among Indigenous people. Indigenous school retention rates 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 2007, the apparent retention rate for Indigenous full-time students from years 7 and 8 to year 10 was 91 per cent and to year 12 was 43 per cent. This compares with apparent retention rates for non-Indigenous students of almost 100 per cent to year 10 and 76 per cent to year 12. Indigenous retention to year 10 and beyond has steadily increased over last 10 years from 83 per cent in 1998 to 91 per cent in 2007. This trend is particularly evident at the year 11 level, where the apparent retention from years 7 and 8 rose from 52 per cent to 70 per cent in 2007 (see chapter 4, table 4A.68).

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 \$548.97 in 2006, while the weekly income for non-Indigenous people was \$769.07 (see tables AA.3 and AA.7 and 2009 Report, Statistical appendix tables AA.2 and AA.16). Between 2001 and 2006, 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) (ABS 2007d).

There are high imprisonment rates among Indigenous people. Indigenous prisoners represented 25 per cent of the total prisoner population (see chapter 8, table 8A.1). After adjusting for age differences, the Indigenous imprisonment rate was 1630 per 100 000 adult Indigenous population, 13 times the non-Indigenous rate at 30 June 2008 (see chapter 8, table 8A.3). High imprisonment rates may contribute to poorer health status of Indigenous people.

Indigenous people have relatively high rates for health risk factors such as obesity, smoking, substance abuse and violence. In 2004-05, 50 per cent of Indigenous people aged 18 years and over were daily cigarette smokers. In 2004-05, while Indigenous adults were twice as likely to have abstained from alcohol consumption in the last 12 months, as compared with the non-Indigenous population, over half of

Indigenous adults (55 per cent) reported drinking alcohol at short term risky to high risk levels at least once in the last 12 months.¹ Around 16 per cent (similar to the proportion of non-Indigenous people) reported long term risky to high risk alcohol consumption in the week prior to interview (where long term risky to high risk alcohol consumption equates to average daily consumption of more than 50 millilitres per day for males and more than 25 millilitres per day for females for the previous seven days prior to interview). During 2004-05, Indigenous people were more than four times as likely to be in hospital for alcohol-related mental and behavioural disorders as other people (SCRGSP 2007).²

Geographic distance to health services, particularly in remote and very remote areas, contributes to health disadvantage of Indigenous people. In 2006, a total of 417 (35 per cent) discrete Indigenous communities³ 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 community 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 Aboriginal and Torres Strait Islander people living in communities were 100 kilometres or more from the nearest hospital (ABS 2007b).

Many Indigenous people live in inadequate and overcrowded housing, particularly in remote and very remote areas. 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. There has been some improvement in rates of overcrowding, with the proportion of Indigenous households that were overcrowded decreasing from 16 per cent in 2001 to 14 per cent in 2006 (ABS and AIHW 2008).

¹ Short term risky to high risk alcohol consumption is mainly associated with ‘binge’ drinking. The National Health and Medical Research Council (NHMRC) Australian Alcohol Guidelines (2001) on which the definitions of risky and high risk drinking are based, are currently under revision.

² Short term risk is the risk of harm in short term 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 the seven days of the reference week.

³ A geographic location, bounded by physical or cadastral (legal) boundaries, and inhabited or intended to be inhabited predominantly (i.e. greater than 50 per cent of usual residents) by Aboriginal or Torres Strait Islander peoples, with housing or infrastructure that is managed on a community basis.

Government policies and programs

The majority of government expenditure on Indigenous health is made through mainstream health programs (AIHW 2008b). 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 which are mostly 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).

At the national level, the National Aboriginal and Torres Strait Islander Health Council provides policy advice to the Australian Government Minister for Health and Ageing on Indigenous health issues. The Council has overseen the development of the National Strategic Framework for Aboriginal and Torres Strait Islander Health, which all health ministers endorsed at the July 2003 Australian Health Ministers Conference. This framework outlines agreed principles and the following nine key result areas for Indigenous-specific primary health:

- community controlled primary health care
- a health system delivery framework to improve the responsiveness of both mainstream and Indigenous-specific health services to Indigenous health needs
- a competent health workforce with appropriate skills and training in both mainstream and Indigenous-specific health services
- emotional and social wellbeing, focusing on mental health, suicide, family violence, substance misuse and male health
- environmental health, including safe housing, water, sewerage and waste disposal
- wider strategies that have an impact on health in portfolios outside the health sector, such as education, employment and transport
- data, research and evidence to improve information on health service effectiveness in meeting the needs of Indigenous Australians
- resources and finances commensurate with Indigenous health needs, the cost of delivering services and community capacity to deliver health outcomes
- accountability of health services to communities and governments.

The National Strategic Framework is complemented by a National Strategic Framework for Aboriginal and Torres Strait Islander Mental Health and Social and Emotional Wellbeing 2004–2009 (SEWB Framework), which was agreed by the Australian Health Ministers Advisory Council in March 2004. The SEWB Framework sits within the context of the National Strategic Framework for Aboriginal and Torres Strait Islander Health and the Third National Mental Health Plan. (For a discussion of the Third National Mental Health Plan see chapter 12).

Agreements on Aboriginal and Torres Strait Islander Health (framework agreements) have been established in each State and Territory between the Australian, State and Territory governments and the community sector. The agreements promote a partnership approach and commit signatories to work together to:

- increase the level of resources allocated to reflect the level of need
- plan jointly
- improve access to both mainstream and Indigenous-specific health and health related services
- improve Indigenous health data collection and evaluation.

Each State and Territory and the Australian Government is 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 two years.

The Aboriginal and Torres Strait Islander Health Performance Framework has been developed under the auspices of the Australian Health Minister's Advisory Council to support the implementation of the National Strategic Framework for Aboriginal and Torres Strait Islander Health (NSFATSIH). The Health Performance Framework is designed to measure the impact of the NSFATSIH and inform policy analysis, planning and program implementation. The first Aboriginal and Torres Strait Islander Health Performance Framework Report was released in late 2006 and preparation for the 2008 Health Performance Framework Report is currently underway.

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. That 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 2008b).

The most recent estimates of health services expenditure for Indigenous people are for 2004-05 (AIHW 2008b). 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

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 were less than half those for non-Indigenous people. Expenditure on aids and appliances were 29 per cent of the non-Indigenous average. However, spending on community health services was over six and a half 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 delivering 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 two and a half times the rate for non-Indigenous Australians (AIHW 2008b).

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 ^a	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
Total	2 304.0	79 260.4	2.8	4 718	4 019	1.17
Population (2004-05 estimate)	488 335	19 721 423	2.5			

^a Public hospital services exclude any dental services, community health services, patient transport services, public health and health research undertaken by the hospital.

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, AIHW, Canberra; Report 2009, table E.1 p. E.19.

Ninety-three per cent of spending was through programs managed by governments, and 67 per cent was managed by State and local governments. Indigenous people made proportionally lower use of purely private services. That 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 ^a	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
Total	2 304.0	100.0	79 260.4	100.0

^a 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, AIHW, Canberra; 2009 Report, 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 ^a	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
Total	4 718	4 019	1.17

^a 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.

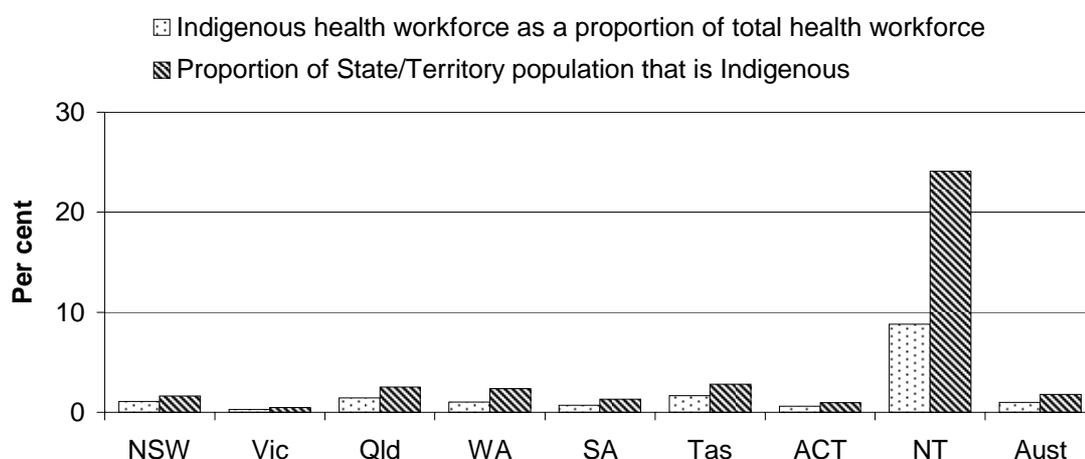
Source: AIHW (2008) *Expenditure on Health for Aboriginal and Torres Strait Islander Peoples 2004-05*, Cat. no. HWE 40, Health and welfare expenditure series no. 32, AIHW, Canberra; 2009 Report, table E.3, p. E.20.

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 a main reason 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 2006).

In 2006, Indigenous people accounted for 1.0 per cent of the health workforce, but were 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).

Figure HP.1 **Indigenous health workforce as a proportion of total health workforce, by jurisdiction, 2006^{a, b, c}**

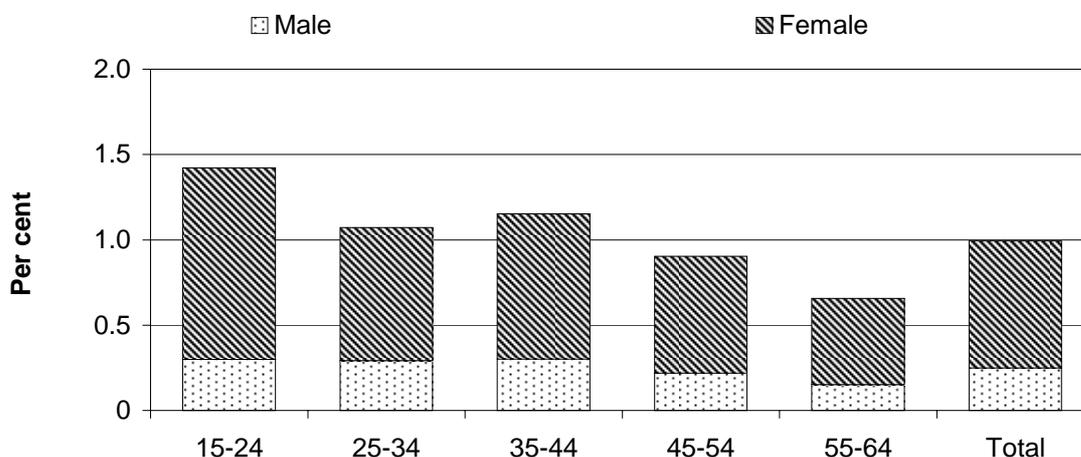


^a Aged 15 years and over. ^b Cells in this table have been randomly adjusted to avoid the release of confidential data. ^c Australian total data includes other territories.

Source: ABS (unpublished), ABS (2007) *2006 Census of Population and Housing*, Canberra; table HPA.1; 2009 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



Source: ABS (unpublished), 2006 Census of Population and Housing; table HPA.2; 2009 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 team, or as hospital liaison officers (table HPA.3).

Table HP.4 **Indigenous persons employed in selected health-related occupations (per cent), 2006^{a, b}**

	<i>Indigenous people</i>	<i>All persons</i>	<i>Percent 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
Total aged 15 years and over	4 891	492 342	1.0

^a Aged 15 years and over. ^b Further information to 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; 2009 Report, table E.4, p. E.23.

Self-assessed health

The results from the 2006 General Social Survey indicate that the majority of Australians (84 per cent) aged 18 years or over reported their health as either, good, very good or excellent. The proportion of persons reporting fair or poor health generally increased with age, from 7 per cent of those aged 18 to 24 years to 39 per cent of those aged 75 years or over (ABS 2007c). 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 (29 per cent), than non-Indigenous Australians (15 per cent) in 2004-05 (ABS 2006b).

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 2007a), 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), given variation in definitions, different data collection methods and inaccurate or incomplete recording of Indigenous status.

- Inconsistent data definitions and differences in the accuracy of identifying Indigenous status have led to problems making comparisons between jurisdictions, and comparisons over time.
- 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 ABS, revisions 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.

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

The ABS has introduced 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.

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. 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 self-assessed health status, 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.

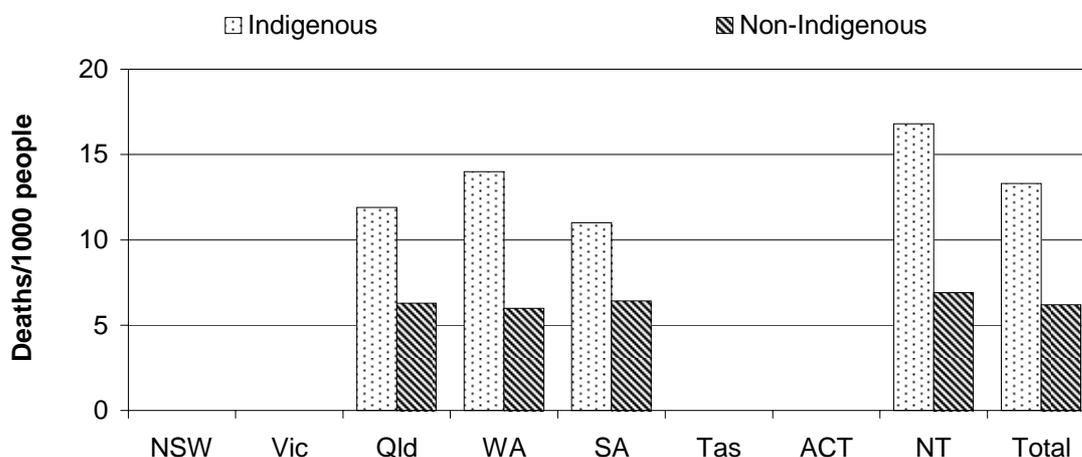
Data on Indigenous mortality are collected through State and Territory death registrations. The completeness of the identification of Indigenous Australians in these collections varies significantly across states and territories. Because of this variation, care is required in making comparisons on the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

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 2002–2006. To improve the comparability of age-related mortality rates, indirect age standardisation methods have been used for both the Indigenous and total population rates.

The NT, WA, SA and Queensland in that order are generally considered to have the best coverage of death registrations for Indigenous people.⁴ For these four jurisdictions combined, the overall rates of mortality for Indigenous people were just over twice as high as mortality rates for non-Indigenous people in 2002–2006 (figure HP.3 and table HPA.4). The exact magnitude of this difference cannot be established at this time due to variable identification of Indigenous Australians in death records. Reported mortality rates under-estimate the true mortality of Indigenous Australians (ABS and AIHW 2008).

⁴ The term ‘coverage’ refers to the number of Indigenous deaths registered as a percentage of the number of expected deaths based on the 2001 Census based experimental Indigenous population estimates and projections.

Figure HP.3 **Mortality rates, age standardised, by Indigenous status, five year average, 2002–2006^{a, b, c, d}**



^a Deaths per 1000 standard population. Standardised death rates use total persons in the 2001 Australian population as the standard population. ^b Total, Indigenous and non-Indigenous mortality rates are for Queensland, WA, SA and NT combined. ^c 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. ^d Includes non-Indigenous and not stated Indigenous status.

Source: ABS (unpublished) *Deaths Australia*; table HPA.4; 2009 Report, figure E.11, p. E.30.

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 5.2 deaths per 1000 live births over the period 2000–2002 to an average of 4.8 deaths per 1000 live births over the period 2004–2006 (2009 Report, figure E.12, p. E.31).

For the period 2004–2006, the average infant mortality rate for Indigenous children is publishable for NSW, Queensland, WA, SA and the NT. Although the small numbers involved affect the ability to detect significant changes in Indigenous infant mortality, it is clear that Indigenous infant mortality rates are markedly higher than the average for all Australians (tables HPA.5 and HPA.6).

Causes of death for Indigenous people

In the jurisdictions for which age standardised death rates are available by Indigenous status (Queensland, WA, SA and the NT), death rates were far higher for Indigenous people than for non-Indigenous people during the period 2002–2006. In particular, Indigenous people died from diabetes at a rate that was up to 11.2 times that for non-Indigenous people; from cirrhosis and other diseases of liver at a rate that was up to 8.6 times that for non-Indigenous people; and from diseases of the urinary system at a rate that was 5.8 times that for non-Indigenous people. The standardised death rate per 100 000 for all causes was 2.9 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, 2002–2006 (per 100 000 standard population)^{a, b, c}

	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>NT</i>	<i>Total</i>
<i>Underlying causes of death</i>					
Trachea and lung cancers	1.9	1.7	1.5	2.2	1.9
Diabetes	10.8	11.8	8.5	9.9	11.2
Ischaemic heart diseases ^d	2.8	2.9	3.2	3.7	3.0
Strokes	1.8	2.6	1.8	3.1	2.1
Influenza and pneumonia	2.6	6.8	3.8	6.3	3.9
Chronic lower respiratory diseases ^e	3.1	4.1	2.9	4.1	4.1
Cirrhosis and other diseases of liver	5.7	9.7	7.1	10.7	8.6
Diseases of the urinary system	3.5	6.2	4.0	12.8	5.8
Certain conditions originating in the perinatal period	2.1	3.2	1.7	3.3	2.7
Symptoms, signs and ill-defined conditions	2.7	6.3	5.0	2.6	4.5
Land transport accidents	1.8	3.5	2.7	2.6	2.9
Intentional self-harm [suicide]	2.3	2.0	3.5	3.1	2.7
All causes	2.4	3.0	2.5	3.6	2.9

^a Calculations of rates for the Indigenous population are based on ABS *Experimental Projections, Aboriginal and Torres Strait Islander Australians* (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. Population estimates have not been re based using 2006 Census data as re-based data are not yet available for the Indigenous population. ^b Coded according to the International Classification of Diseases and Related Health Problems Revision 10 (ICD-10). ^c Indigenous rate divided by non-Indigenous rate. ^d Ischaemic heart diseases include angina, heart attacks, blocked arteries of the heart. ^e Chronic lower respiratory disease include diseases such as asthma, bronchitis and emphysema.

Source: ABS (unpublished) *Causes of Death 2006*; table HPA.7; 2009 Report, table E.6, p. E.33.

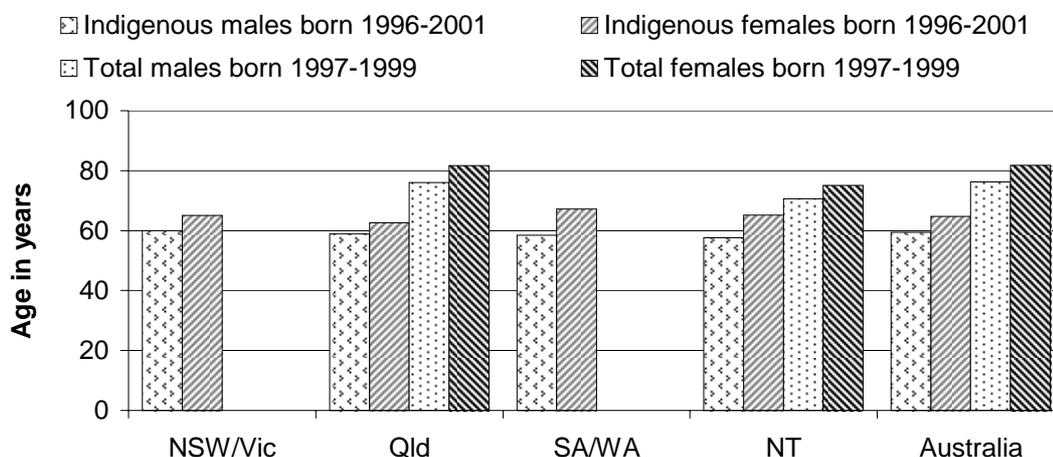
Life expectancy

The life expectancy of Australians improved dramatically during the twentieth century and so far during 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 2008a). It has risen steadily in each decade since, reaching 78.7 years for males and 83.5 years for females in 2004–2006 (2009 Report, figure E.13, p. E.34).

The ABS advise that, due to incomplete identification of Indigenous deaths in the underlying source data, changes over time in mortality rates for Indigenous people cannot be determined. ABS Indigenous population estimates and projections assume, for each jurisdiction, constant age specific mortality rates across the period 1991–2009. These data are not comparable to — and replace — life expectancy estimates for Indigenous people previously published by the ABS. They should not be subjected to ‘over-precise analysis ... as measures of Indigenous health outcomes’ (ABS 2004).

The life expectancies of Indigenous Australians are considerably lower than those of non-Indigenous Australians. ABS experimental population estimates indicate a life expectancy at birth of 59.4 years for Indigenous males and 64.8 years for Indigenous females born from 1996 to 2001 (figure HP.4 and table HPA.8). In a similar, but not directly comparable time period (1997–1999) the rates for all Australians were 76.2 years for all males and 81.8 years for females. Variations in life expectancy between Indigenous males and females and for Indigenous Australians in different states and territories should be interpreted with care as they are sensitive to the demographic assumptions and differences in data quality across jurisdictions. The ABS has produced a discussion paper regarding this issue (ABS 2008b).

Figure HP.4 **Life expectancy at birth, Indigenous 1996–2001, total population 1997–1999^{a, b, c}**



^a Indigenous data are for the Australian Aboriginal and Torres Strait Islander population, and include an adjustment for undercoverage of Indigenous deaths. ^b Life expectancy data for Indigenous males and Indigenous females are for the period 1996–2001. Data for total males and females cover the period 1997–1999, the approximate mid-point of the Indigenous data. ^c For Tasmania and the ACT, use life tables for NSW and Victoria.

Source: ABS (2007) *Deaths 2006, Australia*, Cat. no. 3302.0, ABS, Canberra; table HPA.8; 2009 Report, figure E.14, p. E.35.

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 2006, the median age at death was 77.3 years and 83.3 years respectively (figure HP.5 and table HPA.9). In the jurisdictions for which the data were available for Indigenous people, in 2006 the median age at death for male Indigenous Australians varied between 45.4 and 59.3 years. The median age at death for female Indigenous Australians varied between 55.3 and 64.8 years (figure HP.5 and table HPA.9).

Figure HP.5 Median age at death, by sex and Indigenous status, 2006^a



^a Median age at death by Indigenous status is available in NSW, Queensland, WA, SA and the NT only. The accuracy of Indigenous mortality data are 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 (2007) *Deaths 2006, Australia*, Cat. no. 3302.0, ABS, Canberra; table HPA.9; 2009 Report, figure E.15, p. E.36.

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 2009 Report, table EA.21). This was 209 grams lighter than the average of 3378 grams for liveborn babies of non-Indigenous mothers (Laws and Hilder 2008).⁵

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.6). This included 1.1 per cent of babies who weighed less than 1500 grams (2009 Report, table EA.21).

Among live babies born to Indigenous mothers in 2006, the proportions with low and very low birthweights were around twice the proportions born to all Australian

⁵ Figures for births to Indigenous mothers exclude Tasmania.

mothers, with 12.4 per cent weighing less than 2500 grams and 2.3 per cent weighing less than 1500 grams (figure HP.6 and table HPA.10).

Figure HP.6 Low birthweight babies (under 2500 grams), by Indigenous status, 2006^{a, b}



^a Proportion of live births with birthweights under 2500 grams. ^b 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 Aboriginal or Torres Strait Islander 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 2009 Report, table EA.21; 2009 Report, figure E.16, p. E.37.

Future directions

New features and developments in this Report are listed in chapter 2. In addition, each of the health chapters has a section that covers the future directions for reporting.

Improving reporting on Indigenous health is a priority across all of the health chapters. Performance indicators for health services used by Indigenous Australians were first published in the 2000 Report. A strategy to improve reporting on Indigenous health was developed in 2003, and improvements have since been made where possible. This work is being informed by the new Aboriginal and Torres Strait Islander Health Performance Framework.

Attachment tables

Attachment tables for data within the 'Health preface' of this compendium are contained in attachment HPA of the compendium. These tables are identified in references throughout this chapter by an 'EA' suffix (for example, table EA.3 is table 3 in the 'Health preface' attachment). As the data are directly sourced from the 2009 Report, the compendium also notes where the original table, figure or text in the 2009 Report can be found. For example, where the compendium refers to '2009 Report, p. E.15' this is page 15 of the 'Health preface' of the 2009 Report, and '2009 Report, table EA.2' is attachment table 2 of the 'Health preface' attachment of the 2009 Report.

Table HPA.1	Indigenous health workforce, by State/Territory, 2006
Table HPA.2	Indigenous people in health workforce as a proportion of total health workforce, by age group and sex, 2006
Table HPA.3	Indigenous persons employed in selected health-related occupations, 2006
Table HPA.4	Mortality rates, age standardised for all causes (per 1000 people)
Table HPA.5	Infant mortality rate, three year average (per 1000 live births)
Table HPA.6	Indigenous infant mortality rates, three year average
Table HPA.7	Leading causes of death, indirect age standardised death rate ratio, 2002–2006 (per 100 000 standard population)
Table HPA.8	Indigenous life expectancy at birth (years)
Table HPA.9	Median age at death (years)
Table HPA.10	Birthweights of babies of Indigenous mothers, live births, by State and Territory 2006

References

- ABS (Australian Bureau of Statistics) 2004, *Calculating Experimental Life Tables for Use in Population Estimates and Projections of Aboriginal and Torres Strait Islander Australians*, Demography Working Paper 2004/3, Cat. no. 3106.0.55.003, ABS, Canberra.
- 2006b, *National Aboriginal and Torres Strait Islander Health Survey 2004-05, Australia*, Cat. no. 4715.0, ABS, Canberra.
- 2007a, *Deaths 2006, Australia*, Cat. no. 3302.0, ABS, Canberra.
- 2007b, *Housing and Infrastructure in Aboriginal and Torres Strait Islander Communities 2006, Australia, (reissue) Cat. no. 4710.0*, ABS, Canberra.
- 2007c, *General Social Survey: Summary results, Australia*, Cat. no. 4159.0, ABS, Canberra.
- 2007d, *Census of Population and Housing 2006*, Canberra.
- 2008a, *Australian Historical Population Statistics*, Cat. no. 3105.0.65.001, ABS, Canberra.
- 2008b, *Discussion paper: Assessment of methods for developing life tables for Aboriginal and Torres Strait Islander Australians, Australia 2006*, Cat. no. 332.0.55.002, ABS, Canberra.
- and AIHW (Australian Institute of Health and Welfare) 2008, *The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples, 2008*, ABS Cat. no. 4704.0, ABS, Canberra.
- AIHW 2005, *Improving the Quality of Indigenous Identification in Hospital Separations Data*, Cat. no. HSE 101, Health Services Series AIHW Canberra.
- 2007, *Aboriginal and Torres Strait Islander Health Performance Framework Report 2006: Detailed analysis*, Cat. no. IHW 20, AIHW, Canberra.
- 2008a, *Australia's Health 2008*, Cat. no. AUS 99, AIHW, Canberra.
- 2008b, *Expenditure on Health for Aboriginal and Torres Strait Islander Peoples 2004-05*, Cat. no. HWE 40, Health and welfare expenditure series no. 32, AIHW, Canberra.
- DoHA (Department of Health and Ageing) 2006, *Aboriginal and Torres Strait Islander Health Performance Framework Report 2006*, Australian Health Ministers' Advisory Council (AHMAC), Canberra.
- 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.

SCRGSP (Steering Committee for the Review of Government Service Provision) 2007, *Overcoming Indigenous Disadvantage: Key Indicators 2007*, Productivity Commission, Canberra.